

WebFOCUS

Designing a User Interface for a Web
Application With the HTML Composer

Release 8.0 Version 04

Active Technologies, EDA, EDA/SQL, FIDEL, FOCUS, Information Builders, the Information Builders logo, iWay, iWay Software, Parlay, PC/FOCUS, RStat, Table Talk, Web390, WebFOCUS, WebFOCUS Active Technologies, and WebFOCUS Magnify are registered trademarks, and DataMigrator and Hyperstage are trademarks of Information Builders, Inc.

Adobe, the Adobe logo, Acrobat, Adobe Reader, Flash, Adobe Flash Builder, Flex, and PostScript are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.

Due to the nature of this material, this document refers to numerous hardware and software products by their trademarks. In most, if not all cases, these designations are claimed as trademarks or registered trademarks by their respective companies. It is not this publisher's intent to use any of these names generically. The reader is therefore cautioned to investigate all claimed trademark rights before using any of these names other than to refer to the product described.

Copyright © 2013, by Information Builders, Inc. and iWay Software. All rights reserved. Patent Pending. This manual, or parts thereof, may not be reproduced in any form without the written permission of Information Builders, Inc.

Contents

Preface	19
Documentation Conventions	21
Related Publications	21
Customer Support	22
Information You Should Have	22
User Feedback	23
Information Builders Consulting and Training	23
1. Using the HTML Composer	25
Uses for the HTML Composer	25
Getting Started With the HTML Composer	26
Procedure: How to Access the HTML Composer	27
Reference: HTML Composer Windows and Toolbars	28
Reference: Standard Toolbar	30
Reference: Components Toolbar	31
Reference: Formatting Toolbar	35
Creating a Report Page Layout	36
Adding a Report, Graph, or Compound Document to the HTML Composer	37
Procedure: How to Add a New Report or Graph to an HTML Page	37
Procedure: How to Add an Existing Report or Graph to a Layout	38
Reference: Report Properties in the Properties Window	39
Reference: Graph Properties in the Properties Window	40
Procedure: How to Add a Compound Document to an HTML Page	40
Selecting Components to Import Into a Procedure	41
Procedure: How to Select Components to Import Into a Procedure	41
Reference: Manage Layout Dialog Box	42
Adding a Frame to the Layout	43
Procedure: How to Add a Frame to the Layout	43
Procedure: How to Assign a URL, HTML File, or Report to a Frame	43
Procedure: How to Show/Hide a Frame in the Layout	45
Reference: Frame Properties in the Properties Window	49
Adding a Line to the Layout	49
Procedure: How to Add a Line to the Layout	49
Reference: Line Properties in the Properties Window	50

Adding an Image to the Layout.	51
Procedure: How to Add an Image to a Layout.	51
Reference: Image Properties in the Properties Window.	53
Adding Flash Content to the Layout.	54
Procedure: How to Add Flash Content to a Layout.	54
Reference: Flash Properties in the Properties Window.	55
Adding Text to the Layout.	56
Procedure: How to Add Text to a Layout.	56
Procedure: How to Format Text in the Layout.	57
Procedure: How to Insert a Bulleted List or Numbered List Into a Text Element.	58
Procedure: How to Insert Nested Lists Into a Text Element.	59
Reference: Text Properties in the Properties Window.	61
Adding a Hyperlink to the Layout.	61
Procedure: How to Create a Hyperlink.	64
Procedure: How to Add a Hyperlink to a Push Button or an Image.	66
Adding a Group Box to the Layout.	67
Procedure: How to Add a Group Box.	67
Reference: Group Box Properties in the Properties Window.	68
Adding a Push Button to the Layout.	68
Procedure: How to Create a Push Button in Place of a Submit Button.	68
Procedure: How to Run Multiple Reports With One Submit Button.	69
Reference: Push Button Properties in the Properties Window.	72
Maintain From HTML Composer.	73
Adding a Reset Button to the Layout.	73
Procedure: How to Create a Reset Button.	73
Reference: Reset Button Properties in the Properties Window.	74
Adding a Tab Control to the Layout.	74
Procedure: How to Create a Tab Control.	75
Procedure: How to Enable Full Screen Mode for the Tab Control.	76
Procedure: How to Add Additional Tabs.	79
Reference: Tab Control Properties in the Properties Window.	81
Procedure: How to Modify and Style the Tabs.	82
Procedure: How to Modify the Size, Appearance, and Location of the Tabs.	82
Procedure: How to Use the Tab Item Background Properties Field.	83
Procedure: How to Add Background Images to Tabs.	84

Procedure: How to Associate Components to the Tab Body.....	85
Adding a Label to the Layout.....	86
Procedure: How to Add a Label.....	86
Reference: Label Properties in the Properties Window.....	87
Working With the Properties Window.....	87
Procedure: How to Dock the Properties Window.....	90
Layering Objects.....	92
Working With the Events Subtab.....	93
2. Creating and Using Parameters in the HTML Composer	95
Creating Parameter Values	95
Working With the Parameters Tab.....	96
Adding a New Unbound Parameter.....	97
Procedure: How to Add a New Unbound Parameter.....	97
Creating a Static List of Values.....	100
Reference: Properties and Settings (Incoming Static Parameter and Unbound Control).....	101
Reference: Properties and Settings Dialog Box (Unbound Parameter).....	102
Reference: Properties and Settings Dialog Box (Bound Parameter).....	105
Procedure: How to Add a New Static Value.....	105
Reference: Adding Static Field Values From Report Painter.....	110
Procedure: How to Add an Ignore Value.....	112
Procedure: How to Add an Everything Value.....	113
Procedure: How to Use Values From a Procedure.....	114
Procedure: How to Import Values From an External File.....	115
Creating a Dynamic List of Values.....	118
Reference: Properties and Settings Dialog Box (Dynamic Values).....	118
Reference: Properties and Settings Dialog Box (Bound Parameter).....	122
Procedure: How to Create a Dynamic Value.....	123
Procedure: How to Create Dynamic Parameters by Adding a Filter.....	130
Procedure: How to Sort the Dynamic List of Values.....	131
Procedure: How to Check for Duplicate Values.....	132
Using Custom Procedures to Retrieve Dynamic Values.....	133
Automatically Populating Fields With Dynamic Values.....	138
Parameter Value List Options.....	138

Procedure: How to Send the Display Value for Static and Dynamic Controls.....	139
Procedure: How to Use Procedure Names as Values.....	147
Procedure: How to Use Selected Values as the Default Value.....	151
Updating Parameters in the HTML Composer With Report Painter Changes.....	159
Using Controls to Supply Incoming Parameter Values	159
Automatically Creating Controls From the New Parameters Dialog Box.....	160
Procedure: How to Manually Create a Control in the Layout.....	162
Procedure: How to Change the Type of Control Associated With a Parameter.....	164
Procedure: How to Bind or Unbind a Parameter To/From an Existing Control.....	165
Reference: Types of Controls.....	166
Using the Delete Container Only Option.....	167
Using Input Controls to Supply Parameter Values	168
Using a Text Box.....	169
Procedure: How to Create a Text Box.....	169
Procedure: How to Enter Masked Text in a Text Box.....	170
Reference: Text Box Properties in the Properties Window.....	172
Using a Text Area.....	173
Procedure: How to Create a Text Area.....	173
Reference: Text Area Properties in the Properties Window.....	175
Using a Drop-Down List.....	175
Procedure: How to Add a Drop-Down List.....	176
Procedure: How to Select Multiple Values From a Drop-Down List.....	177
Reference: Drop-Down List Properties in the Properties Window.....	180
Using a List Box.....	180
Procedure: How to Add a List Box.....	181
Reference: List Box Properties in the Properties Window.....	182
Procedure: How to Reorder the Selected Values in the List Box.....	183
Using a Double List Control.....	183
Procedure: How to Add a Double List Control.....	184
Reference: Double List Box Properties in the Properties Window.....	187
Adding a Paging Control in the HTML Composer.....	187
Procedure: How to Add a Paging Control.....	188
Adding a Search Control in the HTML Composer.....	193
Procedure: How to Add a Search Control.....	193
Using Global Search and Paging.....	195

Procedure: How to Enable Global Search and Paging.	196
Reference: Use Search and Paging Features.	200
Using Check Boxes.	200
Procedure: How to Add Check Boxes.	201
Reference: Check Box Properties in the Properties Window.	203
Using Radio Buttons.	203
Procedure: How to Add Radio Buttons.	203
Reference: Radio Buttons Properties in the Properties Window.	207
Using Tree Controls.	207
Procedure: How to Add a Tree Control to an HTML Page Using an Embedded Procedure.	208
Procedure: How to Add a Tree Control to an HTML Page Using an Existing Procedure.	209
Procedure: How to Populate a Multi Source Tree Control.	210
Procedure: How to Add a Tree Control to an HTML Page Using Static Values.	219
Procedure: How to Create a New Tree Control From the New Parameters Dialog Box.	222
Reference: Usage Notes For Chaining Tree Controls.	224
Reference: Tree Control Properties in the Properties Window.	232
Using a Slider Control.	233
Procedure: How to Add a Slider Control.	233
Procedure: How to Change the Default Slider Bar.	235
Reference: Slider Control Properties in the Properties Window.	236
Adding a Dynamic Calendar.	237
Procedure: How to Set Calendar Properties.	237
Reference: Date Formats.	240
Reference: Calendar Properties in the Properties Window.	243
Using a Hidden Parameter Value.	245
Procedure: How to Add a Hidden Control.	245
Creating Hyperlink Actions With Additional Parameters.	247
Procedure: How to Create a Hyperlink Action With Additional Parameters.	247
Binding a Button, Hyperlink, or Image to Populate a Control.	249
Procedure: How to Bind a Button to Populate a Control.	250
Procedure: How to Use Controls to Populate Another Control Based on Selected Values.	256

Supplying Parameter Values to External Reports	260
Procedure: How to Supply Parameter Values to External Reports With a Push Button. . . .	260
Procedure: How to Supply Parameter Values to an External Report With an Image.	262
Procedure: How to Supply Parameter Values to an External Report With a Hyperlink.	263
Procedure: How to Supply a Parameter Value to a Report Using a URL.	267
Procedure: How to Pass a Parameter From One Page to Another.	269
Styling Your Layout	274
Adding a CSS or Script to the Layout.	274
Procedure: How to Add a CSS or Script to the Layout.	275
Setting HTML Page Properties.	275
Reference: HTML Page Properties in the Properties Window.	276
Customizing the Layout.	276
Specifying Browser Defaults With the Style Composer	277
Procedure: How to Access the Style Composer.	277
Reference: Specifying Font Styles Using the Style Composer.	278
Reference: Specifying Background Properties Using the Style Composer.	279
Reference: Specifying Text Styles Using the Style Composer.	280
Reference: Specifying Position Mode Using the Style Composer.	281
Reference: Specifying Layout Styles Using the Style Composer.	283
Reference: Specifying Edge Styles Using the Style Composer.	284
Reference: Specifying List Styles Using the Style Composer.	285
Reference: Specifying Interface Effects Using the Style Composer.	286
Laying Out Objects With the HTML Composer	287
Setting Relationships Between Objects.	287
Procedure: How to Set Object Size.	287
Procedure: How to Set the Distance Between Objects.	288
Procedure: How to Break Relationships.	288
Procedure: How to Group Objects on the HTML Page.	288
Reference: Positioning Toolbar.	289
Reference: Utilities Toolbar.	292
Controlling the HTML Composer Environment	293
Procedure: How to Set Page Properties.	293
Procedure: How to Select Form Settings From the HTML Page Tab.	293
Reference: HTML Page Tab.	297
Reference: Form Settings Dialog Box.	302

Adding ReportCaster Schedule Capability to the HTML Composer	304
Procedure: How to Add or Disable the Schedule Button for Controls.....	304
Procedure: How to Add a Schedule Button to a Referenced Existing Procedure With Parameters.....	305
Procedure: How to Manually Add a Schedule Button.....	306
Procedure: How to Change the Default Template for the Schedule Page.....	309
Reference: ReportCaster Schedule Page.....	311
Running a Managed Reporting Report Deferred From the HTML Composer	312
Procedure: How to Add or Disable the Defer Button for Controls.....	312
Procedure: How to Add a Defer Button to a Referenced Existing Procedure With Parameters.....	313
Procedure: How to Add a Defer Button to a Run Only Deferred Procedure With Parameters.....	314
Procedure: How to Add a Hyperlink to Run a Managed Reporting Report Deferred.....	315
Using JavaScript Code With HTML Composer Pages	317
Function: IbComposer_populateDynamicCtrl.....	317
Syntax: How to Populate a Control Dynamically.....	318
Function: IbComposer_getComponentById.....	318
Syntax: How to Obtain a Component by Using Its ID.....	318
Function: IbComposer_getCurrentSelection.....	319
Syntax: How to Get the Current Selected Value From a Control.....	319
Function: IbComposer_getCurrentSelectionEx.....	319
Syntax: How to Get the Current Selected Value, Actual Value, or Display Value From a Control.....	319
Function: IbComposer_setCurrentSelection.....	320
Syntax: How to Set the Current Selected Value for a Control.....	320
Function: IbComposer_execute.....	321
Syntax: How to Execute a Report or Chart.....	321
Function: IbComposer_isSelected.....	322
Syntax: How to Determine If a Control or Value Is Selected.....	322
Function: IbComposer_showHtmlElement.....	322
Syntax: How to Show or Hide an HTML Element.....	322
Function: IbComposer_enableHtmlElement.....	323
Syntax: How to Enable or Disable an HTML Element.....	323
Function: IbComposer_ResetDownChainControls.....	324

Syntax: How to Reset Chain Controls.....	324
Function: IbComposer_selectTab.....	324
Syntax: How to Select a Tab and Make It Active.....	324
Function: IbComposer_selectTemplateTab.....	325
Syntax: How to Select a Template Tab and Make It Active.....	325
Function: IbComposer_getAllAmpersValues.....	325
Syntax: How to Get all Parameter Values.....	325
Event: onbeforeload.....	326
Syntax: How to Use the onbeforeload Event.....	326
Event: onafterload.....	327
Syntax: How to Use the onafterload Event.....	327
Specifying an HTML File as a Load Screen	327
Procedure: How to Specify an HTML File as a Loading Screen.....	328
3. Using Templates in the HTML Composer	331
Understanding and Using Templates	331
Reference: The Template Selector.....	332
Reference: Report Sets.....	334
Procedure: How to Use the Template Selector.....	335
Reference: Tabbed and Non-Tabbed Template Types.....	336
Procedure: How to Turn the Template Selector On.....	337
Reference: Template Usage Notes.....	338
Manipulating the Objects of Templates	339
Procedure: How to Insert Additional Report or Chart Frames.....	339
Procedure: How to Insert Additional Hyperlinks in Advanced Templates.....	340
Procedure: How to Reorder Elements.....	341
Reference: Properties Restricted By Templates.....	342
Procedure: How to Unlock a Template.....	342
4. Creating Guided Report Forms	345
Getting Started With Guided Reports	345
Procedure: How to Access Guided Report Mode.....	345
Procedure: How to Create a Guided Report Form Using Templates.....	347
Procedure: How to Create a Guided Report Form Without Templates.....	350
Reference: New Parameters Dialog Box.....	352

5. Chaining Controls for Dependencies in the HTML Composer	355
Automatically Chaining Parameters From the New Parameters Dialog Box	355
Procedure: How to Auto Chain Controls From the New Parameters Dialog Box.....	356
Procedure: How to Chain Controls From the New Parameters Dialog Box.....	359
Chaining Controls on the Parameters Tab	362
Procedure: How to Chain Controls on the Parameters Tab.....	362
Procedure: How to Remove a Link in the Chain.....	363
Procedure: How to Reverse the Order of Chained Controls.....	364
Applying Conditions to a Chain	367
Reference: Properties and Settings Dialog Box (Conditions).....	367
Procedure: How to Create a New Condition.....	370
Procedure: How to Select the Action for a Condition.....	371
Procedure: How to Select the Values Compare Operator for a Condition.....	371
Procedure: How to Apply Selected Values With a Multiselect Operator to a Condition....	372
Procedure: How to Resolve Parameters for a Condition.....	378
Procedure: How to Select the Compare Operator for the Parameter.....	379
Procedure: How to Enable Cache Processing for Chained Values.....	380
Populating Controls One at a Time	388
Procedure: How to Populate Controls One at a Time.....	389
Using the Chain Separator and Line Separator	391
Procedure: How to Use the Chain Separator and Line Separator.....	392
6. Creating Active Technologies Dashboards With the HTML Composer	395
Binding Objects to an Active Technologies Report	395
Procedure: How to Synchronize Report and Chart Objects to Active Technologies Reports.....	396
Procedure: How to Show Synchronized Active Technologies Report Groups.....	398
Procedure: How to Select Properties for Synchronized Reports.....	398
Procedure: How to Delete an Active Technologies Report Object.....	399
Configuring Active Technologies Controls in HTML Composer	400
Procedure: How to Add an Active Technologies Control to the Layout.....	400
Reference: Properties and Settings Dialog Box (Active Technologies Reports).....	401
Procedure: How to Configure an Active Technologies Control.....	404
Refreshing Active Technologies Reports	408

Procedure: How to Refresh Active Technologies Reports in the Active Technologies Control Panel.....	409
Procedure: How to Refresh Active Technologies Reports With a Push Button or Hyperlink.....	409
Exporting the Active Technologies Dashboard	410
Procedure: How to Use Export as Procedure.....	410
Reference: Conversions of Export as Procedure.....	411
Reference: Limitations of Export as Procedure	412
Scheduling and Distributing Active Technologies Dashboards	412
Usage Notes for Active Technologies Dashboards Created With the HTML Composer	412
7. Report Library Integration in the HTML Composer	413
Integrating the Report Library	413
Procedure: How to Create a Static List of Values From Report Library.....	414
Procedure: How to Create a Dynamic List of Values From Report Library.....	421
Integrating a Report With a Table of Contents and On Demand Paging.....	426
Procedure: How to Show a Table of Contents for an On Demand Paging Report in the HTML Composer.....	427
8. Creating a Rich Internet Application (RIA) With the HTML Composer	431
RIA Overview	431
Creating a RIA With the HTML Composer	432
Procedure: How to Apply a RIA Theme.....	432
Procedure: How to Create a RIA Page.....	433
Procedure: How to Add a RIA Window Component.....	435
Procedure: How to Minimize the Size of a Window Control.....	439
Procedure: How to Add a RIA Accordion Control Component.....	440
Applying Animation Properties to the RIA.....	447
Reference: Animation Properties Dialog Box.....	447
Usage Notes and RIA Example	450
Reference: Matching RIA Themes and StyleSheets.....	450
Reference: Usage Notes For Creating a RIA.....	454
9. Using Maps in the HTML Composer	463
Configuring WebFOCUS for Maps	463
Procedure: How to Configure WebFOCUS to Use Maps.....	464
Creating WebFOCUS Procedures for Maps	466

Procedure: How to Create Map Latitude/Longitude Coordinates in the Source File.	466
Procedure: How to Create Map Marker Group Fields and Tooltip Fields in the Source File.	469
Procedure: How to Create the Starting Center Point of the Map.	474
Adding a Map	477
Procedure: How to Insert Maps in the HTML Composer.	477
Customizing the Map Properties	480
Reference: Properties and Settings Dialog Box for Maps.	480
Reference: Properties Window for Maps.	485
Procedure: How to Customize a Map.	488
Integrating WebFOCUS With Maps	492
Procedure: How to Update a WebFOCUS Report Based on a Map Location.	492
Procedure: How to Update the Map Based on Data in a Report.	496
Using the Maps Functionality	502
Procedure: How to Use Manual Selection in the Map.	503
Procedure: How to Use Shape Selection in the Maps.	505
Procedure: How to Use Combination Selection in Maps.	509
Procedure: How to Show and Hide Markers in Maps.	509
Procedure: How to Refresh the Map Output.	511
Procedure: How to Create Polygons in the Map Output.	513
Procedure: How to Create Bullseye Charts in the Map Output.	517
Reference: Clearing and Removing Shape Selectors on Maps.	519
Reference: Running Maps Against a Secured Server.	519
Reference: Enabling Actions for Shape Selectors on Maps.	520
Chaining for Maps	521
Using JavaScript Code With Maps	526
Function: toggleLayer('mapId', 'layerName').	526
Syntax: How to Toggle Layer Visibility.	526
Function: toggleMarker('mapId', 'layerName', 'markerName').	526
Syntax: How to Toggle Marker Visibility.	526
Function: refreshLayer('mapId', 'layerName').	527
Syntax: How to Refresh a Layer.	527
Function: panToAddress('address', 'mapId', 'zoom').	527
Syntax: How to Pan To an Address.	527
Function: panToPoint('lat', 'long', 'mapId', 'zoom').	528

Syntax: How to Pan To a Point.....	528
Function: showAllMarkers('mapId').....	528
Syntax: How to Show All Map Markers.....	529
Function: drawBullseye('mapId', 'lat', 'long', 'selectmarkers', 'units', 'rings', '(list-of-sizes)', '(list-of-colors)').....	529
Syntax: How to Draw a Bullseye.....	529
ESRI Flex Viewer Integration	530
10. Using Visual Discovery in the HTML Composer	533
Creating Visual Discovery Output Files	533
Reference: Format Conversions for FORMAT VISDIS.....	534
Procedure: How to Create a Visual Discovery Output File From Report Painter.....	534
Syntax: How to Create a Visual Discovery Output File Using WebFOCUS Language.....	535
Developing an Analytic Dashboard From Developer Studio	536
Procedure: How to Create a WebFOCUS Visual Discovery Analytic Dashboard.....	537
Naming Controls.....	538
Selecting Data.....	538
Procedure: How to Add and Select Data.....	538
Reference: Properties and Settings Dialog Box.....	539
Reference: Data Tab.....	539
Reference: Data Tab Icons.....	540
Assigning Color to the Data and the Graph.....	541
Procedure: How to Change Graph Element Colors.....	542
Reference: Colors Tab.....	543
Coloring a Graph by a Field.....	546
Procedure: How to Color a Graph by a Selected Field.....	546
Values are VisDis Color By.....	547
Procedure: How to Color a Visual Discovery Control Using Values are VisDis Color By.....	547
Choosing Selection Options.....	550
Reference: Selecting Tab.....	551
Specifying Fonts and Titles.....	553
Reference: Fonts Tab.....	553
Reference: Titles Tab.....	554
Using Goal Lines.....	554

Procedure: How to Add Goal Lines.....	554
Procedure: How to Move Goal Lines.....	555
Procedure: How to Hide Goal Lines.....	555
Procedure: How to Remove Goal Lines.....	555
Procedure: How to Select Values Above/Below the Goal Line.....	555
Animating Data.....	555
Procedure: How to Animate a Bar, Line, or Pie Chart.....	556
Selecting Primary and Secondary Order.....	556
Procedure: How to Select Primary and Secondary Order.....	556
Displaying Labels.....	557
Procedure: How to Select Label Mode.....	557
Procedure: How to Show or Hide Individual Labels Using the Pop-up Menu.....	558
Preselecting Values.....	558
Procedure: How to Preselect Values.....	558
Passing Between a Report and a Visual Discovery Control.....	559
Procedure: How to Pass a Parameter From a Visual Discovery Control to a Report.....	559
Procedure: How to Pass a Parameter From a Report to a Visual Discovery Control.....	560
Chaining Into a Visual Discovery Control.....	565
Procedure: How to Chain Into a Visual Discovery Control.....	565
Excluding and Restoring Data.....	567
Procedure: How to Exclude and Restore Data.....	567
Working With Visual Discovery Controls on the Web.....	569
Selecting Data.....	570
Restoring Excluded Data.....	570
Changing the Display.....	570
Saving a Control as an Image.....	570
Saving the State of Analysis.....	571
Reference: BookMarks Tab.....	571
Accessing Visual Discovery Online Help.....	572
Procedure: How to Access Visual Discovery Online Help.....	572
Visual Discovery Tutorial.....	575
Before You Begin.....	576
Building an Analytic Dashboard With Visual Discovery Components.....	576

Procedure: How to Create the HTML File	578
Procedure: How to Create the Bar Charts.	578
Procedure: How to Create the Data Constellation	585
Procedure: How to Create the Pie Chart.	591
Procedure: How to Create the Summary Sheet	593
Building an Application With Advanced Chart Controls.	595
Procedure: How to Create a Visual Discovery Control Panel Menu Bar.	596
Procedure: How to Create a Drop Down List Control for Selector Shapes.	598
Procedure: How to Create a Drop Down List Control to Color By Fields.	602
Procedure: How to Create a Push Button Control That Hides Excluded Items.	604
Procedure: How to Create a Push Button Control That Toggles Actively Selected Items.	606
Procedure: How to Create a Push Button Control to Refresh Components.	607
Procedure: How to Create Radio and Push Button Controls to Collect Data and Pass to a Report.	609
11. Tutorial: Creating a Reporting Application Using the HTML Composer	615
HTML Composer Tutorial Overview	615
Creating the Century Project	616
Add Master Files to Your Project.	616
Add the CENTORD Data Source to Your Project.	617
Creating the Graph	618
Procedure: How to Create the Graph.	618
Procedure: How to Create a Heading for the Graph.	619
Procedure: How to Limit Graphed Data.	619
Creating the Layout and the Report	621
Procedure: How to Create the Report Layout.	621
Procedure: How to Add Text and Color to the Layout.	622
Procedure: How to Create a Report From the Layout.	624
Procedure: How to Add a Calculated Value to the Report.	625
Procedure: How to Limit the Data to a Selected Plant and Year.	627
Procedure: How to Create a Page Heading for the Report.	630
Procedure: How to Style Your Report.	631
Procedure: How to Set Up the Drill-Down Report.	634
Procedure: How to Customize Parameters.	637

Procedure: How to Create the Target Frame For Drill-Down Output.	640
Procedure: How to Reorganize the Layout and Add an Image.	641
Running the Reporting Application	643
Procedure: How to Run Your Reporting Application.	643
12. Accessing an HTML Composer Application on a Mobile Device	647
Using an HTML Composer Application on an iPad or iPhone	647
Double List Controls.	647
Scrolling.	650
Slider Controls.	651
Chained Controls.	651
Using an HTML Application on an Android Device	652
Double List Controls.	652
A. CSS Support Matrix for Browsers	653
CSS Support Matrix for Internet Explorer	653
CSS Support Matrix for Firefox, Chrome, Safari, and Opera	656
B. Glossary	663
Customer Connections	677

Preface

This documentation describes how to create a user interface in the local development environment with the HTML Composer, and how to use Google Maps in the HTML Composer. It is intended for developers.

Note: The WebFOCUS toolset generates the rich FOCUS fourth generation language. While this language is very extensive, the WebFOCUS toolset only supports a subset of the language and only specific syntax constructs. While the user can manually modify the content of these WebFOCUS procedures/files, there is no guarantee that the user will be able to open the modified procedure in the tool.

How This Manual Is Organized

This manual includes the following chapters:

Chapter/Appendix		Contents
1	Using the HTML Composer	Describes how to create a user interface in the local development environment using the HTML Composer.
2	Creating and Using Parameters in the HTML Composer	Describes how to create and use parameter values and input controls.
3	Using Templates in the HTML Composer	Describes how to access and use pre-defined templates in the HTML Composer.
4	Creating Guided Report Forms	Describes how to create Guided Report Forms using the Guided Report Mode feature of the HTML Composer.
5	Chaining Controls for Dependencies in the HTML Composer	Describes how to chain controls for dependencies. Chaining populates controls based on the selected value from the prior control in the chain.
6	Creating Active Technologies Dashboards With the HTML Composer	Describes the process of creating active dashboards in the HTML Composer.

Chapter/Appendix	Contents
7 Report Library Integration in the HTML Composer	Describes how to integrate Report Library reports into an HTML Composer page and describes how to integrate a report with a Table of Contents and On Demand Paging.
8 Creating a Rich Internet Application (RIA) With the HTML Composer	Describes how to create a Rich Internet Application (RIA) in the local development environment using the HTML Composer.
9 Using Maps in the HTML Composer	Describes how to integrate Google®, Bing®, and ESRI® JavaScript API Maps with reports generated from the HTML Composer.
10 Using Visual Discovery in the HTML Composer	Describes how to develop an analytic dashboard. This topic covers tasks and options available for all the different graph components.
11 Tutorial: Creating a Reporting Application Using the HTML Composer	You will use the HTML Composer to create a layout in which you can insert text, an image, a report, a frame for drill-down output, and selection parameters. During this tutorial, you will directly access other tools, such as InfoAssist Graph and the Report Painter, to create procedures and an HTML form.
12 Accessing an HTML Composer Application on a Mobile Device	Describes certain issues when accessing an HTML Composer Application on a mobile device.
A CSS Support Matrix for Browsers	Describes which browsers support certain CSS properties.
B Glossary	Describes key terms found in this manual.

Documentation Conventions

The following table describes the documentation conventions that are used in this manual.

Convention	Description
THIS TYPEFACE or this typeface	Denotes syntax that you must enter exactly as shown.
<i>this typeface</i>	Represents a placeholder (or variable) in syntax for a value that you or the system must supply.
<u>underscore</u>	Indicates a default setting.
<i>this typeface</i>	Represents a placeholder (or variable), a cross-reference, or an important term. It may also indicate a button, menu item, or dialog box option that you can click or select.
Key + Key	Indicates keys that you must press simultaneously.
{ }	Indicates two or three choices. Type one of them, not the braces.
[]	Indicates a group of optional parameters. None are required, but you may select one of them. Type only the parameter in the brackets, not the brackets.
	Separates mutually exclusive choices in syntax. Type one of them, not the symbol.
...	Indicates that you can enter a parameter multiple times. Type only the parameter, not the ellipsis (...).
. . .	Indicates that there are (or could be) intervening or additional commands.

Related Publications

Visit our Technical Documentation Library at <http://documentation.informationbuilders.com>. You can also contact the Publications Order Department at (800) 969-4636.

Customer Support

Do you have questions about this product?

Join the Focal Point community. Focal Point is our online developer center and more than a message board. It is an interactive network of more than 3,000 developers from almost every profession and industry, collaborating on solutions and sharing tips and techniques. Access Focal Point at <http://forums.informationbuilders.com/eve/forums>.

You can also access support services electronically, 24 hours a day, with InfoResponse Online. InfoResponse Online is accessible through our website, <http://www.informationbuilders.com>. It connects you to the tracking system and known-problem database at the Information Builders support center. Registered users can open, update, and view the status of cases in the tracking system and read descriptions of reported software issues. New users can register immediately for this service. The technical support section of www.informationbuilders.com also provides usage techniques, diagnostic tips, and answers to frequently asked questions.

Call Information Builders Customer Support Services (CSS) at (800) 736-6130 or (212) 736-6130. Customer Support Consultants are available Monday through Friday between 8:00 a.m. and 8:00 p.m. EST to address all your questions. Information Builders consultants can also give you general guidance regarding product capabilities. Please be ready to provide your six-digit site code number (xxxx.xx) when you call.

To learn about the full range of available support services, ask your Information Builders representative about InfoResponse Online, or call (800) 969-INFO.

Information You Should Have

To help our consultants answer your questions effectively, be prepared to provide the following information when you call:

- ☐ Your six-digit site code (xxxx.xx).
- ☐ Your WebFOCUS configuration:
 - ☐ The front-end software you are using, including vendor and release.
 - ☐ The communications protocol (for example, TCP/IP or HLLAPI), including vendor and release.
 - ☐ The software release.
 - ☐ Your server version and release. You can find this information using the Version option in the Web Console.

- ☐ The stored procedure (preferably with line numbers) or SQL statements being used in server access.
- ☐ The Master File and Access File.
- ☐ The exact nature of the problem:
 - ☐ Are the results or the format incorrect? Are the text or calculations missing or misplaced?
 - ☐ Provide the error message and return code, if applicable.
 - ☐ Is this related to any other problem?
- ☐ Has the procedure or query ever worked in its present form? Has it been changed recently? How often does the problem occur?
- ☐ What release of the operating system are you using? Has it, your security system, communications protocol, or front-end software changed?
- ☐ Is this problem reproducible? If so, how?
- ☐ Have you tried to reproduce your problem in the simplest form possible? For example, if you are having problems joining two data sources, have you tried executing a query containing just the code to access the data source?
- ☐ Do you have a trace file?
- ☐ How is the problem affecting your business? Is it halting development or production? Do you just have questions about functionality or documentation?

User Feedback

In an effort to produce effective documentation, the Technical Content Management staff welcomes your opinions regarding this document. Please use the Reader Comments form at the end of this document to communicate your feedback to us or to suggest changes that will support improvements to our documentation. You can also contact us through our website <http://documentation.informationbuilders.com/connections.asp>.

Thank you, in advance, for your comments.

Information Builders Consulting and Training

Interested in training? Information Builders Education Department offers a wide variety of training courses for this and other Information Builders products.

For information on course descriptions, locations, and dates, or to register for classes, visit our website (<http://education.informationbuilders.com>) or call (800) 969-INFO to speak to an Education Representative.

Using the HTML Composer

The HTML Composer enables you to graphically create an HTML page that incorporates forms, reports, graphs, and web objects. You can invoke Maintain procedures using hyperlinks. The HTML Composer is fully integrated with JavaScript and Cascading Style Sheets (CSS).

This topic describes how to create a user interface in the local development environment. For information on creating a user interface in Managed Reporting, see your Managed Reporting documentation.

To take advantage of a tutorial on the HTML Composer, see [Tutorial: Creating a Reporting Application Using the HTML Composer](#) on page 615.

Note: The HTML Composer does not support OLAP-enabled reports.

In this chapter:

- ❑ [Uses for the HTML Composer](#)
- ❑ [Getting Started With the HTML Composer](#)
- ❑ [Creating a Report Page Layout](#)

Uses for the HTML Composer

You can do the following when creating an HTML form:

- ❑ Build an HTML web page. The HTML Composer enables you to add push buttons, hyperlinks, and other objects that launch other WebFOCUS reports in your application.
- ❑ Build an HTML page using pre-defined templates. The Template selector enables you to create an HTML page with a selected color scheme and layout. For more information on templates, see [Using Templates in the HTML Composer](#) on page 331.
- ❑ Build a Guided Report form using Guided Report Mode. Guided Report Mode enables you to create highly paramertized reports through a streamlined and simple process. For more information on Guided Report Mode, see [Creating Guided Report Forms](#) on page 345.
- ❑ Create a web page for one or more reports that contain parameters.

- ❑ Create a web page for WebFOCUS Maintain procedures, or run reports and Maintain procedures from the same HTML page.
- ❑ Create a complete dashboard by adding multiple reports and graphs into a single HTML page.
- ❑ Create an advanced report layout by including images, frames, and other web elements. You can change the location, size, and properties of all objects in your layout.
- ❑ Set background, font, and other properties in the Style Composer tool.
- ❑ Create a Rich Internet Application (RIA) to create an interactive webpage experience inside a browser. For details, see [Creating a Rich Internet Application \(RIA\) With the HTML Composer](#) on page 431.

Getting Started With the HTML Composer

You can create procedures and HTML forms in one integrated process with the HTML Composer. When you save your layout, the procedures are embedded in the HTML file, creating a single file for your application.

You can build HTML pages using templates and/or Guided Report Mode. These features are designed to simplify and automate a majority of the process that goes into creating HTML pages. For more information on templates, see [Using Templates in the HTML Composer](#) on page 331. For more information on Guided Report Mode, see [Creating Guided Report Forms](#) on page 345.

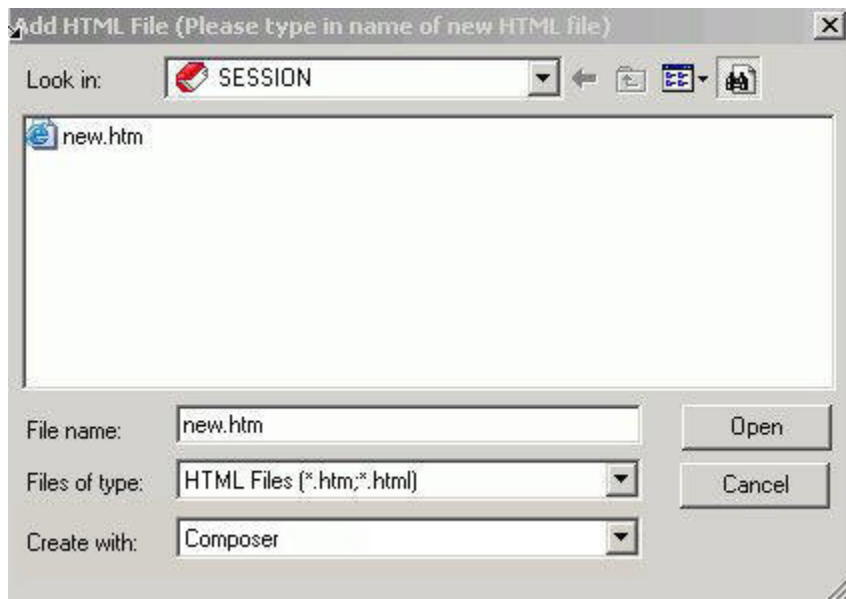
Note: The HTML Composer does not support OLAP-enabled reports. If you execute a report from the HTML Composer with this option, the output window will not display the OLAP controls and you will receive a scripting error. In order to execute this type of report, you must use a frame. For more information, see [Adding a Frame to the Layout](#) on page 43.

Procedure: How to Access the HTML Composer

1. Create a new HTML file by completing one of these actions:

- ☐ With the HTML folder highlighted, select **New** from the File menu, then select *HTML file*.
- or
- ☐ Click *Layout Reports and Graphs* in the QuickLinks pane to create a new HTML file using Guided Report mode.
- ☐ With the HTML folder highlighted, select **New** from the File menu, then select *Guided Report Form*.

The Add HTML File dialog box opens.



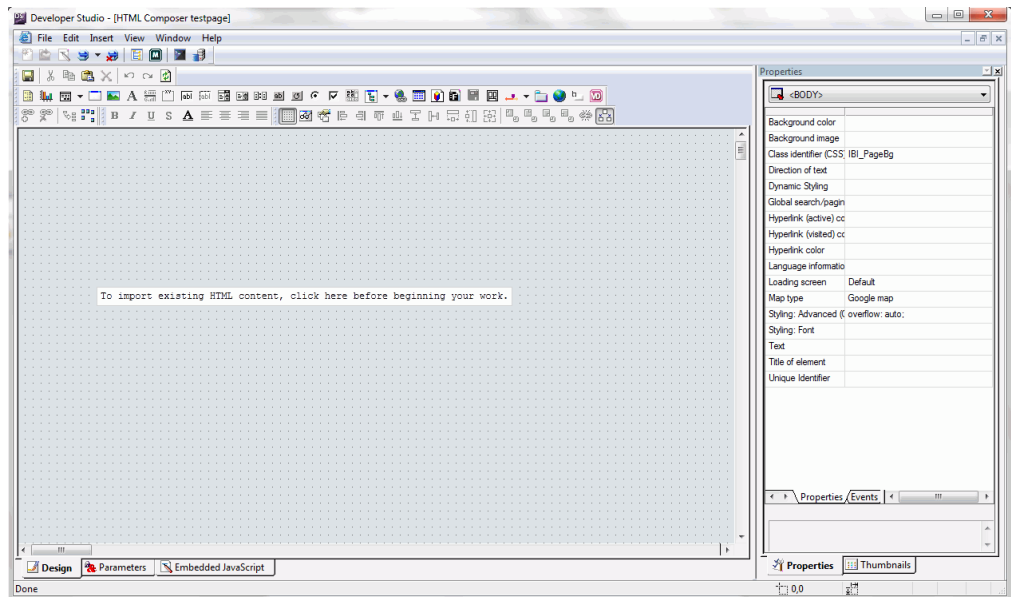
2. Enter a name for the new HTML file in the File name field.
3. Ensure that *Composer* is selected in the Create with field.
4. Click *Open*.

The Template selector window opens. To create an HTML page without using templates, select **Cancel**. For more information on using templates, see [Using Templates in the HTML Composer](#) on page 331.

You can select the Guided Report Mode check box to create a Guided Report Form. If you chose to create a HTML file using Guided Report Mode, see the Guided Report Mode chapter for more information.

Reference: HTML Composer Windows and Toolbars

The following image is an example of the HTML Composer.



The main elements of the HTML Composer are:

Menu Bar

Displays pull-down menus for the HTML Composer.

Developer Studio Toolbar

Displays tool buttons, such as Open and Run. For details, see the *Creating Reporting Applications With Developer Studio* manual.

Standard Toolbar

Displays buttons, such as Cut and Paste that allow you to edit the layout.

Components Toolbar

Contains buttons that add reporting objects and controls to the layout.

Formatting Toolbar

Displays buttons that format and align text when using a text element in the layout.

Positioning Toolbar

Contains buttons that control the appearance of the layout. For details, see [Positioning Toolbar](#) on page 289.

Utilities Toolbar

Contains buttons that control synchronization and chaining. For details, see [Utilities Toolbar](#) on page 292.

Properties Window

Displays the Properties tab, which contains the Properties subtab and the Events subtab when an object is selected in the layout. The Properties window also contains the Thumbnails tab.

- ☐ The Properties subtab contains options for the properties of the object.
- ☐ The Events subtab displays the JavaScript events associated with objects in the layout.

For details, see [Working With the Properties Window](#) on page 87.

Thumbnails Tab

Enables you to view a thumbnail of the page layout. Thumbnail view allows objects on the page to participate in actions with controls on the Parameters tab. You may also refresh the Thumbnails tab, enlarge or reduce the thumbnails, and change the zoom levels. Reports and graphs appear as placeholder objects on the Thumbnails tab.

QuickLinks Window

Displays links to information on Help, configuration options, metadata creation, and reports and procedures.

Note: QuickLinks is turned off by default. If you need to access QuickLinks, select *QuickLinks* from the View menu (when you are in the Developer Studio Explorer).

Design Tab

Displays the design view where you can add and position objects to the layout.

Parameters Tab

Displays information about the parameter values and input controls in your report or graph. For details, see [Working With the Parameters Tab](#) on page 96.

Client JavaScript

Displays the HTML code and the JavaScript code for objects in the HTML layout.

Note: You may reorder the position of the Design tab, Parameters tab, and Client JavaScript by left-clicking and dragging the tabs on the bottom of the HTML layout.

Reference: Standard Toolbar

The Standard toolbar contains the following buttons:

Button	Description
	Saves the HTML file to the current project. This button is dimmed once the layout is saved and no new changes have been made. When a change has been made to the layout, the Save button is active until the layout is saved again.
	Removes the highlighted object(s) and saves it to the clipboard.
	Copies the highlighted object(s) to the clipboard.
	Pastes the object(s) to the specified location.
	Deletes the highlighted object(s).
	Resets the layout by reversing the last action performed.

Button	Description
	Repeats the last action performed.
	The Refresh All option enables you view any edits or changes that you made to your layout. Refresh All reloads all objects and reruns the reports and graphs in Design view. Note: Refresh also shows changes made to reports and graphs that are referenced in your layout.

Reference: Components Toolbar

The Components toolbar contains the following buttons:

Button	Description
	Inserts a report object to the layout. For details, see Adding a Report, Graph, or Compound Document to the HTML Composer on page 37.
	Inserts a graph object to the layout. For details, see Adding a Report, Graph, or Compound Document to the HTML Composer on page 37.
	Inserts a placeholder for a control. For details, see Using Controls to Supply Incoming Parameter Values on page 159.
	Inserts a placeholder for an IFRAME. An IFRAME can have its own URL and contain HTML content, and it can be a placeholder for a drill-down report. For details, see Adding a Frame to the Layout on page 43.

Button	Description
	Inserts a placeholder for an image. For details, see Adding an Image to the Layout on page 51.
	Inserts text. For details, see Adding Text to the Layout on page 56.
	Inserts a line. For details, see Adding a Line to the Layout on page 49.
	Adds a group box. For details, see Adding a Group Box to the Layout on page 67.
	Adds a text box. For details, see Using a Text Box on page 169.
	Adds a hidden control. For details, see Using a Hidden Parameter Value on page 245.
	Adds a drop-down list. For details, see Using a Drop-Down List on page 175.
	Adds a list box (a drop-down list that allows multiple selections). For details, see Using a List Box on page 180.

Button	Description
	Inserts a placeholder for a double list parameter control. For details, see Using a Double List Control on page 183.
	Adds a push button. For details, see Adding a Push Button to the Layout on page 68.
	Adds a reset button. For details, see Adding a Reset Button to the Layout on page 73.
	Adds a radio button. For details, see Using Radio Buttons on page 203.
	Adds a check box list. For details, see Using Check Boxes on page 200.
	Inserts a text area. For details, see Using a Text Area on page 173.
	Inserts a tree control. For details, see Using Tree Controls on page 207.
	Inserts a hyperlink. For details, see Adding a Hyperlink to the Layout on page 61.

Button	Description
	Adds a calendar. For details, see Adding a Dynamic Calendar on page 237.
	Adds an ActiveX control or a Visual Discovery control. When adding ActiveX controls in the HTML Composer, only true ActiveX controls are shown in the list. The first time that an ActiveX control is added, a message appears indicating that it is reading ActiveX controls from the registry. This list is cached for future use and only ActiveX controls are added. For more information about Visual Discovery, see the <i>Using WebFOCUS Visual Discovery to Develop Analytic Dashboards</i> manual.
	Inserts Flash content. For details, see Adding Flash Content to the Layout on page 54.
	Inserts a Save Selection button. Note: This is specific to Managed Reporting and the ability to save parameterized reports with the Save Parameters dialog box.
	Inserts a panel to group objects together. The panel is invisible at run time. For details, see How to Group Objects on the HTML Page on page 288.
	Inserts a slider parameter control bar. For details, see Using a Slider Control on page 233.
	Inserts a tab control. For details, see Adding a Tab Control to the Layout on page 74.

Button	Description
	Adds a Google map. For more information about Google Maps™, see Using Maps in the HTML Composer on page 463.
	Inserts a label. A label is simply a piece of text. The label component enables you to create and name a label, and link it to a control. For details, see Adding a Label to the Layout on page 86.
	Inserts a Visual Discovery control. For more information on Visual Discovery, see the Using Visual Discovery in the HTML Composer on page 533

Reference: Formatting Toolbar

The Formatting toolbar contains options that can be applied to individual strings of text, as well as to the entire text element, with the exception of the alignment options. The alignment options can only be applied to the text element.

For more information about using text elements, see [Adding Text to the Layout](#) on page 56.

Button	Description
	Applies bold formatting to the text.
	Applies italic formatting to the text.
	Applies underline formatting to the text.

Button	Description
	Applies superscript typography to the text.
	Font style opens the Font dialog box where you can set the Font, Font Style, Size, Color, and Effect of the text.
	Aligns the text element to the left.
	Aligns the text element to the center.
	Aligns the text element to the right.
	Aligns the text to fill the width of the text element.

Creating a Report Page Layout

You can use the HTML Composer to create an HTML page that launches and displays your reports and graphs. You can add elements to the HTML page, such as reports, graphs, text, and controls.

You can also set properties for the HTML page in the HTML Composer. For details, see [Setting HTML Page Properties](#) on page 275.

Adding a Report, Graph, or Compound Document to the HTML Composer

You can add reports and/or graphs to the HTML Composer that will display when you run the layout. You can add a new report (that you create in the Report Painter), a new graph (that you create in the Graph tool), or add an existing report or graph that resides on an available server. You can also launch Document Composer from HTML Composer and create compound documents.

You can also include parameters in a report and/or graph whose values can be assigned with controls that are added with the HTML Composer. For information, see [Using Controls to Supply Incoming Parameter Values](#) on page 159.

You can set the graphic used as a placeholder for a report or graph in the layout using the HTML Page tab, located in the Developer Studio Options dialog box. For details, see [How to Set Page Properties](#) on page 293.

Procedure: How to Add a New Report or Graph to an HTML Page

1. Insert a report or graph object by doing one of the following:
 - ☐ Click the *Report* or *Graph* button from the Components toolbar.
 - ☐ From the Insert menu, select *New Report* or *New Graph*.
 - ☐ Right-click in the layout and select *New Report* or *New Graph* from the context menu.

The cursor changes into a crosshair.

2. Click and drag the crosshair to create a report or graph object and adjust it to the size you want.

A report or graph object is created in the layout and assigned the name *report(n)* or *graph(n)*, where *n* is a number. The object will appear in gray and white to indicate that the placeholder does not have a report or graph associated with it. Once a report or graph is associated with the object, the object displays the contents of the report or graph if live or simulated data is active (live data is the default) or a colored placeholder if preview is off in the HTML Page tab, located in the Developer Studio Options dialog box.

3. Create a report or graph by doing one of the following:
 - ☐ Double-click the placeholder.
 - or
 - ☐ Right-click the placeholder and select *New Report* for a report, or *New Graph* for a graph.

The Open dialog box opens.

4. Select the Master File you want to report against from the Master File list, and click *Open*.

The selected tool opens. For details on using these tools, see the *Creating Reports With Report Painter* manual and the *WebFOCUS InfoAssist User's Manual*.

5. Optionally, after creating the report or graph, you can change its properties by adjusting the properties displayed in the Properties tab of the Properties window. For details, see [Report Properties in the Properties Window](#) on page 39.

Procedure: How to Add an Existing Report or Graph to a Layout

1. Insert a report or graph object by doing one of the following:

- ☐ Click the *Report* or *Graph* button from the Components toolbar.

The cursor changes into a crosshair. Click and drag the crosshair to create a report or graph object and adjust it to the size you want.

A report or graph object is created in the layout and assigned the name report(*n*) or graph(*n*), where *n* is a number. The object will appear in gray and white to indicate that the placeholder does not have a report or graph associated with it. Once a report or graph is associated with the object, the object displays the contents of the report or graph if live or simulated data is active (live data is the default) or a colored placeholder if preview is off in the HTML Page tab, located in the Developer Studio Options dialog box.

- ☐ From the Insert menu, select *Import Existing Procedure*.

Note: If you want to access the Manage Layout dialog box, choose this method.

- ☐ Right-click in the layout and select *New Report* or *New Graph* from the context menu.

2. Add a report or graph:

- ☐ For a report, right-click the report object and select *Import existing report*.
- ☐ For a graph, right-click the graph object and select *Import existing graph*.

The Get source file dialog box opens.

3. Enter the name of the procedure you want to add to the layout.
4. Click *Open*.

The report or graph object appears in the Design view of the HTML Composer.

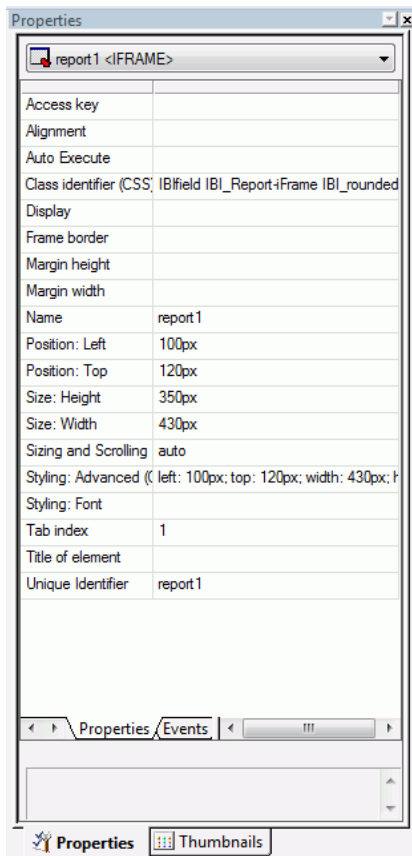
5. To edit the report or graph, double-click the object.

The Procedure Viewer opens.

6. Open the report or graph, and make any necessary changes.
7. Close the Procedure Viewer to return to the HTML Composer.
8. Optionally, change the properties by adjusting the properties displayed in the Properties tab of the Properties window. For details, see [Report Properties in the Properties Window](#) on page 39.

Reference: Report Properties in the Properties Window

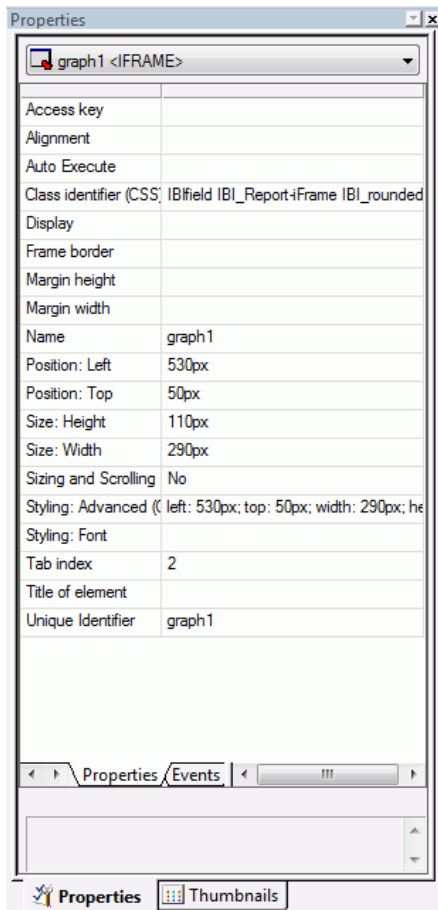
When a report is selected, the Properties tab in the Properties window contains options that control the properties of your report and reporting objects.



Click a property to display a description of the selected property at the bottom of the Properties window.

Reference: Graph Properties in the Properties Window

When a graph is selected, the Properties tab in the Properties window contains options that control the properties of your graph.



Click a property to display a description of the selected property at the bottom of the Properties window.

Procedure: How to Add a Compound Document to an HTML Page

1. Insert a report object by doing one of the following:

- ❑ Click the *Report* button from the Components toolbar.
- ❑ From the Insert menu, select *New Report*.
- ❑ Right-click in the layout and select *New Report* from the context menu.

The cursor changes into a crosshair.

2. Click and drag the crosshair to create a report object and adjust it to the size you want.
3. Right-click the report object and select *Open document composer* from the context menu.

Document Composer opens. For details on using Document Composer, see the *Creating Compound Reports With Document Composer* manual.

Selecting Components to Import Into a Procedure

You can select to include or exclude components to be imported into your procedure with the Manage Layout dialog box. The Manage Layout dialog box allows you to select from components of your request, such as TABLE, SET, and GRAPH.

If you have several requests in one procedure, you can use the Manage Layout dialog box to suppress the display of individual TABLE, SET, and GRAPH components (for example, temporary HOLD files). By default, the last TABLE is set to display.

Procedure: How to Select Components to Import Into a Procedure

1. Select *Import Existing Procedure* from the Insert menu.

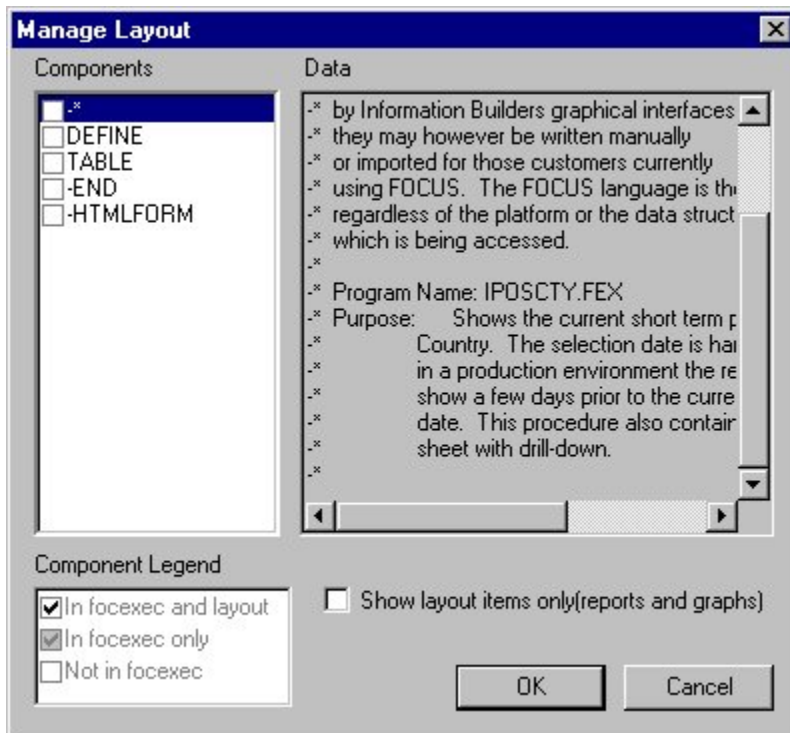
The Get source file dialog box opens.

2. Select a file name and click *Open*.

The Manage Layout dialog box opens. For details, see [Manage Layout Dialog Box](#) on page 42.

Reference: Manage Layout Dialog Box

The following image is the Manage Layout dialog box.



The Manage Layout dialog box contains the following fields/options:

Components

Displays all the components (SET, DEFINE, and so on) in the request.

Data

Displays the contents of the selected component.

Component Legend

Determines whether the request is included in the procedure, outside of the procedure, or in the procedure and layout.

In focexec and layout

Activates the component and displays the component in the layout.

In focexec only

Deactivates the component and does not display the component in the layout. This is a good method for hiding report requests that produce temporary files.

Not in focexec

Removes the component from the procedure.

Show layout items only (reports and graphs)

Displays the layout reports and graphs in the Data field.

This check box only displays when you access the Manage Layout dialog box from the Insert menu. When accessing it from the context menu, only the report or graph component displays, and the check box does not apply.

Adding a Frame to the Layout

You can use a frame to embed additional web sources or run reports. You can also use a frame as the output location or target for a drill-down report. You can also use a frame to run a table of contents report, an OLAP report, a PDF report, an Excel® report, or a Maintain procedure.

Procedure: How to Add a Frame to the Layout

1. Insert a frame by doing one of the following:

- ☐ Click the *Frame* button.
- ☐ From the Insert menu, select *Components*, then click *Frame*.

The cursor changes into a crosshair.

2. Click and drag the crosshair to create a frame and adjust it to the size you want.

A frame is created in the layout and assigned the name *iframen*, where *n* is a number.

3. Optionally, change the properties of the frame by adjusting the properties displayed in the Properties tab of the Properties window. For details, see [Frame Properties in the Properties Window](#) on page 49.

Procedure: How to Assign a URL, HTML File, or Report to a Frame

1. Insert a frame by doing one of the following:

- ☐ Click the *Frame* button.

or

- ❑ From the Insert menu, select *Components*, then click *Frame*.

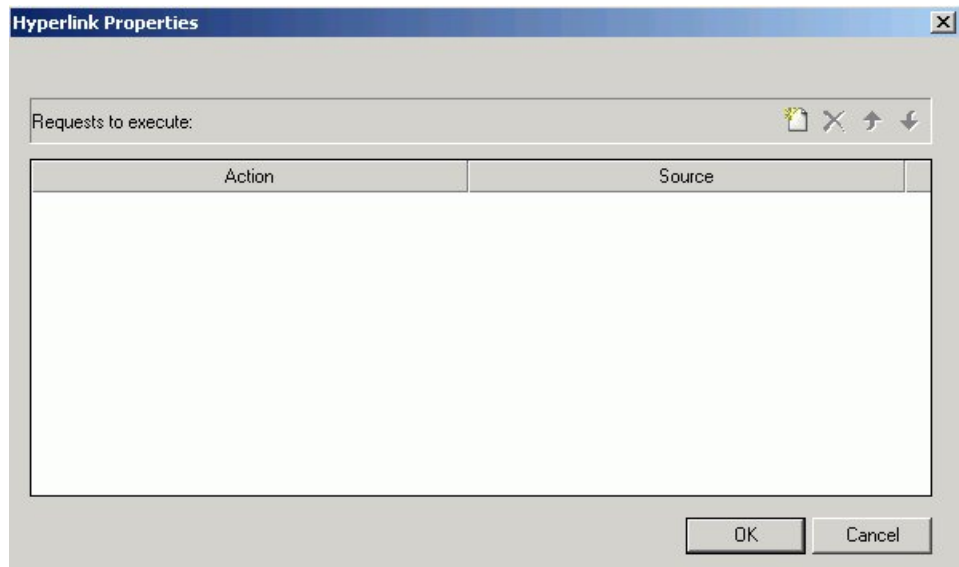
The cursor changes into a crosshair.

2. Click and drag the crosshair to create a frame and adjust it to the size you want.

A frame is created in the layout and assigned the name *iframe(n)*, where *n* is a number.

3. Right-click the frame, and select *Frame Properties* from the context menu.

The Hyperlink Properties dialog box opens.



4. Click the *New* button to create a new action. From the drop-down list in the Action field you can select:

- ❑ **URL.** To assign a URL address to the frame, select *URL* and enter the fully-qualified URL in the Source field.
- ❑ **HTML File.** To assign an HTML file to the frame, click select *HTML File* and enter the file location in the Source field, or click the browse (...) button to browse to the location. An HTML file refers to the HTML files in your application.
- ❑ **External Procedure.** To assign an external procedure to the frame, select *External Procedure* and enter the procedure location in the Source field, or click the browse (...) button to browse to the location. You can also select Maintain procedures (.mnt, .fcm) here.

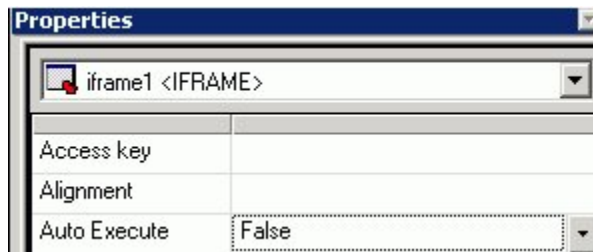
5. Click *OK*.
6. Optionally, change the properties of the frame by adjusting the properties displayed in the Properties tab of the Properties window. For details, see [Frame Properties in the Properties Window](#) on page 49.

Procedure: How to Show/Hide a Frame in the Layout

1. From the HTML Composer, use controls to supply parameter values for a report.

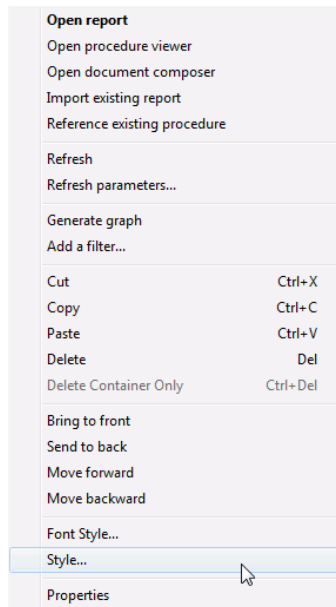
Note: A report with parameters requires that you select values (at run time) in order to generate the output.

2. Click the frame (report object) and select *False* from the Auto Execute drop-down list in the Properties tab of the Properties window.



Note: False is the default Auto Execute option for reports with parameters.

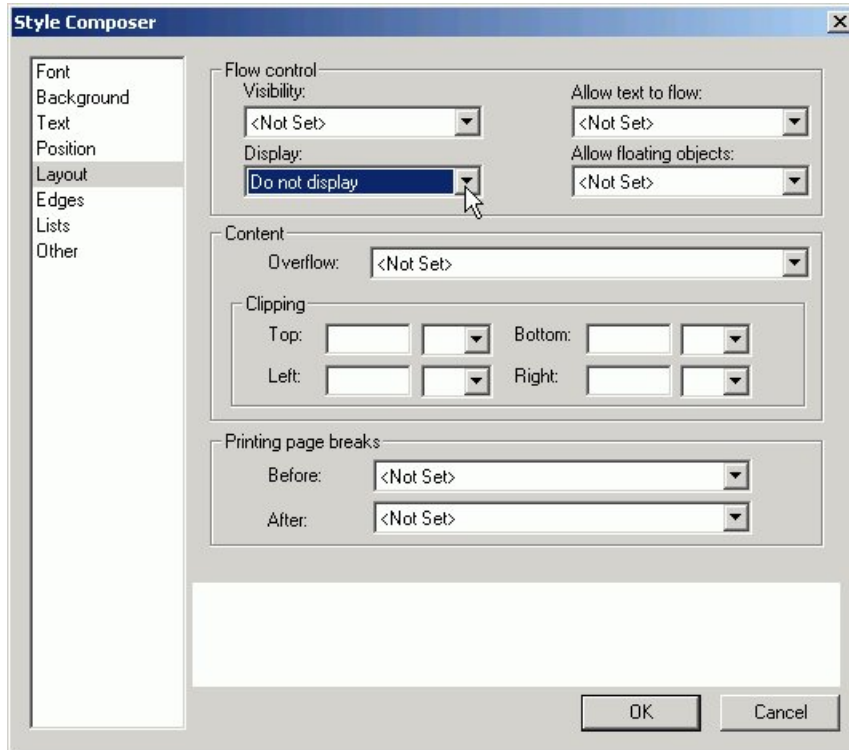
3. Right-click the frame (report object) in the Design view and select *Style* from the context menu.



The Style Composer opens.

4. Select *Layout* from the left side of the Style Composer to view the layout options for the selected frame.

- From the Flow control area, select *Do not display* from the Display drop-down list.



This option hides the frame at run time until the values are selected.

- Click *OK* to close the Style Composer.
- Run the HTML page.

In the example below, the frame is not shown before the values are selected.

Select a Product Category Select Product Type Product Number Please select a Plant

CD Players
Camcorders
Cameras

1020
1022
1024

BOS

Please select a Year

2000
2001
2002

▶ ↺

In the same example below, parameter values have been selected and the frame appears showing the output results.

Select a Product Category Select Product Type Product Number Please select a Plant

CD Players
Camcorders
Cameras

1020
1022
1024

BOS

Please select a Year

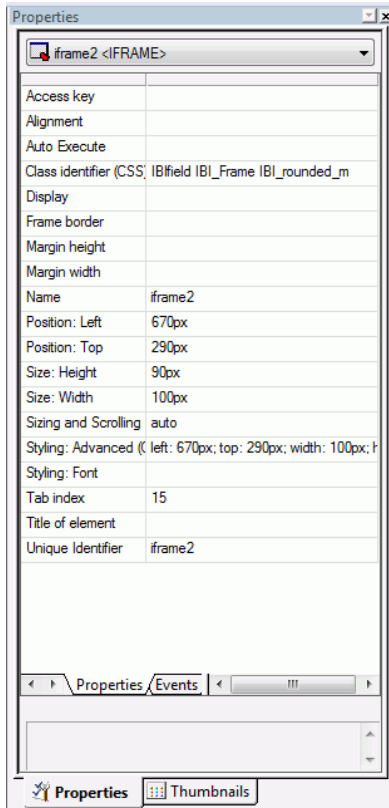
2000
2001
2002

▶ ↺

<u>Date Of Order:</u>	<u>Product Number:</u>	<u>Product Name:</u>	<u>Price:</u>	<u>Quantity:</u>
2000/12/31	1020	150 8MM Camcorder 20 X	319.00	1

Reference: Frame Properties in the Properties Window

When a frame is selected, the Properties tab in the Properties window contains options that control the properties of your frame.



Click a property to display a description of the selected property at the bottom of the Properties window.

Adding a Line to the Layout

You can add a horizontal or vertical line to the layout. This is useful for distinguishing between sections of your launch or display page.

Procedure: How to Add a Line to the Layout

1. Do one of the following to add a line:
 - ☐ Click the *Line* button.

or

- ❑ From the Insert menu, select *Components*, then click *Line*.

The cursor changes into a crosshair.

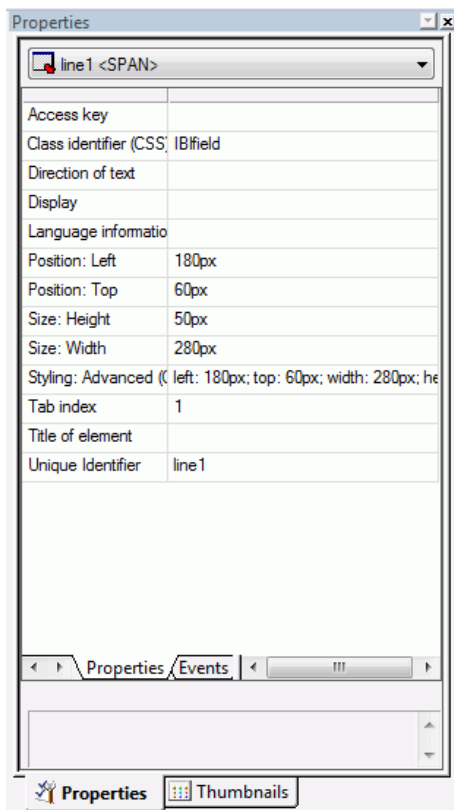
2. Click and drag the crosshair to create a horizontal or vertical line.

A line is created in the layout.

3. Optionally, change the line properties by adjusting the properties displayed in the Properties tab of the Properties window. For details, see [Line Properties in the Properties Window](#) on page 50.

Reference: Line Properties in the Properties Window

When a line is selected, the Properties tab in the Properties window contains options that control the properties of lines.



Click a property to display a description of the selected property at the bottom of the Properties window.

Adding an Image to the Layout

You can add an image to the layout. This is useful for including graphics, such as a company logo.

You can insert an image into your report layout and add a hyperlink to it. After you run your report and click the image you can launch a URL or run a report or Maintain procedure the same way you can by clicking a hyperlink or push button. For more information, see [How to Add a Hyperlink to a Push Button or an Image](#) on page 66.

Note: When inserting images, images must be referenced from a specific directory location. Links to images are not supported.

Procedure: How to Add an Image to a Layout

1. Do one of the following to add an image:
 - ☐ Click the *Image* button from the Components toolbar.
 - or
 - ☐ From the Insert menu, select *Components*, then click *Image*.

The cursor changes into a crosshair.
 2. Click and drag the crosshair to create the image object and adjust it to the size you want.
- The Get source file dialog box opens.
3. Navigate to the directory where the image is located using the Look in drop-down list, then select the image you want to add to the layout.

Note:

- ☐ You may also specify a fully-qualified URL or a relative URL that points to an image file by entering it in the File name area. A fully-qualified URL must start with http:// or https://. A relative URL must start with a known context root that WebFOCUS uses, such as /approot/appname/imagename.png.
- ☐ You can multiselect image files from the Get source files dialog box. The files will be cascaded on the canvas and can then be moved as required.

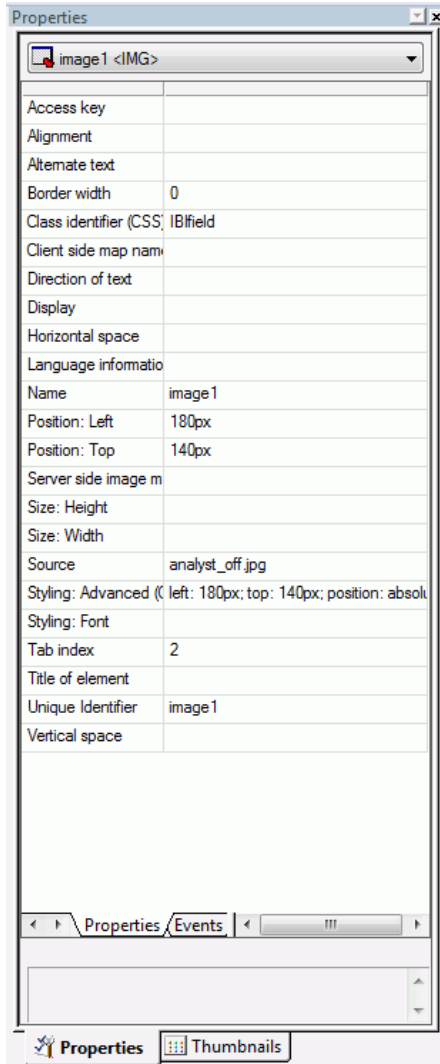
4. Click *Open*.
5. Optionally, change the properties of the image by adjusting the properties displayed in the Properties tab of the Properties window. For details, see [Image Properties in the Properties Window](#) on page 53.

Note: You can always return an image to its original size by right-clicking the image and selecting *Restore size* from the context menu.

Images will retain their aspect ratio if they are resized by clicking and dragging their corner borders.

Reference: Image Properties in the Properties Window

When an image is selected, the Properties tab in the Properties contains options that control the properties of images.



Click a property to display a description of the selected property at the bottom of the Properties window.

Adding Flash Content to the Layout

You can add .SWF files that are Adobe® Flash Player compatible to accompany reports or graphs on an HTML page.

Note:

- ❑ When inserting Flash animations, only files that are 1 MB or smaller can be run using the HTML Composer.
- ❑ Internet Explorer® 6 does not support the use of Flash content.

Procedure: How to Add Flash Content to a Layout

1. Do one of the following to add an .SWF file that is Adobe Flash Player compatible:

- ❑ Click the *Insert Flash Content* button from the Components toolbar.

or

- ❑ From the Insert menu, select *Components*, then click *Flash Content*.

The cursor changes into a crosshair.

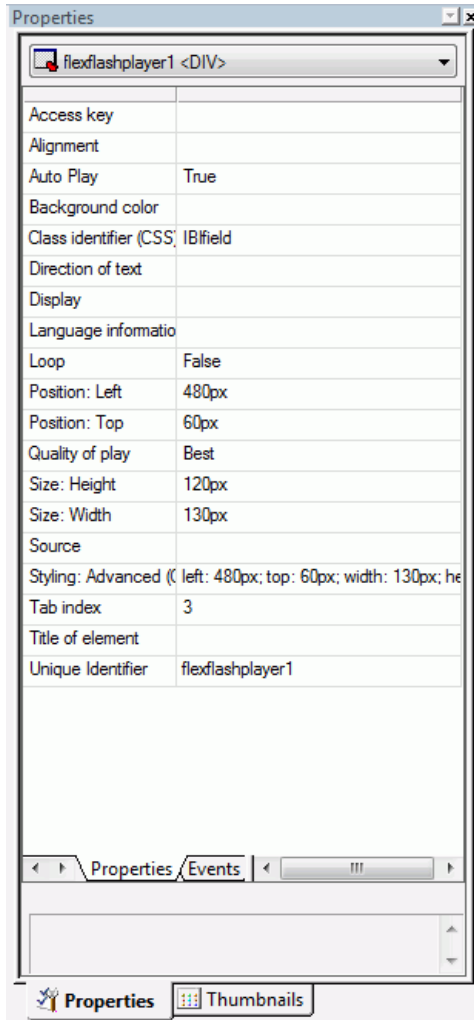
2. Click and drag the crosshair to create the Flash content object and adjust it to the size you want.

The Get source file dialog box opens.

3. Navigate to the directory where the .SWF file is located using the Look in drop-down list, then select the .SWF file you want to add to the layout.
4. Click *Open*.
5. Optionally, change the properties of the Flash content by adjusting the properties displayed in the Properties tab of the Properties window.
6. Click *Run* to view the flash content.

Reference: Flash Properties in the Properties Window

When Flash content is selected, the Properties tab in the Properties window contains options that control the properties of the Flash content.



Click a property to display a description of the selected property at the bottom of the Properties window.

Adding Text to the Layout

You can add text to the layout. This is useful for including headings for your webpage, or adding directions or explanation for your report or graph.

Procedure: How to Add Text to a Layout

1. Insert text to the layout by doing one of the following:
 - ❑ Click the *Text* button from the Components toolbar.
or
 - ❑ From the Insert menu, select *Components*, then click *Text*.
The cursor changes into a crosshair.
2. Click and drag the crosshair to create the text object and adjust it to the size you want.
A text object is created in the layout and assigned the name `text $n$` , where n is a number.
3. Replace the text with the text you want to appear in the layout.
4. Optionally, change the text properties by adjusting the properties displayed in the Properties tab of the Properties window. For details, see [Text Properties in the Properties Window](#) on page 61.

Procedure: How to Format Text in the Layout

You may apply various formatting and style options to words and individual text characters within the text element. The formatting options are available from the Formatting toolbar in the HTML Composer.

Note: Any formatting and styling that you may have applied to individual text strings within the text element will remain unchanged. Changes made to the entire text element are only applied to part of the text string that has not been formatted.

1. Insert a text element into the layout and type text in the text element.
2. Select the text that you wish to format:
 - ☐ To format the entire text element, single-click the text object in the layout.
 - ☐ To format an individual word or text character, highlight part of the text within the text element.

The Formatting toolbar is activated.

Note: The Bold, Italic, Underline, Superscript, and Font Style options are available when formatting individual words or text characters. The Font Style and Alignment options are available when the entire text element is selected.

3. Select from the formatting options available from the Formatting toolbar.
4. Select *Font Style* from the Formatting toolbar to open the Font dialog box, from which you can change the type, style, color, size, and effect of the font.

Tip: You may also access the Font Style dialog box from the Font ellipsis button of the Styling Font field in the Properties window.

5. Click *OK* to close the Font dialog box.

The format options are applied to the text selected.

Procedure: How to Insert a Bulleted List or Numbered List Into a Text Element

To insert a bulleted list or numbered list into a text element:

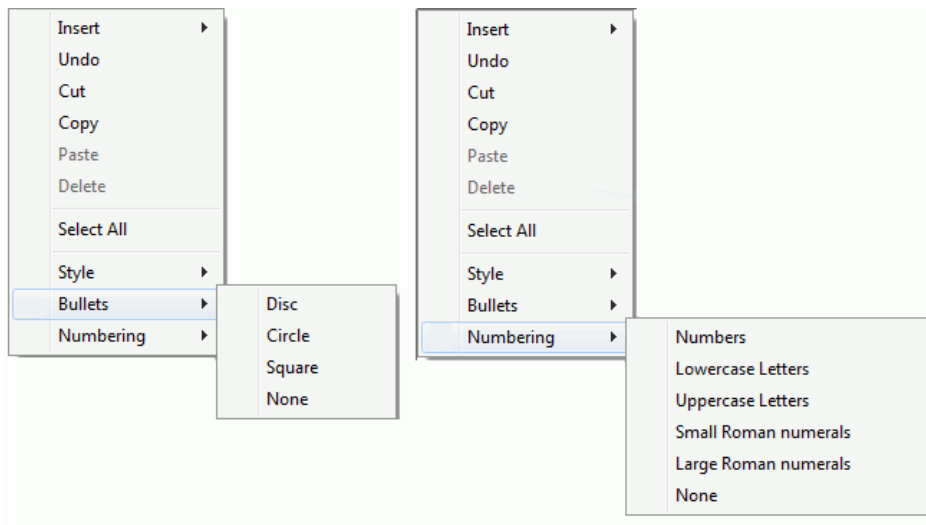
1. Insert a text element into the layout and enter text on different lines, as shown in the following image.



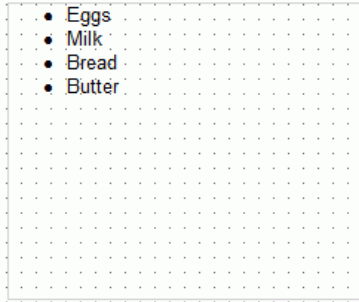
2. Highlight and right-click the text.

The right-click context menu opens.

3. Select *Bullets* and then either *Disc*, *Circle*, or *Square* if you want a bulleted list. Select *Numbering* and then either *Numbers*, *Lowercase Letters*, *Uppercase Letters*, *Small Roman numerals*, or *Large Roman numerals* if you want a numbered list. Both options are shown in the following image.



For example, the following image shows each item of text on a different line with a bullet next to it.



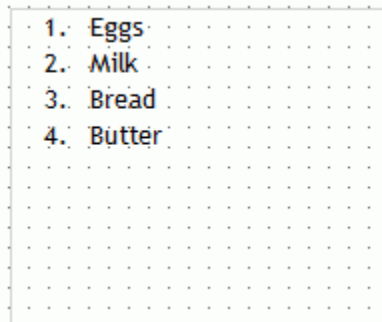
Note:

- ❑ Alternatively, you can select a bullet type before typing text to begin the list. Pressing enter will begin the next item in the list on a separate line.
- ❑ To change the bullet or number list type of an existing list, place your cursor on the list level you want to change and reselect a bullet or number list type. Selecting *None* will remove the bullets or numbers for that level and move any nested lists up one level. In order to switch between bullets and numbers, you must first remove the current list option by selecting *None* and then applying the list option you want.

Procedure: How to Insert Nested Lists Into a Text Element

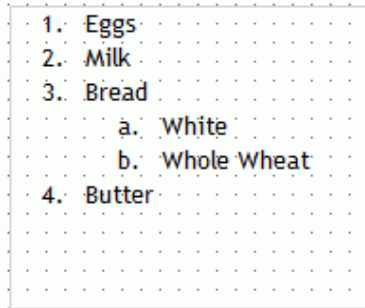
To insert a nested list into the text element:

1. Insert a text element into the layout and create a list, as shown in the following image.



2. Place your cursor after a list item.
3. Right-click and select *Nested List* and then select a bulleted or numbered list option.

A list is started within the current list, allowing you to enter text on that list level, as shown in the following image.



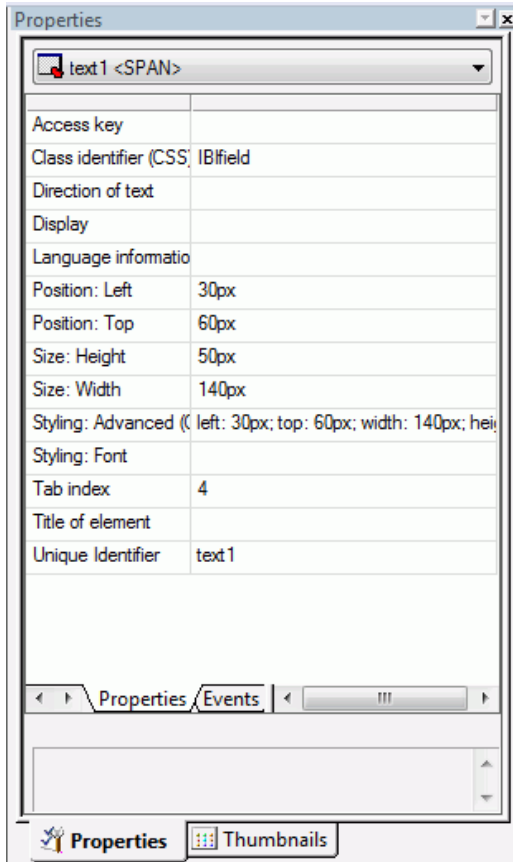
Note: Pressing tab while your cursor is on the same line as a list item will move that item one level down, resulting in a nested list. The bullet or number type selected is the next list type in the right-click context menu. For example, if you have a bulleted list that uses the disc bullet type, pressing tab to move an item down one level will cause that nested list to have the circle bullet type.

You can continue to nest lists within other lists by using the same steps shown above.

Note: You cannot skip a list level. For example, in order to insert a nested bulleted list or nested numbered list on a lower level, there must be a list one level up from it.

Reference: Text Properties in the Properties Window

When text is selected, the Properties tab in the Properties window contains options that control the properties of the text.



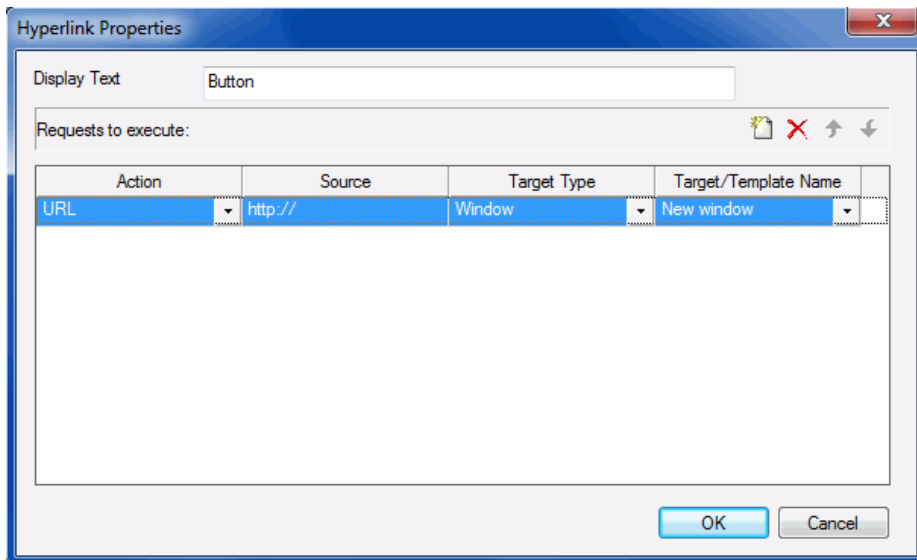
Click a property to display a description of the selected property at the bottom of the Properties window.

Adding a Hyperlink to the Layout

You can create a hyperlink for your HTML page. A hyperlink can execute a report or Maintain procedure, link to a URL, or open an HTML page. You can create a hyperlink in two ways:

- ☐ Insert a hyperlink. For details, see [How to Create a Hyperlink](#) on page 64.
- ☐ Add a hyperlink to a push button or image. For details, see [How to Add a Hyperlink to a Push Button or an Image](#) on page 66.

The following is an image of the Hyperlink Properties dialog box.



Action

The URL action will create a hyperlink that brings you to a webpage. This action will allow you to enter a URL in the Source section.

The HTML File action will create a hyperlink that will bring you to an HTML Composer page. You will be able to select the HTML file to link to from the Source section.

The URL File action will create a hyperlink that will invoke a Managed Reporting .url file. You will be able to select the .url file to link to from the Source section. This action is only available if you are creating an HTML page hyperlink in the Repository area.

The Embedded Procedure action will link to a procedure that is already embedded in the page. The Source section will allow you to choose from the procedures already linked to the current page.

The Schedule action enables you to schedule a report or graph using ReportCaster. For more information on using scheduling, see [Adding ReportCaster Schedule Capability to the HTML Composer](#) on page 304.

The External Procedure action will link to a procedure that is not embedded in the page. You must navigate to and specify the procedure from the Source section.

The Visual Discovery Exclude action is only available when a Visual Discovery control is used on the page. From the Source section, you will be able to choose a datapool already located on the page. This action will cause the currently Visual Discovery data to remain, while hiding the unselected data.

The Visual Discovery Restore action is only available when a Visual Discovery control is used on the page. From the Source section, you will be able to choose a datapool already located on the page. This action will cause hidden Visual Discovery data to be shown on the Visual Discovery control.

The Refresh Active Reports action is only available when an Active Report is on the page. This action will refresh all active reports currently on the page.

Source

The source of where the hyperlink directs to. For URL actions, this is a hyperlink. For HTML actions you will need to navigate to the HTML file you are directing to. For the Embedded Procedure action this would be a selection from a list of available procedures. For the External Procedure action you would have to navigate to the procedure you are directing to.

Target Type

The Window Target Type will execute the action in a new window.

The Frame Target Type will execute the action in a selected frame.

The Deferred Target Type will run the report deferred

The InfoWindow Target Type will execute the action in the WebFOCUS generated InfoWindow.

Target/Template Name

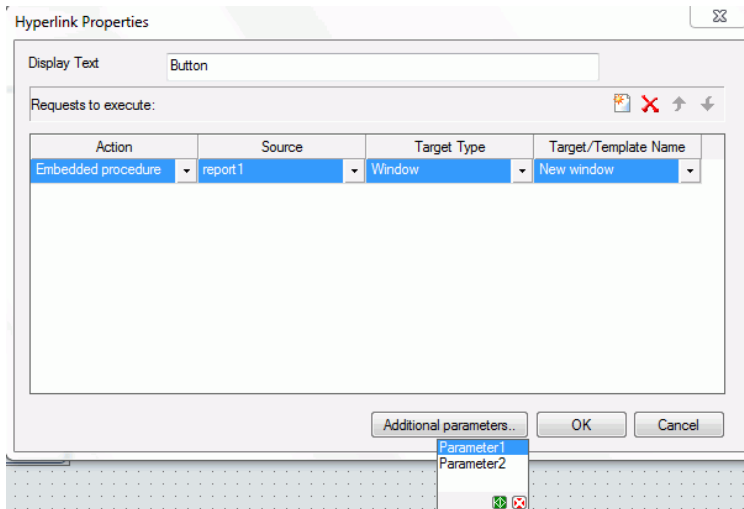
The Target/Template Name will contain a list of targets in which the action can be execute. These targets can be controls, frames, windows, or distribution methods when the Action is set to Schedule. These options can be different for specific actions.

Note: If the distribution method is a combination (email, report library, and FTP for example) then, at run-time, you will be presented with an intermediate dialog requesting you to choose a single distribution method.

Size (Width / Height)

Allows for customization of the InfoWindow dimensions. This option will replace Target/Template Name when using InfoWindow as the Target Type.

When a parameter is added to the HTML page, the Additional parameters button becomes available at the bottom of the Hyperlink Properties dialog box, as shown in the following image.



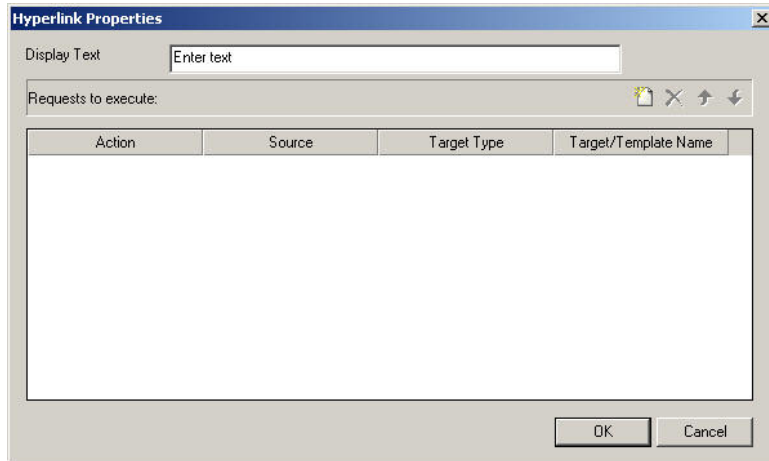
The Additional parameters button lets you pass the selected a parameter in the hyperlink being defined. Clicking the green *OK* button selects the parameter. Clicking the red *Cancel* button closes the parameter drop-down list.

Procedure: How to Create a Hyperlink

1. Do one of the following to create a hyperlink:
 - ❑ Click the *Hyperlink* button from the Components toolbar.
 - or
 - ❑ From the Insert menu, select *Components*, then click *Hyperlink*.

The cursor changes into a crosshair.
2. Click and drag the crosshair to create a hyperlink object and adjust it to the size you want.

The Hyperlink Properties dialog box opens.



3. Enter the text you want to display as the hyperlink in the Display Text field.
4. Set the action of the hyperlink:
 - ☐ To link to a URL, select *URL* in the Action section, and enter the URL in the Source field.
 - ☐ To open an HTML page, click select *HTML* in the Action section, and enter the HTML page in the Source field.
 - ☐ To execute an embedded procedure, select *Embedded procedure* and enter the procedure name in the Source field, or click the browse (...) button to browse to the procedure.
 - ☐ To execute an external procedure, select *External procedure* and enter the procedure name in the Source field, or click the browse (...) button to browse to the procedure. You can also select Maintain procedures (.mnt, .fcm) here.
 - ☐ To refresh or repopulate active reports based on selected values in active controls, select *Refresh active reports* and specify the source or which active report(s) should be refreshed.

For more information about active controls, see [Creating Active Technologies Dashboards With the HTML Composer](#) on page 395.

5. Optionally, direct the output to a specific location by selecting *Window* or *Frame* in the Target Type field.

6. Specify a name for the target window or frame by selecting one of the default values from the Target/Template Name drop-down list or by typing the name of a new or existing window or frame in the Target/Template Name field.
7. Click *OK*.

Note: If linking hyperlink properties to another page or procedure, the HTML Composer parses the other file for unresolved parameters and opens the New Parameters dialog box.

8. Execute the request and click the hyperlink to launch the source you entered in the Hyperlink Properties dialog box.

Note: If your hyperlink target type is an Infowindow, you can move the Infowindow by clicking the title bar and dragging it. You can move the Infowindow regardless of if it is pinned or unpinned.

Procedure: How to Add a Hyperlink to a Push Button or an Image

To add a hyperlink to a push button or image, complete the following steps.

1. Insert a push button or image from the Components toolbar and add it to the layout.
2. Right-click the push button or image, and select *Create hyperlink*. The Hyperlink Properties dialog box opens.
3. Click the *New* button to generate a new request and select *URL* from the Action drop-down list.
4. Type a URL in the Source field.
5. Optionally, in the Target Type field, direct the output to a specific location by selecting *Window* or *Frame* from the drop-down list.
6. In the Target/Template Name field, specify a target window or frame by selecting one of the default values from the drop-down list or by typing the name of a new or existing window or frame.
7. Click *OK*.

Note: If linking hyperlink properties to another page or procedure, the HTML Composer parses the other file for unresolved parameters and opens the New Parameters dialog box.

8. Execute the request and click the push button, or image, to launch the source you entered in the Hyperlink Properties dialog box.

Adding a Group Box to the Layout

A group box can be used to create a border around a group of objects, for example, forms or reports and graphs.

Procedure: How to Add a Group Box

1. Insert a group box by doing one of the following:

- ❑ Click the *Group box* button from the Components toolbar.

or

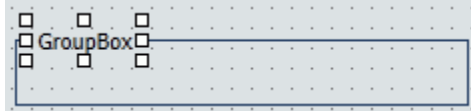
- ❑ From the Insert menu, select *Controls*, then click *Group Box*.

The cursor changes into a crosshair.

2. Click and drag the crosshair to create a group box and adjust it to the size you want.

A group box is created in the layout and assigned the name `groupbox(n)`, where *n* is a number.

3. Optionally, you may change the default name of the group box and format the text, as shown in the image below.

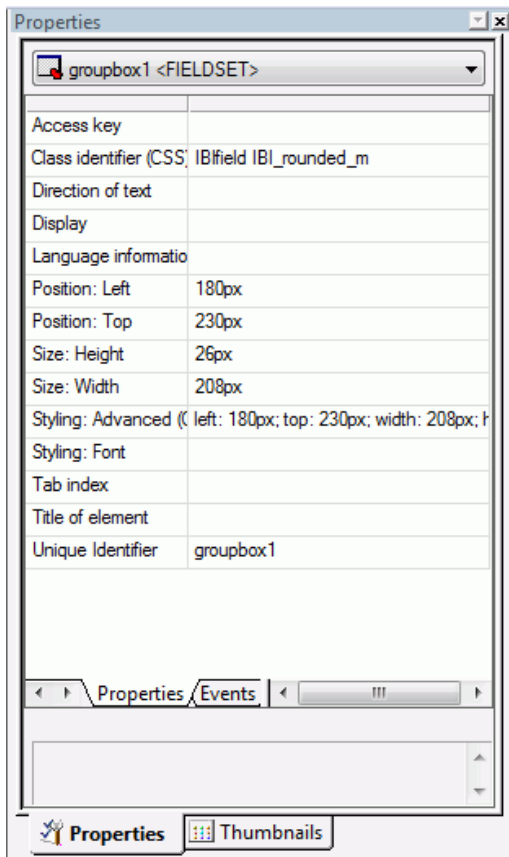


For more information about formatting text, see [How to Format Text in the Layout](#) on page 57.

4. Optionally, change the group box properties by adjusting the properties displayed in the Properties tab of the Properties window. For details, see [Group Box Properties in the Properties Window](#) on page 68.

Reference: Group Box Properties in the Properties Window

When a group box is selected, the Properties tab in the Properties window



Click a property to display a description of the selected property at the bottom of the Properties window.

Adding a Push Button to the Layout

You can add a push button to the layout. A push button enables you to execute a report or Maintain procedure, or link to a URL or HTML file. This behavior is similar to a hyperlink.

Procedure: How to Create a Push Button in Place of a Submit Button

1. If the submit button is deleted from the layout, a push button can be used to replace the button. Insert a push button by doing one of the following:

- ❑ Click the *Push Button* from the Components toolbar.

or

- ❑ From the Insert menu, select *Controls*, then click *Push Button*.

The cursor changes into a crosshair.

2. Click and drag the crosshair to create a push button and adjust it to the size you want.

A push button is created in the layout and assigned the name `button(n)`, where *n* is a number.

3. Assign an action to the push button by using the Hyperlink Properties dialog box. Right-click the push button and select *Hyperlink properties* from the context menu.

The Hyperlink Properties dialog box opens. Use the Hyperlink Properties dialog box to assign a target and action to the push button.

4. Click *OK* to close the Hyperlink Properties dialog box.
5. Run the HTML page.
6. Click the push button to submit your request.

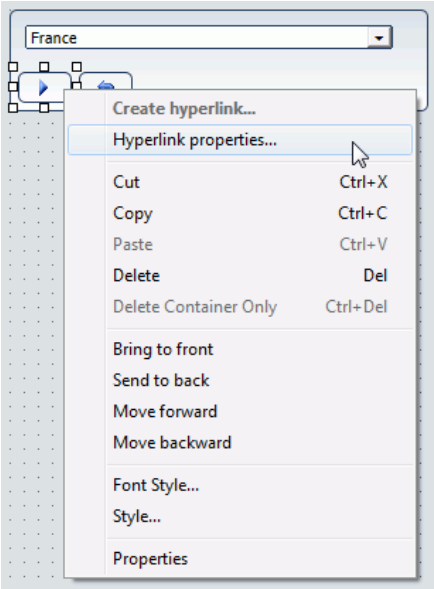
Procedure: How to Run Multiple Reports With One Submit Button

The submit button on a control enables you to submit your request after selecting parameter values at run time. You may run multiple reports with one submit button.

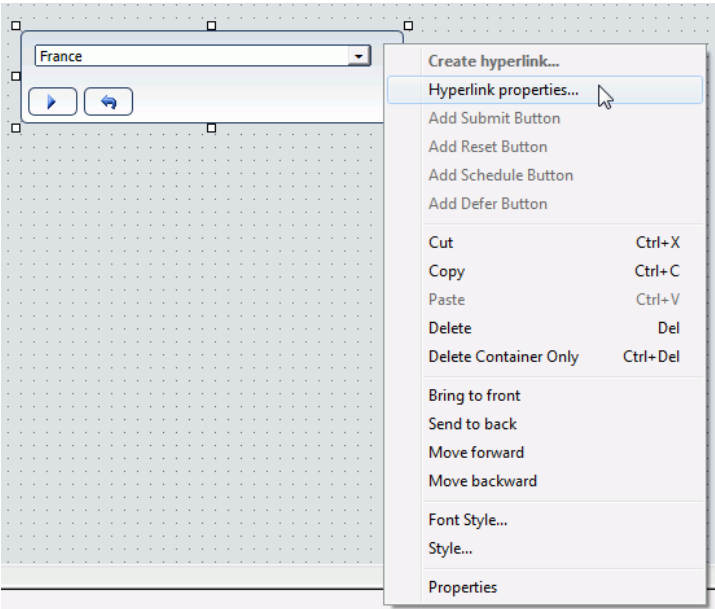
Note: A push button can also be used in place of a submit button.

1. Right-click the submit button, or the frame for the whole control, and select *Hyperlink properties* from the context menu.

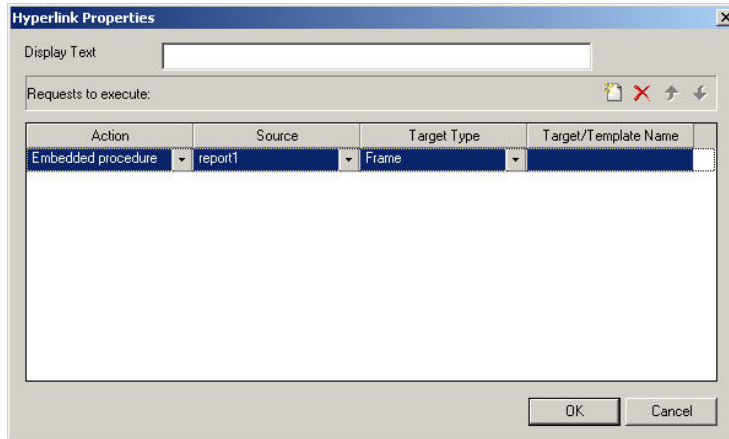
The following image is an example of the submit button selected.



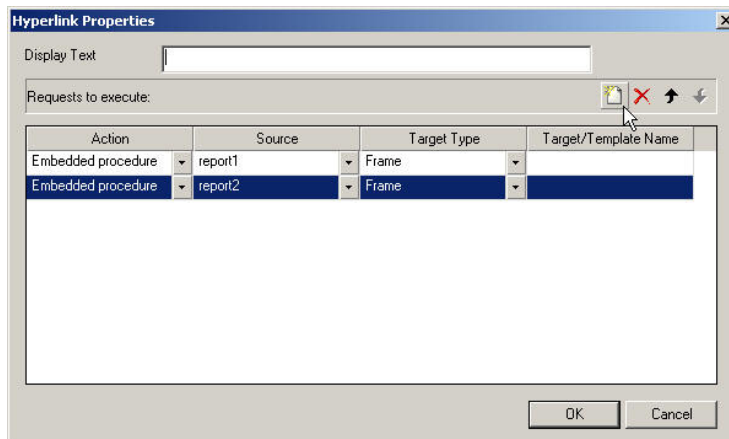
The following image is an example of the whole control selected.



The Hyperlink Properties dialog box opens.



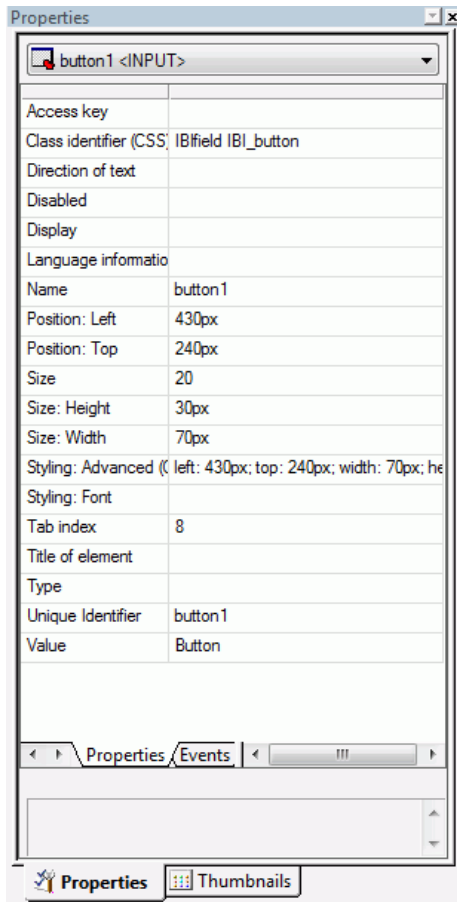
2. Click the New button and use the drop-down lists to add the second report request to be executed with the submit button.



Repeat these steps for multiple procedures.

Reference: Push Button Properties in the Properties Window

When a push button is selected, the Properties tab in the Properties window contains options that control the properties of your buttons.



Click a property to display a description of the selected property at the bottom of the Properties window.

Maintain From HTML Composer

The HTML Composer enables you to select Maintain procedures (.mnt, .fcm) to run from your HTML form, either within a frame or in a new window. Select a Maintain procedure as the source for the External procedure in the Hyperlink Properties dialog box. This makes it easy to create customized launch forms for WebFOCUS Maintain, and to integrate WebFOCUS reporting and Maintain in your applications. For details about inserting a frame, see [How to Assign a URL, HTML File, or Report to a Frame](#) on page 43.

Adding a Reset Button to the Layout

You can add a reset button to the layout. A reset button enables you to reset the entire page back to its initial settings.

Procedure: How to Create a Reset Button

1. If the reset button is deleted from the layout, you may create a new reset button. Insert a reset button by doing one of the following:

- ❑ Click the *Reset* button from the Components toolbar.

or

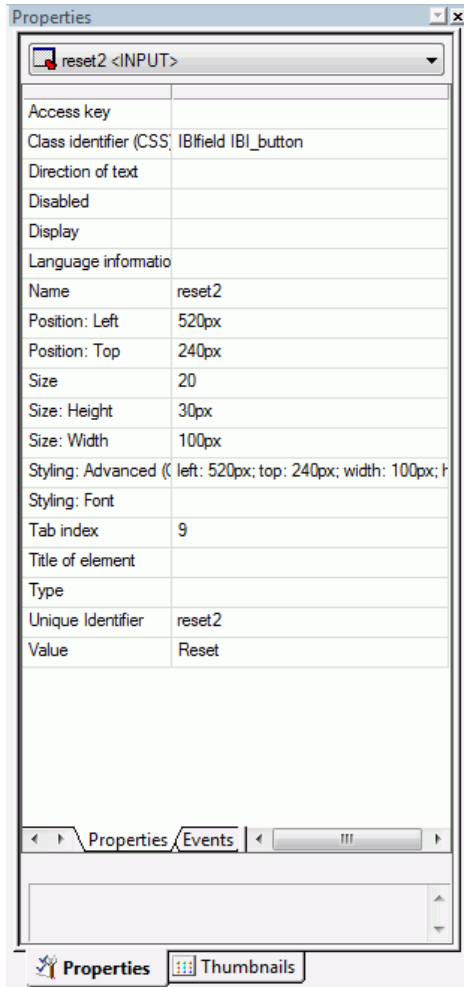
- ❑ From the Insert menu, select *Controls*, then click *Reset Button*.

The cursor changes into a crosshair.

2. Click and drag the crosshair to create a reset button and adjust it to the size you want.
A reset button is created in the layout and assigned the name *reset(n)*, where *n* is a number.
3. Run the HTML page.
4. When selecting criteria to submit a report, click the reset button to reset the entire page back to its initial settings.

Reference: Reset Button Properties in the Properties Window

When a Reset button is selected, the Properties tab in the Properties window contains options that control the properties of your buttons.



Click a property to display a description of the selected property at the bottom of the Properties window.

Adding a Tab Control to the Layout

You can add a tab control to the layout. Tab controls enable you to create multiple pages in one HTML form and present a better display for viewing secondary information.

When a tab control object is added to the layout, each tab control consists of:

- ❑ A tab item.

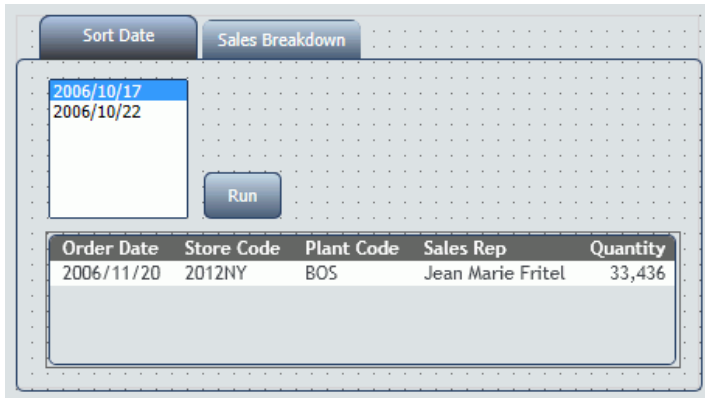
A tab item is the tab label. You may edit the name of the tab item, style the tab item, and add multiple tab items. Each tab item is associated with a tab body.

- ❑ A tab body.

A tab body is the tab page where you associate your components, such as report and graph objects, images, and lines.

The Tab control can be displayed as a full screen or part of an HTML page.

In the example below, the selected tab shows a report and a second tab that contains a graph.



Procedure: How to Create a Tab Control

1. Insert a tab control to the layout by doing one of the following:

- ❑ Click the *Tab control* button from the Components toolbar.

or

- ❑ From the Insert menu, select *Components*, then click *Tab Control*.

The cursor changes into a crosshair.

2. Click and drag the crosshair to create a tab control object and adjust it to the size you want.

Tip: You should make the object large enough to associate report/graph components within the tab control.

A tab control object is created in the layout and assigned the Properties name *tab(n)*, where *n* is a number of the tab. By default, the tab control has one tab page. Each tab page consists of a tab item (*tabitem(n)*) and tab body (*tabitembody(n)*).

3. Optionally, change the properties of the tab control by adjusting the properties displayed in the Properties tab of the Properties window.

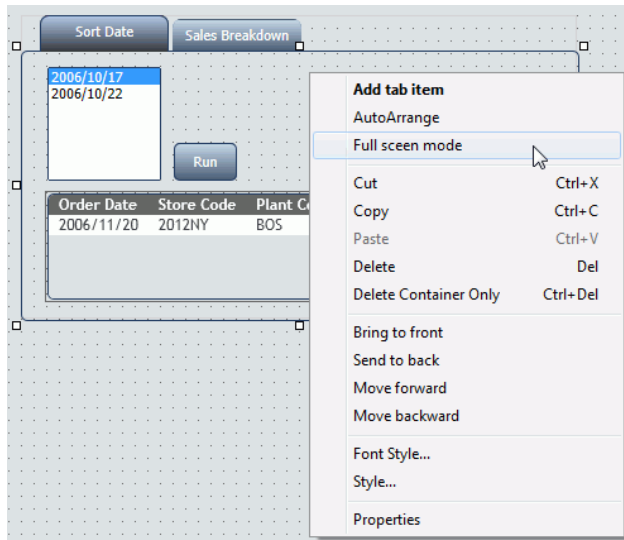
Procedure: How to Enable Full Screen Mode for the Tab Control

You may resize the tab control to fit the full screen of your layout, making the tab control the full background of your browser window at run time. When set to full screen mode, scroll bars will not be applied to the output window. Therefore, you may have to adjust the tab control (and any items on the tab) in the layout to ensure that they appear appropriately for display at run time.

Note: It is recommended to set the tab control to full screen mode at the beginning of the development process. If there are existing components on the layout that are not part of the tab control, these components will become inaccessible if the tab control is changed to full screen mode.

1. From the Insert menu, select *Components*, then click *Tab Control*.
The cursor changes into a crosshair.
2. Click and drag the crosshair in the layout to create the tab control object.

3. Right-click the tab control and select *Full screen mode* from the context menu, as shown in the image below.

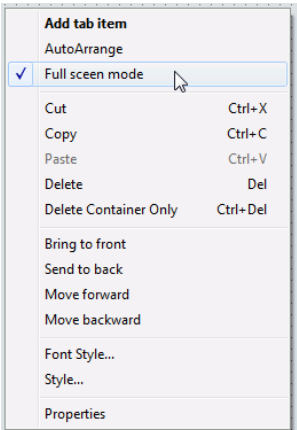


The tab control displays as a full screen in the layout, as shown in the image below.



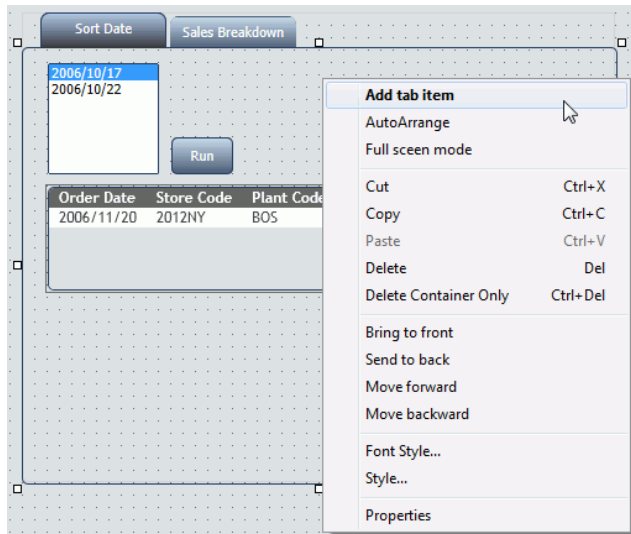
Note: This setting can be applied only to one tab control in your application. If one tab control is set to full screen mode, the full screen mode item will be greyed out for any additional tab controls.

- 4. To resize the tab control, right-click and uncheck the *Full screen mode* option, as shown in the image below.

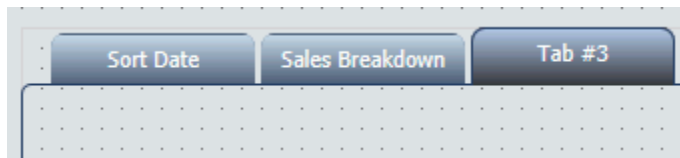


Procedure: How to Add Additional Tabs

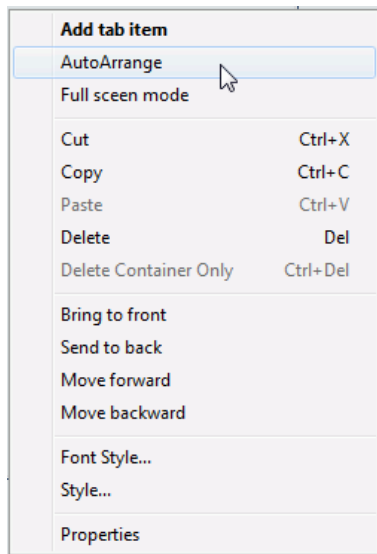
1. Select the tab control object in the layout.
2. Right-click and select *Add tab item* from the context menu.



A tab is added to the tab control object.



3. To align multiple tab items, select the tab control object and click *AutoArrange* from the context menu,

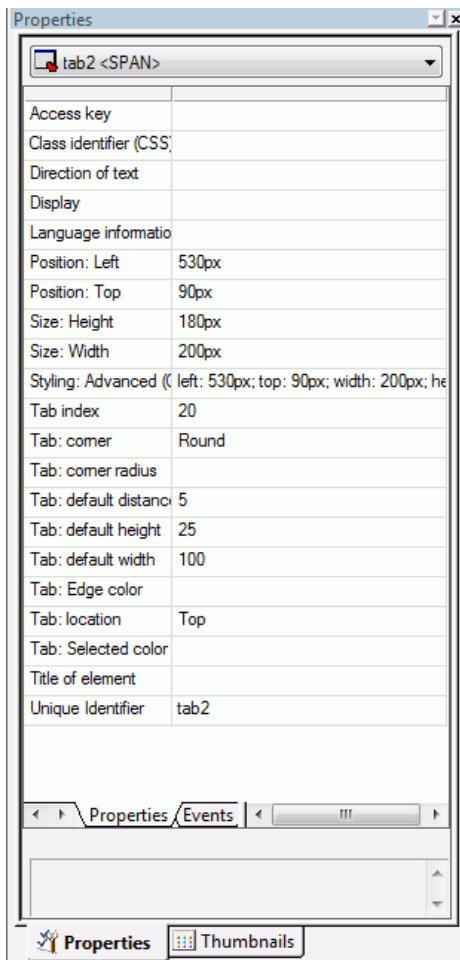


The tab items are resized to the size of the widest tab item and they are evenly spaced.

Reference: Tab Control Properties in the Properties Window

When a tab control is selected, the Properties tab in the Properties window contains options that control the properties of your tabs.

Note: You may set options for the tab control, individual tab items, and the tab body.



Click a property to display a description of the selected property at the bottom of the Properties window.

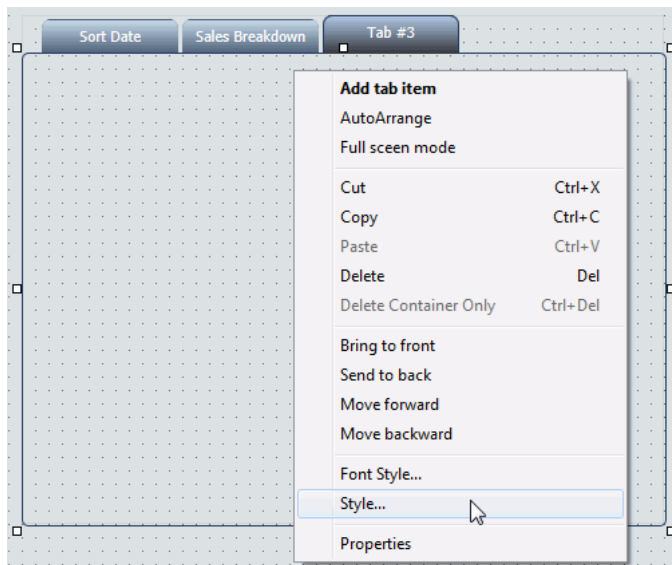
Procedure: How to Modify and Style the Tabs

You may modify and style the tab item(s) and tab body properties.

1. Use the Formatting toolbar to format the text in the tab item.



2. Click the tab item/tab body and use the right-click context menu to edit the text (if applicable), Font Style, Style, and Properties.



Procedure: How to Modify the Size, Appearance, and Location of the Tabs

When the tab control is selected, you may change the default size of the tab labels, the appearance of the tabs, and the location of the tab items on the tab control.

These properties are available from the Properties tab of the Properties window when the tab control is selected. The tab control appears as *tab(n)* in the Properties window drop-down list.

1. To change the default size of the tab labels, adjust the *Tab: default distance*, *Tab: default height*, and *Tab: default width* properties.

- To change the appearance of the tabs, select *Straight* or *Round* from the Tab: edges properties field.

The default tab edge is Straight.

- To change the location of the tab items on the tab control, select *Top*, *Bottom*, *Left*, or *Right* from the Tab: location properties field.

The default tab location is Top.

Note: If the tab location is changed, any background images applied to the tabs will not be rotated. You will have to reinsert a different image that is rotated appropriately.

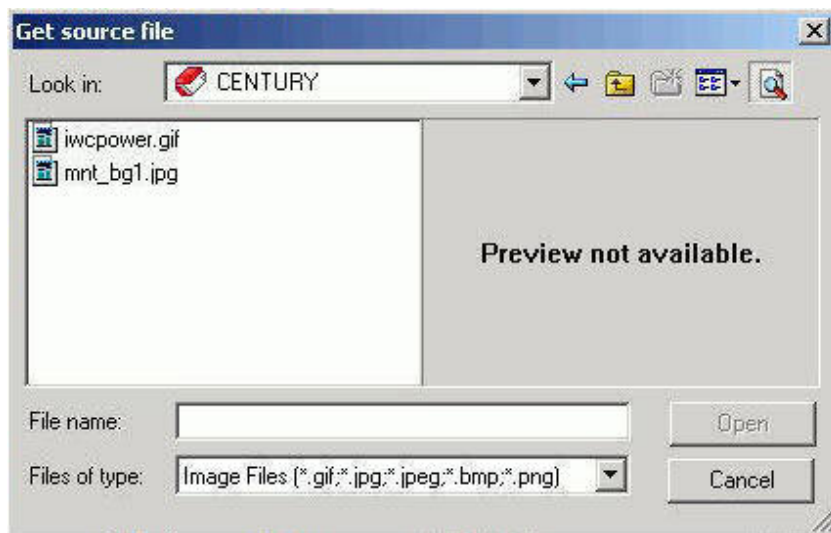
Procedure: How to Use the Tab Item Background Properties Field

In addition to using the Style Composer, you can add background images to tab items by using the Background properties field.

The Background properties field is available from the Properties tab of the Properties window when the tab item is selected. The tab item appears as *tabitem(n)* in the Properties window drop-down list.

- Select the tab item in the layout, or click the *tabitem(n)* property from the Properties window drop-down list.
- Click the *Background* ellipsis button from the tab item properties window.

The Get source file dialog box opens, as shown in the image below.



3. Select a File name and click *Open*.

The background image is added to the tab item.

You may have to manually resize the tab item to fit the image.

Note: If the tab location is changed (from Top to Left for example), any background images applied to the tabs will not be rotated. You will have to reinsert a different image that is rotated appropriately.

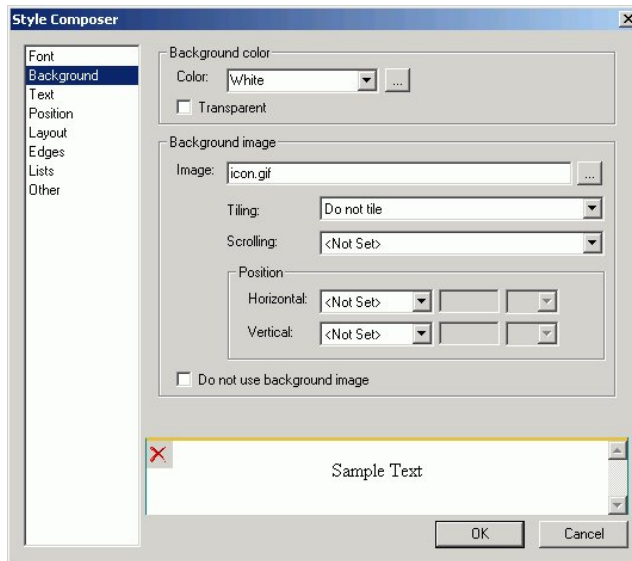
Procedure: How to Add Background Images to Tabs

You may add background images to a tab item or tab body using the Style Composer. For example, you may add a small icon with text to a tab item or your company logo as the background image for a tab body.

Note: Background images can also be applied to tab items by using the Background properties setting. For more information, see [How to Use the Tab Item Background Properties Field](#) on page 83.

1. Select *Style* from the right-click context menu of the tab item/tab body.
The Style Composer dialog box appears.
2. Select *Background* to show the Background image options.
3. Select a source file in the *Image* field and adjust the Tiling, Scrolling, and Position options.

Tip: If you are adding an icon to a tab item, select a small image and do not tile the image.



4. If you are using text in addition to a background image for a tab item, select *Text* from the Style Composer to view and change the Alignment options.
5. Click OK to close the Style Composer.

The background image is added to the tab item/tab body.

Procedure: How to Associate Components to the Tab Body

You may associate any component from the Insert menu (such as an image or line) to the tab body. This procedure details how to add a report or graph object component to the tab body.

1. To add a new report or graph object to the tab body:
 - ❑ Select *New Report* or *New Graph* from the Insert menu.
The cursor changes into a crosshair.
 - ❑ In the tab control body, click and drag the crosshair to create the report/graph object and adjust it to the size you want.
 - ❑ Open, import, or reference a report or graph procedure.
2. To associate an existing component in the layout to a tab body:

- ❑ Select the component in the layout.
- ❑ Press the *Alt* key and drag the component into the tab body.

The component is associated to the tab body.

Adding a Label to the Layout

You can add a label to the layout. A label is simply a piece of text. The label component enables you to create and name a label, and link it to a control by assigning the label *HTMLfor* property the same value as the Unique Identifier property for the control.

Procedure: How to Add a Label

1. Insert a label to the layout by doing one of the following:

- ❑ Click the *Insert Label* button from the Components toolbar.

or

- ❑ From the Insert menu, select *Components*, then click *Label*.

The cursor changes into a crosshair.

2. Click and drag the crosshair to create the label and adjust it to the size you want.

A label is created in the layout and assigned the name *labeln*, where *n* is a number.

3. Replace the label text with the text you want to appear in the layout.

4. Assign the label to an existing control in the layout by assigning the label properties:

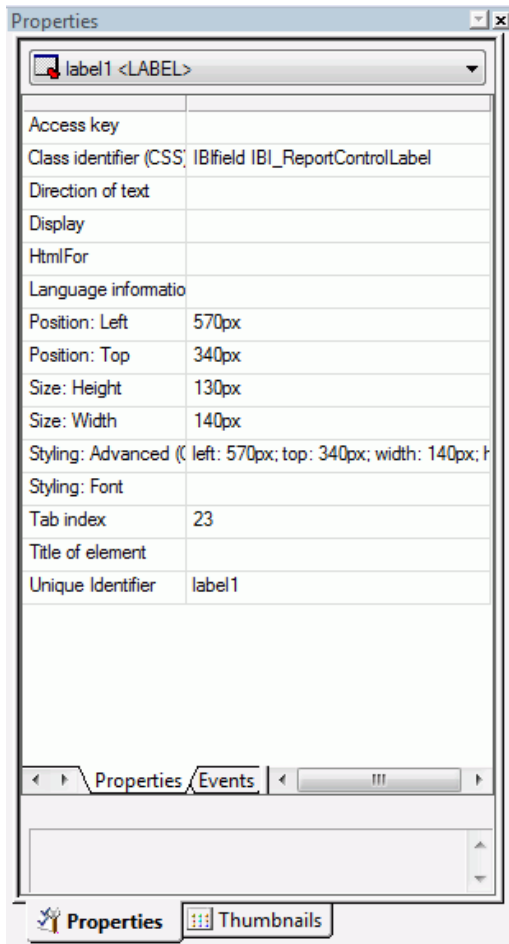
- ❑ Select the label in the layout.
- ❑ Select the *HTMLfor* property field in the Properties tab of the Properties window.
- ❑ Type in the Unique Identifier property name for the control you want to link the label to.

For example, suppose you have a drop-down list in your layout. The default Unique Identifier property name assigned to the drop-down list object is *combobox1*. Enter *combobox1* in the *HTMLfor* property field to link the label to the drop-down list in your layout.

- ❑ Optionally, change the label properties by adjusting the properties displayed in the Properties tab of the Properties window. For details, see [Label Properties in the Properties Window](#) on page 87.

Reference: Label Properties in the Properties Window

When label is selected, the Properties tab in the Properties window contains options that control the properties of the label in your layout. New pages will show labels as <LABEL> tags in the Properties window.



Click a property to display a description of the selected property at the bottom of the Properties window.

Working With the Properties Window

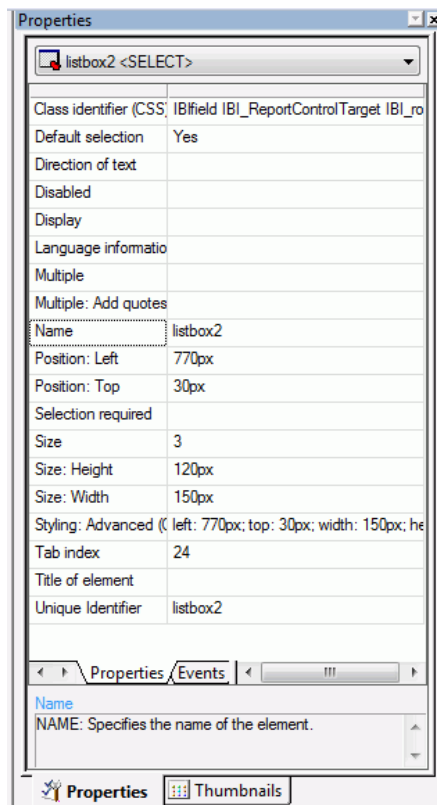
The Properties window is a dockable window that consists of several tabs and components.

- ❑ A Properties tab consists of the following components:

- A hierarchical drop-down list of objects that are currently in the layout. For the selected object, there are additional subtabs on the Properties tab.



- A Properties subtab that lists attributes for the selected object. The attributes appear on the left. Click in the right column to set the properties for the attribute.



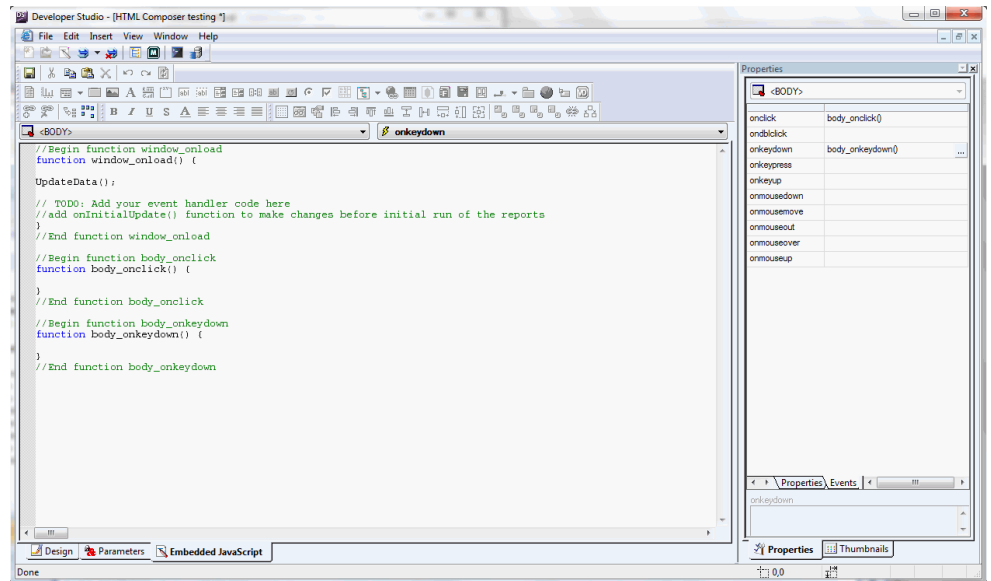
The Properties subtab options are accessible in the Design view of the HTML Composer.

- ❑ An Events subtab lists all JavaScript events that can be assigned an action for an object.

Note:

- ❑ To code a JavaScript event for an object, select a JavaScript event and click the ellipsis button in the Events subtab. The HTML Composer adds the event to the HTML code and switches from Design to HTML view. In the HTML view, you are prompted to define the event. Add the appropriate JavaScript code.
- ❑ When copying a control that has event handlers, the copied control inherits the original controls event handlers. You must manually change the copied controls event handlers in the event tab. You can then create the JavaScript for those event handlers.

The following image is an example of the HTML code that appears when a JavaScript event is selected from the Events subtab in the HTML Composer.



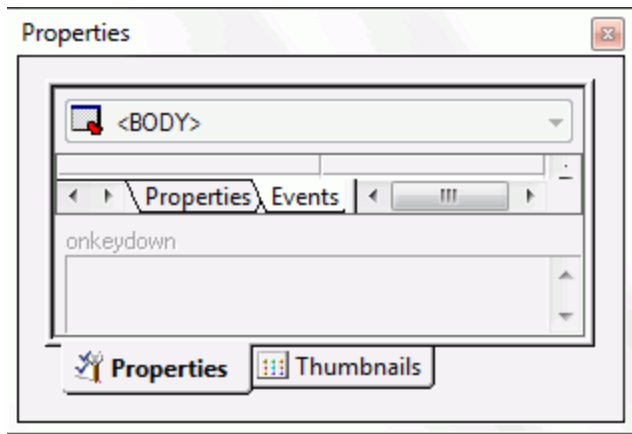
- A Thumbnails tab enables you to view a thumbnail of the page layout. Thumbnail view allows objects on the page to participate in actions with controls on the Parameters tab. You may also refresh the Thumbnails tab, enlarge or reduce the thumbnails, and change the zoom levels. Reports and graphs appear as placeholder objects on the Thumbnails tab.

Procedure: How to Dock the Properties Window

For layout purposes, you may want to dock or reposition the Properties window. You can dock the Properties window on all four sides of the HTML Composer. When you choose to dock the Properties window on the top or bottom, the columns are split in half.

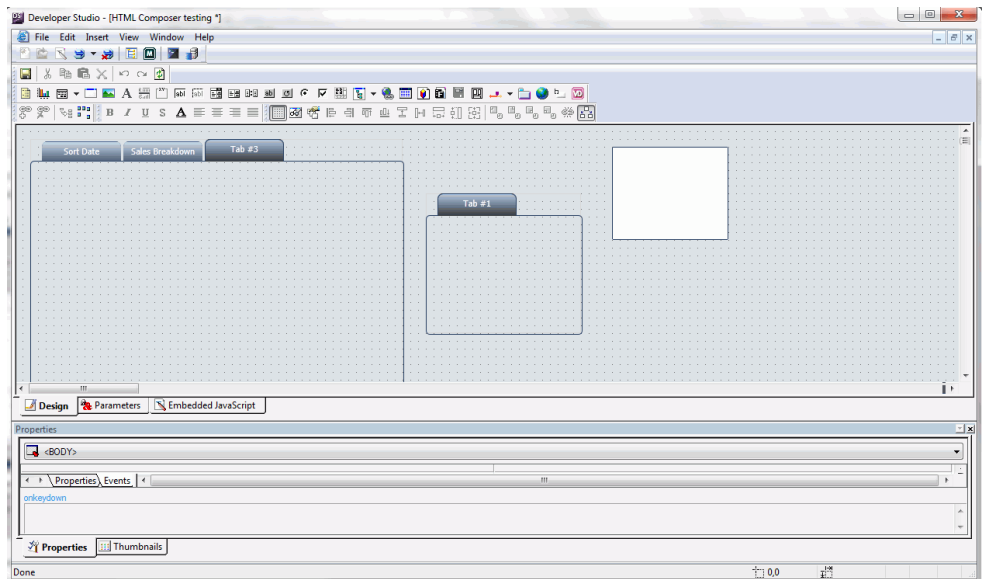
1. Click the *Properties* title bar on the Properties window.

The Properties window appears as shown in the following image when you double-click the title bar.



2. Click and drag the Properties window to the side of the screen that you prefer or it can float in the middle of the screen.
3. Release the mouse when the Properties window is on the side of the screen that you prefer.

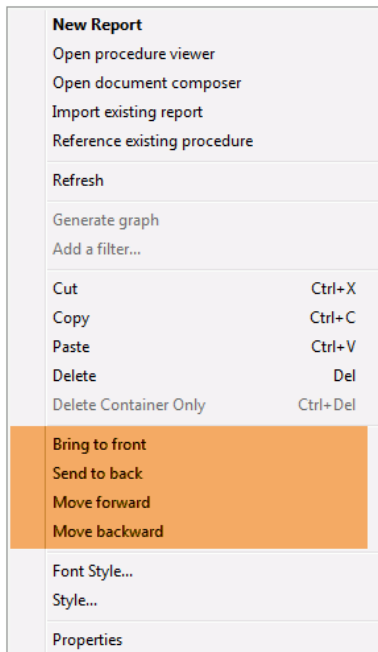
If you selected to dock the Properties window on the bottom of the screen it will appear as shown in the following image.



To undock the Properties window, click the *Properties* title bar and then move the window to the desired location in the layout.

Layering Objects

You can layer objects that are added to the page layout by using the object right-click menu, as shown in the following image.



The options are:

- ☐ **Bring to front.** Moves an object to the front so that it is stacked on top of every other object it overlaps.
- ☐ **Send to back.** Moves an object to the back so that it is stacked below every other object it overlaps.
- ☐ **Move forward.** Moves an object forward one position in the stacking z-order.
- ☐ **Move backward.** Moves an object backwards one position in the stacking z-order.

When using any of these commands, the stacking order of the object will change. This is reflected in the z-index property in the Properties window. The z-index is the stacking order of a specific object.

Working With the Events Subtab

The Events subtab displays a list of all available JavaScript events that can be used in conjunction with an object. The events that are available change depending on what type of object is selected. For example, a report object has different events available than a button object. When no object is selected, events for the HTML page are displayed.

Double-clicking on an event will create a function block for the selected object, using that event. You can view the created functions in the Embedded JavaScript tab, where you can type the JavaScript code to execute when the selected event occurs.

The following is a list of events that are available from the Event subtab and the circumstances in which the JavaScript code is called.

Event	Circumstance
Load	Page is loaded.
UnLoad	Page is unloaded.
Click	Object or page is clicked.
Double Click	Object or page is double-clicked.
Mouse Down	Mouse pointer is moved down.
Mouse Up	Mouse pointer is moved up.
Mouse Over	Mouse pointer is moved over an object.
Mouse Move	Mouse pointer is moved.
Mouse Out	Mouse pointer is moved away from an object.
Key Pressed	Key is pressed and released.
Key Down	Key is pressed.
Key Up	Key is released.
Focus	Object is the current focus.
Blur	Object is not the current focus.

Event	Circumstance
Before Load	Before a control is populated.
After Load	After a control is populated.
Value Selected	Value within the control is selected.
Value Changed	Value within the control is changed.

Creating and Using Parameters in the HTML Composer

You may create an unbound parameter, an incoming parameter (a parameter that is bound to a control), a control that is bound to a parameter, or an unbound control.

In this chapter:

- ❑ [Creating Parameter Values](#)
- ❑ [Using Controls to Supply Incoming Parameter Values](#)
- ❑ [Using Input Controls to Supply Parameter Values](#)
- ❑ [Supplying Parameter Values to External Reports](#)
- ❑ [Styling Your Layout](#)
- ❑ [Specifying Browser Defaults With the Style Composer](#)
- ❑ [Laying Out Objects With the HTML Composer](#)
- ❑ [Controlling the HTML Composer Environment](#)
- ❑ [Adding ReportCaster Schedule Capability to the HTML Composer](#)
- ❑ [Running a Managed Reporting Report Deferred From the HTML Composer](#)
- ❑ [Using JavaScript Code With HTML Composer Pages](#)
- ❑ [Specifying an HTML File as a Load Screen](#)

Creating Parameter Values

Parameter values and input controls can be created with a dynamic or static list of values:

- ❑ A dynamic list retrieves values from a specified data source when the request is run.
- ❑ A static list consists of a list of values you supply. These values do not change unless you change them.

- ❑ An active control lists active report values that mimic active report menu items.

Note: The active controls cannot be associated to any parameters in the layout. This type of control can only be associated with an active report in the layout.

- ❑ The TOC control list gives you the ability to integrate a report with a Table of Contents and On Demand Paging in the HTML Composer.

Note: TOC controls cannot be associated to any parameters in the layout. This type of control can only be associated with certain input controls in the layout. For more information, see [Integrating a Report With a Table of Contents and On Demand Paging](#) on page 426.

Working With the Parameters Tab

The Parameters tab enables you to create and modify parameter values, input controls, and customize parameter conditions. You may also bind parameters to controls and chain controls to one another. The Parameters tab consists of the following components:

- ❑ Input control objects.

You may select the input control object to view and edit the Properties and settings of the control.

- ❑ Creating an input control from the Design view prompts you to create a bound parameter on the Parameters tab. For details, see [Using Input Controls to Supply Parameter Values](#) on page 168.
- ❑ Editing an input control, which is inserted when setting input controls for new parameters. For details, see [Automatically Creating Controls From the New Parameters Dialog Box](#) on page 160.

- ❑ Add new parameters.

Right-click anywhere on the Parameters tab to add a new parameter.

Note: Manually adding a parameter creates an unbound parameter. For details about adding new parameters, see [Adding a New Unbound Parameter](#) on page 97.

- ❑ Refresh unresolved parameters.

All parameters on the parameters tab are parsed every two minutes to check if any are unresolved. If there are, their surrounding polygon is colored red. If you want to check for unresolved parameters on demand, right-click and select *Refresh unresolved*.

❑ Binding controls and parameters.

Input controls and parameters can be bound and unbound from the Parameters tab.

You may bind a parameter to an input control, or bind an input control to a parameter.

❑ Binding a parameter to a control makes it an incoming parameter that will populate the control. Click and drag a parameter object to a control object on the Parameters tab.

❑ Binding a control to a parameter will populate the parameter. Click and drag a control object to a parameter object on the Parameters tab.

❑ Chain one control to another.

Chaining will populate controls based on the selected value from the prior control in the chain. You can chain static and dynamic controls, link or unlink parts of a chain, and create conditions on links in a chain. Chains are represented by lines connecting control objects on the Parameters tab. By clicking the arrow head in a link of a chain, the Properties and settings dialog box enables you to modify and set properties and conditions of the chain.

Note: Chaining is applicable only for controls, not parameters. For details about chaining, see [Chaining Controls for Dependencies in the HTML Composer](#) on page 355.

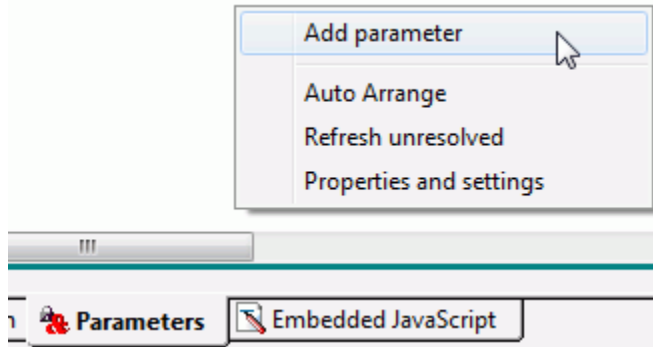
Adding a New Unbound Parameter

An unbound parameter is useful when passing a parameter value used on another page. You may also bind the new parameter to a control to create an incoming parameter, or bind a control to the parameter.

Procedure: How to Add a New Unbound Parameter

The following steps describe how to add a new parameter:

1. Right-click anywhere on the Parameters tab and select *Add parameter*.



Enter the parameter value information. Options are *Single select*, *Multiselect OR*, and *Multiselect AND*.

2. If using single value, select *Single select*.

Note: Single select is the default option when adding a new parameter.

A screenshot of the 'Properties and settings' dialog box. It has a title bar with a close button. Inside, there are several fields and options: 'Name' with a text box containing 'Parameter1'; 'Format' with an empty text box; three radio button options: 'Single select' (which is selected), 'Multiselect OR', and 'Multiselect AND'; and 'Selected Value' with a large empty text box at the bottom.

- a. Enter the Selected Value to be assigned to a single variable.
- b. Enter the name for the parameter in the Name field, or keep the default name.
- c. Optionally, you may use the Format field to define the format of the parameter, such as A20, or D12.2.

If this field is left blank, it automatically applies the Alphanumeric format to the value field.

3. If using a multiselect value, select *Multiselect OR* or *Multiselect AND*.

The Value, Display, and Selected columns appear.

- a. Click the New button to enter a list of static values.

Properties and settings

Name: Parameter1

Format:

☐ Single select ☒ Multiselect OR ☐ Multiselect AND

Use Value From: [dropdown]

Items may be dragged into the desired order [icons]

Value	Display	Selected
Value1	Value1	☒

☐ Send display value

☐ Values are procedures names

- b. In the Value column, enter the value to be passed to the selected parameter.
- c. In the Display column, enter the text that represents the parameter value in the control the user views.
- d. In the Selected column, check the box for the value you want to be selected by default. More than one value can be selected.

Note: If opening the HTML Composer with an existing page from a previous release and the tool cannot resolve the Value and Display fields, XML index values appear for the fields instead. If creating a new page that cannot resolve the Value and Display fields, you can manually type them in the Properties and Settings dialog box from the Parameters tab, or leave them blank. Unresolved Value and Display fields occur as a result of -INCLUDE, or amper variables, that may exist in an existing procedure.

Repeat these steps until the list contains all of the values you want to include.

4. Optionally, you may select values and click the *Delete* button to eliminate any values, and use the up and down arrows to rearrange the order of the values.
5. Close the Properties and settings dialog box to create an unbound parameter.
6. To modify the parameter value, right-click the parameter on the Parameters tab and select *Properties and settings* to make your edits.

Tip: You may also use the Undo and Redo buttons located on the Standard toolbar. Note that undo/redo treats the entire Properties and settings dialog as one action.

7. Optionally, bind a control to a parameter to populate the parameter. Select the center of the parameter name object, left-click and drag the parameter to the center of the control object, and release the mouse to complete the binding.
8. Optionally, bind the new parameter to a control to create an incoming parameter. Select the center of the control object, left-click and drag the control to the center of the parameter object, and release the mouse to complete the binding.

For details about creating an input controls, see [Using Input Controls to Supply Parameter Values](#) on page 168.

Creating a Static List of Values

When creating a list of static values, you can select from the following options:

- ☐ Add new value
- ☐ Add ignore value
- ☐ Add everything value
- ☐ Use values from procedure
- ☐ Use values from external file

When the options are added to the Value list, the display text can be customized, but the value cannot be changed.

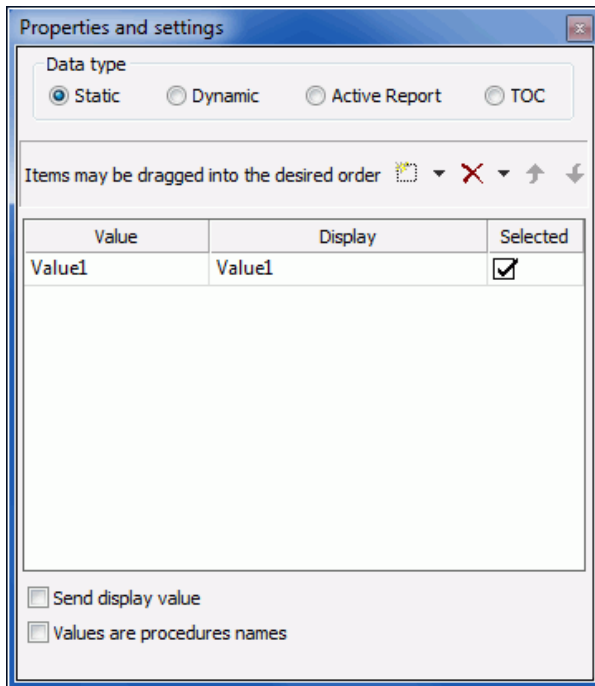
You may create an unbound static parameter, an incoming static parameter (a parameter that is bound to a control), or a control that is bound to a static parameter. For details, see [How to Add a New Static Value](#) on page 105.

Reference: Properties and Settings (Incoming Static Parameter and Unbound Control)

The Properties and settings dialog box appears when creating or editing a static value on the Parameters tab.

The options available depend on the type of static value.

The following image is the Properties and settings dialog box that appears for an incoming static parameter (a parameter that is bound to a control), and an unbound control (a control that is not bound to a parameter).



The Properties and settings dialog box contains the following fields and options when Static is selected as the Data type.

Data type

Determines whether values are obtained from a static or dynamic list, an active report, or TOC.

Static. Uses a static list of values you supply. A list of static values can also be created in the Report Painter. For an example of importing static values that were created in Report Painter, see [Adding Static Field Values From Report Painter](#) on page 110.

Static values

Is a list of supplied values for a static list.

Value. The value to be passed to the selected parameter.

Display. The text that represents the value in the control the user views. Press the Ctrl + Shift keys to add a value to the Display field.

Selected. The value to act as the default value. If the control is multi-select, more than one value can be selected.

New. Creates a new value.

Delete. Deletes a supplied value from the list.

Move Up. Moves the selected value up in the list.

Move Down. Moves the selected value down in the list.

Send display value

Select this option to send the display value, rather than the actual data, to the parameter. For more information, see [How to Send the Display Value for Static and Dynamic Controls](#) on page 139.

The Send display value option appears when creating an incoming static parameter (a parameter that is bound to a control), or an unbound control (a control that is not bound to a parameter). It is not available when creating an unbound static parameter.

Values are procedures names

Select this option to have a control populated with procedure names, so that when a value is selected, that procedure executes. The Value column is the procedure name itself and cannot be edited. The Display column is editable.

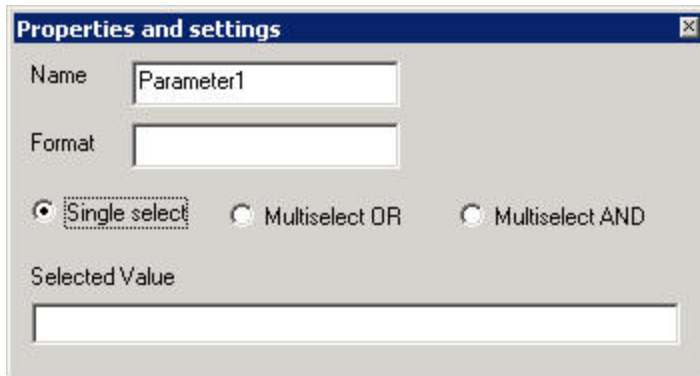
For more information on how to use the Values are procedures names option, see [How to Use Procedure Names as Values](#) on page 147.

Reference: Properties and Settings Dialog Box (Unbound Parameter)

The Properties and settings dialog box appears when creating or editing a static value on the Parameters tab.

The options available depend on the type of static value.

The following image is the Properties and settings dialog box that appears when adding a new unbound parameter.

The image shows a dialog box titled "Properties and settings" with a standard Windows-style title bar (minimize, maximize, close buttons). Inside the dialog, there are several fields and options: a "Name" label followed by a text box containing "Parameter1"; a "Format" label followed by an empty text box; three radio button options: "Single select" (which is selected), "Multiselect OR", and "Multiselect AND"; and a "Selected Value" label followed by an empty text box. The dialog has a light gray background and a blue title bar.

The Properties and settings dialog box contains the following fields and options when adding an unbound parameter with Single select. Single select is the default option when adding a new parameter.

Name

The default name assigned to the parameter. Optionally, you may enter a new name for the parameter.

Format

The Format field defines the format of the parameter, such as A20, or D12.2.

This field is optional. If this field is left blank, it automatically applies the Alphanumeric format to the value field.

Selected Value

Enter the selected value to be assigned to the parameter.

The following image of the Properties and settings dialog box contains the following fields and options when adding an unbound parameter with Multiselect OR or Multiselect AND.

The image shows a 'Properties and settings' dialog box. It has a title bar with a close button. Inside, there are several fields and options:

- Name:** A text box containing 'Parameter2'.
- Format:** A text box containing 'stat'.
- Selection Mode:** Three radio buttons: 'Single select' (unselected), 'Multiselect OR' (selected), and 'Multiselect AND' (unselected).
- Use Value From:** A dropdown menu.
- Items may be dragged into the desired order:** A toolbar with icons for adding, deleting, and moving items.
- Table:** A table with three columns: 'Value', 'Display', and 'Selected'. The table is currently empty.
- Checkboxes:** Two checkboxes at the bottom: 'Send display value' and 'Values are procedures names', both of which are unchecked.

Static values

Is a list of supplied values for a static list.

Value. The value to be passed to the selected parameter.

Display. The text that represents the value in the control the user views. Press the Ctrl + Shift keys to add a value to the Display field.

Selected. The value to act as the default value. If the control is multi-select, more than one value can be selected.

New. Creates a new value.

Delete. Deletes a supplied value from the list.

Move Up. Moves the selected value up in the list.

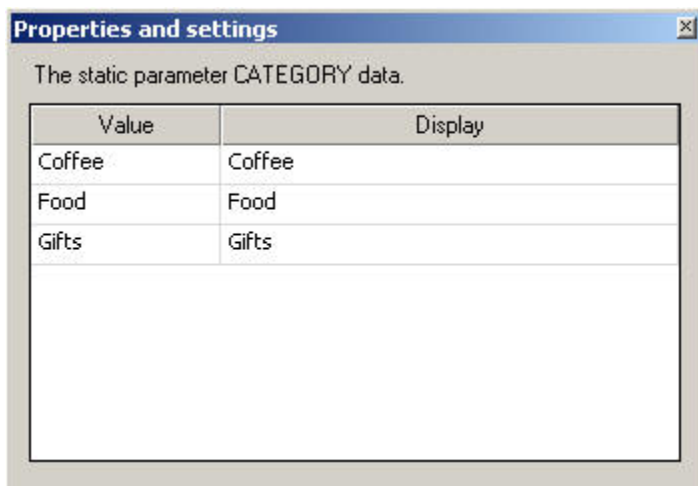
Move Down. Moves the selected value down in the list.

Reference: Properties and Settings Dialog Box (Bound Parameter)

The Properties and settings dialog box appears when selecting a bound parameter on the Parameters tab.

The Properties and settings dialog box for a parameter is read-only and displays the values for the bound control.

The following image is the Properties and settings dialog box that appears when selecting a bound static parameter.



The Properties and settings dialog box contains the following read-only values:

Value

Shows the selected value for the static parameter data.

Display

Shows the static parameter display value.

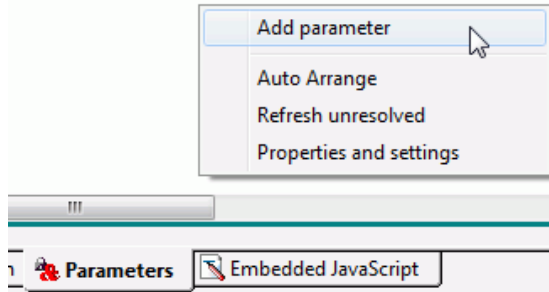
Procedure: How to Add a New Static Value

The steps below describe how to manually add a new static value:

You may create an unbound static parameter, an incoming static parameter (a parameter that is bound to a control), or a control that is bound to a static parameter.

1. Create a new parameter.

- a. Right-click anywhere on the Parameters tab and select *Add parameter*.



The Properties and settings dialog box opens.

- b. Enter the parameter value information. Options are *Single select*, *Multiselect OR*, and *Multiselect AND*.
- c. If using single value, select *Single select*.

Single select is the default option when adding a new parameter.

A screenshot of the 'Properties and settings' dialog box. It has a title bar with the text 'Properties and settings' and a close button. The dialog contains several fields and options: a 'Name' field with the text 'Parameter1', a 'Format' field which is empty, three radio button options labeled 'Single select', 'Multiselect OR', and 'Multiselect AND' (with 'Single select' being selected), and a 'Selected Value' field which is empty.

- ☐ Enter the Selected Value to be assigned to a single variable.
- ☐ Enter the name for the parameter in the Name field, or keep the default name.
- ☐ Optionally, you may use the Format field to define the format of the parameter, such as A20, or D12.2.

If this field is left blank, it automatically applies the Alphanumeric format to the value field.

- d. If using a multiselect value, select *Multiselect OR* or *Multiselect AND*.

The Value, Display, and Selected columns appear.

- ❑ Click the *New* button to enter a list of static values.

Properties and settings

Name: Parameter2

Format: stat

☐ Single select ☒ Multiselect OR ☐ Multiselect AND

Use Value From: [dropdown]

Items may be dragged into the desired order [icons]

Value	Display	Selected
Value1	Value1	☒

☐ Send display value

☐ Values are procedures names

- ❑ In the Value column, enter the value to be passed to the selected parameter.
- ❑ In the Display column, enter the text that represents the parameter value in the control the user views.
- ❑ In the Selected column, check the box for the value you want to be selected by default. More than one value can be selected.

Repeat these steps until the list contains all of the values you want to include.

- ❑ Optionally, you may select values and click the *Delete* button to eliminate any values, and use the up and down arrows to rearrange the order of the values.

- e. Close the Properties and settings dialog box to create an unbound parameter.

An unbound static parameter is useful when passing a parameter value used on another page. You may also bind the new parameter to a control to create an incoming parameter. An incoming parameter is a static parameter that is bound to a control. The parameter value will populate the control.

2. Bind the new parameter to a control.

Binding a new parameter to a control creates an incoming parameter. An incoming parameter is a static parameter that is bound to a control. The parameter value will populate the control.

- a. Select the *Design* tab and create an input control. For example, insert a list box or a drop-down list.
- b. Click the *Parameters* tab.

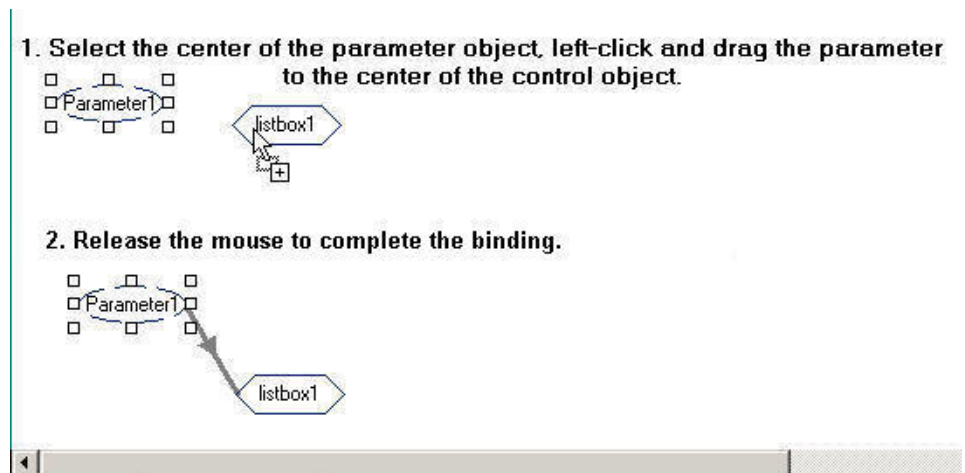
The Properties and settings dialog box appears for the control.

- c. Close the Properties and settings dialog box.

Close this dialog since you are populating the control with the parameter value, which has already been created in step 1.

- d. Select the center of the parameter name object, left-click and drag the parameter to the center of the control object, and release the mouse to complete the binding.

The following image is an example of an incoming parameter. Notice the direction of the arrow.



- e. To unbind the parameter, select the arrow head on the line, so that the line is bold, right-click and select *Break binding*.

3. Create a control that is bound to a parameter.

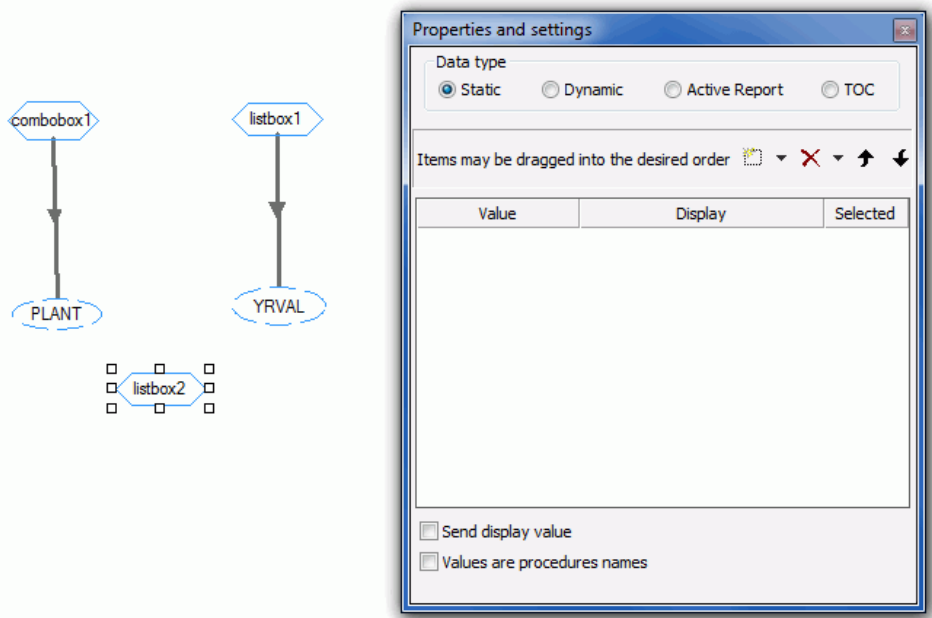
Create a control with static values and bind the control to a parameter to populate the parameter with the control values.

- a. From the Design view of the HTML Composer, select a control from the Controls sub-menu of the Insert menu. For example, insert a list box or a drop-down list.

The cursor changes into a crosshair.

- b. Click and drag the crosshair to create the control and adjust it to the size you want.
- c. Click the *Parameters* tab.

The Properties and settings dialog box appears for the control.



- d. Select *Static* as the Data type.

Static is selected by default.

- e. Create the parameter values for the control:

- ☐ In the Value column, enter the value to be passed to the control.
- ☐ In the Display column, enter the text that represents the static parameter value in the control the user views.

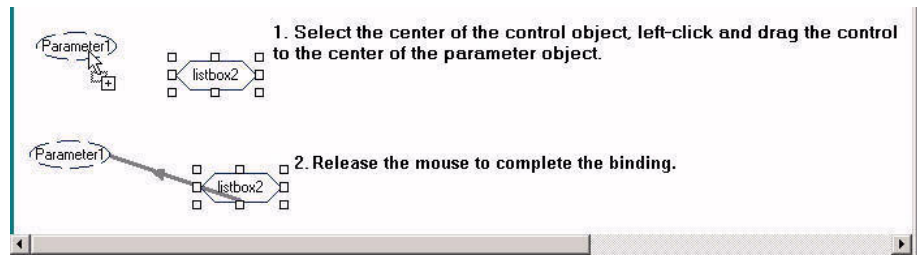
- ❑ In the Selected column, check the box for the value you want to be selected by default. More than one value can be selected.

Repeat these steps until the list contains all of the values you want to include.

- ❑ Optionally, you may select values and click the *Delete* button to eliminate any values, and use the up and down arrows to rearrange the order of the values.

- Close the Properties and settings dialog box to create the control with static values.
- Bind the new control to a parameter: Select the center of the control object, left-click and drag the control to the center of the parameter object, and release the mouse to complete the binding.

The image below is an example of a control that is bound to a parameter. Notice the direction of the arrow.



- To unbind the control, select the arrow head on the line, so that the line is bold, right-click and select *Break binding*.
- To change the default type of control, right-click the control object on the Parameters tab or the Design tab and select *Set Control Type*.

The options are Calendar, Check box, Drop down list, Hidden, List box, Radio button, Text Area, Text box, Single source Tree control, and Multi source Tree control.

- To modify the static value, right-click the control, or parameter, on the Parameters tab and select *Properties and settings* to make your edits.

Reference: Adding Static Field Values From Report Painter

Instead of adding new static values, you may also import static value parameters that you created from the Variable Editor. Parameter values can be data values to limit your data or field names to select the fields in your report. Both types of static lists can be created in Report Painter. This example details how to supply field values to a report through the HTML Composer and Report Painter.

For the purposes of this example, use the CAR Master File (car.mas) that is supplied with Developer Studio.

1. From the HTML Composer, select *New Report* from the Insert menu.

The cursor changes into a crosshair.

2. Click and drag the crosshair to create a report object and adjust it to the size you want.
3. Right-click the report object and select *New Report*.

The Open dialog box appears.

4. Select the *car.mas* Master File and click *Open*.

The Report Painter opens.

5. From Report Painter Object Inspector, right-click Report Variables and select *New Report Variable Field*.

The Variable Editor opens.

- ☐ Enter *SORTVAR* in the Name and Prompt input fields, and keep the Variable Type as Single Select.
- ☐ Select *Static List* from the Accept List section.
- ☐ Double-click *COUNTRY* and *BODYTYPE* from the Fields from database Data Context area.
The fields are added to the Static Accept List.
- ☐ Click *OK* to save the variable.

6. Create a second variable.

- ☐ Right-click Report Variables and select *New Report Variable Field*.
The Variable Editor opens.
- ☐ Enter *MEASURES* in the Name and Prompt input fields.
- ☐ Select *Multiselect AND* from the Variable Type drop-down list.
- ☐ Select *Static List* from the Accept List section.
- ☐ Double-click *CAR*, *DEALER_COST*, *RETAIL_COST*, and *SALES* from the Fields from database Data Context area.
The fields are added to the Static Accept List.
- ☐ Click *OK* to save the variable.

7. Double-click *&SORTVAR* and *&MEASURES* from the Report Variables in the Object Inspector.

The variables are added to the report.

8. Click *&SORTVAR* and select *By* from the Columns toolbar.

Note: If the parameter is to be used as a *By* field in a report, it must be the single-select variable type.

9. Save and close the report.

You are returned to the HTML Composer and since you are adding a report with parameters, the New Parameters dialog box appears.

10. From the New Parameters dialog box:

- ☐ Select *Double list control* from the Control Type list for MEASURES.
- ☐ Select *Do not create a form* from the Parameter grouping options drop-down list.
- ☐ Click *OK* to close the New Parameters dialog box.

The report and associated parameters are added as static field values. You may rearrange or lengthen the controls in the layout.

11. Save and run the layout.

Select the static field values (*By* field and the associated measures) and run the report.

Procedure: How to Add an Ignore Value

The add ignore value option sends *_FOC_NULL* to the server at run time and is intended for use with complex applications. The add ignore value option is available for Multiselect OR and Multiselect AND static parameters.

1. From the HTML Composer, use controls to supply parameter values for a report.

A report with parameters requires that you to select values (at run time) in order to generate the output.

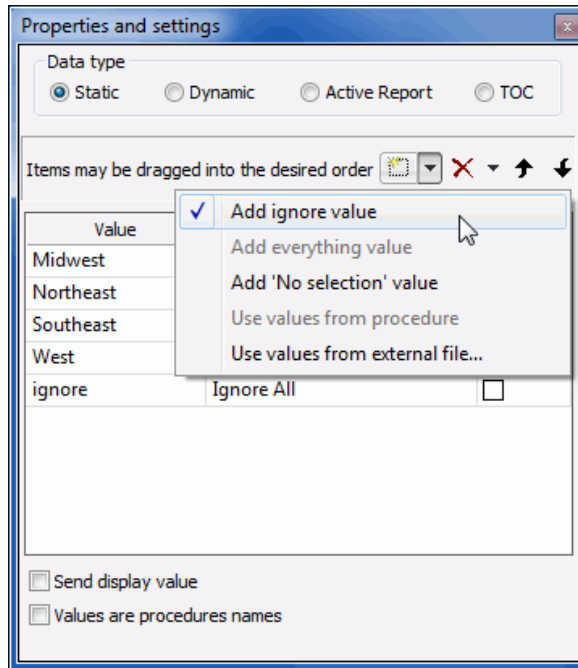
2. Click the *Parameters* tab.

The parameters associated with each control can be controlled with the Parameters tab. The properties of a control can be controlled with the Properties tab.

3. Select a multiselect control object from the Parameters tab.

The Properties and settings dialog box opens.

4. Select *Add ignore value* from the Static values drop-down list.



5. Optionally, select *Send display value* to send the display value, rather than the actual data, for the parameter values in the report.
6. Close the Properties and settings dialog box.
7. Run the HTML page and select the *Ignore All* value to ignore the parameter values.

Note: Sending `_FOC_NULL` to a procedure will result in any clause of that procedure that uses that variable to be ignored.

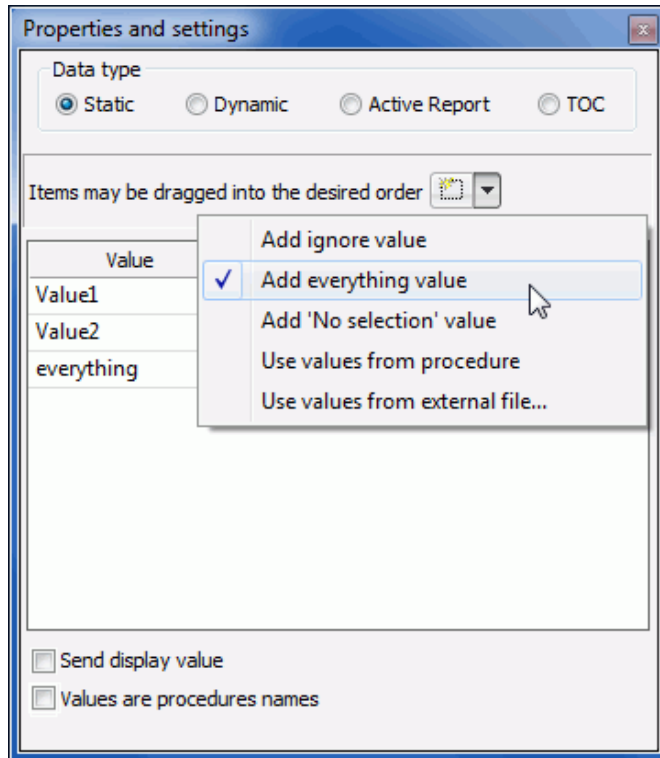
Procedure: How to Add an Everything Value

The add everything value option uses JavaScript to send every value present in the parameter list to the server at run time. The add everything value option is available for Multiselect OR and Multiselect AND static parameters.

The add everything value option is not available for a Double List Control.

1. From the HTML Composer, use controls to supply parameter values for a report.
2. Click the *Parameters* tab.

3. Select a multiselect control object from the Parameters tab.
The Properties and settings dialog box opens.
4. Select *Add everything value* from the Static values drop-down list.



5. Optionally, select *Send display value* to send the display value, rather than the actual data, for the parameter values in the report.
6. Close the Properties and settings dialog box.
7. Run the HTML page and click the *Select All* parameter value to view all the parameter values.

Procedure: How to Use Values From a Procedure

This is the default option which populates the static list with field names predefined in the procedure. The use values from procedure option is available for Multiselect OR and Multiselect AND static parameters, and when adding static field values from Report Painter.

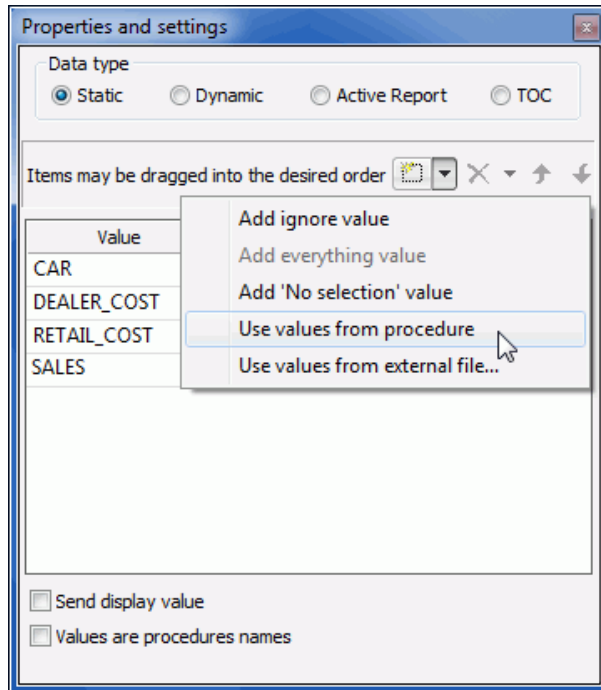
1. From the HTML Composer, use controls to supply parameter values for a report.

2. Click the *Parameters* tab.
3. Select a multiselect control object from the Parameters tab.

The Properties and settings dialog box opens.

4. Select *Use values from procedure* from the Static values drop-down list.

The field names from the procedure appear in the Properties and settings dialog box.



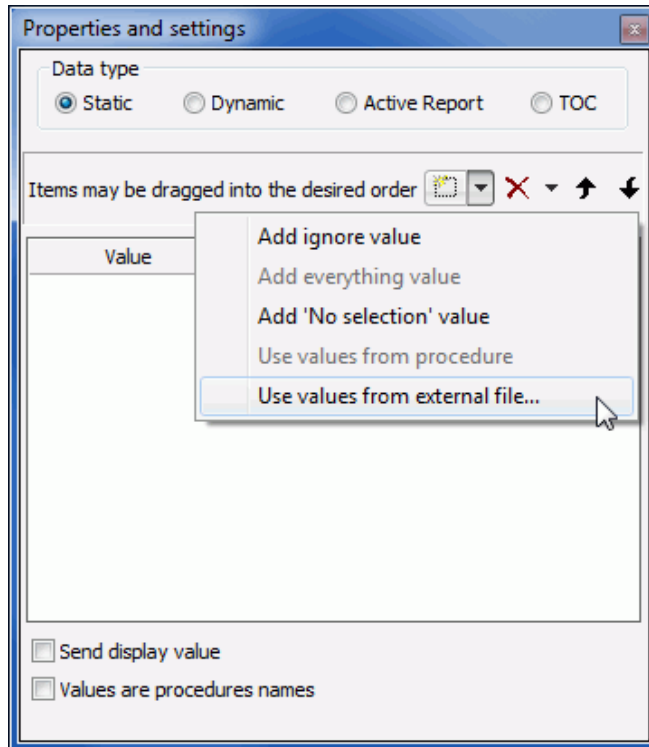
5. Optionally, select *Send display value* to send the display value, rather than the actual data, for the parameter values in the report.
6. Close the Properties and settings dialog box.
7. Run the HTML page and select the parameter values from the procedure.

Procedure: How to Import Values From an External File

This option enables you to use a local external file to provide values for the parameter. The import values from an external file option is available for Multiselect OR and Multiselect AND static parameters.

1. From the HTML Composer, use controls to supply parameter values for a report.

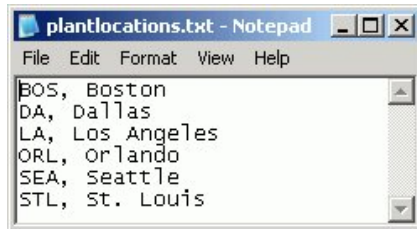
2. Click the *Parameters* tab.
3. Select a multiselect control object from the Parameters tab.
The Properties and settings dialog box opens.
4. Select *Use values from external file* from the Static values drop-down list.



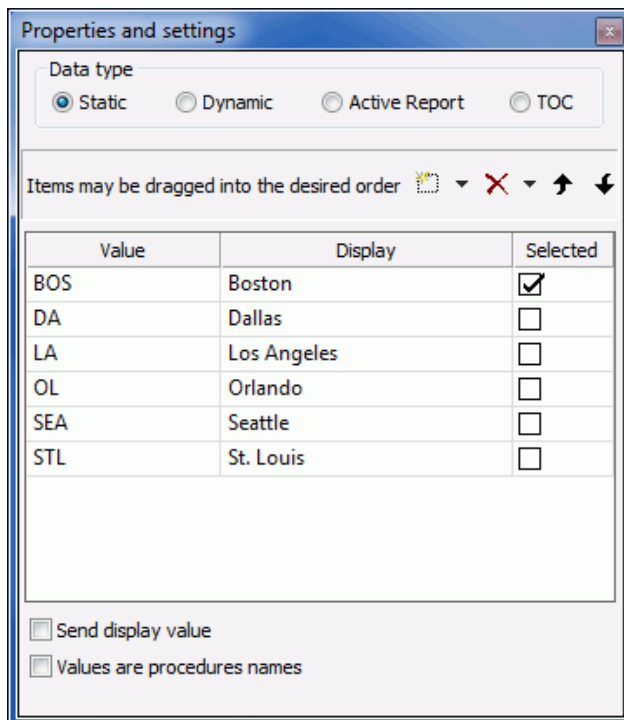
The Open dialog box appears.

5. Select a text file from your local machine and click *Open*.
The external file can be a file with single values on each line, or two values per line, comma-delimited.

For example, in the following text file, *BOS* is the data value and *Boston* is the display value.



The imported values are loaded into the Static values area of the Parameters tab.



If there is only one value on the line in the text file, the value will populate both the data value and the display values.

6. Run the HTML page to see the imported values for the selected parameter.

Creating a Dynamic List of Values

Dynamic values are available by default if a parameter used in the procedure is associated with the selected control. A dynamic list retrieves values from a specified data source when the request is run.

You may also create new dynamic parameters by adding a filter to a report or graph component in the layout. For details, see [How to Create Dynamic Parameters by Adding a Filter](#) on page 130.

Reference: Properties and Settings Dialog Box (Dynamic Values)

The Properties and settings dialog box appears when creating or editing a dynamic parameter on the Parameters tab.

The following image is the Properties and settings dialog box with a Dynamic Data type.

The image shows a 'Properties and settings' dialog box with a title bar and a close button. It contains several sections of controls:

- Data type:** Four radio buttons: 'Static', 'Dynamic' (selected), 'Active Report', and 'TOC'.
- Procedure type:** Two radio buttons: 'Embedded procedure' (selected) and 'External Procedure'.
- Procedure name:** A text field with a browse button ('...').
- Value field:** A text field with a browse button ('...').
- Display field:** A text field with a browse button ('...').
- Large empty area:** A large rectangular box for additional settings or notes.
- Options section:**
 - ☒ Add "ALL" option: A text field containing 'ALL'.
 - ☐ Add 'No selection' option: A text field containing '- Make Selection -'.
 - ☐ Cache run time data
 - ☐ Limit values returned: A numeric field set to '10'.
 - ☐ Sort:
 - Sort by:** Radio buttons for 'Value' (selected) and 'Display'.
 - Sort order:** Radio buttons for 'Ascending' (selected) and 'Descending'.
 - ☐ Send display value: A text field containing 'Selected Value'.
 - ☐ Check for duplicate values

The Properties and settings dialog box contains the following fields and options when Dynamic is selected as the Data type:

Data type

Determines whether values are obtained from a static or dynamic list, an active report, or TOC.

Dynamic uses a list of values retrieved from a selected data source when the request is executed. This is the default if you use an Accept clause in a Master File to create an ampers variable parameter within a procedure. For more information, see [How to Create a Dynamic Value](#) on page 123.

Embedded procedure

Is the data source from which the values will be retrieved.

External Procedure

Is the existing procedure that will be called.

You may modify the external procedure directly from the Properties and settings dialog box on the Parameters tab. If you modify the request, you can save the external procedure and overwrite the original request.

Value field

Is the data source field from which the values will be retrieved.

Display field

Is the text that represents the parameter value in the control the user views.

There should be a relationship between the Value field and the Display field. The Display field is user-friendly text corresponding to the Value field.

Source Code for the procedure

- ☐ When the Value field is selected for an Embedded procedure, the corresponding source code appears.

Tip: You may manually edit the source code if you are familiar with WebFOCUS syntax. For example, you may right-click and choose *Select a field* from the data source to add to the request. Or right-click and choose to *Use the default request*.

The source code for an embedded procedure includes the line *// TODO: Add your filters here to replace defaults*, as a placeholder for you to enter filters, or WHERE clauses, for the request to resolve at run time. If entering filters, only dynamic filters can be specified.

The *//TODO* line must remain in the source code in order to resolve filters at run time. One such example of this is when filters are based on chains that have conditions. If you want your own filters specified, then delete this line.

- ☐ When an external procedure is selected, the corresponding source code appears.

Tip: You may manually edit the source code if you are familiar with WebFOCUS syntax. For example, you may right-click and choose *Select a field* from the data source to add to the request. After editing the external procedure that is associated with a control, right-click and choose *Reload external procedure* to reload and display the new syntax in the Properties and settings dialog box. Or right-click and choose *Save external procedure*. Saving the external procedure overwrites the original requests.

Add "ALL" Option

Adds the option to select ALL data source values to the control. Alternate text can be substituted for "ALL" using the text field to the right. For more information, see [Parameter Value List Options](#) on page 138.

Add 'No selection' option

Optimizes performance by populating a chain one control at a time instead of all the controls when the page initially loads. Selecting the Add 'No selection' option enables you to populate controls when necessary.

Cache run time data

When adding dynamic parameters to the HTML page, input controls retrieve data through procedures. Select this option to cache the run-time data for the selected input control. This setting is off by default.

This setting overrides the Default caching option from the HTML Page tab, which is located in the Developer Studio Options dialog box. For more information about the HTML Page tab, see [HTML Page Tab](#) on page 297.

Limit values returned

Indicates that a specific number of field values will be retrieved from the data source. The specific number of fields is selected with the menu to the right.

Sort

Clicking *Sort* enables you to set the sort order for displaying values in dynamic list controls. This option is useful when you want to sort each control independently of the others.

By default, the request retrieves dynamic display values from the BY sort field in the request. The results display values based on the value field.

Sort by

When Sort is enabled, you may sort the display value by the Value field or the Display field selected from the Properties and settings dialog box. The default is Value field.

Sort order

When Sort is enabled, you may select the sort order as Ascending or Descending. The default sort order is Ascending.

Send display value

Select this option to send the display value, rather than the actual data, to the parameter. For more information, see [How to Send the Display Value for Static and Dynamic Controls](#) on page 139.

Selected Value

Enter the value(s) to be selected as the default value whenever the procedure is run. For more information, see [How to Use Selected Values as the Default Value](#) on page 151.

Check for duplicate values

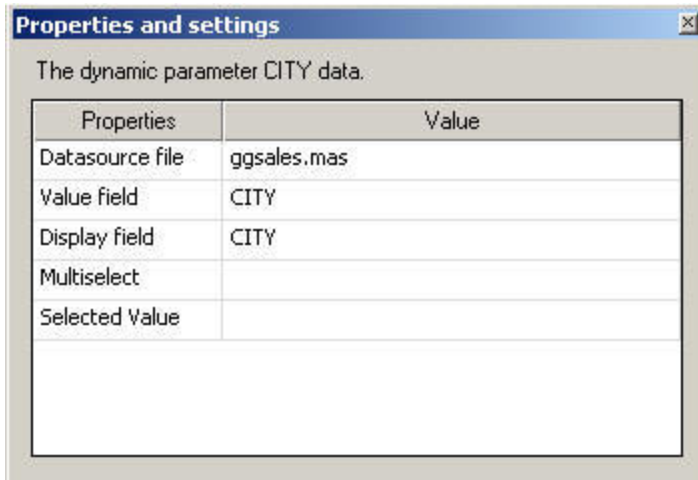
When creating a dynamic list of values for a report, you may remove duplicate values from input controls. For more information, see [How to Check for Duplicate Values](#) on page 132.

Reference: Properties and Settings Dialog Box (Bound Parameter)

The Properties and settings dialog box appears when selecting a bound parameter on the Parameters tab.

The Properties and settings dialog box for a parameter is read-only and displays the values for the bound control.

The following image is the Properties and settings dialog box that appears when selecting a bound dynamic parameter.



The Properties and settings dialog box contains the following read-only values:

Datasource file

Shows the selected Master File for the parameter data source.

Value field

Shows the value field for the dynamic parameter data.

Display field

Shows the dynamic parameter display field.

Multiselect

Shows OR or AND, if there is a Multiselect OR or Multiselect AND dynamic parameter.

Selected Value

Shows the selected value, if there is one assigned to the variable.

Procedure: How to Create a Dynamic Value

The steps below describe how to create a dynamic list of values.

You may need to create a dynamic control that is bound to a parameter. Creating a control with dynamic values and binding the control to a parameter will populate the parameter with the control values.

1. From the Design view of the HTML Composer, select a control from the Controls sub menu of the Insert menu. For example, insert a list box or drop-down list.

The cursor changes into a crosshair.

2. Click and drag the crosshair to create the control and adjust it to the size you want.
3. Click the *Parameters* tab.

The Properties and settings dialog box opens.

4. Select *Dynamic* as the Data type.

The dynamic value options appear.

The image shows a 'Properties and settings' dialog box with a blue title bar. It contains several sections for configuring a dynamic control. At the top, under 'Data type', there are four radio buttons: 'Static', 'Dynamic' (which is selected), 'Active Report', and 'TOC'. Below this, there are two more radio buttons: 'Embedded procedure' (selected) and 'External Procedure'. There are three text input fields, each with a button to its right: an empty field, a field with 'Value field', and a field with 'Display field'. A large empty text area is in the middle. Below that, there is a checked checkbox 'Add "ALL" option' with a text field containing 'ALL'. Next to it is an unchecked checkbox 'Add "No selection" option' with a text field containing '- Make Selection -'. Below these are two unchecked checkboxes: 'Cache run time data' and 'Limit values returned' (with a spinner box set to '10'). There are two sections for sorting: 'Sort by' with 'Value' selected and 'Display' unselected, and 'Sort order' with 'Ascending' selected and 'Descending' unselected. At the bottom, there are two unchecked checkboxes: 'Send display value' and 'Check for duplicate values'. The 'Send display value' checkbox has a text field labeled 'Selected Value' next to it.

5. Create the dynamic values for the control.
 - a. If you are using an Embedded procedure to supply dynamic values, follow the steps below.
 - ❑ Select *Embedded procedure*.

- ❑ Click the Embedded procedure ellipsis button.

The Get source file dialog box opens.

- ❑ Select the Master File name and click *Open*.

- ❑ Click the ellipsis button from the Value field.

The Object Inspector opens with the field names from the selected Master File.

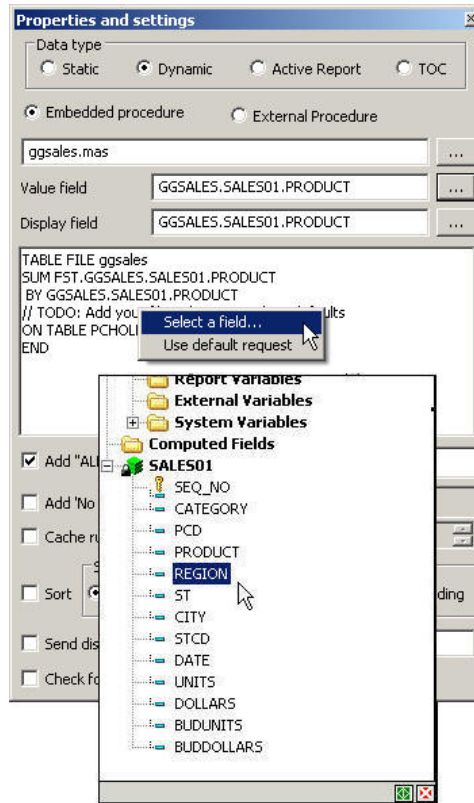
- ❑ Double-click a field name to add it to the Value field.

Tip: You may also use the Object Inspector icons to select a field and close the Object Inspector. The green icon is OK, the red icon is Cancel, double-clicking a value will select the value and close the dialog without using any button, and pressing the Esc key will cancel the dialog without using any button.

The selected field is automatically added to the Display field and the source code for the embedded procedure appears.

- ❑ Optionally, you may click the Display field ellipsis button to select a different field name for the Display field. (You may also use the Object Inspector icons to select a field and close the Object Inspector).

- ❑ You may manually edit the source code if you are familiar with WebFOCUS syntax. Right-click and choose *Select a field* from the data source to add to the request. For example, add an additional BY sort field to the request.



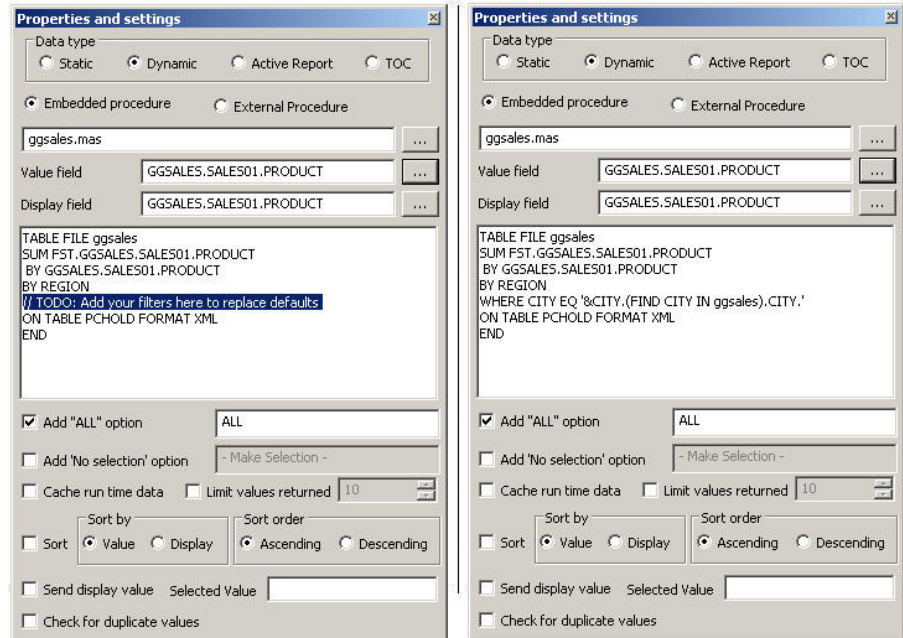
1. Right-click and choose *Select a field*.

2. The Object Inspector opens for the selected data source. Select a field.

- ❑ To remove any syntax that you added, right-click and select *Use the default request*.
- ❑ The source code for an embedded procedure includes the line *// TODO: Add your filters here to replace defaults*, as a placeholder for you to enter filters, or WHERE clauses, for the request to resolve at run time. If you are entering filters, only dynamic filters can be specified. For example, enter a filter for the CITY in the request.

The *//TODO* line must remain in the source code in order to resolve filters at run time. One example of this is when filters are based on chains that have conditions. If you want your own filters specified, then delete this line.

1. Delete the `//TODO` placeholder in the source code.
2. Type in the filter for the request.



- b.** If you are using an External Procedure to supply dynamic values, follow the steps below.

- ❑ Select *External Procedure*.
- ❑ Click the External Procedure ellipsis button.
The Get source file dialog box opens.
- ❑ Select the procedure (.fex) file name and click *Open*.

The parameter names from the procedure are automatically added to the Value field and Display field, and the source code for the external procedure appears. For details, see [Automatically Populating Fields With Dynamic Values](#) on page 138.

- ❑ Optionally, you may click the Value field and Display field ellipsis button to select a different field name.

Tip: You may also use the Object Inspector icons to select a field and close the Object Inspector. The green icon is OK, the red icon is Cancel, double-clicking a value will select the value and close the dialog without using any button, and pressing the Esc key will cancel the dialog without using any button.

Only the parameter names from the external procedure will be available for selection.

- ❑ You may manually edit the source code if you are familiar with WebFOCUS syntax. Additionally, you may right-click and choose *Select a field* from the data source to add to the request.
- ❑ If you modify the request that is associated with a control, you can right-click and choose *Reload external procedure* to reload and display the new syntax in the Properties and settings dialog box. Or right-click and choose to *Save external procedure*. Saving the external procedure overwrites the original requests.

Properties and settings

Data type
☐ Static ☒ Dynamic ☐ Active Report ☐ TOC

☐ Embedded procedure ☒ External Procedure

ggsales_parameters.fex ...

Value field DOLLARS ...

Display field DOLLARS ...

```

-* File ggsales_parameters.fex
TABLE FILE GGSALES
SUM
  DOLLARS/I8M
BY PRODUCT
BY REGION
BY CATEGORY
HEADING
***
  
```

Select a field...
Save external procedure
 Reload external procedure

☒ Add "ALL" option ALL

☐ Add 'No selection' option - Make Selection -

☐ Cache run time data ☐ Limit values returned 10

Sort by
☐ Sort ☒ Value ☐ Display

Sort order
☒ Ascending ☐ Descending

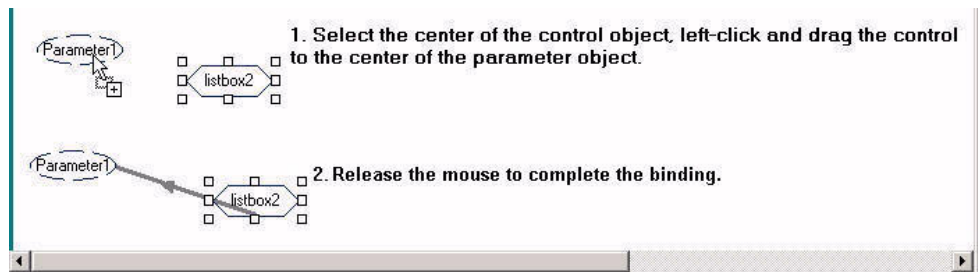
☐ Send display value Selected Value

☐ Check for duplicate values

Note: For more information about how a procedure can be used to populate a dynamic list of values, see [Using Custom Procedures to Retrieve Dynamic Values](#) on page 133.

6. Optionally, select *Add "ALL" option* to add the select ALL data source values to the control.
7. Optionally, select *Add 'No selection' option* to optimize performance by populating a chain one control at a time instead of all the controls when the page initially loads.
8. Optionally, select *Cache run time data* to cache the run time data for the selected input control.
9. Optionally, select *Limit values returned*, and select or type the number of field values you want to retrieve from the data source in the box to the right of this option.
10. Optionally, click the *Sort* option to enable and select the sort order options for displaying values in dynamic list control.
11. Optionally, select *Check for duplicate values* to remove any duplicate value entries from the input control at run time.
12. Close the Properties and settings dialog box to create the control with dynamic values.
13. Bind the new control to a parameter. Select the center of the control object, left-click and drag the control to the center of the parameter object, and release the mouse to complete the binding.

The following image is an example of a control that is bound to a parameter. Notice the direction of the arrow.



14. To unbind the control, select the arrow head on the line, so that the line is bold, right-click and select *Break binding*.
15. To change the default type of control, right-click the control object on the Parameters tab or the Design tab and select *Set Control Type*.

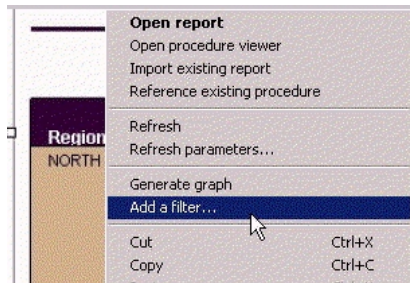
The options are Calendar, Check box, Drop down list, Hidden, List box, Radio button, Text Area, Text box, Single source Tree control, and Multi source Tree control.

16. To modify the dynamic value, right-click the control and select *Properties and settings* to make your edits.

Procedure: How to Create Dynamic Parameters by Adding a Filter

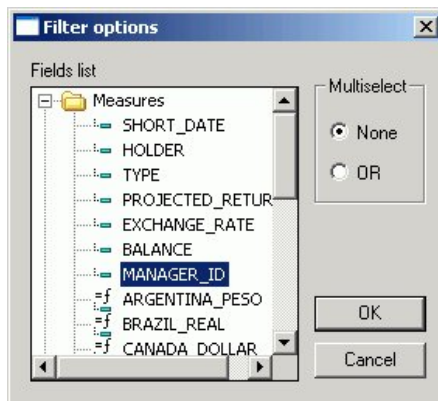
You may create new dynamic parameters by adding a filter to a report or graph component in the layout.

1. To create dynamic parameters for your report or graph in the Design view, right-click the report or graph object and select *Add a filter* from the context menu.

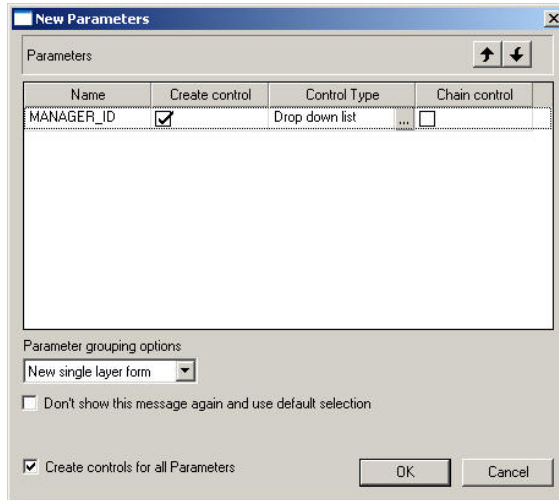


The Filter options dialog box opens.

2. Select the field to be used for the parameter, the Multiselect option, and click *OK*.



The New Parameters dialog box appears.



You may select a control type for the parameter from this dialog box, or adjust them later using the Properties and settings dialog box on the Parameters tab.

If the New Parameters dialog box does not appear, ensure that *Show New Parameters dialog* is selected from the HTML Page tab. To access the HTML Page tab, select *Options* from the Window menu to open the Developer Studio Options dialog box. From the Developer Studio Options dialog box, select the HTML Page tab.

3. Click *OK* to close the New Parameters dialog box.
4. The filter appears above the report or graph object.

Repeat this procedure for each additional parameter for the report or graph.

Procedure: How to Sort the Dynamic List of Values

This option is useful when you want to sort each control independently of the others.

Note: If sort options are not selected, the request retrieves dynamic display values from the BY sort field in the request, and the results display values based on the value field. Sort options are not selected by default.

1. Select a dynamic control from the Parameters tab.

The Properties and settings dialog box opens.

2. Select *Sort* to enable the sort options.

You may select the *Sort by* and *Sort order* options for the control.

The following image are the sort options that appear on the *Properties and settings* dialog box of the *Parameters* tab, when a dynamic control is selected.



3. Select the *Sort by* options:
 - ☐ *Sort by Value* sorts the value by the field name from the *Value* field. This is the default *Sort by* selection.
 - ☐ *Sort by Display* sorts the value by the field name from the *Display* field.
4. Select the *Sort order* options:
 - ☐ *Sort order Ascending* sorts the value from lowest to highest. This is the default *Sort order* selection.
 - ☐ *Sort order Descending* sorts the value from highest to lowest.
5. Close the *Properties and settings* dialog box.

Tip: You may repeat these steps and select sort options for each dynamic control on the HTML page.

6. Run the HTML page to see the sort results.

Procedure: How to Check for Duplicate Values

When creating a dynamic list of values for a report, you may remove duplicate values from input controls. This is useful if you are using your own procedure that does not use a structured data source.

The *Check for duplicate values* option is turned off by default.

1. From the *HTML Composer*, create an input control with a dynamic list of values.
2. Select the input control and click the *Parameters* tab.

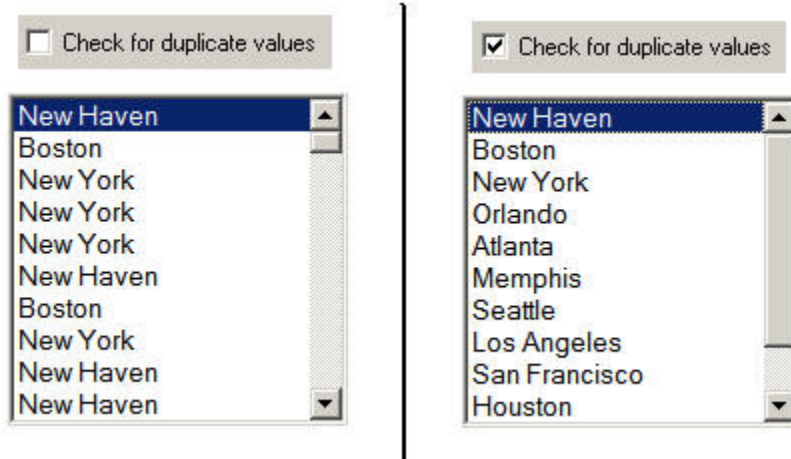
The *Properties and settings* dialog box opens for the input control.
3. Select the *Check for duplicate values* check box.

The Check for duplicate values option is only available when creating a dynamic list of values for an input control.

4. Close the Properties and settings dialog box to save your selection.
5. Save and run the HTML page.

The input control removes duplicate value entries.

The following example shows a list box with a list of city values. The first list box shows the list of values with duplicate entries. The second list box shows the list with duplicate values removed.



Using Custom Procedures to Retrieve Dynamic Values

You have the option to allow customized retrieval of dynamic parameter values. By using a custom procedure, you can use the FOCUS language to utilize temporary HOLD files, filtering, and so on. This allows the HTML Composer to better integrate with a multitude of large and/or proprietary data sources that may require unique retrieval methods. The procedure must meet the following criteria:

- ❑ The procedure must return a name and value pair for each parameter value that will populate the list. The first value is the submission value which is passed to the control when you click the Submit button. The second value is the display value which is what you will see in the control. These two values can be the same or different.
- ❑ The procedure must return the two data values on a single data line in XML format (PCHOLD FORMAT XML).

Note: Different parameters in the same procedure can use both this option and the data source method.

For chained controls, there are two options based on whether caching is enabled:

- ❑ By default, caching is not enabled. Each parameter control must be mapped to its own procedure and the developer is responsible for writing filters or WHERE criteria to properly filter the hierarchy of controls.
- ❑ If caching is enabled for the parameter values, a single procedure can be used to populate the controls of the chained variables. In this case, the HTML Composer writes the WHERE criteria.
- ❑ Limit values returned, will not be applied. When using chaining, HTML Composer does not generate filters because it does not produce the request to create the population.

For details about enabling caching options for chained controls, see [How to Enable Cache Processing for Chained Values](#) on page 380.

Example: Retrieving Dynamic Parameter Values With One Value

The following example shows the same value being used for the submission value and display value.

```
TABLE FILE GGSALES
PRINT DST.PRODUCT
BY PRODUCT
ON TABLE SET HOLDLIST PRINTONLY
ON TABLE PCHOLD FORMAT XML
END
```

The XML output is:

```
<?xml version="1.0" encoding="ISO-8859-1" ?>
- <fxf version="1.0" data="hold">
- <report records="4317" lines="10" columns="2" rows="10">
  <target format="" version="" type="" destination="HOLD" />
  - <column_desc>
    <col colnum="c0" fieldname="PRODUCT" alias="E01" datatype="char"
      width="16" focus_format="A16" description="Product name"
      accept="" help_message="" title="Product" within="" property=""

      reference="" valign="left" />
    <col colnum="c1" fieldname="PRODUCT" alias="E02" datatype="char"
      width="16" focus_format="A16" description="Product name"
      accept="" help_message="" title="Product" within="" property=""

      reference="" valign="left" />
  </column_desc>
  - <table>
    - <tr linetype="data" linenum="1">
      <td colnum="c0">Biscotti</td>
      <td colnum="c1">Biscotti</td>
    </tr>
    - <tr linetype="data" linenum="2">
      <td colnum="c0">Capuccino</td>
      <td colnum="c1">Capuccino</td>
    </tr>
    - <tr linetype="data" linenum="3">
      <td colnum="c0">Coffee Grinder</td>
      <td colnum="c1">Coffee Grinder</td>
    </tr>
    - <tr linetype="data" linenum="4">
      <td colnum="c0">Coffee Pot</td>
      <td colnum="c1">Coffee Pot</td>
    </tr>
  </table>
</report>
</fxf>
```

Example: Retrieving Dynamic Parameter Values With Two Values

The following example shows two different field values being used for the submission value and display value. In this case, PRODUCT (Product Description) is used for the display value and PCD (Product Code) is used as the submission value.

```
TABLE FILE GGSALES
PRINT DST.PRODUCT
BY PCD
ON TABLE SET HOLDLIST PRINTONLY
ON TABLE PCHOLD FORMAT XML
END
```

The XML output is:

```
<?xml version="1.0" encoding="ISO-8859-1" ?>
- <fxf version="1.0" data="hold">
  - <report records="4317" lines="10" columns="2" rows="10">
    <target format="" version="" type="" destination="HOLD" />
    - <column_desc>
      <col colnum="c0" fieldname="PCD" alias="E01" datatype="char"
        width="4" focus_format="A04"
        description="Product Identification code (for sale)" accept=""

        help_message="" title="Product ID" within=""
        property="" reference="" valign="left" />
      <col colnum="c1" fieldname="PRODUCT" alias="E02" datatype="char"

        width="16" focus_format="A16"
        description="Product name" accept="" help_message=""
        title="Product" within="" property="" reference=""
        valign="left" />
    </column_desc>
    - <table>
      - <tr linetype="data" linenum="1">
        <td colnum="c0">C141</td>
        <td colnum="c1">Espresso</td>
      </tr>
      - <tr linetype="data" linenum="2">
        <td colnum="c0">C142</td>
        <td colnum="c1">Latte</td>
      </tr>
      - <tr linetype="data" linenum="3">
        <td colnum="c0">C144</td>
        <td colnum="c1">Capuccino</td>
      </tr>
```

Note: The procedure does not have to follow this FOCUS syntax exactly, but the end result must be two values per data line in XML format.

Example: Retrieving Values for Chained Variables With Caching Disabled

In the following procedures, there are three parameters (REGION, ST, CITY). Caching is disabled, so each parameter control must be mapped to its own procedures.

Procedure 1 (REGION)

```
TABLE FILE GGSALES
PRINT DST.REGION
BY REGION
ON TABLE SET HOLDLIST PRINTONLY
ON TABLE PCHOLD FORMAT XML
END
```

Procedure 2 (ST)

```
TABLE FILE GGSALES
PRINT DST.ST
BY ST WHERE REGION EQ '&REGION';
ON TABLE SET HOLDLIST PRINTONLY
ON TABLE PCHOLD FORMAT XML
END
```

Procedure 3 (CITY)

```
TABLE FILE GGSALES
PRINT DST.CITY
BY CITY WHERE REGION EQ '&REGION'; WHERE ST EQ '&ST';
ON TABLE SET HOLDLIST PRINTONLY
ON TABLE PCHOLD FORMAT XML
END
```

Example: Retrieving Chained Variable Values With Caching Enabled

In the following example, caching is enabled, so a single procedure is used to populate the controls. For details about caching options, see [How to Enable Cache Processing for Chained Values](#) on page 380.

```
TABLE FILE GGSALES
PRINT DST.REGION DST.ST DST.CITY
BY REGION
BY ST
BY CITY
ON TABLE SET HOLDLIST PRINTONLY
ON TABLE PCHOLD FORMAT XML
END
```

The XML output is:

```
- <table>
- <tr linetype="data" linenum="1">
  <td colnum="c0">Midwest</td>
  <td colnum="c1">IL</td>
  <td colnum="c2">Chicago</td>
  <td colnum="c3">Midwest</td>
  <td colnum="c4">IL</td>
  <td colnum="c5">Chicago</td>
</tr>
```

Automatically Populating Fields With Dynamic Values

When the name of a dynamic parameter matches a corresponding field name in a data source, the HTML Composer automatically populates the field name values for the parameter.

The data source is populated by a default based on the first data source specified by a TABLE FILE or GRAPH FILE command. The data source field is populated for the Value and Display fields in the Properties and settings dialog box of the Parameters tab (when Dynamic is selected as the Data type). This generates a layout report that is ready to run as long as the parameter names match the field names.

Example: Automatically Populating Fields With Dynamic Parameter Values

When the following report request is called from the HTML Composer with a push button control, the Properties and settings dialog box for the PRODUCT parameter on the Parameters tab is automatically populated to dynamically retrieve the values of the PRODUCT field.

```
TABLE FILE GGSALES
SUM UNITS
BY PRODUCT WHERE ( PRODUCT EQ '&PRODUCT.Product:.' );
END
```

Parameter Value List Options

When creating a static or dynamic list of values, you may add an ALL value to the list of values and/or send the display value in a parameter.

The ALL feature allows developers to automatically add an ALL value to a list of values. An ALL value does the following:

- ❑ For dynamic parameters, the ALL feature sends a value of FOC_NONE to the reporting server alerting the server to bypass or ignore the parameter altogether. Ignoring the parameter would return all values in the data source.

- ❑ With static parameters, the ALL value typically uses JavaScript to return all of the values displayed in the list. This prevents you from having to select every value in the list manually. When using the ALL feature with static parameters, you can select from the following options:
 - ❑ Add ignore value. This option sends FOC_NONE to the server at run time, alerting the server to bypass or ignore the parameter altogether. It is intended for complex applications.
 - ❑ Add everything value. This option uses JavaScript to send every value present in the control list to the server at run time. The Add everything value option is only available with a Multiselect OR variable type.

When using a Dynamic or active report Data type, you may enter the value(s) to be selected as the default value whenever the procedure is run. For more information, see [How to Use Selected Values as the Default Value](#) on page 151.

Note: You may also enter the selected value when adding a new unbound parameter on the Parameters tab. For more information, see [Adding a New Unbound Parameter](#) on page 97.

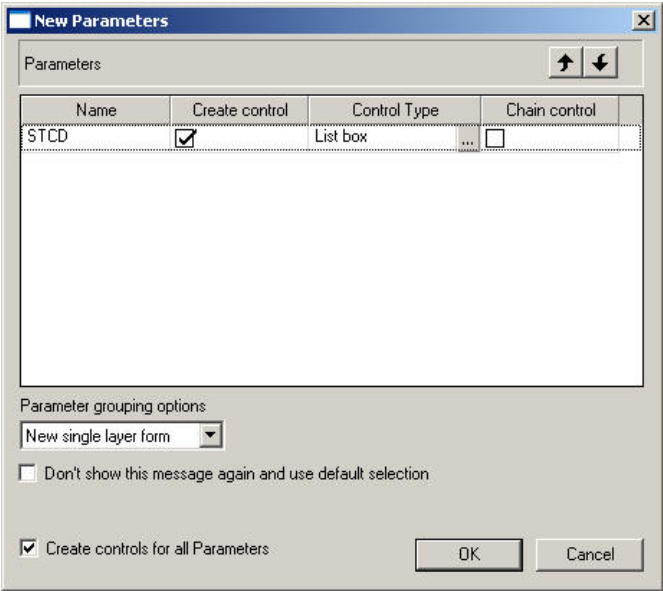
Procedure: How to Send the Display Value for Static and Dynamic Controls

From the HTML Composer, you may send the display value, rather than the actual data, to the parameter. The display value can also be used for headings and footings in the report output.

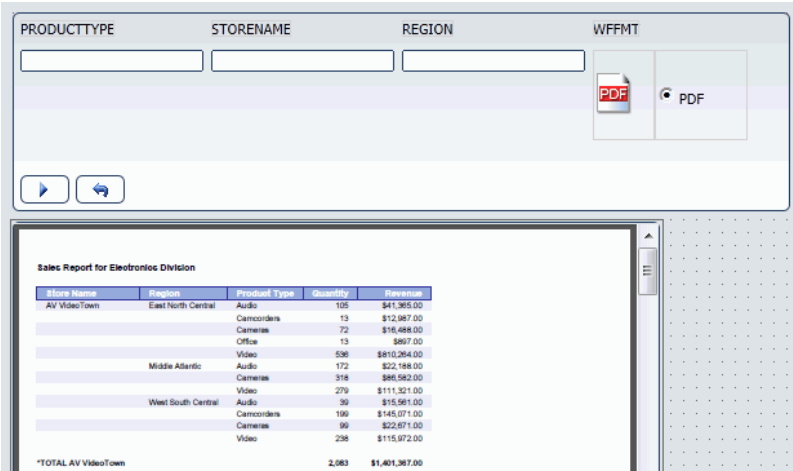
The Send display value option appears when creating an incoming static parameter (a parameter that is bound to a control), or an unbound control (a control that is not bound to a parameter). It is not available when creating an unbound static parameter.

1. From the HTML Composer, import or create a report that contains a parameter.

When importing a report with parameters, the New Parameters dialog box appears prompting you to create the control type.



The report and control type is added to the HTML Composer.



- 2. To send the display value for the parameter selection, select the control object (for example, select listboxn) in the Design view and click the *Parameters* tab.

The Properties and settings dialog box opens.

Note: The options available in the Properties and settings dialog box vary, depending on the type of values (static or dynamic) you are creating.

3. For a static list of values, the Value, Display, and Selected columns appear on the Properties and settings dialog box.
 - ☐ In the Display column, enter the text that represents the parameter value that the user views.

Repeat this step until the list contains all of the values you want to include.

- ☐ Select *Send display value*.

Properties and settings

Data type

☒ Static ☐ Dynamic ☐ Active Report ☐ TOC

Items may be dragged into the desired order

Value	Display	Selected
R1019	Gotham 19	☐
R1020	Gotham 20	☐
R1040	Gotham 40	☐
R1041	Gotham 41	☐

☒ Send display value

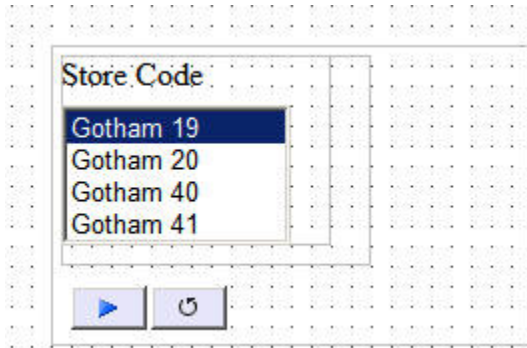
☐ Values are procedures names

Tip: You may also update the display values from the Variable Editor in the Report Painter.

- ☐ Optionally, you may select values and click the *Delete* button to eliminate any values, and use the up and down arrows to rearrange the order of the values.
- ☐ Close the Properties and settings dialog box.

For more information about static values, see [Creating a Static List of Values](#) on page 100.

- ❑ Click the *Design* tab to view the display values in the control object of the HTML Composer.



4. For a dynamic list of values, the Value field and the Display field appear on the Properties and settings dialog box.

Sending the display value for Dynamic values is only applicable if you are using a Data source that contains both an internal data value and a field that the internal data value maps to for display purposes.

- a. If using an Embedded procedure to supply dynamic values, follow the steps below.

- ❑ Select *Embedded procedure*.
- ❑ Click the Embedded procedure ellipsis button.

The Get source file dialog box opens.

- ❑ Select the Master File name and click *Open*.
- ❑ Click the ellipsis button from the Value field.

The Object Inspector opens with the field names from the selected Master File.

- ❑ Double-click a field name to add it to the Value field.

The selected field is automatically added to the Display field and the source code for the embedded procedure appears.

- ❑ Optionally, you may click the Display field ellipsis button to select a different field name for the Display field.

- ☐ Optionally, select *Add "ALL" option* to automatically add an ALL value to a list of parameter values.
- ☐ Optionally, select *Add 'No selection' option* to optimize performance by populating a chain one control at a time instead of all the controls when the page initially loads.
- ☐ Ensure that *Send display value* is checked.
Send display value is selected by default.

b. If using an External Procedure to supply dynamic values, follow the steps below.

- ☐ Select *External Procedure*.
- ☐ Click the External Procedure ellipsis button.
The Get source file dialog box opens.
- ☐ Select the procedure (.fex) file name and click *Open*.
The parameter names from the procedure are automatically added to the Value field and Display field, and the source code for the external procedure appears.
- ☐ Optionally, you may click the Value field and Display field ellipsis button to select a different field name.

Note: Only the parameter names from the external procedure will be available for selection.

- ☐ Optionally, select *Add "ALL" option* to automatically add an ALL value to a list of parameter values.
- ☐ Optionally, select *Add 'No selection' option* to optimize performance by populating a chain one control at a time instead of all the controls when the page initially loads.
- ☐ Ensure that *Send display value* is checked.
Send display value is selected by default.

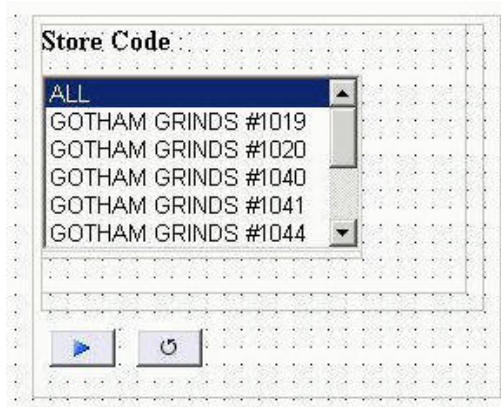
The following image is an example of the Properties and settings dialog box with Send display value selected for a dynamic value.

Tip: For details about the //TODO line in the source code, see [Creating a Dynamic List of Values](#) on page 118.

- ❑ Close the Properties and settings dialog box.

For more information about dynamic values, see [Creating a Dynamic List of Values](#) on page 118.

- ❑ Click the *Design* tab to view the display values in the control object of the HTML Composer.



5. Optionally, you may add a heading to the report to show the display value. Double-click the report from the HTML Composer to open and edit the report.

The report opens in the Report Painter.

6. Manually add `&Variable_TEXT` to the report heading or footing.

Note: If the report procedure uses it, `&Variable_TEXT` will always be passed, regardless of if Send display value is selected.

For example, the image below shows the heading as Display Value: &STCD_TEXT, where Store Code (STCD) is the variable name.

Page Heading

Display Value: &STCD_TEXT

Store ID	Category	Product	Dollar Sales
Axxxx	Axxxxxxxxxxx	Axxxxxxxxxxxxxxxxx	11111111
		Bxxxxxxxxxxxxxxxxx	11111111
	Bxxxxxxxxxxx	Axxxxxxxxxxxxxxxxx	11111111
		Bxxxxxxxxxxxxxxxxx	11111111
Bxxxx	Axxxxxxxxxxx	Axxxxxxxxxxxxxxxxx	11111111
		Bxxxxxxxxxxxxxxxxx	11111111
	Bxxxxxxxxxxx	Axxxxxxxxxxxxxxxxx	11111111
		Bxxxxxxxxxxxxxxxxx	11111111

Page Footing

Tip: This is different from adding the actual value from the data source, where clicking the variable name would add <STCD to the report heading.

7. Save and close the report to return the HTML Composer.
- When you create the Text variable (&Variable_TEXT), you are not prompted to set a control type for this variable when returning to the HTML Composer, as no control type is needed.
8. Run the HTML page.
9. Select the parameter for the report and run the report.

The display value is shown in the report heading.

For example, in the image below, Gotham 40 is selected as the Store Code and shows the display value in the report heading. The actual value, R1040, is shown in the Store ID column.

Note: HTML Composer passes &var_TEXT if the report procedure uses it, regardless of whether the send display value check box is checked or unchecked.

Store Code:

Gotham 19
Gotham 20
Gotham 40
Gotham 41
R1044
R1088

Display Value: Gotham 40

<u>Store ID</u>	<u>Category</u>	<u>Product</u>	<u>Dollar Sales</u>
R1040	Coffee	Capuccino	306468
		Espresso	267809
		Latte	809647
	Food	Biscotti	266030
		Croissant	800084
		Scone	315584

Procedure: How to Use Procedure Names as Values

The Values are procedures names option lets you populate a control with procedure names. When that procedure name is clicked, the procedure executes.

1. Create an HTML page that contains a listbox, a push button, and a report.

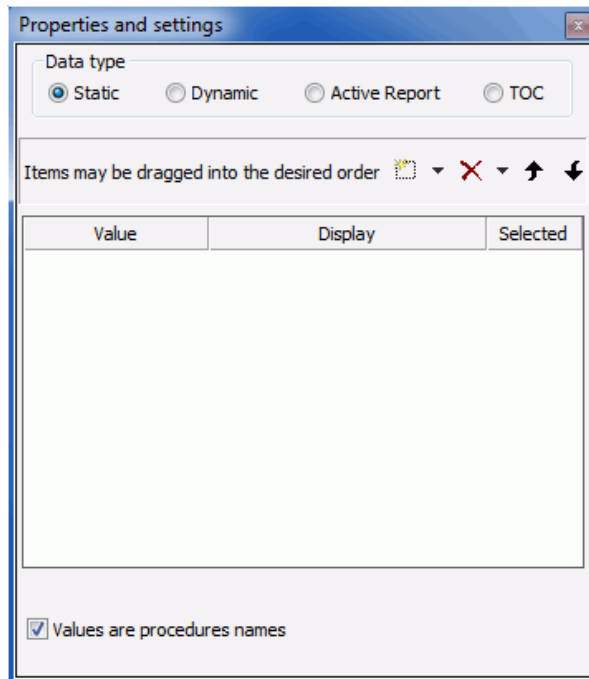
Note: In this procedure a listbox is used, however, the following controls are also able to use the Values are procedures names option: double list, drop-down, radio button, and check box.

2. Select the listbox to bring up the Properties and settings dialog box.

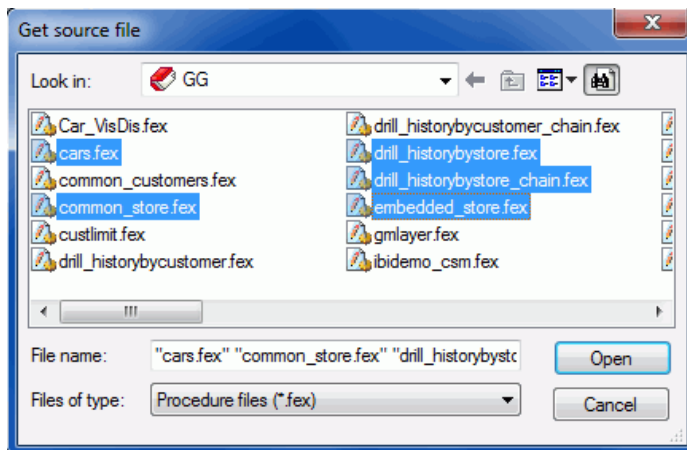
Note: If the Properties and settings dialog box does not open, select *View* and click *Properties and settings*.

3. Select *Static* as the Data type.

- At the bottom of the Properties and settings dialog box, select *Values are procedures names*, as shown in the following image.



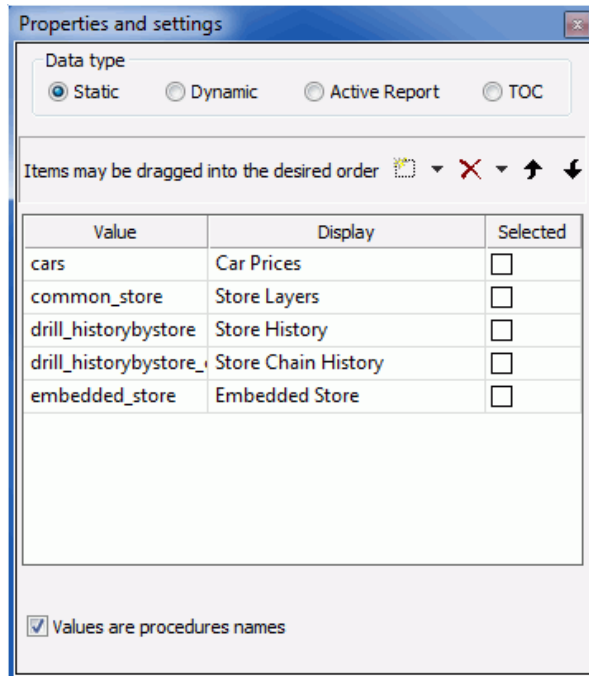
- Click the New button and select procedures from your directory, as shown in the following image.



Note: You can add multiple procedure names to the Properties and settings dialog box by multi-selecting procedures while in the Get source file dialog box.

6. Once the procedures has been added to the Properties and settings dialog box, edit the display name of the procedures value by double clicking the display contents if they are not highlighted already.

The following images shows the procedure values with new display names.



7. Right-click the button you created and click *Create Hyperlink*.
The Hyperlink Properties dialog box opens.
8. Create a hyperlink that opens a selected procedure from a control in the report frame created earlier.
 - a. For the Action, select *Procedures from control* from the drop-down list.
This option coincides with the Values are procedures names option found in the Properties and settings dialog box. This option will point to an entire procedure for the hyperlink, rather than a simple value. This option is only available when a control on the HTML Page is using the Values are procedures names option.
 - b. Select *listbox1* as the Source.

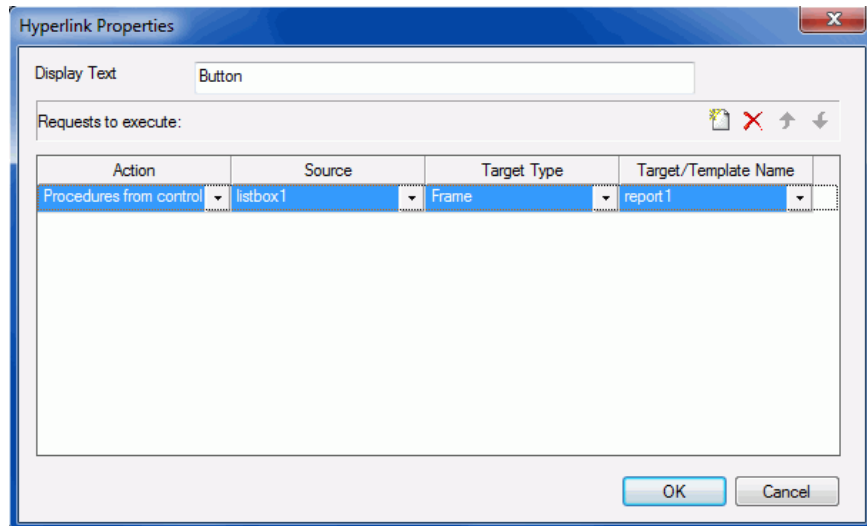
The source can be different if you use a different control. For example, `combobox1`, `customselect1`, `radio1`, or `checkbox1`.

- c.** Select *Frame* as the Target Type.

You could also select *New Window* as the target if you wanted the procedure to open in a new window.

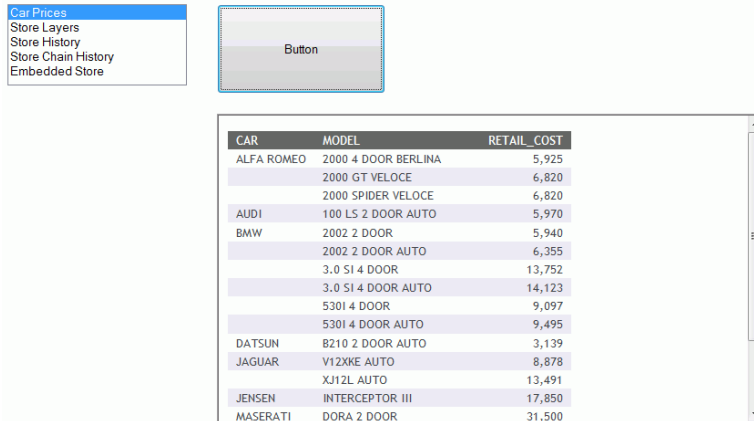
- d.** Select *report1* as the Target/Template Name.

The created hyperlink is shown in the following image.



- 9. Run the page.
- 10. Select the procedure from the listbox and click the button.

The report is run, as shown in the following image.



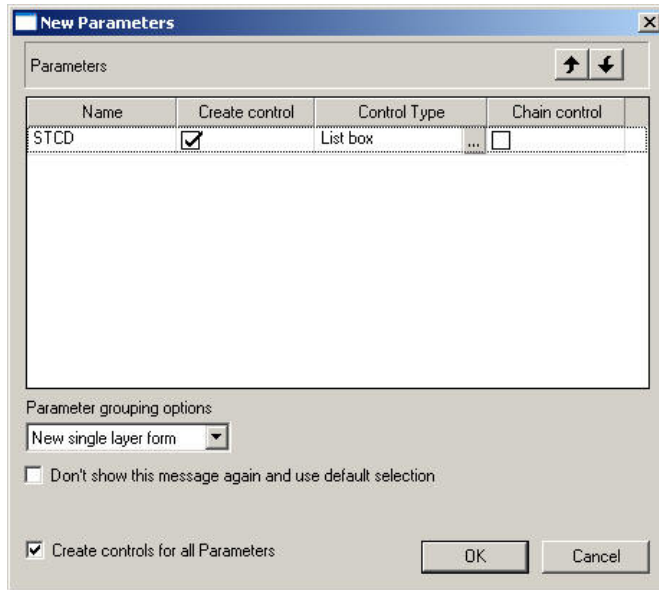
Procedure: How to Use Selected Values as the Default Value

When using a Dynamic or active report Data type, you may enter the value(s) to be selected as the default value whenever the procedure is run.

If you import a procedure (.fex) that has a dynamic prompt value then the input box is populated with values retrieved from the data source. If the selected value is available in the data source, the value(s) are selected by default. If the selected value is not available in the data source, then the value(s) that you entered are ignored and the first value retrieved from the data source is selected.

1. From the HTML Composer, import or create a report that contains a parameter.

When importing a report with parameters, the New Parameters dialog box appears prompting you to create the control type.



The report and control type is added to the HTML Composer.

2. To enter the selected value to be used as the default value, select the control object (for example, select listboxn) in the Design view and click the *Parameters* tab.

The Properties and settings dialog box opens.

Note: The options available in the Properties and settings dialog box vary, depending on the type of values (static or dynamic) you are creating.

3. For a dynamic list of values, the Value field and the Display field appear on the Properties and settings dialog box.
 - a. If using an Embedded procedure to supply dynamic values, follow the steps below.
 - ☐ Select *Embedded procedure*.
 - ☐ Click the Embedded procedure ellipsis button.
The Get source file dialog box opens.
 - ☐ Select the Master File name and click *Open*.
 - ☐ Click the ellipsis button from the Value field.

The Object Inspector opens with the field names from the selected Master File.

- ❑ Double-click a field name to add it to the Value field.

The selected field is automatically added to the Display field and the source code for the embedded procedure appears.

- ❑ Optionally, you may click the Display field ellipsis button to select a different field name for the Display field.
- ❑ Optionally, select *Add "ALL" option* to automatically add an ALL value to a list of parameter values.
- ❑ Optionally, select *Add 'No selection' option* to optimize performance by populating a chain one control at a time instead of all the controls when the page initially loads.
- ❑ Enter the exact parameter value in the Selected Value input field, as it appears in the data source.

Parameter values are case-sensitive.

- ❑ Optionally, you may enter more than one value by using a semicolon between the values. For example, CA;GA.

You may enter selected values with a semicolon or a comma. Additionally, you may also have embedded commas or semicolons in the data values. If you have these embedded characters, you must enclose all of the values in the input area in double quotation marks. For example:

ENGLAND;ITALY

ENGLAND,ITALY

"ENGLAND", "IT,ALY"

Note that even though one value in the last set has the embedded comma, both values need to be enclosed in double quotation marks.

- ❑ Close the Properties and settings dialog box.
- b.** If using an External Procedure to supply dynamic values, follow the steps below.
- ❑ Select *External Procedure*.
 - ❑ Click the External Procedure ellipsis button.

The Get source file dialog box opens.

- ❑ Select the procedure (.fex) file name and click *Open*.

The parameter names from the procedure are automatically added to the Value field and Display field, and the source code for the external procedure appears.

- ❑ Optionally, you may click the Value field and Display field ellipsis button to select a different field name.

Note: Only the parameter names from the external procedure will be available for selection.

- ❑ Optionally, select the *Add "ALL" option* to automatically add an ALL value to a list of parameter values.

- ❑ Enter the exact parameter value in the Selected Value input field, as it appears in the data source.

Parameter values are case-sensitive.

- ❑ Optionally, you may enter more than one value by using a semicolon (;) between the values. For example, CA;GA.

You may enter selected values with a semicolon (;) or a comma (,). Additionally, you may also have embedded commas or semicolons in the data values. If you have these embedded characters, you must enclose all of the values in the input area in double quotation marks. For example:

ENGLAND;ITALY

ENGLAND,ITALY

"ENGLAND", "IT,ALY"

Note that even though one value in the last set has the embedded comma, both values need to be enclosed in double quotation marks.

- ❑ Close the Properties and settings dialog box.

For more information about dynamic values, see [Creating a Dynamic List of Values](#) on page 118.

The following image is an example of the Dynamic Data type Properties and settings dialog box, with parameter values in the Selected Value field.

Properties and settings

Data type
☐ Static ☒ Dynamic ☐ Active Report ☐ TOC

☒ Embedded procedure ☐ External Procedure

ggsales.mas

Value field: ST

Display field: ST

```
TABLE FILE ggsales
SUM FST.ST
BY ST
// TODO: Add your filters here to replace defaults
ON TABLE PCHOLD FORMAT XML
END
```

☒ Add "ALL" option: ALL

☐ Add 'No selection' option: - Make Selection -

☐ Cache run time data ☐ Limit values returned: 10

☒ Sort: Sort by Value ☐ Display Sort order: Ascending ☐ Descending

☒ Send display value: Selected Value CA;GA

☐ Check for duplicate values

4. For an active report list of values, the Available active reports, Menu Option Types, and Common Columns appear on the Properties and settings dialog box.
 - ☐ Select one or more active reports from the list of Available active reports. The selected report will be bound to the active report control in the layout.
 When an active report is selected, Refresh for active reports is enabled by default.
 - ☐ Select the Menu Options Types for the active report control to sort, filter, list or select columns, and/or change presentation styles of the bound active report and the associated report and graph objects synchronized to the active report.
 - ☐ Optionally, select the *Add "ALL" option* to automatically add an ALL value to a list of parameter values.

- ❑ Enter the exact parameter value in the Selected Value input field, as it appears in the data source.

Parameter values are case-sensitive.

- ❑ Optionally, you may enter more than one value by using a semicolon between the values. For example, CA;GA.

You may enter selected values with a semicolon or a comma. Additionally, you may also have embedded commas or semicolons in the data values. If you have these embedded characters, you must enclose all of the values in the input area in double quotation marks. For example:

ENGLAND;ITALY

ENGLAND,ITALY

“ENGLAND”,”IT,ALY”

Note that even though one value in the last set has the embedded comma, both values need to be enclosed in double quotation marks.

- ❑ Close the Properties and settings dialog box.

For more information about active report values, see [Creating Active Technologies Dashboards With the HTML Composer](#) on page 395.

The following image is an example of the active report Data type Properties and settings dialog box, with parameter values in the Selected Value field.

Properties and settings

Data type
☐ Static ☐ Dynamic ☒ Active Report ☐ TOC

Available Active Reports
 report3
 report4

Menu Option Types
 Column value

Common Columns
 Store ID
 Store Name
 City
 State

☒ Refresh for Active Reports

☒ Add "ALL" option

Selected Value

5. For a single-select unbound parameter, the Selected Value input field appears on the Properties and settings dialog box.
 - ☐ Enter the exact parameter value in the Selected Value input field, as it appears in the data source.
 Parameter values are case-sensitive.
 - ☐ Optionally, you may enter more than one value by using a semicolon between the values. For example, CA;GA.

You may enter selected values with a semicolon or a comma. Additionally, you may also have embedded commas or semicolons in the data values. If you have these embedded characters, you must enclose all of the values in the input area in double quotation marks. For example:

ENGLAND;ITALY

ENGLAND,ITALY

“ENGLAND”,”IT,ALY”

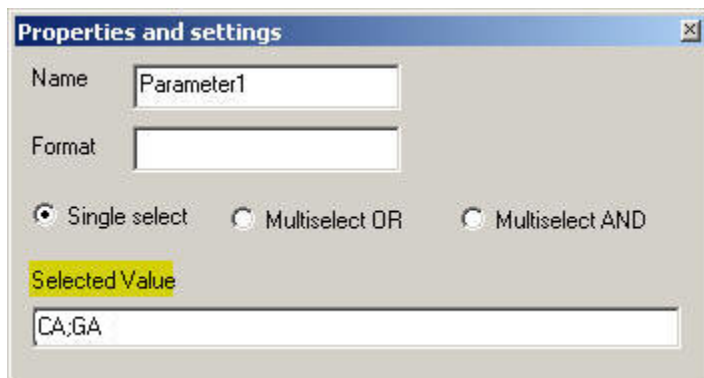
Note that even though one value in the last set has the embedded comma, both values need to be enclosed in double quotation marks.

- ❑ Close the Properties and settings dialog box.

For more information about single-select parameters, see [Adding a New Unbound Parameter](#) on page 97.

The following image is an example of the Single select parameter Properties and settings dialog box, with parameter values in the Selected Value field.

Even though it is a Single select parameter, multiple values are specified and selected.



6. Run the report.

The selected value, if available from the data source, is automatically selected (highlighted) in the parameter list.

The example below shows CT, GA as the selected values in the State parameter list in the report output.

The screenshot shows a web interface titled "By State". It contains a list box with the following items: ALL, CA, CT, FL, GA, and IL. The items CT and GA are highlighted in blue, indicating they are selected. Below the list box are two buttons: a "Run" button (represented by a blue play icon) and a "Reset" button (represented by a circular arrow icon). Below these buttons is a large, empty rectangular box, likely intended for the report output.

- Click the *Run* button to run the report with the selected value parameters.

The report output appears.

If the selected value is not available in the report results, then the value that you entered is ignored and the first value retrieved from the data source is shown.

Updating Parameters in the HTML Composer With Report Painter Changes

When using the HTML Composer, if changes are made to parameter values in the Report Painter, you may want to update the values in the HTML Composer with those entered in the Report Painter.

Using Controls to Supply Incoming Parameter Values

Controls enable you to prompt users for a parameter value. When you create a parameter as part of a report or graph, the HTML Composer automatically adds a control, Submit button, and Reset button for the parameter to your layout, and the parameter appears on the Parameters tab. You can also add an input control and bind it to a parameter.

When you delete a parameter in the Report Painter that was assigned a control in the HTML Composer, you must delete the associated controls individually in the layout.

Controls, with the exception of a text box which does not supply a list of possible values, can supply values with a dynamic or static list of values:

- ❑ A dynamic list retrieves values from a specified data source when the request is run.
- ❑ A static list consists of a list of values you supply. These values do not change unless you change them.
- ❑ An active report control lists active report values that mimic active report menu items.

The active report controls cannot be associated to any parameters in the layout. This type of control can only be associated with an active report in the layout.

The properties of a control, as well as the parameters associated with each control, can be controlled with the Properties tab of the Properties window, and with the Parameters tab. For details, see [Working With the Properties Window](#) on page 87 and [Working With the Parameters Tab](#) on page 96, respectively.

Note: Pertaining to the Default selection property, at run time, when using a combo box, there must be a value selected. In order to have nothing selected, you must add the Make selection value.

For details about static and dynamic controls, see [Creating a Static List of Values](#) on page 100 and [Creating a Dynamic List of Values](#) on page 118.

For details about active controls, see [Creating Active Technologies Dashboards With the HTML Composer](#) on page 395.

Automatically Creating Controls From the New Parameters Dialog Box

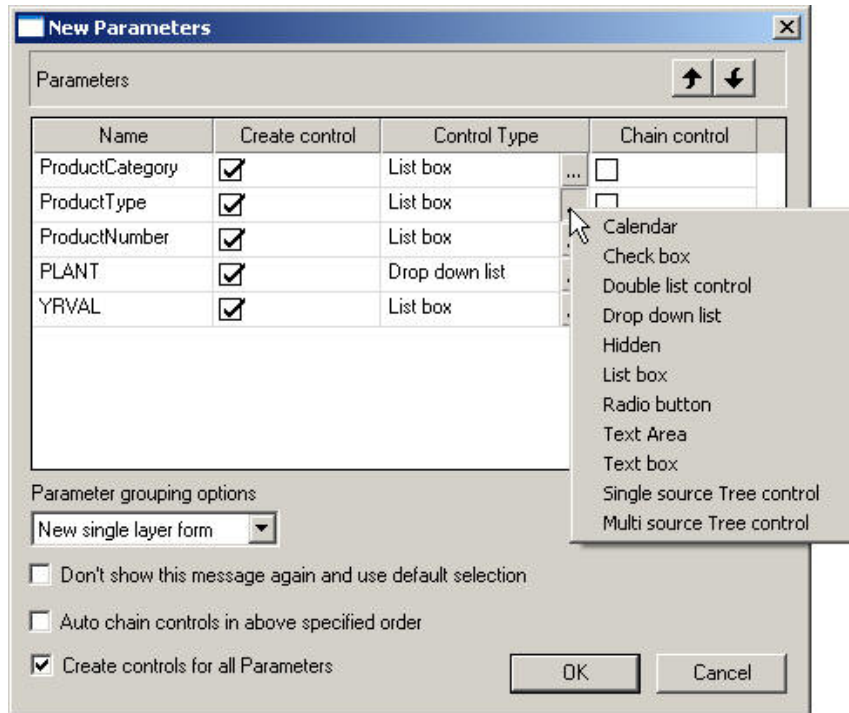
When a report contains one or more new parameter variable parameters created in the Report Painter, the New Parameters dialog box appears when you save the report. You can set the Control Type for each parameter prior to returning to the HTML Composer. This eliminates the need to select each parameter individually to set the associated Control Type.

If you reference or import an existing report that uses a Master File containing a parameter, the New Parameters dialog box opens with that parameter in the list, as well as any parameters from the report procedure

Note: When referencing or importing an existing report that uses a Master file containing a parameter, the *Add “ALL” option* and the *Add “No Selection” option* are unavailable

If linking hyperlink properties to another page or procedure, the HTML Composer parses the other file for unresolved parameters and opens the New Parameters dialog box.

The following image shows the New Parameters dialog box. For each parameter, you will find Name and Control Type fields, a Create control check box, and a Chain control check box. The Control Type ellipsis button enables you to select a new or existing control type for the parameter.



The Parameter grouping options menu in the New Parameters dialog box provides options for the placement of the controls associated with new ampere variable parameters created in the Report Painter. The option selected is set from the HTML Page tab, which is located in the Developer Studio Options dialog box. You may create a single or multiple layer form, or select an existing form from the layout.

- ☐ Select *Do not create a form* to insert the controls for each of the new parameters in separate locations on the HTML page.
- ☐ Select *New multiple layer form* to insert the controls for all of the new parameters inside one form element you can position anywhere on the HTML page. This form element also contains submit (run) and reset buttons. The multiple layer form contains group boxes around each element in the form. You may move and resize each element of the control.

- ❑ Select *New single layer form* to insert the controls for all of the new parameters inside one form element you can position anywhere on the HTML page. This form element also contains submit (run) and reset buttons. The single layer form contains all of the elements within a single group box.

Single layer is the default form type selected in the HTML Page tab. To change the default form type, select *Options* from the Window menu. The Developer Studio Options dialog box will open. From the Developer Studio Options dialog box, select the HTML Page tab.

- ❑ Select *form(n)*, where *n* is the number of a control that already exists in the layout. The parameter is added to the selected control.
- ❑ Select *Don't show this message again and use default selection* to control whether or not the New Parameters dialog box appears when adding parameters in the HTML Composer.

Tip: You may view the New Parameters dialog box again by selecting *Show New Parameters dialog* from the HTML Page tab. To access the HTML Page tab, select *Options* from the Window menu. The Developer Studio Options dialog box will open. From the Developer Studio Options dialog box, select the HTML Page tab.

- ❑ Select *Auto chain controls in above specified order* to automatically chain the selected controls from the New Parameters dialog box. The auto chain option is useful since it creates the chain, or links of a chain, automatically for the parameters selected in the Chain control column. For more information, see [Automatically Chaining Parameters From the New Parameters Dialog Box](#) on page 355.
- ❑ Select *Create controls for all Parameters* to switch between creating controls for all or none of the parameters in the New Parameters dialog box. When importing or referencing a report with parameters to an HTML page, all of the controls will have *Create control* selected by default. The create controls for all parameters selection is useful when there is a long list of parameters that you do not want to add controls for on the HTML page.

To edit the Control Type that you selected from the New Parameters dialog box, select the parameter object on the Parameters tab or the Design tab, right-click, and select the control type option from the *Set Control Type* menu.

Procedure: How to Manually Create a Control in the Layout

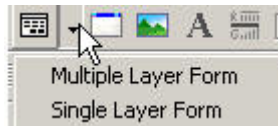
When you create a parameter as part of a report or graph, the HTML Composer automatically adds a control, Submit button, and Reset button for the parameter to your layout. Manually adding a control to the layout enables you to create the individual objects on the control.

Inserting a control in the Design view creates the control object in the layout with the Submit button and Reset button. You must manually add the input controls to be used in the control. For more information, see [Using Controls to Supply Incoming Parameter Values](#) on page 159.

1. Insert a control by doing one of the following:

- ❑ Click the *Insert form* button from the Components toolbar.

You may select *Multiple Layer Form* or *Single Layer Form* as the form type. If no form type is selected, single layer form is the default.



- ❑ From the Insert menu, point to Components, then point to Form, then select a form type (Multiple Layer Form or Single Layer Form).



The cursor changes into a crosshair.

To change the default form type, select *Options* from the Window menu. The Developer Studio Options dialog box opens. From the Developer Studio Options dialog box, select the HTML Page tab.

The multiple layer form contains group boxes around each element in the form. You may move and resize each element of the control. The single layer form contains all of the elements within a single group box.

2. Click and drag the crosshair to create a control and adjust it to the size you want.

A control is created in the layout and assigned the *form(n)*, where *n* is a number.

3. You may add input controls in the control object to create parameter values.

- ❑ Create an insert control and add it in the control object. For example, insert a List Box, Drop Down List, and so on.

- ❑ Click the *Parameters tab* to create parameter values.

The Properties and settings dialog box opens. Creating an input control from the Design view prompts you to create a bound parameter on the Parameters tab.

- ❑ Create the parameter values for the input control.

For details about creating parameter values, see [Creating Parameter Values](#) on page 95.

- ❑ Optionally, you may close the Properties and settings dialog box for the input control if you wish to bind a parameter to a control.
- 4. Bind the input controls to a parameter.

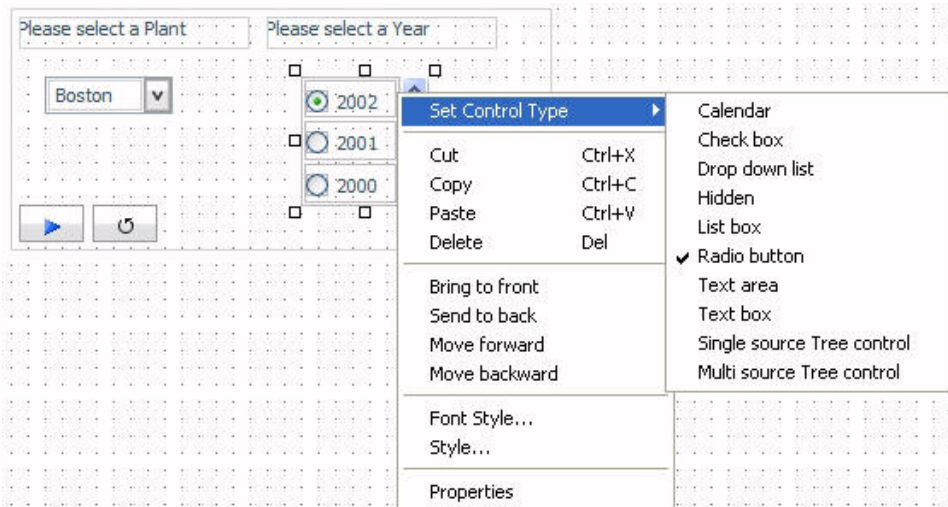
Binding a control to a parameter will populate the parameter. Click and drag a control object to a parameter object on the Parameters tab. For details about creating input controls, see [Using Input Controls to Supply Parameter Values](#) on page 168.
- 5. Optionally, you may assign hyperlink properties to the Submit button. For more information, see [How to Add a Hyperlink to a Push Button or an Image](#) on page 66.

Procedure: How to Change the Type of Control Associated With a Parameter

1. In the Parameters tab or the Design tab, select the input control associated with the parameter name.
2. Right-click and select *Set Control Type*.
3. Select the type of input control for the form.

Options are Calendar, Check box, Drop down list, Hidden, List box, Radio button, Text area, Text box, Single source Tree control, and Multi source Tree control.

The following image shows the input control options when right-clicking a control object on the Design tab.



Procedure: How to Bind or Unbind a Parameter To/From an Existing Control

When a control is automatically added to the layout with the New Parameters dialog box, it is associated (bound) to a parameter. Click the *Parameters* tab and notice the direction of the arrow. The control object is bound to the parameter object, which means that the control will populate the parameter.

If you deselect the *Create control* option from the New Parameters dialog box, the deselected parameter name is added to the Unbound Parameters box on the Parameters tab. The Unbound Parameters box is a container for the unbound parameters, only for parameters not selected from the New Parameters dialog box. Any parameters created or unbound from the Parameters tab are not automatically moved here. Optionally, you may click and drag parameters to and from the Unbound Parameters box for your own organization.

1. To unbind a parameter from a control:

- ❑ Click the *Parameters* tab.
- ❑ Select the arrow head on the line between the parameter and the input control, so that the line is bold.
- ❑ Right-click and select *Break binding*.

2. To bind a parameter to a control:

- ❑ Click the *Parameters* tab.
- ❑ Select the center of the input control object.
- ❑ *Click and drag* the control to the center of the parameter object.
- ❑ Release the mouse to complete the binding.

Reference: Types of Controls

Controls can be single-select or multi-select. Single-select controls enable you to select a single value from a list of supplied values. Multi-select forms enable you to select multiple values from a list of supplied values.

Examples of single-select controls are:

- ❑ **A text box.** For details, see [Using a Text Box](#) on page 169.
- ❑ **A drop-down list.** For details, see [Using a Drop-Down List](#) on page 175.
- ❑ **Radio buttons.** For details, see [Using Radio Buttons](#) on page 203.
- ❑ **A text area.** For details, see [Using a Text Area](#) on page 173.
- ❑ **Check boxes.** For details, see [Using Check Boxes](#) on page 200.

Examples of multi-select controls are:

- ❑ **A list box.** For details, see [Using a List Box](#) on page 180.
- ❑ **A tree control.** For details, see [Using Tree Controls](#) on page 207.

A drop-down list is the default control type for all single-select parameters on the New Parameters dialog box. A list box is the default control type for all multi-select parameters on the New Parameters dialog box.

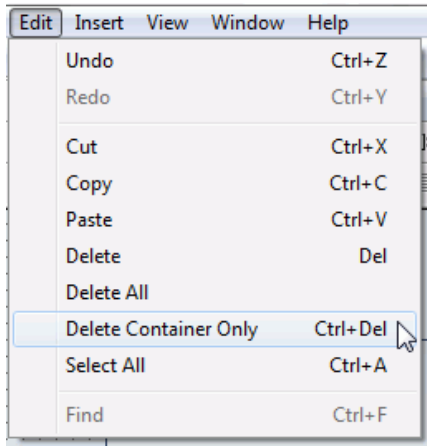
You can change the type of input control using the Parameters tab. For details, see [How to Change the Type of Control Associated With a Parameter](#) on page 164.

Note: Individual multi-select parameters must be designated as multi-select in the Report Painter in order to process multiple values.

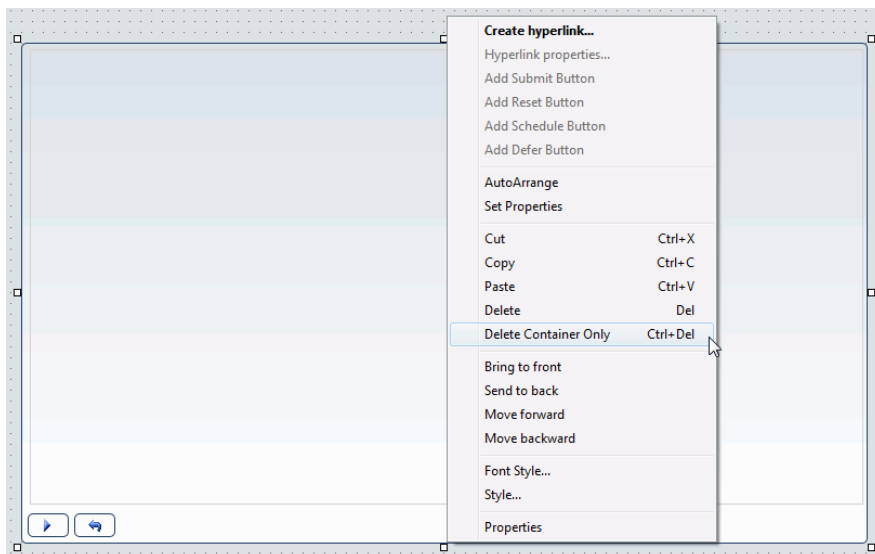
Using the Delete Container Only Option

When creating parameters, the Grouping option selected in the New Parameters dialog box generates a container for controls. After the container is created, you may choose to delete the container by using the Delete Container Only option. This option allows you to delete the container without deleting the objects inside. You can Delete Container Only using the Edit menu, by using the Ctrl + Delete keys, or by right-clicking the container and selecting *Delete Container Only* from the context menu.

The following image shows the Delete Container Only option on the Edit menu.



The following image shows the Delete Container Only option on the context menu when right-clicking a container.



Note: If you delete a form container, the Reset button is deleted with the form. The Reset button is deleted because it is attached to the form.

Using Input Controls to Supply Parameter Values

Creating an input control from the Design view prompts you to create a bound parameter on the Parameters tab. Binding a control to a parameter will populate the parameter.

Note:

- ❑ You may also add input controls from the New Parameters dialog box that appears when creating a report or graph with parameters. For more information about the New Parameters dialog box, see [Automatically Creating Controls From the New Parameters Dialog Box](#) on page 160.
- ❑ Except for the Hidden control, the Properties and settings dialog box will display for all controls when in the Design tab and Parameters tab. The Properties and settings dialog box will display for the Hidden control only when in the Parameters tab.

Using a Text Box

A text box enables you to enter a value in a text entry field.

Procedure: How to Create a Text Box

A text box only provides a single-select value.

1. Add a text box by doing one of the following:

- ☐ Click the *Text Box* button from the Components toolbar.

or

- ☐ From the Insert menu, select *Controls*, then click *Text Box*.

The cursor changes to a crosshair.

2. Click and drag the crosshair to create a text box and adjust it to the size you want.

A text box is created in the layout and assigned the name *edit(n)*, where *n* is a number.

3. Optionally, change the properties of the text box by adjusting the properties displayed in the Properties tab of the Properties window. For details, see [Text Box Properties in the Properties Window](#) on page 172.

4. To bind an existing parameter to the text box:

Binding a parameter to a text box creates an incoming parameter. An incoming parameter is a parameter that is bound to a control. The parameter value will populate the text box with values.

- ☐ Click the *Parameters* tab.

The Properties and settings dialog box opens.

- ☐ Close the Properties and settings dialog box.

Close this dialog since you are populating the text box with a parameter value.

- ☐ Select the center of the parameter name object, left-click and drag the parameter to the center of the text box object, and release the mouse to complete the binding.

- ☐ To unbind the parameter from the text box, select the arrow head on the line, so that the line is bold, right-click, and select *Break binding*.

5. To bind the text box to a parameter:

If binding a text box to a parameter, the value can only be single select. Binding the text box to a parameter will populate the parameter with the single value.

- ❑ Click the *Parameters* tab.

The Properties and settings dialog box opens.

- ❑ Create the single value for the text box. You can create a single Static or Dynamic value.
- ❑ Close the Properties and settings dialog box to create the text box with the single value.
- ❑ Bind the text box to a parameter. Select the center of the text box, left-click and drag the text box to the center of the parameter object, and release the mouse to complete the binding.

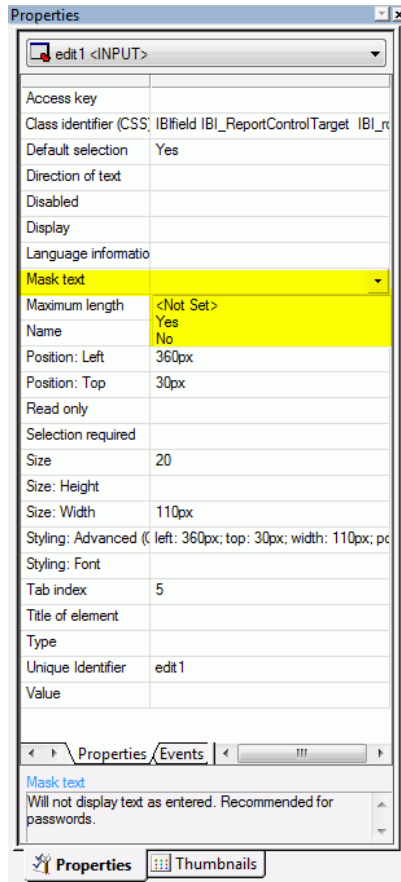
Procedure: How to Enter Masked Text in a Text Box

When entering a value in a text box at run time, you may set the mask text property so that the text is not displayed as text, but masked by default characters. This is recommended when using passwords or other sensitive information.

1. Select the Text Box object to view the associated properties.

You may also select the text box properties from the drop-down list of the Properties window. The properties for the text box appears as edit(*n*) <INPUT>.

- From the Mask text property field, select Yes.



- Run the report and enter a value in the text box.

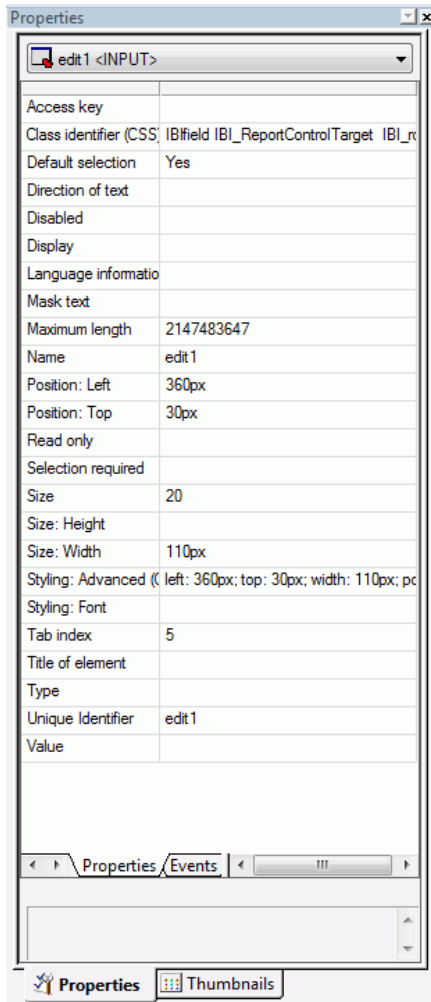
The value being entered appears as masked text, as shown in the following image.

Enter Salary:

Salary Increase: Production Department			
LAST_NAME	FIRST_NAME	SALARY	PCT_INC
DAVANKING	LOUN	\$20,700.00	00

Reference: Text Box Properties in the Properties Window

When a text box is selected, the Properties tab in the Properties window contains options that control the properties of your text box.



Click a property to display a description of the selected property at the bottom of the Properties window.

Using a Text Area

A text area is a single-select control that enables you to enter multiple lines of text that can be assigned to a single variable. The behavior is similar to a text box, but you are not restricted to entering just one line of text. For example, if you want to assign a paragraph (multiple lines of text) to a variable that can be referenced by a procedure, you can add the paragraph to a text area from the Properties and settings dialog box on the Parameters tab.

Note: When the Multiple property is set for a text area control, you can enter data values separated by semicolons, commas, or carriage returns.

The following image shows the text area component in the HTML Composer.



Procedure: How to Create a Text Area

1. Click the *Text Area*  button from the Components toolbar.
or
From the Insert menu, select *Controls*, then click *Text Area*.
The cursor changes to a crosshair.
2. Click and drag the crosshair to create a text area and adjust it to the size you want.
A text area is created in the layout and assigned the name `textarea(n)`, where *n* is a number.
3. Optionally, you can change the properties of the text area in the Properties tab of the Properties window. For details, see [Text Area Properties in the Properties Window](#) on page 175.
4. To bind an existing parameter to the text area:

Binding a parameter to a text area creates an incoming parameter. An incoming parameter is a parameter that is bound to a control. The parameter value will populate the text area with values.

- ❑ Click the *Parameters* tab.

The Properties and settings dialog box opens.

- ❑ Close the Properties and settings dialog box.

Close this dialog since you are populating the text area with a parameter value.

- ❑ Select the center of the parameter name object, left-click and drag the parameter to the center of the text box object, and release the mouse to complete the binding.
- ❑ To unbind the parameter from the text area, select the arrow head on the line, so that the line is bold, right-click, and select *Break binding*.

5. To bind the text area to a parameter:

If binding a text area to a parameter, the value can only be single select. You can create one or more lines of text for the single value. Binding the text area to a parameter will populate the parameter with the single value.

- ❑ Click the *Parameters* tab.

The Properties and settings dialog box opens.

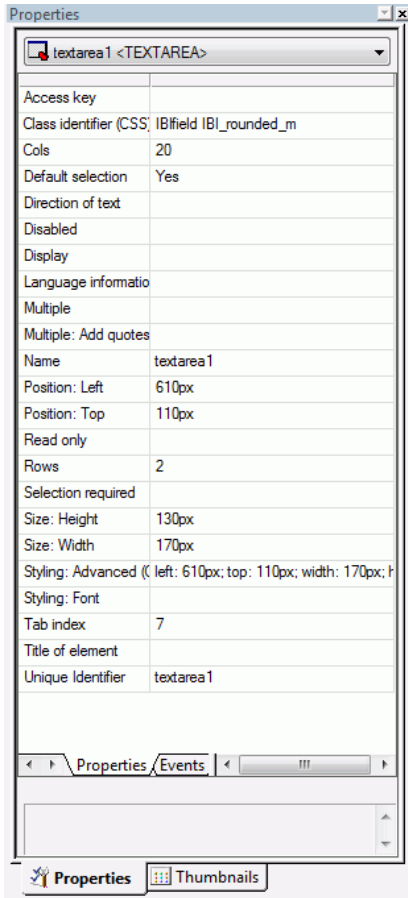
- ❑ Create the single value for the text area. You can create a single Static or Dynamic value.

Note: If you are creating a *Static* Data type for the text area, you may enter one or more lines of text by typing or pasting text into the *Selected Value* input field.

- ❑ Close the Properties and settings dialog box to create the text area with the single value.
- ❑ Bind the text area to a parameter. Select the center of the text area, left-click and drag the text area to the center of the parameter object, and release the mouse to complete the binding.

Reference: Text Area Properties in the Properties Window

When a text area is selected, the Properties tab in the Properties window contains options that control the properties of your text area.



Click a property to display a description of the selected property at the bottom of the Properties window.

Using a Drop-Down List

A drop-down list enables you to select a single value from a list of supplied values. You can use a dynamic or static list of values for the drop-down list.

Procedure: How to Add a Drop-Down List

1. Add a drop-down list by doing one of the following:
 - ❑ Click the *Drop Down List* button from the Components toolbar.
or
 - ❑ From the Insert menu, select *Controls*, then click *Drop Down List*.
The cursor changes to a crosshair.
2. Click and drag the crosshair to create a drop-down list, and adjust it to the size you want.
A drop-down list is created in the layout and assigned the name *combobox(n)*, where *n* is a number.
3. Optionally, change the drop-down list properties by adjusting the properties displayed in the Properties tab of the Properties window. For details, see [Drop-Down List Properties in the Properties Window](#) on page 180.
4. To bind an existing parameter to the drop-down list:
Binding a parameter to a drop-down list creates an incoming parameter. An incoming parameter is a parameter that is bound to a control. The parameter value will populate the drop-down list with values.
 - ❑ Click the *Parameters* tab.
The Properties and settings dialog box opens.
 - ❑ Close the Properties and settings dialog box.
Close this dialog since you are populating the drop-down list with a parameter value.
 - ❑ Select the center of the parameter name object, left-click and drag the parameter to the center of the drop-down list object, and release the mouse to complete the binding.
 - ❑ To unbind the parameter from the drop-down list, select the arrow head on the line, so that the line is bold, right-click, and select *Break binding*.
5. To bind the drop-down list to a parameter:
Binding the drop-down list to a parameter will populate the parameter with a list of values.
 - ❑ Click the *Parameters* tab.
The Properties and settings dialog box opens.

- ❑ Create the list of values for the drop-down list. You can create a list of Static or Dynamic values.
- ❑ Close the Properties and settings dialog box to create the text box with the list of values.
- ❑ Bind the text box to a parameter. Select the center of the text box, left-click and drag the text box to the center of the parameter object, and release the mouse to complete the binding.

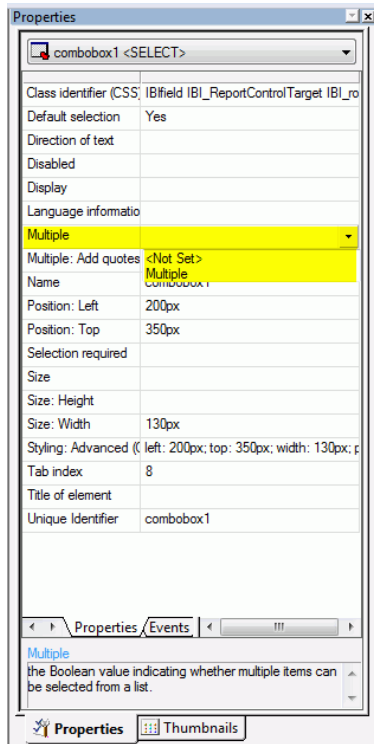
Procedure: How to Select Multiple Values From a Drop-Down List

When using a drop-down list input control to supply parameter values, the Multiple property value indicates whether multiple values can be selected from a list of supplied values at run time.

Note: A multi-select list enables you to select multiple values by using the Ctrl key while selecting values. In order to select multiple values in the drop-down list, the procedure must be set up to accept multiple values. Ensure that the Variable Type for the parameter value is Multiselect OR or Multiselect AND in the procedure.

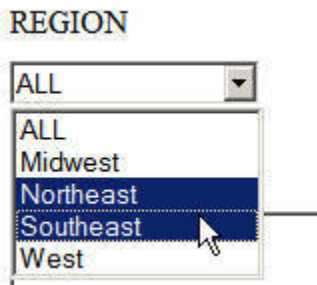
1. From the HTML Composer, insert a report with parameters that accept multiple values.
For example, create a report with *Multiselect OR* as the variable type for the parameter, accepting a dynamic list of values from *ggsales*, with *REGION* as the value for returned and displayed fields.
2. When the New Parameters dialog box appears, accept the default control type of *Drop down list* and click *OK*.
A drop-down list is created in the layout and assigned the name *combobox(n)*, where *n* is a number.
3. Select *Multiple* from the Multiple drop-down list in the Properties tab of the Properties window.

This indicates that multiple items can be selected from the drop-down list.



4. Save and run the HTML page.

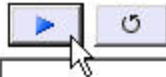
Select multiple values by using the Ctrl key while selecting values from the drop-down list, as shown in the following image.



The drop-down list shows the selected multiple values. Click the *Run* button to run the report with the selected value parameters.

REGION

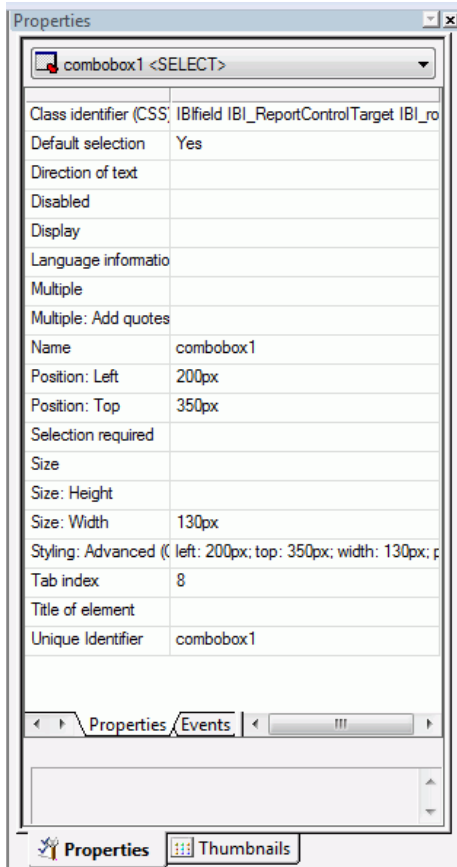
'Northeast' OR 'Southeast' ▼



<u>Category</u>	<u>Product</u>	<u>Region</u>	<u>Dollar Sales</u>
Coffee	Capuccino	Northeast	\$542,095
		Southeast	\$944,000

Reference: Drop-Down List Properties in the Properties Window

When a drop-down list is selected, the Properties tab in the Properties window contains options that control the properties of your drop-down list.



Click a property to display a description of the selected property at the bottom of the Properties window.

Using a List Box

A list box enables you to select single or multiple values at one time:

- ☐ A single-select list enables you to select only one value for each time a request is run.
- ☐ A multi-select list enables you to select multiple values by using the Ctrl key while selecting values. In order to provide multiple values, the procedure must be set up to accept multiple values.

List box values can be dynamic or static.

Procedure: How to Add a List Box

1. Add a list box by doing one of the following:

- ☐ Click the *list box* button from the Components toolbar.

or

- ☐ From the Insert menu, select *Controls*, then click *List Box*.

The cursor changes to a crosshair.

2. Click and drag the crosshair to create a list box, and adjust it to the size you want.

A list box is created in the layout and assigned the name `listbox(n)`, where *n* is a number.

3. Optionally, change the properties of the list box by adjusting the properties displayed in the Properties tab of the Properties window. For details, see [List Box Properties in the Properties Window](#) on page 182.

4. Bind an existing parameter to the list box.

Binding a parameter to a list box creates an incoming parameter. An incoming parameter is a parameter that is bound to a control. The parameter value will populate the list box with values. If binding a parameter to a list box, the value can be single or multiselect.

- ☐ Click the *Parameters* tab.

The Properties and settings dialog box opens.

- ☐ Close the Properties and settings dialog box.

Close this dialog since you are populating the list box with a parameter value.

- ☐ Select the center of the parameter name object, left-click and drag the parameter to the center of the list box object, and release the mouse to complete the binding.

- ☐ To unbind the parameter from the drop-down list, select the arrow head on the line, so that the line is bold, right-click, and select *Break binding*.

5. Bind the list box to a parameter.

Binding the drop-down list to a parameter will populate the parameter with a list of values.

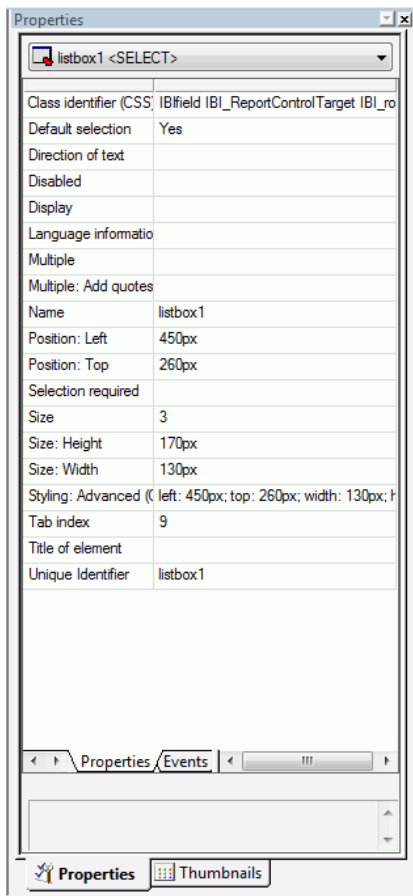
- ☐ Click the *Parameters* tab.

The Properties and settings dialog box opens.

- ❑ Create the list of values for the list box control. You can create a list of Static or Dynamic values.
- ❑ Close the Properties and settings dialog box to create the list box with the list of values.
- ❑ Bind the list box to a parameter. Select the center of the list box, left-click and drag the list box to the center of the parameter object, and release the mouse to complete the binding.

Reference: List Box Properties in the Properties Window

When a list box is selected, the Properties tab in the Properties window contains properties of your list box.



Click a property to display a description of the selected property at the bottom of the Properties window.

Procedure: How to Reorder the Selected Values in the List Box

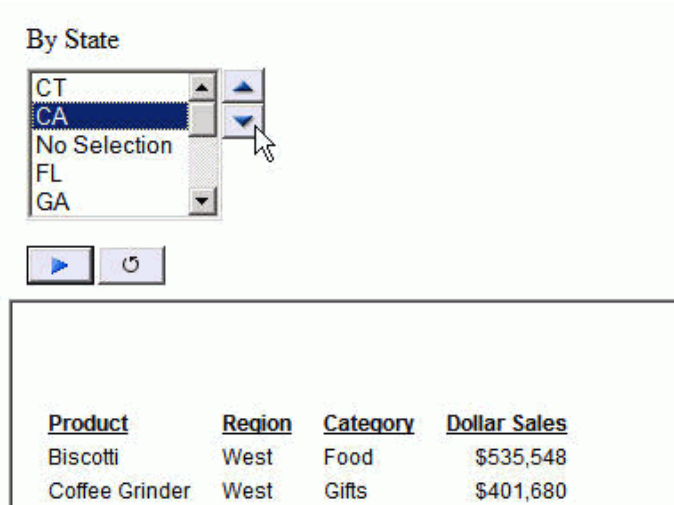
When using a list box, you may reorder the selected values in the report.

1. In the Design view of the HTML page, select the list box object, right-click, and select the *Add Move Items* control.

An up and down arrow is added next to the list box control.

2. Run the HTML page.
3. Select values from the list box and run the report.
4. To reorder the selected values, click the up arrow to move the selected value up in the list box, or click the down arrow to move the selected value down in the list box.
5. Run the report again to view the results with the selected values.

In the following example, CA is the first value in the By State list box. Select the down arrow to reorder the location of CA in the list box and rerun the report again.



Using a Double List Control

You may add a double list control for displaying multi-select values. This enables you to view a list of the available values and add or remove them from one list to another. At run time, a report is generated based on the values that are added.

Note: When creating a static list of values for a double list control, the add everything value option is not available.

Procedure: How to Add a Double List Control

1. Add a double list control by doing one of the following:

- ❑ From the Components toolbar, click the *Double List Control* button.

or

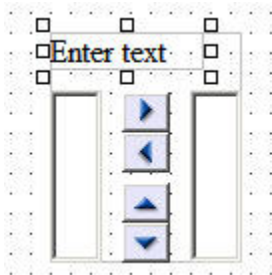
- ❑ From the Insert menu, select *Controls*, then click *Double List Control*.

The cursor changes to a crosshair.

2. Click and drag the crosshair to create a double list control, and adjust it to the size you want.

A double list control is created in the layout and assigned the name `customselect(n)_selectfrom` and `customselect(n)_selectto`, where *n* is a number.

3. You may edit the default description for the double list control by double-clicking *Enter text*, and typing the description of your choice.



4. Optionally, change the double list control properties by adjusting the properties displayed in the Properties tab of the Properties window. For details, see [Double List Box Properties in the Properties Window](#) on page 187.
5. Bind an existing parameter to the double list control.

Binding a parameter to a double list control creates an incoming parameter. An incoming parameter is a parameter that is bound to a control. The parameter value will populate the double list control with values. If binding a parameter to a double list control, the value can be single or multiselect.

- ❑ Click the *Parameters* tab.

The Properties and settings dialog box opens.

- ❑ Close the Properties and settings dialog box.

Close this dialog since you are populating the double list control with a parameter value.

- ❑ Select the center of the parameter name object, left-click and drag the parameter to the center of the double list control object, and release the mouse to complete the binding.
- ❑ To unbind the parameter from the double list control, select the arrow head on the line, so that the line is bold, right-click, and select *Break binding*.

6. Bind the double list control to a parameter.

Binding the double list control to a parameter will populate the parameter with a list of values.

- ❑ Click the *Parameters* tab.

The Properties and settings dialog box opens.

- ❑ Create the list of values for the double list control. You can create a list of Static or Dynamic values.
- ❑ Close the Properties and settings dialog box to create the double list control with the list of values.
- ❑ Bind the double list control to a parameter. Select the center of the double list control, left-click and drag the double list control to the center of the parameter object, and release the mouse to complete the binding.

Note: You can change the default double list control to other types of controls by right-clicking the control object on the Parameters tab or the Design tab and selecting *Set Control Type*.

The options are Calendar, Check box, Drop down list, Hidden, List box, Radio button, Text area, Text box, Single source Tree control, and Multi source Tree control.

7. Run the HTML page and select values by using the right and left arrows to add or remove values to the selected column.

The selected values appear in the second column. The output is generated based on the selected values in the second column. In the following example, Action and Comedy are the selected values for the report.

Category

CHILDREN	▶	ACTION
CLASSIC	◀	COMEDY
DRAMA		
FOREIGN	▶	
MUSICALS	◀	

▶ ↺

<u>CATEGORY</u>	<u>RATING</u>	<u>TITLE</u>
ACTION	PG	JAWS
		TOP GUN
	R	RAMBO III
		ROBOCOP
		TOTAL RECALL
COMEDY	PG	AIRPLANE
		ANNIE HALL
		BACK TO THE FUTURE

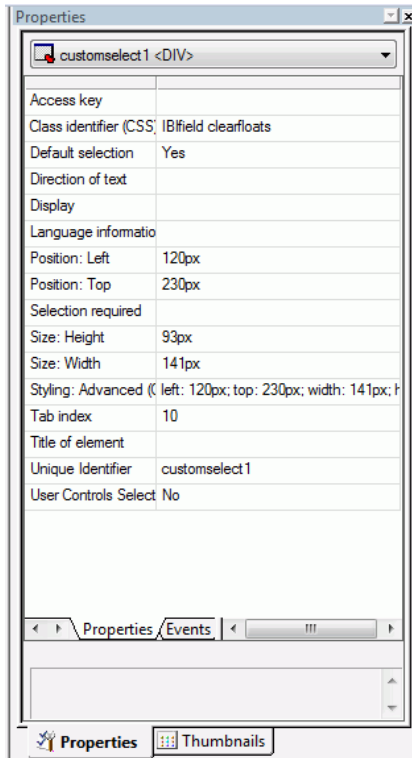
8. Optionally, you may reorder the selected values in the report.

The up and down arrows reorder the selected values that appear in the second column of the double list control.

Click the up arrow to move the selected value up in the second column of the double list control, or click the down arrow to move the selected value down in the double list control.

Reference: Double List Box Properties in the Properties Window

When a double list box is selected, the Properties tab in the Properties window contains properties of your double list control.



Keep Selected Value. When Yes is selected, this option will accumulate values you search for in the right-side box. When you search for another value, the previously searched values will not be deleted. No is selected by default.

Click a property to display a description of the selected property at the bottom of the Properties window.

Adding a Paging Control in the HTML Composer

You may add a paging control to a List Box, Drop Down List, and the first control of a Double List Control, which enables you to page through a large list of values before selecting a value. The Add 'Paging' control option is available through the right-click context menu on the Design tab of the HTML Composer when an input control is selected.

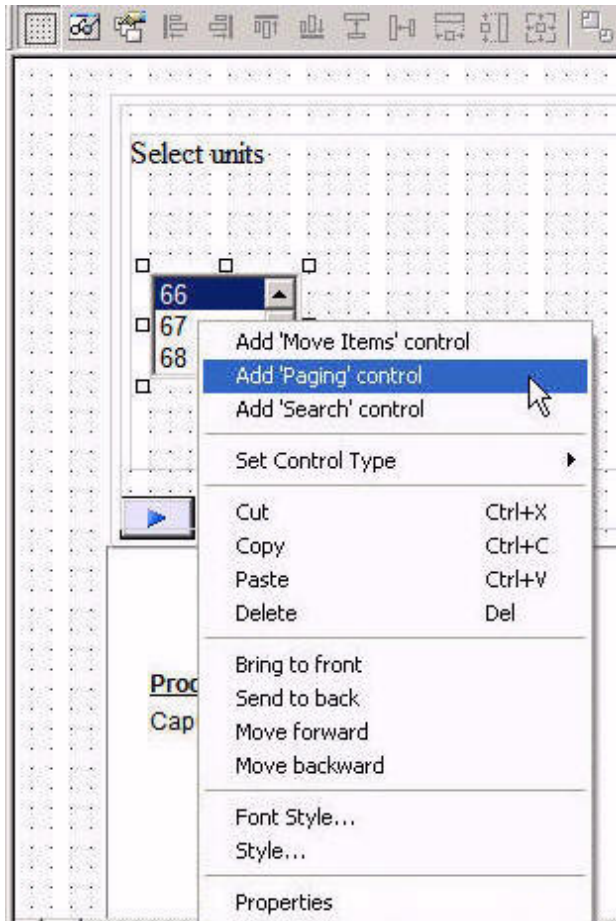
Procedure: How to Add a Paging Control

The Add 'Paging' control option enables you to page through a large list of values for a List Box, Drop Down List, and the first control of a Double List Control, before selecting a value. For example, suppose that you have a list box showing 50 values. Adding the paging control enables you to display these values as pages of values, as well as go directly to the first, previous, next, and last pages to select the value.

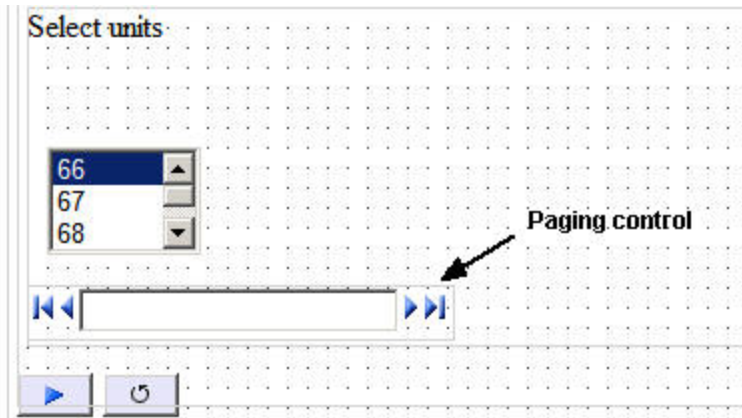
1. Select the input control on the Design tab of the HTML Composer, right-click, and select *Add 'Paging' control*.

Note: The paging control is only valid for a List Box, Drop Down List, and the first control of a Double List Control.

The following image shows the *Add 'Paging' control* option in the HTML Composer.



The paging control is added below the input control on the canvas, as shown in the following image.



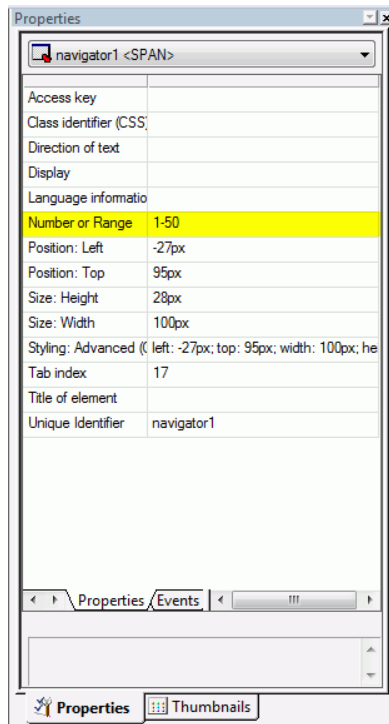
Note: If the paging control is not visible, you may need to resize the control and input control objects on the canvas.

2. Optionally, change the *Number or Range* property for the paging control in the Properties tab of the Properties window.

The default *Number or Range* is 1-50. This specifies the number or page range of values to show, per page, for the input control and the starting item number. For example, the input control starts at the first value and displays a range of 50 values per page.

Note: The paging control properties are available from the Properties tab of the Properties window when the paging control is selected. The paging control appears as navigator(n) in the Properties window drop-down list.

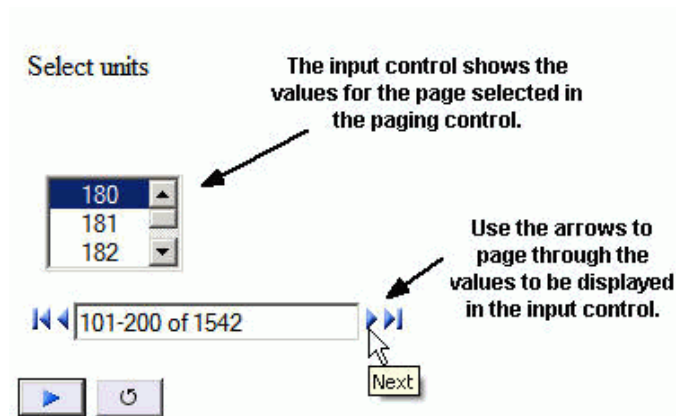
The following image shows the Number or Range property for the paging control in the HTML Composer.



3. Run the HTML page.
4. Use the arrow buttons to page through the values to be displayed for the input control. You may select *First*, *Previous*, *Next*, or *Last*.

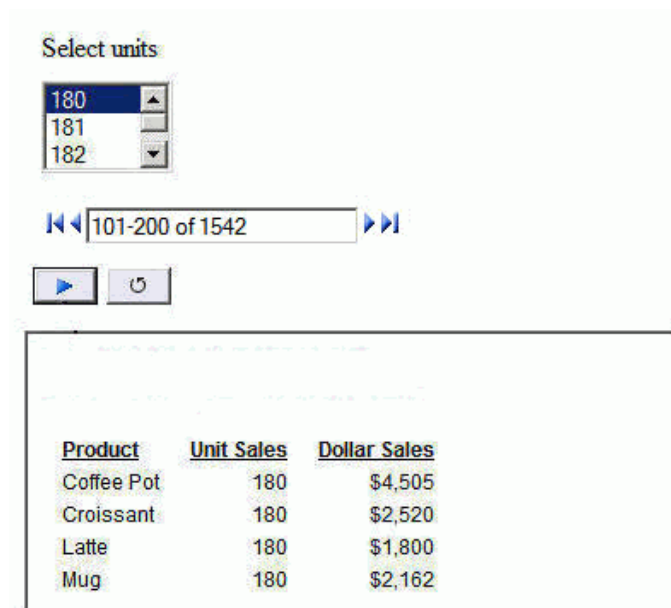
Note: You may also type in a page number or range in the paging control at run time, as described in the Number or Range property in step 2. This specifies the number or range of values, per page, for the input control.

The input control shows the values for the page selected in the paging control.



5. Select a value from the input control.
6. Click the *Run* button to refresh the report, showing the value selected in the input control.

In the following example, the paging control shows *101-200 of 1542*. This indicates that there are 99 values available to select from on this page, as shown in the list box. The list box shows the value of 180 as the selected unit. Running the report shows the results with Unit Sales of 180.



Adding a Search Control in the HTML Composer

You may add a search control to a List Box, Drop Down List, and the first control of a Double List Control, which enables you to search for a value in a control, before selecting a value.

The Add 'Search' control option is available through the right-click context menu on the Design tab of the HTML Composer when an input control is selected.

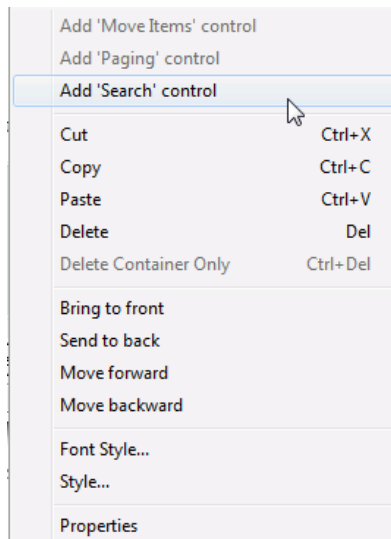
Procedure: How to Add a Search Control

The Add 'Search' control option enables you to search for a value in a control for a List Box, Drop Down List, and the first control of a Double List Control. For example, suppose that you have a list box showing 30 items. Adding the search control adds an additional input field to your output page. Type the value you are looking for and click the search button to find the value in your input control.

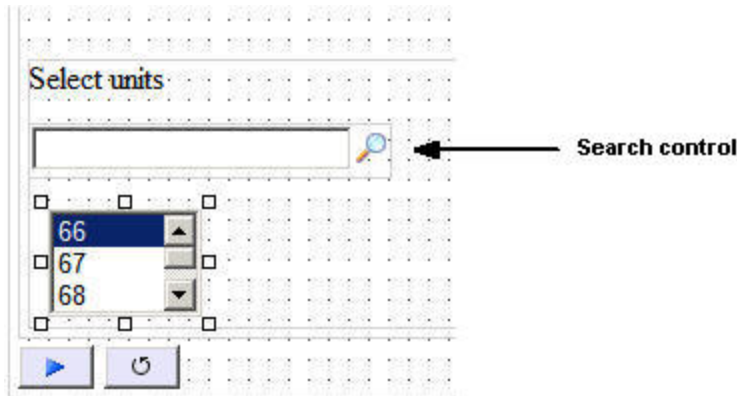
1. Select the input control on the Design tab of the HTML Composer, right-click, and select *Add 'Search' control*.

Note: The search control is only valid for a List Box, Drop Down List, and the first control of a Double List Control.

The following image shows the *Add 'Search' control* option in the HTML Composer.



The search control is added above the input control on the canvas, as shown in the following image.

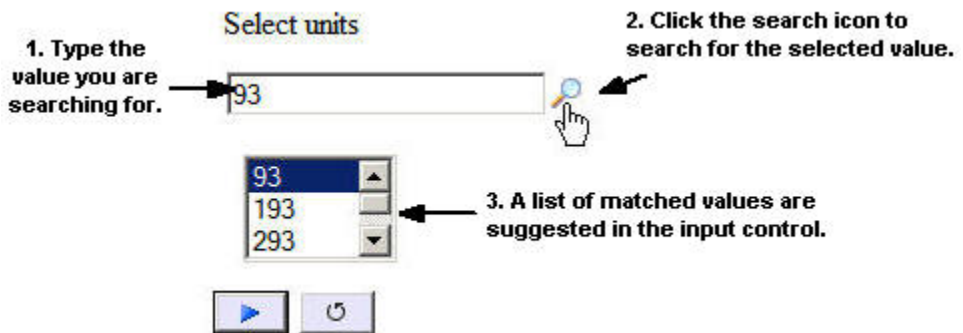


Note: If the search control is not visible, you may need to resize the control and input control objects on the canvas.

2. Run the HTML page.
3. Type the value to be displayed for the input control and click the search button.

Pressing the Enter key will not execute the search. You must click the search button.

The input control shows a suggested list of matched values.



4. Select a value from the input control.
5. Click the *Run* button to refresh the report showing the value selected in the input control.

In the following example, the search control shows 93 as the search value. This indicates searching the list box records for a value matching 93. The list box shows the value of 93 as the selected unit. Running the report shows the results with *Unit Sales* of 93.

The screenshot displays a web application interface. At the top, there is a label "Select units" followed by a text input field containing the value "93" and a magnifying glass icon. Below the input field is a list box with three items: "93", "193", and "293". The item "93" is selected and highlighted in blue. Below the list box are two buttons: a blue button with a right-pointing triangle and a grey button with a circular arrow. Below these controls is a table with three columns: "Product", "Unit Sales", and "Dollar Sales". The table contains one row of data: "Mug", "93", and "\$931".

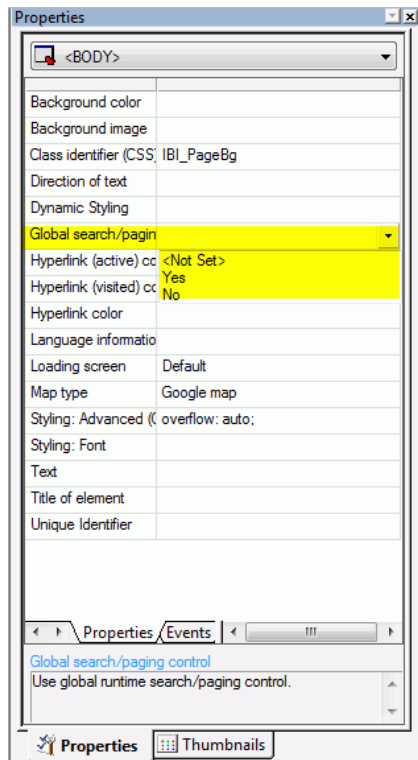
<u>Product</u>	<u>Unit Sales</u>	<u>Dollar Sales</u>
Mug	93	\$931

Using Global Search and Paging

You can use the global search and paging option on the BODY object to have one search and paging control that can be used with each input control on the page.

Procedure: How to Enable Global Search and Paging

1. Click the Global search/paging property in the Properties tab of the Properties window for the BODY object, as shown in the following image.



2. Select Yes from the drop-down menu.

At run time, the Search/Paging window opens in the Home position, as shown in the following image.

The screenshot shows a web application interface. At the top right is a 'Search/Paging' window with a search bar and navigation icons. Below it are three dropdown menus for 'REGION' (Midwest), 'ST' (IL), and 'CITY' (Chicago). Below these are two buttons: a blue arrow and a circular refresh icon. The main area displays a table with the following data:

Category	Product ID	Product	Region	State	City	Store ID	Dollar Sales
Coffee	C141	Espresso	Midwest	IL	Chicago	R1020	420439
	C142	Latte	Midwest	IL	Chicago	R1020	978340
Food	F101	Scone	Midwest	IL	Chicago	R1020	595069
	F102	Biscotti	Midwest	IL	Chicago	R1020	378412
	F103	Croissant	Midwest	IL	Chicago	R1020	549366
Gifts	G100	Mug	Midwest	IL	Chicago	R1020	376754
	G104	Thermos	Midwest	IL	Chicago	R1020	187901
	G110	Coffee Grinder	Midwest	IL	Chicago	R1020	233292
	G121	Coffee Pot	Midwest	IL	Chicago	R1020	204828

When you click an input control, because the Auto-link to selected control option is on by default, the Search/Paging window appears under the input control, as shown in the following image. By default, the window shows all values on one page (for example 1-4 of 4).

REGION ST CITY

Midwest IL Chicago

combobox1

1-4 of 4

Category	Product ID	Product	Region	State	City	Store ID	Dollar Sales
Coffee	C141	Espresso	Midwest	IL	Chicago	R1020	420439
	C142	Latte	Midwest	IL	Chicago	R1020	978340
Food	F101	Scone	Midwest	IL	Chicago	R1020	595069
	F102	Biscotti	Midwest	IL	Chicago	R1020	378412
	F103	Croissant	Midwest	IL	Chicago	R1020	549366
Gifts	G100	Mug	Midwest	IL	Chicago	R1020	376754
	G104	Thermos	Midwest	IL	Chicago	R1020	187901
	G110	Coffee Grinder	Midwest	IL	Chicago	R1020	233292
	G121	Coffee Pot	Midwest	IL	Chicago	R1020	204828

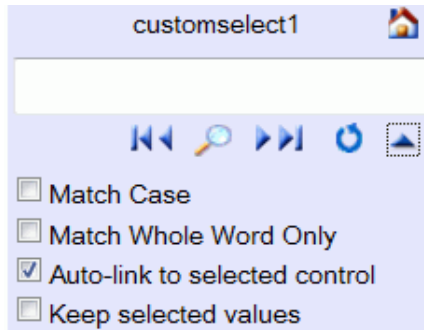
The label for the input control is displayed showing that it is linked to that input control. If no label is associated with the input control, the window will show the unique identifier for the input control, for example, combobox1.

3. If you want multiple pages, type a range in the Search/Paging field in the format 1-2 of 4, as shown in the following image and press the Enter key.

combobox1

1-2 of 4

4. Click the *Show settings*  button on the Global Search and Paging window to expand the window and show the search and paging options, as shown in the following image.



The Search/Paging options are:

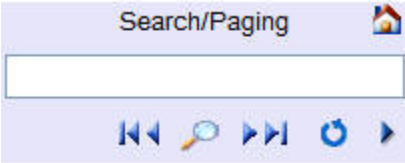
- ☐ **Match Case.** Search value must match the value in the input control exactly.
- ☐ **Match Whole Word Only.** Search value word must exist in the string.
- ☐ **Auto-link to selected control.** Search/Paging window appears under the selected input control. Auto-link is on by default.
- ☐ **Keep selected values.** This option only effects a double-list. When checked, this option will accumulate values you search for in the right-side box. When you search for another value, the previously searched values will not be deleted.

Note:

- ☐ The Global control option overrides individual control options. If Keep selected values is selected for Global searching/paging, that will override whether the double-list has it regardless of whether it is set for the control itself.
- ☐ You can click the  button on the expanded window to collapse the options.
- ☐ You can click the *House* icon on the Search/Paging window to move the window back to the Home position.

Procedure: How to Use Search and Paging Features

You can use the following buttons on the Search/Paging window to navigate through the pages.



Button	Description
	First. Shows the first page of values.
	Previous. Shows the previous page of values.
	Search. Initiates the search of values based on the text box input.
	Next. Shows the next page of values.
	Last. Shows the last page of values.
	Reset All. Resets the paging back to the original.
	Show Settings. Expands the Global/Paging window and shows the options. Once expanded, use the  button to collapse the settings display.

Using Check Boxes

Check boxes enable you to select a single value from a list of supplied values. Note that if there are multiple check box input controls that are grouped together, you may select the *Multiple* properties for each control. Multiple ensures that you can select a single value from each check box control.

Check box list values can be dynamic or static.

Procedure: How to Add Check Boxes

1. Add check boxes by doing one of the following:
 - ❑ Click the *Check box* button from the Components toolbar.
 - or
 - ❑ From the Insert menu, select *Controls*, then click *Check Box*.
2. Click and drag the crosshair to create a check box list and adjust it to the size you want.
A check box is created in the layout and assigned the name *checkbox(n)*, where *n* is a number.
3. Optionally, change the properties of the check box list by adjusting the properties displayed in the Properties tab of the Properties window. For details, see [Check Box Properties in the Properties Window](#) on page 203.
4. Bind an existing parameter to the check box.
Binding a parameter to a check box creates an incoming parameter. An incoming parameter is a parameter that is bound to a control. The parameter value will populate the check box with values.
 - ❑ Click the *Parameters* tab.
The Properties and settings dialog box opens.
 - ❑ Close the Properties and settings dialog box.
Close this dialog since you are populating the check box with a parameter value.
 - ❑ Select the center of the parameter name object, left-click and drag the parameter to the center of the check box object, and release the mouse to complete the binding.
 - ❑ To unbind the parameter from the check box, select the arrow head on the line, so that the line is bold, right-click, and select *Break binding*.
5. Bind the check box to a parameter.
Binding the check box to a parameter will populate the parameter with a list of values.
 - ❑ Click the *Parameters* tab.
The Properties and settings dialog box opens.
 - ❑ Create the list of values for the check box. You can create a list of Static or Dynamic values.

- ❑ Optionally, select *Add display image* to display images in addition to the text next to the check box.

You can select the image by clicking the ellipsis button in the Display column of the Properties and settings dialog box.

To use dynamic image values, there must be a field in the data source that contains the image file name. The physical image file must exist in the current application if you are working in Local Projects. If you are working in Managed Reporting, the image must reside in the domain Other folder. This field name must be specified as the Display field in the Properties and settings dialog box.

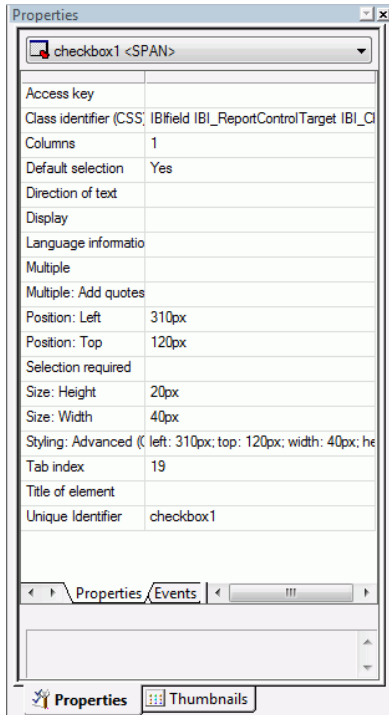
- ❑ If a report on the HTML page is coded to use the User Output format (Parameter name WFFMT), the user can select a check box control from the New Parameters dialog box. The tool will automatically associate the output type image included with the product to each check box.

Note: For more information on the User Output format, see the *Creating Reports With Report Painter* manual and the *WebFOCUS InfoAssist User's Manual*.

- ❑ Close the Properties and settings dialog box to create the check box with the list of values.
- ❑ Bind the check box to a parameter. Select the center of the check box, left-click and drag the check box to the center of the parameter object, and release the mouse to complete the binding.

Reference: Check Box Properties in the Properties Window

When a check box is selected, the Properties tab in the Properties window contains properties of your check box.



Click a property to display a description of the selected property at the bottom of the Properties window.

Using Radio Buttons

Radio buttons enable you to select a single value from a list of supplied values. Radio button values can be static or dynamic.

Procedure: How to Add Radio Buttons

1. Add radio buttons by doing one of the following:
 - ❑ Click the *Radio* button from the Components toolbar.
 - or
 - ❑ From the Insert menu, select *Controls*, then click *Radio Button*.

The cursor changes to a crosshair.

2. Click and drag the crosshair to create a radio buttons list and adjust it to the size you want.

A radio button placeholder is created in the layout and assigned the name `radio(n)`, where *n* is a number.

3. Optionally, change the properties of the radio buttons by adjusting the properties displayed in the Properties tab of the Properties window. For details, see [Radio Buttons Properties in the Properties Window](#) on page 207.
4. Bind an existing parameter to the radio button.

Binding a parameter to a radio button creates an incoming parameter. An incoming parameter is a parameter that is bound to a control. The parameter value will populate the radio button with values.

- ❑ Click the *Parameters* tab.

The Properties and settings dialog box opens.

- ❑ Close the Properties and settings dialog box.

Note: Close this dialog since you are populating the radio button with a parameter value.

- ❑ Select the center of the parameter name object, left-click and drag the parameter to the center of the radio button object, and release the mouse to complete the binding.
 - ❑ To unbind the parameter from the radio button, select the arrow head on the line, so that the line is bold, right-click, and select *Break binding*.
5. Bind the radio button to a parameter.

Binding the radio button to a parameter will populate the parameter with a list of values.

- ❑ Click the *Parameters* tab.

The Properties and settings dialog box opens.

- ❑ Create the list of values for the radio button. You can create a list of Static or Dynamic values.

- Optionally, as shown in the following image, select *Add display image* to display images in addition to the text next to the radio button.

Properties and settings

Data type

☒ Static ☐ Dynamic ☐ Active Report ☐ TOC

Items may be dragged into the desired order

Value	Display	Selected
HTML	HTML	☐
PDF	PDF	☐
EXL2K	EXL2K	☐
EXL2K FROMULA	EXL2K FROMULA	☐
FLEX	FLEX	☐
APDF	APDF	☐
PPT	PPT	☐

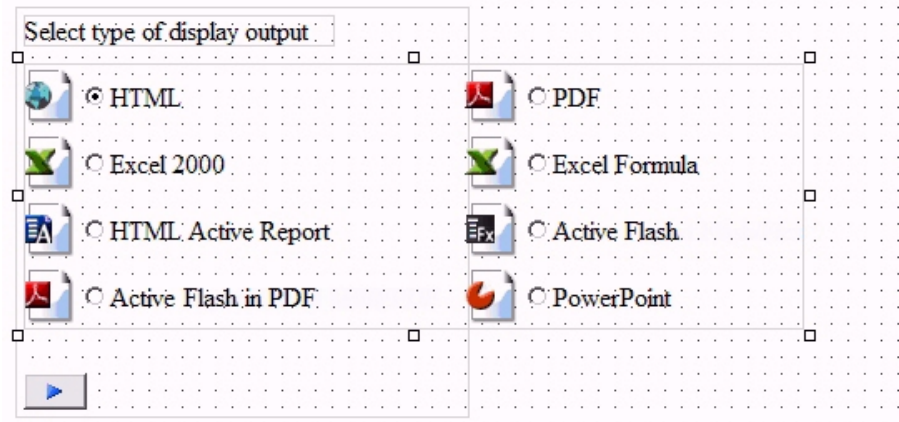
☐ Send display value ☐ Add display image

☐ Values are procedures names

You can select the image by clicking the ellipsis button in the Display column of the Properties and settings dialog box.

To use dynamic image values, there must be a field in the data source that contains the image file name. The physical image file must exist in the current application if you are working in Local Projects. If you are working in Data Servers, the image must reside in the Current Application folder. If you are working in Managed Reporting, the image must reside in the domain Other folder. This field name must be specified as the Display field in the Properties and settings dialog box.

- ❑ If a report on the HTML page is coded to use the User Output format (Parameter name WFFMT), the user can select a radio button control from the New Parameters dialog box. The tool will automatically associate the output type image included with the product to each radio button, as shown in the following image.

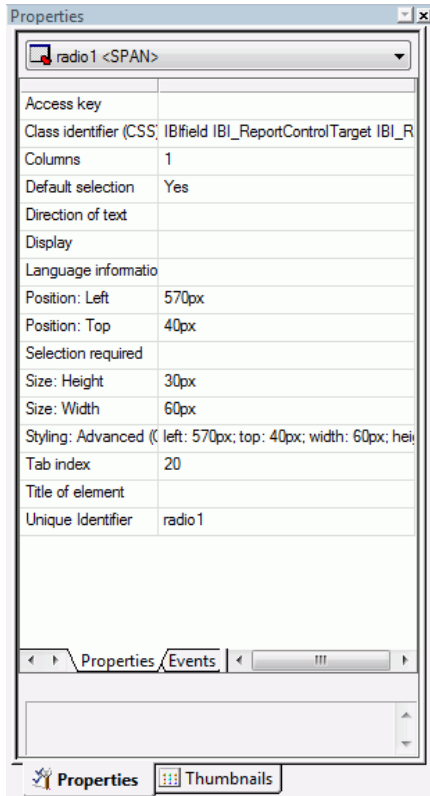


Note: For more information on the User Output format, see the *Creating Reports With Report Painter* manual and the *WebFOCUS InfoAssist User's Manual*.

- ❑ Close the Properties and settings dialog box to create the radio button with the list of values.
- ❑ Bind the radio button to a parameter: Select the center of the radio button, left-click and drag the radio button to the center of the parameter object, and release the mouse to complete the binding.

Reference: Radio Buttons Properties in the Properties Window

When a radio button is selected, the Properties tab in the Properties window contains options that control the properties of your radio buttons.



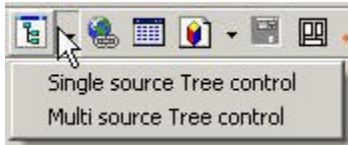
Click a property to display a description of the selected property at the bottom of the Properties window.

Using Tree Controls

By using a tree structure in an HTML report, you can show hierarchical data from a multi-dimensional data source (for example, SAP BW), that uses the parent/child model. You may also use a tree control for non-hierarchical data sources. Level hierarchies are not supported.

The behavior of the tree control is integrated with the parameter definition. If a parameter is defined as a single value and that parameter is bound to a tree control, the tree control uses option buttons for each node in the hierarchy. If the parameter is defined as Multiselect OR or Multiselect AND, and that parameter is bound to a tree control, then the tree control uses check boxes for each node in the hierarchy, enabling you to select multiple nodes.

The following image shows the Tree Control component in the HTML Composer.



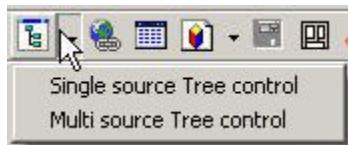
Note: Cube data should be used to populate single source trees.

Procedure: How to Add a Tree Control to an HTML Page Using an Embedded Procedure

This procedure describes how to add a tree control for a multi-dimensional data source, using an embedded procedure.

1. In the HTML Composer, insert a tree control from the Components toolbar.

Tip: You may select Single source Tree control or Multi source Tree control. If no type is selected, Single source Tree control is the default, as shown in the following image.



The cursor changes to a crosshair.

2. Click and drag the crosshair to create a tree control, and adjust it to the size you want.
A tree control is created in the layout and assigned the name `treecontrol(n)`, where *n* is a number. Additionally, the Properties and settings dialog box appears for the tree control.
3. Optionally, you may select the *Expanded* property from the Properties tab of the Properties window to show the tree control expanded at run time.
4. Optionally, you may select the *Hyperlink* property from the Properties tab of the Properties window to show the tree nodes as hyperlinks, instead of radio buttons at run time.
5. From the Properties and settings dialog box, select *Dynamic* as the Data type.

6. Keep *Embedded procedure* selected and click the *browse (...)* button adjacent to the first input field.

The Get source file dialog box opens.

7. Select a multi-dimensional data source and click *Open*.

The multi-dimensional data source is added as the embedded procedure.

8. Click the *Value field* browse button to select a field from the hierarchy.

The Value field is the data source field from which the values will be retrieved.

9. Click the *Display field* browse button to select a field from the hierarchy.

The Display field is the text that represents the parameter value in the tree control.

10. Save and run the page to view the multi-dimensional data source in the tree control.

Procedure: How to Add a Tree Control to an HTML Page Using an Existing Procedure

You can select an existing procedure to add to the tree control in an HTML page. When you select a procedure, it should use fields from the parent/child hierarchy and be set up as follows:

```
TABLE FILE file
SUM FST.dispfield
BY ParentUniqueField
BY UniqueField
BY datafield
ON TABLE PCHOLD FORMAT XML
END
```

where:

file

Is the name of the data source.

dispfield

Is the field whose values display in the tree control.

ParentUniqueField

Is the field that represents the parent for the parent/child hierarchy (PROPERTY = PARENT_OF).

UniqueField

Is the field that represents the unique IDs for the hierarchy members (PROPERTY=UID).

datafield

Is the field whose values are passed as the parameter value.

After the procedure is set up, follow these steps:

1. In the HTML Composer, insert a tree control from the Components toolbar.

Tip: You may select Single source Tree control or Multi source Tree control. If no type is selected, Single source Tree control is the default.

The cursor changes to a crosshair.

2. Click and drag the crosshair to create a tree control, and adjust it to the size you want.
A tree control is created in the layout and assigned the name *treecontrol(n)*, where *n* is a number. Additionally, the Properties and settings dialog box appears for the tree control.
3. Optionally, you may select the *Expanded* property from the Properties tab of the Properties window to show the tree control expanded at run time.
4. Optionally, you may select the *Hyperlink* property from the Properties tab of the Properties window to show the tree nodes as hyperlinks, instead of radio buttons at run time.
5. From the Properties and settings dialog box, select *Dynamic* as the Data type.
6. Select *External Procedure* and click the *browse (...)* button adjacent to the first input field.

The Get source file dialog box opens.

7. Select a procedure and click *Open*.

The procedure name is added as the external procedure.

8. Click the *Value field* browse button to select a field from the hierarchy.

The Value field is the data source field from which the values will be retrieved.

9. Click the *Display field* browse button to select a field from the hierarchy.

The Display field is the text that represents the parameter value in the tree control.

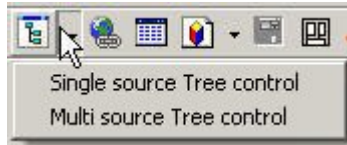
10. Save and run the page to view the multi-dimensional data source in the tree control.

Procedure: How to Populate a Multi Source Tree Control

You can show a tree structure for a non-hierarchical data source by using a tree control. By identifying the number of layers for the tree control, you are able to populate each layer of the tree control with its own procedure. Setting the number of layers creates a tree structure by which each layer is its own subcontrol, chained together with no conditions.

This procedure describes how to add parameters for a tree control, where the number of layers property is set.

1. In the HTML Composer, insert a tree control by doing one of the following:
 - ❑ Click *Multi source Tree control* from the Tree control drop-down list, located on the Components toolbar, as shown in the following image.



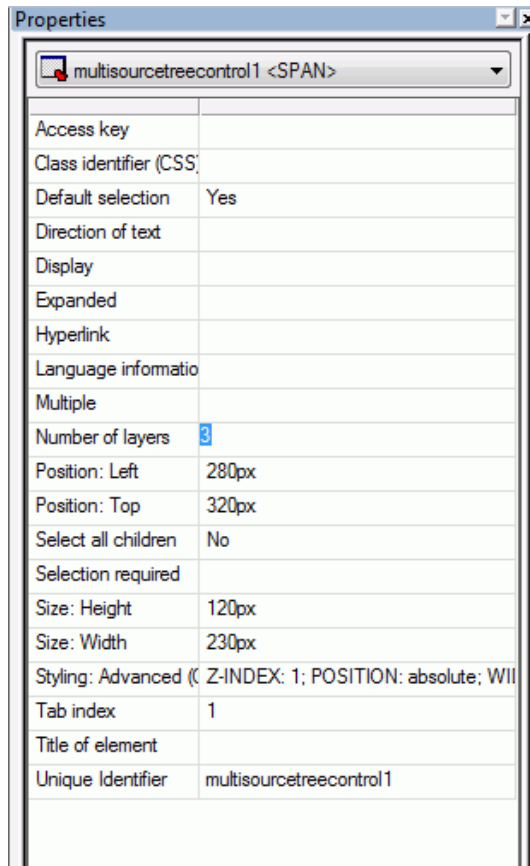
or

- ❑ From the Insert menu, select *Contols*, then click *Multi source Tree control*.

The cursor changes to a crosshair.

2. Click and drag the crosshair to create a tree control, and adjust it to the size you want.
A tree control is created in the layout and assigned the name `treecontrol(n)`, where *n* is a number. Additionally, the Properties and settings dialog box appears for the tree control.
3. From the Properties tab of the Properties window, type in the Number of layers for the tree control, and press the Enter key.

This enables you to specify the number of layers to populate. The following image shows the Number of layers property with three (3) layers.



4. Optionally, you may select the *Expanded* property from the Properties tab of the Properties window to show the tree control expanded at run time.
5. Optionally, you may select the *Hyperlink* property from the Properties tab of the Properties window to show the tree nodes as hyperlinks, instead of radio buttons at run time.
6. With the tree control selected, click the *Parameters* tab.

The tree control object shows the set number of layers. For example, the following image shows a tree control with three layers on the Parameters tab.

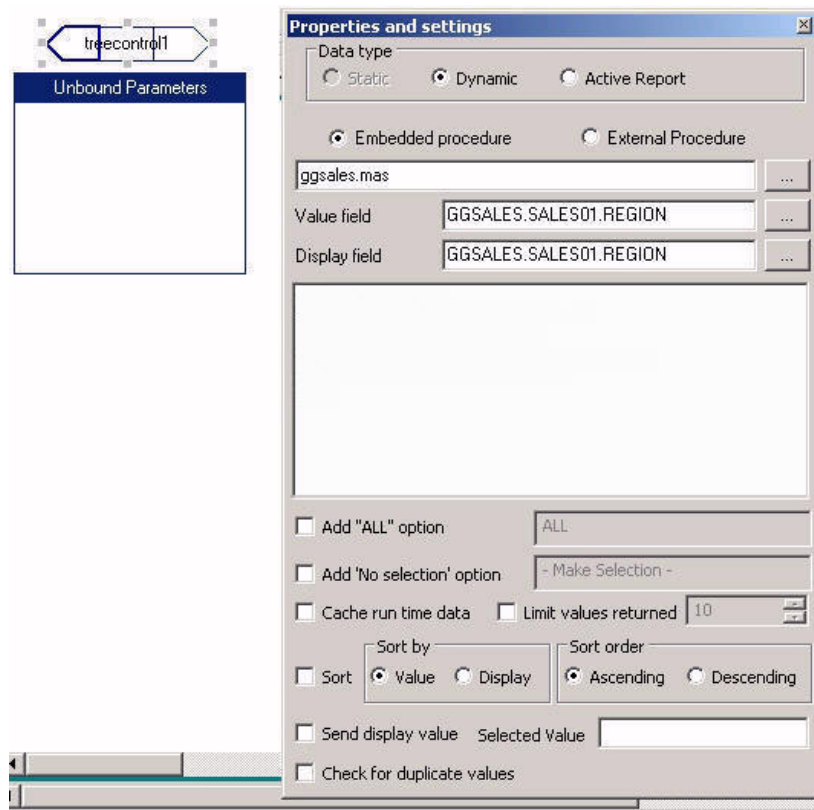


7. Select each layer of the tree control and create the properties and settings for its data population.

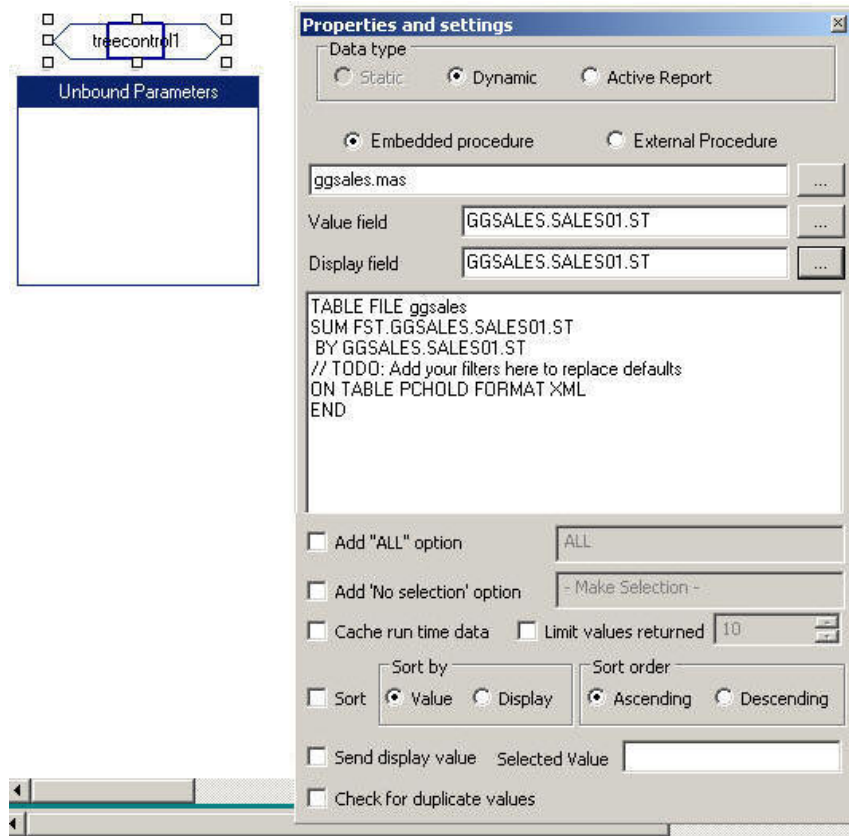
When creating a Multi source Tree control, the static data type is not available. If creating static values for the tree control, you must create a single source tree control. To create a static list of values, see [How to Add a Tree Control to an HTML Page Using Static Values](#) on page 219.

For example, if you have a tree control with three layers:

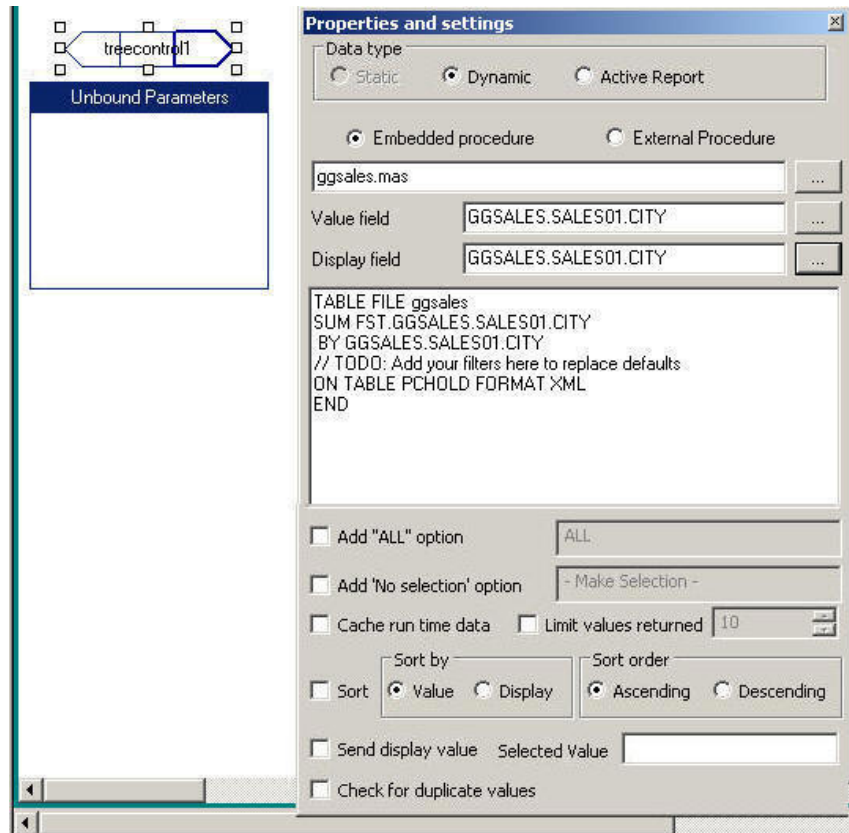
- ❑ Select the first layer of the tree control and create a dynamic embedded procedure for the REGION field of the GGSales data source.



- ❑ Select the second layer of the tree control and create a dynamic embedded procedure for the ST field of the GGSALES data source.

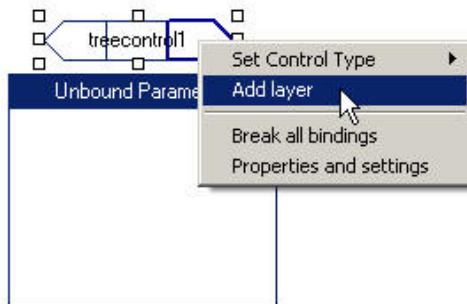


- ❑ Select the third layer of the tree control and create a dynamic embedded procedure for the CITY field of the GGSales data source.

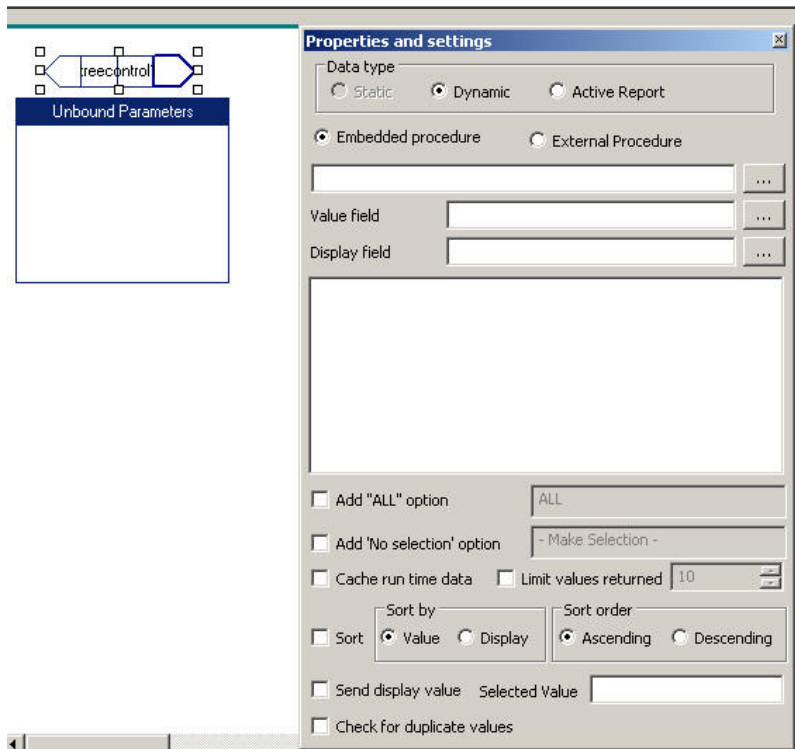


8. Optionally, to add an additional layer for the tree control, right-click the tree control object on the Parameters tab and select *Add layer*.

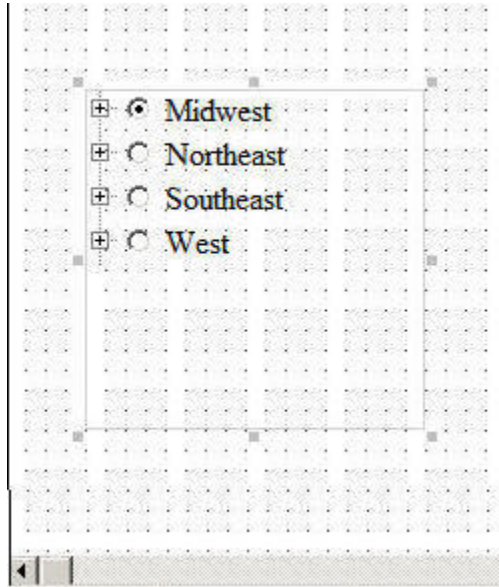
Note: Add layer only appears for a Multi source tree control object.



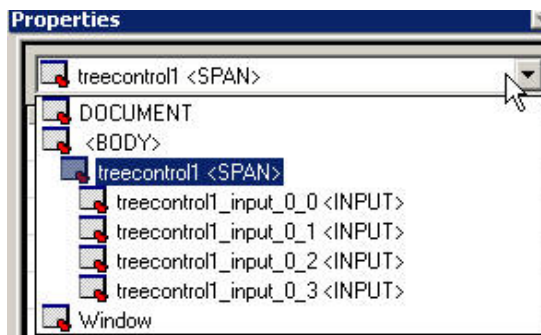
9. Click the added layer to view the properties and settings for that layer.



10. Switch to the *Design* tab of the HTML Composer to preview the populated tree control.



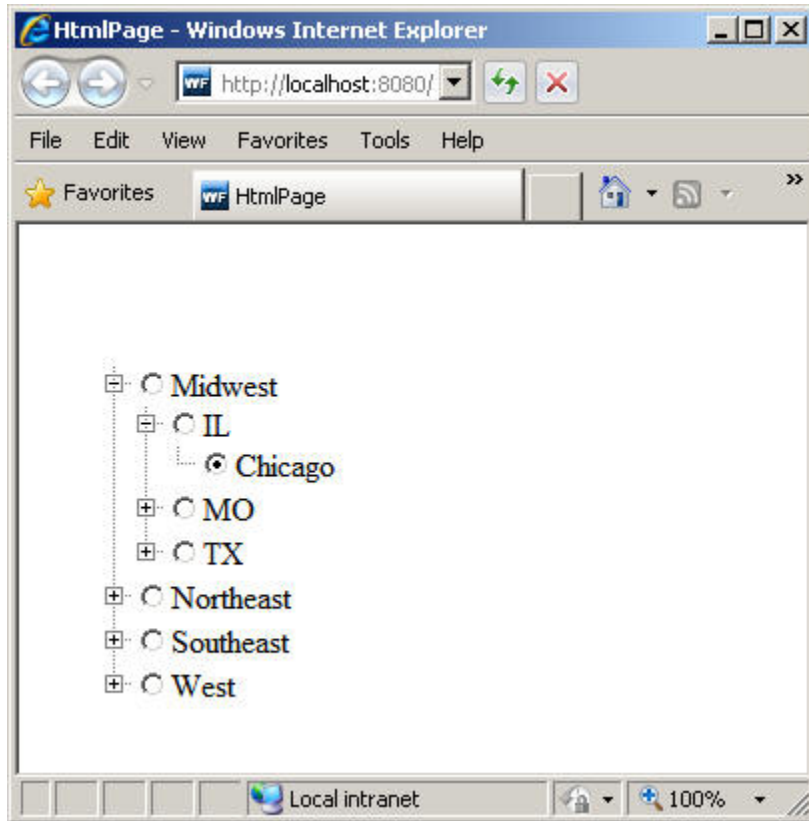
Note that the Properties window drop-down list for the tree control shows each layer of input values.



11. Save and run the page.

Note: If a user selects a lower level node in one layer and a higher level node in another layer, when the procedure is executed, only the lowest level selections will take effect. For example, you have 3 layers: COUNTRY, CAR, and MODEL. Under ENGLAND, TRIUMPH you select TR7. Under FRANCE, you select PEUGEOT. At run-time you will only receive the records for TR7 because you did not select a MODEL under the FRANCE node.

The tree control populates each layer with values. For example, the following image shows the *REGION*, *ST*, and *CITY* fields as a hierarchy of the GGSALES data source in the tree control.



Note: A value must be selected for each layer before you can click the *Save Selection* button.

If a selected value is specified for a field that is not in Layer1, then corresponding selected values must also be specified for the preceding layers.

Only the first and second layers load at run time. If a selected value is specified for a field in Layer1, only values from the first two layers will be selected.

Procedure: How to Add a Tree Control to an HTML Page Using Static Values

This procedure describes how to add static data type parameters for a tree control, where the Number of layers property for the tree control is not set. This enables you to add a static list of values.

1. In the HTML Composer, insert a tree control by doing one of the following:
 - ❑ Click *Single source Tree control* from the Tree control drop-down list, located on the Components toolbar.

or

- ❑ From the Insert menu, select *Controls*, then click *Single source Tree control*.

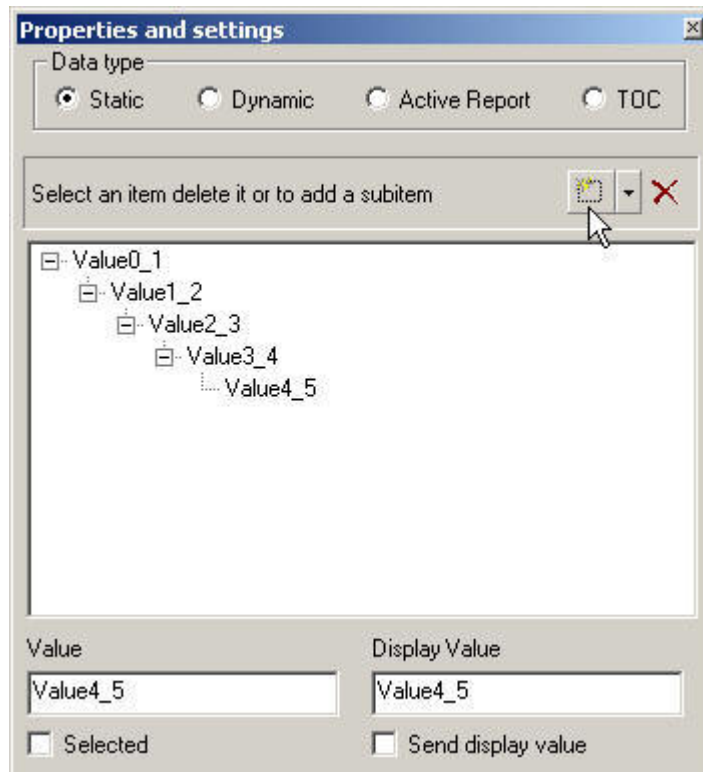
The cursor changes to a crosshair.

2. Click and drag the crosshair to create a tree control, and adjust it to the size you want.

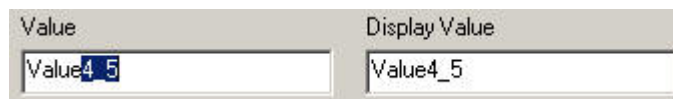
A tree control is created in the layout and assigned the name `treecontrol(n)`, where *n* is a number. Additionally, the Properties and settings dialog box appears for the tree control.
3. From the Properties and settings dialog box, select *Static* as the Data type.

Static is selected by default. You may select an item, delete it, or add a subitem.
4. Create the parameter values for the control:

- ❑ Click the add value button to add a list of values. The values are added in a sequential hierarchical structure. The last value added appears in the Value and Display Value fields.

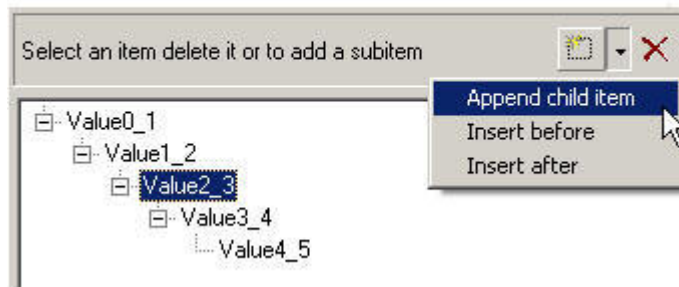


- ❑ To edit the value, manually type the desired value in the Value and Display Value fields.



- ❑ Select *Append child item* from the Static values drop-down list to append a value at the level currently selected, and create a new value as the child of the selected value. The following image shows an example. Note the number of the value.

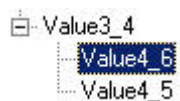
With Value2_3 selected, click *Append child item*.



Value3_6 is added as the new child value of Value 2_3.



- ❑ Select *Insert before* from the Static values drop-down list to insert a value before the selected value, as shown in the following example. Note the number of the value.



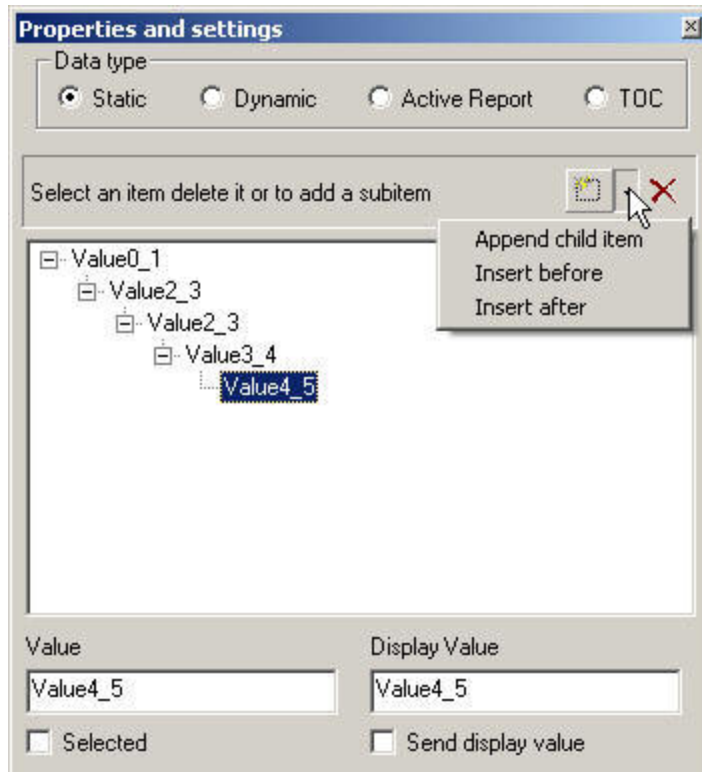
- ❑ Select *Insert after* from the Static values drop-down list to insert a value after the selected value, as shown in the following example. Note the number of the value.



Repeat these steps until the list contains all of the values you want to include.

- ❑ Optionally, click the *Delete* button to eliminate any values.

The following image shows the Properties and settings dialog box and the Static data type options for a tree control.



5. Click the *Selected* check box to show the entry in the Value field as the default value.
6. Select the *Send display value* check box to send the display value, rather than the actual data, to the parameter.
7. Save and run the page to populate the tree control with static values.

Procedure: How to Create a New Tree Control From the New Parameters Dialog Box

When a report contains one or more new ampers variable parameters created in the Report Painter, the New Parameters dialog box appears when you save the report and return to the HTML Composer. You can assign a new Single source or Multi source Tree control from the HTML page to the parameter from the New Parameters dialog box.

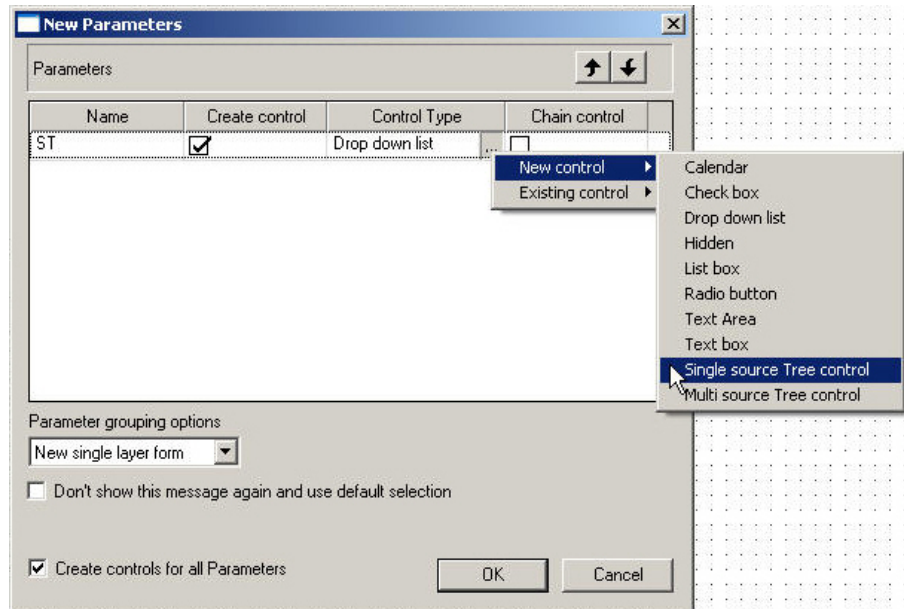
For each parameter, you will find Name and Control Type fields, a Create control check box, and options to set the Control Type to a Single source or Multi source Tree control.

1. From the Design tab of HTML Composer, import or create a report that contains a parameter.

When importing a report with parameters, the New Parameters dialog box appears prompting you to create the control type.

2. Select the new tree control from the New Parameters dialog box.

The following image shows the ST parameters with *Single source Tree control* being selected as the new control type for the parameter.

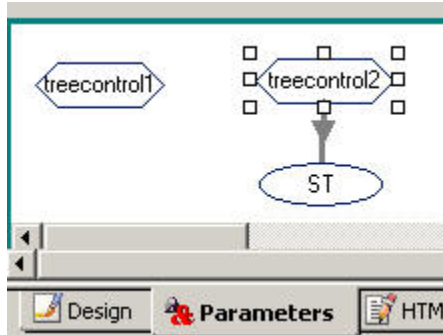


The Control Type column refreshes, showing the selected control.

Name	Create control	Control Type	Chain control
ST	☒	Single source Tree c ...	☐

3. Click *OK* to close the New Parameters dialog box.

The report is added and the associated parameters are bound to the tree control, as shown on the Parameters tab. As for any other type of input control, you can edit the Properties and settings, chain controls, change the control type, and so on.

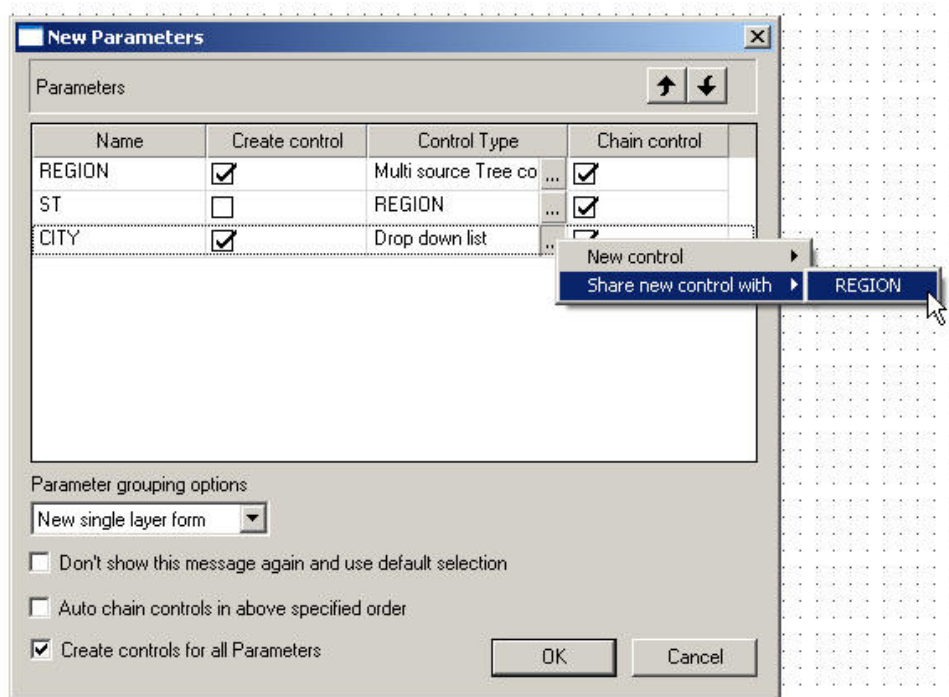


Reference: Usage Notes For Chaining Tree Controls

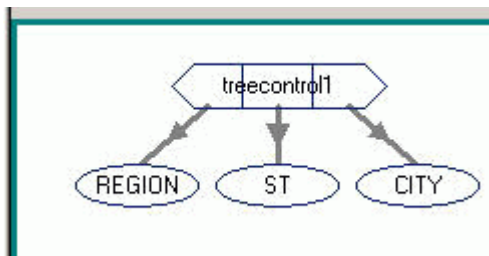
The following usage notes apply when chaining tree controls. You may chain controls from the New Parameters dialog box and from the Parameters tab.

- ❑ When the Multi source Tree control is a link in the chain, the New Parameters dialog box enables you to share parameters with the same multi source control.

For example, the following image shows the New Parameters dialog box that appears when the first link in the chain, REGION, is a Multi source Tree control. When the Chain control column is checked for the parameters, the remaining parameters, ST and CITY, can share the tree control with the REGION parameter. Note that when parameters are shared with the Multi source Tree control, the Create control column is unselected.

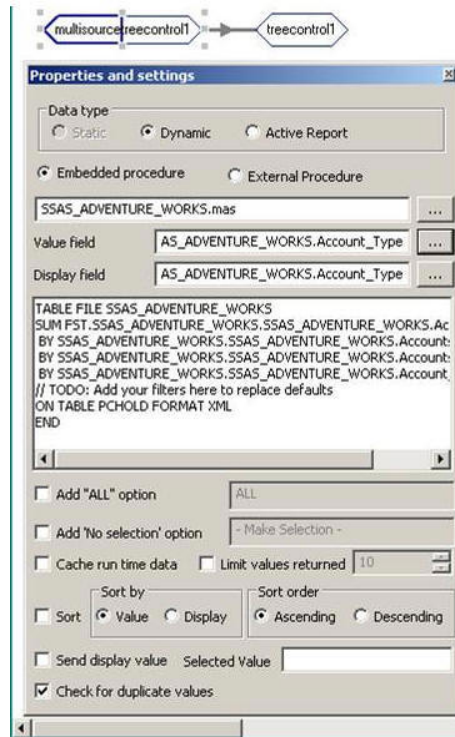


The result of sharing the new control with a Multi source Tree control appears as follows from the Parameters tab. Note how the tree control shows multiple layers, chaining REGION, ST, and CITY.



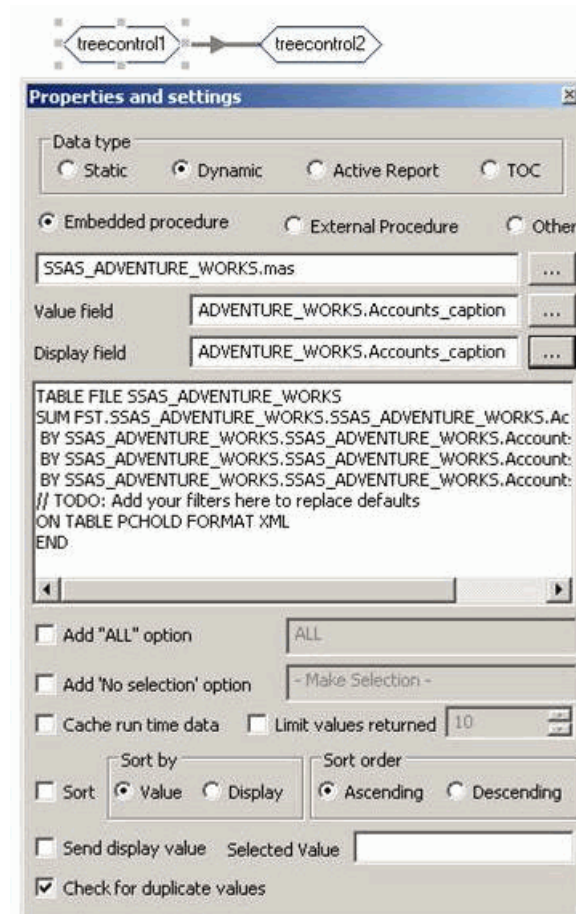
- ❑ You can chain a Multi source Tree control to a Single source Tree control.

For example, the following image shows the first layer of the Multi source Tree control populated with Account_Type from Account Properties of the Microsoft Analysis Services sample file, Adventure_Works. The second layer is populated with Accounts. The Multi source Tree is chained to the Single source Tree which is populated with Account_Number from Account Properties of the Adventure_Works data file.



- ❑ You can chain a Single source Tree control to another Single source Tree control.

For example, the following image shows an example of a Single source Tree control populated with sample data from the Microsoft Analysis Services Adventure Works sample file, Adventure_Works. Treecontrol1 is populated with Accounts Member Caption and treecontrol2 is populated with Account Type.



- You can chain a Multi source Tree control to another Multi source Tree control.

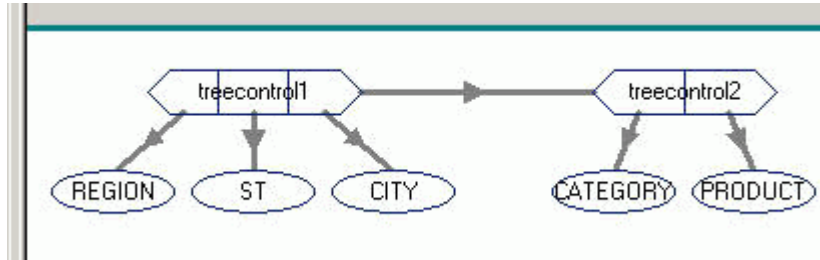
For example, the following image shows the New Parameters dialog box that shows two Multi source Tree controls. The first tree control contains REGION, ST, and CITY. Note that when parameters are shared with the Multi source Tree control, the Create control column is unselected. The second tree control contains CATEGORY and PRODUCT. The Chain control column is selected for all parameters, indicating that all the controls will be chained.

The dialog box titled "New Parameters" contains a table with the following data:

Name	Create control	Control Type	Chain control
REGION	☒	Multi source Tree co ...	☒
ST	☐	REGION ...	☒
CITY	☐	REGION ...	☒
CATEGORY	☒	Multi source Tree co ...	☒
PRODUCT	☐	CATEGORY ...	☒
Separator			

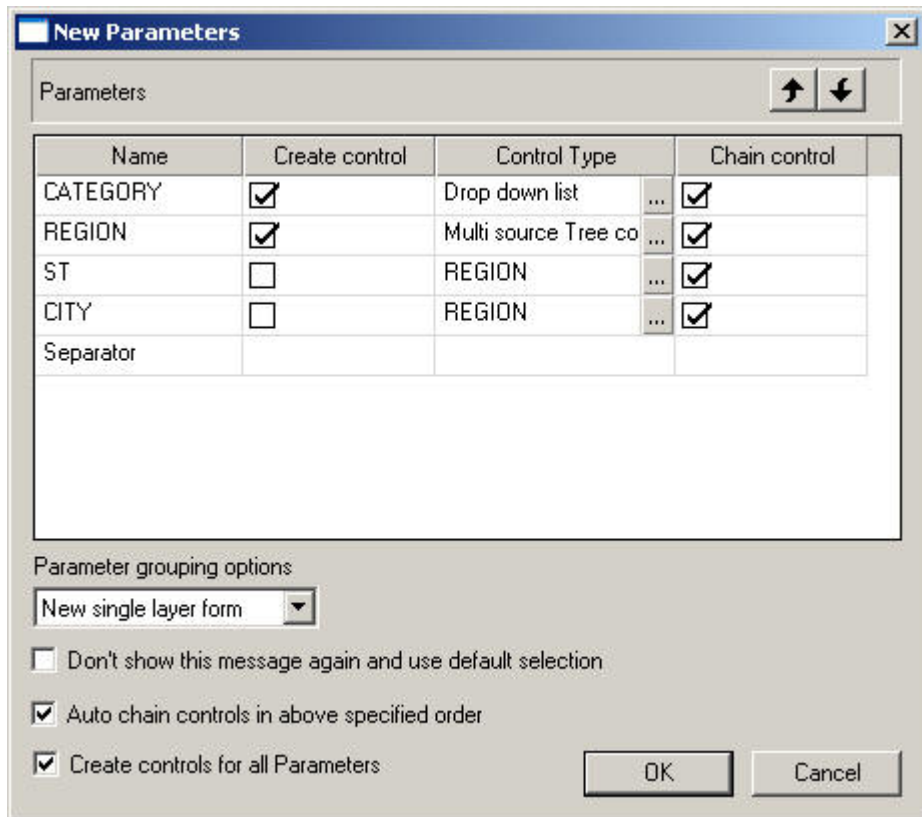
Below the table, the "Parameter grouping options" section includes a dropdown menu set to "New single layer form". There are three checkboxes: "Don't show this message again and use default selection" (unchecked), "Auto chain controls in above specified order" (checked), and "Create controls for all Parameters" (checked). "OK" and "Cancel" buttons are at the bottom right.

The result appears as follows from the Parameters tab. Note the first tree control, treecontrol1, is a Multi source Tree control with three layers, containing REGION, ST, and CITY. The second tree control, treecontrol2, is a Multi source Tree control containing two layers, CATEGORY and PRODUCT. Treecontrol1 is chained to treecontrol2.



- ❑ You can chain a tree control to another non-tree control, such as Drop down list or List box.

For example, the following image shows the New Parameters dialog box that shows a drop down list and a Multi source Tree control. The drop down list contains the CATEGORY parameter. The Multi source Tree control contains the REGION, ST, and CITY parameters. Note that when parameters are shared with the Multi source Tree control, the Create control column is unselected. The Chain control column is selected for all parameters, indicating that all the controls will be chained.



The image shows a 'New Parameters' dialog box with a title bar and a close button. It contains a 'Parameters' section with a table and a 'Parameter grouping options' section with checkboxes and a dropdown menu.

Name	Create control	Control Type	Chain control
CATEGORY	☒	Drop down list	☒
REGION	☒	Multi source Tree co	☒
ST	☐	REGION	☒
CITY	☐	REGION	☒
Separator			

Parameter grouping options

New single layer form

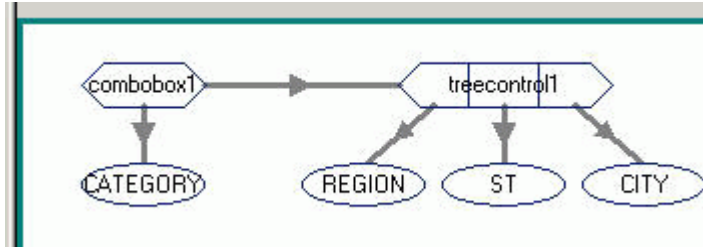
☐ Don't show this message again and use default selection

☒ Auto chain controls in above specified order

☒ Create controls for all Parameters

OK Cancel

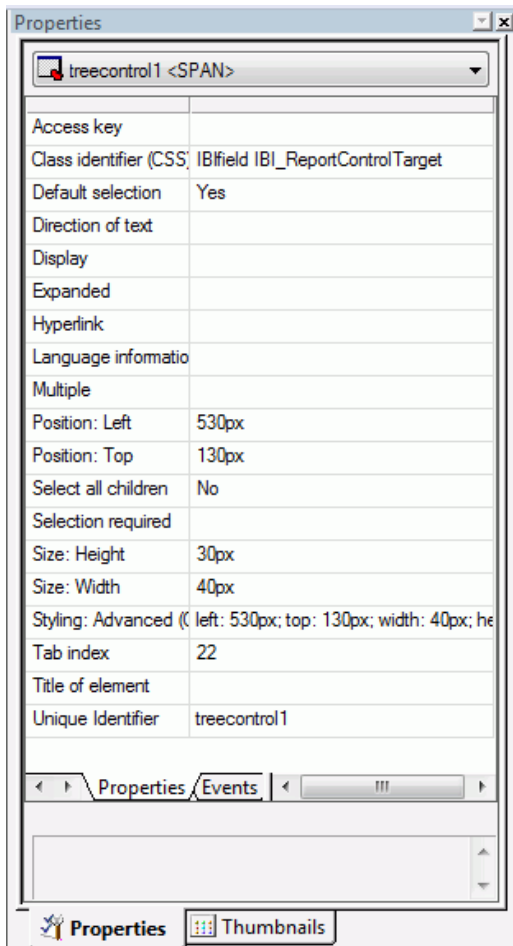
The result appears as follows from the Parameters tab. The drop-down list, combobox1, contains the CATEGORY parameters. Treecontrol1 is a Multi source Tree control with three layers, containing REGION, ST, and CITY. Combobox1 is chained to treecontrol1.



- ❑ Chaining cannot be done with only field names.
- ❑ Dynamic population of controls with field names need to use SYSCOLUMN calls.

Reference: Tree Control Properties in the Properties Window

When a tree control is selected, the Properties tab in the Properties window contains options that control the properties of your tree control, as shown in the following image.



Click a property to display a description of the selected property at the bottom of the Properties window.

Select all children. The Select all children option, when set to Yes, makes it so that when a parent is selected, all children are selected and when a parent is unselected, all children are unselected. No is selected by default.

Note: The Number of layers property is not available in a single tree source property window.

Using a Slider Control

You may add a slider control for numeric range values in a report or graph. This enables you to use a slider bar to select from a range of values.

Note: When using a Slider control in a RIA page, you can drag the slider to any value. For example, if a slider control is populated using a field whose only valid values are 2, 4, and 5, you can drag the slider to 1 and 3.

Procedure: How to Add a Slider Control

1. Add a slider control by doing one of the following.
 - ☐ From the Components toolbar, click the *Slider* button. Next, select the slider direction (Horizontal or Vertical), then select the slider type (Simple, Color Bar and Arrows or Color Bar, Arrows Edit).
 - or
 - ☐ From the Insert menu, select *Controls*, then select *Slider*. Next, select the slider direction (Horizontal or Vertical), then select the slider type (Simple, Color Bar and Arrows or Color Bar, Arrows Edit).

The cursor changes to a crosshair.

2. Click and drag the crosshair to create a slider control, and adjust it to the size you want.

A slider control is created in the layout and assigned the name *slider(n)*, where *n* is a number.

Note: The slider control is determined by the default slider control type selected from the HTML Page tab, located in the Developer Studio Options dialog box. For details about changing the slider bar, see [How to Change the Default Slider Bar](#) on page 235.

3. Optionally, change the slider control properties by adjusting the properties displayed in the Properties tab of the Properties window. For details, see [Slider Control Properties in the Properties Window](#) on page 236.
4. Bind an existing parameter to the slider control.

Binding a parameter to a slider control creates an incoming parameter. An incoming parameter is a parameter that is bound to a control. The parameter value will populate the slider control with values.

- ☐ Click the *Parameters* tab.

The Properties and settings dialog box opens.

- ❑ Close the Properties and settings dialog box.

Close this dialog since you are populating the slider control with a parameter value.

- ❑ Select the center of the parameter name object, left-click and drag the parameter to the center of the slider control object, and release the mouse to complete the binding.
- ❑ To unbind the parameter from the slider control, select the arrow head on the line, so that the line is bold, right-click, and select *Break binding*.

5. Bind the slider control to a parameter.

Binding the slider control to a parameter will populate the parameter with a range of values.

- ❑ Click the *Parameters* tab.

The Properties and settings dialog box opens.

- ❑ Create the range of values for the slider control. You can create a list of Static or Dynamic range of values.

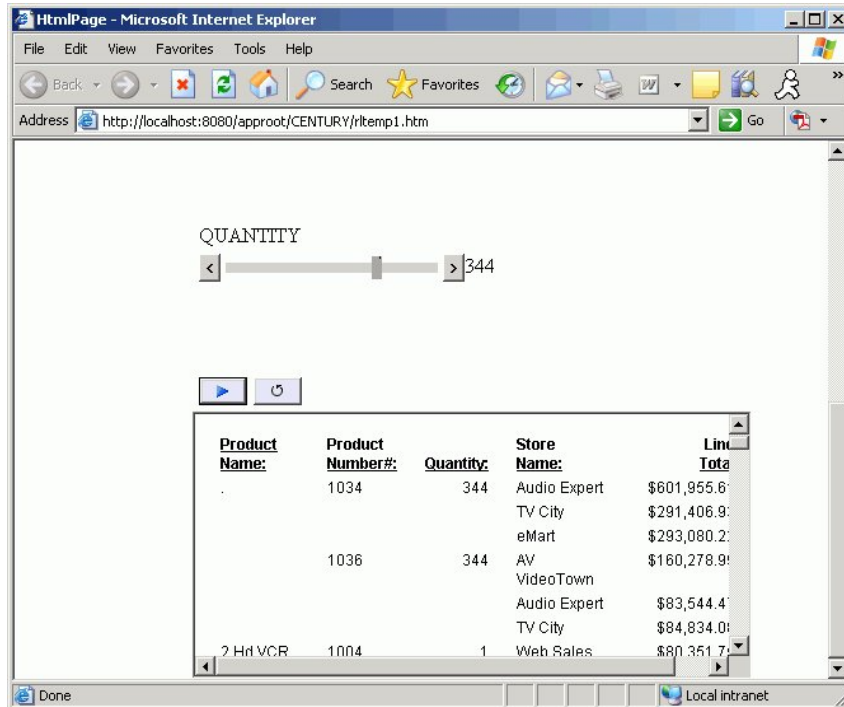
Note: If creating a Static Data type for the slider control, enter the minimum and maximum values for the range in the *Minimum* and *Maximum* input fields. The *Step* input field indicates how the numbers increment on the slider bar.



The screenshot shows a dialog box titled "Properties and settings". It has a "Data type" section with four radio buttons: "Static" (which is selected), "Dynamic", "Active Report", and "TOC". Below the radio buttons are three input fields: "Minimum" containing the value "1000", "Maximum" containing the value "50000", and "Step" containing the value "5".

- ❑ Close the Properties and settings dialog box to create the slider control with the range of values.
- ❑ Bind the slider control to a parameter. Select the center of the slider control, left-click and drag the slider control to the center of the parameter object, and release the mouse to complete the binding.

- Run the HTML page and use the slider bar to slide the values up or down. You may also use the end arrows to increase or decrease the numbers in the range. The output is generated based on the selected number from the slider bar.



Procedure: How to Change the Default Slider Bar

The default slider type is determined from the HTML Page tab, located in the Developer Studio Options dialog box.

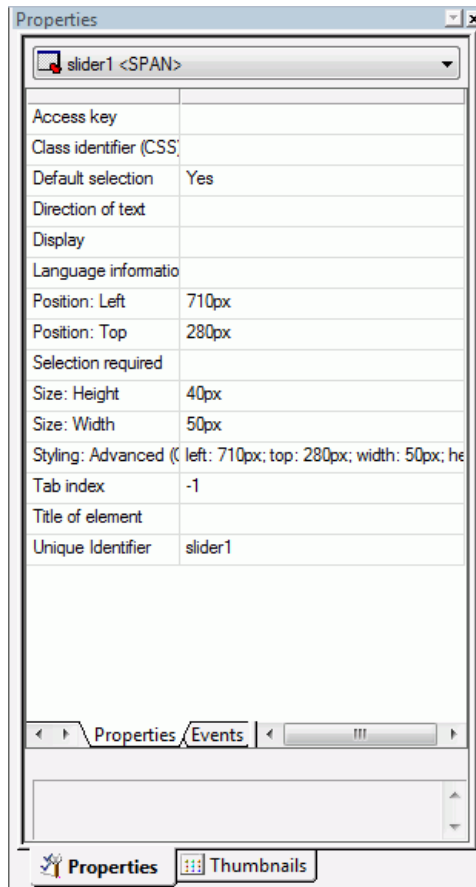
- To change the default slider type, select *Options* from the Window menu. The Developer Studio Options dialog box opens.
- Select the HTML Page tab.
- Click the *Form Settings* button to open the Form Settings dialog box.
- Use the drop-down list to change the default slider control type. You may select from:
 - ☐ Horizontal or Vertical Slider Simple bar. The slider bar has no end arrows, just a bar with the slider.

- ❑ Horizontal or Vertical Slider with Color Bar and Arrows. Arrows appear at each end of the slider bar.
- ❑ Horizontal or Vertical Slider with Color Bar, Arrows, and Edit. Arrows and an edit box appear at the end of the slider bar, showing the current value.

Once a slider control is inserted into the HTML Composer, changing these options will not affect the existing sliders. The option is only applied to new slider controls. To change the existing slider bar type, delete the slider object and insert a new slider control.

Reference: Slider Control Properties in the Properties Window

When a slider control is selected, the Properties tab in the Properties window contains properties of your slider control.



Click a property to display a description of the selected property at the bottom of the Properties window.

Adding a Dynamic Calendar

Date parameters can utilize a built-in calendar control that enables you to select the desired date or range of dates in a pop-up dynamic calendar. A procedure that is added to or referenced in the HTML Composer and contains date parameters will have a Calendar control type available in the Properties tab of the Properties window.

When the Calendar control type is selected, a text box with a calendar icon will display in the Design view of the layout. The text box is the only control available for the calendar, and the icon will always display to the right of the text box. The icon cannot be positioned independently from the text box.

Note that when programmatically returning a date to the calendar, the date must be in a FOCUS date format that specifies the complete date from the list of supported data types in Calendar Properties.

Procedure: How to Set Calendar Properties

1. Add a calendar by doing one of the following:

- ❑ Click the *Calendar* button from the Components toolbar.

or

- ❑ From the Insert menu, select *Controls*, then click *Calendar*.

The cursor changes to a crosshair.

2. Click and drag the crosshair to create a calendar and adjust it to the size you want.

A calendar placeholder is created in the layout and assigned the name *calendar(n)*, where *n* is a number.

3. Optionally, change the calendar properties by adjusting the properties displayed in the Properties tab of the Properties window. For details, see [Calendar Properties in the Properties Window](#) on page 243.

4. Bind an existing parameter to the calendar.

Binding a parameter to a calendar creates an incoming parameter. An incoming parameter is a parameter that is bound to a control. If binding a parameter to a calendar, the parameter value must be in a FOCUS date format that specifies the complete date from the list of supported data types in Calendar Properties. The parameter value will populate the calendar with date values.

- ❑ Click the *Parameters* tab.

The Properties and settings dialog box opens.

- ❑ Close the Properties and settings dialog box.

Close this dialog since you are populating the calendar with a parameter value.

- ❑ Select the center of the parameter name object, left-click and drag the parameter to the center of the calendar object, and release the mouse to complete the binding.
- ❑ To unbind the parameter from the calendar, select the arrow head on the line, so that the line is bold, right-click, and select *Break binding*.

5. Bind the calendar to a parameter.

Binding the calendar to a parameter will populate the parameter with a date value.

- ❑ Click the *Parameters* tab.

The Properties and settings dialog box opens, showing the calendar setup options. The calendar setup options enable you to set the range of dates available to the user at run time. Available dates will be represented as an active hyperlink (blue and underlined) and unavailable dates will be static (black without underlines).

Note: The Properties and settings dialog box for a calendar will contain different options depending on the selected data type.

- ❑ Create the values for the calendar. You can create Static or Dynamic values.

When the Current/Start date option is checked, the current date will be used in the calendar control at run time.

The Date Range options for setting up the calendar include:

- ❑ **Static.** This option will set a static date range in which the developer will select a start date and an end date using a pop-up calendar icon, or by clicking the month, day, or year from the controls.

The pop-up calendar  icon appears in the From and To sections when the *Static Date Range* is selected. If you click the pop-up calendar icon, a pop-up calendar appears and shows the current date selected and circled in red by default. As you scroll through the calendar with the left/right arrows, the currently selected day will remain highlighted for each month. Clicking a date will add that date to the control. Dates can be selected by scrolling left to right, entering the month, day, and year as text, or by selecting the month, day, and year from the drop-down list and spin boxes.

- ❑ **Relative.** This option allows you to set a specific number of days, months, and years relative to the current date. The current date (at run time) will always be the reference or starting point and the calendar will show a number of days, months, and years relative to the current date. The range could be all in the past (for example, five years prior to the current date) or all in the future (for example, five years in the future). This is selected as the default Date Range.
- ❑ **Dynamic.** This option allows you to point to a procedure that returns a range of dates. Clicking the *Select custom procedure browse (...)* button allows the developer to choose a preexisting procedure located in the current APP (local projects/data server) or Domain (MR). The procedure must return two date values on the same data line in XML format. The date values must be returned in a format that returns two digits for the month and day, and four digits for the year, for example, MM/DD/YY. For an example of returning a range of dates from a procedure please see the example shown later in this section.
- ❑ Close the Properties and settings dialog box to create the calendar with the range of date values.
- ❑ Bind the calendar to a parameter. Select the center of the calendar, left-click and drag the calendar to the center of the parameter object, and release the mouse to complete the binding.

Reference: Date Formats

The date format can be displayed differently by selecting one of the available formats from the *Date format in data source* drop-down list in the calendar controls Property and settings dialog box.

The following date formats are available:

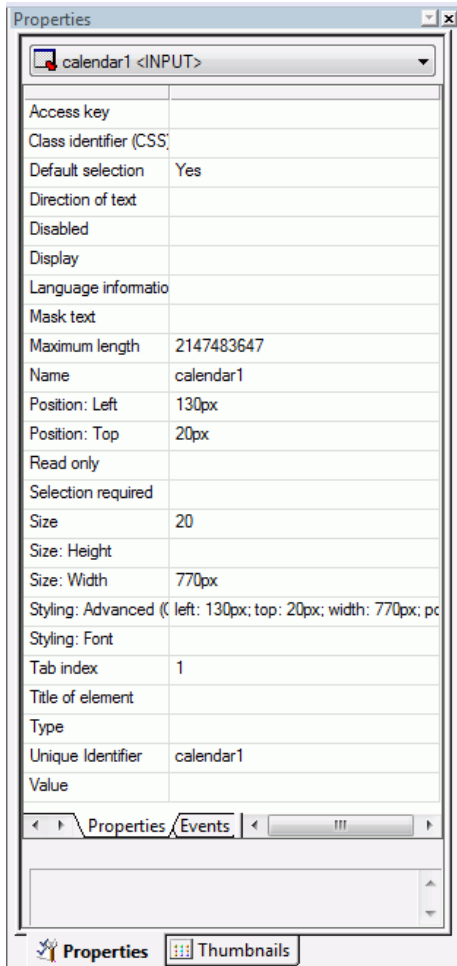
Display Date	Date Format
11/01/15	(YMD)
15/01/11	(DMY)
15/01/2011	(DMYY)
01/15/11	(MDY)
1/15/2011	(MDYY)
2011/01/15	(YYMD)
January, 2011	(trMY)
January 15, 2011	(trMDYY)
Jan 15, 2011	(tMDYY)
15 Jan, 2011	(tDMYY)
Wednesday, January 15, 2011	(wrMtrDYY)
11 Q1	(YQ)
11.01.15	(Y.M.D)
11-01	(Y-M)
11 01 15	(YBMBD)
2011/01	(YYM)
01/11	(MY)
2011 Q1	(YYQ)
Q1 2011	(QYY)
Q1 11	(QY)
01	(M)

Display Date	Date Format
Jan	(Mt)
January	(Mtr)
Q1	(Q)
2011	(YY)
11	(Y)
15	(D)
1	(W)
Wednesday	(Wr)
Wed, Jan 15, 2011	(wMtDYY)
Wed, 15 Jan, 2011	(wtDMYY)
15 January, 2011	(trDMYY)
Wednesday, 15 January, 2011	(wrtrDMYY)

Note: When using a format that is missing a component (such as the day in the MY format), the missing component will be taken from the current days date.

Reference: Calendar Properties in the Properties Window

When a calendar is selected in the HTML Composer, the Properties tab in the Properties window contains properties of that calendar.



Click a property to display a description of the selected property at the bottom of the Properties window.

Example: Returning a Range of Dates From a Procedure

The following returns the complete range of date values for HIREDATE.

```
-* This extracts minimum and maximum to a single record.
DEFINE FILE EMPDATA
NEWDATE/YYMD = HIREDATE;
END
TABLE FILE EMPDATA
WRITE MIN.NEWDATE AS 'MINNEWDATE'
MAX.NEWDATE AS 'MAXNEWDATE'
ON TABLE SET ASNAMES ON
ON TABLE HOLD
END
-* This reads that record twice to create two extract files with each
field having the same name.
TABLE FILE HOLD
PRINT MINNEWDATE AS 'NEWDATE'
ON TABLE SET ASNAMES ON
ON TABLE HOLD AS MINNEWDATE
END
TABLE FILE HOLD
PRINT MAXNEWDATE AS 'NEWDATE'
ON TABLE SET ASNAMES ON
ON TABLE HOLD AS MAXNEWDATE
END
-*This uses MORE to create two records.
TABLE FILE MINNEWDATE
PRINT NEWDATE
ON TABLE PCHOLD FORMAT XML
MORE
FILE MAXNEWDATE
END
```


The XML output is:

```
<?xml version="1.0" encoding="ISO-8859-1" ?>
- <fxf version="1.0" data="hold">
- <report records="2" lines="2" columns="1" rows="2">
  <target format="" version="" type="" destination="HOLD" />
  - <column_desc>
    <col colnum="c0" fieldname="NEWDATE" alias="E01" datatype="date"
      width="10" focus_format="YYMD" description="" accept=""
      help_message="" title="" property="" reference=""
      valign="right" />
    </column_desc>
  - <table>
  - <tr linetype="data" linenum="1">
    <td colnum="c0" rawvalue="19890301">19890301</td>
  </tr>
  - <tr linetype="data" linenum="2">
    <td colnum="c0" rawvalue="19910513">19910513</td>
  </tr>
  </table>
</report>
</fxf>
```

Using a Hidden Parameter Value

A hidden input control allows parameter values to be used in a control without the user seeing them. When a hidden control is used, the current input control assigned to the parameter will not be visible. The value of the parameter can be entered in the Properties and settings dialog box of the Parameters tab, or supplied through chaining.

Procedure: How to Add a Hidden Control

1. Add a hidden control by doing one of the following:

- ☐ Click the *Hidden* control button from the Components toolbar.

or

- ☐ From the Insert menu, select *Controls*, then click *Hidden*.

The cursor changes to a crosshair.

2. Click and drag the crosshair to create a hidden control and adjust it to the size you want.

A hidden control is created and assigned the name `inputhidden(n)`, where *n* is a number.

A hidden control is not visible in the Design view of your layout. It is available as a control object on the Parameters tab.

3. Optionally, change the hidden control properties by adjusting the properties displayed in the Properties tab of the Properties window.

Select `inputhidden` from the Properties drop-down list. The Properties window contains a hierarchical drop-down list of objects that are currently in the layout.

4. Bind the hidden control to a parameter.

Binding the hidden control to a parameter will hide the parameter value when you run the HTML page.

- ❑ Click the *Parameters* tab.

The Properties and settings dialog box opens.

- ❑ Create the list of values for the hidden control. You can create a Static or Dynamic value.

Note: If you are not seeing the value, you should set the list to evaluate to one value.

- ❑ Close the Properties and settings dialog box to create the hidden control with the list of values.
- ❑ Bind the hidden control to a parameter. Select the center of the hidden control, left-click and drag the hidden control to the center of the parameter object, and release the mouse to complete the binding.

5. To change an existing input control to a hidden control:

- ❑ Select the input control on the Parameters tab.
- ❑ Right-click and select *Hidden* from the Set Control Type context menu.

The input control is hidden on the control in the Design view and when you run the HTML page.

6. To show a hidden control in the control:

- ❑ Select the hidden control object from the Parameters tab.
- ❑ Right-click and select the desired control from the *Set Control Type* context menu.

Tip: You may have to reposition the input control on the Design tab of the layout when changing control types.

Creating Hyperlink Actions With Additional Parameters

When you manually add a new parameter on the Parameters tab, you may pass the parameter variable to a hyperlink action. The additional parameters appear on the Hyperlink Properties dialog box when you create a new action.

The Hyperlink Properties dialog box is available when you create a Hyperlink, Push button, Frame, Image, and Submit button.

Note: When using Google Chrome™ and when a hyperlink action causes a report to be run in a new window, the report will run in a new tab instead of a new window.

Procedure: How to Create a Hyperlink Action With Additional Parameters

1. Create a new parameter:

- ❑ Right-click anywhere on the Parameters tab and select *Add parameter*.

The Properties and Settings dialog box opens.

- ❑ Enter the name for the parameter in the Name field, or keep the default name.

- ❑ Optionally, you may use the Format field to define the format of the parameter, such as A20 or D12.2.

If this field is left blank, it automatically applies the Alphanumeric format to the value field.

- ❑ Enter the parameter value information. Options are *Single select*, *Multiselect OR*, and *Multiselect AND*.

These are static parameter options.

- ❑ Close the Properties and settings dialog box to create an unbound parameter.

- ❑ To bind the new parameter to a control, select the Design view and create an input control. For example, insert a list box, drop-down list box, and so on.

- ❑ Click the *Parameters* tab.

The Properties and settings dialog box appears for the control.

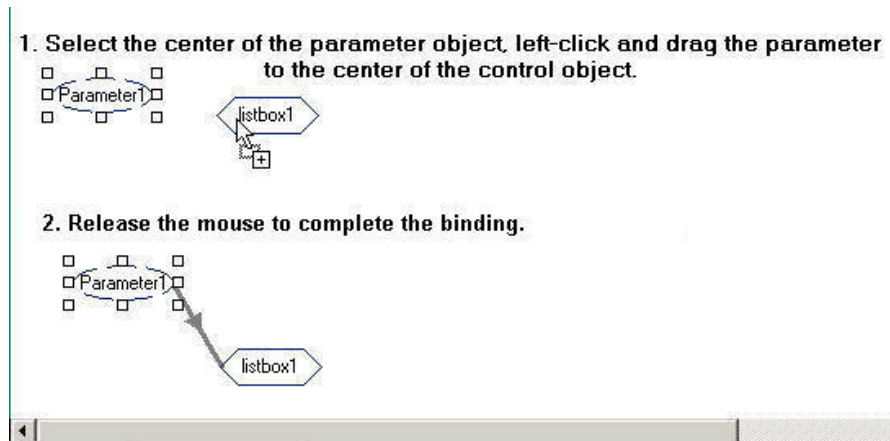
- ❑ Close the Properties and settings dialog box.

- ❑ Select the center of the parameter name object, left-click, and drag the parameter to the center of the control object.

This makes it an incoming parameter that will populate the control. If the control will populate the parameter, select the center of the control object, left-click and drag the control object to the center of the parameter object.

- ❑ Release the mouse to complete the binding.

The following image is an example of an incoming parameter.



To modify the parameter value, right-click the parameter on the Parameters tab and select *Properties and settings*.

Tip: You may also use the Undo and Redo buttons located on the Standard toolbar. Note that undo/redo treats the entire Properties and settings dialog as one action.

2. From the Design view, create and open the Hyperlink Properties dialog box for the input control to create the hyperlink action. For example, insert and right-click the Push Button object and select *Create hyperlink*.

The Hyperlink Properties dialog box opens for the selected object.

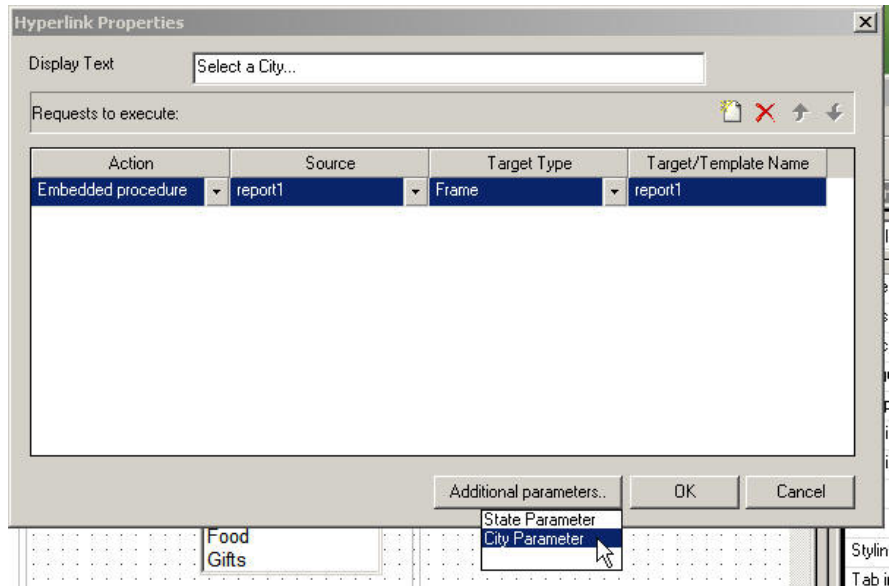
3. Click the *New* button to create a new action.

The Additional parameters button appears on the Hyperlink Properties dialog box.

The Additional parameters button only appears if parameters were created from the Parameters tab of the HTML Composer.

4. Select the Action, Source, Target Type, and Target/Template Name for the hyperlink.

- Click the *Additional parameters* button and select the parameter name(s) to pass in this hyperlink.



- Click OK to close the Hyperlink Properties dialog box.

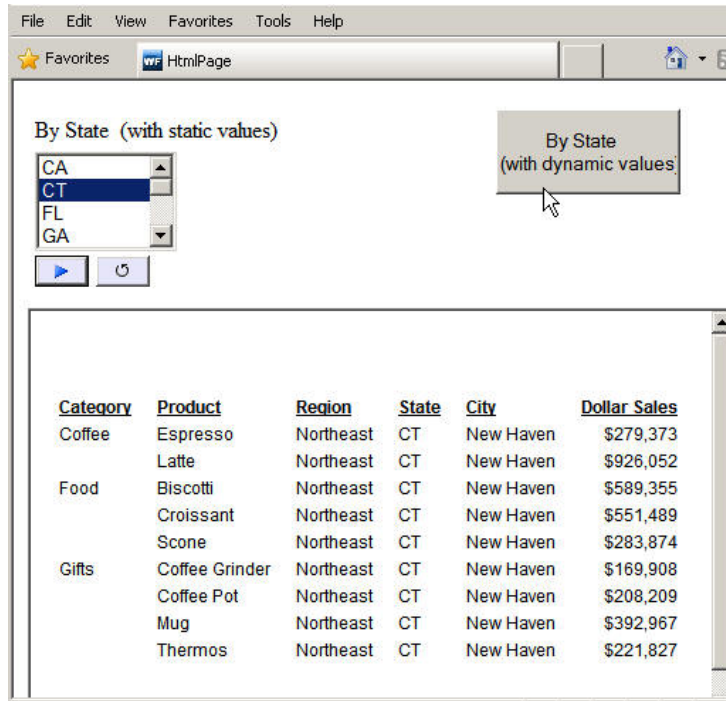
If you are linking hyperlink properties to another page or procedure, the HTML Composer parses the other file for unresolved parameters and opens the New Parameters dialog box.

When you run the report and click the hyperlink, the action passes the parameter value to the entity specified in the Source column of the Hyperlink Properties dialog box.

Binding a Button, Hyperlink, or Image to Populate a Control

You may bind a button, hyperlink, or image to a control on the Parameters tab in the HTML Composer. This enables you to dynamically repopulate the control with new values at run time by clicking the button, hyperlink, or image.

For example, the following image shows a report with a custom list of static values for the State field in a list box control. Clicking the button repopulates the list box control with a dynamic list of state values, enabling you to select a state and run the report.



Procedure: How to Bind a Button to Populate a Control

Using information from the sample data source GGSALES, create a report with a state parameter. A list box control shows a custom list of selected state values that you have created. A push button, bound to the list box, repopulates the control and shows a dynamic list of state values from the data source at run time. This enables you to selectively populate the list box with static or dynamic values before running the report.

1. Create the HTML page.

Tip: The Gotham Grinds Sales data source (*ggsales.mas*) is available from the ibisamp Applications on the localhost folder of Developer Studio. You may copy this source file to the project directory of your choice.

- a. Select the *HTML Files* folder from your project in Developer Studio.
- b. Right-click and select *New/HTML File*.

The Add HTML File dialog box opens.

- c.** Type *binding_button* in the File name text box and click *Open*.

The HTML Composer opens.

2. Create the Gotham Grinds sales report.

- a.** Select *New Report* from the Insert menu.

The cursor changes into a crosshair.

- b.** Click and drag the crosshair to create a reporting object and adjust it to the size you want.

- c.** Double-click the report placeholder.

The Open dialog box appears.

- d.** Select the *ggsales* Master File and click *Open*.

The Report Painter opens showing the field names for the *ggsales* data source.

- e.** Select *By* from the Columns toolbar and double-click the following field names: *CATEGORY*, *PRODUCT*, *REGION*, *ST*, *CITY*.

- f.** Insert your cursor after the City field in the Report Painter canvas and select *Sum* from the Columns toolbar.

- g.** Double-click *DOLLARS* to add it to the report.

3. Create a parameter for the ST field. This parameter will be populated from a static list when you initially run the report on the HTML page.

- a.** Click the *Where/If* button from the Columns toolbar.

The Report Options dialog box opens at the Where tab.

- b.** Click *Assist*.

The Expression Builder opens.

- c.** Create a parameter for ST from the Expression Builder:

- ☐ From the Fields list, double-click *ST*.
- ☐ From the Logical Relations drop-down list, select *equals*.
- ☐ In the Compare Type box, select *Parameter*.
- ☐ Double-click the Compare Value box to open the Variable Editor.

- ☐ Keep the default Name as *ST*.
- ☐ Type *By State* in the Prompt field.
- ☐ Keep the default *Static list* from the Accept List section.
- ☐ Type the following states as the Display and Return Values, respectively:
California, CA, Georgia, GA, Illinois, IL, New York, NY.
- ☐ Click *OK* to close the Variable Editor.

- d.** Click *OK* to close the Expression Builder.
- e.** Click *OK* to close the Report Options dialog box.
- f.** Select *Close* from the File menu to close the Report Painter.
- g.** When you are prompted to save your changes, click *Yes*.

You are returned to the HTML Composer and the New Parameters dialog box appears.

- h.** Select *List box* from the Control Type ellipsis button and click *OK* to automatically add the state parameter control to the HTML page.

4. Insert a button, hyperlink, or image object.

Adding a button, hyperlink, or image to the layout enables you to execute a request at run time. For this example, insert a push button.

- a.** From the Insert menu, select *Controls*, then click *Push Button*.

The cursor changes into a crosshair.

- b.** Click and drag the crosshair to create a push button and adjust it to the size you want.

A push button is created in the layout and assigned the name *button(n)*, where *n* is a number.

- c.** Optionally, you may rename the text of the button by typing text in the *Value* property field in the Properties window.

5. Add the button object to the Parameters tab.

- a.** Click the *Parameters* tab.

The Properties and settings dialog box opens, showing a Legend of the available controls for the values on the HTML page.

- b.** From the Thumbnails tab, select the button object.

- c. Left-click and drag the object onto the Parameters tab.
- d. Release the mouse to move the object onto the Parameters tab.

The button object appears on the Parameters tab and the Properties and settings for the button appear.

6. Bind the button object to the list box control.

Binding the button, hyperlink, or image to a control enables you to populate the control with alternative code.

- a. Select the center of the button object, left-click and drag the object to the center of the list box control object, and release the mouse to complete the binding. A line indicates the direction of the bind.



7. Create the properties and settings for the bound object.

- a. Click the arrow head in the link of the chain between the button and list box control.

The Properties and settings dialog box enables you to create alternative code to populate the list box at run time.

- b. Create dynamic values for the state parameter.

- ☐ Select *Dynamic* as the Data type.
- ☐ Keep the default Embedded procedure selected.
- ☐ Click the browse button and double-click *ggsales.mas* from the Get source file dialog box.
- ☐ From the Value field, click the *browse* button and double-click *ST*.

The GGSALES data source is added as the Value and Display field, as shown in the following image.

The image shows a 'Properties and settings' dialog box for a data source. It has several sections:

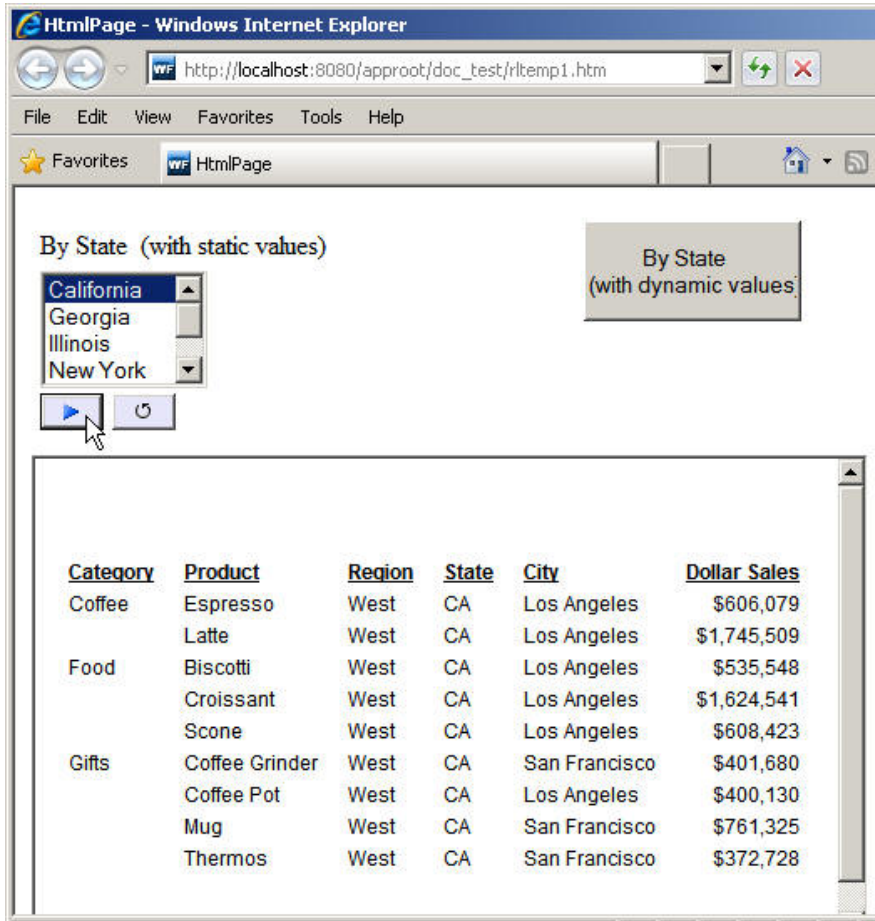
- Data type:** Radio buttons for Static, Dynamic (selected), Active Report, and TOC.
- Procedure:** Radio buttons for Embedded procedure (selected) and External Procedure.
- File name:** A text box containing 'ggsales.mas' with a browse button (...).
- Value field:** A text box containing 'GGSALES.SALES01.ST' with a browse button (...).
- Display field:** A text box containing 'GGSALES.SALES01.ST' with a browse button (...).
- SQL Statement:** A text area containing:

```
TABLE FILE ggsales
SUM FST,GGSALES.SALES01.ST
BY GGSALES.SALES01.ST
// TODO: Add your filters here to replace defaults
ON TABLE PCHOLD FORMAT XML
END
```
- Options:**
 - ☐ Add "ALL" option: A dropdown menu showing 'ALL'.
 - ☐ Add 'No selection' option: A dropdown menu showing '- Make Selection -'.
 - ☐ Cache run time data: ☐ Limit values returned: A spinner box set to '10'.
 - ☐ Sort: Sort by (Value selected, Display unselected) and Sort order (Ascending selected, Descending unselected).
 - ☐ Send display value: A text box labeled 'Selected Value'.
 - ☐ Check for duplicate values.

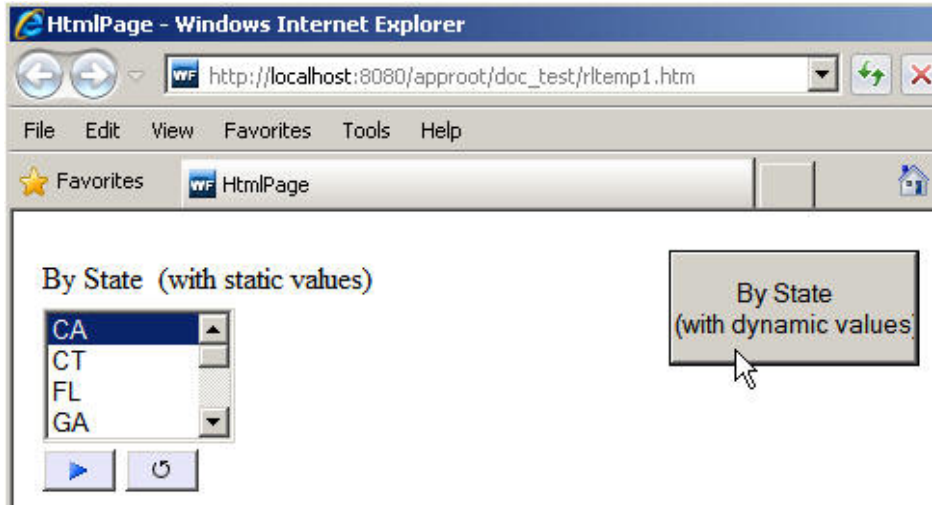
- ❑ Close the Properties and settings dialog box.

8. Save and run the HTML page.

Using the default list of static state fields, run the report.



- Click the push button to repopulate the list box with the dynamic state values from the GGSALES data source. Note how the list of state values changed.



- Select a state value from the list box and run the report.

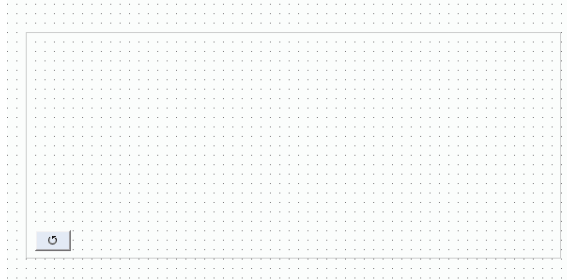
Tip: Click the *Refresh* button to repopulate the list box with the default static values.

Procedure: How to Use Controls to Populate Another Control Based on Selected Values

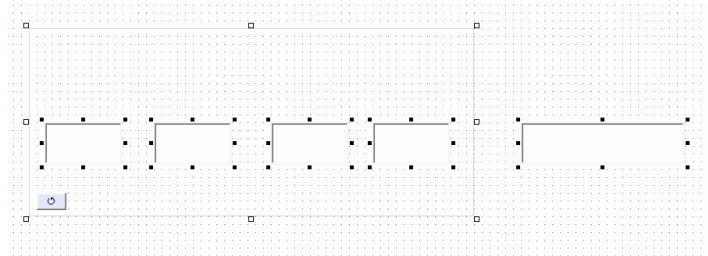
In this procedure, you will create multiple list box controls that will all have parameters bound to them. When the appropriate combination of these four parameters is selected, the fifth list box control will be populated with the related information.

- Create a procedure, using the car Master File, named `countrycars.fex`.
- In the procedure:
 - Insert two COUNTRY fields, `Sum FST.COUNTRY BY COUNTRY`.
This ensures that you get each value of country one time and in sorted order.
 - Create selection tests comparing CAR to `&Parameter1`, MODEL to `&Parameter2`, DEALER_COST to `&Parameter3`, and RETAIL_COST to `&Parameter4`.
 - Set the output format for this procedure to XML.
- Save and close the procedure.
- Create a new HTML file named `cars.htm`.

5. In the HTML file, create a new, Single Layer Form.
6. Delete the Submit Form button, as shown in the following image.

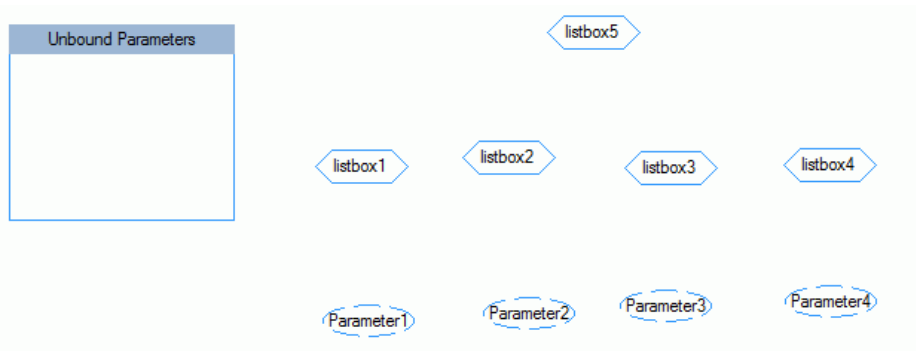


7. Create four list boxes inside the form and one list box outside the form, as shown in the following image.

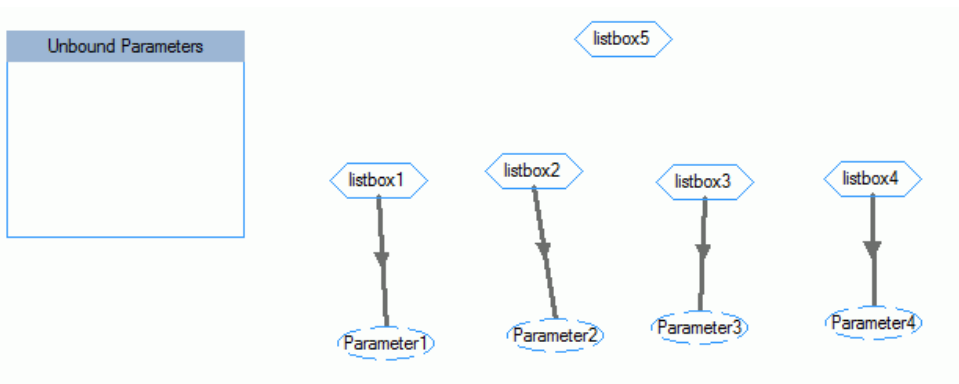


8. In the Properties and Settings dialog box, change Selection Required to Yes for all four list boxes inside the frame.
9. Insert labels for each list box. Name the four inside the form Parameter1, Parameter2, Parameter3, and Parameter4. Name the list box on the outside Result.
10. Select the Parameters tab at the bottom of the HTML Composer window.

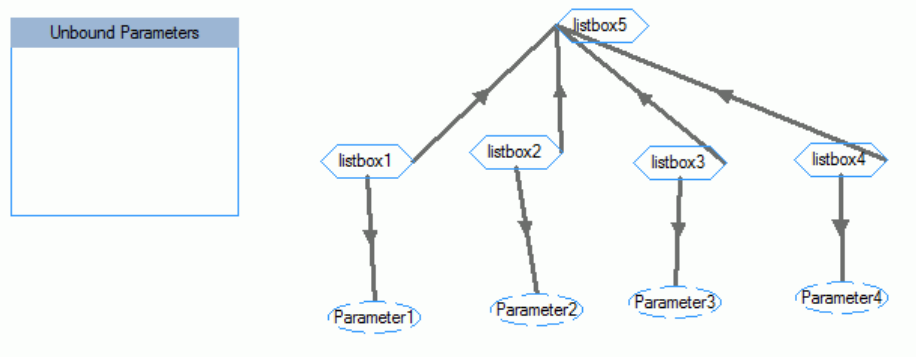
11. Add four parameters to the file, as shown in the following image.



12. Bind listbox1 to Parameter1, listbox2 to Parameter2, listbox3 to Parameter3, and listbox4 to Parameter4, as shown in the following image.



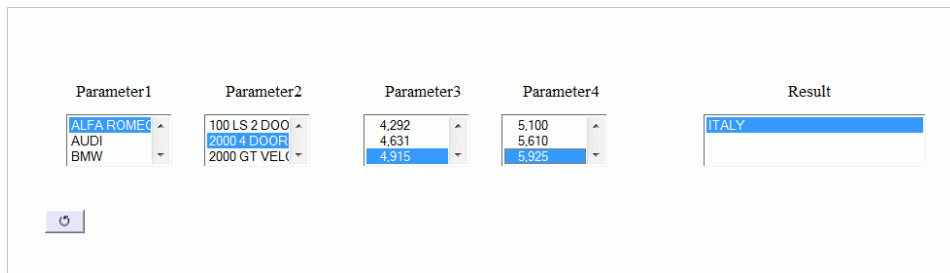
13. Bind listbox1, listbox2, listbox3, and listbox4 to listbox5, as shown in the following image.



14. Edit the properties of listbox1, listbox2, listbox3, and listbox4.
 - a. Select the *Dynamic Data* type option for all four list boxes.
 - b. Select *Embedded procedure* for all four list boxes.
 - c. Click the *procedure ellipsis button (...)* and select *car.mas* for all four list boxes.
 - d. Set the Value field for listbox1 to CAR; for listbox2, MODEL; for listbox3, DEALER_COST; and for listbox4, RETAIL_COST.
15. Edit the properties of listbox5.
 - a. Select the *Dynamic Data* type option.
 - b. Select *External procedure*.
 - c. Click the *procedure ellipsis button (...)* and select *countrycars.fex*.
 - d. If it is not set already, set the Value field for listbox5 to COUNTRY.
16. Edit the binding properties for each of the bindings between listbox1, listbox2, listbox3, and listbox4 to listbox5.
 - a. Select the *Dynamic Data* type option.
 - b. Select *External Procedure*.
 - c. Click the *procedure ellipsis button (...)* and select *countrycars.fex* for all four bindings. The Value field and Display field are assigned the COUNTRY field upon the selection of the procedure.
 - d. Change Resolves Parameter to the appropriate parameter for that list box. For example, listbox1 is bound to Parameter1. Therefore, you should select Parameter1 for the Resolves Parameter field.
17. Save and run the report.

A new web browser window opens with four populated list boxes and one empty list box.
18. For Parameter1, select ALFA ROMEO. For Parameter2, select 2000 4 DOOR BERLINA. For Parameter3, select 4,915. And for Parameter4, select 5,925.

Listbox5 is populated with the value, ITALY, as shown in the following image.



The screenshot shows a web form with four parameter listboxes and a result listbox. The listboxes are labeled Parameter1, Parameter2, Parameter3, and Parameter4. Parameter1 has options ALFA ROMEO, AUDI, and BMW. Parameter2 has options 100 LS 2 DOO, 2000 4 DOOR, and 2000 GT VEL. Parameter3 has options 4,292, 4,631, and 4,915. Parameter4 has options 5,100, 5,610, and 5,925. The Result listbox is labeled Result and contains the value ITALY. A push button is located below the Parameter1 listbox.

Note: Only when the appropriate combination of values are selected does the result display. If you were to choose 5,610 for Parameter4, no result would be displayed.

Supplying Parameter Values to External Reports

You can supply parameters to external reports the same way you apply them to reports created with the Report Painter. The HTML page can also contain multiple reports associated with a common set of parameters. Launch mechanisms such as a push button, hyperlink, or image can be associated to external reports that contain different sets of parameters. You can also update and target parameters for an external report to a frame or window directly within your HTML page.

Before you can supply parameter values to an external report, you must create a hyperlink to the report and associate a launch mechanism to it. After you associate a launch mechanism, such as a push button, hyperlink, or image, to the external report, the report layout is populated with the parameters.

Procedure: How to Supply Parameter Values to External Reports With a Push Button

In this procedure, you will create a push button to launch an external report and target the output to a window.

1. From the Insert menu, select *Controls*, then click *Push Button*.

The cursor changes into a crosshair.

2. Click and drag the crosshair to create a push button and adjust it to the size you want.
3. Right-click the button and select *Create hyperlink*.

The Hyperlink Properties dialog box opens.

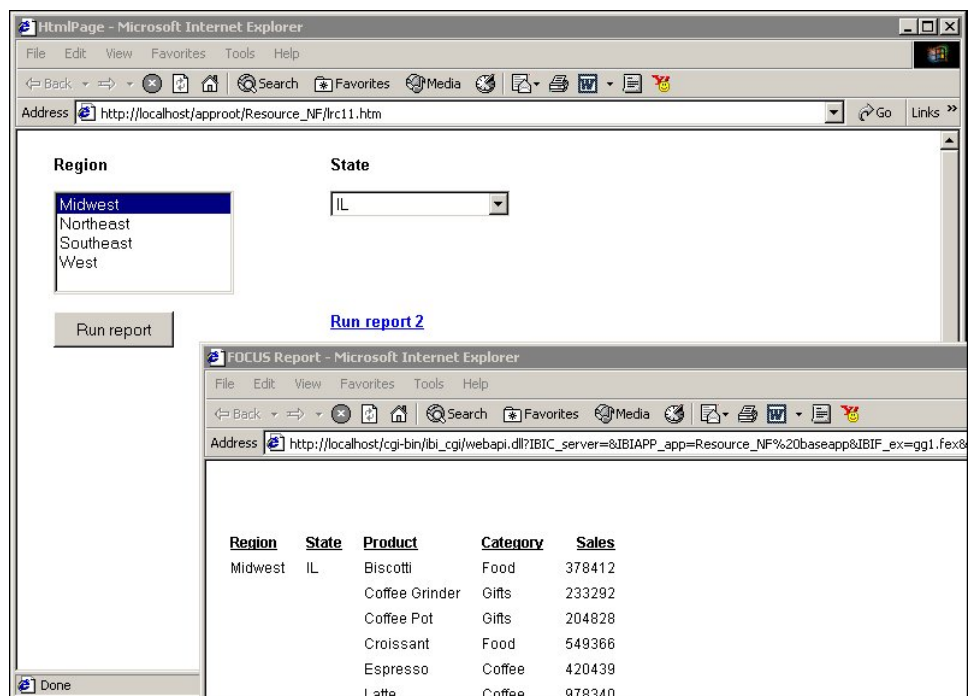
4. Specify the text you want to display as the hyperlink in the Display Text input field.

5. To set the action of the hyperlink to execute an external report, select the *New* button, then select *External procedure* from the Action drop-down list.
6. Enter the external report procedure name in the Source field, or click the *browse (...)* button to browse to the procedure.
7. Optionally, direct the output to a specific location by selecting *Window* or *Frame* in the Target Type field.
8. Specify the Target/Template Name for the target frame or window.
9. Click *OK*.

The parameters for the report are automatically added to objects in the layout and displayed in the Parameters tab.

10. From the File menu, click *Run*.
11. Click the push button to view the external report.

The report opens in a separate window as you specified in the Hyperlink Properties dialog box for that push button.



Procedure: How to Supply Parameter Values to an External Report With an Image

In this procedure, you will insert an image that will launch an external report when you click it. You will target the output to a window.

1. From the Insert menu, select *Components*, then click *Image*.

The cursor changes into a crosshair.

2. Click and drag the crosshair to position the image.

The Get source file dialog box opens.

3. Navigate to the image using the Look in drop-down list, select the image, and click *Open*.

4. Adjust the image to the desired size and location.

5. Right-click the image and select *Create hyperlink*.

The Hyperlink Properties dialog box opens.

6. To set the action of the hyperlink to execute an external report, select the *New* button, then select *External procedure* from the Action drop-down list.

7. Enter the external report procedure name in the Source field, or click the *browse (...)* button to browse to the procedure.

8. Direct the output to a window by selecting *Window* in the Target Type field.

9. Specify the Target/Template Name for the target frame or window.

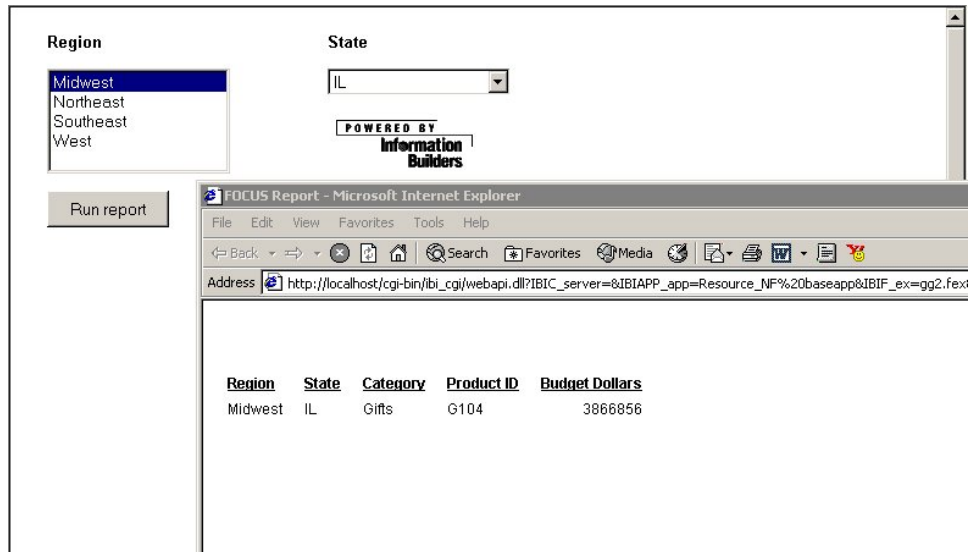
10. Click *OK*.

The parameters for the report are automatically added to objects in the layout and displayed in the Parameters tab.

11. From the File menu, click *Run*.

12. Click the image to view the external report.

The report opens in the window you specified in the Hyperlink Properties dialog box for that hyperlink.



Procedure: How to Supply Parameter Values to an External Report With a Hyperlink

In this procedure, you will create a frame and target report output from an external report to it. You will also create a hyperlink to launch the external report.

1. From the Insert menu, select *Components*, then click *Frame*. Click and drag the crosshair to create a frame and adjust it to the size you want. Enter a name for the frame by double-clicking the *Name* field in the Properties tab of the Properties window.
2. From the Insert menu, select *Components*, then click *Hyperlink*. Click and drag the crosshair to create a hyperlink and adjust it to the size you want.

The Hyperlink Properties dialog box opens.

3. Specify the text you want to display as the hyperlink in the Display Text input field.
4. To set the action of the hyperlink to execute an external report, select the *New* button, then select *External procedure* from the Action drop-down list.
5. Enter the external report procedure name in the Source field, or click the *browse (...)* button to browse to the procedure.
6. Direct the output to the frame you inserted by selecting *Frame* in the Target Type field.
7. Select the name of the frame you created from the Target/Template Name drop-down list.

8. Click *OK*.

The parameters for the report are automatically added to objects in the layout and displayed in the Parameters tab.

9. From the File menu, click *Run*.
10. Click the hyperlink to view the external report.

The report opens in the frame you specified in the Hyperlink Properties dialog box for that hyperlink.

The screenshot shows a web form for report parameters. It has two sections: 'Region' and 'State'. The 'Region' section has a dropdown menu with options: Midwest, Northeast, Southeast, and West (which is selected). The 'State' section has a dropdown menu with 'CA' selected. Below these is a 'Run report' button. To the right of the button is a purple hyperlink labeled 'Run report 2'. Below the button and link is a table displaying report data.

<u>Region</u>	<u>State</u>	<u>Category</u>	<u>Product ID</u>	<u>Budget Dollars</u>
West	CA	Gifts	G104	7586347

Example: Supplying Parameter Values to Multiple External Reports

In this example, you will add two reports to a layout. You will associate a push button to one report and target the output to a window. You will associate a hyperlink to the second report and target the output to a frame.

1. From the Insert menu, select *Controls*, then click *Push Button*.

The cursor changes into a crosshair.

2. Click and drag the crosshair to create a push button and adjust it to the size you want.

A push button is created in the layout and assigned the name *button(n)*, where *n* is a number.

3. Right-click the button, and select *Create hyperlink*.

The Hyperlink Properties dialog box opens.

4. Type *Run report* in the Display Text input field.
5. Set the action of the hyperlink to execute a report by clicking the *New* button and selecting *External procedure* from the Action drop-down list.
6. Enter the external report procedure name in the Source field, or click the *browse (...)* button to browse to the procedure.
7. In the Target Type field, select *Window* from the drop-down list.
8. In the Target/Template Name field, select *New window* frame from the drop-down list.
9. Click *OK*.

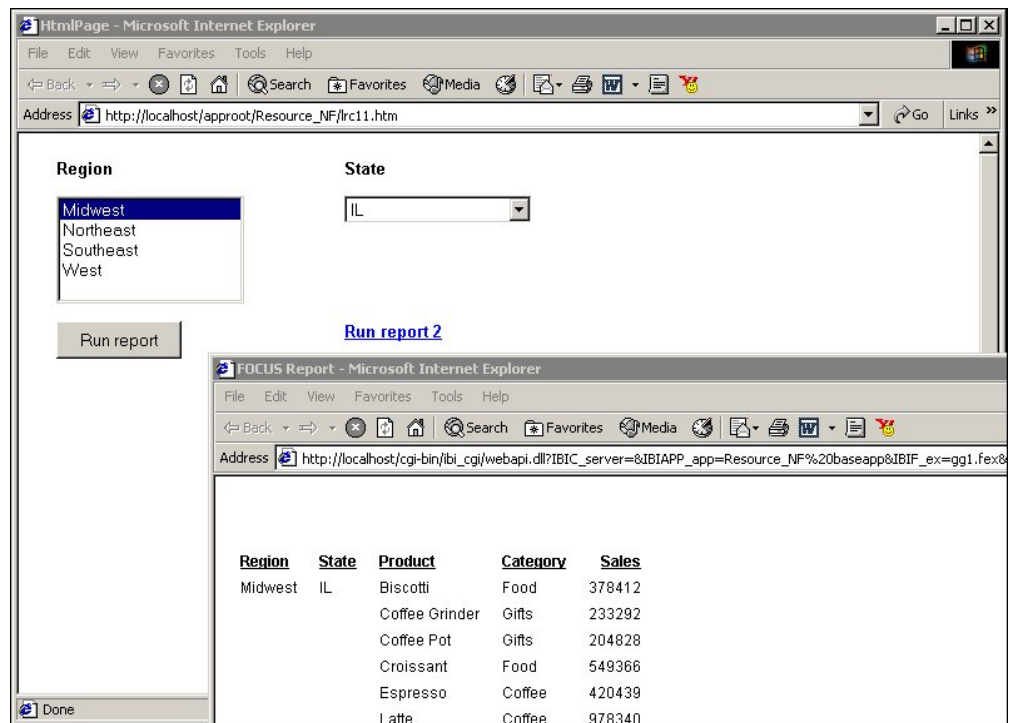
The parameters for the first report are automatically added to objects in the layout and displayed in the Parameters tab.

10. From the Insert menu, select *Components*, then click *Frame*. Click and drag the crosshair to create a frame and adjust it to the size you want.
11. Double-click the Name field in the Properties tab of the Properties window and enter *frame1*.
12. From the Insert menu, select *Components*, then click *Hyperlink*. Click and drag the crosshair to create a hyperlink and adjust it to the size you want.

The Hyperlink Properties dialog box opens.

13. Type *Run report 2* in the Display Text input field.
14. Set the action of the hyperlink to execute a report by clicking the *New* button and selecting *External procedure* from the Action drop-down list.
15. Enter the external report procedure name in the Source field, or click the *browse (...)* button to browse to the procedure.
16. In the Target Type field, select *Frame* from the drop-down list.
17. In the Target/Template Name field, select the name of the frame you created (*frame1*).
18. Click *OK*.
19. From the File menu, select *Run*.
20. Click the push button to view the first external report.

The report opens in a separate window as you specified in the Hyperlink Properties dialog box for that push button.



21. Click the hyperlink to view the second external report. The report opens in the frame you specified in the Hyperlink Properties dialog box for that hyperlink.

The screenshot shows a web interface with two input fields at the top: 'Region' and 'State'. The 'Region' field is a list box with options: Midwest, Northeast, Southeast, and West (which is selected and highlighted in blue). The 'State' field is a dropdown menu with 'CA' selected. Below these fields is a 'Run report' button. To the right of the button is a purple hyperlink labeled 'Run report 2'. Below the button and link is a rectangular frame containing a report table.

<u>Region</u>	<u>State</u>	<u>Category</u>	<u>Product ID</u>	<u>Budget Dollars</u>
West	CA	Gifts	G104	7586347

Procedure: How to Supply a Parameter Value to a Report Using a URL

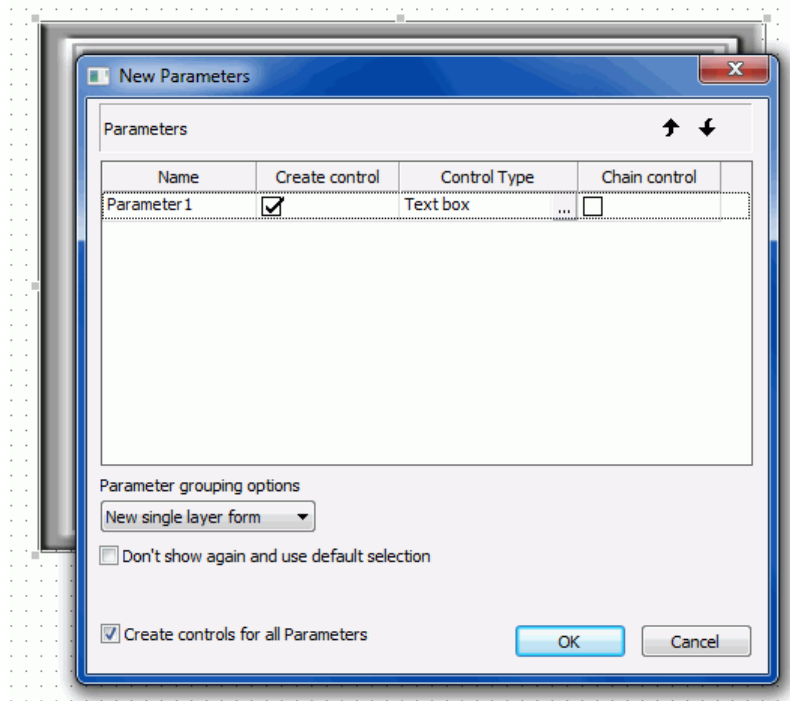
In this procedure, you will create a report within an HTML page in such a way that you can pass a parameter to the report, directly from a URL.

1. Using Report Painter in the Data Servers area of Developer Studio, create a procedure using the car Master File.
 - a. Print the COUNTRY, CAR, DEALER_COST, and RETAIL_COST fields.
 - b. Assign the COUNTRY field to a parameter named Parameter1.

For more information on creating a report using Report Painter, see the *Creating Reports With Report Painter* manual.

2. Save and close the procedure.
3. Create a new HTML file named *pass_on_url.htm*.
4. In the HTML file, create a new report.
5. Right-click the report frame and select *Reference existing procedure*.
The Get source file dialog box opens.
6. Select the procedure you created in step 1.

The New Parameters dialog box opens, as shown in the following image.



7. Click *Cancel*.

The page now has a report that requires a parameter but has no parameter value supplied.

8. Click *Save*, to save the HTML file.
9. Type the following into the address bar of a new web browser window:

http://localhost:8080/approot/appname/pass_on_url.htm?Parameter1=ITALY

where:

appname

Is the name of the application that contains the HTML page.

Parameter1=ITALY

Sets Parameter1, which had no previous value, to ITALY.

10. Press the *Enter* key.

The report runs for the value of ITALY, as shown in the following image.

COUNTRY	CAR	MODEL	DEALER_COST	RETAIL_COST
ITALY	ALFA ROMEO	2000 4 DOOR BERLINA	4,915	5,925
ITALY	ALFA ROMEO	2000 GT VELOCE	5,660	6,820
ITALY	ALFA ROMEO	2000 SPIDER VELOCE	5,660	6,820
ITALY	MASERATI	DORA 2 DOOR	25,000	31,500

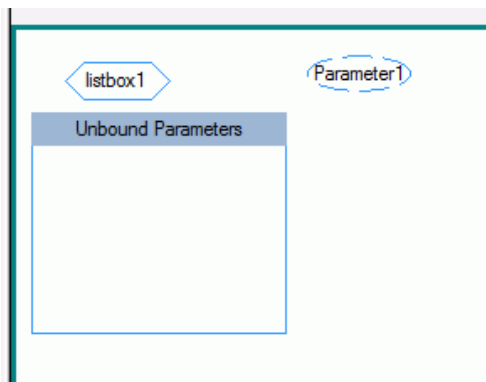
Procedure: How to Pass a Parameter From One Page to Another

In this procedure, you will create an HTML file that contains a list box and a button. The HTML file can pass a parameter from one webpage to another.

Note: You will use the file, `pass_on_url.htm`, created in the procedure [How to Supply a Parameter Value to a Report Using a URL](#) on page 267. This is the webpage to which the parameter will be sent.

1. Create a new HTML file named `pass_on_page.htm`.
2. In the HTML file, create a List Box, as described in [How to Add a List Box](#) on page 181.
3. Select the *Parameters* tab at the bottom of the HTML Composer window.
4. Right-click and select *Add parameter*.

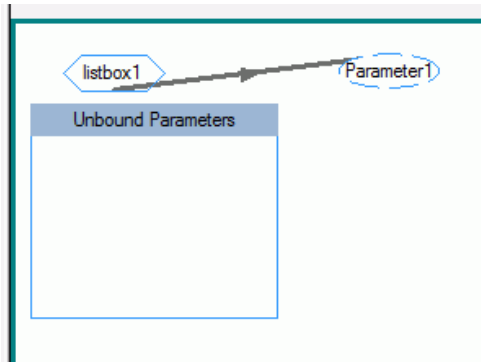
A new parameter is added to the HTML file. This parameter is named `Parameter1` by default, as shown in the following image.



5. Click the newly created `Parameter1` and in the Properties and settings dialog box, type `A10` in the Format field.

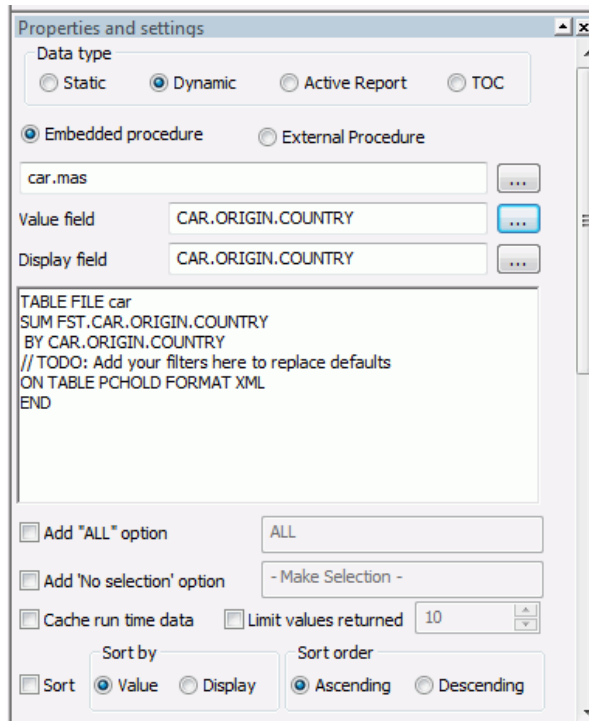
A10 is the format of COUNTRY, the field used in pass_on_url.htm.

6. Bind listbox1 to Parameter1, as shown in the following image.



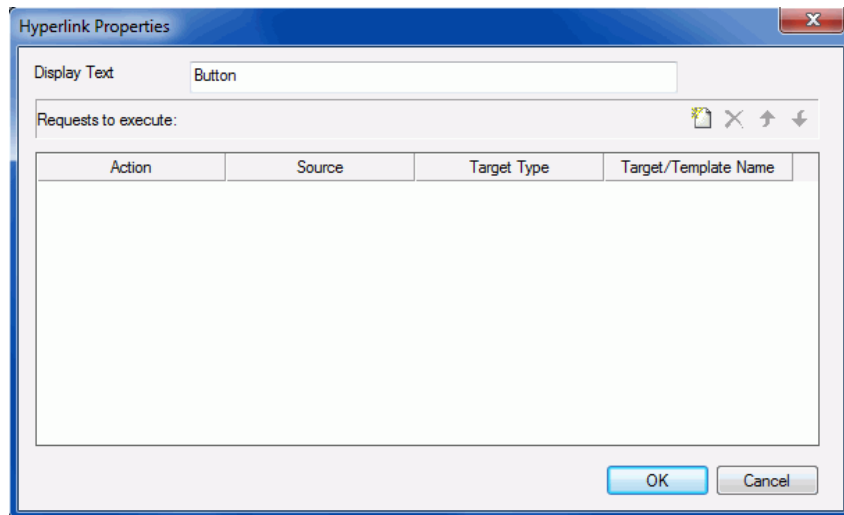
7. Select *listbox1* and perform the following actions.
 - a. In the Properties and settings dialog box, select the *Dynamic* option.
 - b. Click the *procedure ellipsis button (...)* and select *car.mas*.
 - c. Click the *ellipsis button (...)* for the Value field. Populate listbox1 with the COUNTRY field.

The Properties and settings dialog box for listbox1 will look similar to the following image.



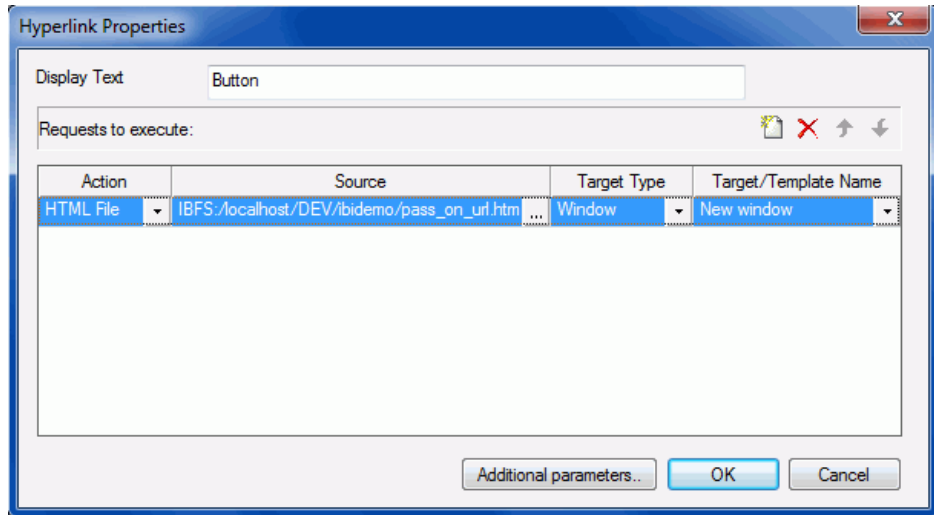
8. Select the *Design* tab at the bottom of the HTML Composer window.
9. In the HTML file, create a new Push Button.
10. Right-click the button and select *Create Hyperlink*.

The Hyperlink Properties dialog box opens, as shown in the following image.

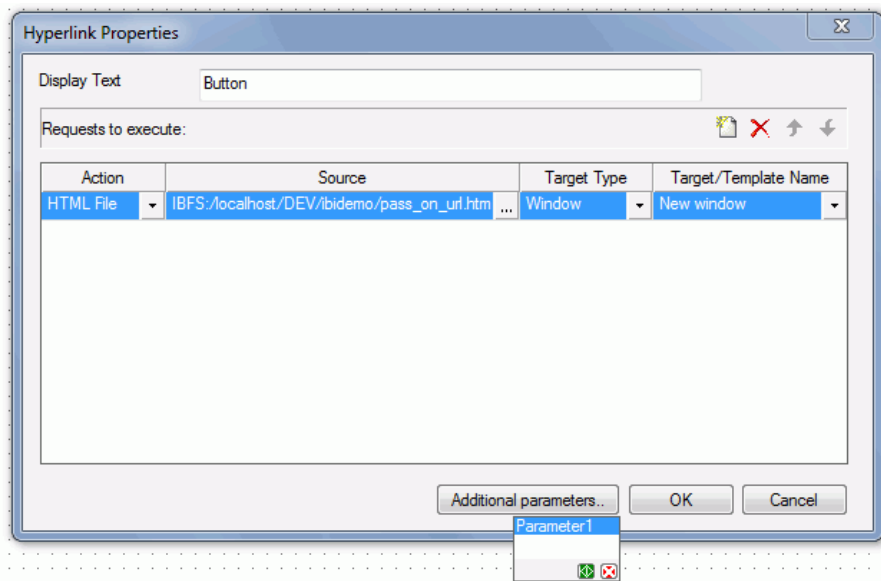


11. Create a new hyperlink with the following properties.
 - ☐ Action set to HTML File.
 - ☐ Source set to the file, `pass_on_url.html`, which was created in the previous procedure.
 - ☐ Target Type set to Window.
 - ☐ Target/Template Name set to New window.

The new hyperlink settings are shown in the following image.



12. While still in the Hyperlink Properties dialog box, click *Additional parameters*.
A small window opens, containing only Parameter1, as shown in the following image.

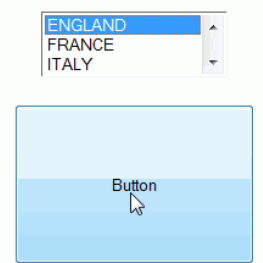


13. Double-click *Parameter1*.

The window closes.

This step tells HTML Composer that Parameter1 should be passed on the hyperlink.

- 14. Click OK in the Hyperlink Properties dialog box.
- 15. Run the page.
- 16. Select ENGLAND from the list box and click the button, as shown in the following image.



The report runs, showing the records for ENGLAND, as shown in the following image.

COUNTRY	CAR	MODEL	DEALER_COST	RETAIL_COST
ENGLAND	JAGUAR	V12XKE AUTO	7,427	8,878
ENGLAND	JAGUAR	XJ12L AUTO	11,194	13,491
ENGLAND	JENSEN	INTERCEPTOR III	14,940	17,850
ENGLAND	TRIUMPH	TR7	4,292	5,100

The value was passed from the first page to the second page.

Styling Your Layout

When you create an HTML page in the HTML Composer, the objects in the layout will display in your browser using the default browser styles. You can customize the appearance of your HTML page by adding a theme or template, you can also use the predefined templates available through the Template selector. The theme property is available from the Properties window of the DOCUMENT object.

Adding a CSS or Script to the Layout

Cascading Style Sheets (CSS) or scripts can be added to your layout to determine the look of the webpage. This is a good way to quickly apply corporate styling to your layout or to assign global styling to a layout. It is also an easy method of assigning default styling to all elements in the entire layout with one action. Styling included in a CSS or script will display only in Preview mode.

Note:

- ❑ If you modify a Cascading Style Sheet that is already added to your layout, you can refresh the layout to display your changed by pressing the F5 key.
- ❑ HTML Composer assigns internal CSS class names to all objects. These class names are used in all of the packaged themes. It is recommended that you use these class names when creating your own CSS files so that objects are styled correctly. In order for user CSS files to be honored, you must assign a theme to a page. Once a theme has been assigned the user CSS files will override that theme. If the user specifies the <Not Set> value for the DOCUMENT object Theme property, the CSS classes will not be honored and no styling will occur.

Procedure: How to Add a CSS or Script to the Layout

1. From the Insert menu, select *CSS/Scripts*.
The Insert Web Files dialog box opens.
2. Click the *New* button and navigate to the directory in which your CSS or script resides, select the file, and click *Open*.

Note: You may also specify a fully-qualified URL or a relative URL that points to a stylesheet file or script file by entering it in the File name area. A fully-qualified URL must start with `http://` or `https://`. A relative URL must start with a known context root that WebFOCUS uses, such as `/approot/appname/scriptname.js`.

3. Add additional files if desired. Click *OK* to add the specified files.

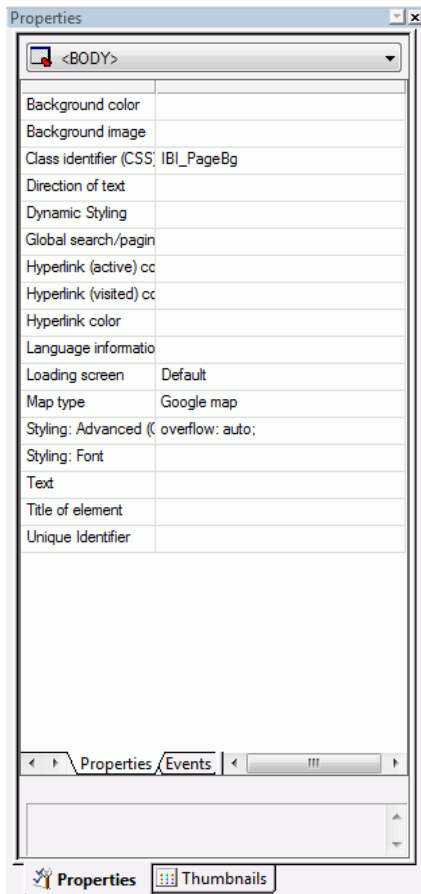
Setting HTML Page Properties

You can set properties for the HTML page you create in the HTML Composer in the Properties tab of the Properties window.

Properties set for the HTML page will be inherited by most objects added to the layout. Once a style has been changed for an object in the layout, it cannot be styled with a template or theme. It is recommended that global styling of the HTML page be set before properties are set for individual objects.

Reference: HTML Page Properties in the Properties Window

When the background of a report is selected, the Properties tab in the Properties window contains options that control the body of the HTML page.



Click a property to display a description of the selected property at the bottom of the Properties window.

Customizing the Layout

All changes to your layout can be made in the Design view of the HTML Composer or the HTML editor. The changes made to a layout in an editor will be preserved when you reenter the HTML Composer.

Specifying Browser Defaults With the Style Composer

You can use the Style Composer to control default settings for font, background properties, position mode, flow control, margins, list styles, and visual effects.

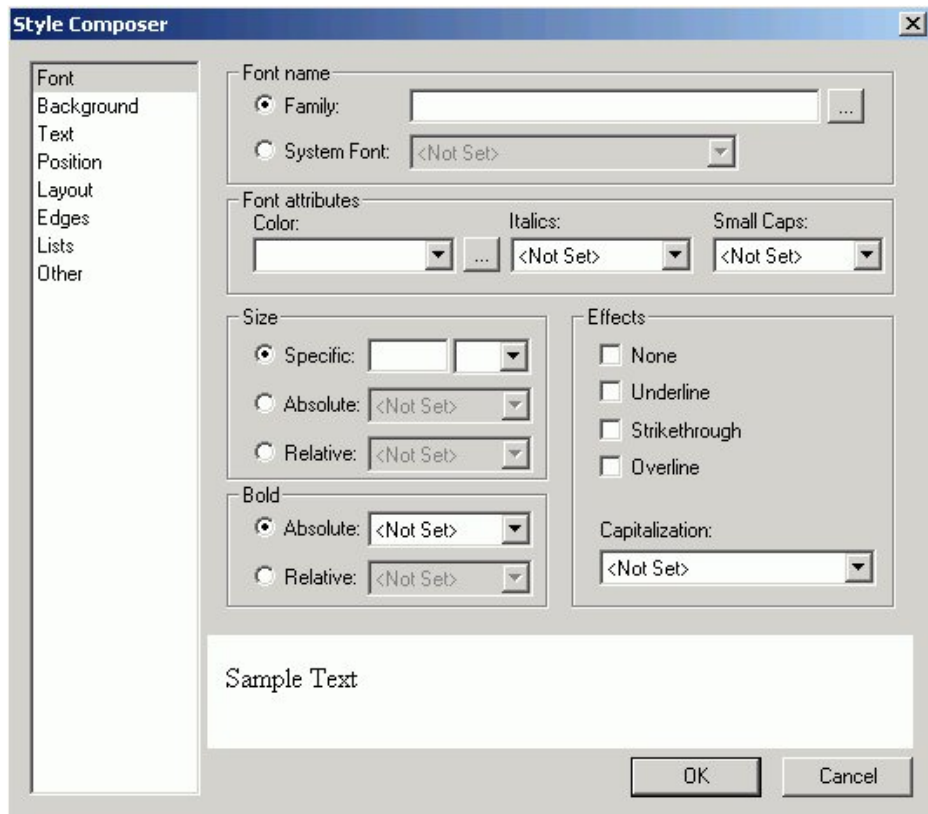
Note: On the following pages, the images of the Style Composer windows show many blank fields. You may actually see the words *Not Set* populated in these blank fields when viewing these Style Composer windows in Developer Studio.

Procedure: How to Access the Style Composer

To access the Style Composer, complete the following steps.

1. Right-click the background of an HTML page in the HTML Composer.
2. From the context menu, select *Style*.

The Style Composer window opens.



Reference: Specifying Font Styles Using the Style Composer

To specify the font styles that will be used in the browser for your HTML report, make your selections in the Font window of the Style Composer.

The Font window of the Style Composer is comprised of the following elements:

Font name

Determines the font displayed in a browser.

You can specify: *Family* (launches the Font Picker dialog box) or *System Font*.

Font attributes

Determines the attributes of the font displayed in a browser.

The options include: *Color*, *Italics*, *Small Caps*.

Size

Determines the size of the font displayed in a browser.

The options include: *Specific*, *Absolute*, *Relative*.

Bold

Determines whether the font is displayed as bold in a browser.

The options include: *Absolute*, *Relative*.

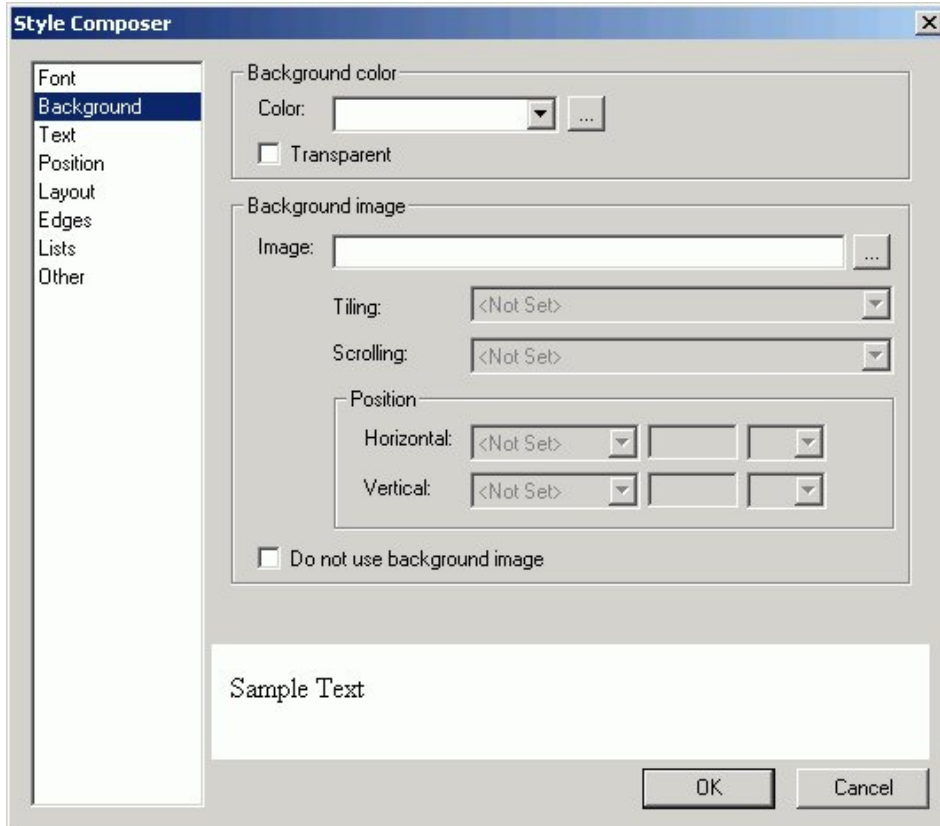
Effects

Determines whether the font effects are displayed in a browser.

The options include: *None*, *Underline*, *Strikethrough*, *Overline*, *Capitalization*.

Reference: Specifying Background Properties Using the Style Composer

To specify the background styles that will be used in the browser for your HTML report, make your selections in the Background window of the Style Composer.



The Background window of the Style Composer is comprised of the following elements:

Background color

Determines the font displayed in a browser.

You can specify: *Color*, *Transparent*.

Background image

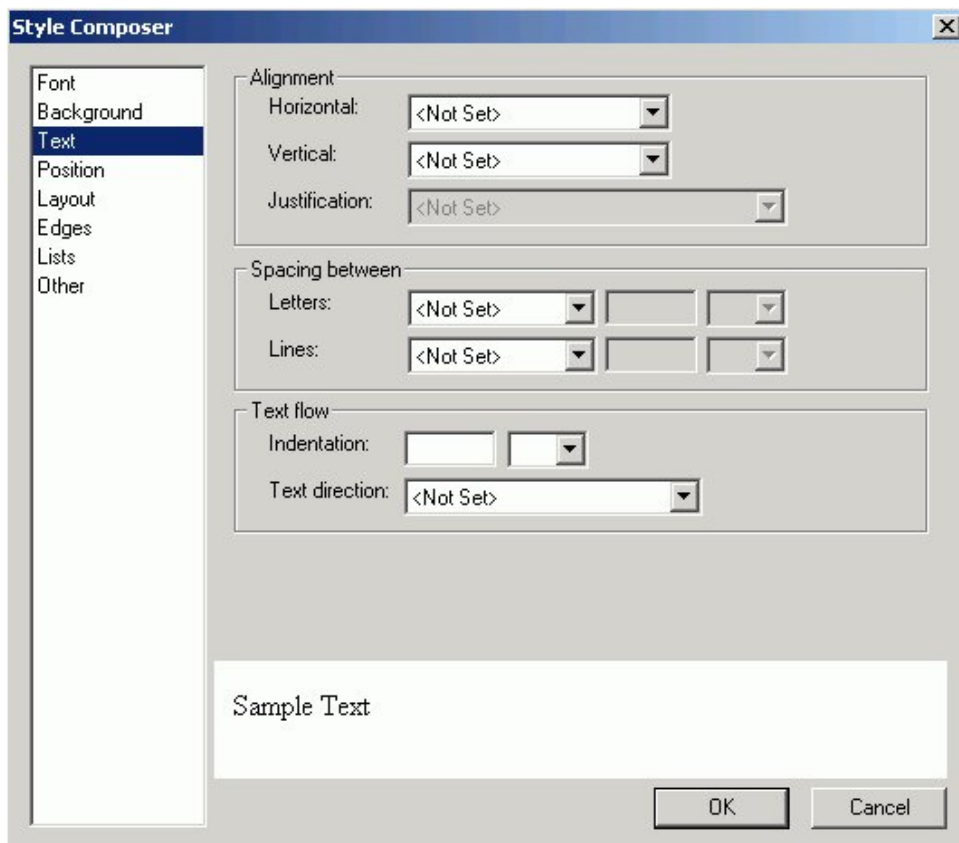
Determines the properties of the background image displayed in a browser.

The options include: *Image*, *Tiling*, *Scrolling*, *Position* (Horizontal and Vertical), *Do not use background image*.

Note: When using a background image with scrolling enabled, you must specify the horizontal and vertical positions. If you do not specify these positions, your background image will not show. The horizontal and vertical positions are relative to window and not the individual element.

Reference: Specifying Text Styles Using the Style Composer

To specify the text styles that will be used in the browser for your HTML report, make your selections in the Text window of the Style Composer.



The Text window of the Style Composer is comprised of the following elements:

Alignment

Determines the alignment of a text.

You can specify: *Horizontal, Vertical, Justification*.

Spacing between

Determines the spacing.

You can specify spacing between the following text elements: *Letters, Lines*.

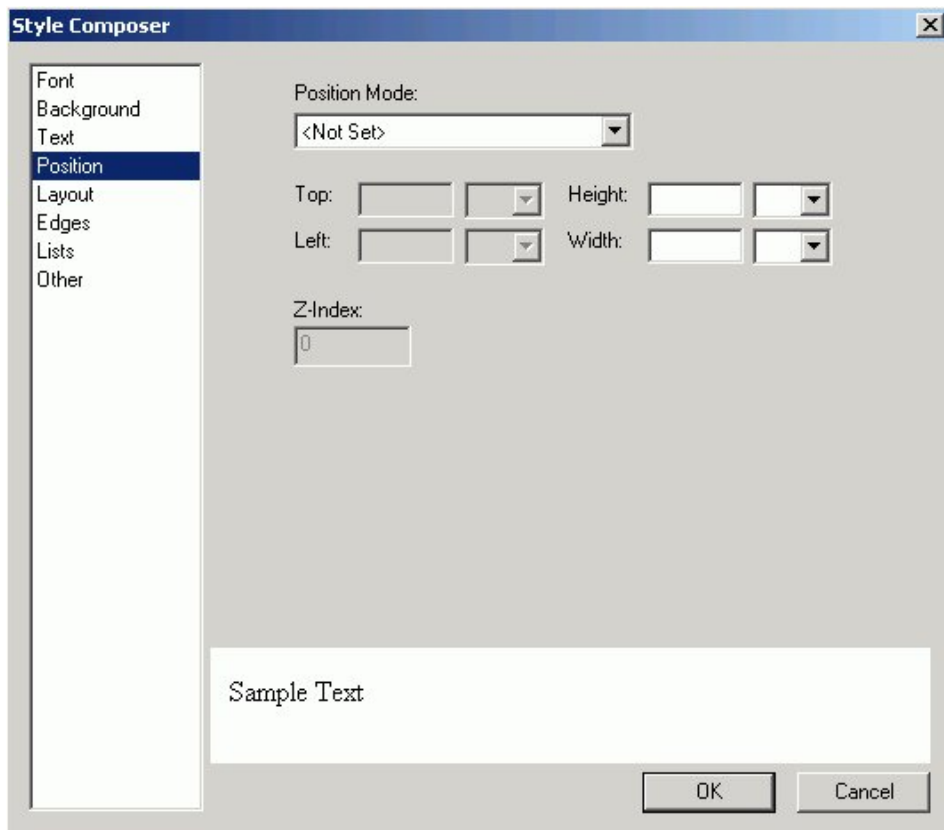
Text flow

Determines the flow of the text.

You can specify: *Indentation, Text direction*.

Reference: Specifying Position Mode Using the Style Composer

To specify the position mode that will be used in the browser for your HTML report, make your selections in the Position window of the Style Composer.



The Position window of the Style Composer is comprised of the following elements:

Position Mode

From which you can specify: *Position in normal flow*, *Offset from normal flow*, *Absolutely position*.

Height/Width

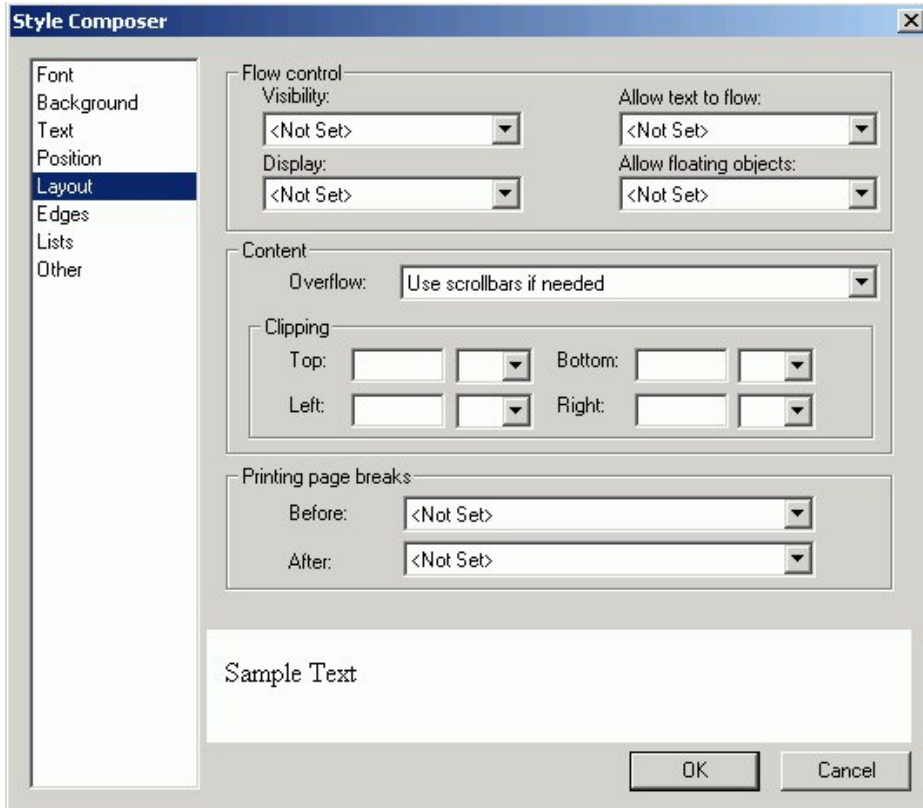
When Absolutely Position is selected, you can specify position indicators in the measurements.

You may specify: *Top*, *Left*, *Z-Index*.

Note: Z-Index is optional. It sets or retrieves the stacking order for absolute or relatively positioned objects.

Reference: Specifying Layout Styles Using the Style Composer

To specify the layout styles that will be used in the browser for your HTML report, make your selections in the Layout window of the Style Composer.



The Layout window of the Style Composer is comprised of the following elements:

Flow control

From which you can specify: *Visibility, Allow text to flow, Display, Allow floating objects.*

Content

From which you can specify: *Overflow.*

Clipping

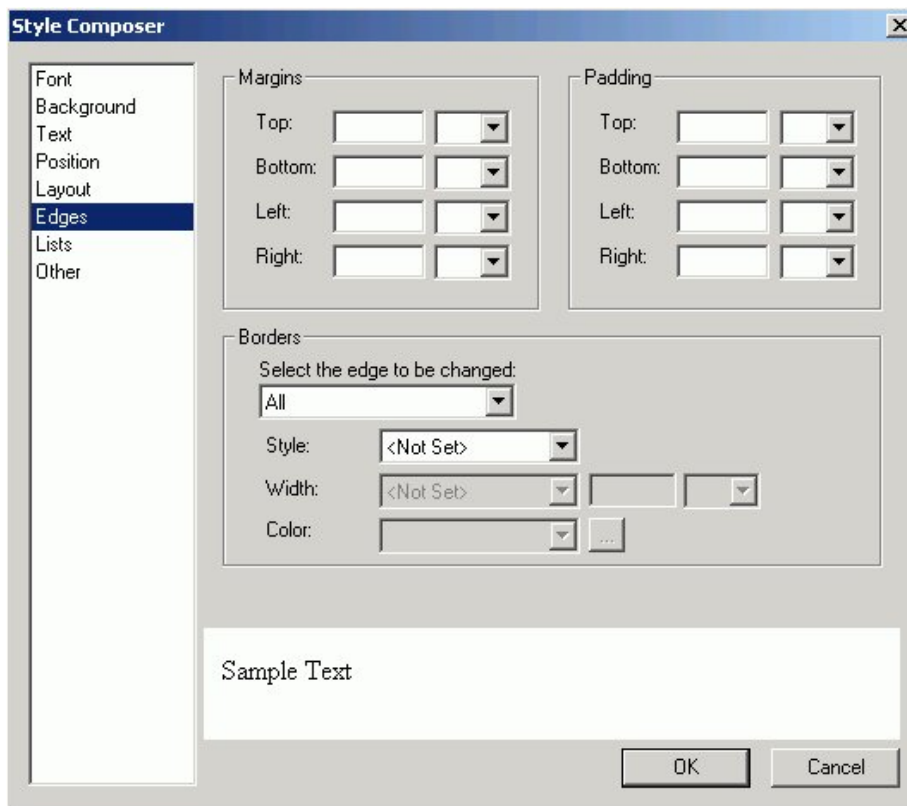
From which you can specify whether or not to clip the layout from the following positions: *Top, Bottom, Left, Right.*

Printing page breaks

From which you can specify: *Before, After*.

Reference: Specifying Edge Styles Using the Style Composer

To specify the margins, padding, and border styles that will be used in the browser for your HTML report, make your selections in the Edges window of the Style Composer, which is shown in the following image.



The Edges window of the Style Composer is comprised of the following elements:

Margins

From which you can specify: *Top, Bottom Left, Right* margins.

Padding

From which you can specify: *Top, Bottom, Left, Right* padding.

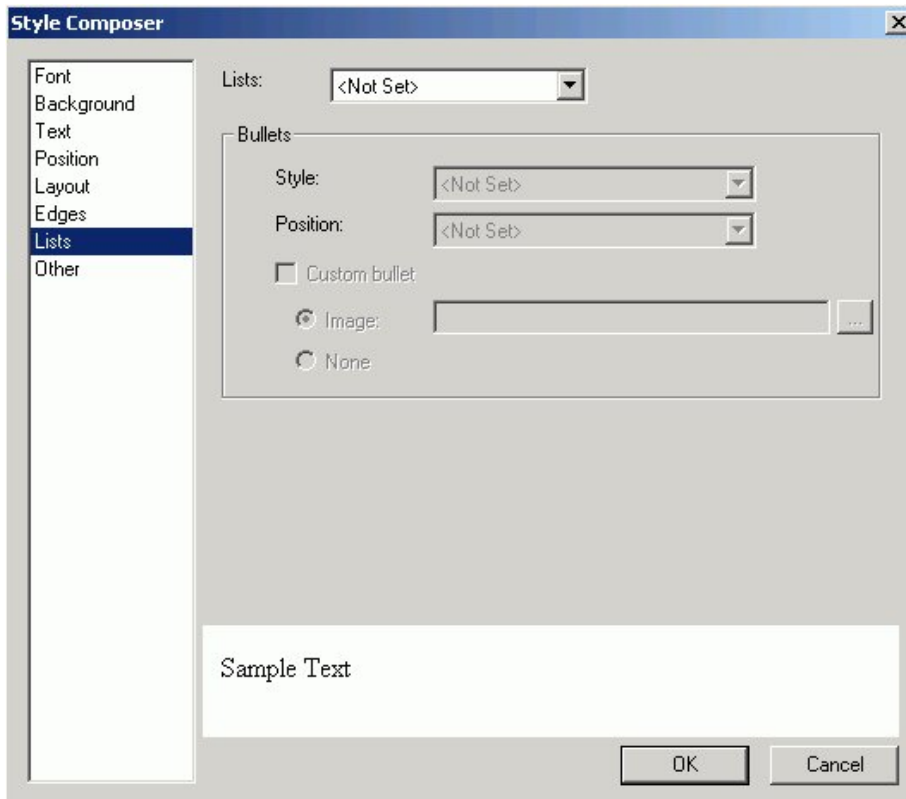
Borders

From which you can specify: *Select the edge to be changed, Style, Width, Color.*

Note: Borders are displayed as a single solid line in the Style Composer preview window, regardless of whether you select a single or double line border. Borders are accurately displayed in the Style Composer Design view and in the HTML output of an application.

Reference: Specifying List Styles Using the Style Composer

To specify the list styles that will be used in the browser for your HTML report, make your selections in the Lists window of the Style Composer.



The Lists window of the Style Composer is comprised of the following elements:

Lists

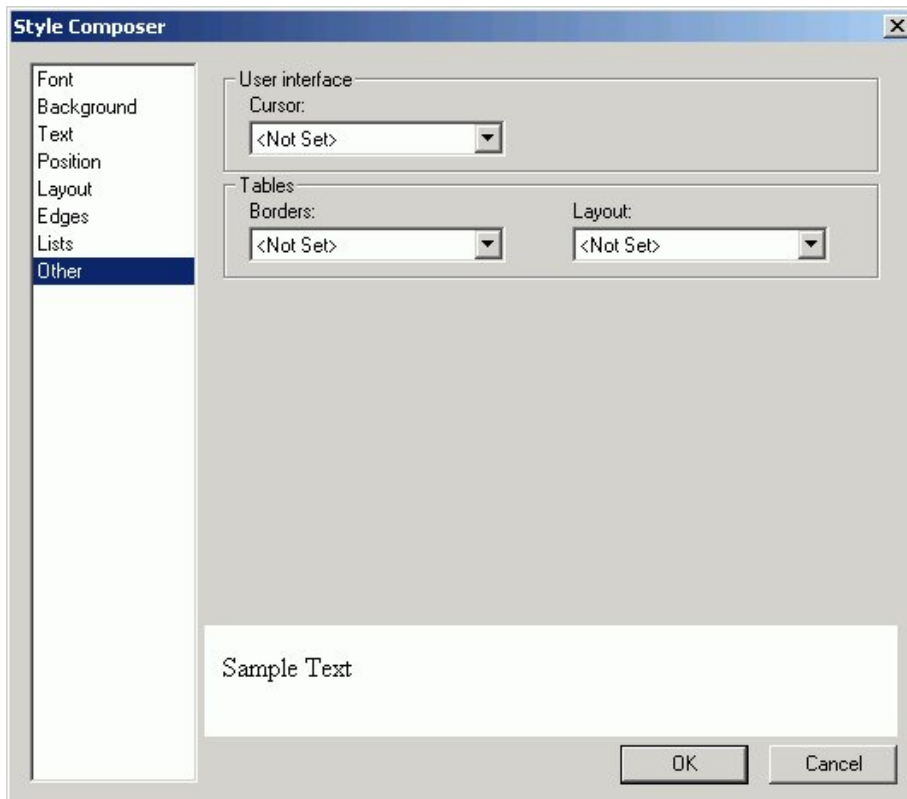
From which you can specify: *Bulleted, Unbulleted.*

Bullets

From which you can specify: *Style, Position, Custom bullet.*

Reference: Specifying Interface Effects Using the Style Composer

To specify the interface styles and visual effects that will be used in the browser for your HTML report, make your selections in the Other window of the Style Composer.



The Other window of the Style Composer is comprised of the following elements:

User interface

From which you can specify: *Cursor.*

Tables

From which you can specify: *Borders, Layout.*

Laying Out Objects With the HTML Composer

You can change the size and position of objects in your layout in the following ways:

- ❑ Set relationships between objects. This is done by setting relationships between objects and a controlling, or dominant, object. The controlling object is the last object selected. For details, see [Setting Relationships Between Objects](#) on page 287.
- ❑ Click and drag with your mouse.
- ❑ Copy and paste objects.

Setting Relationships Between Objects

You can set relationships between underlying objects and a controlling, or dominant, object. The controlling object is the last object or placeholder selected. You can use these relationships to set properties of the selected objects according to the controlling object. Any object on the HTML page layout can be the controlling object.

You can set the following types of relationships:

- ❑ Relationships that maintain a distance between objects. This is useful since a report or graph may take up more or less room when your procedure is run than is accounted for in the layout. When setting relationships between objects in this way, you should select the corners of the objects that are closest to each other. This will ensure that the reports do not overlap if either report takes up more room than anticipated.
- ❑ Relationships that affect the positioning of objects. This allows you to ensure that objects remain aligned regardless of a change in size or position of one of the objects and that objects remain the same size even when the size of an object is changed.

Procedure: How to Set Object Size

1. Highlight multiple objects with your mouse by holding the Shift key to select items contiguously, or the Ctrl key to select items non-contiguously. The controlling object is the last object selected.

The size buttons on the positioning toolbar are active.

2. Click the button in the positioning toolbar that corresponds to what you want:
 - ❑ *Make same width* sets the width of the highlighted objects to the width of the controlling object.
 - ❑ *Make same height* sets the height of the highlighted objects to the current height of the controlling object.

- ❑ *Make same size* sets the height and width of the highlighted objects to the height and width of the controlling object.

All selected objects change in size according to the size of the controlling object. If an image becomes distorted when you resize it, you can restore its original size. Right-click the image, and select *Restore size*. Images are not distorted when clicking and dragging their borders. This maintains their native aspect ratio.

Procedure: How to Set the Distance Between Objects

1. Highlight multiple elements with your mouse holding the Shift key to select items contiguously, or the Ctrl key to select items non-contiguously. The controlling object is the last object selected.
2. Click the button in the positioning toolbar that corresponds to the relationship you want. The position of the selected object will be set according to the controlling object, which is the last object selected. The options are:
 - ❑ *Relate Top_Left* maintains the distance between the top-left corner of the controlling object and the top-left corners of the highlighted objects.
 - ❑ *Relate Top_Right* maintains the distance between the top-right corner of the controlling object and the top-left corners of the highlighted objects.
 - ❑ *Relate Bottom_Right* maintains the distance between the bottom-right corner of the controlling object and the top-left corners of the highlighted objects.
 - ❑ *Relate Bottom_Left* maintains the distance between the bottom-left corner of the controlling object and the top-left corners of the highlighted objects.

For details on the buttons in the positioning toolbar, see [Positioning Toolbar](#) on page 289.

Procedure: How to Break Relationships

Click *Break a relationship*  from the Positioning toolbar.

Procedure: How to Group Objects on the HTML Page

You may group objects together on an HTML page by inserting a group box, panel, or form. You can copy and paste components (such as images, push buttons, and so on) between the HTML page and the grouping object while maintaining the association to the grouping object or the page.

1. Insert a grouping object on the HTML page, and select *Form* or *Panel* from the Components submenu of the Insert menu or *Group Box* from the Controls sub-menu of the Insert menu.

The cursor changes into a crosshair.

2. Click and drag the crosshair to create the grouping object on the HTML page.
3. Right-click the component(s) to be copied and select *Copy*.
4. Right-click the grouping object and select *Paste*.

The component is copied into the grouping object as a new object. For example, *button1* copied from the HTML page appears as *button2* in the grouping object. The original, *button1* is still associated with the HTML page, whereas *button2* is associated with the grouping object.

5. To delete a grouping object, right-click the grouping object and select *Delete*.

When deleting a grouping object, the associated components are also deleted.

Reference: Positioning Toolbar

The positioning toolbar contains the buttons listed in the following table.

For buttons that use relationships, the relationship is controlled by the controlling object, or dominant object, which is the last object or placeholder selected. These buttons are only highlighted when more than one object is selected.

Button	Description
	Toggles the grid on and off. Use the grid to assist in lining up objects in the layout. This button is recessed when the grids are enabled.
	Toggle visibility shows hidden objects. The hidden visibility option is set in the Layout section of the Style Composer.
	Specifies Tab Order.

Button	Description
	Aligns the left edge of the highlighted object with the left edge of the controlling object.
	Aligns the right edge of the highlighted object with the right edge of the controlling object.
	Aligns the top edge of the highlighted object with the top edge of the controlling object.
	Aligns the bottom edge of the highlighted object with the bottom edge of the controlling object.
	Aligns objects at the horizontal center point of the canvas in Design view.
	Aligns objects at their vertical center (or middle) point of the canvas in Design view.
	Sets the width of the highlighted objects to the width of the controlling object.
	Sets the height of the highlighted objects to the current height of the controlling object.

Button	Description
	Sets the height and width of the highlighted objects to the height and width of the controlling object.
	Maintains the distance between the top-left corner of the controlling object and top-left corners of the highlighted object.
	Maintains the distance between the top-right corner of the controlling object and the top-left corners of the highlighted object.
	Maintains the distance between the bottom-right corner of the controlling object and the top-left corners of the highlighted object.
	Maintains the distance between the bottom-left corner of the controlling object and the top-left corners of the highlighted object.
	Breaks the relationship set between highlighted objects. This button is only highlighted when selected objects have relationships set.
	Toggles the display of arrows illustrating the relationships between objects. This button is only highlighted when selected objects have relationships set. This button will stay highlighted when relationships are displayed. It will not be highlighted when relationships are not displayed.

Reference: Utilities Toolbar

The Utilities toolbar contains the buttons listed in the following table.

Button	Description
	Adds a control to a chain. Each time a selection is made, all chained controls will be dynamically updated. For details about chained controls, see Chaining Controls for Dependencies in the HTML Composer on page 355. Note: The Add to current chain button is available when controls are multi-selected on the Design tab or Parameters tab. This button is disabled if you multi-select controls that are already in a chain.
	Removes a control from a chain. For details about chained controls, see Chaining Controls for Dependencies in the HTML Composer on page 355. Note: The Remove from current chain button is available when controls are multi-selected on the Design tab or Parameters tab. This button is disabled for the first control in a chain but enabled for all others.
	Synchronizes a report/graph object to an active report when using active dashboards. For more information, see Creating Active Technologies Dashboards With the HTML Composer on page 395.
	Shows the synchronized report groups when working with active dashboards. For more information, see Creating Active Technologies Dashboards With the HTML Composer on page 395.

Button	Description
	Unlocks the template. When designing an HTML page with a template certain actions are locked, to activate them the template must be unlocked. You are responsible for the placement and design of all elements on an unlocked page and unlocking cannot be undone. For more information on templates and unlocking, see Using Templates in the HTML Composer on page 331. The unlock button is not on the toolbar by default. For more information on accessing the unlock button, see How to Unlock a Template on page 342.

Controlling the HTML Composer Environment

You can set properties for the HTML Composer with the HTML Page tab, located in the Developer Studio Options dialog box. The HTML Page tab enables you to set page properties such as the location of reports and graphs, the display of a grid in your layouts, the default form type, and setting the default caching option for the HTML page. The changes that are made in the HTML Page tab are saved to the registry. This allows a customized environment to be created for various users.

Procedure: How to Set Page Properties

1. Select *Options* from the Window menu.
The Developer Studio Options dialog box opens.
2. Select the *HTML Page* tab.
For more information about the HTML Page tab, see [HTML Page Tab](#) on page 297.
3. Make your changes, and click *OK*.

Procedure: How to Select Form Settings From the HTML Page Tab

1. Select *Options* from the Window menu.
The Developer Studio Options dialog box opens.
2. Select the *HTML Page* tab.
3. Click the *Form Settings* button.
The Form settings dialog box opens.

4. Select the orientation for the form object in the layout.
5. Use the spin buttons to increase or decrease the distance between the prompt, horizontal and vertical controls of the form, and the number of columns for the form.

or

Position the cursor in the input box and type a number.

6. Use the slider control type options to select how the slider bar appears.
Slider bars are available when using numeric range value parameters in your report or graph.
7. Use the Add schedule button option to add a schedule button for referenced procedures with parameters if your WebFOCUS environment is licensed to use ReportCaster. For more information, see [Adding ReportCaster Schedule Capability to the HTML Composer](#) on page 304.
8. Use the Add defer button option to add a defer button for running a report deferred in the Managed Reporting environment. For more information, see [Running a Managed Reporting Report Deferred From the HTML Composer](#) on page 312.
9. Start each chain on a new line to create multiple chains from the New Parameters dialog box. Each set of chained parameters appears on new line of the Design tab, regardless of the grouping option selected from the New Parameters dialog box.

Start each chain on a new line is selected by default.

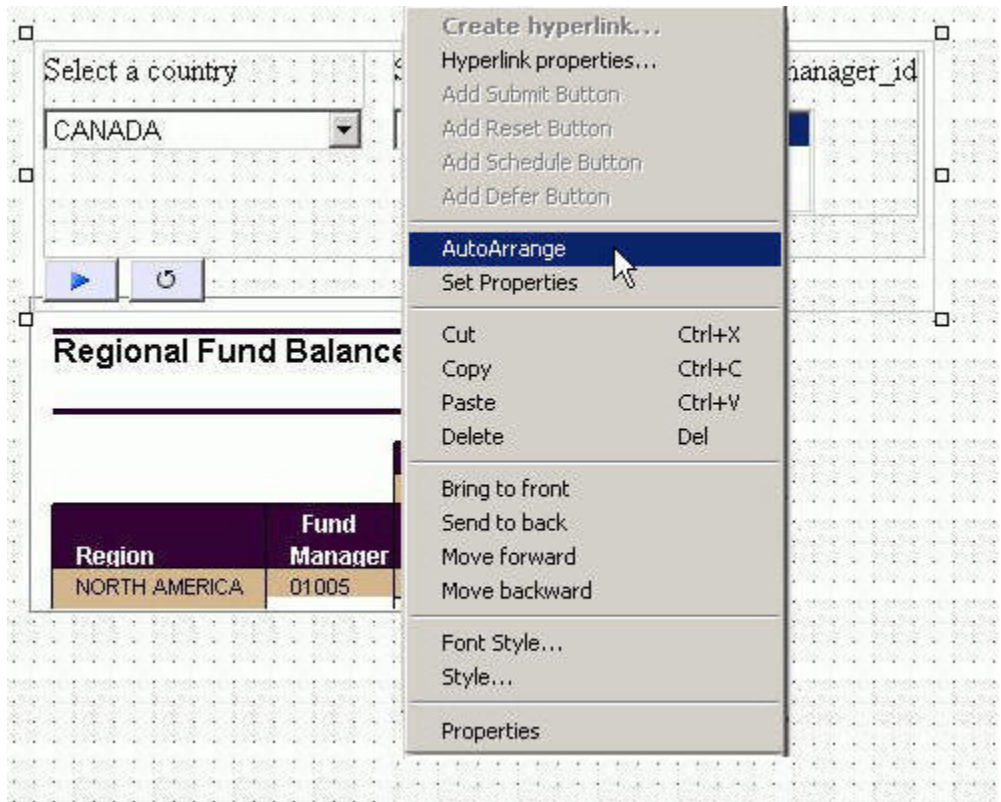
For example, the following image shows the default behavior where the first chain (Product Category and Product Type) is shown on one line and the second chain (Product Number, Plant, Year) start on a new line. This enables you to see the relationship of the chains within the form.

10. Click OK to close the Form Settings dialog box.

The form settings are applied and shown in the HTML Composer Design view.

11. To reset the default form settings, right-click the form object and select *AutoArrange* from the context menu.

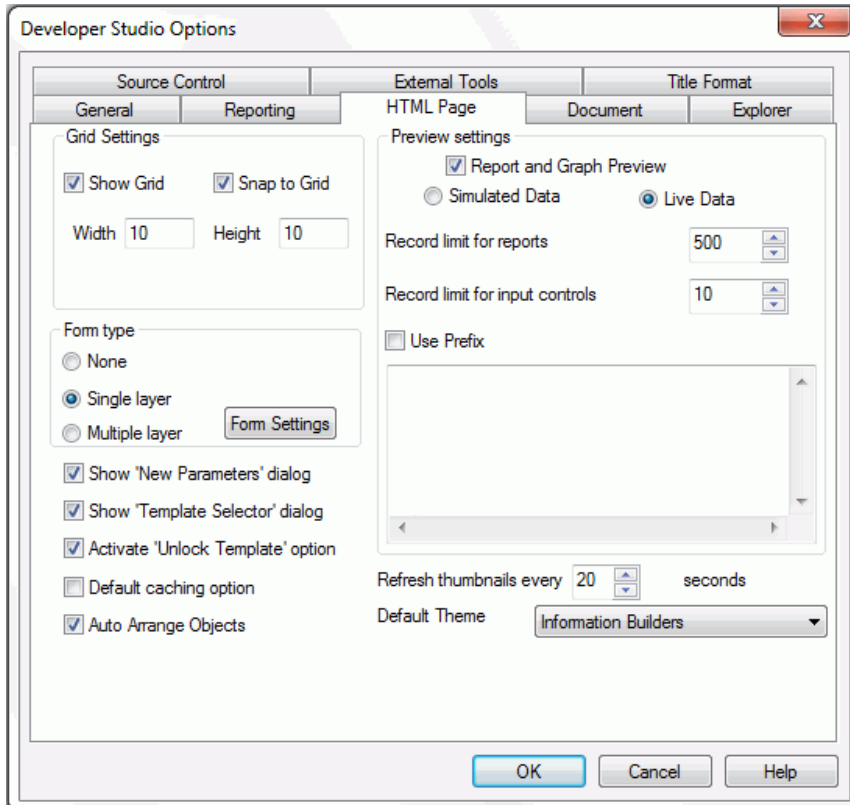
Note: The AutoArrange option is only available when using a multiple layer form type.



The form is auto arranged on the layout, using the default form settings.

Reference: HTML Page Tab

The following options are available from the HTML Page tab, located in the Developer Studio Options dialog box.

**Grid Settings****Show Grid**

Displays a grid. If this is not selected, the grid is turned off for all layouts.

Snap to Grid

Causes objects in the layout to snap to grid lines when being positioned. For detailed positioning, deselect this option.

Width

The width of the grid in pixels.

Height

The height of the grid in pixels.

Preview Settings**Report and Graph Preview**

Previews report and graph data in the Design view. If checked, additional options are available (Simulated Data or Live Data).

This option is selected by default.

If unchecked, icons are used to represent the area in the Design view for reports and graphs. This is the fastest method of loading reports since no request are made to the server.

Simulated Data

Selecting to preview simulated data sends a request to the reporting server that gathers formatting information from the Master File. The database is not accessed, but rather mock data is used to visually represent the report.

This option is only available when previewing reports and graphs.

Live Data

Selecting to preview live data sends a request to the reporting server, and to the database, to get a snapshot of the actual data in the report.

This option is only available when previewing reports and graphs.

Record limit for reports

Enables you to limit the number of records used to gather data for previewing the report in live data mode. For example, if you set 500 as the record limit for the report, then 500 rows of data are gathered for the report results.

This option is only available if the Live Data option is selected.

Record limit for input controls

Sets the number of records to be shown for the input controls when gathering data for reports and graphs.

This option is only available if the Live Data option is selected.

Use Prefix

Selecting *Use Prefix* will take any FOCUS syntax in the input box and apply it to the components at preview time. For example, SQL SQLORA SET OPTIMIZATION OFF. Since the settings are saved for all documents, you can select the Use Prefix option to indicate to the tool whether or not to use the prefix for the specific document.

Form type

Sets the default form type in the parameter grouping options of the New Parameters dialog box. Form types are None, Single layer, or Multiple layer.

- ☐ When *None* is selected, the parameter grouping option shows *Do not create a form* on the New Parameters dialog box.
- ☐ When *Single layer* is selected, the parameter grouping option shows *New single layer form* on the New Parameters dialog box. The single layer form contains all of the elements within a single group box.

Single layer is the default form type.

- ☐ When *Multiple layer* is selected, the parameter grouping option shows *New multiple layer form* on the New Parameters dialog box. The multiple layer form contains group boxes around each element in the form. You may move and resize each element of the control.

You may override the set form type on the HTML Page tab from the *Parameter grouping options* drop-down list of the New Parameters dialog box. For details, see [Automatically Creating Controls From the New Parameters Dialog Box](#) on page 160.

Form settings

Options are available so that you may customize how the forms are populated and arranged in the document. For details, see [Form Settings Dialog Box](#) on page 302.

Show 'New Parameters' dialog

Controls whether or not the New Parameters dialog box shows when adding parameters in the HTML Composer.

The New Parameters dialog box is shown by default.

Show 'Template Selector' dialog

Controls whether or not the Template selector dialog box shows when a new HTML page is created using the HTML Composer.

Activate 'Unlock Template' option

Controls whether to add an unlock icon to the toolbar when a template is in use.

Default caching option

Controls whether cache run time data is on or off for the HTML page. The default is off.

When adding dynamic parameters to the HTML page, input controls retrieve data using procedures. You may cache the run time data for input controls by using the *cache run time* option on the Properties and settings dialog box in the Parameters tab. This setting overrides the *Default caching option* from the HTML Page tab. For more information about the Parameters tab, see [Creating a Dynamic List of Values](#) on page 118.

Auto Arrange Objects

Automatically arranges the objects on the Parameters tab so that they take the least amount of space without overlapping each other. Auto Arrange is on by default.

If this option is turned off, you may auto arrange objects directly from the Parameters tab. Right-click anywhere on the Parameters tab and select *AutoArrange* from the context menu.

Refresh thumbnails every

Automatically refreshes the content on the Thumbnail tab of the Properties window, every 20 seconds by default. You may change the time interval of the automatic refresh.

Default Theme

You can set the default theme for a new HTML page. The Information Builders theme is chosen by default.

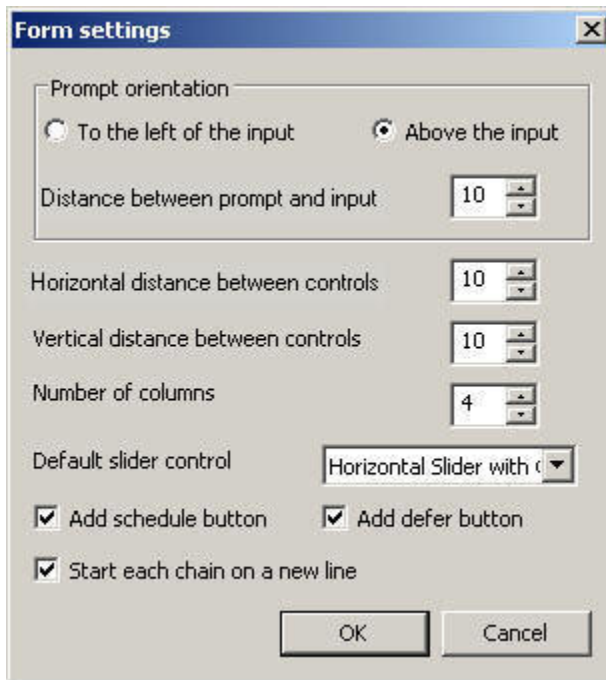
The following is the list of themes that you can use.

- ☐ Information Builders
- ☐ Black
- ☐ Blue
- ☐ Green
- ☐ Orange
- ☐ Purple
- ☐ Red
- ☐ Silver
- ☐ Teal

- ☐ Plain
- ☐ Yellow red
- ☐ Beige blue
- ☐ Dramatic blue
- ☐ Neutral gray
- ☐ Light blue
- ☐ Light green
- ☐ Light purple

Reference: Form Settings Dialog Box

The following options are available from the Form settings dialog box of the HTML Composer.



Prompt orientation

Prompt refers to the descriptive text used to label the control/parameter in the output.

To the left of the input

Places the descriptive text used to label the control/parameter to the left of the input.

Above the input

Places the descriptive text used to label the control/parameter above the input.

Distance between the prompt and input

Sets the distance between the prompt and input.

Horizontal distance between controls

Sets the horizontal distance between controls.

Vertical distance between controls

Sets the vertical distance between controls.

Number of columns

Determines when the form will wrap and start laying controls out in a new row.

Default slider control type

Sets how the slider control appears. Select from the following types of slider bars:

Slider controls are available when using numeric range value parameters in your report or graph.

- ☐ Horizontal or Vertical Slider Simple bar. The slider bar has no end arrows, just a bar with the slider.
- ☐ Horizontal or Vertical Slider with Color Bar and Arrows. Arrows appear at each end of the slider bar.
- ☐ Horizontal or Vertical Slider with Color Bar, Arrows, and Edit. Arrows and an edit box appear at the end of the slider bar, showing the current value.

Once a slider control is inserted into the HTML Composer, changing these options will not affect the existing sliders. The option is only applied to new slider controls. To change the existing slider bar type, delete the slider object and insert a new slider control.

Add schedule button

Automatically adds a schedule button for referenced procedures with parameters. This option is selected by default. For more information about adding schedule capability to HTML Composer forms, see [Adding ReportCaster Schedule Capability to the HTML Composer](#) on page 304.

Add defer button

Automatically adds a defer button for referenced procedures with parameters. This option is selected by default. For more information running reports deferred, see [Running a Managed Reporting Report Deferred From the HTML Composer](#) on page 312.

Start each chain on a new line

When creating multiple chains from the New Parameters dialog box, each set of chained parameters appears on new line of the Design tab, regardless of the grouping option selected from the New Parameters dialog box.

Start each chain on a new line is selected by default.

Adding ReportCaster Schedule Capability to the HTML Composer

You may create a control that adds a schedule button in the HTML Composer. A schedule button enables you to schedule a report, or graph, using ReportCaster. Once you have created the schedule, you can access the ReportCaster HTML User Interface to edit and maintain information about the schedule.

Note: The Schedule option is only available in the HTML Composer if your WebFOCUS environment is licensed to use ReportCaster.

Only procedures referenced in the HTML Composer are able to be scheduled.

When referencing an existing procedure with parameters in the HTML Composer, the schedule button is automatically added. You may also manually create schedule buttons for your report or graph.

Procedure: How to Add or Disable the Schedule Button for Controls

Controls appear when you reference a report or graph with parameters. The HTML Composer automatically adds a control, Run button, Reset button, and Schedule button for the parameters in your layout, if your WebFOCUS environment is licensed to use ReportCaster.

The Form settings dialog box sets when the schedule button appears with the controls.

The Schedule button is selected by default.

To change the default behavior:

1. Select *Options* from the Window menu.
The Developer Studio Options dialog box opens.
2. Select the *HTML Page* tab.
3. Click the *Form Settings* button.
The Form settings dialog box opens.
4. Deselect the *Add schedule button*.

Note: If you deselect this option, you have the ability to manually add a schedule button. For more information, see [How to Manually Add a Schedule Button](#) on page 306.

Procedure: How to Add a Schedule Button to a Referenced Existing Procedure With Parameters

This procedure provides instructions on how to automatically add a schedule button to an HTML page for a referenced procedure in the layout.

1. From the HTML Composer, select *New Report* or *New Graph* from the Insert menu.

The cursor changes into a crosshair.

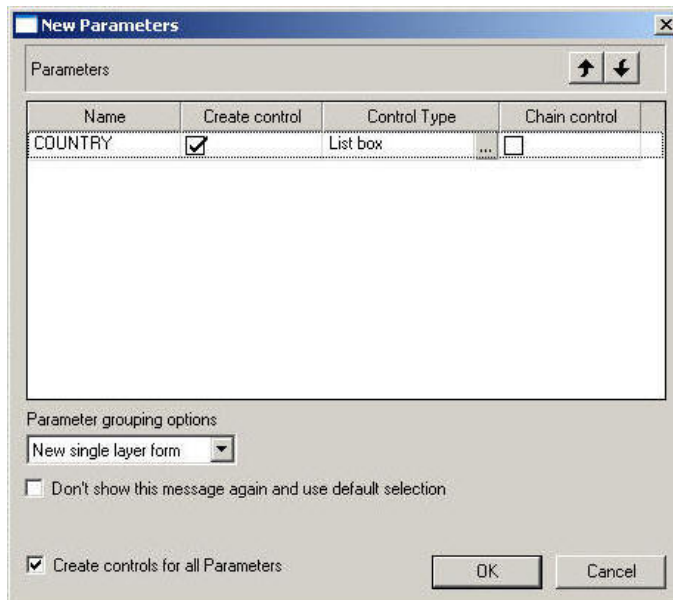
2. Click and drag the crosshair to create a report (or graph) object and adjust it to the size you want.

3. Right-click the object and select *Reference existing procedure* from the context menu.

The Get source file dialog box opens.

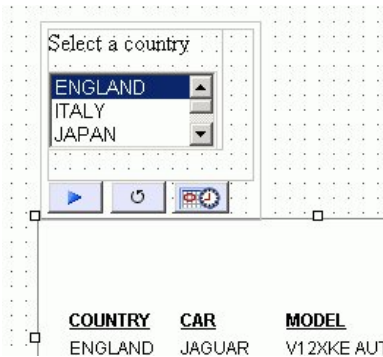
4. Select an existing report or graph with parameters and click *Open*.

The New Parameters dialog box appears, as shown in the following image.



5. Click *OK* to add the new parameters and the controls to the HTML page.

The Run, Reset, and Schedule buttons appear with the parameters on the HTML page.



6. Optionally, select the schedule button on the HTML page to view or edit the properties. The properties appear in the Properties window of the HTML Composer.
7. Double-click in the *Title* properties value field to set the title of the schedule page window.
The default title for the schedule page window is domain\standard reports\folder\foldername. You may change this to the text of your choice.
8. Optionally, you may launch the Hyperlink properties for the schedule button to change the template for the schedule page.



For more information about changing the template for the schedule page, see [How to Change the Default Template for the Schedule Page](#) on page 309.

Procedure: How to Manually Add a Schedule Button

This procedure provides instructions on how to manually add a schedule button to a HTML page. This is useful for adding new, or additional, schedule buttons to a report or graph that has already been referenced to the HTML page, or if you are referencing a report or graph without parameters.

1. From the HTML Composer, select a control from the Controls or Components sub-menu of the Insert menu. You may insert a push button, image, or hyperlink as a schedule button.
 - a. If inserting a push button as a schedule button:

- ❑ From the Insert menu, select *Controls*, then click *Push Button*.

The cursor changes into a crosshair.

- ❑ Click and drag the crosshair to add the push button object and adjust it to the size you want.
- ❑ Right-click the push button object from the HTML page and select *Create hyperlink* from the context menu.

The Hyperlink Properties dialog box opens.

- ❑ You may change the name of the push button in the *Display Text* field.

b. If inserting an image as a schedule button:

- ❑ From the Insert menu, select *Components*, then click *Image*.

The cursor changes into a crosshair.

- ❑ Click and drag the crosshair to add the image object.

The Get source file dialog box opens.

- ❑ Select an image and click *Open*.

The image is added to the HTML page. You may adjust the image object to the size you want.

- ❑ Right-click the image object from the HTML page and select *Create hyperlink* from the context menu.

The Hyperlink Properties dialog box opens.

c. If inserting a hyperlink as the schedule button:

- ❑ From the Insert menu, select *Components*, then click *Hyperlink*.

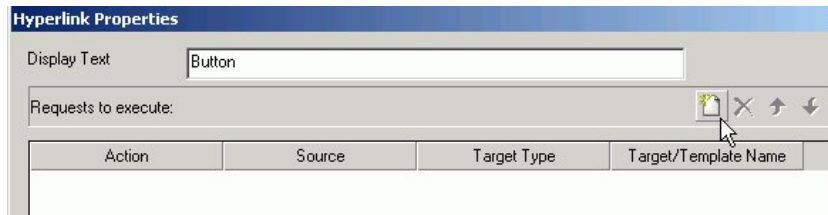
The cursor changes into a crosshair.

- ❑ Click and drag the crosshair to create a hyperlink object and adjust it to the size you want.

The Hyperlink Properties dialog box opens.

- ❑ You may change the name of the hyperlink in the *Display Text* field.

2. From the Hyperlink Properties dialog box, select the *New* button to add a request to execute.

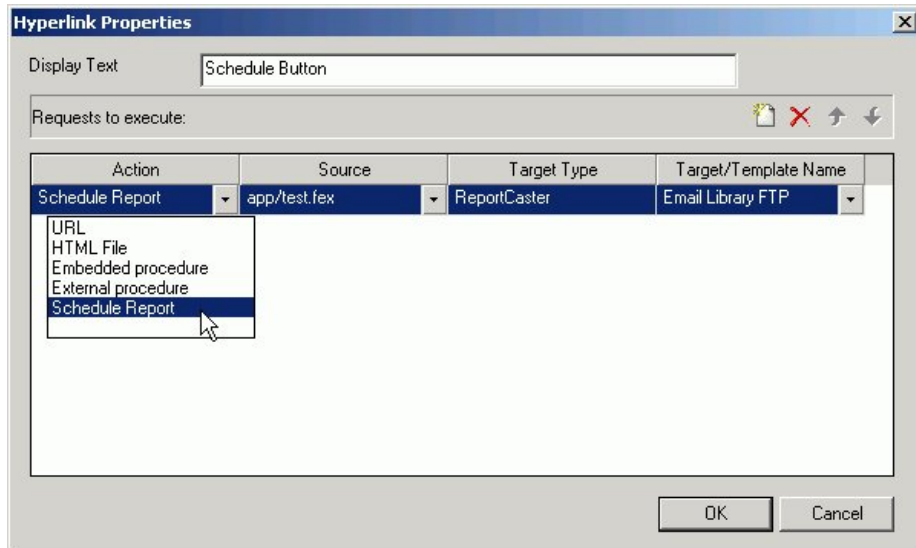


Note: The Display Text field on the Hyperlink Properties dialog box is only available when inserting a push button or hyperlink as a schedule button.

3. Select the Action, Source, and Target/Template Name:
 - ❑ Select *Schedule Report* from the Action drop-down list.
 - ❑ Select the *Source* drop-down list to select the source of your Schedule Report.

The Source drop-down will only list the referenced procedures in the layout.
 - ❑ The Target Type option is disabled and defaults to ReportCaster when the Schedule Report action is selected.
 - ❑ The Target/Template Name defaults to Email Library FTP when the Schedule Report action is selected.

For more information on changing the template for the schedule page, see [How to Change the Default Template for the Schedule Page](#) on page 309.



4. Click OK to close the Hyperlink Properties dialog box.

The schedule button, image, or hyperlink is added to the HTML page.

5. Optionally, select the schedule object to view or edit the properties. The properties appear in the Properties window of the HTML Composer.
6. Double-click in the *Title* properties value field to set the title of the schedule page window.

The default title for the schedule page window is domain\standard reports\folder\foldername. You may change this to the text of your choice.

Procedure: How to Change the Default Template for the Schedule Page

This procedure provides instructions on how to change the template for the schedule page by using the Hyperlink Properties dialog box. This is the template that appears when the schedule page is run from the report output.

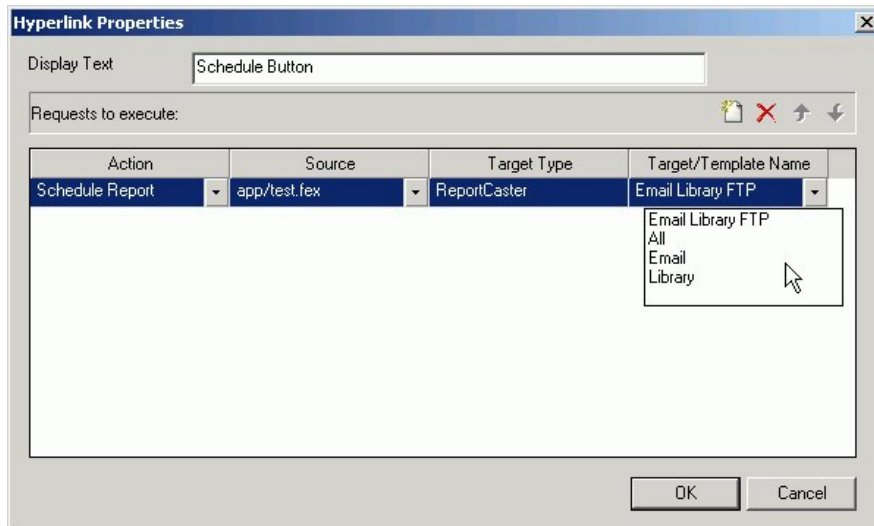
1. Right-click a schedule button, image, or hyperlink from the HTML page and select *Hyperlink properties* from the context menu

The Hyperlink Properties dialog box opens.

2. Select the Target/Template Name drop-down list to change the default template for the schedule.

The options are:

- ☐ Email Library FTP - This is the default template.
- ☐ All
- ☐ Email
- ☐ Library



Note: The template names represent the type of distribution option for the schedule in ReportCaster.

3. Click OK to close the Hyperlink Properties dialog box.

The selected template appears when the schedule page is run from your report output.

Reference: ReportCaster Schedule Page

When you run your report, select the parameters (if applicable), and click the schedule button. The ReportCaster schedule page appears.

Tip: To change the schedule template that appears at run time, use the Hyperlink Properties dialog box to change the Target/Template Name.

The report and the selected parameters are scheduled to ReportCaster. From ReportCaster, the values entered or selected are stored with the schedule information.

You must have the Schedule user privilege to submit the schedule.

For more information about scheduling and distributing report output, see the *ReportCaster* manual.

Running a Managed Reporting Report Deferred From the HTML Composer

A deferred report is a Managed Reporting report that you can run as a background task, while continuing other work. In the HTML Composer, you may add a hyperlink to a run a report deferred, or create a control that adds a Defer button.

Note: The deferred option is only available in the HTML Composer from the Managed Reporting environment.

Procedure: How to Add or Disable the Defer Button for Controls

Controls appear when you reference a report or graph with parameters. The HTML Composer automatically adds a control, Run button, Run Defer button, Reset button, and Schedule button for the parameters in your layout.

Note: A schedule button only appears if your WebFOCUS environment is licensed to use ReportCaster. For more information about the schedule button, see [Adding ReportCaster Schedule Capability to the HTML Composer](#) on page 304.

You may use the Form Settings dialog box to set when the Defer button appears with the controls. The Defer button is selected by default.

To change the default behavior:

1. Select *Options* from the Window menu.
The Developer Studio Options dialog box opens.
2. Select the *HTML Page* tab.
3. Click the *Form Settings* button.
The Form settings dialog box opens.
4. Deselect the *Add defer button*.

Note: If you deselect this option, you have the ability to add a hyperlink button to run a report deferred. For more information, see [How to Add a Hyperlink to Run a Managed Reporting Report Deferred](#) on page 315.

Procedure: How to Add a Defer Button to a Referenced Existing Procedure With Parameters

A defer button enables you to execute the selected report in deferred mode.

When referencing an existing procedure with parameters in the HTML Composer, the defer button is automatically added. Only procedures referenced in the HTML Composer are able to be deferred.

Access the Standard Reports folder of your Managed Reporting environment to begin this procedure.

1. From the HTML Composer, select *New Report* or *New Graph* from the Insert menu.

The cursor changes into a crosshair.

2. Click and drag the crosshair to create a report (or graph) object and adjust it to the size you want.

3. Right-click the object and select *Reference existing procedure* from the context menu.

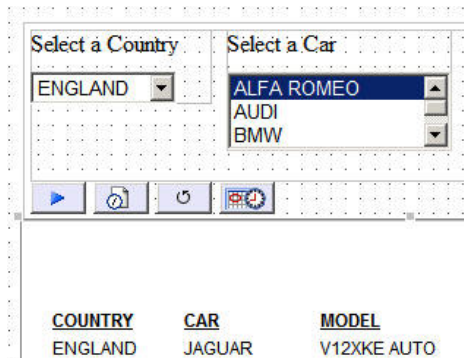
The Get source file dialog box opens.

4. Select an existing report or graph with parameters and click *Open*.

The New Parameters dialog box opens.

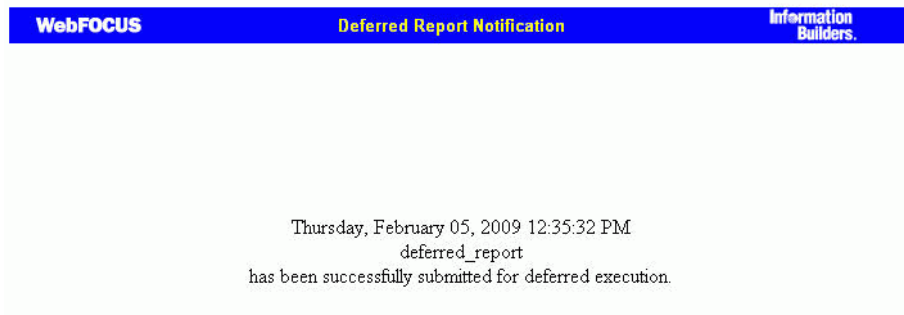
5. Click *OK* to add the new parameters and the controls to the HTML page.

The Run, Run Defer, Reset, and Schedule buttons appear with the parameters on the HTML page.



6. Execute the request and click the *Run Defer* button.

The Deferred Report Notification is generated, as shown in the image below.



Procedure: How to Add a Defer Button to a Run Only Deferred Procedure With Parameters

When referencing a Run Only Deferred procedure, the HTML Composer automatically adds a control, Run Defer button, Reset button, and Schedule button for the parameters in your layout.

Note: A schedule button only appears if your WebFOCUS environment is licensed to use ReportCaster. For more information about the schedule button, see [Adding ReportCaster Schedule Capability to the HTML Composer](#) on page 304.

The Managed Reporting deferred external procedure was created with the *Only Run as Deferred Report* option in the Managed Reporting environment.

Note: Access the Standard Reports folder of your Managed Reporting environment to begin this procedure.

1. From the HTML Composer, select *New Report* or *New Graph* from the Insert menu.
The cursor changes into a crosshair.
2. Click and drag the crosshair to create a report (or graph) object and adjust it to the size you want.
3. Right-click the object and select *Reference existing procedure* from the context menu.
The Get source file dialog box opens.
4. Select an existing Run Only Deferred report or graph with parameters and click *Open*.
The New Parameters dialog box opens.
5. Click *OK* to add the new parameters and the controls to the HTML page.

The Run Defer, Reset, and Schedule buttons appear with the parameters on the HTML page.

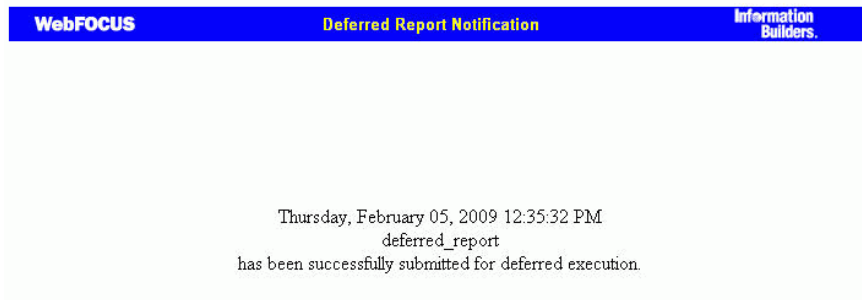
The Run button is not applicable when adding a Run Only Deferred report.

The screenshot shows a web form with two dropdown menus: 'Select a Country' with 'ENGLAND' selected, and 'Select a Car' with 'ALFA ROMEO' selected. Below the menus are three buttons: a clock icon (Run Defer), a circular arrow icon (Reset), and a calendar icon (Schedule). Below the buttons is a table with three columns: COUNTRY, CAR, and MODEL. The table contains one row of data: ENGLAND, JAGUAR, and V12XKE AUTO.

COUNTRY	CAR	MODEL
ENGLAND	JAGUAR	V12XKE AUTO

- Execute the request and click the *Run Defer* button.

The Deferred Report Notification is generated, as shown in the image below.



Procedure: How to Add a Hyperlink to Run a Managed Reporting Report Deferred

You may add a hyperlink to run a Managed Reporting report deferred. This is useful if you are referencing a report or graph without parameters.

- From the Insert menu, select *Components*, then click *Hyperlink*.

The cursor changes into a crosshair.

- Click and drag the crosshair to create a hyperlink object and adjust it to the size you want.

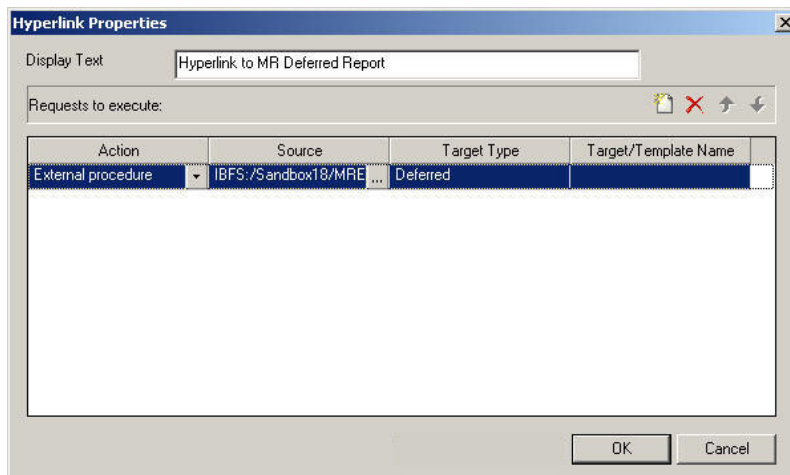
The Hyperlink Properties dialog box opens.

3. Enter the text you want to display as the hyperlink in the Display Text field.
4. Select *External procedure* and enter the procedure name in the Source field, or click the *browse (...)* button to browse to the procedure.
5. Select *Deferred* as the Target Type.

When a deferred external procedure is selected as the Source, Target Type automatically defaults to *Deferred*.

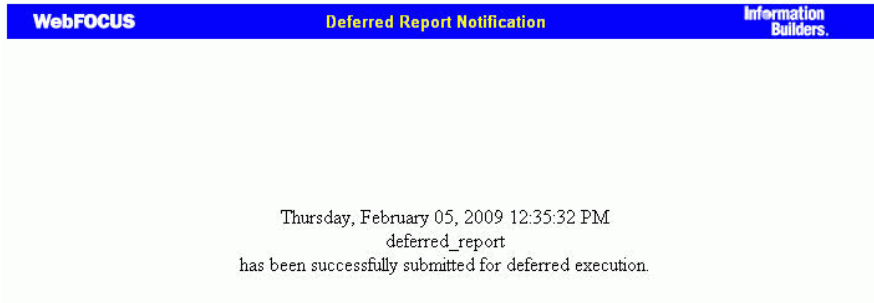
The Managed Reporting deferred external procedure was created with the *Only Run as Deferred Report* option in the Managed Reporting environment.

The Target/Template Name field is not applicable when the Target Type is Deferred. The following image is an example of the Hyperlink Properties dialog box with the deferred option selected.



6. Click *OK*.
7. Execute the request and click the hyperlink to run the deferred report.

The Deferred Report Notification is generated, as shown in the image below.



Using JavaScript Code With HTML Composer Pages

Although the HTML Composer is fully integrated with JavaScript, it is suggested that you do not create custom JavaScript that manipulates the HTML Composer generated controls, as WebFOCUS cannot support such custom JavaScript code. Additionally, there is no guarantee that the JavaScript code will work correctly in future releases.

Note:

- ❑ The HTML Composer run time is a set of JavaScript files. You should not be calling the functions within them directly. Should you call these functions directly, your code may not function in future releases and Information Builders cannot be held responsible.
- ❑ If you want JavaScript to run after a page loads completely, but before any reports are executed, you need to create a function called `onInitialUpdate` (this function was called `onInitialUpdate()` in previous releases). If you have another function, in that function, you can call `IbComposer_onInitialUpdate()`. Your code should be added inline in the HTML file after the line:

```
//End function window_onload
```

The HTML Composer run time will call `onInitialUpdate()` if it exists.

Function: `IbComposer_populateDynamicCtrl`

`IbComposer_populateDynamicCtrl` allows you to determine from which control data is drawn from to populate a destination control.

Syntax: **How to Populate a Control Dynamically**

```
IbComposer_populateDynamicCtrl('controlID', 'fromControlId');
```

where:

controlID

Alphanumeric

Is the unique identifier of the control from which values are obtained. For example, listbox1.

fromControlId

Alphanumeric

Is the unique identifier of the control from which values are obtained, when two or more controls are chained to a destination control. For example, if listbox1 and listbox2 are both chained to listbox3, by default, the values of listbox3 will be determined by listbox1. You can use IbComposer_populateDynamicCtrl('listbox3','listbox2') to make listbox2 determine the values of listbox3. This identifier is optional.

Example: **Populating a Control Dynamically**

```
function button3_onclick(ctrl) {  
var acc = IbComposer_populateDynamicCtrl('listbox3', 'listbox2');  
acc.selectNextPage();  
}
```

Function: IbComposer_getComponentById

The IbComposer_getComponentById function obtains a component by using its ID.

Syntax: **How to Obtain a Component by Using Its ID**

```
IbComposer_getComponentById('controlID');
```

where:

controlID

Alphanumeric

Is the unique identifier of the control from which values are obtained. For example, listbox1.

Example: Getting the Accordion Report By Using Its ID

```
function button3_onclick(ctrl) {
var acc = IbComposer_getComponentById('accordion1');
acc.selectNextPage();
}
```

Function: IbComposer_getCurrentSelection

The IbComposer_getCurrentSelection function gets the current selected values from a control.

Syntax: How to Get the Current Selected Value From a Control

```
IbComposer_getCurrentSelection('controlID', [layer]);
```

where:

controlID

Alphanumeric

Is the unique identifier of the control from which values are obtained.

layer

Integer

Is an optional parameter used to specify the layer number in a multi source Tree control if a Multi source Tree control is being used. The layer number starts with 1 for the first layer.

Example: Getting the Current Selected Value for a Drop Down List

```
function button1_onclick(ctrl) {
var values = IbComposer_getCurrentSelection('combobox1');
for(var i = 0; i < values.length; i++)
    alert(values[i]);
}
```

Function: IbComposer_getCurrentSelectionEx

The IbComposer_getCurrentSelectionEx function gets the current selected actual or display values from a control. The function can also be used to get the index values for List Boxes, Drop Down Lists, and Double Lists.

Syntax: How to Get the Current Selected Value, Actual Value, or Display Value From a Control

```
IbComposer_getCurrentSelectionEx('controlID', [layer]);
```

where:

controlID

Alphanumeric

Is the unique identifier of the control from which values are obtained.

layer

Integer

Is an optional parameter used to specify the layer number in a multi source Tree control if a Multi source Tree control is being used. The layer number starts with 0 for the first layer.

Example: Getting the Current Selected Index Value, Actual Value, and Display Value for a Multi-Select List

```
function button1_onclick(ctrl) {  
var values = IbComposer_getCurrentSelectionEx('combobox1');  
for(var i = 0; i < values.length; i++)  
{  
alert("Index Value: " + values[i].getIndex() + "\n" +  
"Actual Value: " + values[i].getValue() + "\n" +  
"Display Value: " + values[i].getDisplayValue());  
}  
}
```

Function: IbComposer_setCurrentSelection

The IbComposer_setCurrentSelection function sets the current selected values for control parameters.

Syntax: How to Set the Current Selected Value for a Control

```
IbComposer_setCurrentSelection('controlID', arrValues,  
bUpdateDependencies);
```

where:

controlID

Alphanumeric

Is the unique identifier of the control for which to set the values.

arrValues

Array

Is the array of values to be set.

`bUpdateDependencies`

Boolean

Is an operator that can be set to true to update chained controls and triggered events.
The default is false.

Example: Setting the Current Selected Value for a List Box

```
function button2_onclick(ctrl) {
    var arr = [];
    arr.push('ITALY');
    arr.push('JAPAN');
    IbComposer_setCurrentSelection('listbox1', arr, false);
}
```

Function: IbComposer_execute

The IbComposer_execute function executes a report or chart.

Syntax: How to Execute a Report or Chart

```
IbComposer_execute('reportID', ['outputTarget']);
```

where:

`reportID`

Alphanumeric

Is the unique identifier of the report or chart to execute.

`outputTarget`

Alphanumeric

Is the optional parameter to set the target of the output. Is one of the following:

- ☐ The name of a frame.
- ☐ `'_blank'`.
- ☐ `'_target'`.
- ☐ The name of a new window.

Example: Executing a Report in a New Window

```
function button3_onclick(ctrl) {  
    IbComposer_execute('report1', 'newwin');  
}
```

Function: IbComposer_isSelected

The IbComposer_isSelected function determines if a control or value is selected.

Syntax: How to Determine If a Control or Value Is Selected

```
IbComposer_isSelected('controlID', 'testValue');
```

where:

controlID

Alphanumeric

Is the unique identifier of the control being tested.

testValue

Alphanumeric

Is the value the control is being checked against.

Example: Determining If a Checkbox Is Selected

```
function checkbox1_onclick(ctrl){  
    var curValue = IbComposer_isSelected('checkbox1');  
    IbComposer_showHtmlElement('form1', curValue);  
}
```

Function: IbComposer_showHtmlElement

The IbComposer_showHtmlElement function shows or hides an HTML element.

Syntax: How to Show or Hide an HTML Element

```
IbComposer_showHtmlElement('elementID', bShow);
```

where:

elementID

Alphanumeric

Is the unique identifier of the element which is shown or hidden.

bShow

Boolean

Is an operator that can be set to true to show the element and false to hide it.

Example: Hiding or Showing a Check Box

```
function checkbox1_onclick(ctrl){
    var curValue = IbComposer_isSelected('checkbox1');
    IbComposer_showHtmlElement('form1', curValue);
}
```

Function: IbComposer_enableHtmlElement

The IbComposer_enableHtmlElement function enables or disables an HTML element.

Syntax: How to Enable or Disable an HTML Element

```
IbComposer_enableHtmlElement('elementID', bEnable);
```

where:

elementID

Alphanumeric

Is the unique identifier of the element which is enabled or disabled.

bEnable

Boolean

Is an operator that can be set to true to enable the element and false to disable it.

Example: Enabling or Disabling Elements

```
function checkbox2_onclick(ctrl){
    IbComposer_enableHtmlElement('listbox1',
    IbComposer_isSelected('checkbox2', 'country'));
    IbComposer_enableHtmlElement('combobox1',
    IbComposer_isSelected('checkbox2', 'car'));
    IbComposer_enableHtmlElement('listbox2',
    IbComposer_isSelected('checkbox2', 'model'));
    IbComposer_enableHtmlElement('combobox2',
    IbComposer_isSelected('checkbox2', 'dcost'));
}
```

Function: **IbComposer_ResetDownChainControls**

The IbComposer_ResetDownChainControls function resets the controls down the chain from the current control to have correct corresponding values.

Syntax: **How to Reset Chain Controls**

```
IbComposer_ResetDownChainControls('ctrl');
```

where:

ctrl

Alphanumeric

Is the unique identifier of the first control.

Example: **Resetting the Chain Started by a List Box**

```
function button4_onclick(ctrl) {  
    var arr = [];arr.push('ENGLAND');  
    IbComposer_setCurrentSelection('listbox1', arr, false);  
    IbComposer_ResetDownChainControls('listbox1');  
}
```

Function: **IbComposer_selectTab**

The IbComposer_selectTab function selects the tab specified by the tabNumberToSelect and makes it the active tab.

Syntax: **How to Select a Tab and Make It Active**

```
IbComposer_selectTab('tabControlID', tabNumberToSelect);
```

where:

tabControlID

Alphanumeric

Is the unique identifier of the tab control being made active.

tabNumberToSelect

Integer

Is the number of the tab to make active.

Example: Making a Tab Active

```
<FORM id=form1 onsubmit="OnExecute(this);
IbComposer_selectTab('tab1', 1) name="form1">
```

Function: IbComposer_selectTemplateTab

The IbComposer_selectTemplateTab function selects a tab on a template page and makes it the active tab.

Syntax: How to Select a Template Tab and Make It Active

```
IbComposer_selectTemplateTab('tabId');
```

where:

tabId

Alphanumeric

Is the unique identifier of the tab control being made active.

Example: Making a Template Tab Active

```
function submit1_onclick(ctrl) {
IbComposer_selectTemplateTab('tab5');
}
```

Function: IbComposer_getAllAmpersValues

The IbComposer_getAllAmpersValues is used to get the current selected values from all the controls on your page layout. It then takes those values and assembles them as a string that can be added to the end of a URL call. An example of this would be having a REGION control and multiselecting MidEast, NorthEast, and NorthWest. It will assemble these selections as shown below:

```
&REGION=%27MidEast%27%20OR%20%27NorthEast%27%20OR%20%27NorthWest%27
```

This function can be used in conjunction with the Business Intelligence Portal, where the generated string is appended to all Business Intelligence Portal calls that run reports or charts. This allows the parameter values to affect all portal components, even if new ones are added or existing ones are removed at runtime.

Syntax: How to Get all Parameter Values

```
IbComposer_getAllAmpersValues([verifySelection]);
```

where:

verifySelection

Boolean

Is an optional parameter. When true and when the Selection required property for the control is set to Yes, this returns an empty string for the parameter controls that do not have a selection made.

Note: All controls have the Selection required property. This property is set to Yes by default. If a control has no valid selection made at runtime, a red box appears around it and the following status bar message displays:

Please make required selections

Example: Retrieving a List of All Parameters Selected in a Report.

```
function button1_onclick(ctrl)
{
var val = IbComposer_getAllAmpersValues();
alert(val);
OnExecute(ctrl);
}
```

Event: onbeforeload

The onbeforeload event is an event handler that is used before a control is populated with values.

Syntax: How to Use the onbeforeload Event

```
onbeforeload('ctrl', 'arrValuesToLoad');
```

where:

ctrl

Is a static term and should not be changed.

arrValuesToLoad

Alphanumeric

Is the array of values that will be loaded into the control.

Example: Populating a Listbox With the onbeforeload Event

```
function listbox1_onbeforeload(ctrl,arrValuesToLoad) {
    for(var i = 0; i < arrValuesToLoad.length; i++) {
        alert(arrValuesToLoad[i].dispValue + " " + arrValuesToLoad[i].value
        + " " + arrValuesToLoad[i].selected);
    }
}
```

Event: onafterload

The onafterload event is an event handler used after a control is populated with values.

Syntax: How to Use the onafterload Event

```
onafterload('ctrl');
```

where:

ctrl

Is a static term and should not be changed.

Example: Selecting the ALL Value in a Listbox With the onafterload Event

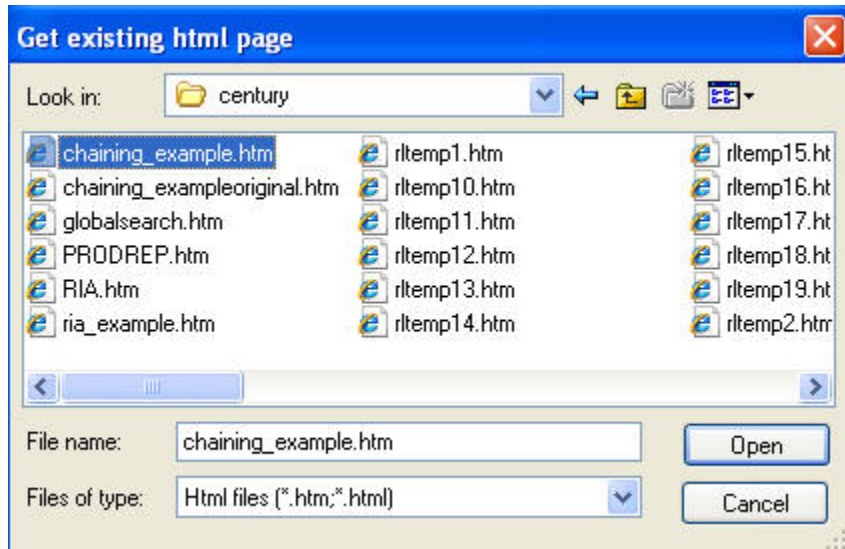
```
function listbox1_onafterload(ctrl){
    alert(IbComposer_isSelected(ctrl.id, 'ALL'));
}
```

Specifying an HTML File as a Load Screen

When running an HTML page from the HTML Composer, the Web browser displays a *Loading, please wait...* message, until the page is fully loaded.

You can use the Loading screen property for the BODY object to specify an HTML file of your own to use as a loading screen.

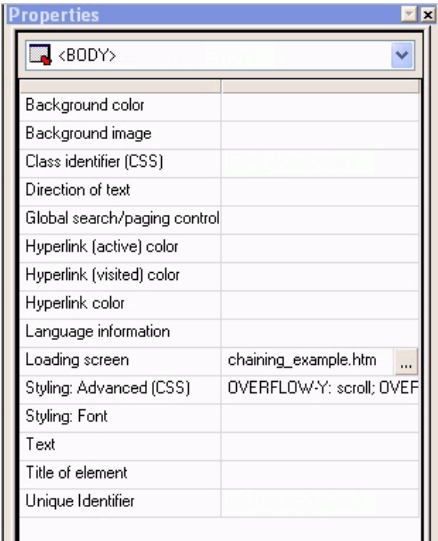
The Get existing html page dialog box opens, as shown in the following image.



Note: Default will use the Information Builders supplied loading screen. Not Set will not use a loading screen.

3. Select an HTML file and click *Open*.

The file is added to the property, as shown in the following image.



When the page runs, the specified loading screen will display until the page is completely loaded.

Using Templates in the HTML Composer

The HTML Composer offers templates that provide layouts and themes for HTML pages. You can select a pre-rendered design from the Template Selector that is provided when creating a new HTML file.

In this chapter:

- ❑ [Understanding and Using Templates](#)
- ❑ [Manipulating the Objects of Templates](#)

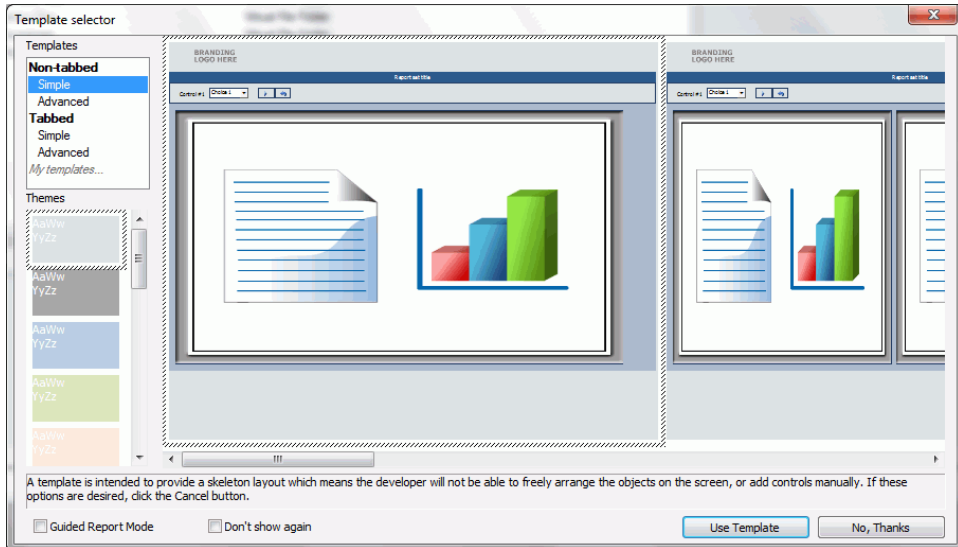
Understanding and Using Templates

You can use templates to choose from a number of layouts and themes to assist in the creation of HTML pages. Templates provide report and chart frames, a form for controls, text boxes, and other objects arranged in a fixed layout that simplifies the design process. By using templates, styling is predefined for you so that you only have to provide information for the objects to create an HTML page that is ready to use. Controls cannot be added manually, they must come from parameters in the reports and charts. If you build a page using templates, you will not be able to freely arrange objects or add controls manually.

Note: To create an HTML page without using templates, select *Cancel* from the Template Selector window.

Reference: The Template Selector

When you create a new HTML page, the Template selector opens and provides options for different layouts and themes, as shown in the following image.



The main components of the Template selector are:

Templates List Box

Displays options for tabbed and non-tabbed templates. Both tabbed and non-tabbed templates have the option of simple or advanced. Advanced templates contain elements for additional titles, hyperlinks, and descriptions. Simple templates contain less objects.

Layouts Pane

Displays options for the layout part of the template. You can choose the number of reports or graphs for the HTML page to contain, as well as how those reports and graphs are laid out within the page.

Themes Pane

Displays options for the theme (color scheme) of the template. You can choose one of seven different themes. Move the pointer over a theme in the Themes pane to select it. The theme options are:

- ☐ Information Builders
- ☐ Black

- ☐ Blue
- ☐ Green
- ☐ Orange
- ☐ Purple
- ☐ Red
- ☐ Silver
- ☐ Teal
- ☐ Plain
- ☐ Yellow red
- ☐ Beige blue
- ☐ Dramatic blue
- ☐ Neutral gray
- ☐ Light blue
- ☐ Light green
- ☐ Light purple

Guided Report Mode

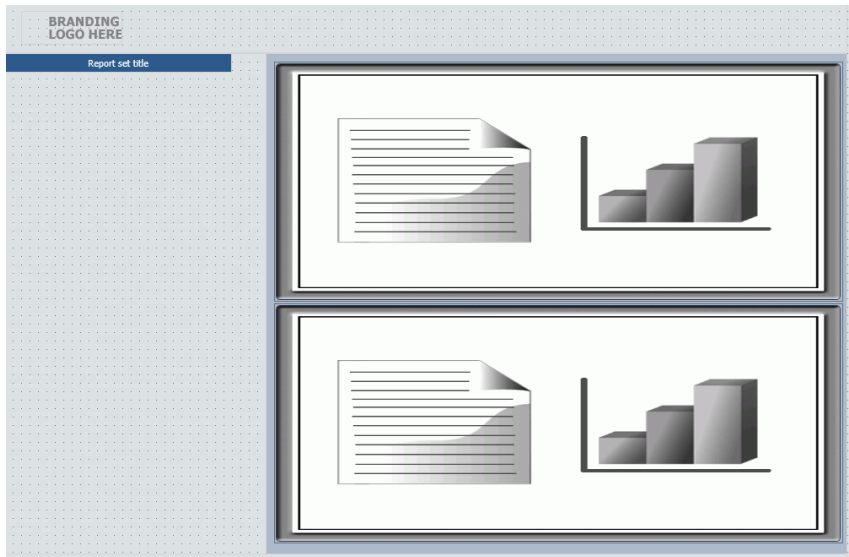
Sets the HTML page to Guided Report Mode. For more information on Guided Reports, see [Creating Guided Report Forms](#) on page 345.

Don't show again

Sets the Template Selector to be turned off by default. If you select this check box, the Template selector will not appear the next time you create an HTML page. To reactivate the Template Selector, see [How to Turn the Template Selector On](#) on page 337.

Reference: Report Sets

Report sets are containers on an HTML page designed in Template mode that hold a form and controls, reports, and the report set title. Adding a new report set to a page will add all of these elements to the page.

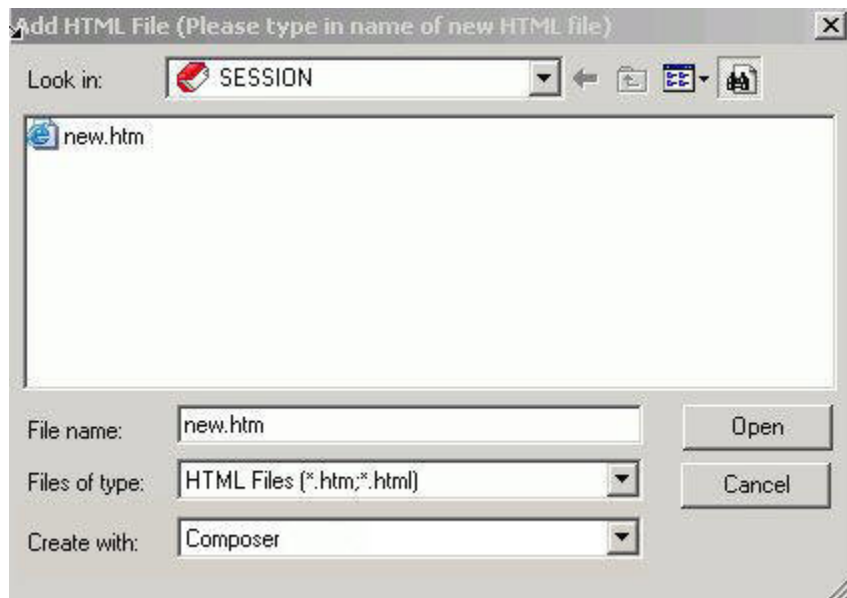


Note: The form and controls will not display on the HTML page until they are needed. For example, if you import a report that contains variables, the form and controls will display.

Procedure: How to Use the Template Selector

1. Create a new HTML file by completing one of these actions:
 - ☐ With the HTML folder highlighted, select **New** from the File menu, then select *HTML file*.
 - or
 - ☐ Right-click the HTML folder and select **New** then *Guided Report Form*.
 - or
 - ☐ Click *Layout Reports and Graphs* in the QuickLinks pane.

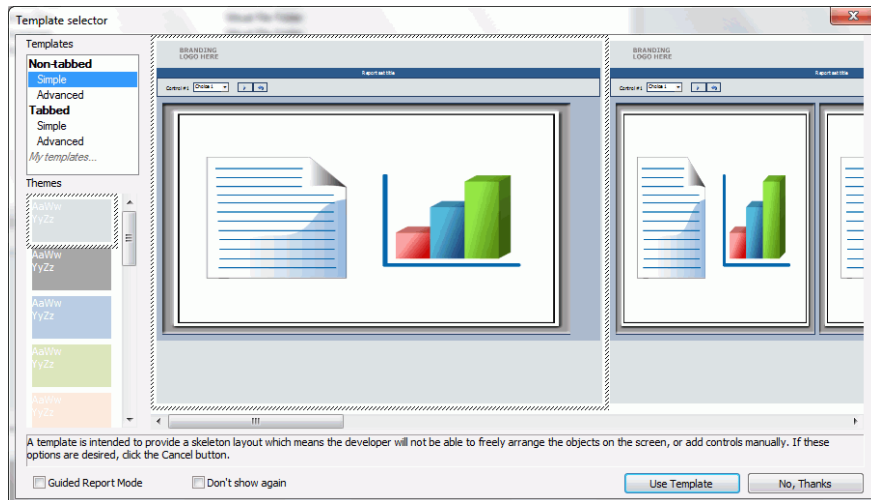
The Add HTML File dialog box opens.



2. Enter a name for the new HTML file in the File name field.
3. Ensure that *Composer* is selected in the Create with field.
4. Click *Open*.

The Template Selector opens.

Note: If *Don't show again* was checked the last time the Template selector was opened, the HTML Composer will open, skipping the Template selector window. To access the Template selector again, see [How to Turn the Template Selector On](#) on page 337.



5. From the Templates List Box, select *Simple* or *Advanced* from the Non-tabbed or Tabbed section. For more information on Tabbed and Non-tabbed templates, see [Tabbed and Non-Tabbed Template Types](#) on page 336.
6. From the Layouts pane, select a layout for the HTML page.
7. From the Themes pane, select a color scheme for the HTML page.
8. If desired, select the *Guided Report Mode* check box to enter Guided Report mode when the HTML page is created.

If you selected the option to create an HTML page in Guided Report mode, this check box will not be visible. For more information on Guided Report mode, see [Creating Guided Report Forms](#) on page 345.

9. If desired, select the *Don't show again* check box to skip the Template Selector window the next time an HTML page is created.

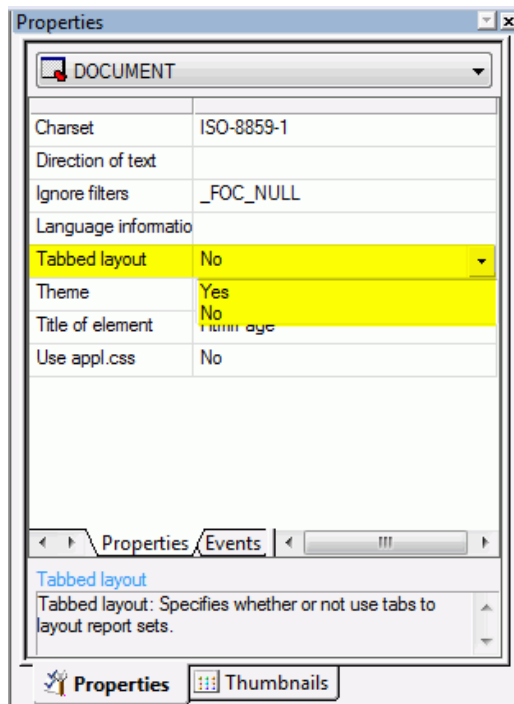
Reference: Tabbed and Non-Tabbed Template Types

When you create an HTML page using a template, there are two template types to choose from. Both template types have the option of simple or advanced. Advanced templates contain elements for additional titles and descriptions. Simple templates contain less objects. Advanced templates also contain a Hyperlinks strip.

The elements for titles and descriptions in advanced templates are text objects that you can double-click to enter edit mode and edit the text.

Tabbed templates contain numbered tabs for each report set. Non-tabbed templates have no tabs. The title of each tab can be edited.

The DOCUMENT object in HTML pages created with templates has the property Tabbed layout. If set to Yes, each report set will be converted to a tabbed layout. If set to No, tabs are removed from the layout.

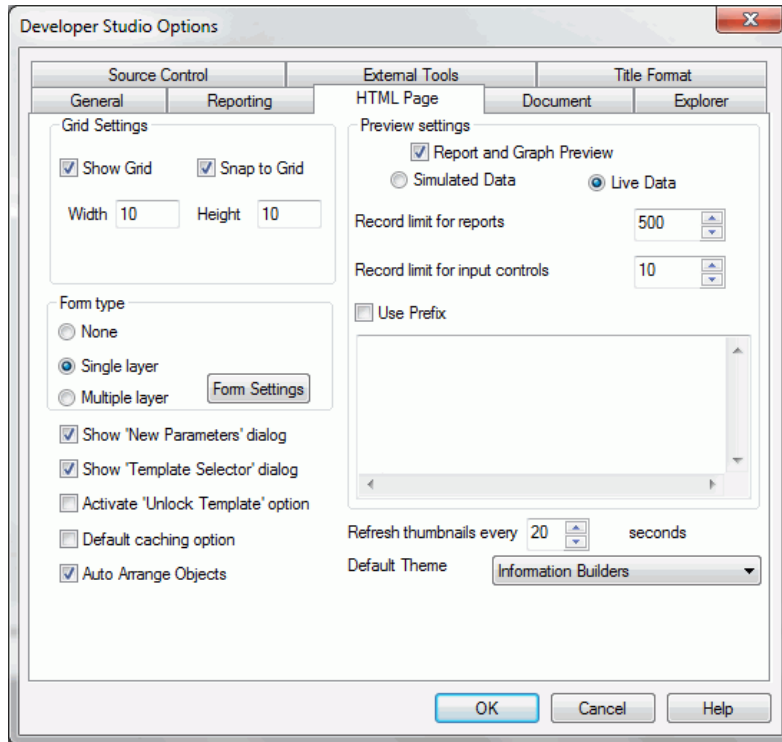


Procedure: How to Turn the Template Selector On

If you select the *Don't show again* check box on the Template selector window when you create an HTML page, the Template selector no longer appears when creating a new HTML page. The following procedure explains how to turn the Template selector on so that it shows up when creating a new HTML page.

1. Select *Options* from the Window menu. The Developer Studio Options dialog box opens.
2. Select the *HTML Page* tab.

3. Select the *Show 'Template Selector' dialog* check box from the HTML Page tab and click *OK*.



The Template Selector window appears the next time you create a new HTML page.

Reference: Template Usage Notes

The following describes the functionality and restrictions associated with HTML pages created with templates. Unless otherwise noted, these descriptions do not apply to a template that has been unlocked.

- ❑ HTML pages created with a template cannot use RIA themes. HTML pages that are created with a template and are then unlocked will still not be able to use RIA themes.
- ❑ All elements on the page use relative positioning. Objects are able to flow to accommodate the size of the browser window at run time. When the browser window is made smaller, the objects stack and when the window is made bigger, the objects show in a line.

- ❑ Existing elements cannot be moved. You can resize elements from any area except for the top-left corner. Due to positioning properties, elements are anchored by their top-left corner. Restricting the movement and positioning results in certain properties being unavailable while designing from a template. For more information on restricted properties, see [Properties Restricted By Templates](#) on page 342.
- ❑ The Insert menu is limited to only CSS/Scripts and Report set.
- ❑ You can change the selected color scheme of the template by accessing the *Theme* property of the DOCUMENT object in the Properties window. The layout of the template cannot be changed. HTML pages that are created with a template and are then unlocked can use and change themes. Newly added objects use the theme colors.
- ❑ If you wish to use active controls, you must unlock the template.
- ❑ The property Number of columns is available for form objects on HTML pages designed with templates. The default is 4, but you can change the number of columns by using the Number of columns property from the Properties window. The form has a grid which controls the layout of the columns and the position of the objects on the form.

Manipulating the Objects of Templates

When using templates, controls cannot be added manually, reports and charts cannot be moved, and resizing options are limited. Despite these restrictions, you can add new reports and charts to existing report sets and reorder or hide certain elements.

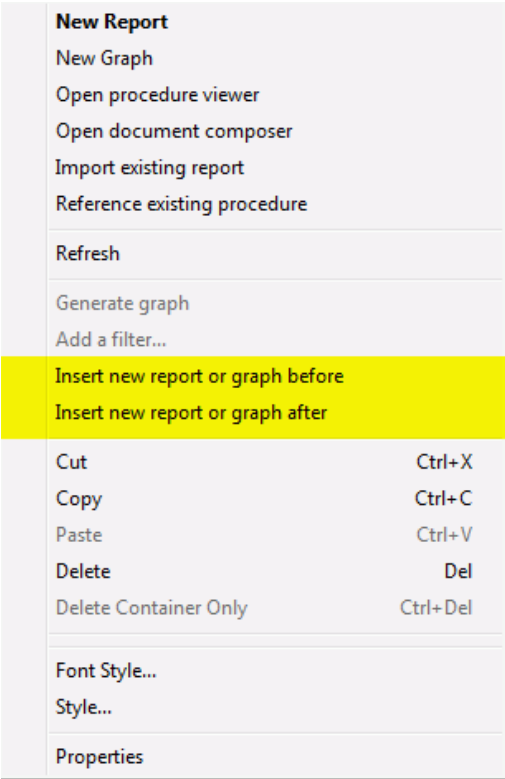
In addition to these options, you can also unlock the template, which cannot be undone. Unlocking the template grants greater control over the layout of objects on the HTML page, but you are responsible for resizing many objects and accounting for any modifications done to the page. For more information on the functionality you lose when unlocked, see [How to Unlock a Template](#) on page 342.

Procedure: How to Insert Additional Report or Chart Frames

When creating an HTML page using a template, you can right-click an existing report or chart frame and add a new report or chart to the report set.

1. After creating an HTML page using a template, right-click an existing report or chart frame.

- 2. Select *Insert new report or graph before* or *Insert new report or graph after* to insert a new report or chart frame, as shown in the following image.



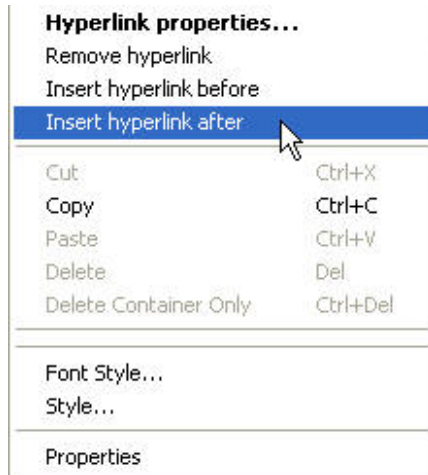
Depending on the option you select, a frame appears before or after the selected report or chart frame. For more information on ordering reports or charts, see [How to Reorder Elements](#) on page 341.

Procedure: How to Insert Additional Hyperlinks in Advanced Templates

When you create an HTML page using a template, you can right click an existing hyperlink and add a new one before or after it.

- 1. After you create an HTML page using a template, right-click an existing hyperlink.

2. Select *Insert hyperlink before* or *Insert hyperlink after* to insert a new hyperlink. The Hyperlink Properties dialog box will appear.



3. From the Hyperlink Properties dialog box, create a new hyperlink and select the Action, Source, Target Type, and Target/Template Name, then press *OK*.

Depending on the option you selected in step 1, a new hyperlink will appear before or after the selected hyperlink. For more information on ordering report sets, see [How to Reorder Elements](#) on page 341.

Procedure: How to Reorder Elements

When creating an HTML page using a template, you cannot move the elements on the page, but certain elements can be reordered. Controls, tabs/report sets, and report and chart frames can all be reordered.

You can reorder report sets by reordering their corresponding tabs or by selecting the report set itself and using the left and right arrow keys to move it.

1. Select the element you wish to reorder.

Note: Only controls, tabs/report sets, and report and chart frames can be reordered.

2. Press the arrow key that corresponds to the direction you wish to move the control.

The element moves one position in the desired direction.

Note: You cannot leave empty spaces between elements when reordering.

Reference: Properties Restricted By Templates

When you create an HTML page using a template, the positioning and sizing of objects is restricted. As a result, certain properties are unavailable in the Properties window and the Style Composer. The following is a list of the restricted properties:

- ☐ Alignment
- ☐ Margin height
- ☐ Margin width
- ☐ Position: Left
- ☐ Position: Top

Note: To access these properties, the template must be unlocked, which cannot be reversed. For more information about unlocking the template, see [How to Unlock a Template](#) on page 342.

Procedure: How to Unlock a Template

When using a template to design an HTML page, certain functionality is blocked. You cannot move reports, you cannot insert additional elements, and so on. For more information on restricted operations while designing based on a template, see [Template Usage Notes](#) on page 338. To allow the blocked functionality, you must unlock the template. Unlocking the template cannot be reversed and the developer is responsible for resizing many objects and the effects any modifications may have on the HTML page.

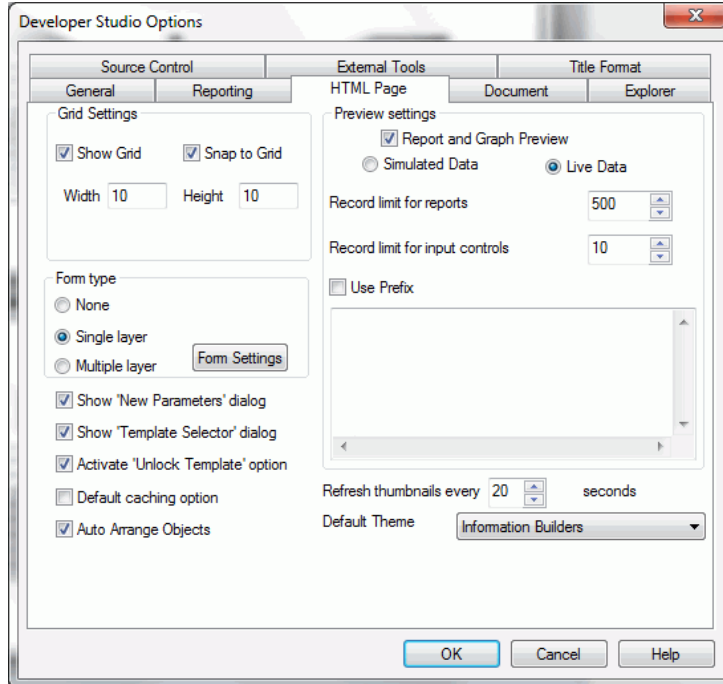
Note: By default, the Unlock button is hidden on the toolbar. The Unlock option should only be activated if there is a change that is completely necessary to the HTML page that cannot be accomplished in Template mode.

When you unlock a template the following functionality will change:

- ☐ Controls are no longer added to the layout automatically.
- ☐ The size and position of new reports and charts is no longer determined automatically.
- ☐ There is no option to insert report frames, hyperlinks, or report sets before/after the currently selected element.
- ☐ There is no option to add or delete entire report sets.
- ☐ Panels no longer resize automatically to accommodate new reports.

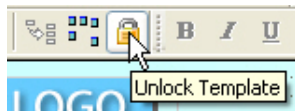
It is recommended that you make a backup of your page before you unlock.

1. Open an HTML page that was created with a template and select *Options* from the Window menu to open the Developer Studio Options dialog box.
2. Select the *HTML Page* tab.
3. Select the *Activate 'Unlock Template' option* check box from the HTML Page tab and click OK.



The Unlock button appears on the Utilities toolbar.

4. Select the *Unlock* button on the Utilities toolbar, as shown in the following image.



5. A prompt appears warning you of the changes to the HTML page once the template is unlocked. Select Yes to unlock and No to return to the locked HTML page.

Note: Once a template is unlocked it cannot be locked again. Any changes made after a template is unlocked need to be maintained by the developer.

Creating Guided Report Forms

The HTML Composer offers the ability to create highly parameterized reports, called Guided Reports, through a feature called the Guided Report Mode. You can use Guided Report Mode to streamline the creation of Guided Report Forms.

In this chapter:

- ❑ [Getting Started With Guided Reports](#)
-

Getting Started With Guided Reports

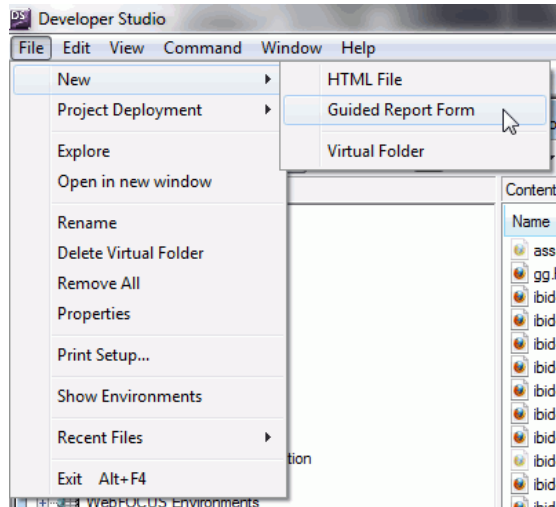
Guided Report Mode is available in the HTML Composer to help in the creation of a companion page for a Guided Report created in a tool, such as Report Painter. You can use the HTML Composer to create a streamlined, highly parametrized report procedure that results in the ability to generate thousands of reports.

Note: The Generate Graph and Add Filter right-click options are unavailable when using a guided report.

Procedure: How to Access Guided Report Mode

1. In the Developer Studio Explorer, create a Guided Report form by completing any of these actions:

- ❑ With the HTML folder highlighted, select **New** from the File menu, and then select *Guided Report Form*.



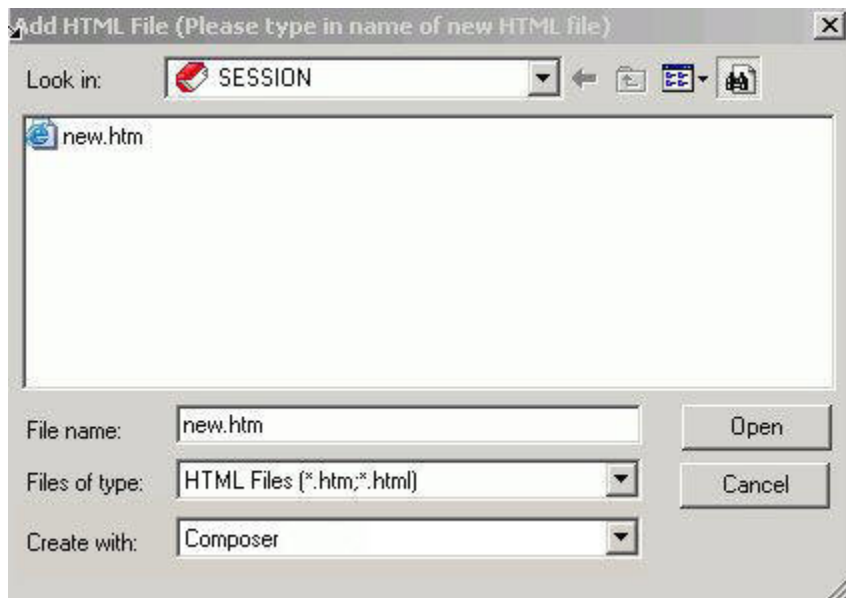
or

- ❑ Right-click the HTML folder, and select *New*, and then *Guided Report Form*.

or

- ❑ Create a new HTML form and then select the *Guided Report Mode* check box from the Template Selector window. (If you use either of the two previous methods, the Guided Report Mode check box will not appear on the Template Selector window.)

The Add HTML File dialog box opens, as shown in the following image.



2. Enter a name for the new HTML file in the File name field.
3. Click *Open*.

The Template Selector window opens. To create a Guided Report Form without using templates, select *Cancel*. For more information on using templates, see [Using Templates in the HTML Composer](#) on page 331.

Note: If you select *Cancel*, the page is created without templates but is still in Guided Report Mode. To create a Guided Report Form with a RIA theme, you must select *Cancel* from the Template Selector window.

Procedure: How to Create a Guided Report Form Using Templates

The following procedure describes how to operate in Guided Report Mode while using a predefined template. For more information on templates, see [Using Templates in the HTML Composer](#) on page 331.

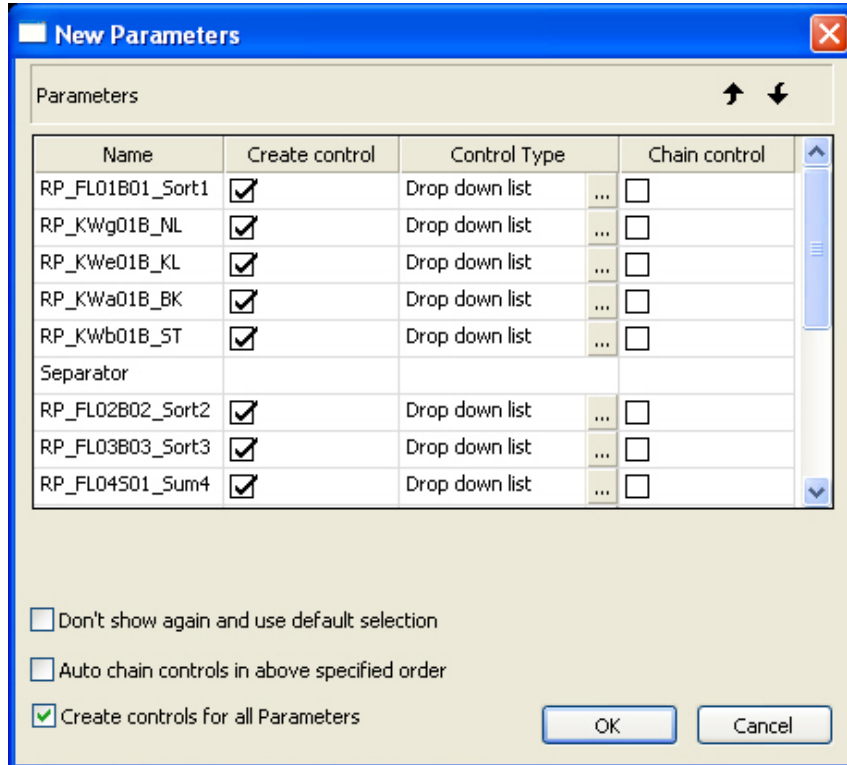
1. Open the HTML Composer in Guided Report mode, as outlined in [How to Access Guided Report Mode](#) on page 345. To create a Guided Report Form using a template, you cannot cancel the Template Selector. For more information on creating a Guided Report Form without templates, see [How to Create a Guided Report Form Without Templates](#) on page 350.
2. You can import an existing report, invoke Report Painter to create a report, or reference an existing procedure.

Note: When you embed a report, once the Master File is selected for the first report, you will not be prompted for the Master File again when creating subsequent reports. All joins, defines, WHEREs, includes, and stylesheets are copied to the component.

You cannot invoke Procedure Viewer or Document Composer from the right-click menu while in Guided Report Mode.

For more information about creating a Guided Report, see *Creating Reports With Report Painter*.

- After you embed or import the report, the New Parameters dialog box appears. You can chain the controls, select which parameters to create a control for, and change the Control Type. For more information about the New Parameters dialog box, see [New Parameters Dialog Box](#) on page 352. Make the desired changes and select OK.



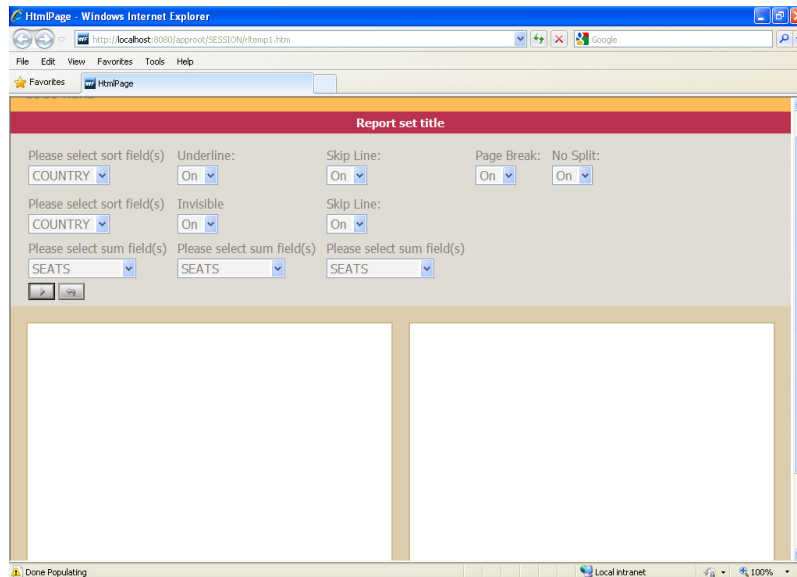
- Import an existing report, invoke Report Painter, or reference an existing procedure for each additional Report or Chart frame.

Since you picked a Master File for your first report, you will not be prompted for one again if you embed the report.

The New Parameters dialog box appears and the parameters for each additional report are added to the form.

- You can reorder the controls, change the number of columns in the form, and hide elements by changing the display property according to the rules dictated by templates. For more information on these procedures, as well as allowed functionality while designing in a template, see [Using Templates in the HTML Composer](#) on page 331.
- Run the page.

A page with controls for the Guided Report parameters appears so you can customize and run different versions of the report dynamically, as shown in the following image.



Procedure: How to Create a Guided Report Form Without Templates

1. Open the HTML Composer in Guided Report mode, as outlined in [How to Access Guided Report Mode](#) on page 345. To create a Guided Report Form without a template, you must cancel the Template Selector. For more information on creating a Guided Report Form with templates, see [How to Create a Guided Report Form Using Templates](#) on page 347.
2. You can import an existing report, invoke Report Painter, or reference an existing procedure to create a report.

Note: When you embed a report, once you select the Master File for the first report, you are not prompted for the Master File again when creating subsequent reports. All Joins, Defines, WHEREs, Includes, and stylesheets are copied to the component.

You cannot invoke Procedure Viewer or Document Composer while in Guided Report Mode.

- After you embed, import, or reference the report, the New Parameters dialog box appears. You can chain the controls, select which parameters to create a control for, change the Control Type, and choose where to insert the controls. For more information on the New Parameters dialog box, see [New Parameters Dialog Box](#) on page 352. Make the desired changes and select OK.

Name	Create control	Control Type	Chain control
RP_FL01B01_Sort1	☒	Drop down list	☐
RP_KWg01B_NL	☒	Drop down list	☐
RP_KWe01B_KL	☒	Drop down list	☐
RP_KWa01B_BK	☒	Drop down list	☐
RP_KWb01B_ST	☒	Drop down list	☐
Separator			
RP_FL02B02_Sort2	☒	Drop down list	☐
RP_FL03B03_Sort3	☒	Drop down list	☐
RP_FL04S01_Sum4	☒	Drop down list	☐

Parameter grouping options

New single layer form

☐ Don't show again and use default selection

☐ Auto chain controls in above specified order

☒ Create controls for all Parameters

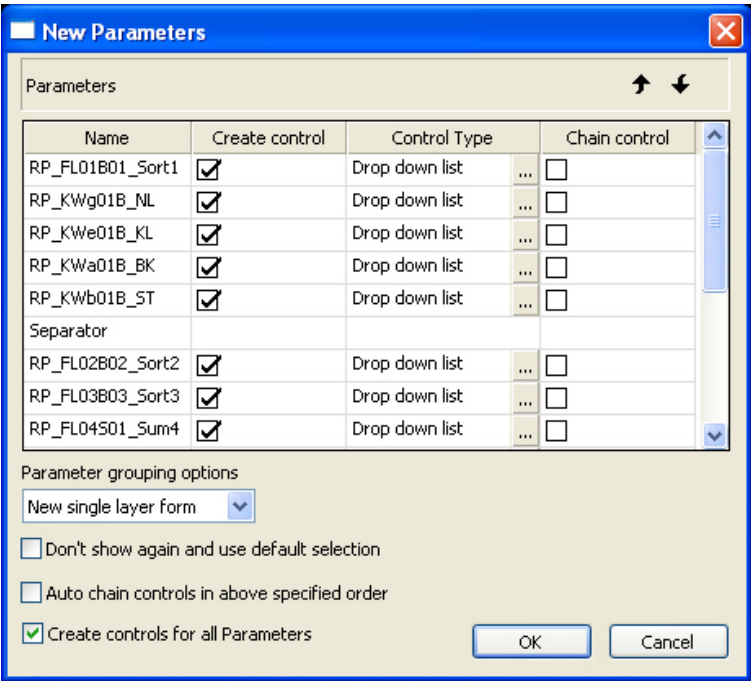
OK Cancel

- Embed, import, or reference the desired amount of Report or Chart frames.
For each report added, the New Parameters dialog box appears.
- Optionally, you can change the style and layout of the Guided Report Form as desired. You also have the option to use RIA themes or the standard color schemes, but not both. For more information on RIA themes, see [RIA Overview](#) on page 431.
- Run the page.

A page with controls for the Guided Report appears so you can customize and run different versions of the report dynamically.

Reference: New Parameters Dialog Box

When you import, embed, or reference reports into a Guided Report form, the New Parameters dialog box opens, as shown in the following image.



The main components of the New Parameters Dialog Box are:

Parameters Sort Arrows

You can reorder the parameters. Moves the selected parameter in the corresponding direction.

Name

Displays the name of each parameter that you add to the Guided Report Form.

Create Control

Inserts a control onto the form for the corresponding parameter. By default, all parameters have the Create Control check box selected.

Control Type

Displays options for control type for each parameter. You can choose one of ten different control types. The options are as follows:

- ☐ Calendar
- ☐ Check box
- ☐ Drop down list
- ☐ Hidden
- ☐ List box
- ☐ Radio button
- ☐ Text Area
- ☐ Text box
- ☐ Single source Tree control
- ☐ Multi source Tree control

Chain control

Sets the control to be chained in the order they are listed in the New Parameters dialog box.

Parameter grouping options

Displays the options for where to place the controls for the parameters to be added to the Guided Report Form. The options are as follows:

- ☐ Do not create a form
- ☐ New single layer form
- ☐ New multiple layer form

The drop-down box also lists the names of any existing forms and you can select that option to add the new parameter controls to an existing form.

Note: This option is only available when creating Guided Report Forms without using templates.

Name	Create control	Control Type	Chain control
RP_FL03S01_Sum3	☒	Drop down list	...
RP_FL04S02_Sum4	☒	Drop down list	...

Parameter grouping options

New single layer form (selected)
Do not create a form
New single layer form
New multiple layer form
form1

☒ Create controls for all Parameters

OK Cancel

Don't show again and use default selection

Sets the New Parameters dialog box to off and instead uses the default selections.

Auto chain controls in above specified order

Selects the Chain control check box for each parameter.

Create controls for all Parameters

Selects the Create control check box for each parameter.

Note: After the options for each fieldname control, a Separator is automatically added to generate a new line. There is also an extra Separator added at the bottom of the parameters list that can be used to add additional spacing as needed.

Chaining Controls for Dependencies in the HTML Composer

You may chain controls to one another on the Parameters tab and apply conditions to links in the chain. Chaining will populate controls based on the selected value from the prior control in the chain. You can chain static and dynamic controls, link or unlink parts of a chain, and create conditions on links in a chain. Chains are represented by lines connecting control objects on the Design or Parameters tab. Note that chaining is applicable only for controls, not parameters.

Note:

- ❑ Although you may chain controls from the Design tab, you may only create conditions to links in the chain through the Parameters tab.

By clicking the arrow head in a link of a chain, the Properties and settings dialog box enables you to modify and set the properties and conditions of the chain.

- ❑ If using static controls, you must apply conditions for each link in the chain. Conditions need to be created for each value of the control chained from, and those values must be mapped to the correct value(s) that will be displayed in the control that it is being chained to.

In this chapter:

- ❑ [Automatically Chaining Parameters From the New Parameters Dialog Box](#)
- ❑ [Chaining Controls on the Parameters Tab](#)
- ❑ [Applying Conditions to a Chain](#)
- ❑ [Populating Controls One at a Time](#)
- ❑ [Using the Chain Separator and Line Separator](#)

Automatically Chaining Parameters From the New Parameters Dialog Box

The auto chain option enables you to automatically chain selected controls from the New Parameters dialog box. Chaining populates controls based on the selected value from the prior control in the chain. The auto chain option is useful since it creates the chain, or links of a chain, automatically.

Note: Automatic chaining creates a basic chain with default functionality that does not include any conditions. You may create conditions for a chain through the Parameters tab.

When importing or referencing a report with parameters to an HTML page, the controls are not chained by default. You may choose to include or exclude individual controls in a chain with the Chain control column from the New Parameters dialog box.

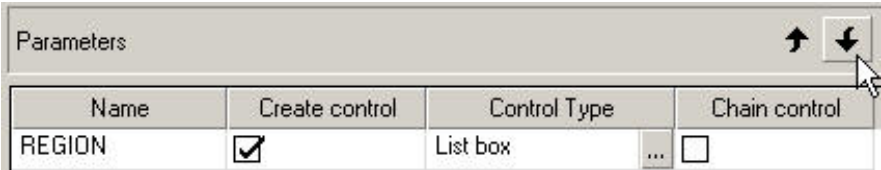
Additionally, when the auto chain option is selected, a separator is added to the parameters list on the New Parameters dialog box. A separator is used to separate controls into multiple chains and can be moved up or down in the chain sequence.

Procedure: How to Auto Chain Controls From the New Parameters Dialog Box

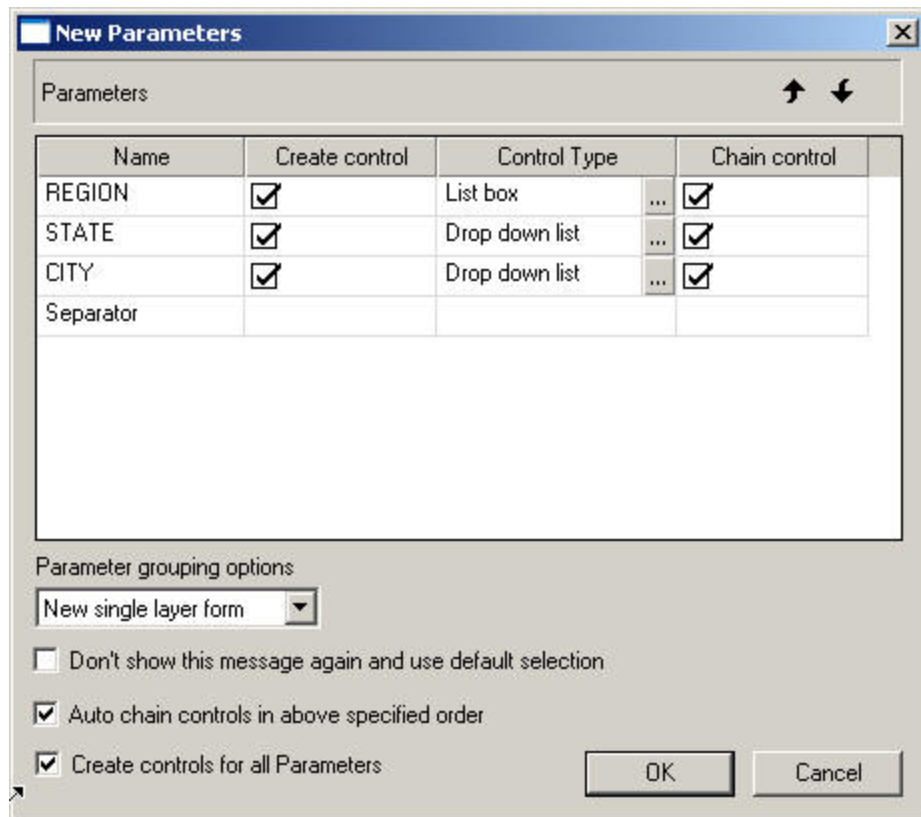
The auto chain option creates the chain, or links of a chain, automatically. When the auto chain option is selected, a separator is added to the parameters list. A separator is used to separate controls into multiple chains and can be moved up or down in the chain sequence.

- 1. In the HTML Composer, import or reference a report with parameters to an HTML page.
The New Parameters dialog box opens.
- 2. Select *Auto chain controls in above specified order*.

Tip: You may use the up or down arrows to change the order of the selected control before selecting this option.



The Chain control option is selected for all controls and a separator is added as the last object to the list of parameters, as shown in the following image.



- To create multiple chains, click the separator row and use the up or down arrows to change the location of the separator in the chain.

Note: If the default separator is moved up, another separator is added to the end of the list, as shown in the following image.

Name	Create control	Control Type	Chain control
REGION	☒	List box	☐
Separator			
STATE	☒	Drop down list	☒
CITY	☒	Drop down list	☒
Separator			

Parameter grouping options

New single layer form

☐ Don't show this message again and use default selection

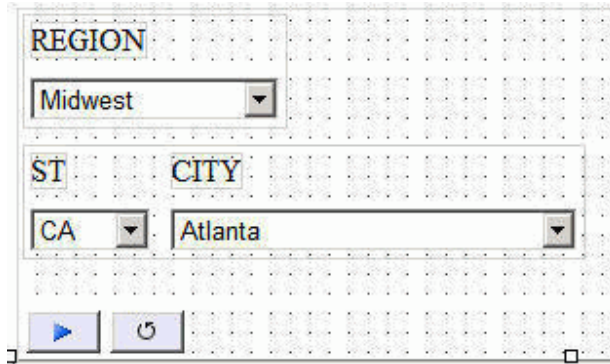
☒ Auto chain controls in above specified order

☒ Create controls for all Parameters

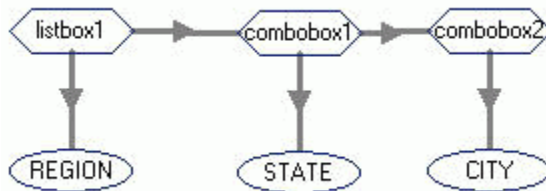
OK Cancel

- Click OK to close the New Parameters dialog box and add the control to the HTML page.

On the Design tab, when creating multiple chains from the New Parameters dialog box, each set of chained parameters appears on a new line, regardless of the grouping option selected from the New Parameters dialog box. This behavior is set through the *Start each chain on a new line* option, located on the Form Settings dialog box in the HTML Composer. For example, the following image shows the first link in the chain (REGION) on one line. The second chain (ST and CITY) starts on a new line within the control of the Design tab. This enables you to see the relationship of the chains within the form. Start each chain on a new line is selected by default.



On the Parameters tab, chains are represented by lines connecting control objects. For example, the selected value for the REGION field populates the available values for the STATE field. The selected value for the STATE field populates the available values for the CITY field in this chain.



5. If additional filters are added, use the chaining buttons on the Positioning toolbar to add or remove the selected control to the current chain.

Procedure: How to Chain Controls From the New Parameters Dialog Box

The Chain control column enables you to include or exclude individual controls in a chain, from the New Parameters dialog box.

1. In the HTML Composer, import or reference a report with parameters to an HTML page.

The New Parameters dialog box opens.

2. Select the *Chain control* check box for the controls to be included in the chain.

The controls are chained in the order that they appear on the New Parameters dialog box. You may use the up or down arrows to change the order of the selected control before chaining controls.

Note: If a control is excluded from a chain, the chain automatically links only the selected controls. For example, the following image shows REGION and CITY as links in the chain.

Name	Create control	Control Type	Chain control
REGION	☒	List box	☒
STATE	☒	Drop down list	☐
CITY	☒	Drop down list	☒

Parameter grouping options

New single layer form

☐ Don't show this message again and use default selection

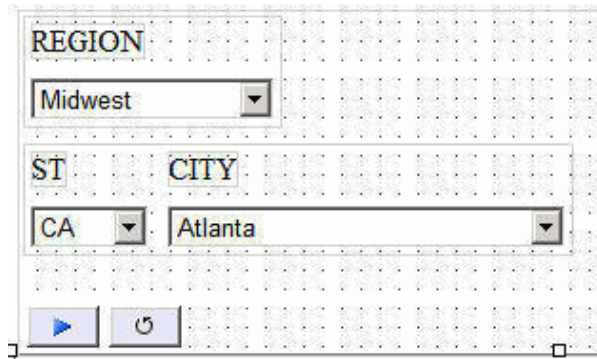
☐ Auto chain controls in above specified order

☒ Create controls for all Parameters

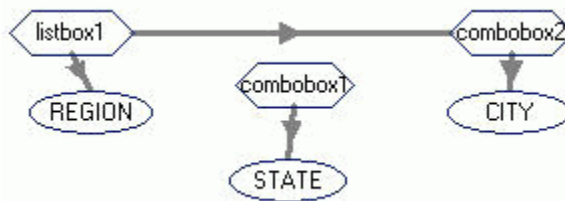
OK Cancel

3. Click *OK* to close the New Parameters dialog box and add the control to the HTML page.

On the Design tab, when creating multiple chains from the New Parameters dialog box, each set of chained parameters appears on a new line, regardless of the grouping option selected from the New Parameters dialog box. This behavior is set through the *Start each chain on a new line* option, located on the Form Settings dialog box in the HTML Composer. For example, the following image shows the first link in the chain (REGION) on one line. The second chain (ST and CITY) starts on a new line within the control of the Design tab. This enables you to see the relationship of the chains within the form. Start each chain on a new line is selected by default.



On the parameters tab, chains are represented by lines connecting control objects. For example, the selected value for the REGION field populates the available values for the CITY field in this chain.



4. You can use the chaining buttons on the Positioning toolbar to add or remove a selected control to the current chain.

Chaining Controls on the Parameters Tab

Chaining enables you to associate two or more related values. When you chain controls together, chained values are filtered as selections are made to each parameter control. For example, if you chain the PLANT parameter to the STATE parameter, only PLANT values for the currently selected STATE value will be available instead of all the plants in the data source. Each time a selection is made, all chained controls that come after will be dynamically updated. Chaining also enables you to add, remove, and reverse the order of controls in the chain.

Values are processed with a caching mechanism that gathers all of the necessary values prior to loading the page. This method automatically combines all of the necessary requests into a single HTTP request and maps the result sets to the appropriate controls, greatly reducing the load time involved with sending multiple requests for data.

Procedure: How to Chain Controls on the Parameters Tab

1. Create an HTML page using input controls to supply parameter values.
For details, see [Using Input Controls to Supply Parameter Values](#) on page 168.
2. Click the *Parameters* tab.
3. Select the center of the control object, left-click and drag the control to the center of the next control object in the chain, and release the mouse to complete the link.

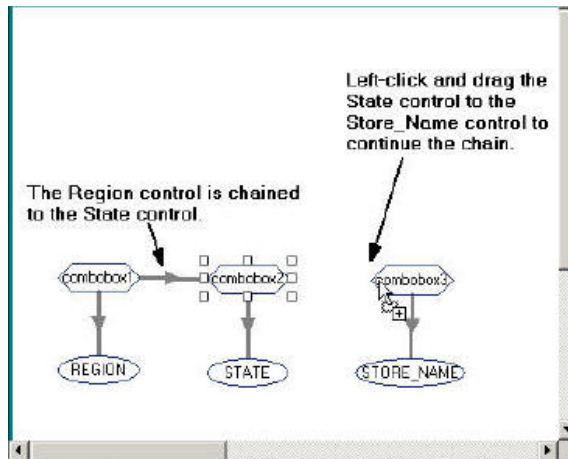
Repeat this step for each link in the chain.

Tip: Optionally, you may use the Positioning toolbar to add and remove controls to a chain. Both chaining options (drag and drop and the chaining icons) work in conjunction with each other. If you create a chain by one method, you can remove the chain by using the other method, and vice versa. For more information about chaining icons, see [Positioning Toolbar](#) on page 289.

The image below is an example of chained controls. Notice the direction of the arrows.

- ❑ The *Region* control starts the first link in the chain, chained to the *State* control.

- ❑ The *State* control starts the second link in the chain, and is being chained to the *Store_Name* control.



Tip: You can also reverse the order of controls in the chain. For details, see [How to Reverse the Order of Chained Controls](#) on page 364.

4. Optionally, apply condition settings to the chain to determine how parameters are populated.

If using static controls, you must apply conditions for each link in the chain. Conditions need to be created for each value of the control chained from, and those values must be mapped to the correct value(s) that will be displayed in the control that it is being changed to.

For details about conditions, see [Applying Conditions to a Chain](#) on page 367.

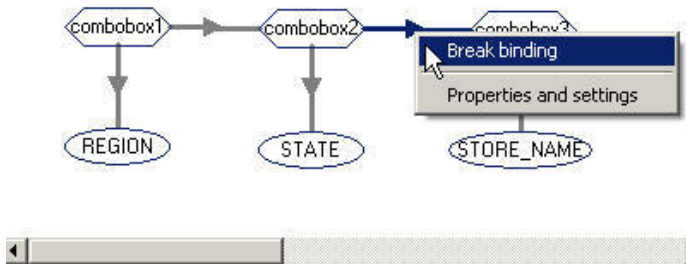
Procedure: How to Remove a Link in the Chain

To remove a link in the chain on the Parameters tab:

- ❑ Select the arrow head on the line so that the line is bold.
- ❑ Right-click and select *Break binding*.

Repeat this step for each link in the chain that you want to break.

Tip: Optionally, you may use the Positioning toolbar to add and remove controls to a chain. Both chaining options (drag and drop and the chaining icons) work in conjunction with each other. If you create a chain by one method, you can remove the chain by using the other method, and vice versa. For more information about chaining icons, see [Positioning Toolbar](#) on page 289.



Procedure: How to Reverse the Order of Chained Controls

To reverse the order of chained controls on the Parameters tab:

1. Select the arrow head on the line so that the line is bold, right-click and select *Break binding*.
2. Select the center of the control object, left-click and drag the control to the center of the next control object in the chain, and release the mouse to complete the link.

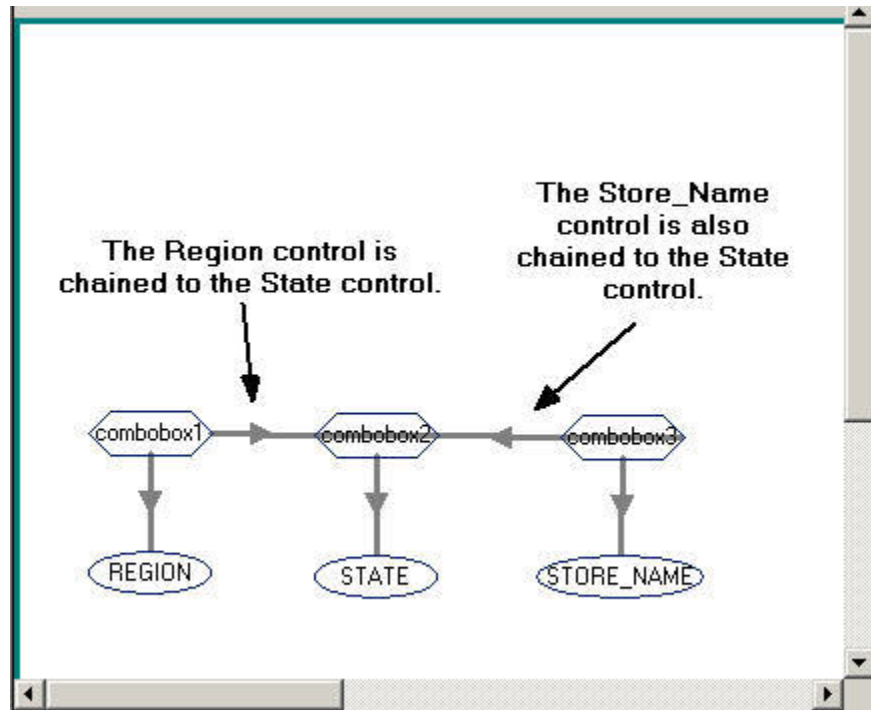
Notice the direction of the arrow between the control objects. You may reverse the direction of the link in the chain or reverse the order of the chain by changing the direction of each link.

- a. If reversing the direction of a link in the chain, click and drag the control object in the desired order.

For example, in the image below:

- ☐ The Region control starts the first link in the chain, chained to the State control.
- ☐ The Store_Name control starts the second link in the chain, also chained to the State control.

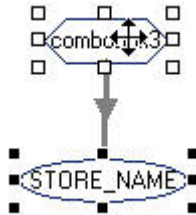
Note: Conditions are needed in order to make Region disappear from the chain, and to make Store_Name control State. For details about conditions, see [Applying Conditions to a Chain](#) on page 367.



- b. If reversing the order of a chain, click and drag the control objects in the desired order.

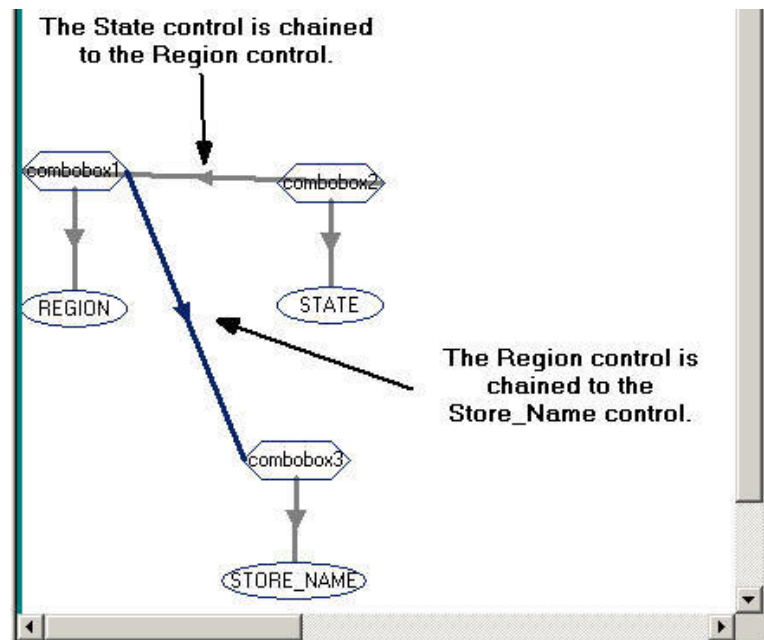
Tip: In some scenarios, when reversing the order of chained values, you may want to move the controls from the default location on the Parameters tab so that you can better see the direction of the chain. Moving objects on the Parameters tab will not affect the Design view of your layout.

- ❑ Press the *Shift* key and select the control object and bound parameter to move the objects as a set.



- ❑ Chain the control objects together.

For example, in the following image, the State control starts the first link in the chain, chained to the Region control. The Region control starts the second link in the chain, chained to the Store_Name control.



3. Optionally, apply condition settings to the chain to determine how parameters are populated.

For details about conditions, see [Applying Conditions to a Chain](#) on page 367.

Applying Conditions to a Chain

A chain contains conditions for each link in the chain. The conditions are linked to the values being selected in the control object. You may apply multiple conditions to one link. The properties and settings for the condition describe how the link should behave. The following options are available:

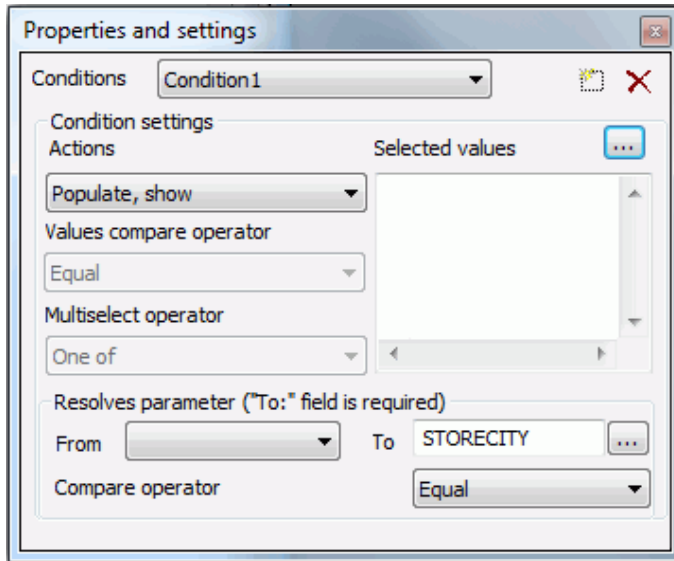
- ☐ Apply *Actions* for the links on the chain.
- ☐ Apply the *Values compare operator* for the condition.
- ☐ Apply *Selected values* with a *Multiselect operator* for the condition.
- ☐ Apply the *Resolves parameter* values for the condition.
- ☐ Apply the *Parameter's compare operator* for the condition.

If using static controls, you must apply conditions for each link in the chain. Conditions need to be created for each value of the control chained from, and those values must be mapped to the correct value(s) that will be displayed in the control that it is being changed to.

Reference: Properties and Settings Dialog Box (Conditions)

The Properties and settings dialog box appears when creating a condition for a chain link on the Parameters tab. A chain contains conditions for each link in the chain.

The conditions are linked to the values being selected in the control object. The properties and settings for the condition inherit the values of the prior bound control and provide additional condition settings. This section describes the additional condition settings.



The Properties and settings dialog box contains the following fields and options when creating a condition:

Conditions

The conditions list enables you to create multiple conditions for the link. *Default* is the only initial condition.

- ❑ To create a new condition, click the *New* icon. Condition n is created, where n is the number, and added to the Conditions drop-down list. You may type in a unique condition name, choose *Selected values*, and set the condition settings.
- ❑ Click the *Delete* icon to remove the selected condition from the list. Note that the *Default* condition name cannot be deleted.

Actions

Select an action for the chain link to control. The options offer variations to populate, show, hide, execute, and select the values. The list of available options are:

- ❑ **Populate, show.** Populates the control and displays it at run time. This is the default action for all conditions.

- ❑ **Populate, hide.** Populates the control and does not display it at run time.
- ❑ **Populate with alternate, show.** Populates the control with alternate values derived from a procedure, or value list, that is not the default and displays the control at run time.
- ❑ **Populate with alternate, hide.** Populates the control with alternate values derived from a procedure, or value list, that is not the default and does not display the control at run time.
- ❑ **Show.** Shows the control but does not populate it.
- ❑ **Hide.** Hides the control but does not populate it.
- ❑ **Execute.** Executes the bound object. For example, if you bind a control to a Submit button and change the value in the control at run time, the report/graph automatically executes when you change the value, without having to click the Submit button.
- ❑ **Select.** Selects the bound object. For example, if you bind a control to a tab item and select a value in the control at run time, the bound object (the tab item) is automatically selected as the active tab on the page.

Values compare operator

Values compare operator provides chaining logic scenarios to include such options as Equal, Not Equal, Greater Than, Less Than, and so on. This option sets the condition for how to populate the control being linked to.

Equal is the default Values compare operator.

Selected values

Selected values enable you to provide the values used in the condition. When creating a new condition, the Selected values section is activated. You may type selected values in the input box or click the ellipsis button to select values from the list.

The list of values that appears is based on the values of the prior bound control in the chain.

When selected values are entered, the Multiselect operator field is activated.

Multiselect operator

The Multiselect operator options are activated when selected values are entered for the condition. Options are *One of* or *All of*. One of is based on one of the values shown in the Selected values, being selected in the prior control, in the chain. All of is based on the value of all of the Selected values, being selected in the prior control, in the chain.

One of is the default multiselect operator.

Resolves parameter (“To: field is required”)

From. The From field specifies where to get the value used in the To field, if the control being chained from is a map or activeX control.

To. The To field is used to dynamically generate the selection list used to populate the control being chained to. This field displays the parameter whose value will drive the condition evaluation. The parameter name linked to the prior control in the chain is displayed by default. The ellipsis button provides a pop-up dialog of the other parameter values (from the report) to be resolved.

Parameter's compare operator

The Parameter's compare operator provides chaining logic scenarios to include such options as Equal, Not Equal, Greater Than, Less Than, and so on. This sets the compare operator to populate the control.

Equal is the default Parameter's compare operator.

For details about the Properties and settings dialog box options for Data type values, see [Properties and Settings \(Incoming Static Parameter and Unbound Control\)](#) on page 101 or [Properties and Settings Dialog Box \(Dynamic Values\)](#) on page 118.

Procedure: How to Create a New Condition

1. Insert a report with parameters in the HTML Composer.

For details about creating parameters, see [Creating Parameter Values](#) on page 95.

2. Click and drag control objects on the Parameters tab to create a chain.

Chains are represented by lines connecting control objects on the Parameters tab.

Chaining controls will populate parameters with values at run time, based on values selected in prior controls on the chain. For details about chaining controls, see [Chaining Controls on the Parameters Tab](#) on page 362.

3. Click a link in the chain.

The Properties and settings dialog box opens showing the bound control values and the *Default* condition settings for the link in the chain.

4. Click the *New* icon to create a multiple condition for the chain.

Condition n is created, where n is the number, and added to the Conditions drop-down list, and the Selected values section is activated. You may type in a unique condition name.

5. You may type in a unique condition name, choose Selected values, and set the condition settings for the new condition.
6. Optionally, you may click the *Delete* button to remove the selected condition from the list.

Note: *Default*, the initial condition, cannot be deleted.

7. Close the Properties and settings dialog box.

Procedure: How to Select the Action for a Condition

1. Insert a report with parameters in the HTML Composer.

For details about creating parameters, see [Creating Parameter Values](#) on page 95.

2. Click and drag control objects on the Parameters tab to create a chain.

Chains are represented by lines connecting control objects on the Parameters tab.

Chaining controls will populate parameters with values at run time, based on values selected in prior controls on the chain. For details about chaining controls, see [Chaining Controls on the Parameters Tab](#) on page 362.

3. Click a link in the chain.

The Properties and settings dialog box opens showing the bound control values and the condition settings for the link in the chain.

4. Select the action for the condition from the *Actions* drop-down list. For example, to hide the control being chained to, select *Hide*.

Populate, *show* is the default option.

5. Close the Properties and settings dialog box.

When running the HTML page, the action for the chained control is applied.

Procedure: How to Select the Values Compare Operator for a Condition

1. Insert a report with parameters in the HTML Composer.

For details about creating parameters, see [Creating Parameter Values](#) on page 95.

2. Click and drag control objects on the Parameters tab to create a chain.

Chains are represented by lines connecting control objects on the Parameters tab.

Chaining controls will populate parameters with values at run time, based on values selected in prior controls on the chain. For details about chaining controls, see [Chaining Controls on the Parameters Tab](#) on page 362.

3. Click a link in the chain.

The Properties and settings dialog box opens showing the bound control values and the condition settings for the link in the chain.

4. Select the chaining logic for the parameter being chained to, in the condition, from the *Values compare operator* drop-down list.

Equal is the default option.

5. Close the Properties and settings dialog box.

The compare operator is applied to the value selected.

Procedure: How to Apply Selected Values With a Multiselect Operator to a Condition

1. Insert a report with parameters in the HTML Composer.

For details about creating parameters, see [Creating Parameter Values](#) on page 95.

2. Click and drag control objects on the Parameters tab to create a chain.

Chains are represented by lines connecting control objects on the Parameters tab.

Chaining controls will populate parameters with values at run time, based on values selected in prior controls of the chain. For details about chaining controls, see [Chaining Controls on the Parameters Tab](#) on page 362.

3. Click a link in the chain.

The Properties and settings dialog box opens showing the bound control values and the condition settings for the link in the chain.

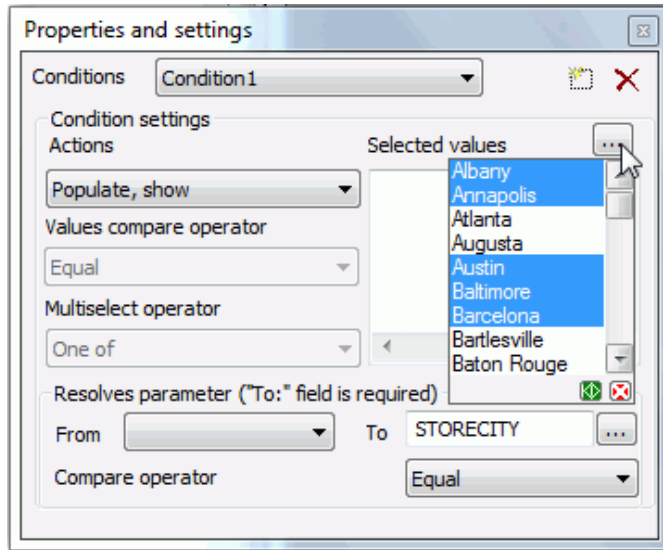
4. Click the *New* icon to create a multiple condition for the chain.

Condition n is created, where n is the number, and added to the Conditions drop-down list, and the Selected values section is activated. You may type in a unique condition name.

5. You may type selected values in the input box or click the ellipsis button to select values from the list.

The list of values that appears is based on the values of the prior bound control in the chain.

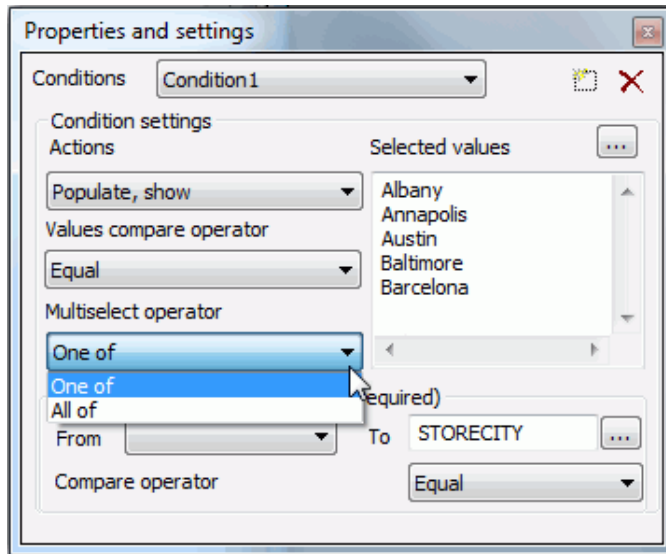
Tip: You may also use the pop-up icons to select a field and close the pop-up dialog. The green icon is OK, the red icon is Cancel, double-clicking a value will select the value and close the dialog without using any button, and pressing the Esc key will cancel the dialog without using any button.



When selected values are entered, the Multiselect operator field is activated.

6. Select the chaining logic for the selected values from the *Multiselect operator* drop-down list.
 - ❑ *One of* is based on one of the values shown in the Selected values, being selected in the prior control, in the chain. This is the default selection.

- ❑ *All of* is based on the value of all of the Selected values, being selected in the prior control, of the chain.



7. Close the Properties and settings dialog box.

The selected values and multiselect operator are applied to the condition.

Example: Using the All Of Multiselect Operator

The following example shows how to use the All Of multiselect operator when you perform conditional chaining. In this example, listbox2 is chained to the multiselect listbox1. The listbox2 is conditionally chained to be shown if all of the selected values in listbox1 meet the listed criteria. If all of the selected values do not meet the criteria, listbox2 will be hidden.

1. Create the HTML page.

- Select the *HTML Files* folder from your project in the Developer Studio Explorer.
- Right-click and select *New*, then *HTML File*.

The Add HTML File dialog box opens.

- Type *allof_example* in the File name text box and click *Open*.

The Template selector opens.

- Click *Cancel* to create a blank HTML page without using a template.

The HTML Composer opens.

2. Add a multiselect list box to the canvas, dynamically populated using the Car data source.

- a. From the Insert menu, select *Controls*, then *List Box*.

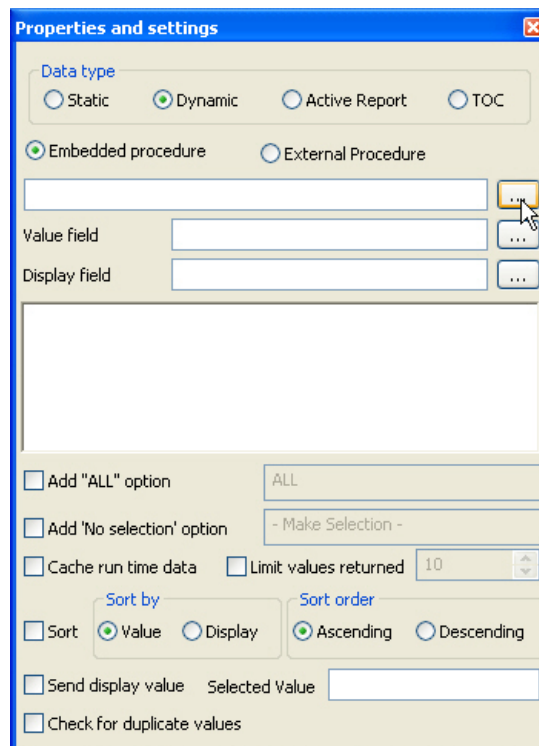
The cursor changes into a crosshair.

- b. Click and drag the crosshair to create a list box and adjust it to the size you want.

- c. Select *Properties and Settings* from the View menu.

The Properties and settings dialog box appears.

- d. Select the *Dynamic* radio button for the Data type.
 - e. Select the ellipsis button from the Embedded procedure field, as shown in the following image.



- f. Select the *car* Master File from the Get source file dialog box and click *Open*.
 - g. Select the ellipsis button from the Value field.
 - h. Select *SEATS* from the drop-down menu.
 - i. Set the Default selection property to *No*.

- j. Set the Multiple property to *Multiple* from the Properties pane.

The listbox1 is now a multiselect list box.

3. Add a second list box to the canvas, dynamically populated using the Car data source.

- a. From the Insert menu, select *Controls*, then *List Box*.

The cursor changes into a crosshair.

- b. Click and drag the crosshair to create a list box and adjust it to the size you want.

- c. Select *Properties and Settings* from the View menu.

The Properties and settings dialog box appears.

- d. Select the *Dynamic* radio button for the Data type.

- e. Select the ellipsis button from the Embedded procedure field.

The Get source file dialog box appears.

- f. Select the *car* Master File and click *Open*.

- g. Select the ellipsis button from the Value field.

- h. Select *CAR* from the drop-down menu.

4. Chain the list boxes.

- a. Select listbox1 on the canvas.

Resizing anchors appear around the list box.

- b. Hold down Ctrl and select listbox2.

Resizing anchors appear around both list boxes.

- c. Select Add to current chain from the Utilities toolbar, as shown in the following image.



5. Set conditions for the chain.

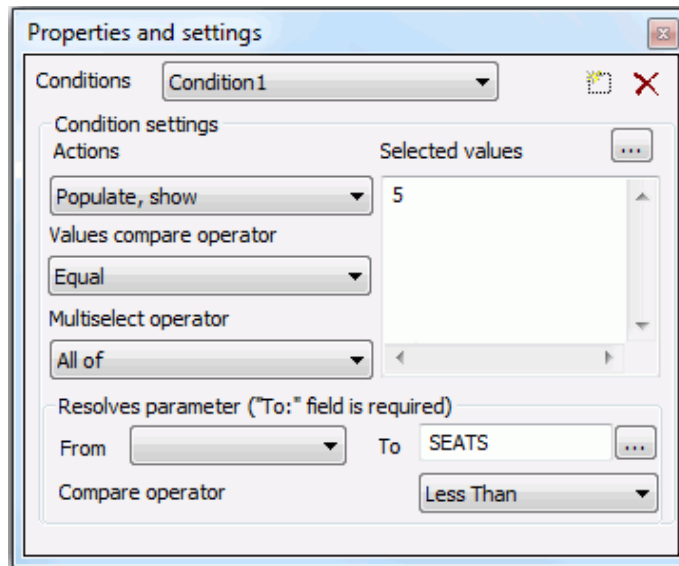
- a. Click the *Parameters* tab.

- b. Right-click the arrow connecting listbox1 to listbox2 and select *Properties and Settings*.

The Properties and settings dialog box appears.

- c. For the Default condition, set Actions to *Hide*.

- d. Press the New Condition button to create a new condition.
- e. For the new condition, set the properties as follows:
 - ☐ Selected values: 5
 - ☐ Actions: Populate, show
 - ☐ Values compare operator: Less Than
 - ☐ Multiselect operator: All of



6. Run the page.

There is no default selection for listbox1 and by default listbox2 is not displayed when the page is first run. Select any single value less than 5 fulfills the condition set in step 5 and listbox2 is shown. Selecting 2 and 4 also fulfills the condition, all of the multiselectd values are less than 5 and listbox2 is shown. Selecting 2 and 5, 4 and 5, or 2, 4, and 5 does not fulfill the condition, all of the multiselectd values are not less than 5 and listbox2 remains hidden.

The following image shows all of the selected values meeting the condition and, as a result, listbox2 is shown.



The following image shows all of the selected values failing to meet the condition and, as a result, listbox2 is hidden.



Procedure: How to Resolve Parameters for a Condition

It is recommended that you populate the controls first, before chaining. When you populate first certain information is obtained that allows the determination of the best choice for *Resolves parameter*. If you chain first and then populate, the information cannot be obtained because the chaining is already established. If you chain first, you must manually set *Resolves parameter*.

1. Insert a report with parameters in the HTML Composer.

For details about creating parameters, see [Creating Parameter Values](#) on page 95.

2. Click and drag control objects on the Parameters tab to create a chain.

Chains are represented by lines connecting control objects on the Parameters tab.

Chaining controls will populate parameters with values at run time, based on values selected in prior controls on the chain. For details about chaining controls, see [Chaining Controls on the Parameters Tab](#) on page 362.

3. Click a link in the chain.

The Properties and settings dialog box opens showing the bound control values and the condition settings for the link in the chain.

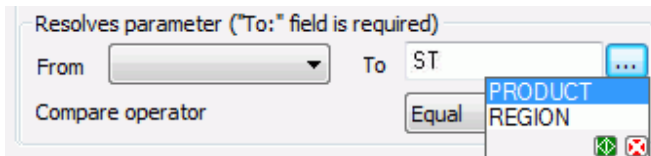
4. Click the *Resolves parameter* ellipsis button to select a parameter name to resolve. If a custom procedure that has a filter (or filters) populates the control, the values list shows the parameters from the filters. If a data source populates the control, the values list shows all of the fields from the data source shown in the Object Inspector.

The value in the Resolves parameter field should be either:

- ❑ The field name that limits the values for the next control in the chain, if a data source populates the control.
- ❑ The parameter name from the procedure, if a procedure populates the control.

In most cases, this value will be populated by default and will not need to be changed.

Tip: You may also use the pop-up icons to select a field and close the pop-up dialog. The green icon is OK, the red icon is Cancel, double-clicking a value will select the value and close the dialog without using any button, and pressing the Esc key will cancel the dialog without using any button.



5. Close the Properties and settings dialog box.

The parameter value is resolved in the chain if no filter is specified.

Procedure: How to Select the Compare Operator for the Parameter

An example of when to apply chaining logic is when a form offers two lists of dates so that you can select a FROM/TO date range. By chaining these parameters together and applying the Greater than parameter compare operator, this ensures that when a date is selected for the FROM parameter, only dates that follow the FROM date display in the TO date control, eliminating the possibility of selecting an invalid date range.

1. Insert a report with parameters in the HTML Composer.

For details about creating parameters, see [Creating Parameter Values](#) on page 95.

2. Click and drag control objects on the Parameters tab to create a chain.

Chains are represented by lines connecting control objects on the Parameters tab.

Chaining controls will populate parameters with values at run time, based on values selected in prior controls on the chain. For details about chaining controls, see [Chaining Controls on the Parameters Tab](#) on page 362.

3. Click a link in the chain.

The Properties and settings dialog box opens showing the bound control values and the condition settings for the link in the chain.

4. Select the chaining logic option from the *Parameter's compare operator* drop-down list. This sets the compare operator to populate the control.

Equal is the default option.

5. Close the Properties and settings dialog box.

The compare operator is applied to the parameter selected.

Procedure: How to Enable Cache Processing for Chained Values

You may enable cache processing for chained values in two ways:

- ☐ Enable the caching option for the HTML page and all objects on the page.
- ☐ Enable cache run time data for a dynamic control or a condition.

A chain contains conditions for each link in the chain. The conditions are linked to the values being bound to the control object. If you change the options for the condition, it will also be applied to the control, and vice versa.

Caching options are turned off by default.

1. To enable caching options for all objects on the HTML page:

- ☐ From the Design tab of the HTML Composer, select *Options* from the Window menu.
The Developer Studio Options dialog box opens.
- ☐ Select the *HTML Page* tab.
- ☐ Select *Default caching option*.
- ☐ Click *OK* to close the Developer Studio Options dialog box.

2. To enable caching options for a dynamic control or condition:

A chain contains conditions for each link in the chain. The conditions are linked to the values being chained to the control object. If you change the options for the condition, it will also be applied to the control, and vice versa.

- a.** For a dynamic control:

- ☐ Create a dynamic input control to supply parameter values.

For details about creating dynamic values, see [Creating a Dynamic List of Values](#) on page 118.

- ❑ Select the dynamic control object from the Parameters tab.

The Properties and settings dialog box opens, showing the dynamic control options.

- ❑ Select *Cache run time data* to cache the run time data for the selected input control.

Note: This setting overrides the *Default caching option* from the HTML Page tab.

- ❑ Close the Properties and settings dialog box.
- ❑ Select the center of the control object, click and drag the control to the center of the next control object, and release the mouse to complete the binding of the chain.

When binding controls, the conditions inherit the values set in the dynamic control properties and settings.

b. For a dynamic condition:

- ❑ Click a link on the chain to open the Properties and settings dialog box for the condition.
- ❑ Select *Cache run time data* to cache the run time data for the selected input control. This option is only available for dynamic controls.

This setting overrides the *Default caching option* from the HTML Page tab.

When running the HTML page, data for the chained value is cached to improve performance.

Example: Chaining Controls in the HTML Composer

The following example shows how to create a report of the Gotham Grinds product sales for each category within each Region, State, and City.

Several chaining conditions will be created:

- ❑ A chain consisting of the Region, State, and City controls.

The values for the Region control populate the State control with the associated values, and the values for the State control populate the City control with the associated values.

- ❑ Multiple conditions for links in the chain.

Conditions indicate that when Region is Southeast, the State control is hidden and the dependent City Values for Southeast are shown in the City control.

1. Create the HTML page.

Tip: The Gotham Grinds Sales data source (*ggsales.mas*) is available from the ibisamp Applications on localhost folder of Developer Studio. You may copy this source file to the project directory of your choice.

- a. Select the *HTML Files* folder from your project in the Developer Studio Explorer.
- b. Right-click and select *New/HTML File*.

The Add HTML File dialog box opens.

- c. Type *chaining_example* in the File name text box and click *Open*.

The HTML Composer opens.

2. Create the Gotham Grinds sales report.

- a. Select *New Report* from the Insert menu.

The cursor changes into a crosshair.

- b. Click and drag the crosshair to create a reporting object and adjust it to the size you want.
- c. Double-click the report placeholder.

The Open dialog box appears.

- d. Select the *ggsales* Master File and click *Open*.

The Report Painter opens showing the field names for the *ggsales* data source.

- e. Select *By* from the Columns toolbar and double-click the following field names: *CATEGORY*, *PCD*, *PRODUCT*, *REGION*, *ST*, *CITY*, *STCD*.
- f. Insert your cursor after the Store ID field in the Report Painter canvas and select *Sum* from the Columns toolbar.
- g. Double-click *DOLLARS* to add it to the report.

3. Create a list of parameters for the Region, ST, and City fields. These are the values you will be able to select when you run the report on the HTML page.

- a. Click the *Where/If* button from the Columns toolbar.

The Report Options dialog box opens at the Where tab.

- b. Click *Assist*.

The Expression Builder opens.

c. Create a parameter for Region.

- ☐ From the Fields list, double-click *REGION*.
- ☐ From the Logical Relations drop-down list, select *equals*.
- ☐ In the Compare Type box, select *Parameter*.
- ☐ Double-click the Compare Value box to open the Variable Editor.
- ☐ Keep the default Name as *REGION*.
- ☐ Select *Dynamic list* from the Accept List section.

GGSales is automatically selected as the Source File and *REGION* is selected as Values for Return Fields.

- ☐ Click *OK* to close the Variable Editor.

d. Create a parameter for ST from the Expression Builder.

- ☐ From the Fields list, double-click *ST*.
- ☐ From the Logical Relations drop-down list, select *equals*.
- ☐ In the Compare Type box, select *Parameter*.
- ☐ Double-click the *Compare Value* box to open the Variable Editor.
- ☐ Keep the default Name as *ST*.
- ☐ Select *Dynamic list* from the Accept List section.

GGSales is automatically selected as the Source File and *ST* is selected as Values for Return Fields.

- ☐ Click *OK* to close the Variable Editor.

e. Create a parameter for City from the Expression Builder.

- ☐ From the Fields list, double-click *CITY*.
- ☐ From the Logical Relations drop-down list, select *equals*.
- ☐ In the Compare Type box, select *Parameter*.
- ☐ Double-click the *Compare Value* box to open the Variable Editor.
- ☐ Keep the default Name as *CITY*.

- ❑ Select *Dynamic list* from the Accept List section.

GGSales is automatically selected as the Source File and *CITY* is selected as Values for Return Fields.

- ❑ Click *OK* to close the Variable Editor.

- f. Click *OK* to close the Expression Builder.
- g. Click *OK* to close the Report Options dialog box.
- h. Select *Close* from the File menu to close the Report Painter.
- i. When you are prompted to save your changes, click *Yes*.

You are returned to the HTML Composer and the New Parameters dialog box appears.

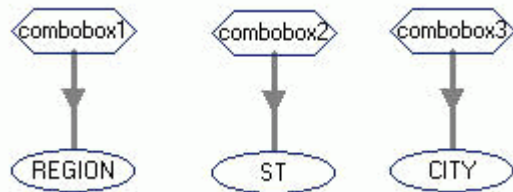
- j. Click *OK* to automatically add your parameter controls to the HTML page.

4. Chain the controls to associate dependent values.

- a. Click the *Parameters* tab.

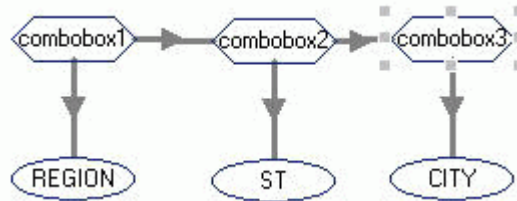
When a control is automatically added to the layout with the New Parameters dialog box, it is associated (bound) to a parameter. The control object is bound to the parameter object, which means that the control will populate the parameter.

In this example, the Region, ST, and City controls are not chained to each other and thus have no dependencies. If you run this report as is, no HTML output would appear since the controls do not know how to associate the related values.



- b. Select the center of the *REGION* control object, left-click and drag the *REGION* control to the center of *ST* control object, and release the mouse to complete the link.
- c. Select the center of the *ST* control object, click and drag the *ST* control to the center of *CITY* control object, and release the mouse to complete the link.

Now the Region, ST, and City controls are chained to each other. The Region control starts the first link in the chain, chained to the ST control. The ST control starts the second link in the chain, chained to the City control.



If you run this page, the values for the Region control populate the ST control with the associated values, and the values for the ST control populate the City control with the associated values.

REGION	STATE	CITY
Midwest	IL	Chicago

5. Create a condition for the ST control to be hidden if the Region is Southeast.

a. Click the first link in the chain.

The Properties and settings dialog box opens showing the bound control values for the Region control. Accept the default condition settings:

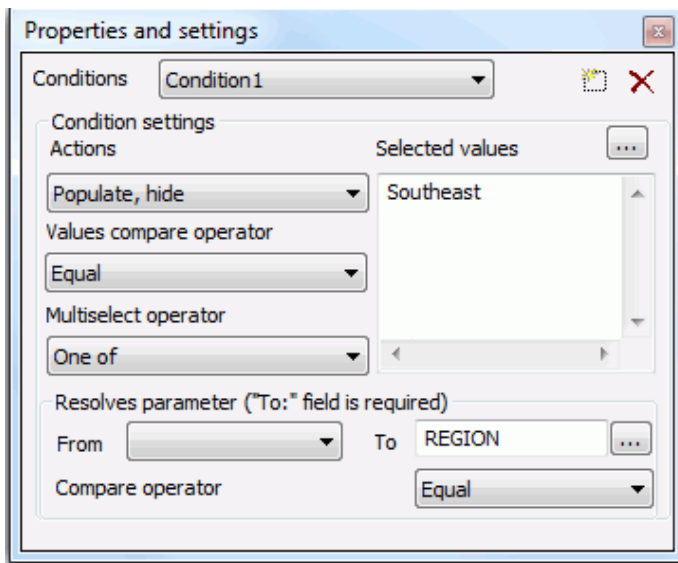
- ☐ Actions is *Populate, show*.
- ☐ The Value compare operator and Parameter's compare operator is *Equal*.
- ☐ The multiselect operator is *One of*.
- ☐ Resolves parameter is *REGION*.

b. Click the *New* icon to create multiple conditions for this chain link.

Condition1 is created and the Selected values section is activated. Set the following options to hide the ST control if Region is Southeast.

- ❑ Click the *Selected values* ellipsis button and select *Southeast* from the list of values.
Since this starts the first link in the chain, the list of Region values appear, as indicated from the Resolves parameter field for the condition.
- ❑ Select *Populate, hide* as the Action.
- ❑ Select *Equal* as the Value compare operator and Parameter's compare operator.
- ❑ Select *One of* as the multiselect operator.
- ❑ The Resolves parameter is REGION.

The following image shows the condition settings to hide the result of values (the list of State values) when Region is equal to Southeast.



6. Create a condition to populate the City control with the dependent City values, when the State control is populated with States from the Southeast Region.

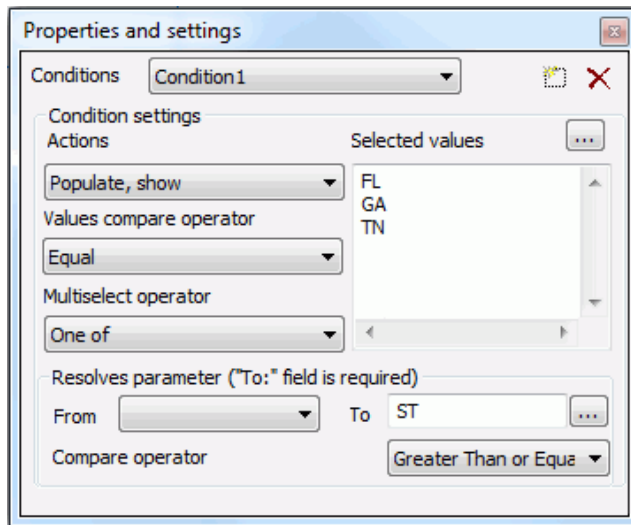
- a. Click the second link in the chain.

The Properties and settings dialog box opens showing the bound control values for the State control. Accept the default condition settings:

- ❑ Actions is *Populate, show*.
- ❑ The Value compare operator and Parameter's compare operator is *Equal*.

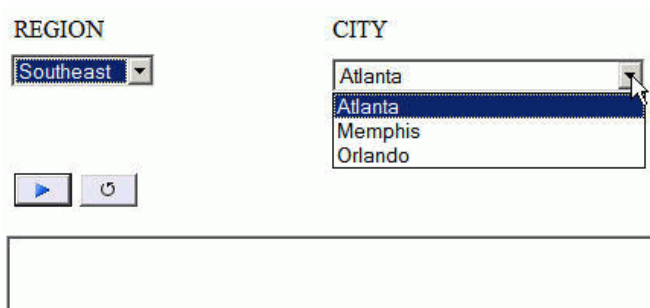
- ☐ The multiselect operator is *One of*.
 - ☐ Resolves parameter is *ST*.
- b. Click the *New* icon to create multiple conditions for this chain link.
- Condition1 is created and the *Selected values* section is activated. Set the following options to supply the City values when the States are FL, GA, TN (from the Southeast Region).
- ☐ Click the *Selected values* ellipsis button and select *FL*, *GA*, and *TN* from the list of values.
- Since this starts the second link in the chain, the list of *ST* values appear, as indicated from the *Resolves parameter* field for the condition.
- ☐ Select *Populate, show* as the Action.
 - ☐ Select *Equal* as the Value compare operator.
 - ☐ Select *One of* as the multiselect operator.
 - ☐ The *Resolves parameter* is *ST*.
 - ☐ Select *Greater Than or Equal* as the Parameter's compare operator.

The following image shows the condition settings that the dependent City values will honor when the *ST* values are FL, GA, and TN.



7. Close the Properties and settings dialog box.
8. Run the HTML page.

When Region is Southeast, the State control is hidden and the dependent City Values for Southeast are shown in the City control.



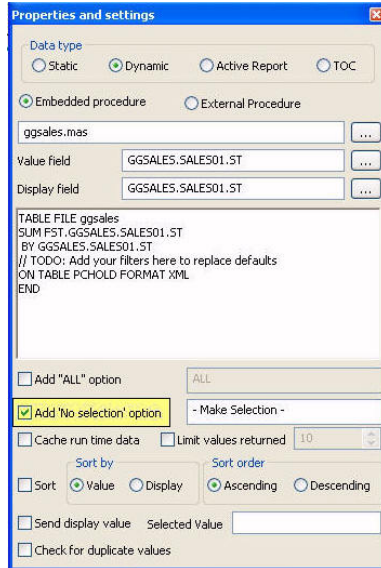
The screenshot shows a web form with two main sections. On the left, under the heading 'REGION', there is a dropdown menu with 'Southeast' selected. Below this, there are two buttons: a blue arrow button and a refresh button. On the right, under the heading 'CITY', there is a dropdown menu that is open, showing a list of cities: Atlanta, Memphis, and Orlando. A mouse cursor is pointing at the dropdown arrow. Below these controls is a large empty rectangular box.

Populating Controls One at a Time

When building complex pages, you can optimize performance by populating a chain one control at a time instead of all the controls when the page initially loads. Selecting the Add 'No selection' option enables you to populate controls when necessary.

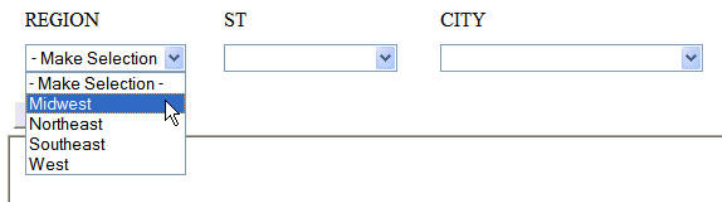
Procedure: How to Populate Controls One at a Time

1. Click the *Add 'No Selection' option* check box on the Properties and Settings dialog box for the input control, as shown in the following image. Repeat this step for other input controls in the chain as desired.



2. Click the *Run* button.

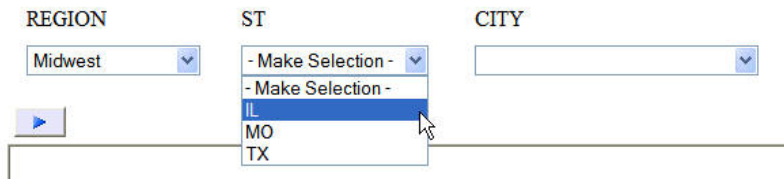
The page opens and the first control, for example Region, contains a Make Selection drop-down list. The other controls, after it, have no values.



3. Select a value from the first control drop-down list (for example, Midwest).

When you make a selection in the first control, the next control, for example, State, will populate with selection values and the next control, City, has no values.

4. Select a value from the next control drop-down list (for example, IL), as shown in the following image.



A screenshot of a web form with three dropdown menus labeled REGION, ST, and CITY. The REGION dropdown is set to 'Midwest'. The ST dropdown is open, showing a list of options: '- Make Selection -', '- Make Selection -', 'IL' (which is highlighted in blue), 'MO', and 'TX'. A mouse cursor is pointing at the 'IL' option. The CITY dropdown is currently empty. Below the dropdowns is a blue 'Run' button with a right-pointing arrow.

The next control, for example, City, will populate with selection values.

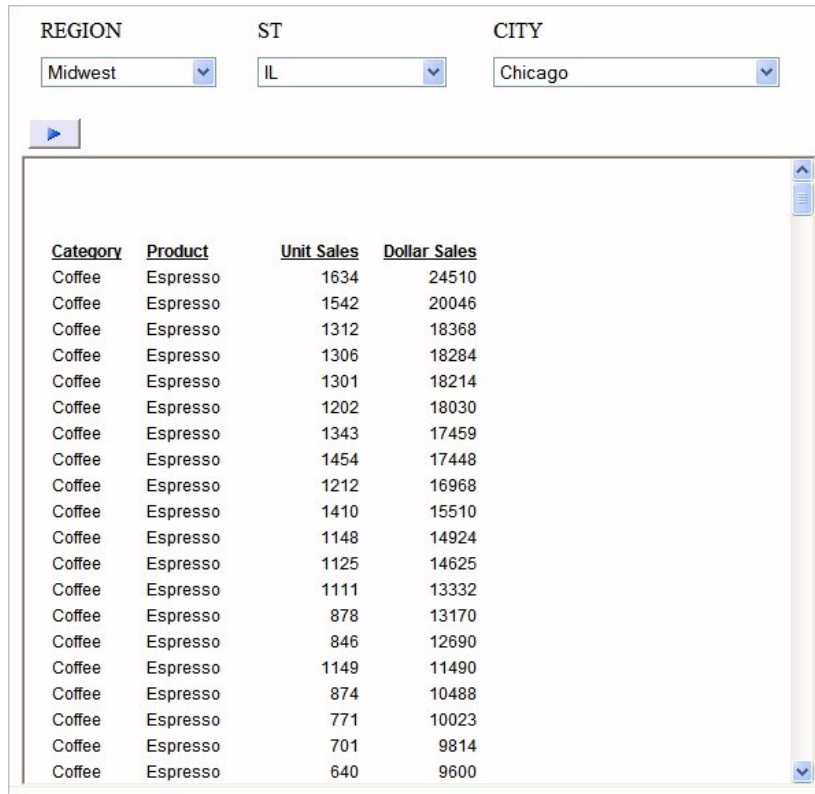
5. Select a value from the next control drop-down list (City), as shown in the following image.



A screenshot of the same web form. The REGION dropdown remains 'Midwest'. The ST dropdown is now closed and displays 'IL'. The CITY dropdown is closed and displays 'Chicago'. The blue 'Run' button is still visible at the bottom left.

6. Click the *Run* button.

The report appears, as shown in the following image.



The screenshot shows a web application interface with three dropdown menus at the top: REGION (Midwest), ST (IL), and CITY (Chicago). Below these is a blue play button icon. The main content area displays a table with the following data:

Category	Product	Unit Sales	Dollar Sales
Coffee	Espresso	1634	24510
Coffee	Espresso	1542	20046
Coffee	Espresso	1312	18368
Coffee	Espresso	1306	18284
Coffee	Espresso	1301	18214
Coffee	Espresso	1202	18030
Coffee	Espresso	1343	17459
Coffee	Espresso	1454	17448
Coffee	Espresso	1212	16968
Coffee	Espresso	1410	15510
Coffee	Espresso	1148	14924
Coffee	Espresso	1125	14625
Coffee	Espresso	1111	13332
Coffee	Espresso	878	13170
Coffee	Espresso	846	12690
Coffee	Espresso	1149	11490
Coffee	Espresso	874	10488
Coffee	Espresso	771	10023
Coffee	Espresso	701	9814
Coffee	Espresso	640	9600

Using the Chain Separator and Line Separator

The chain separator and line separator options allow for chains and parameters to be grouped or split depending on which settings are turned on. When used, the two separators do the following:

Chain separator. When *Start each chain on a new line* is on, this separator creates new chain groups on new lines. When *Start each chain on a new line* is off, this separator starts a new chain wherever it is placed in the New Parameters dialog box. The controls are positioned in one row and wrap at the end of the form.

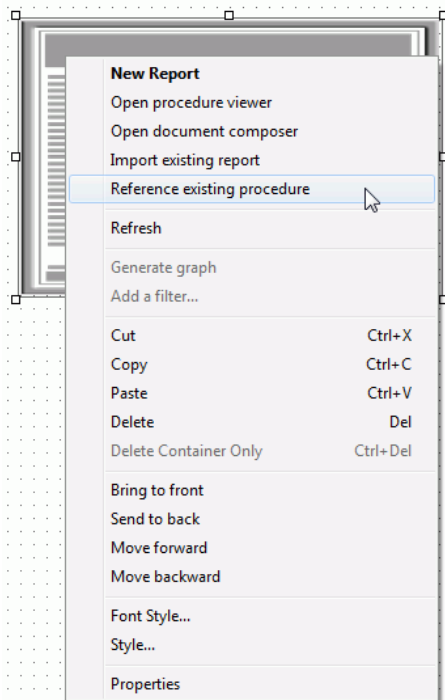
Note: *Start each chain on a new line* is turned on by default. This option can be found in the Form settings dialog box.

Line separator. This separator creates a line break wherever it is placed.

Procedure: How to Use the Chain Separator and Line Separator

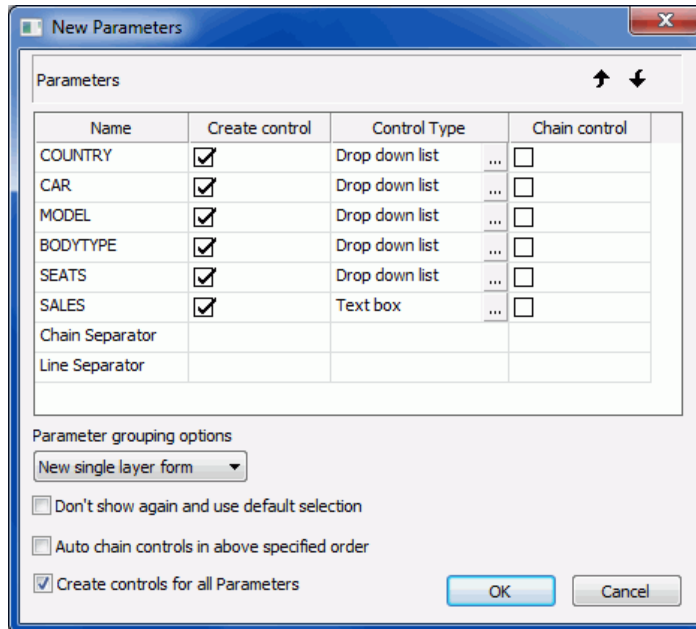
To use the chain separator and line separator:

1. Create a new procedure that uses the CAR Master File and prints COUNTRY, CAR, MODEL, BODYTYPE, SEATS, and SALES.
2. Save the procedure, naming it *separator_example.fex*.
3. Create a new HTML file.
4. Insert a new report.
5. Right-click the report and select *Reference existing procedure*, as shown in the following image.



6. Select the previously created procedure, *separator_example.fex*, and click *Open*.

The New Parameter dialog box opens, as shown in the following image.



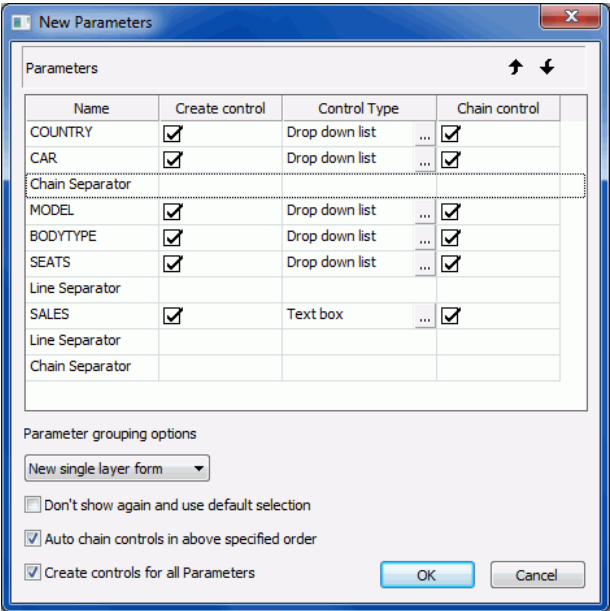
7. Check the *Auto chain controls in above specified order* option.
8. Move Line Separator above SALES.

A copy of the line separator is moved up while the original stays in the starting position. This is so you can add multiple line separators.

9. Move Chain Separator above MODEL.

A copy of the chain separator is moved up while the original stays in the starting position. This is so you can add multiple chain separators.

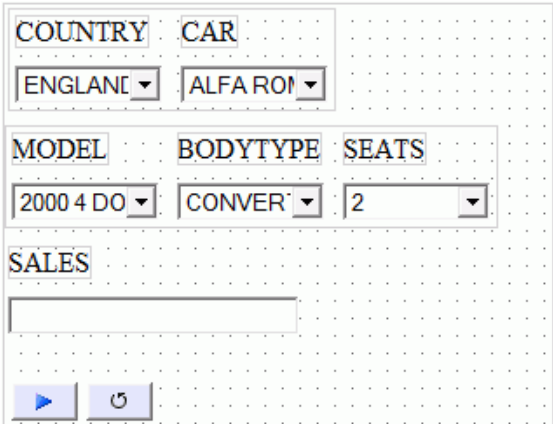
The New Parameters dialog box will look like the following image.



10. Click OK.

The report is added to the HTML page. COUNTRY and CAR are on the first line and make up one chain. MODEL, BODYTYPE, and SEATS are on the second line, while SALES is on a separate, third line. MODEL, BODYTYPE, SEATS, and SALES make up a second chain.

The parameters are shown in the following image.



Creating Active Technologies Dashboards With the HTML Composer

An active report is a report that is designed for offline analysis.

The HTML Composer has extended the functionality of active reports by providing the features to build an active dashboard. An active dashboard is an HTML form with one or more active report procedures, and controls to mimic active report menu options, to allow global modification of multiple active reports in HTML created pages.

The process of creating active dashboards in the HTML Composer consists of:

- ❑ Adding an active report to the HTML Composer.
- ❑ Binding or synchronizing other active report and active chart objects to the active report in the layout.
- ❑ Configuring active controls that mimic active report menu options at run time.
- ❑ Exporting the HTML form as a FOCUS procedure (.fex) for scheduling and distributing active dashboards.

In this chapter:

- ❑ [Binding Objects to an Active Technologies Report](#)
- ❑ [Configuring Active Technologies Controls in HTML Composer](#)
- ❑ [Refreshing Active Technologies Reports](#)
- ❑ [Exporting the Active Technologies Dashboard](#)
- ❑ [Scheduling and Distributing Active Technologies Dashboards](#)
- ❑ [Usage Notes for Active Technologies Dashboards Created With the HTML Composer](#)

Binding Objects to an Active Technologies Report

You can create multiple views of an active report by binding an active report or active chart object to an active report. Binding or synchronizing is the act of configuring an association between an active report and an active report or active chart object in the HTML Composer.

You can synchronize active report and active chart objects and show the synchronized report groups in the HTML Composer. The synchronize options are available from the Positioning toolbar in the HTML Composer.

You can only synchronize objects to one active report at a time. If you try to synchronize an object to a second active report, the first synchronization is removed.

Procedure: How to Synchronize Report and Chart Objects to Active Technologies Reports

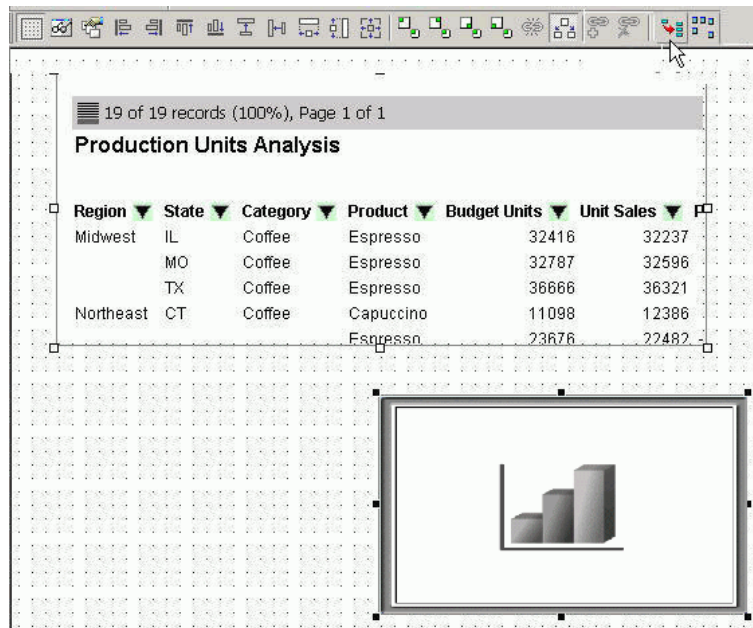
1. In the HTML Composer, you can add an active report to the layout by using any of the following methods:
 - ❑ Select *New Report* from the Insert menu.
Double-click the report object to create the active report in Report Painter.
 - ❑ Select *New Report* from the Insert menu.
Right-click the report object and select *Reference existing procedure* from the context menu to add the active report.
 - ❑ Select *Import Existing Procedure* from the Insert menu to add the active report.
2. Add an active report or active chart object to the layout.
 - ❑ Select *New Report* or *New Graph* from the Insert menu.
The cursor changes into a crosshair.
 - ❑ Click and drag the crosshair to create an active report or active chart object and adjust it to the size you want.

3. Select the objects to be synchronized.

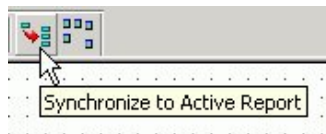
- ☐ Select the active report or active chart object as the object to be synchronized.
- ☐ While pressing and holding the Ctrl key, select the active report as the report that you want to bind to.

The synchronize buttons on the Positioning toolbar are activated.

In the example below, the active report is the binding object and the chart object is about to be synchronized to the active report.



The binding object (active report) is indicated by clear boxes around the edges. The synchronized object (active report or active chart object) is indicated by solid black boxes around the edges.

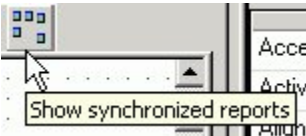
4. Click the *Synchronize to active report* button on the Positioning toolbar.

The active report or active chart object is synchronized and refreshed with data from the active report.

There is no separate procedure associated with these active report objects. If you right-click these items, there are no options to edit the procedure.

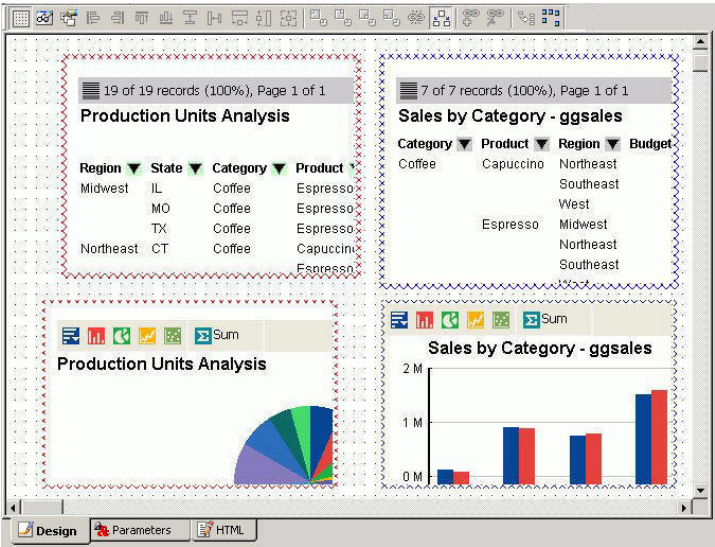
Procedure: How to Show Synchronized Active Technologies Report Groups

Select *Show synchronized reports* from the Positioning toolbar.



The synchronized groups are shown in the layout.

In the following example, there are two synchronized report groups. The Production Units Analysis graph is synchronized to the Production Units Analysis active report, and the Sales by Category graph is synchronized to the Sales by Category active report.



Procedure: How to Select Properties for Synchronized Reports

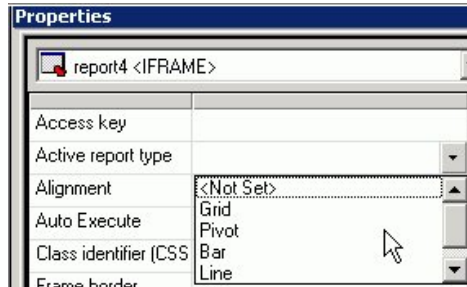
You can change the active report object properties by using the Properties tab in the Properties window.

1. Select the synchronized active report object in the layout and click the *Properties* tab.

The active report object properties appear.

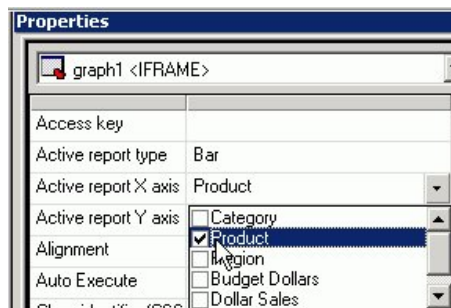
2. Select the active report type drop-down list to change the type of active report for the object.

The options are <Not Set>, *Grid*, *Pivot*, *Bar*, *Line*, *Pie*.



3. Optionally, If you select *Bar*, *Line*, or *Pie* as the active report type, additional X-axis and Y-axis selections are available for the synchronized report.

- ☐ Select the active report X axis drop-down list.
- ☐ Select the active report Y axis drop-down list.



If you change the X and Y values for a chart object, the selections are not reflected in the Design view of the HTML Composer. These values are applied at run time.

Procedure: How to Delete an Active Technologies Report Object

An active report object can only be populated if it is synchronized with an active report. To break the synchronization between an active report or active chart with an active report, delete the object.

1. Select the synchronized active report or active chart object in the layout.

2. Click *Delete* from the Edit menu.

The active report object is deleted.

Configuring Active Technologies Controls in HTML Composer

To add an active control, you need to insert a new control to the layout and configure it as an active control on the Parameters tab. Selecting active report as the control type creates an association between the HTML Composer control and an active report, thereby linking actions to directly affect bound active reports.

Only when there are active reports embedded or referenced in the HTML Composer are active controls applicable. An active control cannot be associated to any parameters in the layout. This type of control can only be associated with an active report in the Layout.

Note:

- ❑ An active report that has a password (ARPASSWORD) set for viewing restrictions is not supported in an active dashboard created with the HTML Composer.
- ❑ When creating active dashboards in the HTML Composer, the combination of using an active report with the active cache option enabled and using an active control that is a Date field (such as dates with format MDY and MDYY) results in an error. The active control date field works correctly if you deselect the active cache option in the active report.
- ❑ If a control displaying report types appears in an AHTML report in the HTML Composer, and the Pivot report type is selected at run time, the report is incorrectly reduced in size. If the user selects Pie, Chart, Line, or the default report type of Grid, the frame is not resized to the original positioning set by the user. Although scroll bars are added, output cannot be fully viewed.

Procedure: How to Add an Active Technologies Control to the Layout

Any HTML Composer control can be configured as an active control, but the following controls are the most applicable: *Check box*, *Drop down list*, *List box*, *Radio button*, and *Push button*.

Add an HTML Composer control that mimics an active report menu option:

1. Select the control type (for example, *Drop Down List* or *List Box*) from the Components or Controls sub-menu of the Insert menu.

The cursor changes into a crosshair.

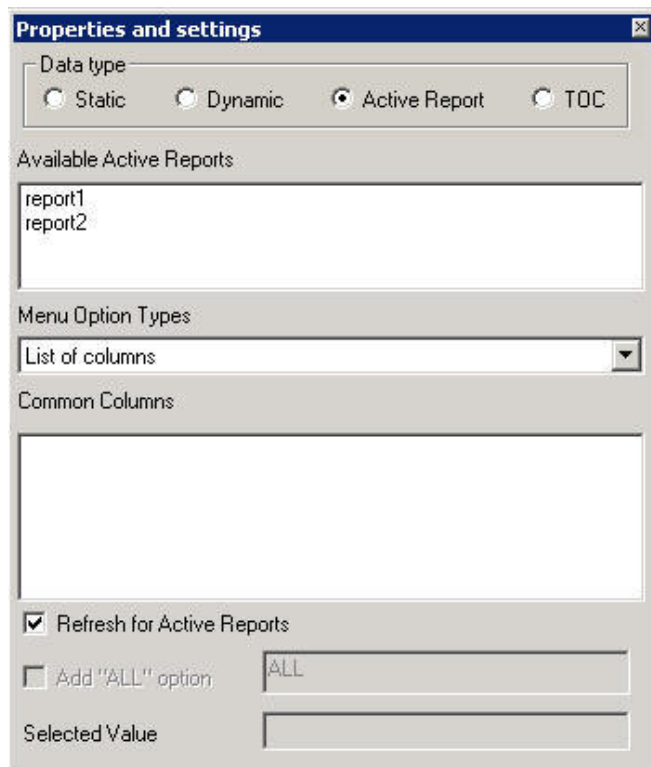
2. Click and drag the crosshair to create a control object and adjust it to the size you want.

The HTML Composer control is added as the active control. You can now configure the control by using the Parameters tab.

Reference: Properties and Settings Dialog Box (Active Technologies Reports)

The Properties and settings dialog box appears when creating or editing an active report value on the Parameters tab.

The following image is the Properties and settings dialog box with an active report Data type.



The Parameters tab contains the following fields and options when active report is selected as the Data type:

Datatype

Determines whether values are obtained from a static or dynamic list, an active report, or TOC.

Selecting active report will require you to bind the HTML Composer control to an active report.

Available active reports

The Available active reports list binds active controls to active reports in the layout. At run time, when the Refresh for active reports setting is triggered, the active reports selected in the Available active reports list are modified based on the current state of each active control it is bound to.

Available active reports lists all active reports currently embedded in the HTML Composer. No active reports are selected by default.

Menu Option Types

The Menu Option Types determine how active reports are modified when the Refresh for active reports setting is triggered. Menu Option Types configure active controls to sort columns, filter content, and change the active report presentation. Multiple active controls, each with different Menu Option Types settings, can be used in combination to modify the active dashboard.

Menu Option Types presents a list of options to designate which active report menu option an active control inherits. To set the behavior of the current active control, select only one Menu Option Types item.

If no option is selected, the active control has no effect on the active dashboard.

List of columns

At run time, the active control lists all common columns found in each bound active report. When the Refresh for active reports setting is triggered, the data is sorted by the selected column.

If using AS Names for a field in a report, all common columns must have the same name across all reports.

Column value

At run time, the active control lists all unique values found in a specified column, common in each bound active report. When the Refresh for active reports setting is triggered, the active control filters bound active reports based on the column value selected.

The Add "ALL" Option is activated when Column value is selected. This adds the option to select ALL data source values to the control.

List of filters

At run time, the active control lists multiple filtering actions. This type of control does not affect bound active reports by itself, but only when used in conjunction with active controls set to Column Value. When the Refresh for active reports setting is triggered, the active control instructs how to filter bound active reports based on the value selected in the Column Valued control.

The available list of filters is: Equals, Not equal, Greater than, Greater than or equal to, Less than, Less than or equal to, Between, Contains, Contains (match case), Omits, and Omits (match case).

Sort order

At run time, the active control lists two sorting actions, Sort Ascending and Sort Descending. When the Refresh for active reports setting is triggered, the active control sorts bound active reports based on the sorting action selected.

By default, the active control sorts the first common column in each of the bound active reports.

Report type

At run time, the active control lists different active report presentation types; *Grid*, *Pie Chat*, *Line Chart*, *Bar Chart*, and *Pivot Table*. When the Refresh for active reports setting is triggered, this active control changes bound active reports to the presentation type selected.

Common Columns

The Common Columns list only appears when the Column value Menu Option Type is selected. Common Columns lists all common columns found in each bound active report. Select one field to bind to the active control. At run time, the Column value control lists all unique values across each bound active reports Common Columns field selected.

The Common Column selection can be overridden at run time when the Column Value control is chained to the List of columns Menu Option Type.

Refresh for active reports

Enables active controls to automatically modify current views of bound active reports when you select a new value at run time.

Refresh for active reports is enabled by default when you select an Available active report from the Parameters window.

For more information about the Refresh for active reports option, see [Refreshing Active Technologies Reports](#) on page 408.

Selected Value

Enter the values to be selected as the default value whenever the procedure is run.

The Selected Value option is only available for active controls when the *Column Value* Menu Option Type is selected.

Add "ALL" Option

Adds the option to select ALL data source values to the control. Alternate text can be substituted for "ALL" using the text field to the right.

The Add "ALL" Option is available when *Column value* is selected from the Menu Option Types.

Procedure: How to Configure an Active Technologies Control

Once the active control is added to the layout, you can configure it by using the Properties and settings dialog box on the Parameters tab.

It is important to note that you can only chain *List of columns* to *List of column values*.

1. Select the active control in the layout and click the *Parameters* tab.

The Properties and settings dialog box opens.

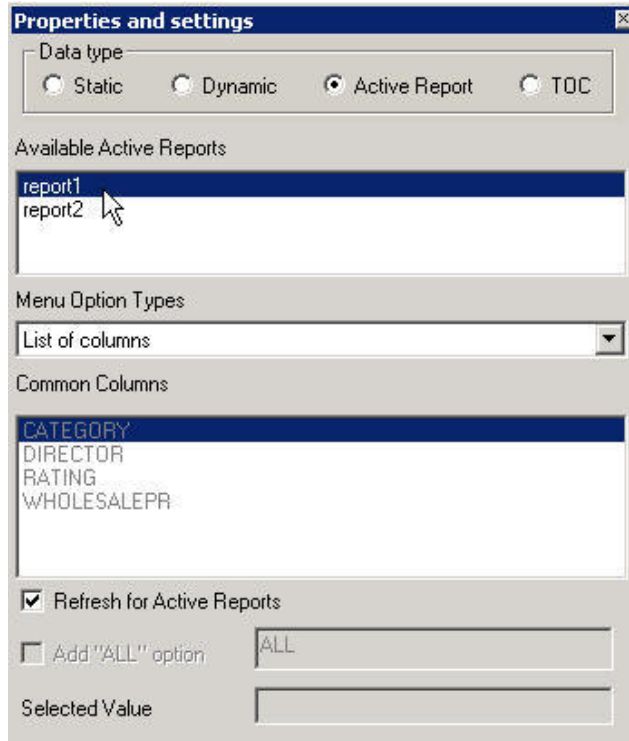
2. Select active report as the Data type.

The active report options appear.

3. Bind the active control to an Available active report in the layout:

- ☐ Select one or more active reports from the list of Available active reports.

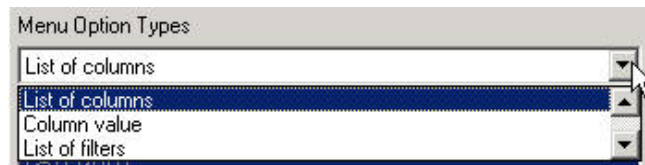
- When an active report is selected, Refresh for active reports is enabled by default.



The active reports selected in the Available active reports list are modified based on the current state of each active control it is bound to. Refresh for active reports refreshes current views of bound active reports when you select a new value at run time.

For more information about the Refresh for active reports option, see [Refreshing Active Technologies Reports](#) on page 408.

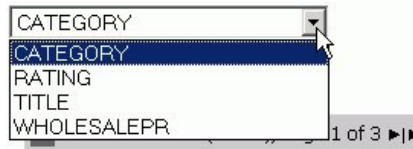
- Select the *Menu Option Types* for the active control to sort, filter, list or select columns, and/or change presentation styles of the bound active report and the associated report and graph objects synchronized to the active report.



If no option is selected, the active control has no effect on the active dashboard.

- a. Select *List of columns* from Menu Option Types to list all common columns found in each bound active report. At run time, the bound active report output is sorted by the selected column.

For example, the following active control shows a list of all the columns in the bound active report.



- b. Select *Column value* from the Menu Option Types to list all unique values found in a specified column, common in each bound active report at run time.

Note: You can only chain *List of columns* to *Column value*. You cannot chain a *Column value* to another *Column value*.

When Column value is selected, the active control panel dynamically presents Common Columns in each of the selected active reports in the Available active reports list.

Select one column from the *Common Columns* list.

Menu Option Types

Column value

Common Columns

CATEGORY

DIRECTOR

RATING

WHOLESALEPR

☒ Refresh for Active Reports

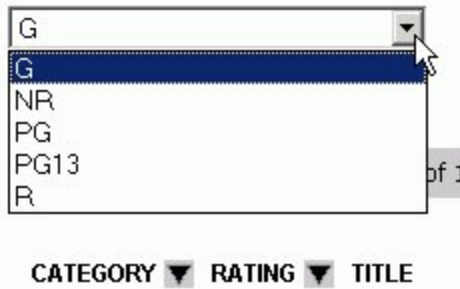
☒ Add "ALL" option

ALL

Selected Value

You can also use the *Selected Value* field to enter the values to be selected as the default value whenever the procedure is run. The *Add "ALL" option* adds the option to select ALL common column values to the control at run time.

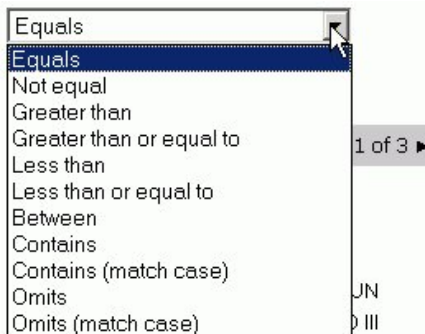
For example, the following active control shows *RATING* as the selected common column for the bound active report.



- c. Select *List of filters* from the Menu Option Types to list multiple filtering actions at run time.

List of filters is used in conjunction with the Column value. Both controls should be bound to the same active reports. The active control instructs how to filter bound active reports based on the value selected in the Column value control.

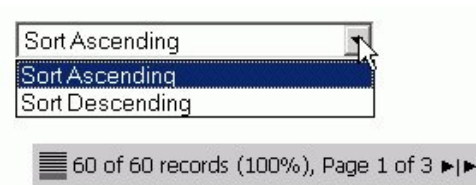
For example, the following active control shows a list of filters in the bound active report.



- d. Select *Sort order* from the Menu Option Types to list sorting options (Ascending or Descending) at run time. The active control sorts bound active reports based on the sorting action selected.

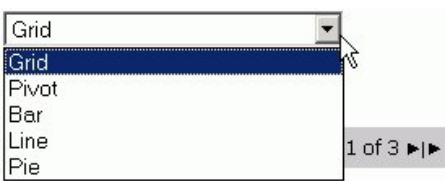
By default, the active control sorts the first common column in each of the bound active reports.

For example, the following active control shows list sort order options in the bound active report.



- e. Select *Report types* from the Menu Option Types to list different active report presentation types at run time. The active control changes bound active reports to the presentation type selected.

For example, the following active control shows report type options in the bound active report.



Refreshing Active Technologies Reports

The Refresh for active reports setting enables active controls to automatically modify current views of bound active reports when you select a new value. Each bound active report is modified not only by the new selection in the active control with the Refresh for active reports setting, but is based on the current state of all active controls in the active dashboard. This action is triggered at run time when you select a new value in an active control with Refresh for active reports set.

- ☐ Enabled (or checked) empowers the active control, only after you make a new selection, to modify bound active reports.
- ☐ Disabled (or unchecked) prevents any bound active report from being modified when you select a new value in the active control.

In order to update active reports when a value in the active control changes, you must check the Refresh for active reports check box on the active reports Properties and settings dialog box.

Refresh for active reports is selected by default.

You may want to disable the Refresh option if there are multiple active controls that require each control to be set before you refresh your output. If you are using multiple controls, you can associate the refresh option with a Push Button or Hyperlink, enabling you to refresh the output once all the controls are selected.

Procedure: How to Refresh Active Technologies Reports in the Active Technologies Control Panel

1. From the Parameters tab, select active report as the Control Value.

The active report options appear.

2. Select the Refresh for active reports check box.

When an active report is first selected, Refresh for active reports is enabled by default.

Procedure: How to Refresh Active Technologies Reports With a Push Button or Hyperlink

1. Insert a Push Button or Hyperlink to the layout:

- ☐ From the Insert menu, select *Controls*, then click *Push Button*.

- ☐ From the Insert menu, select *Components*, then click *Hyperlink*.

The cursor changes into a crosshair.

2. Click and drag the crosshair to add the Push Button or Hyperlink object to the layout and adjust it to the size you want.

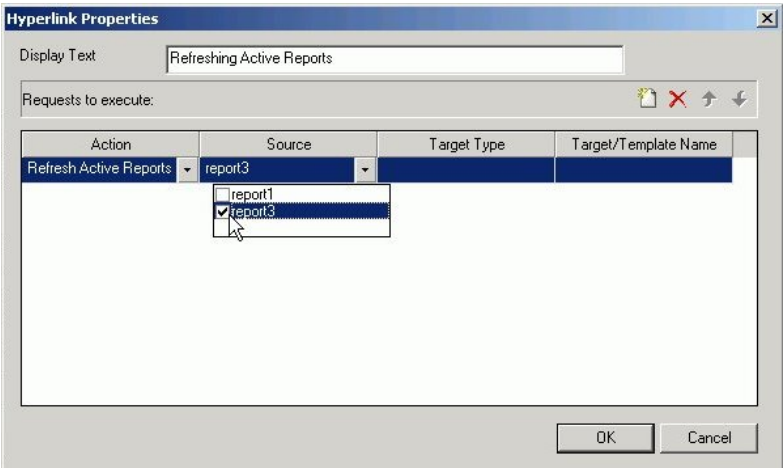
- ☐ If inserting a Push Button, right-click the push button object and select *Create hyperlink* from the context menu.

The Hyperlink Properties dialog box opens.

- ☐ If inserting a Hyperlink, the Hyperlink Properties dialog box opens.

3. Optionally, you may change the name of the Push Button or Hyperlink in the *Display Text* field.
4. From the Hyperlink Properties dialog box, select the *New* icon to add a request to execute.
5. Select *Refresh active reports* from the Action drop-down list.
6. Select the Source drop-down list to select which active reports should be refreshed.

The Source drop-down only lists the embedded or referenced active reports in the layout.



- 7. Click OK to close the Hyperlink Properties dialog box.

Exporting the Active Technologies Dashboard

A benefit of active reports is the ability to run these reports offline. You can export an HTML form as a FOCUS procedure (.fex) to provide the ability to schedule and distribute active dashboards, so these too can be run offline.

Export As Procedure converts the HTML page and embeds the code into a FOCUS procedure. The layout is no longer a webpage or HTML file, but a FOCUS procedure with embedded HTML code. The procedure (.fex) is added to the Procedures folder (in your local projects) or in your Standard Reports group folder (Managed Reporting environment).

Once the HTML form is saved as a procedure, it cannot be converted back to the HTML Composer.

The Export as procedure is recommended for saving active dashboards only, as many layout controls and report formats are not supported.

Procedure: How to Use Export as Procedure

Once the HTML form is exported as a procedure, it cannot be converted back to the HTML Composer.

- 1. After creating an active dashboard in the HTML Composer, select *Export as procedure* from the File menu.

The New Procedure File dialog box opens.

2. Type a File name and click *Create*.

If the layout contains any parameter controls other than an active control, the Export as procedure option is unavailable.

Reference: Conversions of Export as Procedure

Export As Procedure converts the HTML page and embeds the code into a FOCUS procedure. The layout is no longer a webpage or HTML file, but a FOCUS procedure with embedded HTML code. This conversion requires conversion of each object on the HTML page.

The purpose of creating a procedure from an HTML form is to provide the ability to run these forms offline. Because you may not be connected to a WebFOCUS environment, the new procedure removes all referenced objects and adds them to the procedure. Layouts with controls that require multiple requests to the server are not supported.

The following conversions occur when exporting as a procedure:

- ❑ Referenced procedures get read from and written to, or embedded in, the saved procedure.
- ❑ The display format of FLEX and APDF reports and chart objects is converted to HTML format. For example, if the layout has embedded or referenced Excel, PowerPoint, or PDF documents, these are converted to HTML-formatted output.

The active reports (AHTML) format is preserved.

- ❑ A reference to an image file is removed, and the image is embedded in the procedure as inline HTML code.

This code can become very long and it is recommended that only small images be used in layouts that will be exported as procedures.

Reference: Limitations of Export as Procedure

Note the following limitations when applying the Export As Procedure in the HTML Composer:

- ❑ If using Static and Dynamic Parameter controls, the Export as Procedure menu item is disabled for any layouts with static or dynamic parameter controls. Any scheduled report supports only one request to the server at run time. These types of controls require multiple requests to the server, and cannot be supported offline.
- ❑ If exporting a procedure with background images, background images are not embedded into the procedure due to size. The procedure keeps the reference. In offline mode, if this reference cannot be resolved, no image is displayed.
- ❑ If exporting a procedure and using Cascading Style Sheets, the referenced StyleSheets are not embedded into the procedure and the procedure keeps the reference. In offline mode, if this reference cannot be resolved, no style from the CSS file is applied.

Scheduling and Distributing Active Technologies Dashboards

If an HTML form has been exported as a procedure (.fex), it is now available to be scheduled with ReportCaster.

Usage Notes for Active Technologies Dashboards Created With the HTML Composer

The following apply when you create an active dashboard with the HTML Composer.

- ❑ The HTML Composer enables you to graphically create and run an HTML page that incorporates reports, charts, forms, and web objects. Certain processing occurs when the HTML Composer generates an active report or chart (format AHTML). An HTML Composer request is executed after the HTML file is loaded into the browser. The active report or chart is returned to the browser from the server and the result is appended to the HTML. The key operations are retrieving the active report or chart content from the server and merging the content with the HTML page.

The HTML Composer displays a progress message that informs you of the processing that is taking place.

- ❑ At run time, an active chart embedded in a frame on an active dashboard uses the frame size specified in the HTML Composer layout when one of the following settings is in effect: ARGRAPHENGINE=FUSION, ARGRAPHENGINE=JSFUSION, or ARGRAPHENGINE=JSCHART. With the default setting, ARGRAPHENGINE=DEFAULT, the active chart does not adjust to the frame size specified.

Report Library Integration in the HTML Composer

When you create a schedule in ReportCaster, you have the option to distribute the scheduled output to the ReportCaster Report Library, a storage and retrieval facility. The HTML Composer enables you to integrate Report Library reports into an HTML Composer page, utilizing the ReportCaster API to obtain records for reports in the Report Library.

Note: The Report Library options only appear when accessing the HTML Composer from the Managed Reporting environment, as ReportCaster must be installed in the active WebFOCUS environment.

For more information about using the Report Library in ReportCaster, see the *ReportCaster* manual.

In this chapter:

- ❑ [Integrating the Report Library](#)

Integrating the Report Library

The main steps for integrating the Report Library are:

1. Logging into the Managed Reporting environment and accessing the HTML Composer.
2. Creating an HTML page with a report or graph object.
3. Creating an input control that contains a static or dynamic list of Report Library values.

The following input controls provide additional options to display the content list from Report Library: Drop Down List, List Box, Check Box, Radio Button, and Tree Control.

4. Inserting a hyperlink, image, button, or frame and setting the properties to activate the Report Library retrieval for the input control.
5. Running the HTML page to view the Report Library values from the input control.
6. Additionally, you may retrieve a report from the Report Library that contains a Table of Contents and On Demand Paging by inserting an additional input control for the Table of Contents on the HTML page.

Procedure: How to Create a Static List of Values From Report Library

The Report Library includes secure access to library content and the ability to save multiple versions of the same output. When integrating Report Library in the HTML Composer, you may create a static list of values from Report Library (including all versions of that report that are currently in the library).

1. Access the Standard Reports folder of your Managed Reporting environment and create a new HTML file.
2. From the HTML Composer, select *New Report*, or *New Graph*, from the Insert menu.

The cursor changes into a crosshair.

3. Click and drag the crosshair to create a report or graph object and adjust it to the size you want.

A report or graph object is created in the layout and assigned the name `report(n)`, or `graph(n)`, where *n* is a number.

4. Create an input control to supply the Report Library content. For example, insert a Drop Down List, List Box, Check Box, Radio Button, or Tree Control from the Controls sub-menu of the Insert menu and create the input control, adjusting it to the size you want.

Note: Only the input controls mentioned above provide options to display the content list from Report Library.

The input control object is created in the layout and assigned the name `object(n)`, where *n* is a number. For example, `combobox(n)`, `listbox(n)`, `checkbox(n)`, `radio(n)`, `treecontrol(n)`.

5. Click the *Parameters* tab.

The Properties and settings dialog box appears for the control.

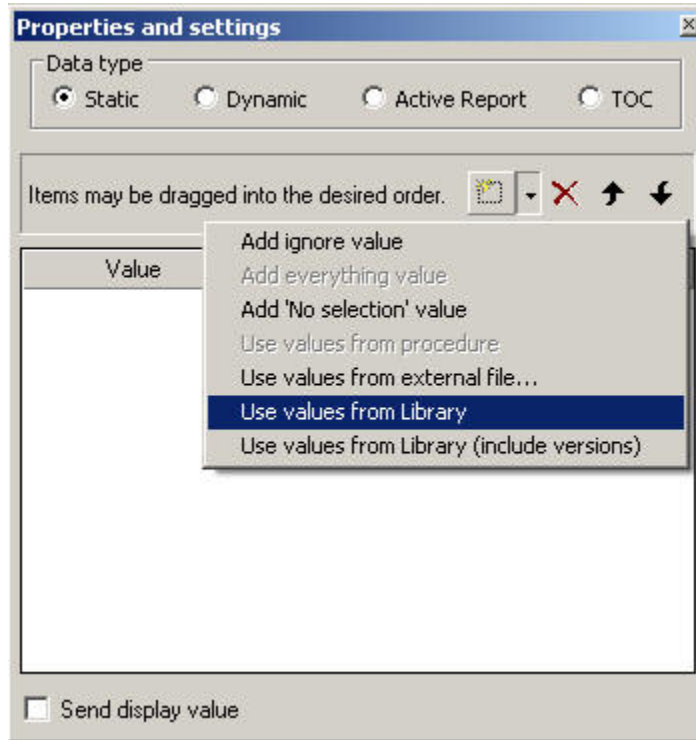
6. Select *Static* as the Data type.

Static is selected by default.

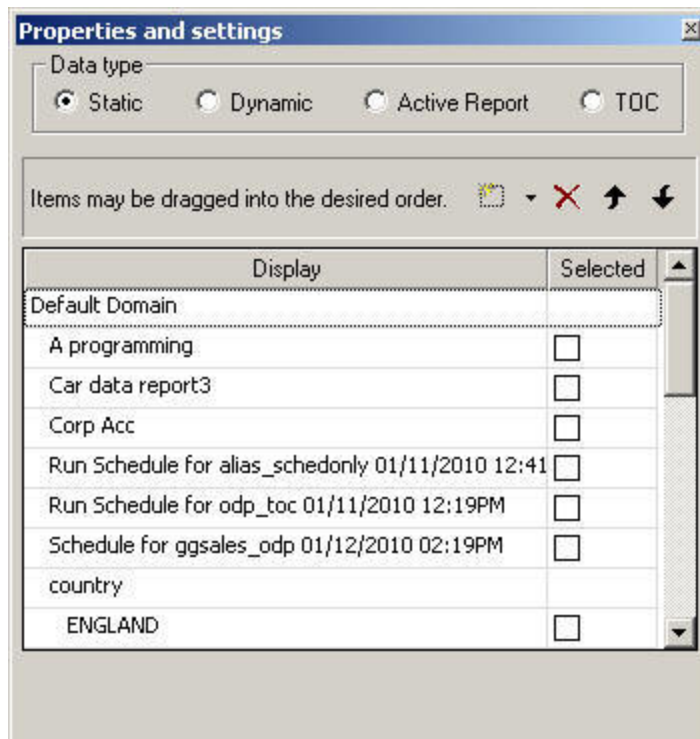
7. Create the Report Library values for the control.

You may create a static list of values from Report Library (including all versions of that report that are currently in the library).

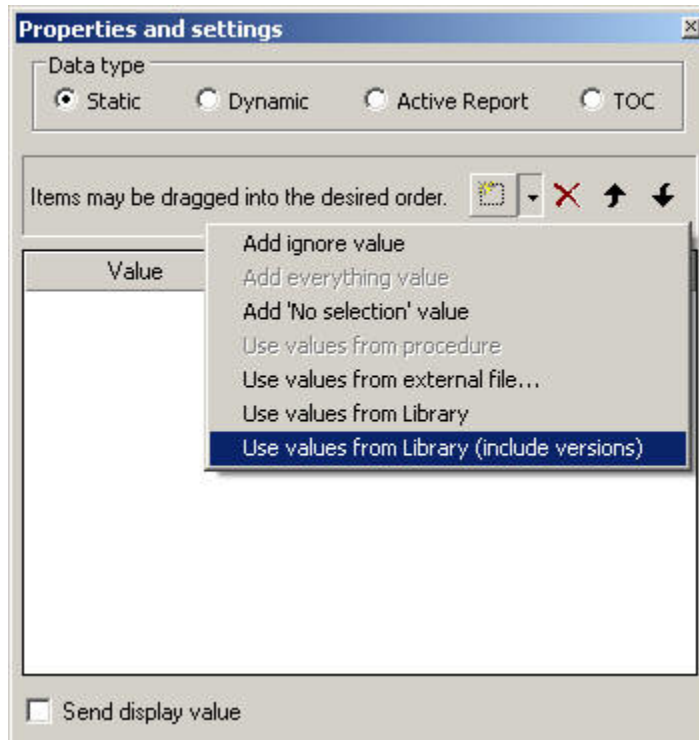
- a. Select *Use values from Library* from the Static values drop-down list.



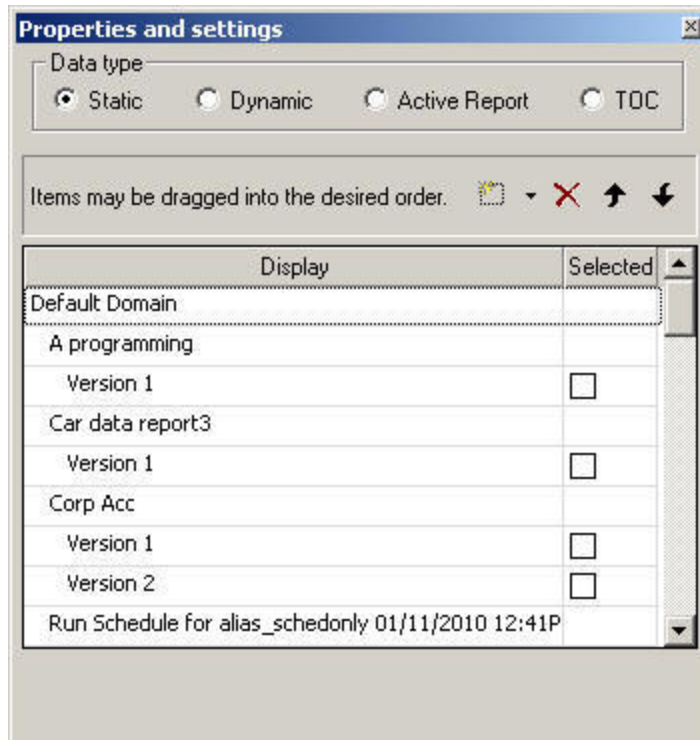
The Report Library content is retrieved in the Display column of the Properties and settings dialog box, as shown in the following image.



- b. Select *Use values from Library (include versions)* from the Static values drop-down list.

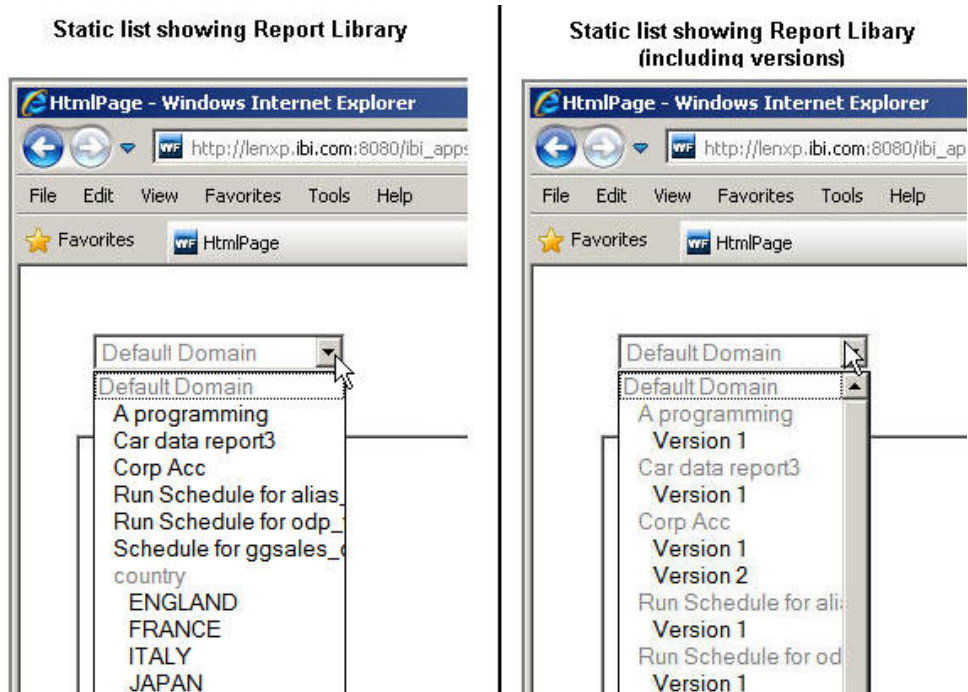


The Report Library content is retrieved in the Display column of the Properties and settings dialog box, as shown in the following image.



8. Optionally, you may select values and click the *Delete* button to eliminate any values, and use the up and down arrows to rearrange the order of the values.
9. Optionally, use the *Selected* column to check the box for the value you want to be selected by default. More than one value can be selected.
10. Close the Properties and settings dialog box.

Running the HTML page shows the input control with the Report Library static list, as shown in the following image.



11. Click the *Design* tab of the HTML Composer and insert a hyperlink. The hyperlink obtains the report/graph when selecting a Report Library value from the input control.

This step requires that you create hyperlink properties. You can create hyperlink properties by inserting an image, hyperlink, button, or frame.

12. From the Hyperlink Properties dialog box, select the Action, Source, and Target/Template Name:

- ☐ Select *Library* from the Action drop-down list.

Library only appears if a static or dynamic list of values was created for Report Library on the Parameters tab.

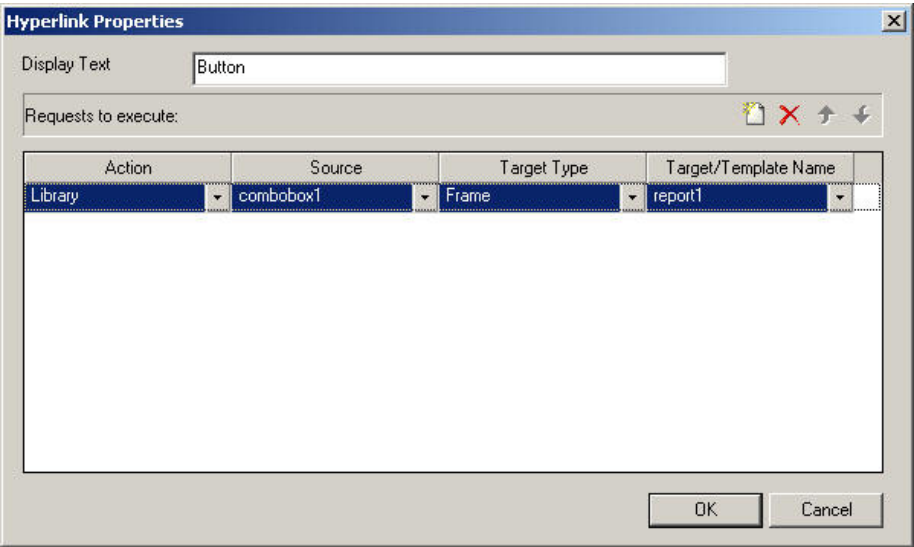
- ☐ Select the *Source* drop-down list to select the input control as the source of your Report Library content. The selected input control will be populated by the Report Library data.
- ☐ Select the *Target Type* as Frame or Window for the hyperlink output. Frame is the default selection.

The Target Type option does not appear on the Hyperlink Properties dialog box if you are inserting a frame as the hyperlink. Frame is the default target for a frame object.

- ❑ Select the *Target/Template* drop-down list to select the report object for the Report Library results.

The Target/Template option does not appear on the Hyperlink Properties dialog box if inserting a frame as the hyperlink. Clicking the input control automatically populates the report at run time.

The following image shows the Hyperlink Properties dialog for a button that retrieves content from the Library and displays that content in the report1 object when clicking a value from the drop-down list.



- ❑ Click *OK* to close the Hyperlink Properties dialog box.

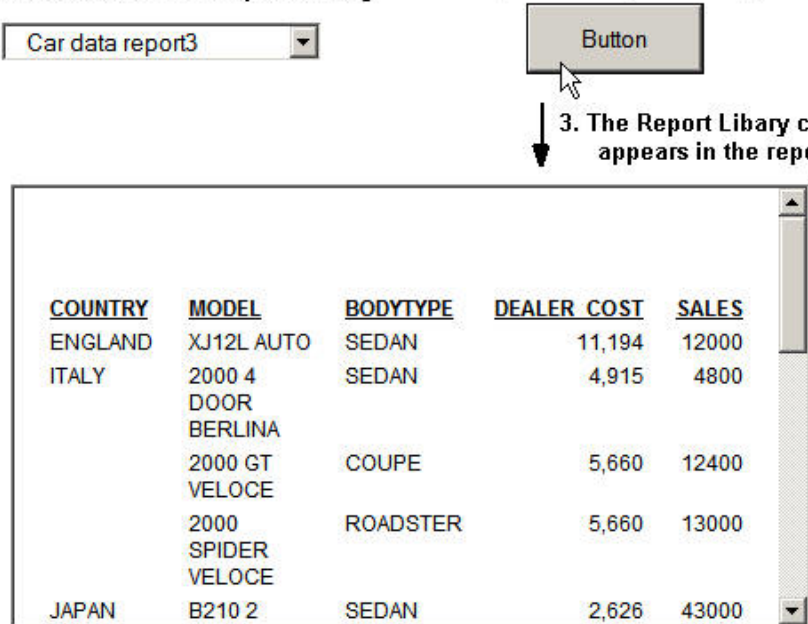
13. Save and run the HTML page.

14. Select a value from the Report Library and click the hyperlink to run the report. The following example shows a drop down list input control with a static list from Report Library. Clicking the hyperlink button runs the report with the selected Report Library content.

1. Select a value from Report Library.

2. Click the hyperlink button to run the report with Report Library content.

3. The Report Library content appears in the report.



<u>COUNTRY</u>	<u>MODEL</u>	<u>BODYTYPE</u>	<u>DEALER COST</u>	<u>SALES</u>
ENGLAND	XJ12L AUTO	SEDAN	11,194	12000
ITALY	2000 4 DOOR BERLINA	SEDAN	4,915	4800
	2000 GT VELOCE	COUPE	5,660	12400
	2000 SPIDER VELOCE	ROADSTER	5,660	13000
JAPAN	B210 2	SEDAN	2,626	43000

Procedure: How to Create a Dynamic List of Values From Report Library

Creating a dynamic list of values uses the default Custom library JSP from WebFOCUS to load the Report Library content.

1. From the HTML Composer, select *New Report*, or *New Graph*, from the Insert menu.

The cursor changes into a crosshair.

2. Click and drag the crosshair to create a report or graph object and adjust it to the size you want.

A report or graph object is created in the layout and assigned the name *report(n)*, or *graph(n)*, where *n* is a number.

3. Create an input control to supply the Report Library content. For example, insert a Drop Down List, List Box, Check Box, Radio Button, or Tree Control from the Controls sub-menu of the Insert menu and create the input control, adjusting it to the size you want.

Note: Only the input controls mentioned above provide options to display the content list from Report Library.

The input control object is created in the layout and assigned the name object(*n*), where *n* is a number. For example, combobox(*n*), listbox(*n*), checkbox(*n*), radio(*n*), treecontrol(*n*).

4. Click the *Parameters* tab.

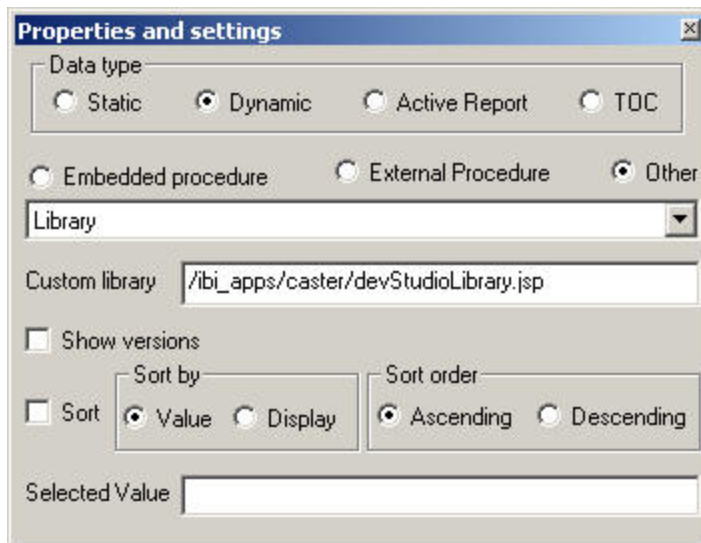
The Properties and settings dialog box appears for the control.

5. Select *Dynamic* as the Data type.

The dynamic value options appear.

6. Select *Other* to create the Report Library values for the control.

The following image shows the dynamic library options on the Properties and settings dialog box.



- ❑ Library appears indicating that the HTML Composer will gather data from the Report Library.
- ❑ The Custom library field specifies the JSP to call to get the Report Library content. The default is the JSP delivered with WebFOCUS. If the Custom library location is changed from the default for one control, other controls will not inherit that change.

- ❑ Optionally, select *Show versions* to have the Report Library content show multiple versions of the reports, if multiple versions exist. This option is off by default, indicating that only the last version of the report in Report Library will be retrieved.
- ❑ Optionally, click the *Sort* option to enable and select the sort order options for displaying values in dynamic list control.

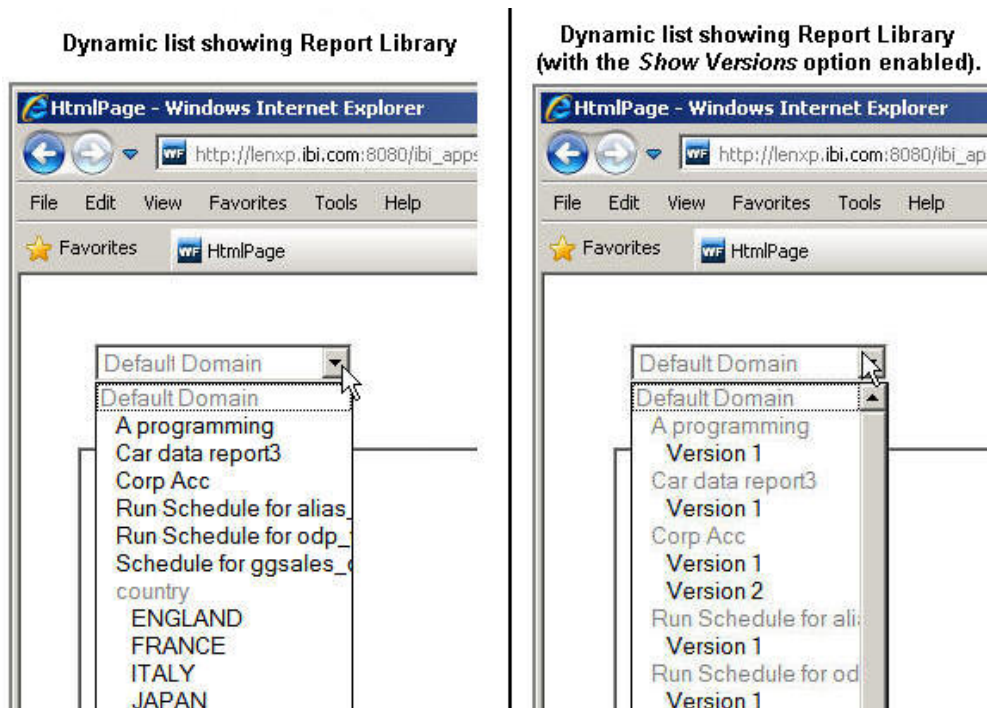
When Sort is enabled, you may select the Sort by and Sort order options for the control.

- ❑ Optionally, enter the exact value in the *Selected Value* input field, as it appears in the Report Library, if a value should be selected by default.

Note: Values are case-sensitive.

7. Close the Properties and settings dialog box to create the control with dynamic values.

Running the HTML page shows the input control with the Report Library dynamic list, as shown in the following example.



8. Click the *Design* tab of the HTML Composer and insert a hyperlink. The hyperlink obtains the report/graph when selecting a Report Library value from the input control.

This step requires that you create hyperlink properties. You can create hyperlink properties by inserting an image, hyperlink, button, or frame.

9. From the Hyperlink Properties dialog box, select the Action, Source, and Target/Template Name:

- ☐ Select *Library* from the Action drop-down list.

Library only appears if a static or dynamic list of values was created for Report Library on the Parameters tab.

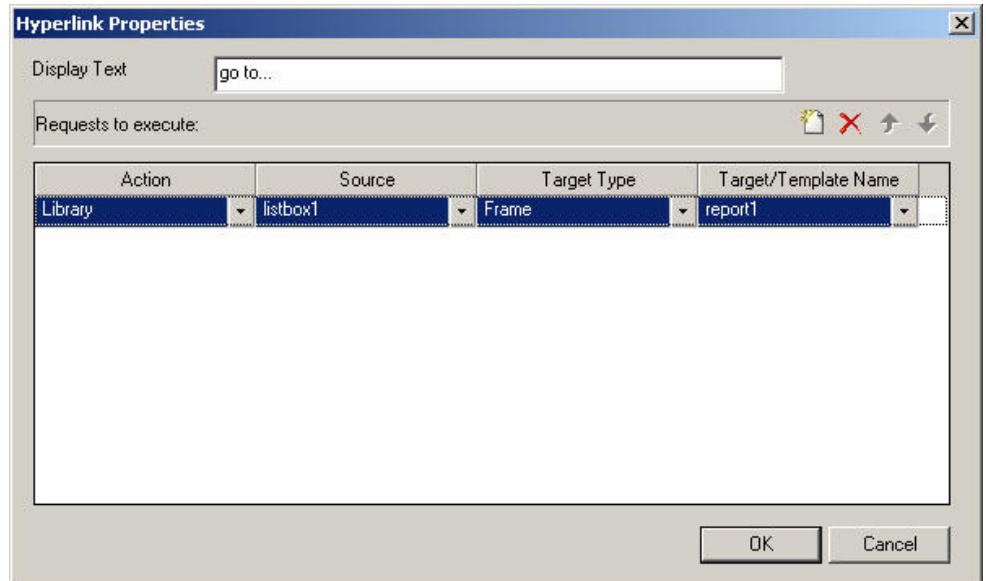
- ☐ Select the *Source* drop-down list to select the input control as the source of your Report Library content. The selected input control will be populated by the Report Library data.
- ☐ Select the *Target Type* as Frame or Window for the hyperlink output. Frame is the default selection.

The Target Type option does not appear on the Hyperlink Properties dialog box if you are inserting a frame as the hyperlink. Frame is the default target for a frame object.

- ☐ Select the *Target/Template* drop-down list to select the report object for the Report Library results.

The Target/Template option does not appear on the Hyperlink Properties dialog box if you are inserting a frame as the hyperlink. Clicking the input control automatically populates the report at run time.

The following image shows the Hyperlink Properties dialog box for a hyperlink that retrieves content from the Library and displays that content in the report1 object when clicking a value from the list box.

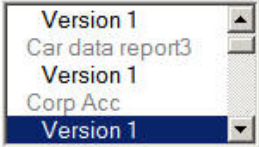


- ❑ Click OK to close the Hyperlink Properties dialog box.

10. Save and run the HTML page.

11. Select a value from the Report Library and click the hyperlink to run the report. The following example shows a list box input control with a dynamic list from Report Library (showing versions). Clicking the hyperlink runs the report with the selected Report Library content.

1. Select a value from Report Library.



2. Click the hyperlink to run the report with Report Library content.

[go to...](#)



3. The Report Library content appears in the report.



<u>DIV</u>	<u>DEPT</u>	<u>LASTNAME</u>	<u>FIRSTNAME</u>	<u>HIREDATE</u>
CORP	ACCOUNTING	SANCHEZ	EVELYN	90/03/05
		ANDERSON	TIM	90/05/14
		SOPENA	BEN	89/05/10
		WANG	JOHN	91/05/08
		LOPEZ	ANNE	90/11/07

Integrating a Report With a Table of Contents and On Demand Paging

When creating a report in Report Painter with the HTML output format, the Table of Contents options are enabled for a report when using the On Demand Paging feature. The combination of using the Table of Contents with On Demand Paging displays at run time when the report is used in the HTML Composer.

Running a report with a Table of Contents and On Demand Paging outside of the HTML Composer shows only On Demand Paging.

Integrating a report with a Table of Contents and On Demand Paging in the HTML Composer requires that you create an input control as a placeholder for the Table of Contents at run time. Selecting the TOC option for the input control on the Properties and settings dialog box enables the Table of Contents to appear on the HTML page. This permits both the Table of Contents and On Demand Paging features to display at run time. When these specific reports are retrieved, the Table of Contents is extracted from the report and displayed separately (from the report) on the HTML Composer page, but still maintains its ability to interact with the report.

When importing or referencing a report using On Demand Paging, the full navigational toolbar may not be viewable in the report output. You must resize the report frame in the HTML Composer Design View to display the full On Demand Paging navigational bar and view the toolbar correctly at run time.

Integrating a report with a Table of Contents and On Demand Paging in the HTML Composer is limited to the following input controls: Drop Down List, List Box, Check Box, Radio Button, and Tree Control.

Procedure: How to Show a Table of Contents for an On Demand Paging Report in the HTML Composer

If you are using a report with a Table of Contents and On Demand Paging in the HTML Composer, this procedure describes how to create an additional input control for retrieving the Table of Contents.

1. Access the Standard Reports folder of your Managed Reporting environment and create a new HTML file.

The TOC option also appears when accessing the HTML Composer from the Data Servers and Projects on localhost areas of Developer Studio.

2. From the HTML Composer, select *New Report* from the Insert menu.

The cursor changes into a crosshair.

3. Click and drag the crosshair to create a report object and adjust it to the size you want.

A report object is created in the layout and assigned the name `report(n)`, where *n* is a number. This object may be populated with a report from Report Library, or a procedure (containing a Table of Contents and On Demand Paging) can be opened, imported, or referenced.

4. Create an input control as a placeholder for the Table of Contents from the report. For example, insert a List Box from the Controls sub-menu of the Insert menu and adjust it to the size you want.

Integrating a report with a Table of Contents and On Demand Paging in the HTML Composer is limited to the following input controls: Drop Down List, List Box, Check Box, Radio Button, and Tree Control.

The input control object is created in the layout.

Tip: If you are creating an input control for static or dynamic list values from a Report Library, the Table of Contents input control should be a separate, additional control on the HTML page.

5. Click the *Parameters* tab.

The Properties and settings dialog box appears for the control.

6. Select TOC as the Data type.

The available TOC objects appear in the drop-down list.

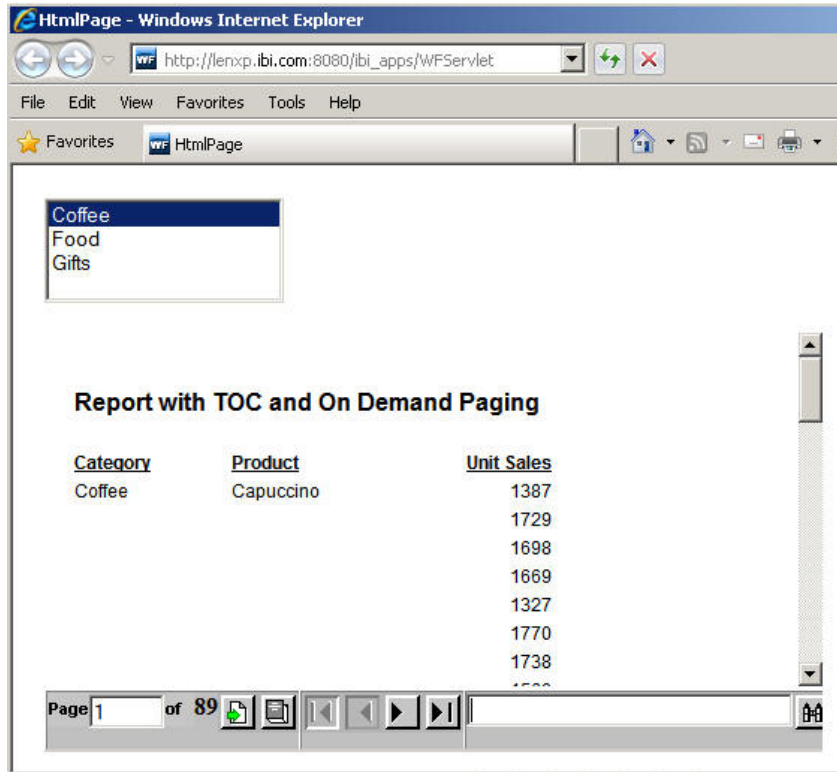


7. Select the report name from the Available TOC objects drop-down list.

This option must be enabled for a report that contains a Table of Contents, as it ensures the HTML page displays both the Table of Contents and On Demand Paging features at run time.

8. Close the Properties and settings dialog box and run the HTML page.

The Table of Contents and On Demand Paging appear at run time, as shown in the following image. The Table of Contents from the report appears in the list box placeholder, and the On Demand Paging feature appears within the report.



9. Both the Table of Contents and On Demand Paging features are available on the HTML page:
 - ☐ The Table of Contents is extracted from the report and displayed separately in the input control on the HTML Composer page, but still maintains its ability to interact with the report.

- ❑ The On Demand Paging options are available from the report frame on the HTML page.

The screenshot shows a web browser window with a 'Favorites' bar and a 'WF HtmlPage' tab. On the left, a 'Table of Contents' (TOC) menu is visible with options: Coffee, Food (selected), and Gifts. An arrow points from the text 'Click items from Table of Contents to refresh the report.' to the 'Food' option. The main content area displays a report titled 'Report with TOC and On Demand Paging'. The report contains a table with three columns: 'Category', 'Product', and 'Unit Sales'. The data shown is for 'Coffee' and 'Latte', with 'Unit Sales' values ranging from 186 to 268. An arrow points from the text 'On Demand Paging appears within the report.' to the 'Unit Sales' column. At the bottom, a pagination bar shows 'Page 30 of 89' and various navigation icons.

Click items from Table of Contents to refresh the report.

Report with TOC and On Demand Paging

<u>Category</u>	<u>Product</u>	<u>Unit Sales</u>
Coffee	Latte	268
		218
		206
		222
		242
		265
		186
		222

On Demand Paging appears within the report.

Page 30 of 89

Creating a Rich Internet Application (RIA) With the HTML Composer

A Rich Internet Application (RIA) enables you to create an interactive webpage experience inside a browser. Using RIA, you can generate the exact look and feel of a Windows-based graphical user interface in your web applications. RIAs provide rich and powerful graphics and themes. You may set a RIA theme and animation properties for objects in the Design tab of HTML Composer. Additionally, you may convert an existing page to a RIA or create a new page as a RIA.

In this chapter:

- ❑ [RIA Overview](#)
- ❑ [Creating a RIA With the HTML Composer](#)
- ❑ [Usage Notes and RIA Example](#)

RIA Overview

The process of creating a RIA with the HTML Composer consists of:

- ❑ Enabling a RIA theme from the document properties of the HTML page.

Note: When RIA is enabled, the RIA Components toolbar is added to the HTML Composer. The Window and Accordion Control options are available from the RIA Components toolbar. These components are additional controls that are available only when a RIA theme is enabled. The traditional controls, buttons, tabs, and so on, all inherit a RIA look and feel when a RIA theme is applied.

- ❑ A RIA Window component enables you to create movable and resizable windows on your HTML page that function as a container for other objects.
- ❑ A RIA Accordion Control component enables you to create multiple pages within the control that you can scroll through, each containing objects.
- ❑ Setting the animation properties for the objects on the HTML page.

Note: An HTML page created with templates cannot use a RIA theme.

Creating a RIA With the HTML Composer

You may apply a RIA theme to an existing page in the HTML Composer. You may also change RIA themes for a page. RIA themes are only available for pages created without using a template.

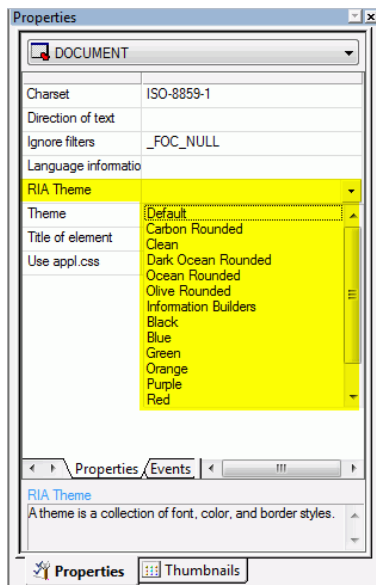
Note: Applying a RIA theme to an existing page overwrites your current HTML page. You should make a copy of your original HTML file if you do not wish to overwrite it.

Procedure: How to Apply a RIA Theme

By applying a RIA theme to an existing non-RIA page, you convert the HTML page to a RIA.

Tip: This procedure also applies to changing between RIA themes on a page.

1. Open an existing HTML file in the HTML Composer.
2. Select *DOCUMENT* from the Properties window drop-down list.
The available properties for the document object appear.
3. Select a theme from the *RIA Theme* drop-down list.



The RIA theme is applied to all components on the page. You may need to resize some of your components.

4. Save and run the HTML page to see the RIA.

Note: You cannot revert your page back from RIA. Create a copy of your HTML page if you do not wish to overwrite it, or close the page without saving.

The following image shows a RIA theme that was applied to an existing page.

The screenshot shows a web application interface. At the top, there is a filter form with three dropdown menus labeled 'REGION', 'ST', and 'CITY'. The 'REGION' dropdown is set to 'Midwest', 'ST' is set to 'IL', and 'CITY' is set to 'Chicago'. Below the dropdowns are two buttons: a blue play button and a refresh button. Below the filter form is a large table displaying data. The table has eight columns: 'Category', 'Product ID', 'Product', 'Region', 'State', 'City', 'Store ID', and 'Dollar Sales'. The data is organized into three groups: Coffee, Food, and Gifts. Each group contains multiple rows of product information.

Category	Product ID	Product	Region	State	City	Store ID	Dollar Sales
Coffee	C141	Espresso	Midwest	IL	Chicago	R1020	420439
	C142	Latte	Midwest	IL	Chicago	R1020	978340
Food	F101	Scone	Midwest	IL	Chicago	R1020	595069
	F102	Biscotti	Midwest	IL	Chicago	R1020	378412
	F103	Croissant	Midwest	IL	Chicago	R1020	549366
Gifts	G100	Mug	Midwest	IL	Chicago	R1020	376754
	G104	Thermos	Midwest	IL	Chicago	R1020	187901
	G110	Coffee Grinder	Midwest	IL	Chicago	R1020	233292
	G121	Coffee Pot	Midwest	IL	Chicago	R1020	204828

Optionally, you may want to animate objects and add RIA components (windows/accordion controls) to the existing page to further graphically enhance your page. See [How to Create a RIA Page](#) on page 433 for details.

Procedure: How to Create a RIA Page

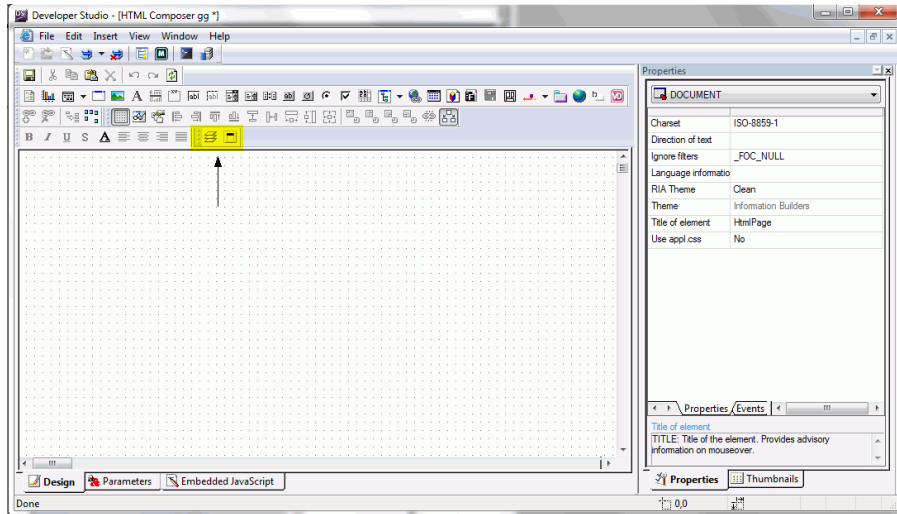
This procedure describes how to create a RIA page, add RIA components, and animate objects on the page.

1. Create a new HTML file with the HTML Composer.
2. Select *DOCUMENT* from the Properties window drop-down list.

The available properties for the document appear.

3. Select a theme from the *RIA Theme* drop-down list.

The RIA Components toolbar is added to the HTML Composer.



4. Add objects to the layout, such as buttons and images, from the Components toolbar.
5. Optionally, add RIA specific objects to the layout, such as windows and accordions, from the RIA Components toolbar.

Note: These additional controls are optional to enhance the development of your page and are not required. Your page is a RIA once you apply a RIA theme. For details about how to add these components, see [How to Add a RIA Window Component](#) on page 435 and [How to Add a RIA Accordion Control Component](#) on page 440.

6. Set the animation properties for the objects with the Animation Properties dialog box.

- ❑ Select an object from the Design tab of the HTML Composer.
- ❑ Click the *Animation Properties* ellipsis button from the Properties window.

The Animation Properties dialog box opens.

- ❑ Set the animation properties for the location, size, and/or opacity for the selected object.

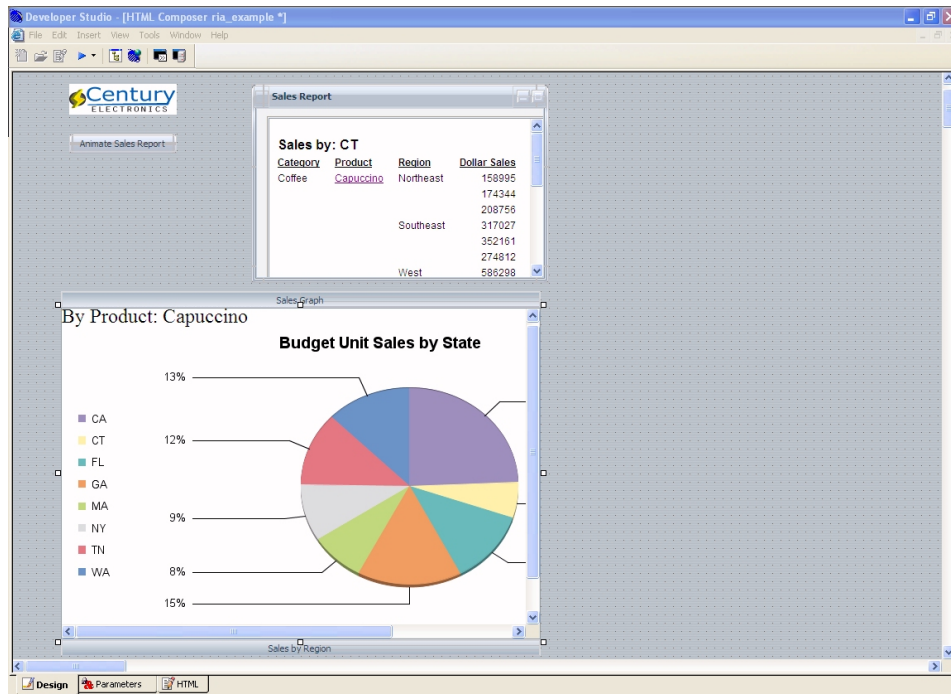
For descriptions of the available animation properties, see [Animation Properties Dialog Box](#) on page 447.

7. Save and run the HTML page to see the RIA.

In the following example, the RIA shows the following:

- ❑ An HTML page with an image.
- ❑ A push button that, when clicked, animates the *Sales Report* window.
- ❑ An accordion control that shows a *Sales Graph* on one page.
- ❑ A report with controls to supply incoming parameter values on the *Sales by Region* page.

Click the title of the accordion pages to switch between pages. For step-by-step instructions on how to create this example, see [Usage Notes and RIA Example](#) on page 450.



Procedure: How to Add a RIA Window Component

A window component behaves as a parent component, enabling you to add children, such as a report or graph, within the window. The window object can be animated, moved, or resized at run time.

1. Select the Window button from the RIA Components toolbar.
The cursor changes into a crosshair.
2. Click and drag the crosshair to create the window and adjust it to the size you want.

A window component is created in the layout and assigned the name `window(n)`, where *n* is a number.

3. Add an object, as a child, within the window component.

Note: Report, graph, and frame objects are added as children of the RIA component. The role of a child indicates that they are grouped within the selected component and function inside of that component.

To add objects as a child of a window component:

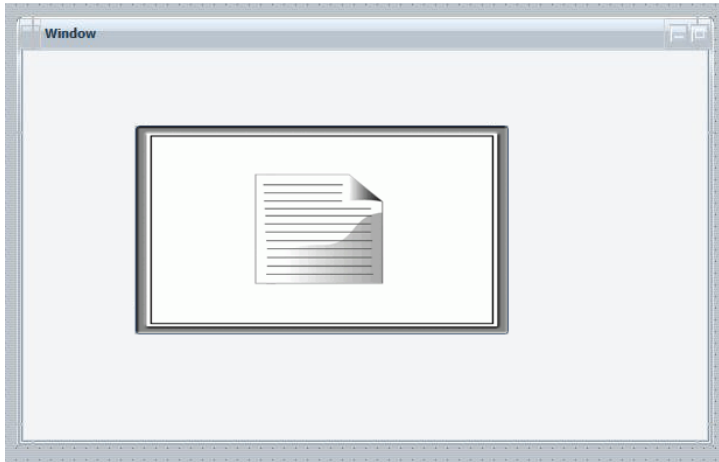
- ❑ Select an object from the Components toolbar from the Design tab of the HTML Composer.
- ❑ Left-click and drag the selected object component from the toolbar inside of the RIA component.

Tip: If you have other objects on your Design canvas, you may press and hold the Alt key, left-click, and drag that object onto a RIA parent component.

- ❑ Release the mouse and resize the object inside your component.

For example, to create a report that runs within a window, drag a report from the Components toolbar into the window object on the Design tab, release the mouse, and resize the report object within the window component. Note that all the report options and properties are available from the right-click context menu of the report, within the window component.

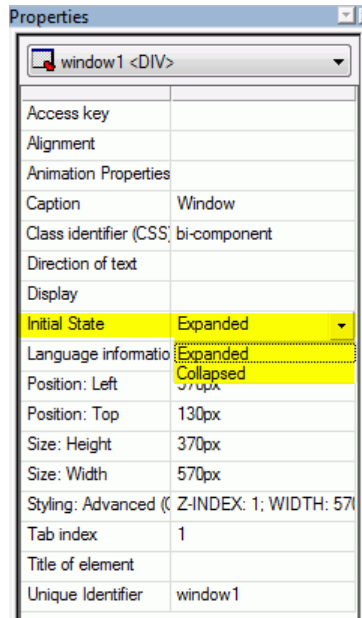
4. You can automatically resize a report, graph, or frame to take up the entire window or accordion page by selecting *True* for the Auto Fit property field of the Properties window, as shown in the following image.



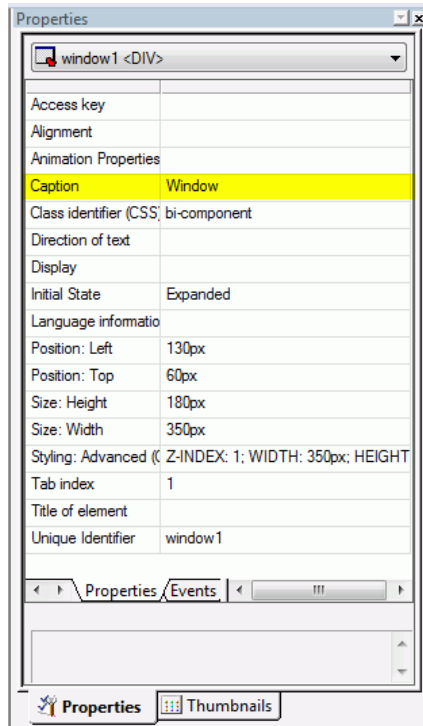
The following image shows the design time view of a report that has been automatically resized to take up the entire window. This property carries through to run time so when the window is resized, the report will resize with it.



5. You can choose whether the window starts expanded or collapsed by using the Initial State option, located in the Properties window. The two options are Expanded and Collapsed. Expanded sets the window to be expanded at run time and is set by default. Collapsed sets the window to be collapsed at run time. The following image shows this property on the Property window.



6. You may rename the default window title by typing text in the Caption properties field of the Properties window.

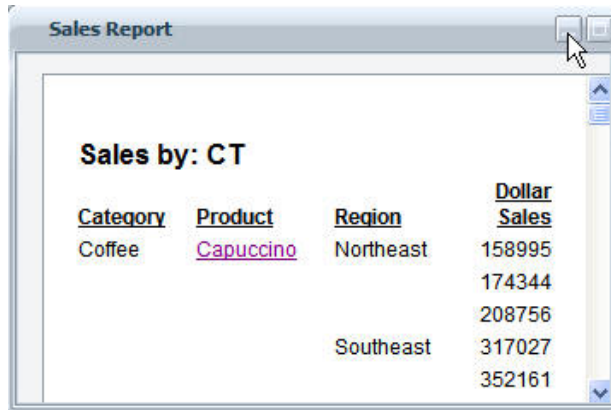


7. You may animate the window component itself, and any child object within the window. Select the object and set the animation properties from the Properties window for the location, size, and opacity. For details about animation properties, see [Applying Animation Properties to the RIA](#) on page 447.

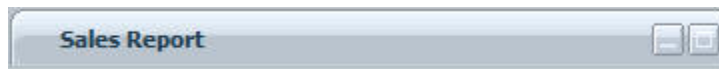
Procedure: How to Minimize the Size of a Window Control

Minimize and restore buttons on a window control enable you to minimize the size of a window to show just the title bar or to restore the window back to its original size.

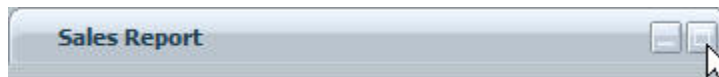
1. Click the *minimize* button on the control, as shown in the following image.



The window will collapse to show just the title bar, as shown in the following image.



2. To restore the size of the window, click the *restore* button on the control, as shown in the following image.



The image is restored to its original size.

Procedure: How to Add a RIA Accordion Control Component

An accordion control behaves as a parent component, enabling you to create multiple pages within the control that you can scroll through, each containing objects as children. An accordion control can be animated at run time.

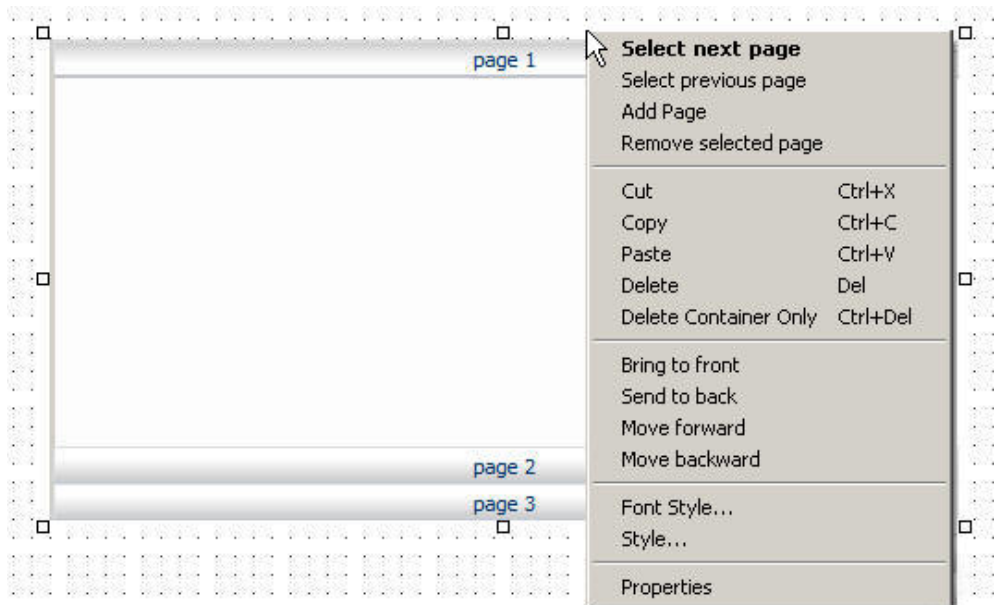
1. Select the Accordion Control button from the RIA Components toolbar.

The cursor changes into a crosshair.

2. Click and drag the crosshair to create the accordion control and adjust it to the size you want.

An accordion control with three pages is created by default and assigned the name `accordion(n)`, where *n* is a number.

3. You may add and remove pages from the accordion control by using the right-click context menu when the accordion component is selected.



4. Add objects, as children, to the accordion control page.

Note: Report, graph, and frame objects are added as children of the RIA component. The role of a child indicates that they are grouped within the selected component and function inside of that component.

To add objects as a child within the selected page of the accordion control:

- ❑ Select an object from the Components toolbar from the Design tab of the HTML Composer.
- ❑ Left-click and drag the selected object component from the toolbar inside of the RIA component.

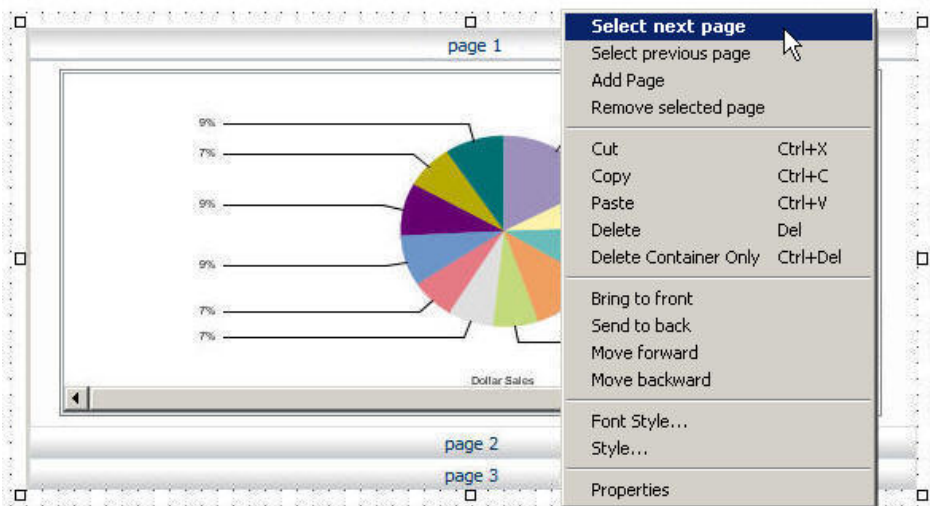
Tip: If you have other objects on your Design canvas, you may press and hold the Alt key, left-click, and drag that object onto a RIA parent component.

- ❑ Release the mouse and resize the object inside your component.

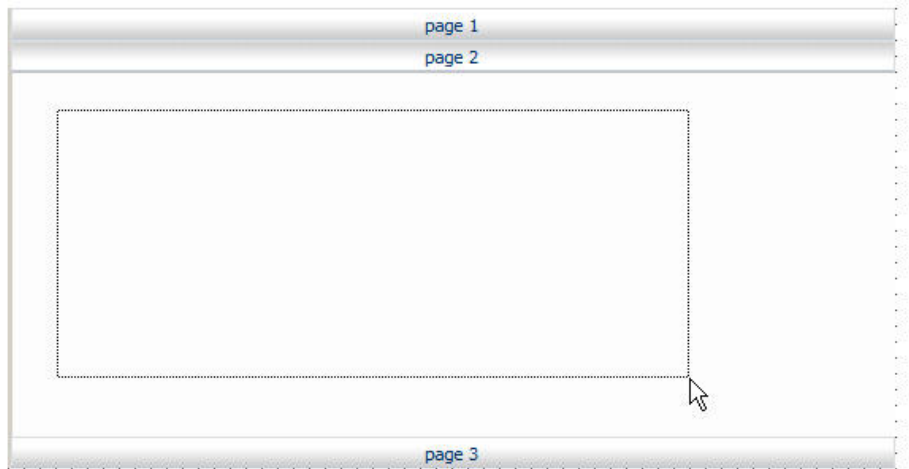
For example, to create a graph that runs within an accordion page, drag a graph from the Components toolbar into the selected accordion page on the Design tab, release the mouse, and resize the graph object within the accordion component. Note that all the graph options and properties are available from the right-click context menu of the graph, from within the accordion component.

5. Add objects to other pages within the accordion control. Right-click the accordion component and choose *Select next page* from the context menu.

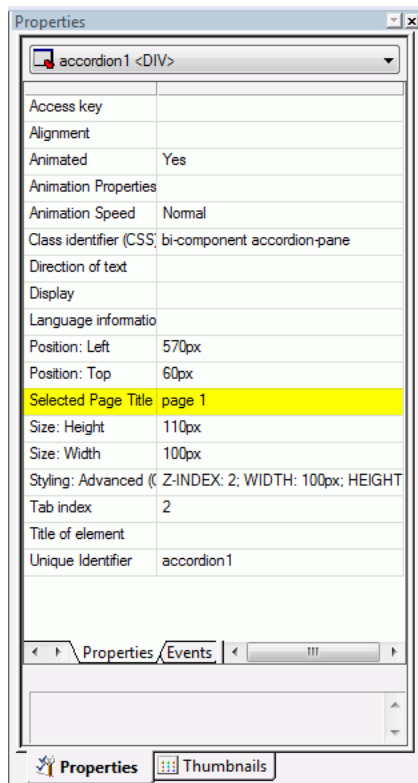
Tip: Double-clicking within an accordion control closes the selected page and opens the next page of the accordion control.



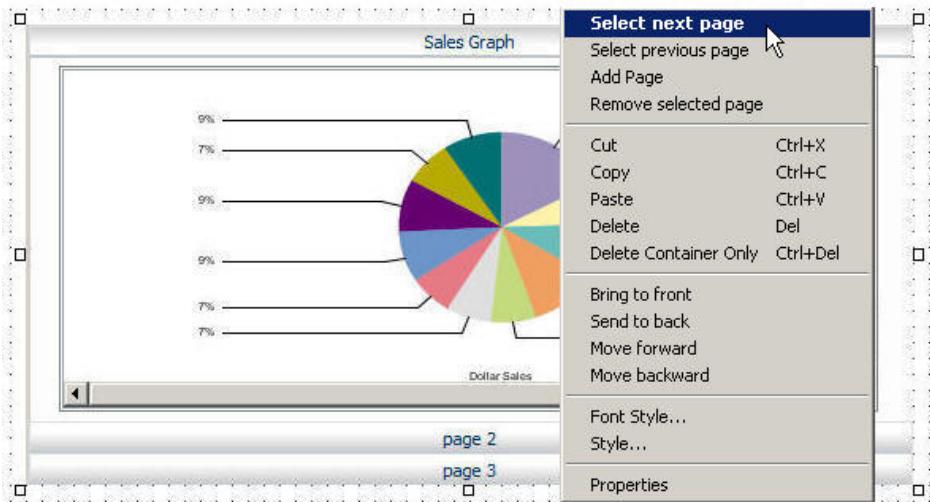
The next page in the accordion control is selected. Insert and resize objects, such as reports, graphs, and frames, within the selected page of the accordion component.



6. You may rename the page titles by typing text in the *Selected Page Title* properties field of the Properties window.



7. To change the name of a different accordion page, right-click the accordion component and choose *Select next page* from the context menu.



The next page in the accordion control is selected. Type the name for the page in the *Selected Page Title* properties field in the Properties window.

Tip: Repeat this action (right-click the accordion component and choose *Select next page* from the context menu) multiple times to get to the desired page of the accordion. Optionally, double-clicking within an accordion control closes the selected page and opens the next page of the accordion control.

8. You may set the accordion control properties, specific to the behavior of accordion page speed in the RIA, by turning the animation on or off, and by setting the animation speed for switching between pages.

The accordion page speed properties are *Animated* and *Animation Speed* in the Properties window when an accordion component is selected.

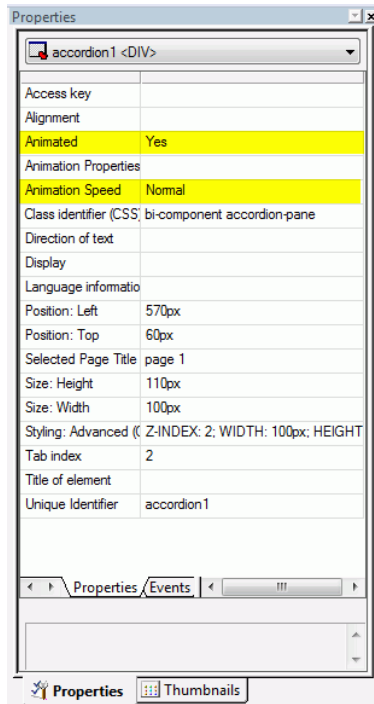
- ☐ *Animated* is set to *Yes*. The accordion control animation speed is turned on by default, enabling you to set the animation speed for switching between accordion pages. The default speed is *Normal*.

Selecting *No* turns off the animation speed for the accordion control, ignoring the *Animation Speed* setting, and displaying the default speed in the RIA.

- ❑ Animation Speed is set to Normal by default. The animation speed indicates the speed for switching between pages in an accordion control. You may select from Very Slow, Slow, Normal, Fast, Very Fast.

The animation speed is only applied if Animation is set to Yes.

The following image shows an accordion control with the default animation and animation speed properties.



9. You may animate the accordion component itself, and any child object within the accordion pages. Select the object and set the animation properties from the Properties window for the location, size, and opacity. For details about animation properties, see [Applying Animation Properties to the RIA](#) on page 447.

Note: These location, size, and opacity animation properties are not the same as the accordion Animated and Animated Speed properties, which are specific to accordion page speed in the RIA.

Applying Animation Properties to the RIA

Adding animation properties to the RIA enables you to create visual effects and animated movement for your web application. The Animation Properties dialog box is available from the Properties tab of the Properties window in the HTML Composer. By default, the location, size, and opacity animation options are not enabled for objects on an HTML page.

You may apply animation properties to the RIA with the Animation Properties dialog box in the HTML Composer.

Note: Animation properties are disabled for all objects by default, with the exception of the accordion page speed options.

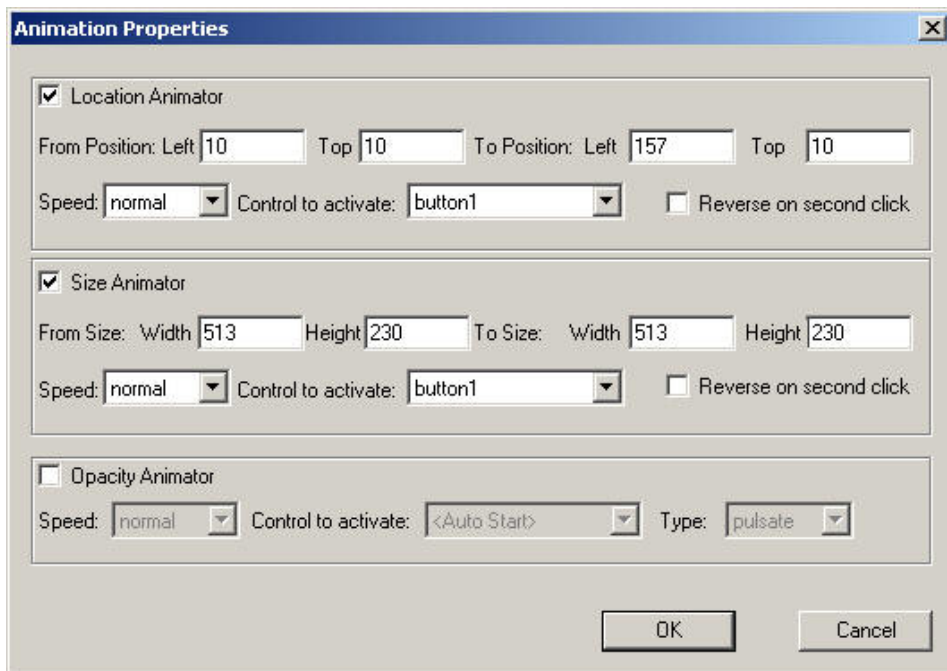
Reference: Animation Properties Dialog Box

The Animation Properties dialog box enables you to set the Location Animator, Size Animator, and Opacity Animator options for RIA objects on the HTML page.

Note: The Animation Properties option is only available from the Properties window if a RIA theme is enabled for the page. You may set animation properties for all objects on the page, such as reports, graphs, buttons, windows, and accordions.

Click the *Animation Properties* ellipsis button from the Properties window in the HTML Composer.

The Animation Properties dialog box opens, as shown in the following image.



Location Animator

The Location Animator options set up the location animation for an object. The animator is then instructed to move objects from one point to another in the RIA, based on the control action, or automatically, after the page fully loads.

From/To Position Left/Top

The From and To Position indicates the starting position and ending position for the location animation event.

Note: It is suggested to keep the From Position Left/Top values the same as the current position on the layout, otherwise it will jump to the From Position Left/Top when the animation starts.

Speed

Controls the acceleration and deceleration of the animation. Options range from slowest to fastest, with normal being the default selection.

Control to activate

Indicates the event that will start the animation. The default is Auto Start, which starts the animation automatically. Otherwise, you may select another object from the drop-down list to identify another control that will be used to start the animation, like a button for example.

Reverse on second click

Indicates that on a second click of the control to activate, the animation should be executed in reverse.

Size Animator

The Size Animator options set up the width and height animation for the object. This enables an object to grow or shrink in size when the animation is selected.

From/To Size Width/Height

The From and To Size indicates the starting size of the object and the ending size it will be after the animation event is executed.

Speed

Controls the acceleration and deceleration of the animation. Options range from slowest to fastest, with normal being the default selection.

Note: The location and size animation take the same amount of time to complete. They will be synchronized if used in conjunction with each other.

Control to activate

Indicates the event that will start the animation. The default is Auto Start, which starts the animation automatically. Otherwise, you may select another object from the drop-down list to identify another control that will be used to start the animation, like a button for example.

Reverse on second click

Indicates that on a second click of the control to activate, the animation should be executed in reverse.

Opacity Animator

The Opacity Animator options set up the opacity animation for the objects. Setting the opacity enables you to fade RIA components on your page.

Speed

Controls the acceleration and deceleration of the animation. Options range from slowest to fastest, with normal being the default selection.

Control to activate

Indicates the event that will start the animation. The default is Auto Start, which starts the animation automatically. Otherwise, you may select another object from the drop-down list to identify another control that will be used to start the animation, like a button for example.

Type

Sets the type of background opacity. Options are pulsate, blink, fadeIn, and fadeOut, with pulsate being the default selection.

Usage Notes and RIA Example

This section describes usage notes for creating a RIA and provides steps to create a RIA example.

Reference: Matching RIA Themes and StyleSheets

The RIA look and feel that is inherited when a RIA theme is applied can be matched by the Report or Chart StyleSheet in order for the styling to match the theme. The table below describes the RIA themes and the StyleSheets that correspond to the theme for each tool.

RIA Theme	BI Portal Theme	Report and Chart StyleSheet
Clean	Any	Any
Ocean Rounded	Teal	ENria_ocean_rounded_theme
Carbon Rounded	Black	ENria_carbon_rounded_theme
Dark Ocean Rounded	Green	ENria_dark_ocean_rounded_theme
Olive Rounded	Green	ENria_olive_rounded_theme
Blue	Blue	ENria_blue_theme
Charcoal	Black	ENria_charcoal_theme

RIA Theme	BI Portal Theme	Report and Chart StyleSheet
Gray	Silver	ENria_gray_theme
High Contrast	Any	Any
Ruby	Red	ENria_ruby_theme
Information Builders	Information Builders	ENInformationBuilders_Dark ENInformationBuilders_DarkComp ENInformationBuilders_Default1 ENInformationBuilders_Light1 ENInformationBuilders_Light2 ENInformationBuilders_Medium1 ENInformationBuilders_Medium2
Black	Black	ENBlack_Dark ENBlack_DarkComp ENBlack_Light1 ENBlack_Light2 ENBlack_Medium1 ENBlack_Medium2 ENblack_theme ENblackbluepurple

RIA Theme	BI Portal Theme	Report and Chart StyleSheet
Blue	Blue	ENBlue_Dark ENBlue_DarkComp ENBlue_Light1 ENBlue_Light2 ENBlue_Medium1 ENBlue_Medium2 ENblue_theme ENblue-medium
Green	Green	ENGreen_Dark ENGreen_DarkComp ENGreen_Light1 ENGreen_Light2 ENGreen_Medium1 ENGreen_Medium2 ENgreen-gray
Orange	Orange	ENOrange_Dark ENOrange_DarkComp ENOrange_Light1 ENOrange_Light2 ENOrange_Medium1 ENOrange_Medium2

RIA Theme	BI Portal Theme	Report and Chart StyleSheet
Purple	Purple	ENPurple_Dark ENPurple_DarkComp ENPurple_Light1 ENPurple_Light2 ENPurple_Medium1 ENPurple_Medium2 ENpurple-light
Red	Red	ENRed_Dark ENRed_DarkComp ENRed_Light1 ENRed_Light2 ENRed_Medium1 ENRed_Medium2 ENred-bronze
Silver	Silver	ENSilver_Dark ENSilver_DarkComp ENSilver_Light1 ENSilver_Light2 ENSilver_Medium1 ENSilver_Medium2

RIA Theme	BI Portal Theme	Report and Chart StyleSheet
Teal	Teal	ENTeal_Dark ENTeal_DarkComp ENTeal_Light1 ENTeal_Light2 ENTeal_Medium1 ENTeal_Medium2

When applying StyleSheets and Templates it is important to note the following:

- ❑ You need to put the StyleSheet file in the Other folder of the Managed Reporting domain in order for it to be visible by the tool.
- ❑ For Report Painter, you can select the appropriate name from the Predefined Templates section of the Style File Selection tool. The names listed correspond to the names in the InfoAssist column in the preceding table.

Reference: Usage Notes For Creating a RIA

The following apply when creating a RIA in the HTML Composer.

- ❑ If you use the Olive Rounded RIA theme and reference a parameterized report, the Schedule button is blank. The Schedule button displays correctly if you use other RIA themes.
- ❑ RIA only supports pixels for font size (Bindows limitation).
- ❑ For iframes, reports, and graphs, you will only see a border if you specify a width. By default, RIA gives the border a solid 1px border. If you want to specify a greater value, select *Custom* and give it a number in pixels (Bindows limitation).
- ❑ Overline is not supported in RIA (Bindows limitation).
- ❑ The following features are not supported in RIA:
 - ❑ Multi-Select Drop-Down List control
 - ❑ Global Search and Paging control
 - ❑ Making an ActiveX control a child of another control
 - ❑ Undo/Redo option

- ❑ The RIA theme overrides any styling that has been applied to individual objects.
- ❑ If you have a CSS class referenced in a non-RIA page, when you convert to RIA, the CSS reference is removed from the HTML source and is replaced with the RIA CSS. This is because the RIA theme includes its own styling and will most probably require you to update your styling to go better with the RIA theme.
- ❑ When using a RIA-enabled page with an AHTML report, the Export as Procedure option is not available in the File menu.
- ❑ In migrating from a non-RIA page to a RIA page, any JavaScript calls that go against the controls cannot be in the window onload function because the controls are not available until the RIA framework completely loads in the browser. This means that these JavaScript calls need to be moved out of the window onload function and placed in other functions that get called after the page and RIA framework are loaded.
- ❑ Migrating a non-RIA HTML page removes any custom styling. Applying a RIA theme provides its own color scheme and styling. You may add custom styling after converting the RIA page.
- ❑ RIA only supports integers and pixels when specifying a measurement for font size and border size.
- ❑ When adding existing objects from the canvas to a RIA window or accordion control, you may not just copy or move the object into the RIA parent component. Press and hold the Alt key, left-click, and drag the object into the RIA component to make it a child of the RIA component.
- ❑ If you are adding objects as children to any RIA control by using the Insert menu, draw the object in an open space on the canvas, press and hold the Alt key to drag that object to the parent object, and release the mouse.
- ❑ The location of accordion pages cannot be changed.
- ❑ To support RIA controls in the HTML Composer, additional WebFOCUS StyleSheet templates are available in Report Painter and InfoAssist.

Note: The file extensions of the RIA StyleSheet templates vary, depending on the tool, but all appear as *ria_stylesheet_theme.file extension*, where the file extension is .txt or .sty. The available RIA StyleSheets are:

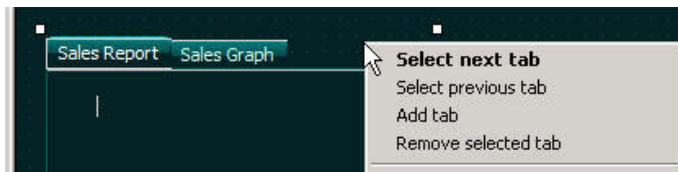
- ❑ ria_carbon_rounded_theme
- ❑ ria_dark_ocean_rounded_theme

- ❑ `ria_ocean_rounded_theme`
- ❑ `ria_olive_rounded_theme`
- ❑ `ria_blue_theme`
- ❑ `ria_charcoal_theme`
- ❑ `ria_gray_theme`
- ❑ `ria_ruby_theme`
- ❑ `ria_turquoise_theme`

Selecting one of these templates in your tool enables you to inherit the same RIA look and feel for the report or chart when the same RIA theme is applied in the HTML Composer. For more information on StyleSheets/Templates matching the look of a certain RIA theme, see [Matching RIA Themes and StyleSheets](#) on page 450.

- ❑ Multiple vertical lines may appear across some RIA controls on the Design tab of the HTML Composer. For example, inserting an accordion control shows multiple vertical lines through the accordion control page title toolbars. These lines are more visible when using darker RIA themes for your document. These multiple lines do not appear in the RIA page at run time.
- ❑ When adding a Tab Control to the layout as part of a RIA page, you can switch between tabs on the Design tab of the HTML Composer. Double-click the desired tab to switch between tabs or select the Tab Control, right-click, and choose *Select next tab* or *Select previous tab* from the context menu.

The following image shows a Tab Control on a RIA page with these options.



Note: You can change the text on a tab control by entering the text in the Title of element property field in the Properties window.

Example: **Creating a RIA With the HTML Composer**

Suppose you want to create a RIA that shows:

- ❑ An image.
- ❑ A push button, that when clicked, animates the Sales Report window.
- ❑ An accordion control that shows a Sales Graph on one page.
- ❑ A report with controls to supply incoming parameter values on the Sales by Region page.

This example assumes that you are familiar with the basic Developer Studio features. The following example creates a RIA by:

- ❑ Creating a graph to be used in the RIA.
- ❑ Converting an existing HTML page to a RIA.
- ❑ Creating a RIA window component with a report that has drill downs.
- ❑ Adding a button that animates the RIA window.
- ❑ Creating a RIA accordion control that shows a frame on one page, and a report with chained controls on another page.

1. Create a graph to be used in the RIA.

Create the sales graph to be used as a target from a drill-down report in the RIA.

a. Create a new procedure in Developer Studio:

- ❑ With the Procedures folder highlighted, select *New/Procedure* from the File menu.

or

- ❑ Right-click the *Procedures* folder and select *New/Procedure* from the context menu.

The Add Procedure dialog box opens.

b. Enter *graphbyproduct* as the name for the new procedure in the File name field and click *Open*.

The Procedure Viewer opens.

c. Click a component connector (yellow diamond) and select *Graph*.

d. Select the *ggsales.mas* Master File and click *Open*.

Tip: The Gotham Grinds Sales data source (*ggsales.mas*) is available from the ibisamp Applications on localhost folder of Developer Studio. You may copy this source file to the project directory of your choice.

InfoAssist opens.

- e. Select *Build a Chart* from the main menu.
Select the *ggsales.mas* Master File and click *OK*.
 - f. Select *Format* from the menu and click *Pie* from the Chart Types section.
InfoAssist refreshes showing a pie chart.
 - g. Click and drag *State* to the Slices category under the Query and then drag *Budget Unit* to the Measures (Sum) category under the Query section,
 - h. Select the *Header & Footer* button from the Home menu and type *By Product:*. Drag *PRODUCT* from the Field Tree in the Heading window to the Header & Footer window. *<PRODUCT* is inserted into the Header & Footer window. Position it after *By Product*.
The heading appears as *By Product: <PRODUCT*. Click *Apply* and *OK*.
 - i. Click on *Product* in the Data window. In the Home menu, click the *Filter* button. The Filter tool opens. *Equal to* is set as the default operator. In the *Add:* box, type *Product Name*. Click the add filter button. Click *Ok* and the Filter tool will create the following parameter: *WHERE PRODUCT EQUAL to Product Name*
 - j. In the *Format* menu, click the *Labels* button. The *Axes* and *Legend* buttons are now shown. Click the *Legend* button and select *Left* from the Legend Position drop-down list.
 - k. Save and close the graph and Procedure Viewer.
2. Convert an existing HTML page to a RIA and add objects to the page.
 - a. Create a copy of *chaining_example.htm*, that was created in [Applying Conditions to a Chain](#) on page 367 of this manual, and rename it to *ria_example.htm*.
 - b. Open *ria_example.htm* in the HTML Composer.
 - c. Select *DOCUMENT* from the Properties window drop-down list.
The available properties for the document object appear.
 - d. Select *Clean* from the RIA Theme drop-down list.
The RIA theme is applied to all components on the page and the RIA Components toolbar is added to the HTML Composer.
 - e. Move the report and control down the page, as we will use those components later.
 - f. From the Insert menu, select *Components*, then click *Image*.
The cursor changes into a crosshair. Click and drag the crosshair to create the image object and size, and select an image from the Get source file dialog box.
 - g. Select *Push button* from the Components toolbar and drag it onto the Design canvas underneath the image.

- h. Rename the button by selecting the Push button on the Design tab and double-click in the field next to *Value* in the Properties window.

Tip: The button object appears as `button1<DIV>` in the Properties window drop-down list.

- i. Type *Animate Sales Report* in the Value property field and press the Enter key.
- j. Click the *Animation Properties* ellipsis button from the Properties window.

The Animation Properties dialog box opens.

- k. Select the *Opacity Animator* check box to enable the opacity settings.
- l. Select *blink* as the Type, and leave the Control to activate as `<Auto Start>`.

This indicates that the blinking animation for the push button will start automatically in the RIA page.

- m. Click *OK* to close the Animation Properties dialog box.

3. Create and animate a RIA window component.

- a. Select the Window button from the RIA Components toolbar.
- b. Left-click and drag the window onto the Design canvas.
- c. Release the mouse and resize the object.
- d. Rename the window by typing *Sales Report* in the Caption properties field of the Properties window.

Tip: The RIA window component appears as `window1<DIV>` in the Properties window drop-down list.

- e. Select the Report button from the Components toolbar and drag it into the window object on the Design tab, release the mouse, and resize the report object within the window component.
- f. Double-click the report object and select *ggsales.mas* to open the Report Painter.

Tip: The Gotham Grinds Sales data source (*ggsales.mas*) is available from the *ibisamp* Applications on localhost folder of Developer Studio. You may copy this source file to the project directory of your choice.

- g. Create the sales report, with a drill down on the Product field, to be used in the RIA window:
 - ☐ Insert *CATEGORY,PRODUCT, REGION*, and *ST* as the By fields, hiding the *ST* field.

- ❑ Insert *DOLLARS* as the Sum field.
- ❑ Add *Sales by:* `<GGSales.SALES01.ST` in the Page Heading.
- ❑ Select the *Product* field, right-click, and select *Options* to open the Field Properties dialog box.
- ❑ Select the *Drill Down* tab to apply a drill down to the Product field column data, that executes a procedure in a frame.

Select *Column Data* as the active object. Select *Execute Procedure* as the Drill Down Type. Select *graphbyproduct.fex* as the Procedure name (which we created in step 1 of this example). Enter *iframe1* as the Target Frame location, which we will add later in the HTML Composer.

- ❑ Select *Add* from the With Parameters section of the Drill Down tab, and select *PRODUCT* from the Parameter name drop-down list. This is the parameter that we created in the graph. Leave *Field* as the Parameter value and select *GGSales.SALES01.PRODUCT* from the drop-down list.
- ❑ Close and save the report.

The drill down report appears in the RIA window component.

- h. Select the report component and set the Auto Fit property field to *True* in the Properties window.
- i. Select the RIA window component on the Design tab and click the *Animation Properties* ellipsis button from the Properties window.

Tip: The RIA window component appears as `window1<DIV>` in the Properties window drop-down list.

The Animation Properties dialog box opens.

- j. Select the *Location Animator* check box to enable the location settings.
- k. Select *button1* from the Control to activate the drop-down list.

This indicates that clicking the Push button will activate this window at run time.

- l. Type the From Position Left value as *10*.

This indicates that the location of the window will start the animation 10 pixels from the left position of the page when the window is animated.

- m. Click *OK* to close the Animation Properties dialog box.

4. Create a RIA accordion control component.

- a. Select the Accordion Control button from the RIA Components toolbar.
- b. Left-click and drag the accordion control onto the Design canvas underneath the RIA window component.
- c. Release the mouse and resize the object.
- d. Rename the selected page of the accordion by typing *Sales Graph* in the Selected Page Title properties field of the Properties window.

Tip: The RIA accordion control component appears as `accordion1<DIV>` in the Properties window drop-down list.

- e. Select the Frame button from the Components toolbar and drag it into the accordion object on the Design tab, release the mouse, and resize the frame object within the accordion page.

Note: The frame component appears as `iframe1<IFRAME>` in the Properties window drop-down list. This is the name that we assigned as the Target Frame location for the drill-down report that appears in the RIA window.

- f. Select the Frame component and set the Auto Fit property field to *True* in the Properties window.
- g. Right-click the accordion component and choose *Select next page* from the context menu.

The next page in the accordion control is selected.

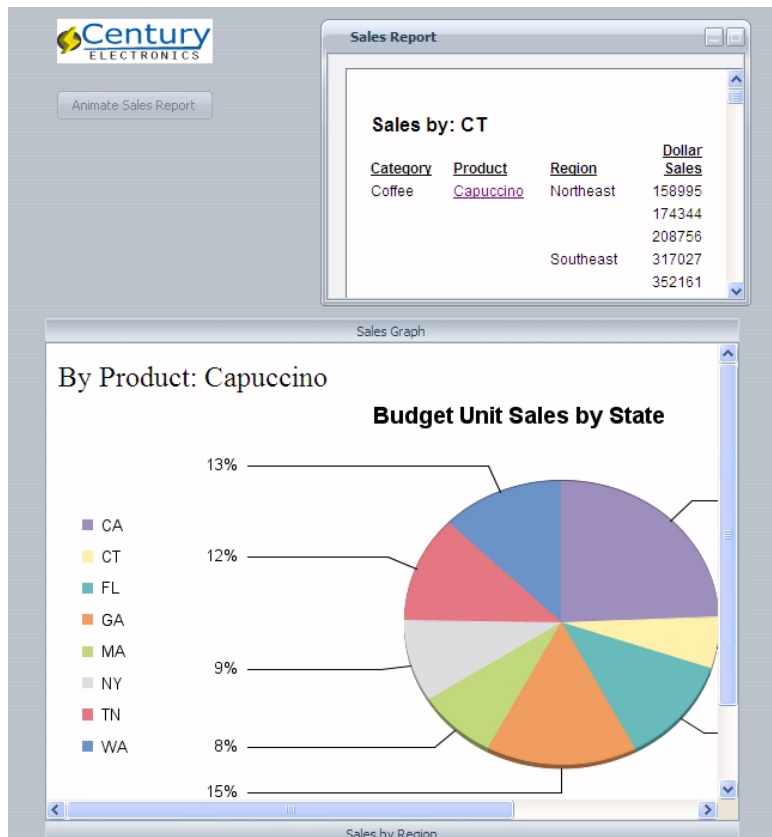
- h. Type *Sales by Region* in the Selected Page Title properties field of the Properties window.
- i. Scroll down the Design tab and select the existing report and control by using the Shift key on your keyboard.
- j. Press and hold the Alt key, drag the selected components onto the accordion page, and release the mouse.

The report and control are added within the Sales by Region accordion page. Resize the objects if necessary.

- k. Remove any unused pages from the accordion control by selecting and removing pages from the right-click context menu.

5. Save and run the RIA.

The following image shows the RIA at run time.



Using Maps in the HTML Composer

This topic describes how to integrate maps with reports generated from the HTML Composer. Google, Bing, and ESRI Maps are services offering powerful, user-friendly mapping technology that can be customized to show points on a map with drill-down capabilities. You can customize the map properties and bind them to a WebFOCUS report.

Note: Google and Bing Maps are only available if you have an API license key.

In order to present points on a map generated by a WebFOCUS report, data needs to be in geocode. In other words, data needs to be enriched with geographical data. When binding WebFOCUS to a map, the source used to bind WebFOCUS reports needs to be defined by latitude and longitude coordinates and a marker value associated to a group of data in order for the map to launch properly. For more information, see [Creating WebFOCUS Procedures for Maps](#) on page 466.

In this chapter:

- ❑ [Configuring WebFOCUS for Maps](#)
- ❑ [Creating WebFOCUS Procedures for Maps](#)
- ❑ [Adding a Map](#)
- ❑ [Customizing the Map Properties](#)
- ❑ [Integrating WebFOCUS With Maps](#)
- ❑ [Using the Maps Functionality](#)
- ❑ [Chaining for Maps](#)
- ❑ [Using JavaScript Code With Maps](#)
- ❑ [ESRI Flex Viewer Integration](#)

Configuring WebFOCUS for Maps

To use Bing or Google Maps in HTML Composer, you must first obtain an API key and then apply that key to the WebFOCUS Administration Console.

Procedure: How to Configure WebFOCUS to Use Maps

To integrate WebFOCUS with Maps, set the Google or Bing configuration option in the WebFOCUS Administration Console.

1. Obtain a Bing Maps or Google Maps API Key.

Note: You must use a Version 7 API key for Bing Maps and a Version 3 or Version 2 API key for Google Maps.

2. Access the WebFOCUS Administration Console, using one of the following methods.

- ❑ Enter the following URL:

http://hostname:port/ibi_apps/welcome.jsp

- ❑ Select *WebFOCUS Administration Console* from the Start Programs menu of your WebFOCUS application.

Note: This menu option is only available on the machine on which the WebFOCUS Client is installed.

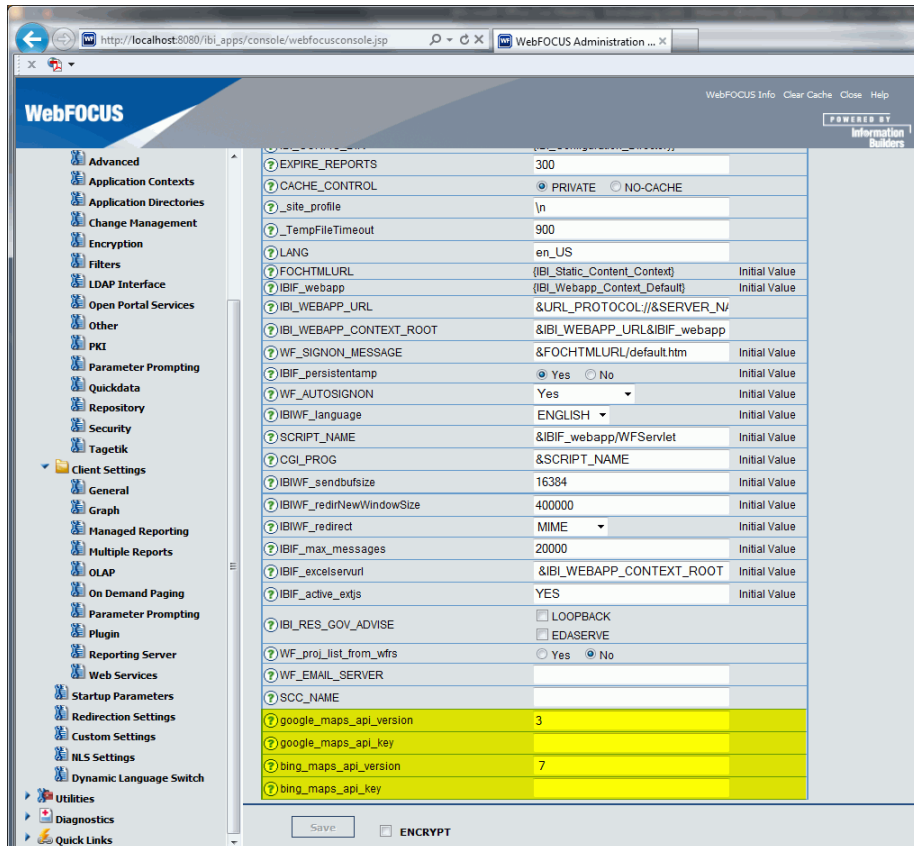
- ❑ From within Developer Studio, select a location from the WebFOCUS Environments section to activate the toolbar and select the WebFOCUS Administration Console icon.

The WebFOCUS Administration Console appears. You may have to log on depending on how your configuration is set.

3. Select *General* from the Client Settings submenu of the Configuration menu.
4. Scroll down to the bottom of the Client Settings - General page to see the Google Maps and Bing Maps configuration settings.
5. In the `google_maps_api_key` or `bing_maps_api_key` input field, paste the appropriate map API license key that you saved earlier.

Note: Google Maps API Version 3 does not require a key.

The following image is an example of the WebFOCUS Administration Console with these options set.



Note: A Version 7 API key is required for Bing maps and a Version 2 API key is required for Google Maps.

6. Click Save and log off from the WebFOCUS Administration Console.

For more information about using the WebFOCUS Administration Console, see the *WebFOCUS Security and Administration* manual.

Creating WebFOCUS Procedures for Maps

Before binding maps to a WebFOCUS source, you must predefine marker fields in a source file. The source can be a URL, XML file, or external procedure.

Markers are presented at run time on the map by placing an image at specific geographical points. Clicking on the map marker can result in a drill down to a source file, and optionally, a Tooltip can be presented when pausing on a map marker.

Markers are defined by the following:

- ❑ Latitude and Longitude coordinates that are used to plot points, or the marker, on the map.
- ❑ Marker value, usually a calculated value (COMPUTE field or DEFINE field), that associates each location to a group or a specific icon type.
- ❑ Optionally:
 - ❑ Fields that contain Tooltips or drill downs for the marker.
 - ❑ Images to represent the marker on the map.

Marker fields are displayed by an image, drill down, and/or Tooltip in the map.

Note: The following procedures are applicable for using Google Maps, Bing Maps, and ESRI JavaScript API Maps.

Procedure: How to Create Map Latitude/Longitude Coordinates in the Source File

In order to plot points on the map, you must define each point by its latitude and longitude coordinates and associate a marker, or group assignment, to each point. The Source file must be XML format and must contain fields called LATITUDE, LONGITUDE and MARKER. Additional fields can be included for Tooltips or image icon information.

Note: The following example creates a source file for a map by:

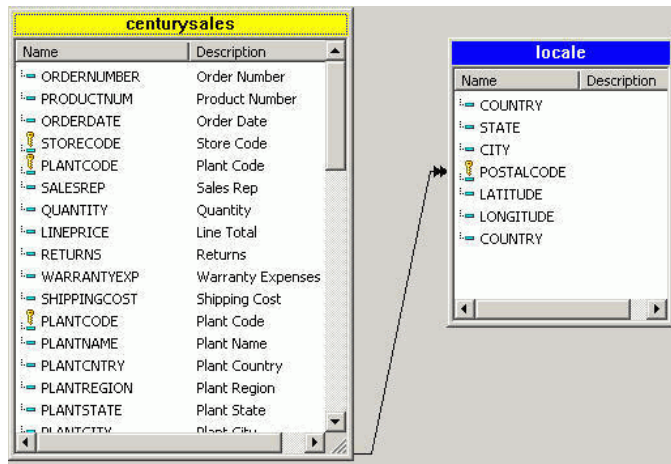
- ❑ Using the Century Sales (centurysales.mas) Master file.
- ❑ Joining Century Sales to the Locale data source for latitude/longitude data.
- ❑ Grouping the location to the LINEPRICE field in the joined data source.

1. Join the Century Sales and Locale data sources.

Tip: The Century Sales and Locale data sources are available from the Master Files folder in the IBI Demonstration project of Developer Studio. You may copy these source files to the project directory of your choice.

- a. Create a new procedure in Developer Studio:
 - ☐ With the Procedures folder highlighted, select *New/Procedure* from the File menu.
 - or
 - ☐ Right-click the Procedures folder and select *New/Procedure* from the context menu.

The Add Procedure dialog box opens.
- b. Enter *gmlayer* as the name for the new procedure in the File name field and click *Open*.
The Procedure Viewer opens.
- c. Click and hold a component connector (yellow diamond) and select *Join*.
The Open dialog box appears.
- d. Select *centurysales.mas* and click *Open*.
The Join dialog box opens.
- e. Select the *Add File* button from the Join toolbar.
The File Description List for Join dialog box opens.
- f. Select *locale.mas* and click *Open*.
Developer Studio automatically creates a Join between the data sources if they both have fields with the same formats. The Join tool displays both data sources and the default Joins, as shown in the following image.



For more information about using the Join tool, see the *Creating Reporting Applications With Developer Studio* manual.

- g.** Close the Join tool to save the Join and update the procedure.

The Join is added to the Procedure Viewer.

2. Group the location to the LINEPRICE field.

- a.** From the Procedure Viewer, click and hold a component connector (yellow diamond) and select *Report*.

The Open dialog box appears.

- b.** Select *centurysales.mas* and click *Open*.

The Report Painter opens.

- c.** Select *By* from the Columns toolbar and double-click *LATITUDE* and *LONGITUDE* from the Object Inspector.

If fields in your source are not called Latitude, Longitude, or Marker, you can:

- ☐ Use the SET TOOL to Set *ASNAMES = ON*, to add AS Names in your procedure.
- ☐ In Report Painter, right-click the field and select *Column Title*, to type in the correct name.

- d.** Select *Sum* from the Columns toolbar and double-click *LINEPRICE* from the Object Inspector.

- e.** Rename *LINEPRICE* to *Line Total*.

Each location (Latitude and Longitude) has been grouped to LINEPRICE for the report.

3. Save the report, but do not close it.

The following image is an example of a report with Latitude and Longitude coordinates.

LATITUDE	LONGITUDE	Line Total
.0011111	.0011111	\$11,111,111,111,111.68
	.0022222	\$11,111,111,111,111.68
.0022222	.0011111	\$11,111,111,111,111.68
	.0022222	\$11,111,111,111,111.68

The map Latitude and Longitude coordinates have been set. This source file will be selected as the source file from the HTML Composer later on. For more information about selecting source files for a map, see [Customizing the Map Properties](#) on page 480.

Procedure: How to Create Map Marker Group Fields and Tooltip Fields in the Source File

Marker and Tooltip fields can be computed fields, or any field from your data source.

Note: If you are using a field from your data source as the Marker field, the field name must be renamed *Marker*.

A COMPUTE field is a calculated value in the source file that is used as the Marker field in the map. A COMPUTE field uses an expression that can be used to assign a value to a field. You create a COMPUTE field by using the Computes tab of the Report Options dialog box.

Note: If the HTML page where your map resides is created in the Repository area and the marker images also reside in the Repository area, then a fully qualified path to the image files (starting with /WFC) is needed, if using a DEFINE/COMPUTE to determine the marker image. For example:

```
IMAGE/A75='/WFC/repository/images/cust_' || IMAGE_COLOR || IMAGE_SIZE;
```

The following example creates marker fields and Tooltips fields by:

- ❑ Using the joined data source, Century Sales (centurysales.mas), that was created in the previous procedure (gmlayer.fex). For more information, see [How to Create Map Latitude/Longitude Coordinates in the Source File](#) on page 466.
- ❑ Adding a COMPUTE field to create markers, or group assignments, for each location by using LINEPRICE to group the data.

- ❑ Adding a second COMPUTE field to associate each group to a marker.
- ❑ Optionally, adding a COMPUTE field as a Tooltip field.

1. Create markers, or group assignments, for each location.

The Report Painter gmlayer.fex is still open. Create a COMPUTE field to assign an integer value determined by row-based values.

- a.** From Report Painter, select *Computes* from the Report menu, or click the *Computes* button from the Setup toolbar.

The Report Options dialog box opens at the Computes tab.

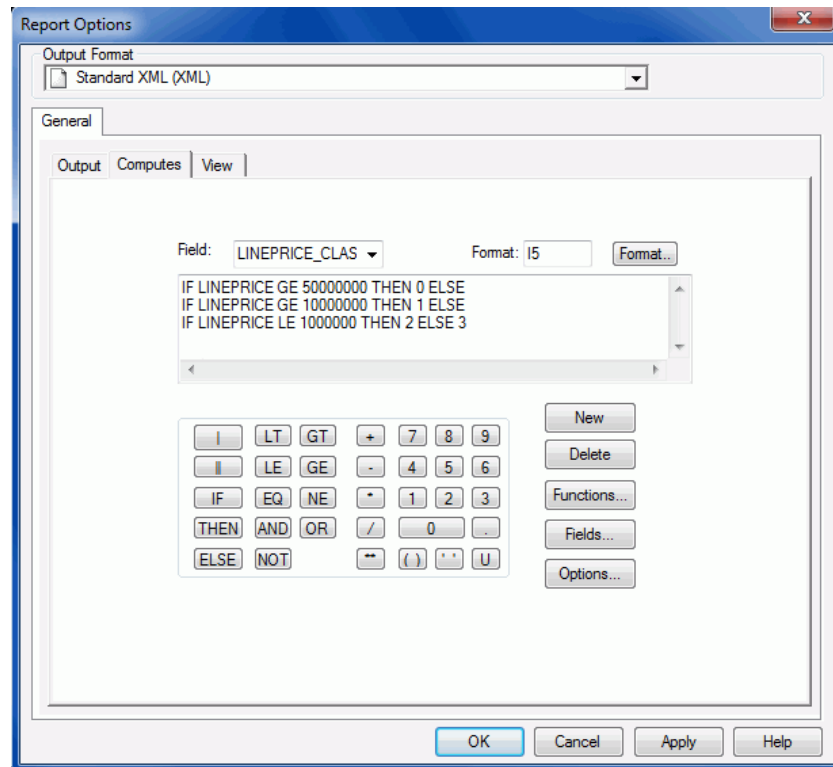
- b.** Type *LINEPRICE_CLASS* as the Field name.

- c.** Add a COMPUTE field to assign an integer based on the LINEPRICE value, as indicated in the following table.

LINEPRICE	Integer	Marker
0 - 999,999	2	redicon
1,000,000 - 9,999,999	3	yellowicon
10,000,000 - 49,000,000	1	greenicon
50,000,000 or higher	0	blueicon

Enter the syntax, as shown in the example image below, to use LINEPRICE to group the data:

```
COMPUTE LINEPRICE_CLASS/I5 = IF LINEPRICE GE 50000000
  THEN 0 ELSE IF LINEPRICE GE 10000000
  THEN 1 ELSE IF LINEPRICE LE 1000000
  THEN 2 ELSE 3
```



- d. Click *Apply*.

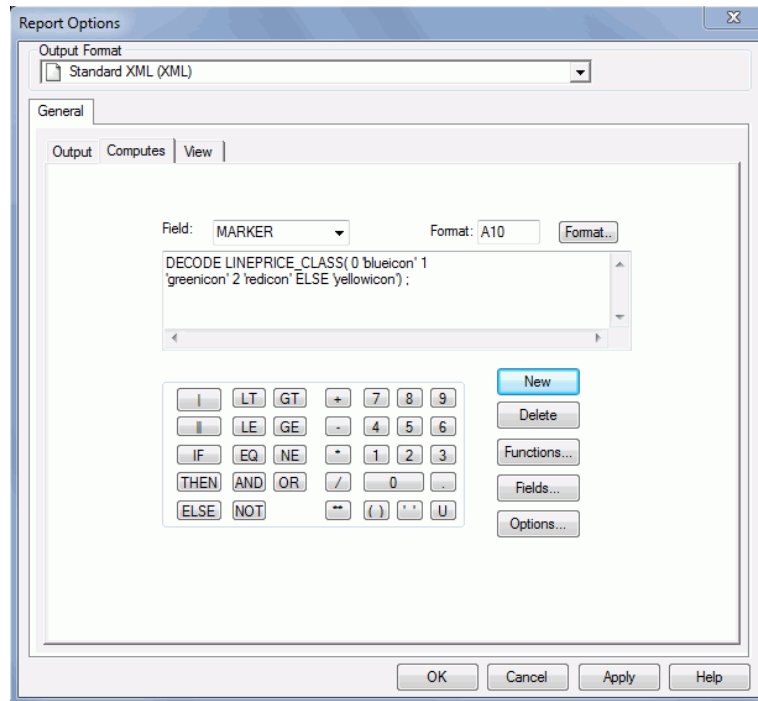
2. Associate each group to a marker.

Create a new COMPUTE field that sets the Marker field with a DECODE statement to convert the numerical grouping into icon names.

Note: A Marker field can also be any value field from your data source, but must be renamed *Marker*.

- a. Click **New** from the Computes tab.
- b. Type **MARKER** as the Field name.
- c. Enter the syntax, as shown in the example image below, to associate each group to a marker:

```
COMPUTE MARKER/A10 = DECODE LINEPRICE_CLASS( 0 'blueicon' 1
'greenicon' 2 'redicon' ELSE 'yellowicon') ;
```



- d. Click **Apply**.

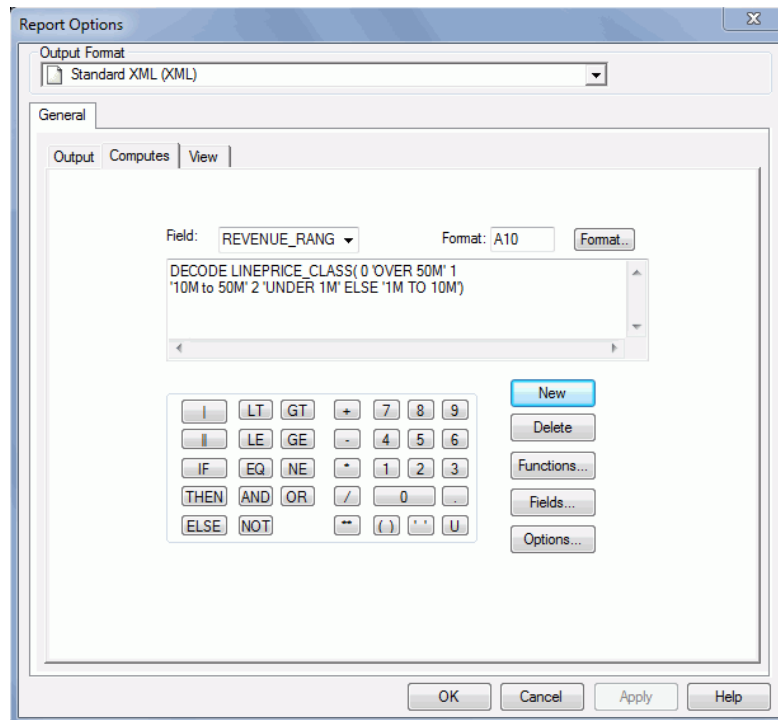
3. Assign fields as Tooltips.

Optionally, if you want to include a Tooltip, create an additional COMPUTE field to assign fields as Tooltips.

Note: A Tooltip field can also be any value field from your data source.

- a. Click **New** from the **Computes** tab.
- b. Type `REVENUE_RANGE` as the Field name.
- c. Enter the syntax, as shown in the example image below, to include a Tooltip:

```
COMPUTE REVENUE_RANGE/A10 = DECODE LINEPRICE_CLASS( 0 'OVER 50M'
1 '10M to 50M' 2 'UNDER 1M' ELSE '1M TO 10M') ;
```



- d. Click **Apply**.
4. Click **OK** to close the **Computes** tab.
- The fields are added to the *Computed fields* folder in the Object Inspector and are automatically added to the report as `LINEPRICE_CLASS`, `MARKER`, and `REVENUE_RANGE`.
5. Select **Output** from the **Report** menu.

The Report Options dialog box opens at the Output tab.

- 6. Select *Standard XML (XML)* from the Select Format drop-down list.

Note: The XML output format is available from the Unstyled formats folder.

- 7. Select *Web browser* from the Destination drop-down list.
- 8. Click *OK* to close the Report Options dialog box.
- 9. Save and close your report.

The following image is an example of a report with Marker fields and Tooltip fields set.

LATITUDE	LONGITUDE	LINEPRICE_CLASS	MARKER	REVENUE_RANGE	Line Total
.0011111	.0011111	11111	Axxxxxxxx	Axxxxxxxx	\$11,111,111,111,111.68
	.0022222	11111	Axxxxxxxx	Axxxxxxxx	\$11,111,111,111,111.68
.0022222	.0011111	11111	Axxxxxxxx	Axxxxxxxx	\$11,111,111,111,111.68
	.0022222	11111	Axxxxxxxx	Axxxxxxxx	\$11,111,111,111,111.68

Procedure: How to Create the Starting Center Point of the Map

In addition to creating the Latitude or Longitude coordinates and associating markers, you must set the center view of the map to a bound geographical point at run time. Center values can be set dynamically or by a constant value.

Note: The following example creates a report that sets the starting point of your map by:

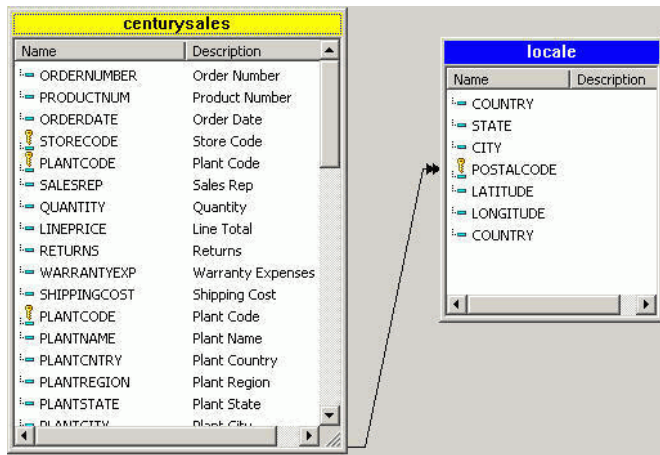
- ❑ Joining the Century Sales to the Locale data source for the latitude/longitude data.
- ❑ Creating the CITY value Where clause and retrieval limit in the report.

1. Join the Century Sales and Locale data sources.

Tip: The Century Sales and Locale data sources are available from the Master Files folder in the IBI Demonstration project of Developer Studio. You may copy these source files to the project directory of your choice.

- a. Create a new procedure in Developer Studio:
 - ☐ With the Procedures folder highlighted, select *New/Procedure* from the File menu.
 - or
 - ☐ Right-click the Procedures folder and select *New/Procedure* from the context menu.

The Add Procedure dialog box opens.
- b. Enter *setcentervalue* as the name for the new procedure in the File name field and click *Open*.
The Procedure Viewer opens.
- c. Click and hold a component connector (yellow diamond) and select *Join*.
The Open dialog box appears.
- d. Select *centurysales.mas* and click *Open*.
The Join dialog box opens.
- e. Select the *Add File* button from the Join toolbar.
The File Description List for Join dialog box opens.
- f. Select *locale.mas* and click *Open*.
Developer Studio automatically creates a Join between the data sources if they both have fields with the same formats. The Join tool displays both data sources and, the default Joins, as shown in the following example image.



- g.** Close the Join tool to save the Join and update the procedure.

The Join is added to the Procedure Viewer.

2. Create the CITY value where clause in the report.

- a.** Click and hold a component connector (yellow diamond) and select *Report*.

The Open dialog box appears.

- b.** Select *centurysales.mas* and click *Open*.

- c.** Select *By* from the Columns toolbar and double-click *LATITUDE* and *LONGITUDE* from the Object Inspector.

Note: If fields in your source are not called Latitude, Longitude, or Marker, you can:

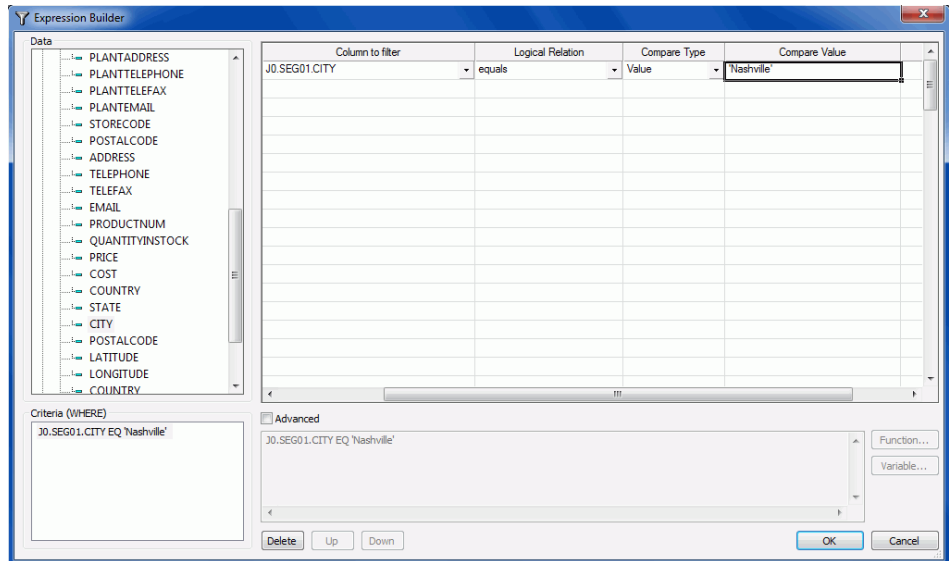
- ☐ Use the SET TOOL to Set *ASNAMES = ON*, to add AS Names in your procedure.
- ☐ In Report Painter, right-click the Field and select *Column Title*, to type in the correct name.

- d.** Select *Where/If* and click *Where*.

The Expression Builder opens.

- e. Create the following expression:

`CITY EQ 'Nashville'`



- f. Click *Apply*.
- g. Select *Where/If* and click *Retrieval Limits*.
- h. Enter *1* as the Record Limit.
- i. Select *Standard XML (XML)* as the Unstyled format.
- j. Click the *Output* tab and select *Web browser* from the Destination drop-down list.
- k. Click *OK* to close the Report Options dialog box.
3. Save and close the report.

In this example, Nashville is set as the center value starting point for your report.

Adding a Map

Once you have configured the map controls and created a WebFOCUS procedure to get a center value, you may add a map through the Insert menu of the HTML Composer.

Procedure: How to Insert Maps in the HTML Composer

1. Create the HTML Composer Page that contains the map.

- a. From Developer Studio Explorer, select the *HTML Files* folder in the desired project directory.
- b. Right-click and select *New/HTML File* from the context menu.
The Add HTML File dialog box appears.

- c. Type *maps* as the File name and click *Open*.

Note: The Template Selector will display if it has not been turned off. Clicking *Cancel* will open the HTML Composer with no template selected.

The HTML Composer opens.

2. Select which map you want to use by selecting either *Google map*, *Bing map*, or *ESRI map* from the Map type option in the Property sheet of the HTML page.

Note: When ESRI map is selected for the map type, the ArcGIS Server option is added to the Property sheet of the HTML page. A server must be specified or the map will not load without it.

3. From the Insert menu, select *Components*, then click *Map*.

Note: The Map and Refresh Parameters options will not be available from the right-click menu of a map control.

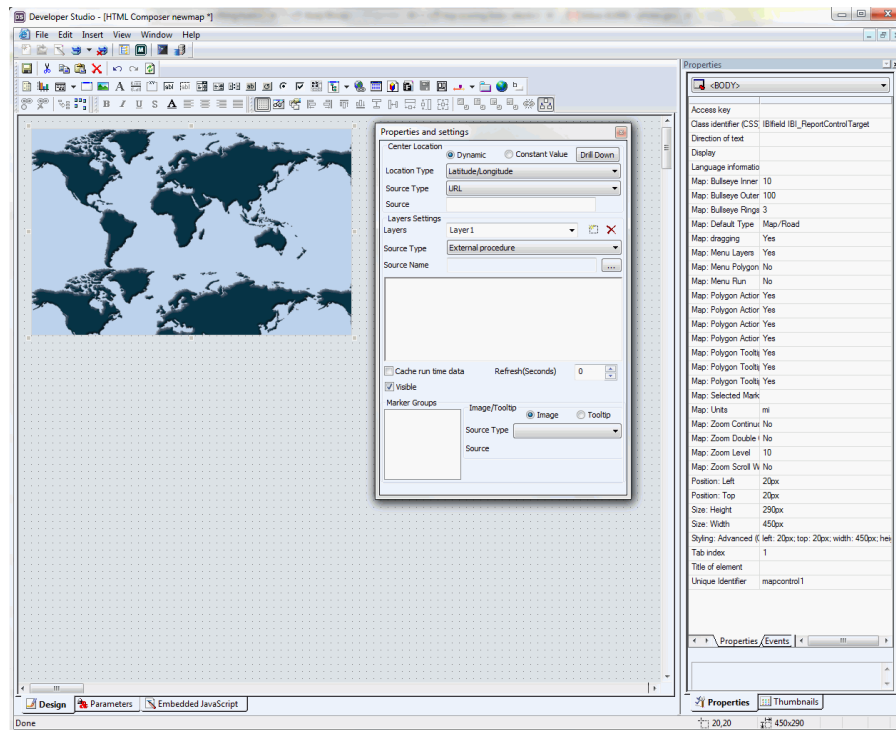
The cursor changes into a crosshair.

4. Click and drag the crosshair to create the map object and adjust it to the size you want.
The Properties and settings dialog box opens, from which you can set the map and layers properties. For details about using the map properties, see [Customizing the Map Properties](#) on page 480.

Note: If you close the Properties and settings dialog box, you can access it again by selecting *Properties and Settings* from the View menu.

The map control also has a set of properties for the object. For more information about setting these properties, see [Properties Window for Maps](#) on page 485.

The map appears as an image in the HTML Composer, as shown in the image below.



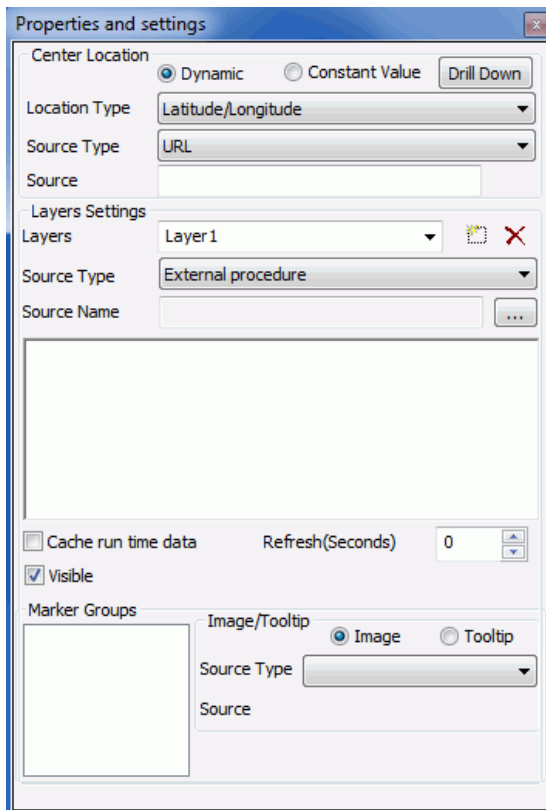
Note: Once a map has successfully been inserted into the HTML page, the COORDINATES field becomes available for use by any other components further in the chain.

Customizing the Map Properties

You may customize the map by using the Properties and settings dialog box and the Properties window.

Reference: Properties and Settings Dialog Box for Maps

The following image is the Properties and settings dialog box that opens when you create a map object.



Center Location

Sets the center view of the map to a bound geographical point at run time. The center location can be set dynamically or by a constant value.

- ☐ **Dynamic.** If these values are being retrieved from an external source, the source must contain two fields called LATITUDE and LONGITUDE, or if using an Address, a field called ADDRESS.

Select a Source Type and a Source. This binds a Source file that contains coordinates to set the center view of the map.

An external file should only return one Latitude and Longitude value for the center point.

You can use the ASNAME command to rename an existing field to the required names.

- ☐ **Constant value.** Manually type in a center value.

Location Type

Geographical position can be defined by Latitude or Longitude, or by an address.

The default is Latitude or Longitude.

Note: A Center Location, using address as the Location Type, is not supported when using an ESRI JavaScript map.

Source Type

When using a Dynamic center value, select the source of your location data. Source Type options are URL, XML File, and External procedure.

If using an External procedure, the report output must be XML.

Source

When using a Dynamic center value, enter the source file for the source type.

The Source field provides an ellipsis button when using XML File and External procedures. Select the source file from the Get source file dialog box.

Value

When using a constant value, enter the Address or Latitude and Longitude value.

If entering a Latitude or Longitude value, the value entered should be Latitude and then Longitude, separated with a comma (and/or space).

If entering a Latitude and Longitude value, it must be defined as a numeric value. For example, the following is latitude and longitude for New York, NY 10001:

40 45' 58.73" N, 73 59" 1.48" W and converts to 40.7663277, -73.9920777.

An example of an Address value is: *2 Penn Plaza New York, NY 10001*.

Layers Settings

Layers bind sources to the map in order to define map markers. Markers are presented at run time in the map, as indicated with images at specified geographical points. Clicking the map marker results in a drill down to a Source file and optionally, a Tooltip when pausing on a map marker.

Select a Source Type, Source and Marker. Each Layer row will yield a designated marker in the Marker Groups box. Optionally, a selected marker can be associated with an Image, Drill Down, and Tooltip.

Layers

You can rename the layers by typing in the Layers box. This name should be a unique name that is used to identify a layer in the layer control and in JavaScript calls.

Note: A default name of Layer1, Layer2, and so on, is applied when you click the *Add New* button. You may double-click in the field and manually type a unique name.

Source Type

Select the source of your layer. Source Type options are URL, XML File, and External procedure.

If using an External procedure, the report output must be XML.

Source Name

Enter the source file for the source type.

Note: The Source field provides an ellipsis button which enables you to select the source file from the Get source file dialog box.

When the source is selected, the Marker Groups box is populated with the values from the field MARKER in the WebFOCUS procedure.

Cache run time data

When adding dynamic parameters to the HTML page, input controls retrieve data through procedures. Select this option to cache the run-time data for the selected input control. This setting is off by default. This setting overrides the Default caching option from the HTML Page tab, which is located in the Developer Studio Options dialog box.

Visible

Controls the initial visibility of the marker groups, from the layer control, when the map runs. The visible option is useful when you want to make selections on the map without other markers, from other layers, interfering. For example, when making selections and doing a drill down, only visible markers should be selected and passed along.

- ☐ True shows the marker groups when the map runs. This is the default visible setting.
- ☐ False hides the marker groups when the map runs.

Refresh (Seconds)

You can refresh the source for a layer when the map runs. You may refresh a layer on demand, or automatically at a timed interval. The default refresh time is set to 0 seconds, which indicates that the automatic refresh is disabled. The minimum automatic refresh time is 60 seconds.

Refresh is not applicable to markers in the Marker Groups.

For more information about refreshing a map, see [How to Refresh the Map Output](#) on page 511.

Marker Groups

The Marker Group box lists all unique markers defined in the source of the highlighted source row. When the source is selected, the Marker Groups box changes, listing all markers in the selected Layer. Optionally, a selected marker can be associated with an Image, Drill Down, and Tooltip.

The possible values for markers are generated by previously defined fields in the Layer source. For more information about defining marker fields in a source, see [Creating WebFOCUS Procedures for Maps](#) on page 466.

Image/Tooltip

Select the Image and/or Tooltip to be associated for the selected marker.

- ☐ Select an image to be used to mark a point on the map at run time.
- ☐ When hovering over a map marker, a Tooltip containing a description of the selected map marker appears.

- ☐ If you do not specify marker images, the default marker image (a green pin) is used.

Source Type

- ☐ Images can be an image or a field.
- ☐ Tooltips can be a constant value or a field.

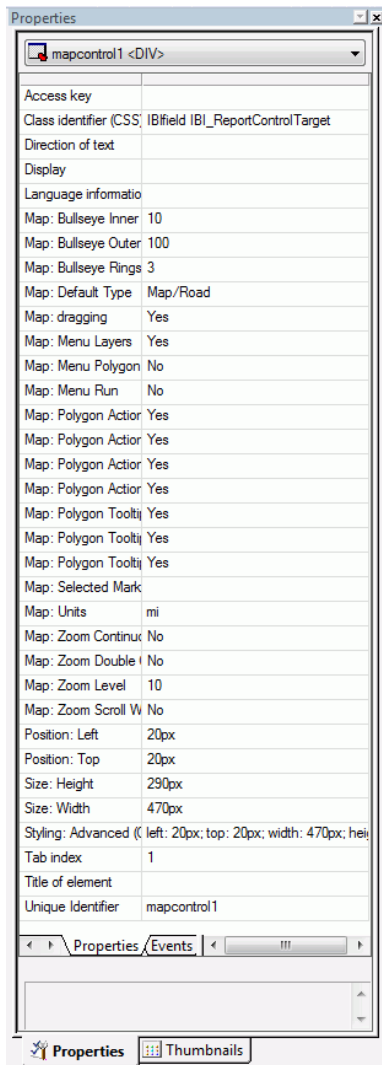
Source

Enter the source field, or constant value, for the source type.

When the Source Type is Image, the Source field provides an ellipsis button which enables you to select the image file from the Get source file dialog box.

Reference: Properties Window for Maps

The following image is the Properties window when a map object is selected.



Map: Bullseye Inner Ring

The inner ring radius is the distance between the center of the bullseye chart to the first ring, where 10 miles is the radius of distance.

Map: Bullseye Outer Ring

The outer ring radius is the distance from the center of the bullseye chart, where 100 miles is the radius of distance.

Map: Bullseye Rings

The number of rings to draw for the bullseye chart, where three rings is the default number of rings.

When you set the number of rings, the inner radius, and the outer radius, any rings between the innermost and the outermost ring, are proportionally separated.

Map: Default Type

Sets the default map rendered at run time. Select from Map/Road, Satellite/Bird's Eye, or Hybrid/Automatic. Each option is presented as part of the map in the output, allowing you to change views.

- ☐ **Map/Road.** Presents geographical borders and streets. This is the default map type.
- ☐ **Satellite/Bird's Eye.** Presents real imagery.
- ☐ **Hybrid/Automatic.** Presents real imagery with borders and streets.

Note: Map, Satellite, and Hybrid are used for Google Maps while Road, Bird's Eye, and Automatic are the equivalent for Bing Maps.

Map: dragging

Controls the ability to drag the map in order to reposition the center point to a new location. This option is set by default.

Note: This option cannot be disabled for Bing or ESRI maps. Selecting No from the drop-down list will not disable dragging.

Map: Menu Layers

The Layers menu control provides options to show or hide markers in the layers of the map, and manually refresh the layer(s).

Map: Menu Polygon

The New Polygon menu control provides options to select multiple markers on maps by creating shape selectors, such as a freehand polygon, rectangle, or bullseye chart.

You can select multiple markers on maps at run time by creating polygon shapes. Polygon features enable you to add both Tooltips and actions to all polygons when you pause on them in the map.

For details about how to create Polygon shape selectors in the map, see [How to Create Polygons in the Map Output](#) on page 513.

Map: Menu Run

The Run menu control runs the drill downs for the selected markers.

Map: Polygon Action Copy

Enables copying of a polygon.

Map: Polygon Action Delete

Enables deleting of a polygon.

Map: Polygon Action Move

Enables moving of a polygon.

Map: Polygon Action Resize

Enables resizing of a polygon.

Map: Polygon Tooltip Area

Tooltips appear when you pause on a shape selector in the map.

All Tooltip options are turned on by default.

Shows the Area Tooltip.

Map: Polygon Tooltip Dimensions

Shows the Dimensions Tooltip.

Dimensions appears as Radius (for a circle polygon shape) in the Tooltip.

Map: Polygon Tooltip Markers Count

Shows the Markers Count Tooltip.

Map: Selected Marker Image

Sets the icon or image associated with a marker when selected. Click the Selected Marker Image ellipsis button to open the Get source file dialog box and select a marker image. If you do not specify a selected marker image, the default selected marker image (a red bulb) is used.

Map: Units

Options for the location distance are miles (mi) or kilometers (km), where miles is the default unit selection.

Map: Zoom Continuous

Enables smooth, continuous zooming for select browsers.

Map: Zoom Double Click

Enables you to double-click to zoom in and out of the map.

Note: This option cannot be disabled for Bing maps. Selecting *No* from the drop-down list will not disable zooming when double-clicking.

Map: Zoom Level

Sets the default zoom level of the map at run time. The levels available are 0 through 18. If the zoom level is set to 8 or higher, the initial map will have only one point visible. The default value is 10.

You may also change the zoom level in the output with the scrolling and arrow buttons on the map.

Map: Zoom Scroll Wheel

Enables you to use the scroll wheel of your mouse to zoom in and out of the map.

Note: This option cannot be disabled for Bing maps. Selecting *No* from the drop-down list will not disable zooming using the scroll wheel.

Procedure: How to Customize a Map

Customize the map by selecting the map and layer options.

1. From the Properties and settings dialog box, select the starting center point for the map in the *Center Location* section.
 - ❑ If you are using a Dynamic value, select the Location Type, Source Type and a Source.
Source Type options are URL, XML File, and External procedure. If you are using an External procedure, the report output must be XML.

For example, select *Dynamic, Latitude/Longitude* from the Location Type drop-down list, and *External procedure* from the Source Type drop-down list. Click the *Source* ellipsis button to open the Get source file dialog box and double-click *setcentervalue.fex* as the external XML file. For details about the starting center point, see [How to Create the Starting Center Point of the Map](#) on page 474.

- ❑ If you are using a Constant value, select the Location Type and enter the Value.

An example of an Address value is: 2 Penn Plaza New York, NY 10001.

If entering a Latitude and Longitude value, it must be defined as a numeric value. For example, the following is latitude and longitude for New York, NY 10001: 40 45' 58.73" N, 73 59" 1.48" W and converts to 40.7663277, -73.9920777.

2. To set the image for a selected marker at run time, in the *Map: Selected Marker Image* section of the Properties window, click the *Source* ellipsis button to open the Get source file dialog box, and select a marker image.

For example, click the *Source* ellipsis button to open the Get source file dialog box and double-click *purplepin.png* as the marker image file.

3. In the map control Properties window, Change the Zoom level to 6 and keep the other Default Map Type options.

For more information about these properties, see [Properties Window for Maps](#) on page 485.

4. From the *Layers Settings* section of the Properties and settings dialog box, bind one or more WebFOCUS procedures to load data into the map by selecting the *Source Type* and *Source Name*. Optionally, you may edit the name of the layer or the *Visible* and *Refresh* options for the source layer.

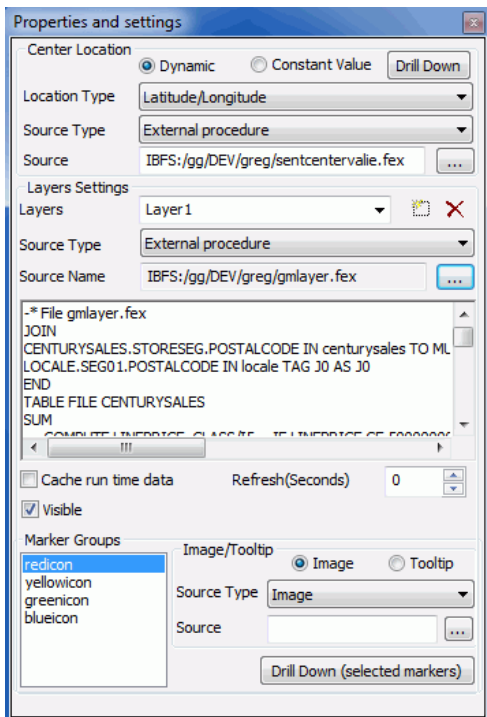
For example, click the *Add new* button to create a layer. The default Source Type is External procedure. Click the *Source Name* ellipsis button to open the Get source file dialog box and double-click *gmlayer.fex* as the external procedure file. For more details about the procedure file, see [How to Create Map Latitude/Longitude Coordinates in the Source File](#) on page 466.

When the source is selected, the Marker Groups box is populated with the values from the Field MARKERS in the WebFOCUS procedure.

For more information about these properties, see [Properties and Settings Dialog Box for Maps](#) on page 480.

5. Double-click a group from the Marker Groups box to set the associated Image, Tooltip, and Drill Downs.

The following image is an example of the Marker Groups box populated with the marker groups created from the *gmlayer.fex* source file. For more information about creating marker groups in the source, see [How to Create Map Marker Group Fields and Tooltip Fields in the Source File](#) on page 469.



6. You may edit the Image, Tooltip, or Drill Down for each marker group selected.

Each marker group can have its own image and Tooltip.

For example, select *greenicon* from the Marker Groups box. Double-click *greenpin.png* from the Image Source section. The marker image is automatically saved. Repeat this process to apply individual images to each of the marker groups.

Tip: To select multiple marker groups at one time:

- ❑ Press and hold the Shift key while selecting the marker groups from the Marker Groups box.
- ❑ Edit the Tooltip and drill-down options to apply the selections to all of the marker groups selected.

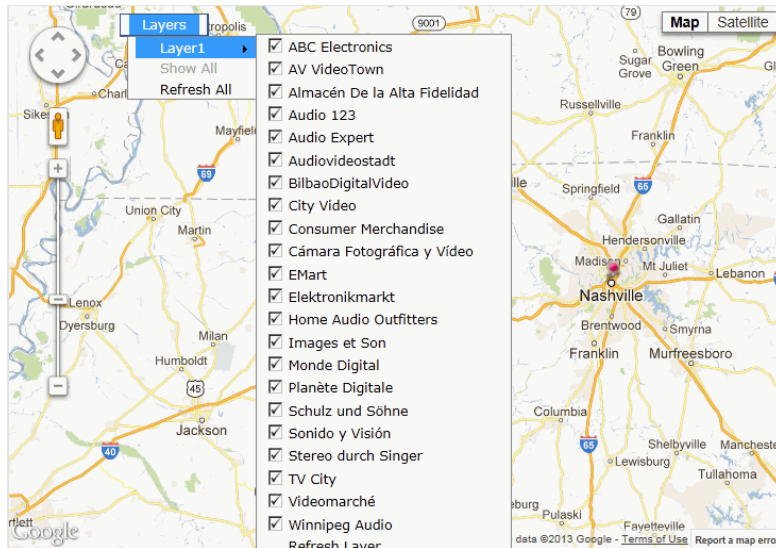
For example, apply the Tooltip to all of the marker groups by selecting *Field* as the Source Type and *REVENUE_RANGE* as the Source.

7. Select the map object from the HTML Composer canvas and set the size and position in the Properties window:

- ☐ Position: Left 30 px.
- ☐ Position: Top 30 px.
- ☐ Size: Height 260 px.
- ☐ Size: Width 640 px.

8. Save and run the report.

You may use map controls to navigate around the map, zoom in or out, drag the map to a new position, select different map types, and see marker groups. For example, click the minus icon on the map to zoom out and see all of the colored marker groups.



Note: The Zoom In and Zoom Out slider control appears on the map since the Size: Height property is greater than 280px. For details about setting properties, see [Properties Window for Maps](#) on page 485.

For more information about using map controls, see the documentation from the website of each respective map.

Integrating WebFOCUS With Maps

You can integrate WebFOCUS reports with maps by:

- ❑ Customizing map properties and binding them to a WebFOCUS report, enabling drill-down reports to be run from a map.
- ❑ Updating map views based on values selected in a WebFOCUS report.

Latitude and longitude values can be passed as a parameter from a map to update a WebFOCUS procedure. Latitude and longitude are sent as a pair of values, and the HTML Composer uses a specific parameter, `&COORDINATES`, to parse the value pairs correctly.

Procedure: How to Update a WebFOCUS Report Based on a Map Location

By adding a drill down to a map, you can filter a WebFOCUS report by the latitude and longitude coordinates of the selected marker(s). The parameter to pass the longitude and latitude values must be called `&COORDINATES`. This HTML Composer parameter will parse the Latitude and Longitude as paired data sets.

The following example updates a WebFOCUS report based on a map location by:

- ❑ Joining Century Sales to the Locale data source.
 - ❑ Creating a Revenue by Category report.
 - ❑ Creating the `&COORDINATES` parameter in the report.
 - ❑ Adding the report to the HTML Composer.
 - ❑ Changing the map properties to drill down to the embedded procedure.
1. From the HTML Composer with a map created, select *New Report* from the Insert menu.
The cursor changes into a crosshair.
 2. Click and drag the crosshair to create the report object and adjust it to the size you want.
 3. Right-click on the report object and select *Open procedure viewer* from the context menu.
The Procedure Viewer opens.
 4. Join the Century Sales and Locale data sources.

Tip: The Century Sales and Locale data sources are available from the Master Files folder in the IBI Demonstration project of Developer Studio. You may copy these source files to the project directory of your choice.

- a. Click and hold a component connector (yellow diamond) and select *Join*.

The Open dialog box appears.

- b. Select *centurysales.mas* and click *Open*.

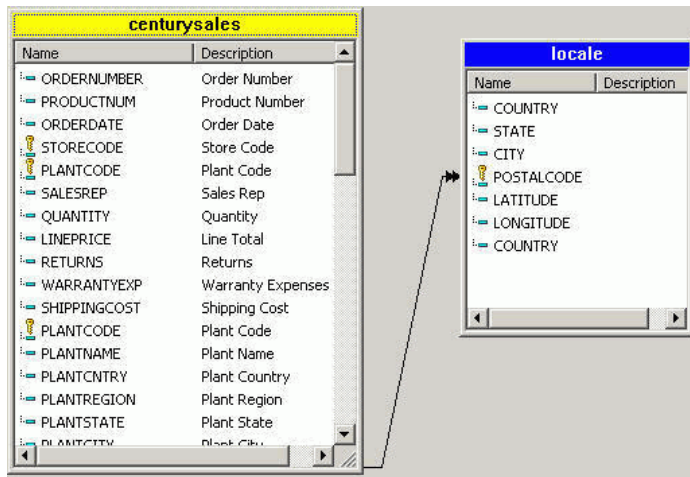
The Join dialog box opens.

- c. Select the *Add File* button from the Join toolbar.

The File Description List for the Join dialog box opens.

- d. Select *locale.mas* and click *Open*.

Developer Studio automatically creates a Join between the data sources if they both have fields with the same formats. The Join tool displays both data sources and, the default Joins, as shown in the example image below.



For more information about using the Join tool, see the *Creating Reporting Applications With Developer Studio* manual.

- e. Close the Join tool to save the Join and update the procedure.

The Join is added to the Procedure Viewer.

5. Create a Revenue by Category report.
 - a. From the Procedure Viewer, click and hold a component connector (yellow diamond) and select *Report*.

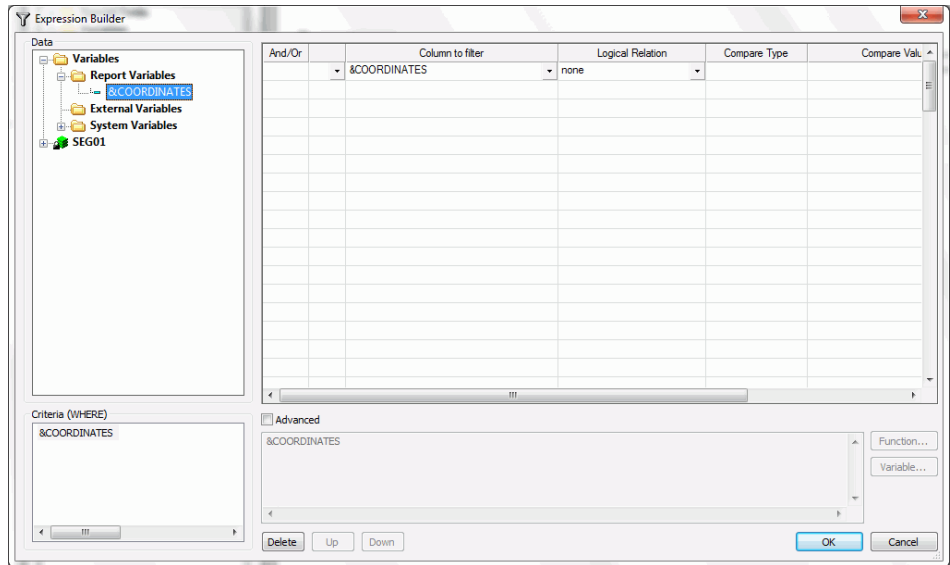
The Open dialog box appears.
 - b. Select *centurysales.mas* and click *Open*.

The Report Painter opens.
 - c. Select *By* from the Columns toolbar and double-click *CITY*, *PRODUCTTYPE*, *REGION*, *STATE*, and *STORENAME* from the Object Inspector.
 - d. Click the mouse after the *STORENAME* field to add the next field.
 - e. Select *Sum* from the Columns toolbar and double-click *LINEPRICE* from the Object Inspector.
 - f. Rename the *PRODUCTTYPE* and *LINEPRICE* fields:
 - ☐ Select *PRODUCTTYPE*, right-click and select *Column Title* from the context menu. Type *Category* in the Title dialog box and click *OK*.
 - ☐ Select *LINEPRICE*, right-click and select *Column Title* from the context menu. Type *Revenue* in the Title dialog box and click *OK*.
 - g. Type *Revenue by Category* in the Page Heading.
6. Create the *&COORDINATES* parameter.
 - a. In the Object Inspector, expand the *Variables* folder, right-click on *Report Variables* and select the *New Report Variable* option.

The Variable Editor opens.
 - b. Enter *COORDINATES* in the Name box and click *OK* to exit the Variable Editor.
 - c. Select *Where* from the *Where/If* menu.

The Expression Builder opens.

- d.** In the Data pane, navigate to the Report Variables folder and drag &COORDINATES to the Criteria (WHERE) pane.



- e.** Click **OK**.

7. Add the report to the HTML Composer.

- a.** The report and &COORDINATES parameter have been created, save and close the report.

You are returned to the HTML Composer where the New Parameters dialog box appears.

- b.** Clear the Create control check box for the parameter, and click **OK**.

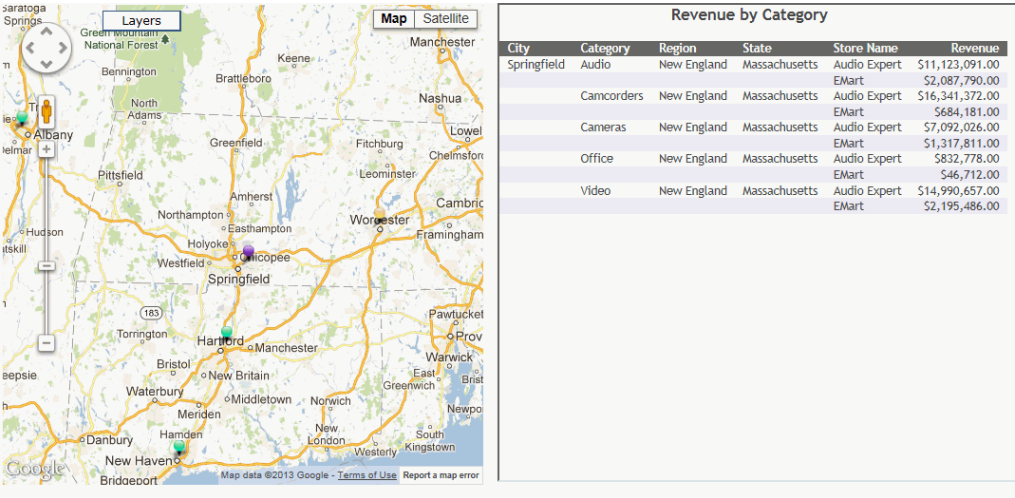
You will not need a control for the &COORDINATES parameter because the parameters will be passed by the map.

The Revenue by Category report appears in the HTML Composer.

- c.** Select the report object to view the associated properties in the Properties window.
- d.** Select *False* from the Auto Execute drop-down list in the Properties window.

- 8. Change the map properties to drill down to an embedded procedure.
 - a. Double-click the map object to open the Properties and settings dialog box.
 - b. Click the mouse and hold the Shift key and select all marker groups.
 - c. From the Drill Down section, select:
 - ☐ *Embedded procedure* as the Drill Down Action.
 - ☐ *report1* from the Source drop-down list.
 - ☐ Keep the default selections for Target Type and Target/Template Name.
 - d. Click OK to close the Hyperlink Properties dialog box.
- 9. Select the *Parameters* tab.
- 10. Bind the map control to the &COORDINATES parameter.
- 11. Save and run the layout.

Click the markers on the map to update the report based on the location selected, as shown in the image below.



Procedure: How to Update the Map Based on Data in a Report

A JavaScript function is used in a WebFOCUS report to update a map. The JavaScript function panToPoint automatically scrolls the map to a specified Latitude and Longitude. In addition, the zoom level of the map can be specified. This will overwrite the zoom level set by default.

The following example updates a map based on data in a report by:

- ❑ Joining Century Sales to the Locale data source.
- ❑ Creating a Regional Revenue Results report.
- ❑ Adding panToPoint JavaScript drill down command.

This JavaScript function requires the following parameters (in the table below) in this order. Each parameter can be set to a Field, Constant Value or a Variable.

Parameters	Drill Down Parameter Value
LATITUDE	The latitude value.
LONGITUDE	The longitude value.
Unique Identifier	The Unique Identifier for the targeted map object.
Zoom Level	Numeric value between 0 and 18.

- ❑ Adding the drill down report to the map.
 1. From the HTML Composer with a map created, select *New Report* from the Insert menu.
The cursor changes into a crosshair.
 2. Click and drag the crosshair to create the report object and adjust it to the size you want.
 3. Right-click the report object and select *Open procedure viewer* from the context menu.
The Procedure Viewer opens.
 4. Join the Century Sales and Locale data sources.

Tip: The Century Sales and Locale data sources are available from the Master Files folder in the IBI Demonstration project of Developer Studio. You may copy these source files to the project directory of your choice.

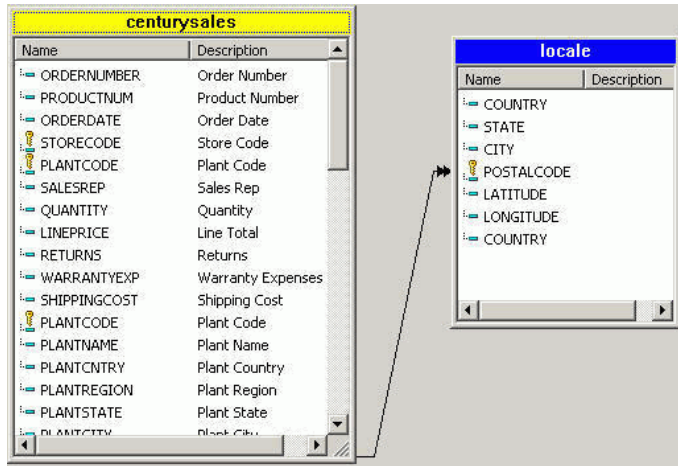
- a. Click and hold a component connector (yellow diamond) and select *Join*.
The Open dialog box appears.
- b. Select *centurysales.mas* and click *Open*.
The Join dialog box opens.

- c. Select the *Add File* button from the Join toolbar.

The File Description List for Join dialog box opens.

- d. Select *locale.mas* and click *Open*.

Developer Studio automatically creates a Join between the data sources if they both have fields with the same formats. The Join tool displays both data sources and the default Joins, as shown in the example image below.



For more information about using the Join tool, see the *Creating Reporting Applications With Developer Studio* manual.

- e. Close the Join tool to save the Join and update the procedure.

The Join is added to the Procedure Viewer.

5. Create a Regional Revenue Results report.

- a. From the Procedure Viewer, click and hold a component connector (yellow diamond) and select *Report*.

The Open dialog box appears.

- b. Select *centurysales.mas* and click *Open*.

The Report Painter opens.

- c. Select *By* from the Columns toolbar and double-click *COUNTRY*, *REGION*, *STATE*, *STORENAME*, *LATITUDE*, and *LONGITUDE* from the Object Inspector.

- d. Hide the Latitude and Longitude fields:

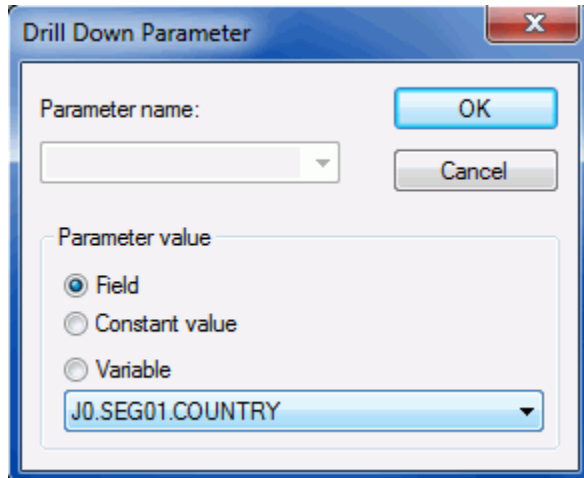
- ☐ Select *LATITUDE*, right-click and select *Invisible* and click *On* from the context menu.
- ☐ Select *LONGITUDE*, right-click and select *Invisible* and click *On* from the context menu.
- e.** Click the mouse after the *LONGITUDE* field to add the next field.
- f.** Select *Sum* from the Columns toolbar and double-click *LINEPRICE* from the Object Inspector.
- g.** Rename the *LINEPRICE* field:
 - ☐ Select *LINEPRICE*, right-click and select *Column Title* from the context menu.
 - ☐ Type *Revenue* in the Title dialog box and click *OK*.
- h.** Type *Regional Revenue Results* in the Page Heading.
- i.** Add a Style Sheet to the report:
 - ☐ Select the *Style File Selection* button from the Report menu.

The StyleSheet Selection box opens.
 - ☐ Click the *Add new item* button and select *defltblu.sty* from the StyleSheet File Selection dialog box.
 - ☐ Click *OK*.

The selected Style Sheet is added to the Include StyleSheet File section.
 - ☐ Click *Finish* to close the StyleSheet Selection box.

The StyleSheet is applied to the report.

6. Add JavaScript drill-down parameters for the (By) COUNTRY field.
 - a. Select *COUNTRY*, right-click and choose *Options* from the context menu.
The Field Properties dialog box opens at the Style tab.
 - b. Click the *Drill Down* tab.
 - c. Select *Column Data* from the active object drop-down list.
 - d. Select *Javascript* from the Drill Down Type drop-down list.
 - e. Type *panToPoint* in the Javascript input field.
 - f. Click *Add* from the With Parameters section to add each required drill down parameter.
The Drill Down Parameter dialog box opens.

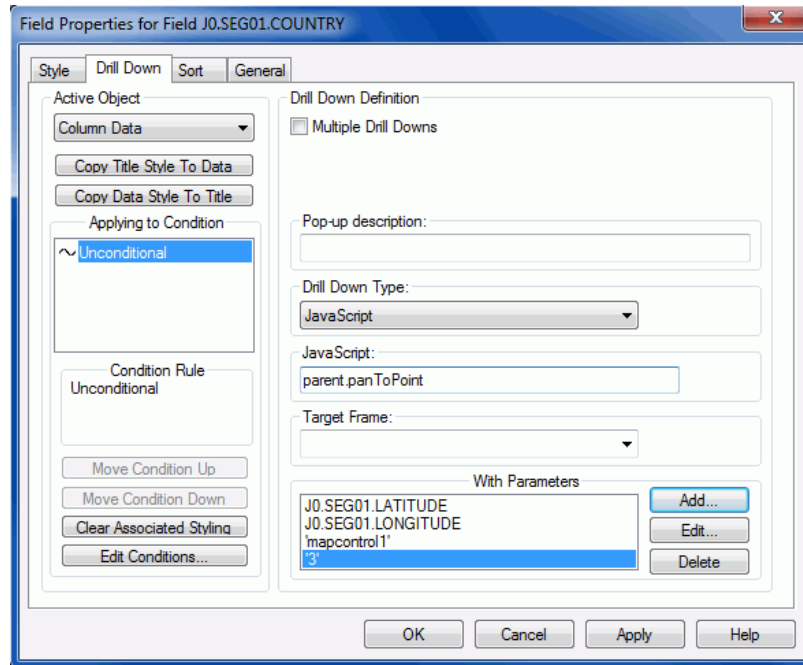


- g. Add the following Drill Down Parameters:
 - ❑ With the *Field* Parameter value selected, select *LATITUDE* from the drop-down list and click *OK*.
 - ❑ Click *Add* to add the longitude parameter. With the *Field* Parameter value selected, select *LONGITUDE* from the drop-down list and click *OK*.
 - ❑ Click *Add* to add the unique identifier parameter. With the *Constant* Parameter value selected, type *mapcontrol1* in the input field and click *OK*.

Note: The name of the map object in the HTML Composer is *mapcontrol1*.

- ❑ Click *Add* to add the zoom level parameter. With the *Constant* Parameter value selected, type 3 in the input field and click *OK*.

The following image is an example of the Field Properties Drill Down tab with these options added.



- h. Click *OK* to close the Field Properties dialog box.
7. Add JavaScript drill-down parameters for the (By) *STATE* field.
- a. Select *STATE*, right-click and choose *Options* from the context menu.
The Field Properties dialog box opens at the *Style* tab.
 - b. Click the *Drill Down* tab.
 - c. Select *Column Data* from the active object drop-down list.
 - d. Select *Javascript* from the Drill Down Type drop-down list.
 - e. Type *panToPoint* in the Javascript input field.
 - f. Click *Add* from the With Parameters section to add each required drill down parameter.
The Drill Down Parameter dialog box opens.

- ❑ With the *Field* Parameter value selected, select *LATITUDE* from the drop-down list and click *OK*.
- ❑ Click *Add* to add the longitude parameter. With the *Field* Parameter value selected, select *LONGITUDE* from the drop-down list and click *OK*.
- ❑ Click *Add* to add the unique identifier parameter. With the *Constant* Parameter value selected, type *mapcontrol1* in the input field and click *OK*.

Note: The name of the map object in the HTML Composer is mapcontrol1.

- ❑ Click *Add* to add the zoom level parameter. With the *Constant* Parameter value selected, type 6 in the input field and click *OK*.
- ❑ Click *OK* to close the Field Properties dialog box.

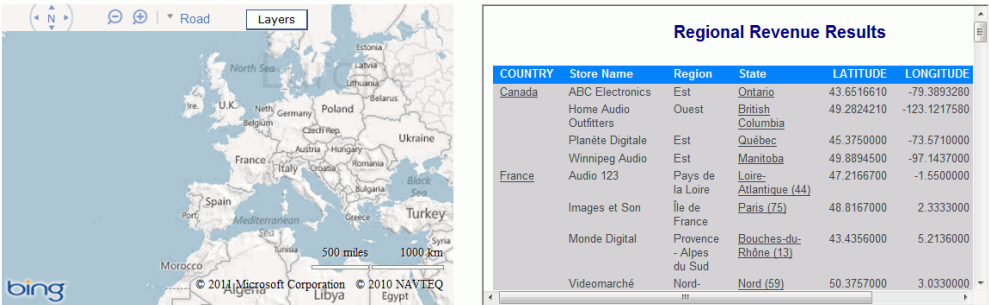
8. Save and close the report and Procedure Viewer.

The report appears in the HTML Composer.

9. Save and run the layout.

The map and the report appear in the output. Click a drill-down link from the report. The map updates according to the location selected from the report.

For example, click on a link in the *Country* column to zoom and navigate to the selected country at the zoom level illustrated. Or click on a link in the *State* column to zoom and navigate to the selected state at the zoom level specified.



Using the Maps Functionality

This section describes how to use maps with the custom functionality provided by Information Builders. You can select multiple markers on maps at run time and drill down to WebFOCUS procedures filtered by the marker locations selected.

Note: For Google and Bing maps, the functions in this section can be accessed by right-clicking on a map during run time. To access the same functions for ESRI JavaScript API maps you must click on the Tools button at the top of the map during run time.

There are several ways of selecting markers, such as:

- ☐ Manual Selection.
- ☐ Shape Selection.
- ☐ Combination Selection.

Note: Selected markers are indicated by the Selected Marker Image that you supply on the map Properties window. For more information about the map Properties window, see [Properties Window for Maps](#) on page 485.

Procedure: How to Use Manual Selection in the Map

Manual selection is the act of clicking on one or more individual markers in succession.

1. To initiate a manual selection, click on a marker while pressing and holding the Ctrl key from your keyboard.
2. To clear a selected marker, press and hold the Ctrl key and click the marker again.
3. To make selections without the risk of clearing a marker, press and hold the Shift key rather than the Ctrl Key.

Note: The Shift key does not clear the selected markers.

For example, the image below shows a map with three markers, as indicated by a red, green, and blue marker.



When the green and blue markers are selected, they become purple markers, as shown in the following image.



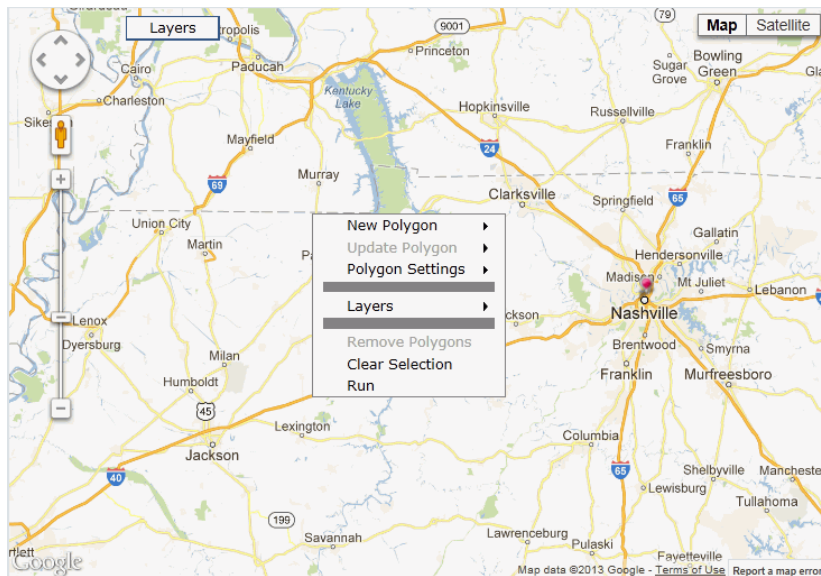
Procedure: How to Use Shape Selection in the Maps

Shape selection is the act of clicking in a specific location on the map and then drawing an area with the mouse on the map to form a shape. This shape enables you to select all markers within the drawn area. The map provides various selector shapes to choose from.

Tip: The shape selection options are available from the right-click context menu on Google and Bing maps and through the Tools menu for ESRI JavaScript API maps. You may also customize these options from the map Properties window.

1. To initiate a shape selection, right-click anywhere on the map or click the *Tools* button if you are using an ESRI JavaScript API map.

The Tools menu appears, as shown in the image below.

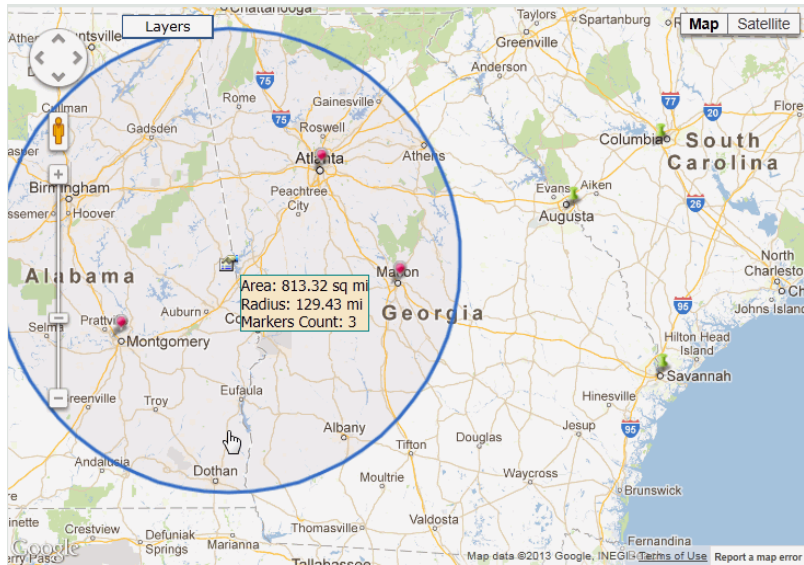


You may create a new polygon shape, change the polygon settings, show or hide markers from a layer, and refresh a layer.

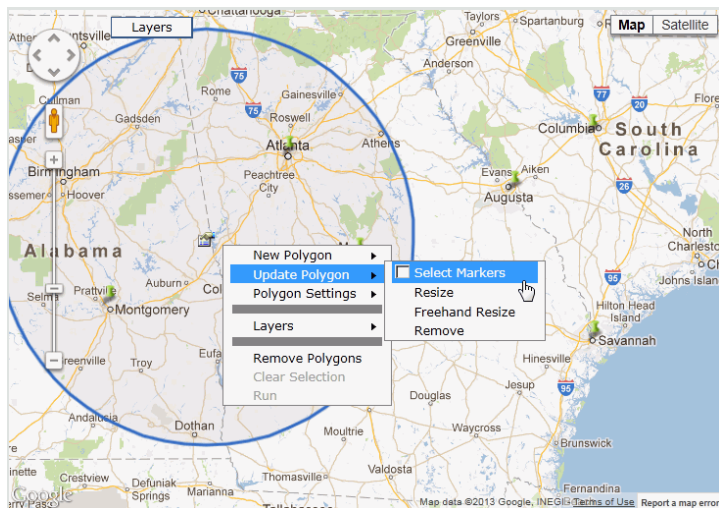
2. To create a shape selection, select an option from the New Polygon menu, left-click and drag your mouse from the shape selection point on the map.

Note: The method by which selections are made depends on the selector shape used. For details, see [How to Create Polygons in the Map Output](#) on page 513.

The shape selector is created with the selected markers, and a Tooltip indicating the details of the shape selector, as shown in the example image below.

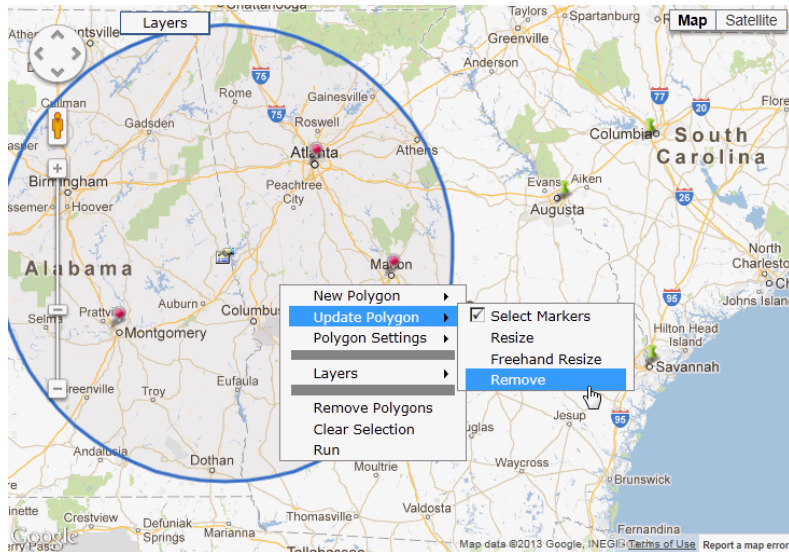


3. To clear the markers in the shape selection, unselect *Select Markers* from the Update Polygon menu.



Note: Selecting *Clear Selection* clears all of the selected markers from the map.

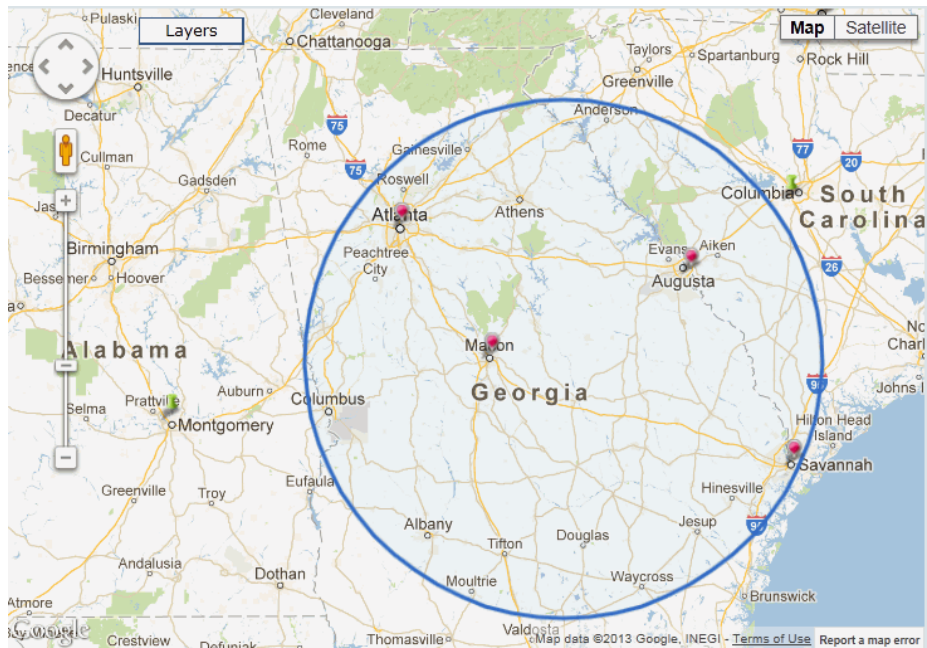
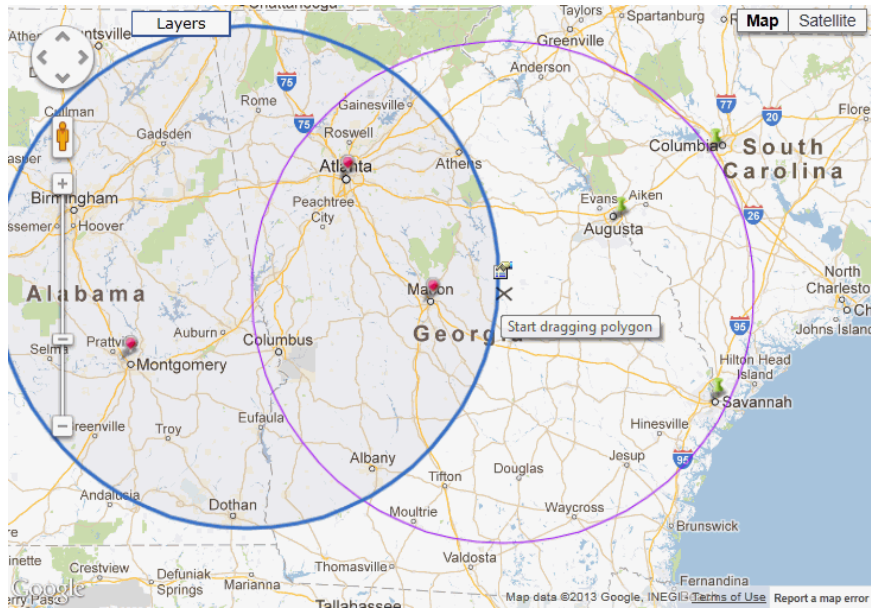
4. To remove the shape selection from the map, select *Remove* from the Update Polygon menu.



Note: Selecting *Remove Polygons* removes all the shape selectors from the map.

5. Optionally, to reposition any of the selector shapes to a different location on the map:
 - ☐ Pause the mouse over the center of the selector shape to be repositioned.
 - ☐ Left-click and drag from the middle of the shape to the new location.

The selector shape is repositioned over the new location.



Procedure: How to Use Combination Selection in Maps

Combination selection is the act of using both the manual selection method and the shape selection method separately, or in coordination with one another, to make marker selections. Multiple selections can be made by using any of the above procedures prior to drilling down to WebFOCUS procedures.

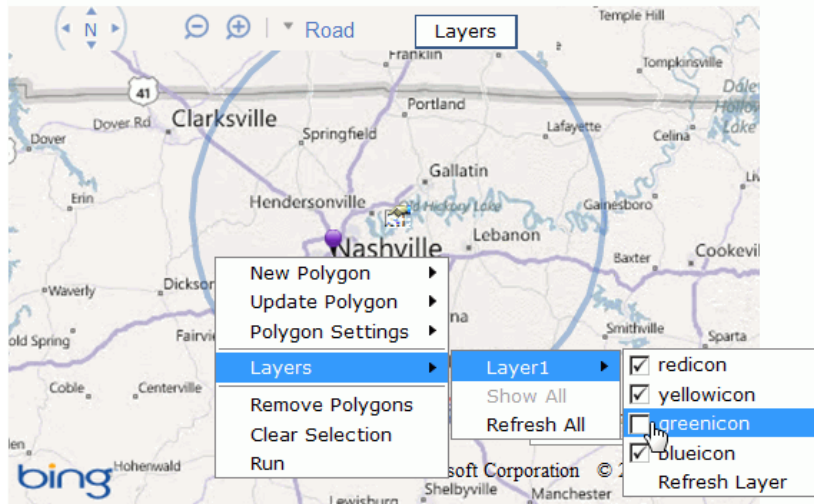
Procedure: How to Show and Hide Markers in Maps

All layer marker groups are visible in a map by default. You may edit the visibility option to hide the markers in a map at run time.

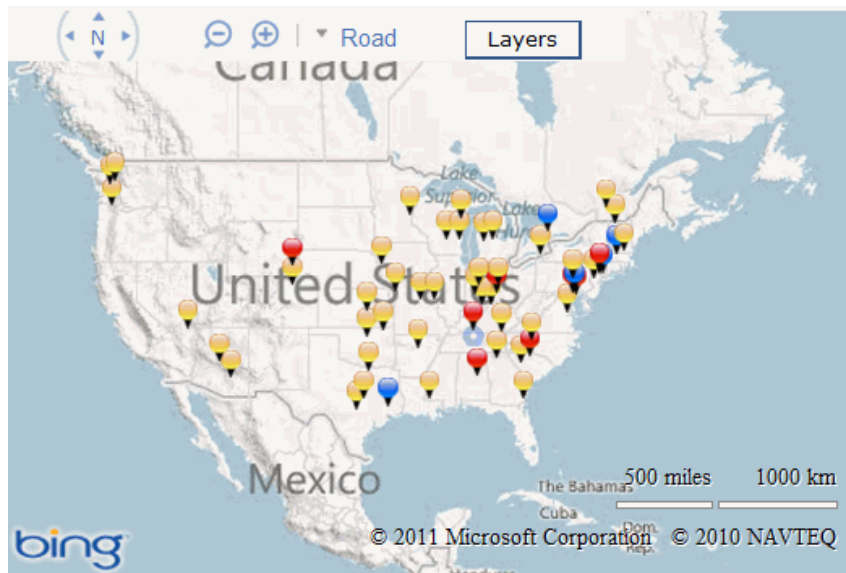
1. To edit the visibility option from the map output:
 - ❑ Right-click anywhere on the map if you are using a Google or Bing map or click the *Tools* button for ESRI JavaScript API maps.
The menu appears.
 - ❑ Select the layer name from the Layer menu.

Note: The layer name is the unique name for the layer created in the Map Properties dialog box. For more information about the layer options, see [Properties and Settings Dialog Box for Maps](#) on page 480.

- ❑ From the unique name layer menu, you may select the markers to hide from the selected layer. In the image below, the greenicon markers from Layer1 will be hidden in the map.



The selected markers are not visible on the map, as shown in the image below.



Tip: To show all marker groups from all layers on the map, select *Show All* from the Layers menu.

2. To edit the visibility option from the Properties and settings dialog box:
 - ☐ From the HTML Composer with a map created, go to the Properties and settings dialog box.
 - ☐ Click the *Visible* option so that it does not have a check mark in the box next to it.

Note: Only layers have a visibility option on the Properties and settings dialog box. You may hide individual markers from a layer in the map output, as described in the first step of this procedure.

When you run the map, all of the layer markers are not visible.

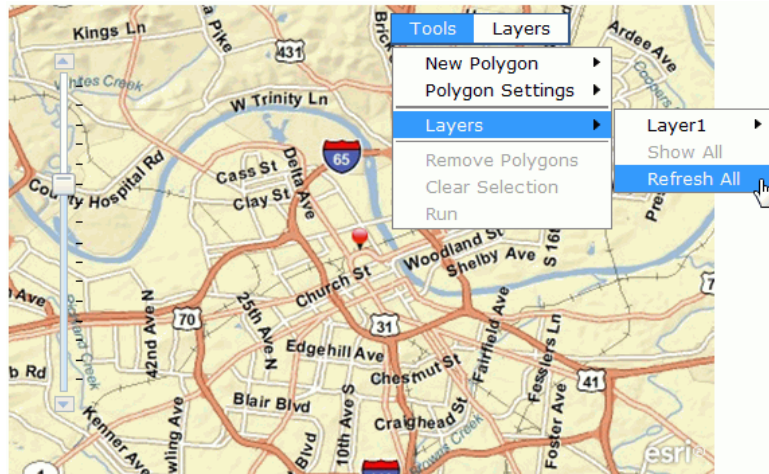
Procedure: How to Refresh the Map Output

You may refresh the map output on demand or by setting up an automatic refresh at a timed interval.

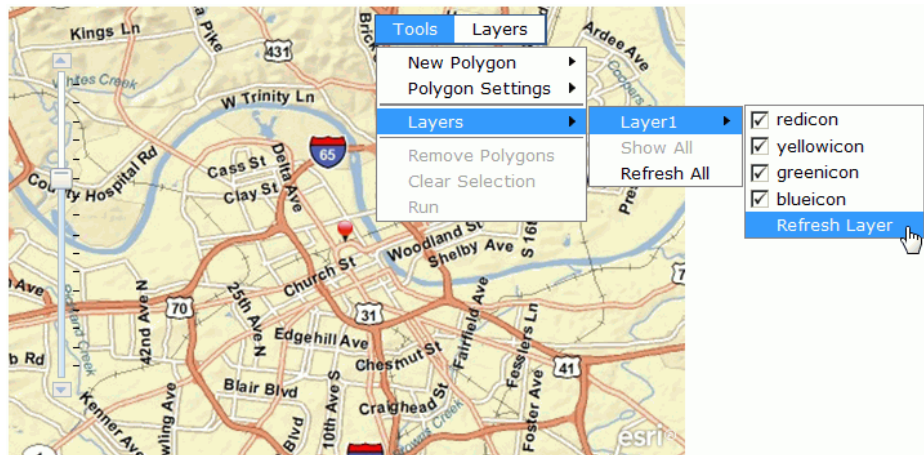
1. To refresh a map on demand:
 - ☐ From the map output, right-click anywhere on the map or click the *Tools* button if you are using an ESRI JavaScript API map.

The menu appears.

- ❑ To refresh all layers on the map, select *Refresh All* from the Layers menu.



- ❑ To refresh individual layers on a map, select *Refresh Layer* from the layer name of the Layer menu.



Note: The layer name is the unique name for the layer created in the Map Properties dialog box. For more information about the layer options, see [Properties and Settings Dialog Box for Maps](#) on page 480.

2. To automatically refresh the map output at a timed interval:

- ❑ From the HTML Composer with a map created, go to the Properties and settings dialog box.
- ❑ Select the refresh time, in seconds, by using the *Refresh (Seconds)* option.

Note: The default refresh time is set to 0 seconds, which indicates that the automatic refresh is disabled. The minimum automatic refresh time is 60 seconds.

- ❑ Close the Properties and settings dialog box.

Refresh is not applicable to markers in the Marker Groups.

The source for the layer refreshes on the map at the set timed interval.

Procedure: How to Create Polygons in the Map Output

The available shape selections from the New Polygon menu are Freehand, N-sided Polygon, Rectangle, Bullseye Fixed, and Bullseye Freehand. For details about bullseye charts, see [How to Create Bullseye Charts in the Map Output](#) on page 517.

Note: Polygons created when using ESRI maps are unable to be moved, copied, or resized.

1. Create a freehand polygon.

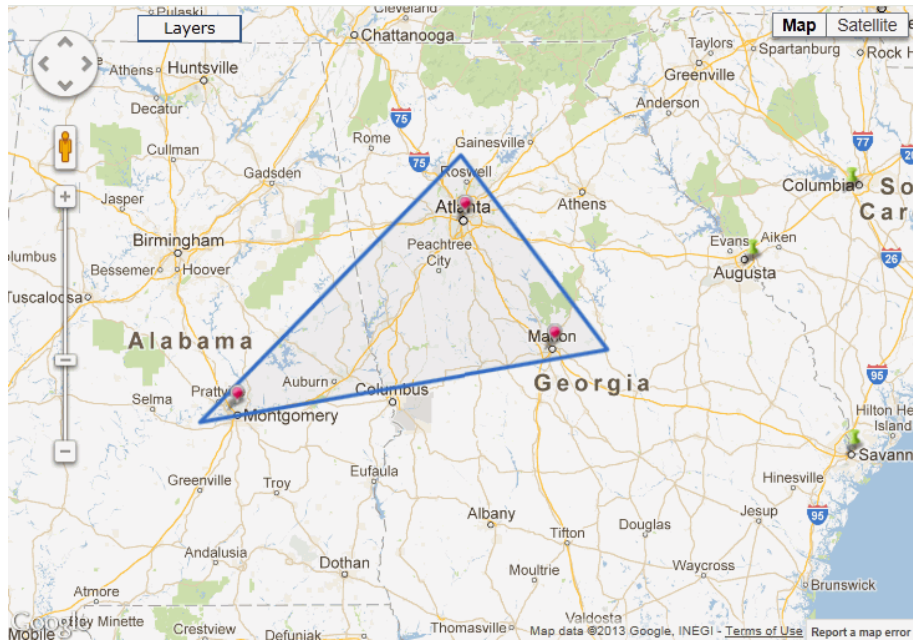
A freehand polygon shows the selector shape as a series of lines that you mark at specific points on the map.

- ❑ For Google and Bing maps, right-click anywhere on the map and select *Freehand* from the New Polygon menu. For ESRI JavaScript API maps, click the *Tools* button and select *Freehand* from the New Polygon menu.

A cross is indicated on the map.

- ❑ Left-click to indicate the starting point and create the crosshair on the map.
- ❑ Drag and release to drag a line from one point to the next. Repeat left-click, drag, and release. These clicks will represent the corners of the shape to be drawn.
- ❑ When you close the connector lines, the selected markers are indicated within the polygon shape, as shown in the image below.

Note: You can also use the Freehand Close option to close the polygon. The Freehand Close option is found in the New Polygon menu. This option is unavailable unless you are using the Freehand option. The Freehand Close options is best used on an iPad device.



2. Create an N-sided polygon.

An n-sided polygon shows the selector shape as a continuous line you draw around the markers to be selected. N-sided indicates that you can select the number of sides for the polygon.

Note: The default polygon is a circle.

- ❑ For Google and Bing maps, right-click anywhere on the map and select *N-sided Polygon* from the New Polygon menu. For ESRI JavaScript API maps, click the *Tools* button and select *N-sided Polygon* from the New Polygon menu.

A cross is indicated on the map.

- ❑ Left-click to indicate the starting point and create the crosshair on the map.

- ❑ Drag the crosshair to a different point on the map and around the markers to be selected.
- ❑ Left-click to close the polygon. The selected markers are indicated within the polygon shape, as shown in the image below.

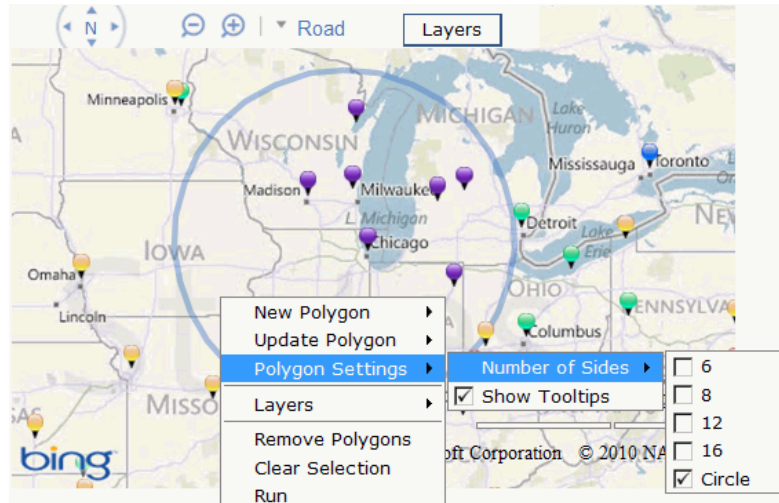


To change the number of sides for the polygon:

- ❑ Select *Number of Sides* from the Polygon Settings menu.

Note: The default polygon is a 12-sided polygon. You may change the number of sides for a polygon by using the Polygon Settings menu on the map.

- ❑ Select the number of sides you wish to create. Options are 6 sided, 8 sided, 12 sided, 16 sided, or Circle (this is the default), as shown in the image below.



Optionally, you may select to Show Tooltips for the polygons on the map.

- ❑ Select *N-sided Polygon* from the New Polygon menu and click and drag the object on the map.

The polygon shape has the number of sides that you indicated from the Polygon Settings.

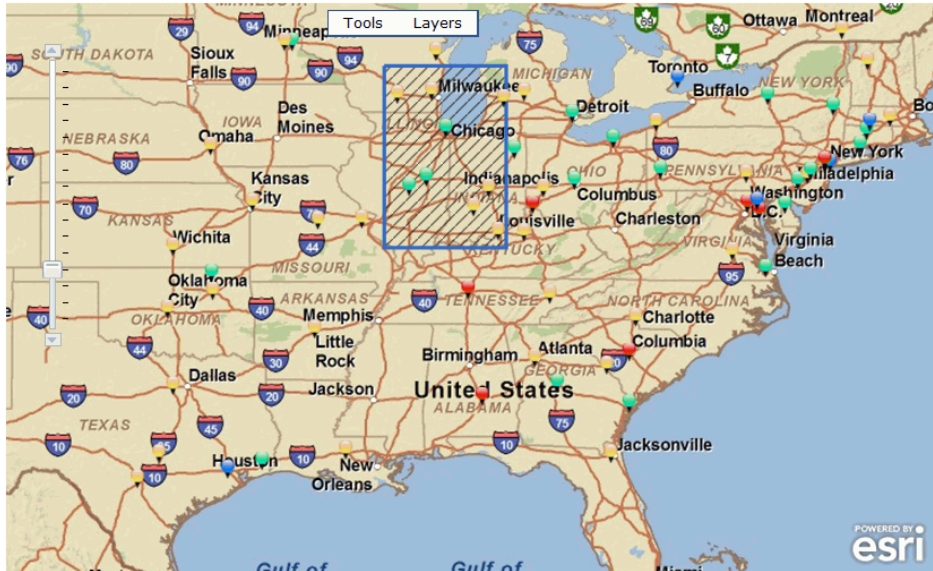
3. Create a rectangle.

- ❑ For Google and Bing maps, right-click anywhere on the map and select *Rectangle* from the New Polygon menu. For ESRI JavaScript API maps, click the *Tools* button and then select *Rectangle* from the New Polygon menu.

A cross is indicated on the map.

- ❑ Left-click to indicate the starting point and create the crosshair on the map.
- ❑ Drag the crosshair to a different point on the map and around the markers to be selected.

- ❑ Left-click to close the polygon. The selected markers are indicated within the rectangle shape, as shown in the image below.



Procedure: How to Create Bullseye Charts in the Map Output

You may create a fixed or freehand bullseye chart in the map output. A bullseye chart is used to show radius distance from a location using three rings of increasing size. The bullseye options are available from the New Polygon context menu on the map.

Note: You may customize the ring and radius options of the bullseye chart from the Map Properties dialog box. For more details, see [Properties Window for Maps](#) on page 485.

1. Create a fixed bullseye chart.

A fixed bullseye chart applies a predetermined size at the selected location.

- ❑ For Google and Bing maps, right-click anywhere on the map and select *Bullseye: Fixed* from the New Polygon menu. For ESRI JavaScript API maps, click the *Tools* button and select *Bullseye: Fixed* from the New Polygon menu.

A cross is indicated on the map.

- ❑ Left-click to insert the fixed bullseye chart in the map.

The bullseye chart is inserted in the selected location with a randomly generated color.

- ❑ Optionally, you may drag the bullseye to another point on the map. The selected markers and Tooltip for the bullseye chart are indicated.

2. Create a freehand bullseye chart.

A freehand bullseye chart enables you to create the size and location of the initial bullseye chart.

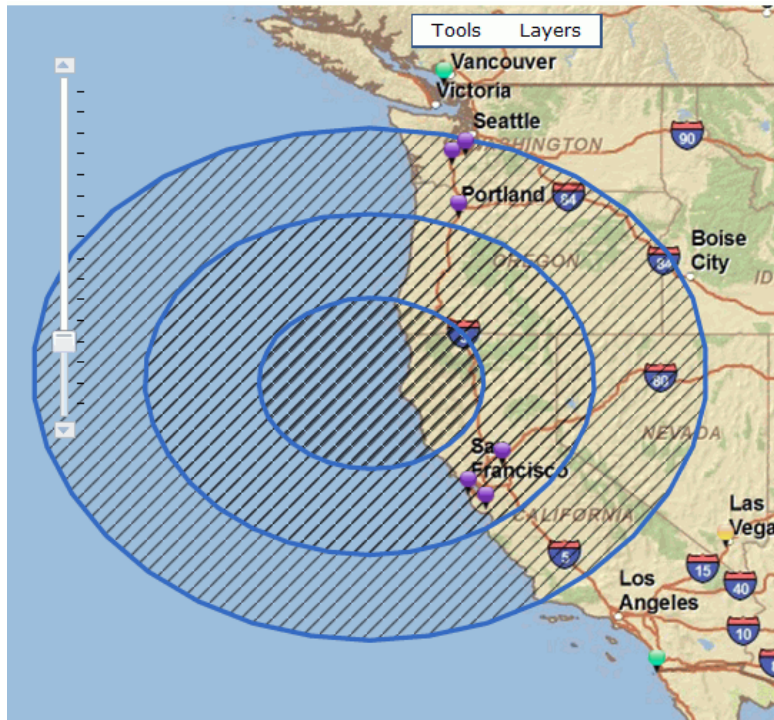
- ❑ For Google and Bing maps, right-click anywhere on the map and select *Bullseye: Freehand* from the New Polygon menu. For ESRI JavaScript API maps, click the *Tools* button and select *Bullseye: Freehand* from the New Polygon menu.

A cross is indicated on the map.

- ❑ Left-click to insert the freehand bullseye chart in the map.
- ❑ Drag the bullseye chart to the desired size and release the mouse.

The bullseye chart is inserted in the selected location with a randomly generated color.

- ❑ Optionally, you may drag the bullseye to another point on the map. The selected markers, and Tooltip for the bullseye chart are indicated, as shown in the image below.



3. Resize the bullseye chart.

- ❑ Select the bullseye chart. Right-click if you are using a Google or Bing map, and choose *Resize* from the *Update Polygon* menu. For ESRI JavaScript API maps, click the *Tools* button and choose *Resize* from the *Update Polygon* menu.

A white box appears in the center of the bullseye and on the outer ring.

- ❑ Left-click and drag the box to the desired location.
- ❑ Release the mouse to resize the bullseye.

Optionally, you may select *Freehand resize* to manually resize the bullseye chart.

Reference: Clearing and Removing Shape Selectors on Maps

- ❑ To show or clear selected markers within an individual shape selector, select the shape selector, then right-click and choose *Select Markers* from the *Update Polygon* menu.
- ❑ To remove individual shape selectors from map, select the shape selector, then right-click and choose *Remove* from the *Update Polygon* menu.
- ❑ To clear all selected markers on the map, right-click anywhere on the map and select *Clear Selection* from the context menu.

The polygon shapes will remain on the map when the markers are cleared.

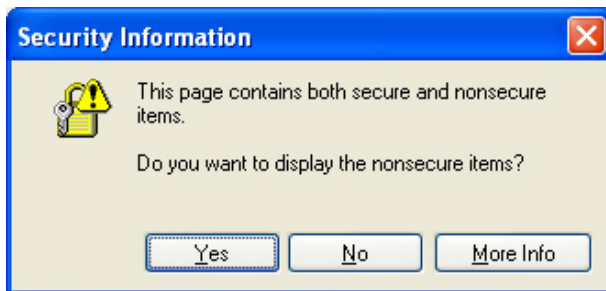
- ❑ To remove all shape selectors from the map, right-click anywhere on the map and select *Remove Polygons* from the context menu.

The polygon shapes are removed from the map but the markers remain selected.

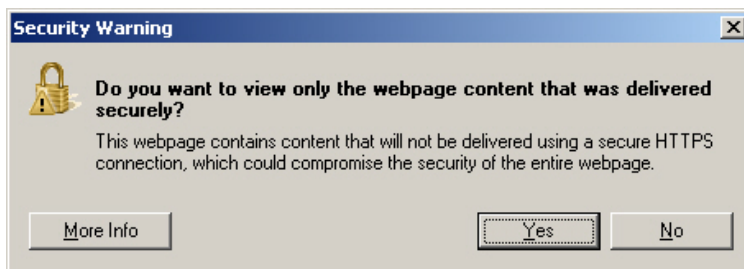
Reference: Running Maps Against a Secured Server

Whenever maps are run against a secured server (SSL configuration), the user is prompted with a message for display of secured and unsecured content on the HTML page. This message originates from map provider and is shown because they establish a link to an unsecured server to present the map.

For Internet Explorer® 7, the message appears as follows.



For Internet Explorer 8, the message appears as follows.



Reference: Enabling Actions for Shape Selectors on Maps

When actions are enabled from the map Properties window, you may Copy, Delete, Move, and Resize the polygon shape selectors on the map.

All action options are selected by default. For more information about enabling these options, see [Properties Window for Maps](#) on page 485.

- ❑ To copy a shape selector, left-click in the center of the polygon, press the Shift key, drag the polygon and release it to create a copy of the polygon.
- ❑ To delete the shape selector, left-click in the center of the polygon, and press the Delete key.
- ❑ To move the shape selector, left-click and hold in the center of the polygon and drag the polygon to move it.
- ❑ To resize the shape selector, drag the edge of the polygon shape to resize the polygon.

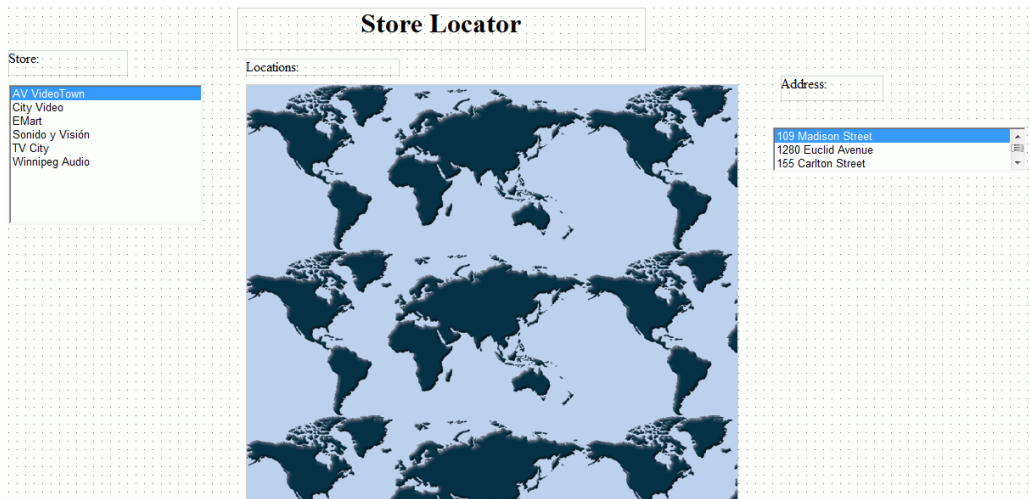
Chaining for Maps

When chaining maps with other controls in the HTML Composer, you are able to pass fields that are not displayed by the map. These fields can be passed from one control to the map and then from the map to another control, where those undisplayed fields will then be used.

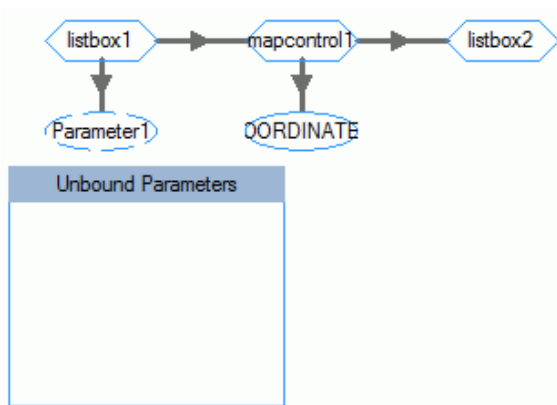
Example: Map Chaining

The following example shows how a map can be chained with other controls and how it can pass fields through the map for use later in the chain. For this example, the centurystores Master File was used.

This example contains an HTML page that has two listboxes and one map control. The Design tab view of this page is shown in the following image.



The Parameters tab view shows that these controls are chained together, as shown in the following image.



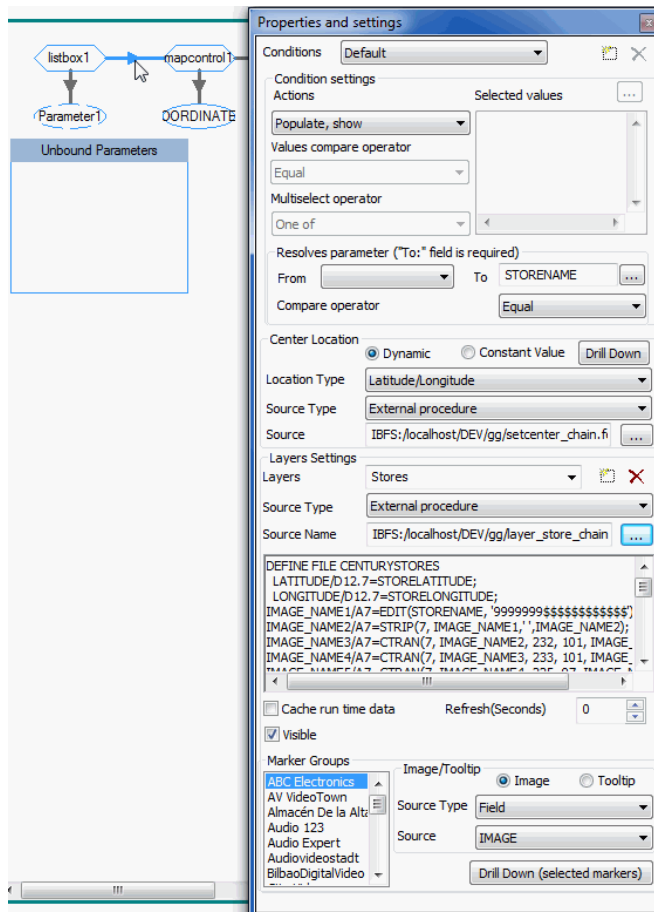
Listbox1 is populated with a list of store names from the centurystores Master File. When one of the stores on the list is selected, the store location is shown on the map, as shown in the following image.



When the store marker image is selected on the map, the store address is displayed in listbox2, as shown in the following image.

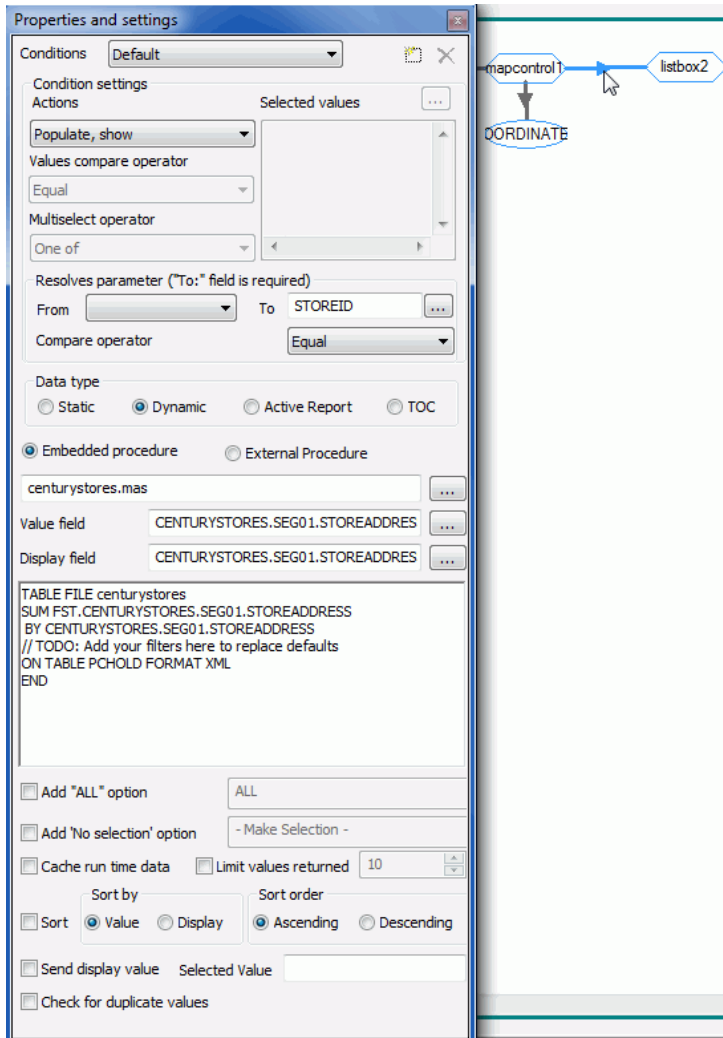


Listbox1 passes the necessary fields to mapcontrol1 so that it can display the store location on the map. In this case, it passes the STORENAME field.



The layer procedures include BY STORENAME to filter the layer to show only the markers for the selected store in listbox1. The layer procedures also include a BY STOREID reference, which the map does not display, but is used in listbox2 to retrieve the correct store address for the selected map marker.

Mapcontrol1 does not use this field. However, when the store marker is selected on the map, the STOREID field is passed from mapcontrol1 to listbox2, as shown in the following image.



STOREID is passed to listbox2 where it is used to filter out the store address from the selected marker.

Maps can pass fields that they do not display. They can then pass those unused fields to another control, down the chain, which can use the passed fields.

Using JavaScript Code With Maps

Function: toggleLayer('mapId', 'layerName')

The toggleLayer('mapId', 'layerName') function toggles the visibility of the specified layer.

Syntax: **How to Toggle Layer Visibility**

```
function button1_onclick(ctrl) {  
  toggleLayer('mapId', 'layerName');  
}
```

where:

mapId

Alphanumeric

Is the unique identifier of the map control. For example, mapcontrol1.

layerName

Alphanumeric

Is the unique identifier of a layer within the map. For example, Layer1.

Function: toggleMarker('mapId', 'layerName', 'markerName')

The toggleLayer('mapId', 'layerName', 'markerName') function toggles the visibility of the specified marker.

Syntax: **How to Toggle Marker Visibility**

```
function button2_onclick(ctrl) {  
  toggleLayer('mapId', 'layerName', 'markerName');  
}
```

where:

mapId

Alphanumeric

Is the unique identifier of the map control. For example, mapcontrol1.

layerName

Alphanumeric

Is the unique identifier of a layer within the map. For example, Layer1.

markerName

Alphanumeric

Is the unique identifier of a marker within the map. For example, redpin.

Function: refreshLayer('mapId', 'layerName')

The refreshLayer('mapId', 'layerName') function refreshes the specified layer.

Syntax: How to Refresh a Layer

```
function button3_onclick(ctrl) {
  refreshLayer('mapId', 'layerName');
}
```

where:

mapId

Alphanumeric

Is the unique identifier of the map control. For example, mapcontrol1.

layerName

Alphanumeric

Is the unique identifier of a layer within the map. For example, Layer1.

Function: panToAddress('address', 'mapId', 'zoom')

The panToAddress('address', 'mapId', 'zoom') function pans to a designated address.

Syntax: How to Pan To an Address

```
function button4_onclick(ctrl) {
  panToAddress('address', 'mapId', 'zoom');
}
```

where:

address

Alphanumeric

Is the address you want to pan to. For example, 2 Penn Plaza New York NY 10001.

mapId

Alphanumeric

Is the unique identifier of the map control. For example, mapcontrol1.

zoom

Integer

Is how much you wish to zoom. For example, 7.

Function: panToPoint('lat', 'long', 'mapId', 'zoom')

The panToPoint('lat', 'long', 'mapId', 'zoom') function pans to a designated point based on latitude and longitude coordinates the user enters.

Syntax: How to Pan To a Point

```
function button5_onclick(ctrl) {  
  panToPoint('lat', 'long', 'mapId', 'zoom');  
}
```

where:

lat

Integer

Is the latitude coordinate of the point you want to pan to. For example, 40.7663277.

long

Integer

Is the longitude coordinate of the point you want to pan to. For example, -73.9920777.

mapId

Alphanumeric

Is the unique identifier of the map control. For example, mapcontrol1.

zoom

Integer

Is how much you wish to zoom . For example, 7.

Function: showAllMarkers('mapId')

The showAllMarkers('mapId') function displays all map markers, even if previously hidden.

Syntax: How to Show All Map Markers

```
function button6_onclick(ctrl) {
  panToAddress('mapId');
}
```

where:

mapId

Alphanumeric

Is the unique identifier of the map control. For example, mapcontrol1.

Function: drawBullseye('mapId', 'lat', 'long', 'selectmarkers', 'units', 'rings', '(list-of-sizes)', '(list-of-colors)')

The drawBullseye('mapId', 'lat', 'long', 'selectmarkers', 'units', 'rings', '(list-of-sizes)', '(list-of-colors)') function draws a bullseye at a point on the map. This function has optional parameters to select whether to display markers, the units of measure used for the bullseye, the number of rings, the size of the rings, and the color of the rings.

Syntax: How to Draw a Bullseye

```
function button5_onclick(ctrl) {
  drawBullseye('mapId', 'lat', 'long', 'selectmarkers', 'units', 'rings',
    '(list-of-sizes)', '(list-of-colors)');
}
```

where:

mapId

Alphanumeric

Is the unique identifier of the map control. For example, mapcontrol1.

lat

Integer

Is the latitude coordinate of the point you want to pan to. For example, 40.7663277.

long

Integer

Is the longitude coordinate of the point you want to pan to. For example, -73.9920777.

selectmarkers

Boolean

Is an operator that, when set to true, selects all markers within the Bullseye.

units

Alphanumeric

The unit of measure for the Bullseye rings For example, mi for miles.

rings

Integer

The number of rings the bullseye uses. For example, 3.

list-of-sizes

Integer

A comma separated list of sizes for the bullseye rings. For example, 1, 3, 5.

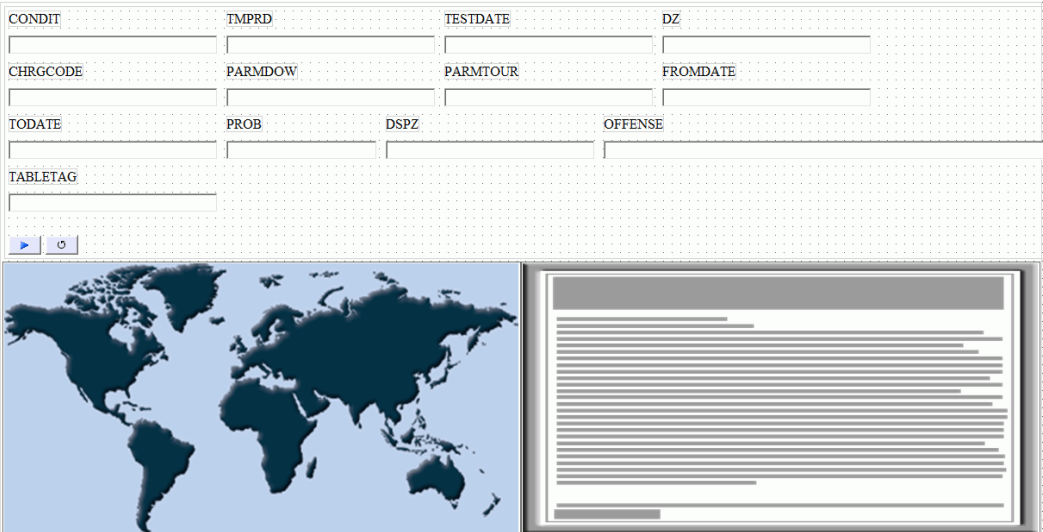
list-of-colors

Alphanumeric

A comma separated list of colors for the bullseye rings. The colors can be RGB values or hexidecimal values. For example, Blue or #FFFF.

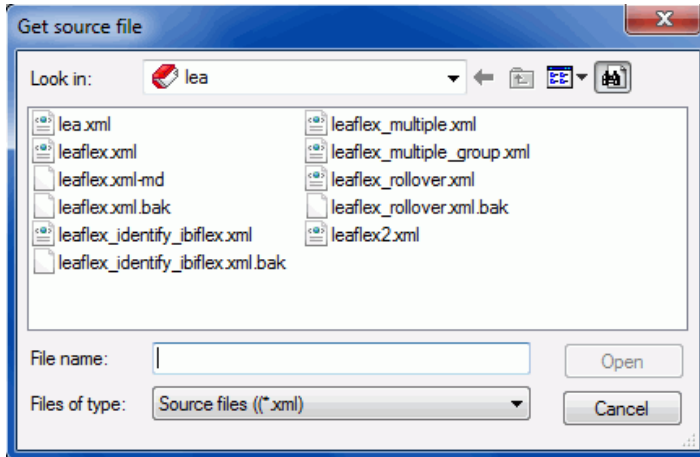
ESRI Flex Viewer Integration

The ESRI Flex Viewer creates a component that adds numerous controls, a report, and a map object when used. An ESRI Flex Viewer component can be seen in the following image.



The ESRI Flex Viewer component can be accessed from the *Insert* menu, by selecting *Components* and clicking *ESRI Components*. You can then click and drag the crosshair to the desired size for the ESRI Flex Viewer controls and report. The ESRI Flex Viewer component will contain a number of controls, a report, and a map object. It is recommended that the ESRI Flex Viewer component be drawn big enough to accommodate all of these items.

You will then choose the esriinfo XML file to use with the ESRI Flex Viewer component, as shown in the following image.



Note: The following line must be present in your esriinfo XML file for you to pass parameters from the controls to the map object and from the map object to the report.

```
<callback identify="parmcollect" map="IBI_GetLayoutPainterParameters"
report="IBI_GetLayoutPainterParameters"/>
```

The New Parameter dialog box will open and you will be able to change the options for the parameters contained within the ESRI Flex Viewer component.

The ESRI Flex Viewer component will then be inserted into the HTML page.

Note: Controls and reports within the ESRI Flex Viewer can be chained. Maps within the ESRI Flex Viewer component cannot be chained.

Develop your dashboard using the HTML Composer in Developer Studio. You can create controls from existing WebFOCUS reports or new reports that you create specifically for your analytical dashboard. When creating controls (graphs) in your dashboard, you must use data sources in VISDIS format.

This chapter covers tasks and options that are available for all Visual Discovery controls (unless otherwise noted). For tasks and options that are graph-type specific, see the *Using WebFOCUS Visual Discovery Components With Developer Studio* manual.

In this chapter:

- ❑ [Creating Visual Discovery Output Files](#)
- ❑ [Developing an Analytic Dashboard From Developer Studio](#)
- ❑ [Working With Visual Discovery Controls on the Web](#)
- ❑ [Accessing Visual Discovery Online Help](#)
- ❑ [Visual Discovery Tutorial](#)

Creating Visual Discovery Output Files

Visual Discovery creates graphs using a tab-delimited data file as input. The first record of the data file contains the column titles for the data values. The next record can contain the Visual Discovery field formats. If this record is not present, Visual Discovery attempts to determine the formats of the data fields by reading the first 50 records from the data file, a process that is not guaranteed to create accurate representations of the WebFOCUS formats.

The FORMAT VISDIS option creates a tab-delimited output file with the extension .txt in which the first record has the column titles and the second record contains Visual Discovery formats based on the field formats of the data. A .fex with PCHOLD FORMAT VISDIS can also be created and used the same way as the .txt file.

Reference: Format Conversions for FORMAT VISDIS

FOCUS Format	Visual Discovery Format
Integer	I
Decimal/Packed	R
Alphanumeric	S
Date format (smart date)	D%format%format%format (for example, D%Y%m%d). If the year is not a four-digit year, the format returned is S.
Other	S

Procedure: How to Create a Visual Discovery Output File From Report Painter

1. Open Developer Studio.
2. If necessary, create a new project for the report.
3. Add the necessary Master File to your project.
4. Create a new procedure and open the Report Painter.
5. Add fields to your report.
6. From the Report menu, select *Output*.
7. From the Output Format drop-down list, expand the Unstyled formats folder and select *Tab delimited text file for Visual Discovery (VISDIS)*.
8. From the Destination drop-down list, select one of the following options:

- a. *Save file* to create a .txt output file.

In the Name field, specify the destination path and name for the file, using the Browse (...) button to navigate the path. This option saves the output as a text file to a physical location on the disk.

- b. *Web browser* to create a .fex with PCHOLD FORMAT VISDIS output file.

This option saves the output as a .fex, which uses live data. Only .fex files that have been saved with PCHOLD FORMAT VISDIS can be used as data for Visual Discovery controls.

9. Click *Apply*.
10. Click *OK* to exit the Report Options dialog box.
11. Save your work and click *Run*.

A new browser window opens with information similar to the following, where 581 is the total number of rows in the data source, and 5 is the total number of rows in the Visual Discovery file:

```
0 NUMBER OF RECORDS IN TABLE=      581  LINES=      5
```

Syntax: How to Create a Visual Discovery Output File Using WebFOCUS Language

```
[ON TABLE] HOLD [AS filename] FORMAT VISDIS
[ON TABLE] PCHOLD [AS filename] FORMAT VISDIS
[ON TABLE] SAVE FILENAME 'application_name/filename.txt' FORMAT VISDIS
```

where:

HOLD

Creates the results in memory but does not save them to a text file unless you specify the Dialogue Manager command APP HOLD *application_name* in the report request.

For details on HOLD, see the topics on saving and reusing report output in the *Creating Reporting Applications With Developer Studio* manual.

PCHOLD

Presents the results as output to a browser. When accessed by Visual Discovery, the procedure is initialized by the ActiveX control using the URL of the procedure. The ActiveX control then interprets the output. Visual Discovery uses a live data pool and does not require a physical output file.

SAVE

Creates a physical output file for use when the Visual Discovery page points to a static data pool.

filename

Is the name of the output file.

Note: A Master File is not created for format VISDIS.

Example: Creating a Visual Discovery Output File Using WebFOCUS Language

Using the CENTURYSALES data source, the following request creates a Visual Discovery output file named AUDIOSYSTEMSSALES.TXT, which is stored in the Visual_Discovery application folder in Developer Studio.

```
TABLE FILE CENTURYSALES
SUM
    QUANTITY
    LINEPRICE AS 'Revenue'
BY PRODUCTCATEGORY
BY PRODUCTNAME
WHERE SALESREP EQ 'Web';
WHERE PRODUCTCATEGORY EQ 'Audio Systems';
ON TABLE SAVE FILENAME
'VISUAL_DISCOVERY/AUDIOSYSTEMSSALES.TXT'
FORMAT VISDIS
END
```

The following file is created. For clarity, the tab characters in the file are displayed as a greater than sign (>) surrounded by blanks. Note that the first record has the column titles and the second has the Visual Discovery formats.

```
Product Category > Product Name > Quantity > Revenue
S > S > I > R
Audio Systems > Home Theater 5.1 System > 2087 > 4171913.00
Audio Systems > Home Theater 7.1 THX System > 243 > 728757.00
Audio Systems > Home Theater Surround System > 703 > 702297.00
Audio Systems > Micro 5.1 System > 857 > 427643.00
Audio Systems > Micro HiFi Stereo System > 2096 > 836304.00
```

Developing an Analytic Dashboard From Developer Studio

Before you begin to develop your Visual Discovery controls, you create the following objects:

1. The data file. See the *Using WebFOCUS Visual Discovery to Develop Analytic Dashboards* manual.
2. The canvas for your controls, using the HTML Composer in Developer Studio. See the *Using WebFOCUS Visual Discovery to Develop Analytic Dashboards* manual.

After you create a canvas, and insert a Visual Discovery control, you can begin to edit the control properties. For example, you can select the data, assign colors, show labels, and more. The topics in this chapter cover tasks and options that you may apply to all Visual Discovery controls (unless noted).

Important: When you edit the properties of a control, it is necessary to load the data first, and then select your x-axis field and y-axis field from the loaded data.

For a tutorial on creating a complete Visual Discovery dashboard using sample data, see [Visual Discovery Tutorial](#) on page 575.

For graph-type specific tasks and options, see the *Using WebFOCUS Visual Discovery to Develop Analytic Dashboards* manual.

Procedure: How to Create a WebFOCUS Visual Discovery Analytic Dashboard

1. Open Developer Studio.
2. From the Developer Studio Explorer, right-click the HTML folder in your project folder and select *New, HTML File*. The Add HTML File dialog box opens.
3. Enter a name for the file and click *Open*.
4. If the HTML Composer Template selector opens, click *No, thanks*.

The HTML Composer canvas opens.

Note: Visual Discovery controls are not available if you choose to create an HTML page using templates. You can click the *Don't show again* check box to turn the Template selector off. The next time you create an HTML page using the HTML Composer, the Template selector will not appear.

5. Click the *Visual Discovery*  button on the controls toolbar, or select *Controls*, then click *Visual Discovery Control*.
6. Drag your mouse across the canvas to insert the control. The Properties and settings dialog box opens.

Tip: When you insert a control, its size (height and width) defaults to predefined dimensions. However, after you select the type of control from the Insert ActiveX Control dialog box (Step 6), you can change its size using any standard resizing feature.

7. Select a Visual Discovery control and click *OK*.
8. From the Properties and settings dialog box, click *Add Data Pool*. The Get source file dialog box opens.
9. Add data and click *Open*. The selected data will appear in the Available Data Pools drop-down menu.

10. Click *ActiveX Properties* and edit your graph properties as desired.

Naming Controls

When you add a new Visual Discovery control to the HTML Composer canvas, the HTML Composer assigns it a default Name and Unique Identifier. The naming convention for the control is *activexn*, where *n* is an iterative number.

For example, when you add the first control, it is assigned the name *activex1*. When you add the next control, it is assigned the name *activex2*, and so on.

You can view and modify the Name and Unique Identifier of a control in the Properties pane. If you rename a control, using a more descriptive Name and Unique Identifier, then the next control you add will still increase by 1.

Selecting Data

All components in an analytic dashboard share the same data source. This means that when you select a data source for the first control, that data source is automatically added to the Available Data Pools list, and made readily available for all subsequent controls.

Procedure: How to Add and Select Data

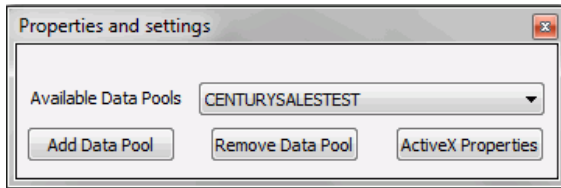
1. From the Properties and settings dialog box, click *Add Data Pool*. The Get source file dialog box opens.
2. Add your data source, a .txt file or .fex file with PCHOLD FORMAT VISDIS, and click *Open*. The selected data source appears in the Available Data Pools drop-down list.

Important: If you are developing remotely, you must either map a drive to the remote location of the data source, or copy the data source to the local machine.

3. Click *ActiveX Properties* and edit your graph properties as desired. Repeat Step 2 as necessary.
4. Add fields by clicking the box adjacent to the field. Click once to add the x-axis field, click twice to add y-axis field.
5. Click *Apply*, and then *OK*.

Reference: Properties and Settings Dialog Box

The following image shows the Properties and settings dialog box.

**Available Data Pools**

Enables you to select a data file to use to populate the Visual Discovery control. After you select the file name, and click *ActiveX Properties*, the file is loaded. Its tables and fields display in the tree view panel on the Data tab.

Add Data Pool

Enables you to select a data file to use to populate the Visual Discovery control and add it to a list of available data pools.

Remove Data Pool

Removes all data sources from Available Data Pools drop-down list.

ActiveX Properties

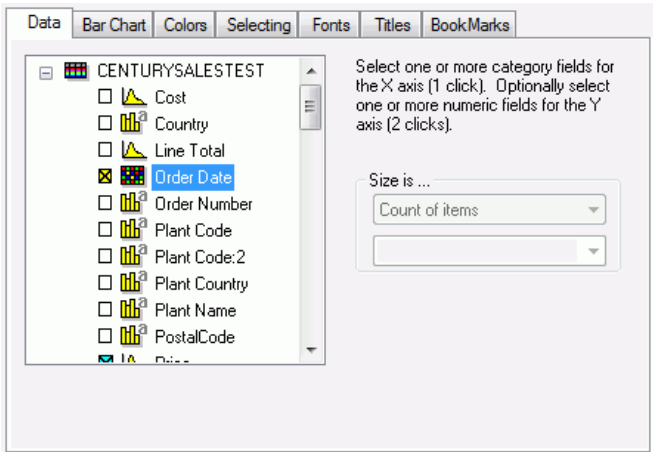
Opens the Visual Discovery Properties dialog box, where you can edit the fields, colors, control features, font style, and titles for a particular Visual Discovery control.

The first tab in the Visual Discovery Properties dialog box is the Data tab. It will guide you on which types of fields, and how many fields you can select.

Reference: Data Tab

The following image and brief description of the Data tab is to guide you as to which types of data fields, and how many fields you can select for a particular control.

The bar chart control was used for the example shown here.



Data Instructions

The text that appears above the *Size is* drop-down selection menu, on the top-right corner of the Data tab, instructs you on how to select a category field for the X axis, and one or more category fields for the Y axis.

Size is

Determines the method to calculate the size of the glyph. For more information, see the *Using WebFOCUS Visual Discovery to Develop Analytic Dashboards* manual.

Note: When creating Visual Discovery controls in the HTML Composer at design time, you select the data source through the Properties and settings dialog box. At run time, this dialog box does not appear. Instead, you can select your data source, .txt files only, through a modified version of the Data tab.

Reference: Data Tab Icons

The following table shows the possible icons that appear in the Data tab and what they indicate for the field.

Icon	Indicates...
	A table with no items colored.

Icon	Indicates...
	A table with a field that colors the graph.
	The field is a real number.
	The field is a real number and colors the graph.
	The field is a number (integer).
	The field is a number (integer) and colors the graph.
	The field is a string.
	The field is a string and colors the graph.
	The field is a date.
	The field is a date and colors the graph.
	An x-axis selected field.
	A y-axis selected field.
	The field is not available for selection.

Assigning Color to the Data and the Graph

You can use color to change how your graph displays. You can change the color scale of the glyphs based on a field that you select. For more information, see the *Using WebFOCUS Visual Discovery to Develop Analytic Dashboards* manual. You can also change the colors of the basic graphical elements (such as background color, foreground color, label color, selected variables, and overlay text color) in your graph control.

Procedure: How to Change Graph Element Colors

1. Select the control and click *ActiveX Properties*.

The Visual Discovery Properties dialog box for the selected control opens.

2. Click the *Colors* tab.

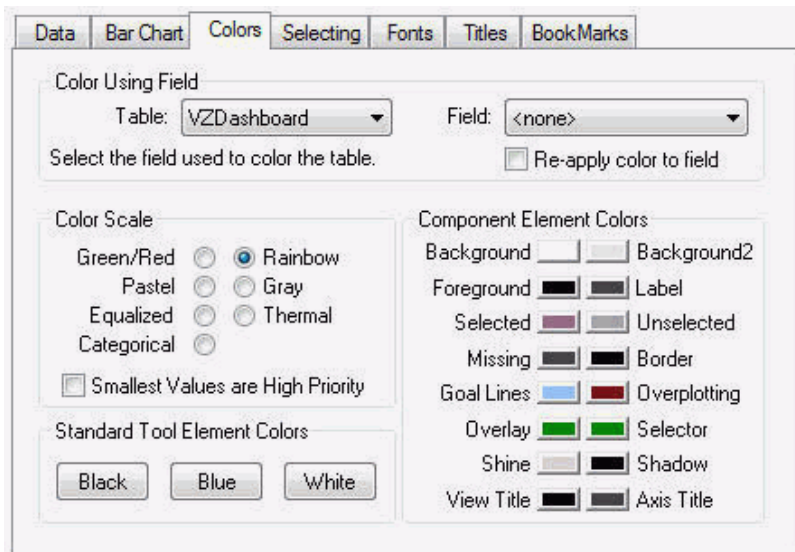
3. Select the colors:

- ☐ Using one of the Standard Tool Element Colors options. When you select one of these (Black, Blue, or White), the colors in the Component Element Colors field automatically change to the colors associated with that color scheme.
- ☐ Manually in the Component Element Colors field. For details on each component in the Component Element Colors field, see the *Using WebFOCUS Visual Discovery to Develop Analytic Dashboards* manual.

4. Click *Apply*, and then *OK*.

Reference: Colors Tab

The following image shows the Colors tab in the Visual Discovery Properties dialog box.



Color Using Field

These settings apply to the entire Visual Discovery webpage.

Table

Specifies the name of the table for the current view. Other tables may be selected, even if they are not shown by the current view, by entering the table name in this field. If you have entered the name before, you may select the arrow key to the right of the entry field and scroll down to the desired name.

Field

Names the field in the table that is used to color the graph. If no field is selected, the table is not colored.

Re-apply Color to field

Reapplies the color scale to a subset of data.

Color Scale

Changes the color scale for the graph. See the *Using WebFOCUS Visual Discovery to Develop Analytic Dashboards* manual.

Standard Tool Element Colors

Changes the background color of the graphs to black (the default setting), blue, or white. A default set of visualization component element colors is automatically selected for each background color.

Component Element Colors

Background

Specifies the color behind the graph. By default, the background color is black. A default set of element colors is automatically selected to go with the black background. Select this to change just the background color. If you want to change the entire color scheme, select one of the options in the Standard Tool Element Colors section.

Foreground

Specifies a data element in the visualization component. For example, sometimes it is the color of the outline of the glyphs.

Selected

Specifies the color of the items that are selected. If a color scale has been used, that color scale is used instead of the default selected color if the graph corresponds to individual colored data items.

Missing

Specifies the color of values that are missing.

Goal Lines

Specifies the color of the visualization component line that you can create and place in bar and line graphs.

Overlay

Specifies the color of the label or labels (including text and/or items) and any graphs that may be used to denote the items in focus.

Shine

Specifies the color of the outline of the bottom and/or right of the graph objects. It helps provide the appearance of depth to the graph. This applies only to bar chart and line chart graphs.

View Title

Specifies the color for the title of the visualization component. You can change the title text from the Titles tab.

Background2

Specifies the color of the second background element, if one is available. For example, in the data sheet visualization component, a second background color (by default, gray) is used to make rows of data easier to read.

Label

Specifies the color of the static text or graphic that identifies items on a graph. For example, the field names for the X axis and Y axis in the bar chart, histogram, or line chart graphs.

Unselected

Specifies the color of the items that are not selected.

Border

Specifies the color of the line that is drawn around glyphs so they stand out from the background. This applies only to bar chart and line chart graphs.

Overplotting

Specifies the color of the small tick marks (shown at the top of the graph) that indicate items are plotted on top of or overlapping other items.

This element is available for the bar chart, line chart, and time table graphs.

Selector

Specifies the color of the shape, indicated in the Selector Shape section of this tab, used to select items.

Shadow

Specifies the color of the outline of the top/left of graph objects. It helps provide the appearance of depth to the graph. This applies only to bar chart and line chart graphs.

Axis Title

Specifies the color for the x-axis and y-axis titles.

Coloring a Graph by a Field

When you color a graph by a field, you provide another level of meaning to the graph. It is a way to add more information, an additional variable, to the graph. The field you choose to control color is usually based on the type of data you want to analyze and how you want it to appear. Coloring by a particular field helps you study the effect of that field on your data. You can also use color to highlight exceptional values (for example, the high values in a distribution), as well as categories of values.

Coloring depends on the color scale you select. For example, the Rainbow color scale ranges from blue to red. Color is uniformly applied as a continuous scale across the entire range of values in that column. Colors are assigned from low to high for numeric values and in alphabetical order for string values.

Procedure: How to Color a Graph by a Selected Field

1. Select the control and click *ActiveX Properties*.

Note: If you are selecting colors for a bar chart, histogram, line chart, or pie chart that has more than two fields, make sure the Stack Colors check box is selected on the chart-specific tab.

2. Click the *Colors* tab.
3. In the Color Using Field, ensure the correct data pool is selected from the Table drop-down list.
4. From the Field drop-down list, select the field you want to color the graph by.
5. In the Color Scale field, select the color scale:
 - ☐ *Green/Red* goes from green on one end to red on another. This color scale uses the stop light metaphor (green means go or OK, yellow means caution, and red means stop or immediate attention).
 - ☐ *Pastel* is a red to blue scale using pastel shades.
 - ☐ *Equalized* is an alternate scale with equal perceptual changes between each entry in the scale.
 - ☐ *Categorical* is a field for which the values represent categories or classes. Categorical variables do not have natural scale or units of measurement. A field containing country names, such as the United States, United Kingdom, and Germany, is categorical.
 - ☐ *Rainbow* is the common red-to-blue scale. This is the default.

- ❑ *Gray* enables unselected items to be shown in gray, making them seem to fade from view. The Gray color scale uses shades of black and white, instead of a set of colors, to show differences or similarities between/among items.
- ❑ *Thermal* mimics the color changes in a heated iron, from cold (black) through warm (yellow) to extremely hot (white).
- ❑ *Smallest Values are High Priority*. By default, the highest values are set to the highest priority. This means that the values are assigned a color based on the placement of the value within the selected color scale. The highest value is at one end of the color scale and the lowest value is at the other end. By selecting this option, the coloring of the values is reversed.

6. Click *Apply*, and then *OK*.

Note: When you select a subset of data and exclude the unselected items, you might want to apply the color scale to the range of values in the subset instead of it remaining applied to the entire set of data. If the remaining items (the subset) are from the same area of the original data set, the colors of all the items might be very similar. If you reapply the color just to those remaining items, each item might stand out more because the color scale is applied to a smaller range.

To reapply the color scale to a subset of data, select *Re-apply color to field* in the Color Using Field section and click *Apply*.

Values are VisDis Color By

Another way to color your Visual Discovery controls is through an HTML Composer Visual Discovery integration feature called Values are VisDis Color By. Values are VisDis Color By is an option only available through the Properties and settings dialog box of a list box, drop-down list, or double list box. You must first create a canvas using the HTML Composer, add a Visual Discovery control, and then add a listbox, double list box or drop-down list that contains the field names from the data pool of the Visual Discovery control.

When you run the HTML page, you are able to select a field name from the list to change the colors of the Visual Discovery control.

Procedure: How to Color a Visual Discovery Control Using Values are VisDis Color By

The following procedure provides the steps to color a Visual Discovery control using the Values are VisDis Color By option.

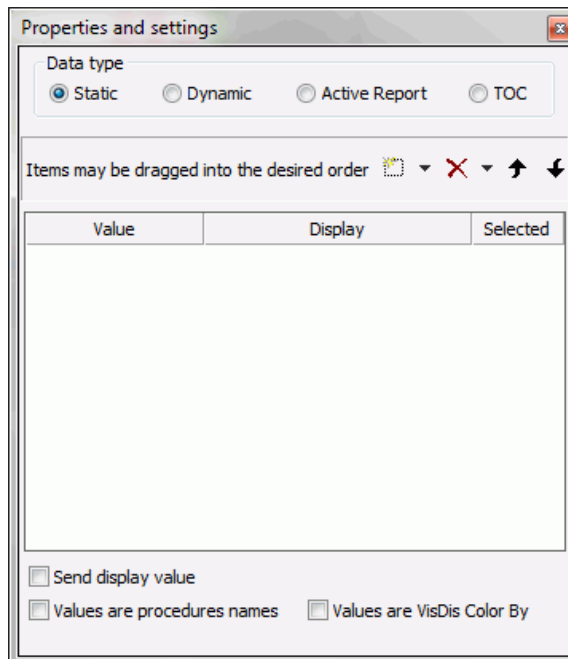
1. In the HTML Composer, create a Visual Discovery control, such as a bar chart.

2. Select a data pool, and the desired x-axis field and y-axis field for the control.
3. From the Insert menu, select *Controls*, then click *Drop Down List*.

Note: You may also chose a listbox or a double list instead of a drop-down list.

4. Click and drag your cursor across the canvas. The drop-down list appears.
5. With the drop-down list selected, click the *Parameters* tab in the lower-left corner of the HTML Composer window.

The Properties and settings dialog box appears, as shown in the following image.

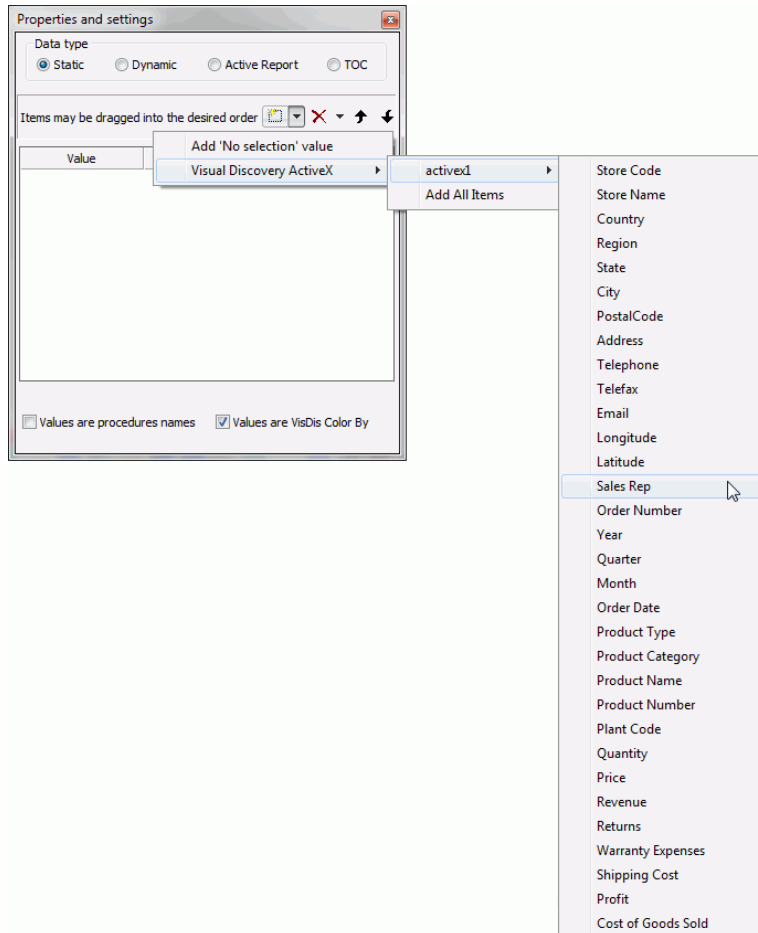


Note: If the Properties and settings dialog box does not appear, you must select it from the View menu.

6. Select *Static* from Data type radio button area.
7. Click the *Values are VisDis Color By* check box at the bottom of the dialog box.

Note: The Values are VisDis Color By check box only appears when Visual Discovery controls are on the HTML page.

8. Click the New button drop-down list, select *Visual Discovery ActiveX*, the name of your Visual Discovery control that contains the fields to be used as color by values, and then select a field name option from the cascading menus, as shown in the following image.



The new button drop-down list changes to allow the selection fields from data pools, only when you have clicked the Values are VisDis Color By check box.

9. Repeat Step 6 for a second field name option of your choice.
You can also select *Add All Items*, which adds every available field name option to the drop-down list control.
10. Click the *Design* tab located in the lower-left corner of the HTML Composer window.
11. Save your work, and Run the page.

When you run the HTML page, select a field from the drop-down list and notice that the colors of your Visual Discovery control are now colored according to the selected field.

Choosing Selection Options

In interactive data visualization controls, selection enables you to retrieve data of interest (and effectively answer questions about the data) just as written queries do. However, many of the methods to visually select data are different from written queries. Since all controls in your dashboard share the same data pool, when you select data in one control, the same data is selected in all controls.

You select by sweeping an area of the interactive data visualization control with the mouse and clicking on items. Additionally, in the data sheet control, you can perform textual selection.

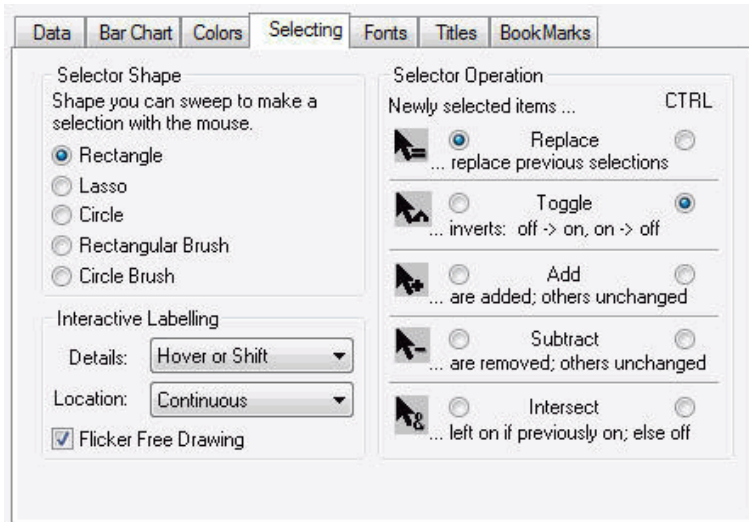
The Selecting tab controls how selection with the mouse works. These properties affect all views, not just the current view. In addition to selecting a group of items with the mouse, you can also select, unselect, exclude all data, and toggle the selection states using the pop-up menu.

Note:

- ❑ The data constellation control has specific selection features. For more information, see the *Using WebFOCUS Visual Discovery to Develop Analytic Dashboards* manual.
- ❑ Although all selector shapes can be selected on the tab, only the rectangle is allowed as a selector shape for 3D controls.

Reference: Selecting Tab

The following image shows the Selecting tab in the Visual Discovery Properties dialog box.



Selector Shape

Rectangle

The default shape used to select items. To select, or sweep, using a rectangle, move the cursor to one corner to the desired data, press and hold the left mouse button, move the cursor to the opposite corner of the desired area, and release the mouse button. The data within the rectangle is selected.

Lasso

When Lasso is selected, you may draw a free style curve. When the left mouse button is pressed, the lasso follows the cursor and selects items the cursor passes until the mouse button is release.

Circle

When Circle is selected, it enables you to sweep, or select, data within a circle whose center is the position where the left mouse button was initially pressed, and the perimeter is where that mouse button is released. When the Circle selector shape is active, a dot appears in the small circle next to the text.

Rectangular Brush

When Rectangular Brush is selected, a rectangle follows the mouse and identifies objects that it passes over.

Circle Brush

When Circle Brush is selected as the selector shape, a circular shape follows the mouse and identifies objects that it passes over.

Interactive Labeling

Details

Options include the following. Note that details cannot be presented in a histogram because the histogram displays the distribution of single continuous fields. Individual values are not shown.

Hover or Shift. The detailed information about a glyph appears when you hover over or move the cursor over an item while holding down the Shift key. This is the default.

Hold Down Shift. Turns on the detailed information when you press the Shift key and pass over the items. When you are not over an item, the option turns off until you press the Shift key again.

Continuous. When you pass over an item, the detailed information appears about that item.

Location

Options include:

Continuous. The coordinates (location on the X axis and Y axis) of a glyph appear when you move the cursor over the item. This is the default.

Hover or Shift. When you hover over or move the cursor over an item while holding down the shift key you see the coordinates for that point.

Hold Down Shift. Turns on the location information when you press the Shift key and pass over the items.

Flicker Free Drawing

When the cursor moves over a graph, it may cause flickering. Select this option to eliminate the flicker. Graphs may take longer to render with this option set.

Selector Operation

Replace

Replaces the existing selection set with the next items identified.

Toggle

Reverses the selection state of items. Selected items become unselected. Unselected items become selected.

Add

Select this option to add identified items to the selection set.

Subtract

Removes identified items from the selection set, if they are in it.

Intersect

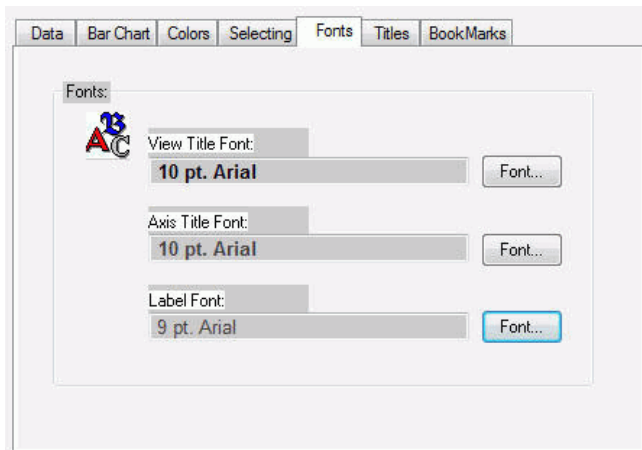
Selects only those items that were previously selected and are in the set of identified items.

Specifying Fonts and Titles

The Fonts tab sets the font type and size for the view title (the title for the control or graph, which you set in the Titles tab), the axis titles, and the labels. The Titles tab sets the titles of the view (the graph) and the axes of the graph.

Reference: Fonts Tab

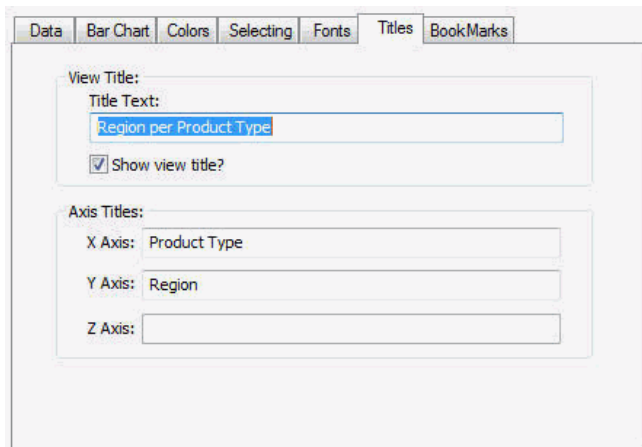
The following image shows the Fonts tab in the Visual Discovery Properties dialog box.



To change the font, font style, or font size, click the appropriate *Font* button.

Reference: Titles Tab

The following image shows the Fonts tab in the Visual Discovery Properties dialog box.



Type the titles in the text fields. If you do not alter the titles, they will default to the field names from the data table you selected in the Data tab.

This tab is not available for the counts, data sheet, parabox, or time table controls.

Using Goal Lines

You can use goal lines in a bar or line chart.

Goal lines are lines you can place on a bar or line chart in the report output. Goal lines display in front of the graphed data, enabling you to compare your data with one or more set values. You can see what values are above or below a level you specify.

Before selecting glyphs above or below a goal line, negative and positive values are added. If your graph contains negative and positive numbers, some glyphs that you may initially expect to appear above or below the goal line (depending on which button you select) may, in fact, have a cumulative value different than you might expect and the glyph will not be selected.

Note: Goal lines are not available when you are using a spine plot since the bar glyphs are the same height.

Procedure: How to Add Goal Lines

1. Ensure Show Goal Lines is selected on the bar chart or line chart pop-up menu.
2. From the pop-up menu, select *Create Goal Line*. A blue line appears.

3. Repeat Step 2 for each desired goal line.

Procedure: How to Move Goal Lines

Select a goal line and drag it to the desired value. Use the focus information to position the goal line.

Procedure: How to Hide Goal Lines

From the pop-up menu, clear the check mark for Show Goal Lines.

Note: This does not permanently remove the goal line from the graph.

Procedure: How to Remove Goal Lines

1. Move the cursor over the goal line.
2. Click the close (X) button.

Procedure: How to Select Values Above/Below the Goal Line

1. Move the cursor over the goal line.
2. Click the:

☐ *Up button*  to select all values above the goal line.

☐ *Down button*  to select all values below the goal line.

The graph changes to reflect your selection.

Animating Data

You can animate data in a bar, line, or pie chart.

Animation is when each glyph is sequentially highlighted and then restored to its original state. Animation is especially helpful when you are analyzing two or more interactive data visualization controls at the same time because you can easily see the highlighted items in all displayed controls simultaneously. Animation is also helpful when you are viewing complex data because it can highlight unexpected relationships.

When you set and control animation in a control (bar chart, line chart, and so on), the animation effect occurs in all the displayed controls that use the same data source.

Procedure: How to Animate a Bar, Line, or Pie Chart

1. In the Properties dialog box, click the chart-specific tab (either the Bar Chart tab, Line Chart tab, or Pie Chart tab).
2. Select the *Animate* check box and click *Apply*.
3. To control animation, click the:
 - ☐ *Backward* button  to go backward one bar. Backward does not reverse animation.
 - ☐ *Pause* button  to temporarily stop animation.
 - ☐ *Resume* button  to restart the animation after it has been paused.
 - ☐ *Forward* button  to go forward one bar. Forward does not restart animation.
4. To change the speed of animation, click:
 - ☐ *Slower* to slow down animation place.
 - ☐ *Faster* to speed up animation.
 - ☐ *Normal* to return the animation to the default pace.

Tip: From the pop-up menu, select *Animate*.

Selecting Primary and Secondary Order

You can select primary and secondary order in a bar, line, or pie chart.

Order controls the sequence in which glyphs are presented. You can select primary and secondary order in bar, line, and pie charts.

Procedure: How to Select Primary and Secondary Order

1. In the Visual Discovery Properties dialog box, click the chart-specific tab (either the Bar Chart, Line Chart, or Pie Chart tab).
2. In the Order field, from the Primary drop-down list, select:
 - ☐ *Original* order is the order in which the data was initially presented. This is the default.
 - ☐ *Label* order is alphabetical by category name.
 - ☐ *Size* displays the categories by the number of cases (from the largest count to the smallest).

- ☐ *Total Selected* displays the categories by the number of cases selected.
- ☐ *Percent Selected* displays the categories by the percentage of cases in that category that are selected.

Note: The Primary drop-down list and the Secondary drop-down list contain the same options.

3. Select the *Secondary* order option.

Secondary order is applied at the same time as the primary order and becomes apparent only when two or more items have the same value according to the primary order.

4. Click *Apply*, and then *OK*.

Note: From the pop-up menu, select *Primary Order* and then select an option.

Displaying Labels

You can display labels in a bar, line, or pie chart.

You can choose how and which labels to display in the control when you are creating the control. You can also show and hide individual labels using the pop-up menu.

Note: X-axis and y-axis labels come from the field names in your data source.

Procedure: How to Select Label Mode

1. In the Visual Discovery Properties dialog box, click the chart-specific tab (either the Bar Chart, Line Chart, or Pie Chart tab).
2. Select the desired option from the Labels Shown drop-down list. Options include:
 - ☐ *Best Fit* displays labels in equally spaced increments. This is the default option.
 - ☐ *Selected* displays labels for the selected (colored) data only.
 - ☐ *All* displays labels for all data on the graph.
 - ☐ *Off* displays no labels.
 - ☐ *Custom* enables you to select which labels to display.
3. Click *Apply*, and then *OK*.

Tip: From the pop-up menu, select *Label Mode* and then select the desired option.

Procedure: How to Show or Hide Individual Labels Using the Pop-up Menu

1. Right-click the label you want to show or hide.
2. Select Label 'name' from the menu.

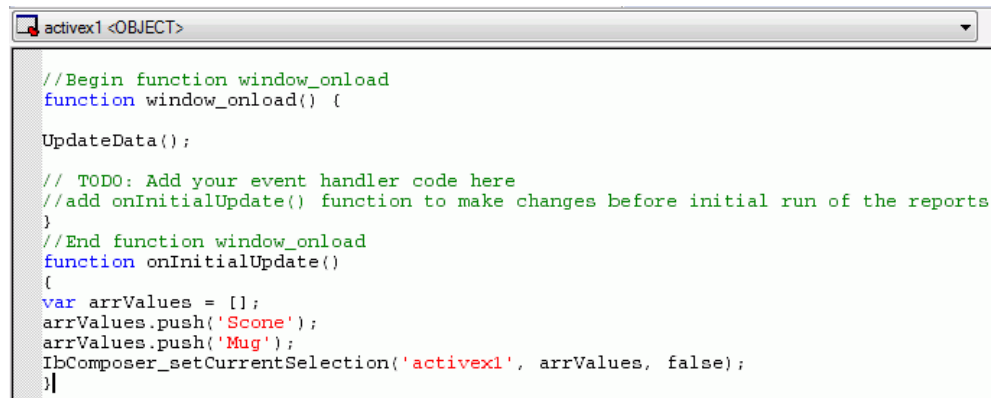
Preselecting Values

You can preselect values of a Visual Discovery control that display at run time, by adding the `onInitialUpdate()` function to the Embedded JavaScript tab of the HTML Composer. When you run the HTML page, the values you preselected display.

Procedure: How to Preselect Values

1. In the HTML Composer, create a Visual Discovery control, such as a bar chart.
2. Select a data pool, and the desired x-axis field and y-axis field for the control.
3. Click the *Embedded JavaScript* tab.
4. Below `//End function window_onload`, create the `onInitialUpdate()` function that calls the `IbComposer_setCurrentSelection()` JavaScript API function. Specify the necessary parameters to preselect and display values at run time.

An example of the `onInitialUpdate()` function code, with two preselected values, is shown in the following image.



```

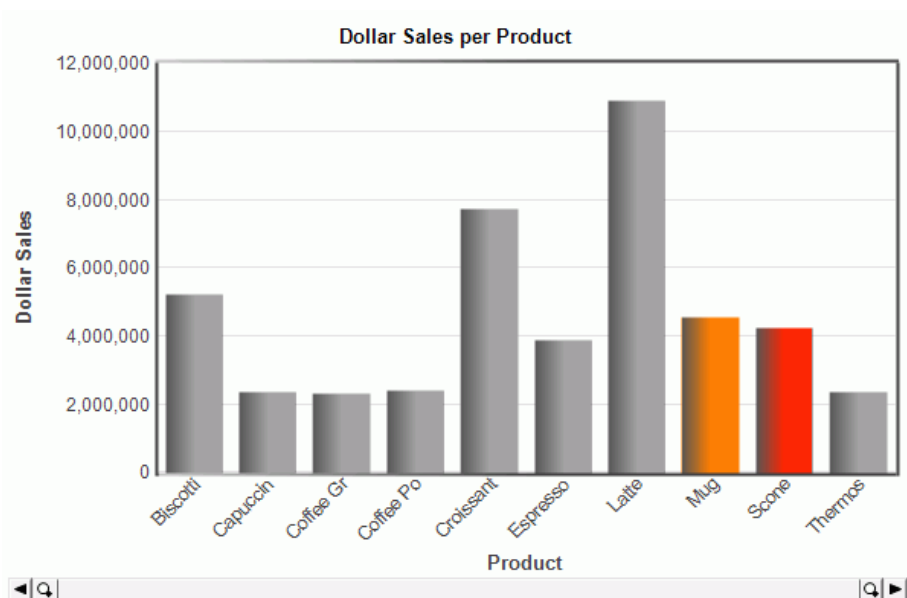
activex1 <OBJECT>

//Begin function window_onload
function window_onload() {
    UpdateData();

    // TODO: Add your event handler code here
    //add onInitialUpdate() function to make changes before initial run of the reports
}
//End function window_onload
function onInitialUpdate()
{
    var arrValues = [];
    arrValues.push('Scone');
    arrValues.push('Mug');
    IbComposer_setCurrentSelection('activex1', arrValues, false);
}
  
```

5. Run the page.

When you run the page, the preselected values will display on the Visual Discovery control, as shown in the following image.



Passing Between a Report and a Visual Discovery Control

Using the HTML Composer, you can add custom parameters that pass data between Visual Discovery controls and reports on a webpage. You can build a webpage in which a Visual Discovery control passes data to a report, or a webpage in which a report passes data to a Visual Discovery control. Each option requires use of the same data pool.

Procedure: How to Pass a Parameter From a Visual Discovery Control to a Report

The following procedure provides steps to create a Visual Discovery control parameter that passes data to a report at run time.

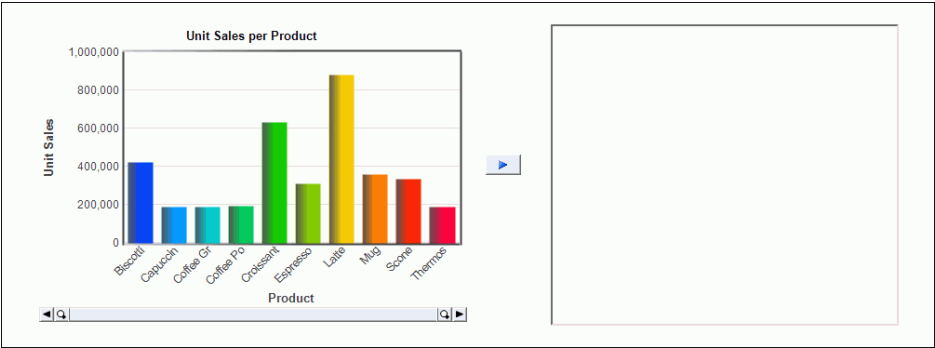
1. Create a parameterized procedure that shares the same values as the data pool you select for your Visual Discovery control.
2. In the HTML Composer, create a Visual Discovery control, such as a bar chart.
3. Select a data pool, and the desired x-axis field and y-axis field for the control.
4. From the Insert menu, select *New Report*.
5. Click and drag your cursor across the canvas. A report placeholder opens.
6. Right-click the report placeholder, and select *Reference existing procedure*.

The Get source file dialog box opens.

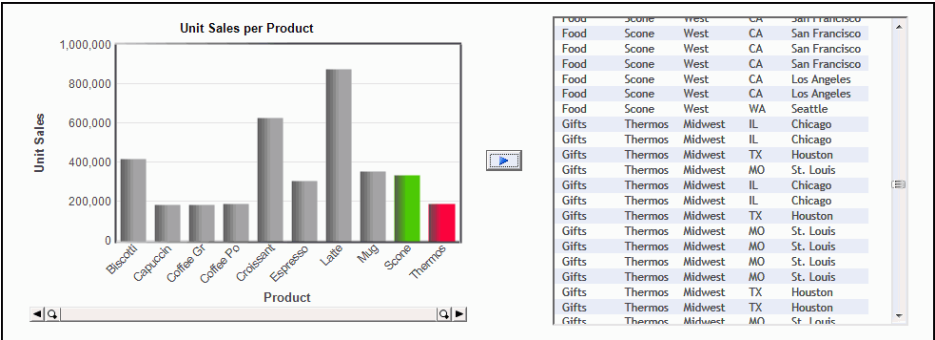
- 7. Navigate to the parameterized procedure you created in Step 1, and click *Open*.

The New Parameters dialog box opens.

- 8. Click the ellipsis button under Control Type.
- 9. Select *Existing control*, and the name of your control.
- 10. Click OK. The report and run button appear.
- 11. Save your work and then run the webpage, as shown in the following image.



Select specific data in your Visual Discovery control, and click the run button to view the report results, as shown in the following image.



Procedure: How to Pass a Parameter From a Report to a Visual Discovery Control

The following procedure provides steps to create a report parameter that passes data to a Visual Discovery control at run time.

- 1. In the HTML Composer, create a Visual Discovery control, such as a bar chart.

2. Select a data pool, and the desired x-axis field and y-axis field for the control.
3. Click the *Parameters* tab.
4. Right-click the page, and select *Add parameter*.

The parameter Properties and settings dialog box opens.

5. Type a parameter name in the Name Field.

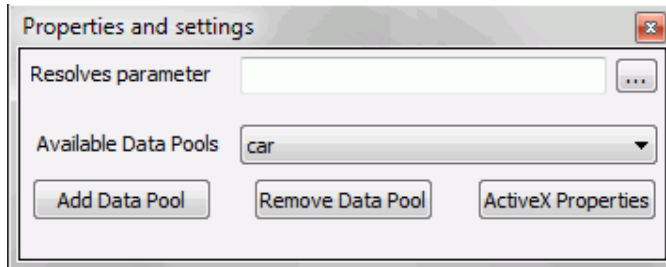
Note: The same parameter name will be used in the report.

6. Select the new parameter, and create a binding line to your Visual Discovery control, as shown in the following image.



7. Select the binding line.

A new Properties and settings dialog box opens, as shown in the following image.



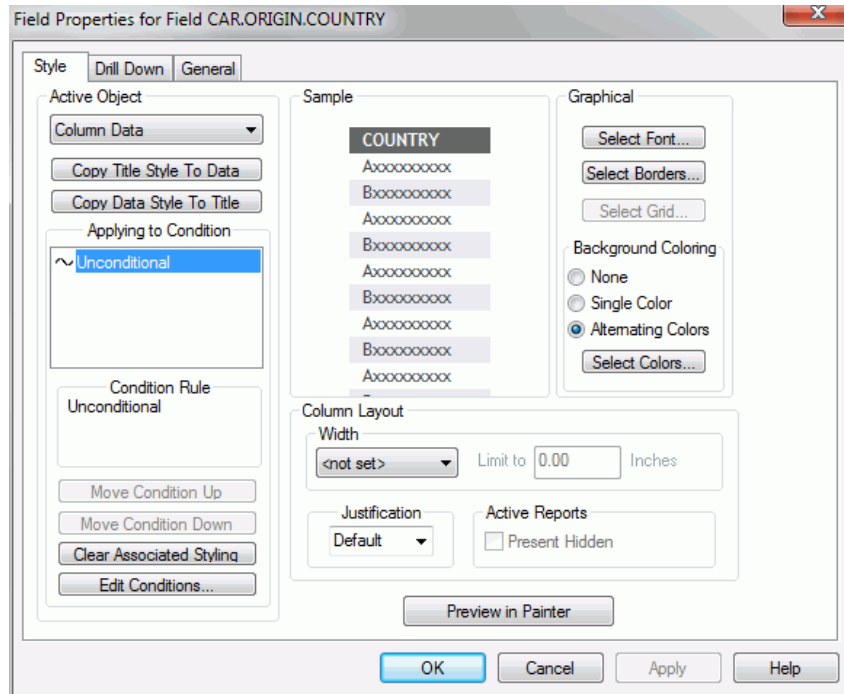
8. Click the ellipsis button and select the data pool field that should be selected based on the parameter created in Step 2.
9. Save your work and close the HTML Composer.

Once you have created the HTML webpage with a Visual Discovery control, you must then create a report that will pass data to the Visual Discovery control.

10. Open Report Painter to create a new Report using the same master file as your data source.
11. Select the Report fields.

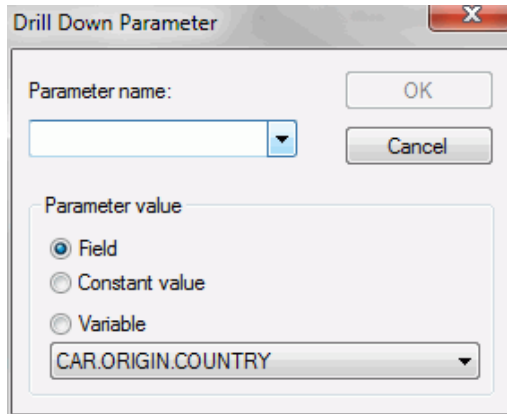
12. Right-click the field on the Report Painter canvas whose value should be passed to the Visual Discovery HTML page, and click *Options*.

The Field Properties for Field dialog box opens, as shown in the following image.



13. Click the *Drill Down* tab.
14. From the Active Object drop-down list, select *Column Data*.
15. From the Drill Down Type drop-down list, select *URL*.
16. Type the fully qualified URL to your HTML page.
17. Under With Parameters, click *Add*.

The Drill Down Parameter dialog box opens, as shown in the following image.

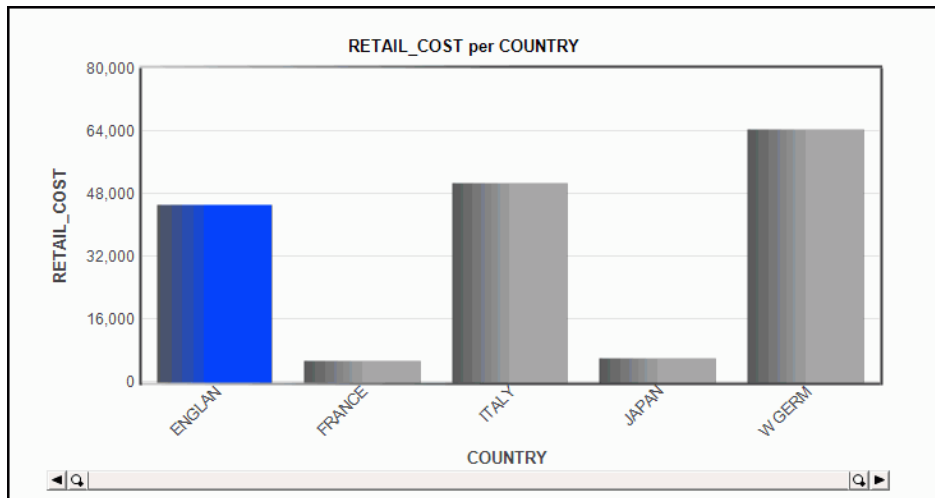


18. Type the same parameter name that you selected in Step 2, and click *OK*.
19. Click *OK* to close the Drill Down Parameter dialog box.
20. Click *OK* to close the Field Properties for Field dialog box.
21. Save your work and run the report.

Note: When you run the report, the chosen parameter field appears with underlined text, as shown in the following image.

COUNTRY	CAR	MODEL	SEATS	RETAIL_COST
<u>ENGLAND</u>	JAGUAR	V12XKE AUTO	2	8,878
<u>ENGLAND</u>	JAGUAR	XJ12L AUTO	5	13,491
<u>ENGLAND</u>	JENSEN	INTERCEPTOR III	4	17,850
<u>ENGLAND</u>	TRIUMPH	TR7	2	5,100
<u>JAPAN</u>	DATSUN	B210 2 DOOR AUTO	4	3,139
<u>JAPAN</u>	TOYOTA	COROLLA 4 DOOR DIX AUTO	4	3,339
<u>ITALY</u>	ALFA ROMEO	2000 4 DOOR BERLINA	4	5,925
<u>ITALY</u>	ALFA ROMEO	2000 GT VELOCE	2	6,820
<u>ITALY</u>	ALFA ROMEO	2000 SPIDER VELOCE	2	6,820
<u>ITALY</u>	MASERATI	DORA 2 DOOR	2	31,500
<u>W GERMANY</u>	AUDI	100 LS 2 DOOR AUTO	5	5,970
<u>W GERMANY</u>	BMW	2002 2 DOOR	5	5,940
<u>W GERMANY</u>	BMW	2002 2 DOOR AUTO	4	6,355
<u>W GERMANY</u>	BMW	3.0 SI 4 DOOR	5	13,752
<u>W GERMANY</u>	BMW	3.0 SI 4 DOOR AUTO	5	14,123
<u>W GERMANY</u>	BMW	530i 4 DOOR	5	9,097
<u>W GERMANY</u>	BMW	530i 4 DOOR AUTO	5	9,495
<u>FRANCE</u>	PEUGEOT	504 4 DOOR	5	5,610

Click an underlined text field. Notice the Visual Discovery control you created earlier appears, with the appropriate parameter selected.



Chaining Into a Visual Discovery Control

Using the HTML Composer chaining feature, you can integrate Visual Discovery controls and data within a listbox, double list, or drop-down list. Adding this functionality to your dashboard creates an interactive webpage from which end users can select values in the list and automatically view them in a Visual Discovery control.

Procedure: How to Chain Into a Visual Discovery Control

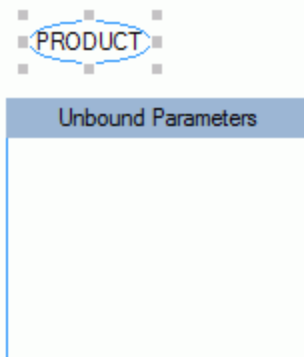
1. Create a parameterized, PCHOLD FORMAT VISDIS procedure that contains a multi-select parameter, and the fields you want to be displayed in the Visual Discovery control.

Note: Because a Visual Discovery control is always multi-select, you must always use a multi-select parameter.

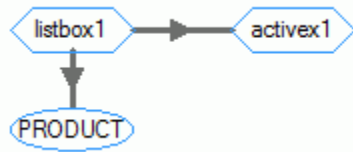
2. In the HTML Composer, create a Visual Discovery control, such as a bar chart, using the parameterized procedure you created as the data pool.
3. Create a listbox that will display the values you want shown in the Visual Discovery control.

Note: You may also use a double list or a drop-down list instead of a listbox.

4. In the Properties pane, change the Multiple option to *Multiple*.
5. Click the *Parameters* tab.
6. Remove the multi-select parameter from the unbound box, as shown in the following image.

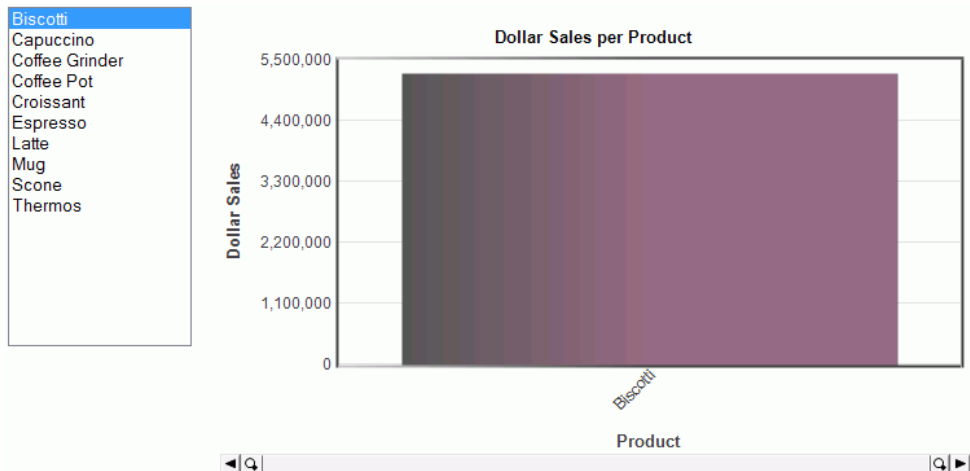


7. Bind your listbox to the multi-select parameter and the Visual Discovery control, as shown in the following image.

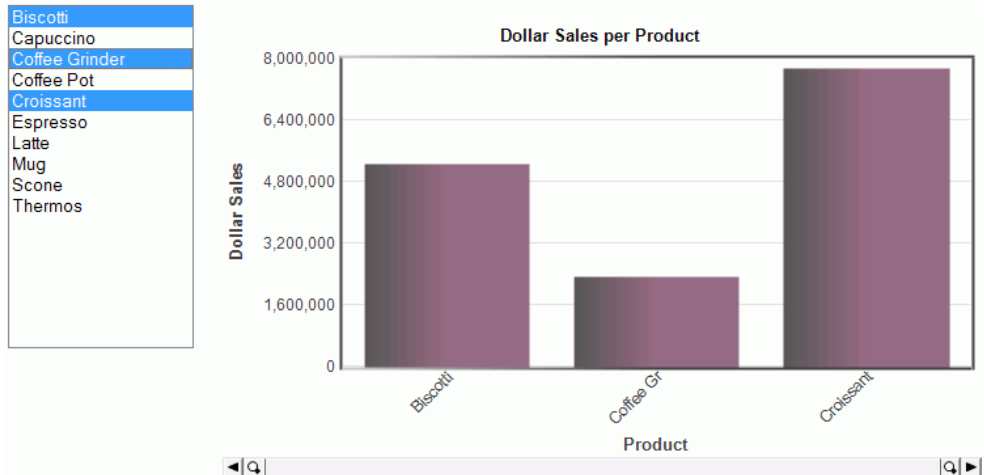


8. Save your work and run the webpage.

The HTML page shows your listbox, populated with the values, and your Visual Discovery control, as shown in the following image.



Selecting values from the listbox will display data in the Visual Discovery control, for those values only. The following image shows three values selected with the corresponding data displayed in the Visual Discovery control.



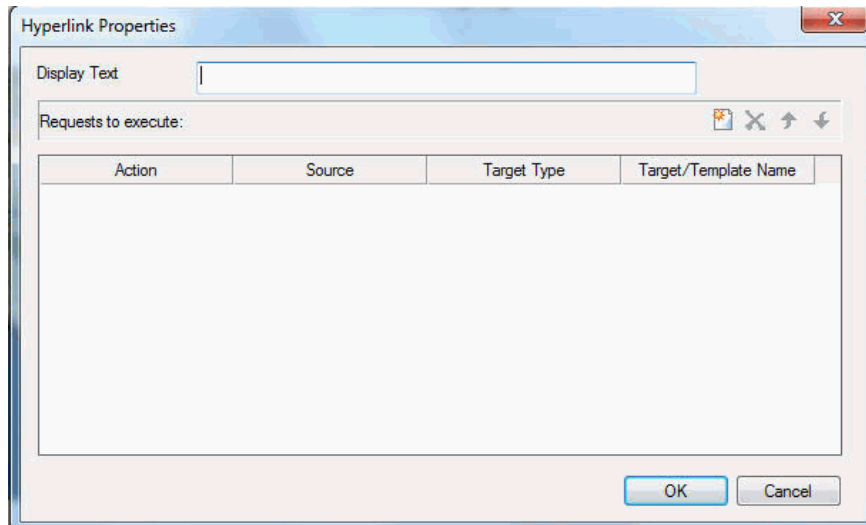
Excluding and Restoring Data

In addition to the Visual Discovery selection features at run time, you can use the *exclude* and *restore* hyperlink actions to link Visual Discovery controls and button controls on a webpage. With this option, end users can select data on a control, and click the *Exclude* button to view only the selected data. To restore the unselected data, end users can click the *Restore* button.

Procedure: How to Exclude and Restore Data

1. In the HTML Composer, create a Visual Discovery control, such as a bar chart.
2. Select a data pool, and the desired x-axis field and y-axis field for the control.
3. Create two push buttons on the page with your Visual Discovery control.
4. Right-click the first button and select *Create hyperlink*.

The Hyperlink Properties dialog box opens.



5. In the Display Text field, type *Exclude*.

6. Click the *new hyperlink*  button.

7. Edit the properties of the new hyperlink.

- ☐ Select *Visual Discovery Exclude* from the Action drop-down list.
- ☐ Select your controls data pool from the source drop-down list.

Note: Target Type and Target/Template Name are not available.

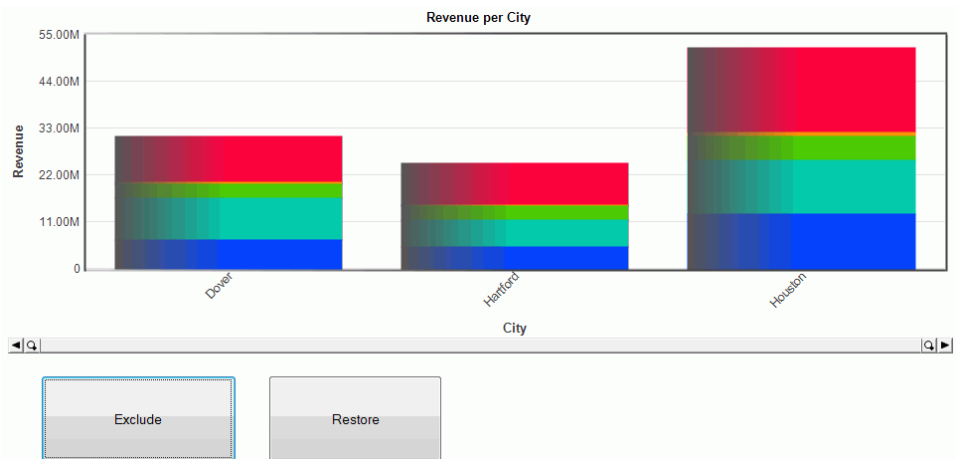
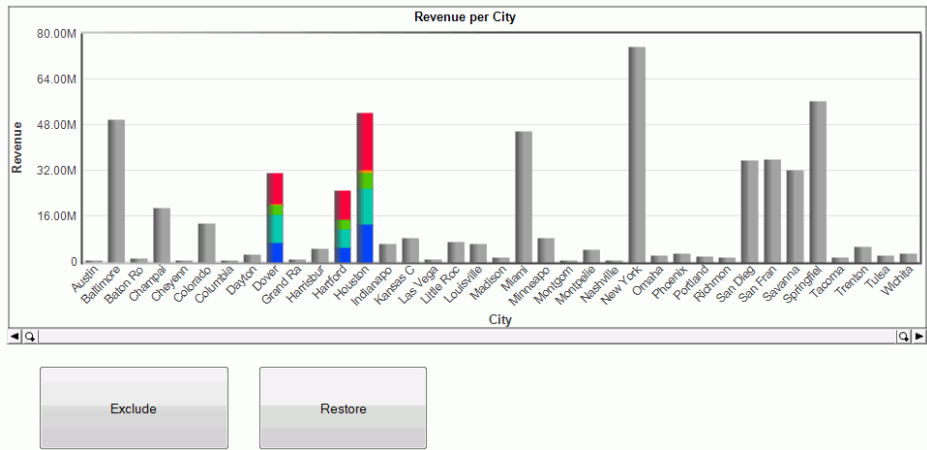
8. Click OK to close the Hyperlink Properties dialog.

9. Repeat Steps 3 through 7 for the second button, noting the following:

- ☐ Name the button *Restore* and select *Visual Discovery Restore* from the Action drop-down list.

10. Save your work and run the webpage.

When selecting data from the Visual Discovery control, you can click the Exclude button to hide all of the unselected data, as shown in the following images.



When you click the Restore button, the hidden data is brought back.

Working With Visual Discovery Controls on the Web

Anyone viewing Visual Discovery analytic dashboards on the web can alter the selection of data or the display of controls without requiring Developer Studio or any programming skills. You can select data, restore excluded data, change the display, such as orientation or sort order, or save the control as a GIF image for use in an external report.

Selecting Data

On your Visual Discovery analytic dashboard on the web, click inside a control and drag your cursor until part of the data is captured by an outline. Release the cursor to complete the selection. You will see the selection change the appearance not only of the control in which you made the selection, but in all the Visual Discovery controls on the dashboard.

To change the shape of the selection tool, select the control and click *ActiveX Properties*. Click the *Selecting* tab and choose a new selector shape. For more information, see the *Using WebFOCUS Visual Discovery to Develop Analytic Dashboards* manual.

Restoring Excluded Data

Once you have selected data on your Visual Discovery analytic dashboard on the web, the excluded data is grayed out or simply not present, depending on the options pre-selected by the Dashboard creator. If the excluded data is grayed out, you can restore it in the following ways:

- ❑ Clicking a gray section replaces the current selection.
- ❑ Ctrl + click adds the new section to the current selection.
- ❑ Dragging the selector shape across the control selects a new set of data.

If the excluded data has disappeared from the control, you can restore it by:

- ❑ Selecting the grayed-out data in another control.
- ❑ Right-clicking the control and selecting *Show unselected* to keep the selection area the same while displaying unselected data.
- ❑ Right-clicking the control and selecting *Select*, *Select All* to restore all data to the selection.

Changing the Display

To change the orientation, label display, sort order, or glyph choice for any Visual Discovery control, right-click the control and select the appropriate item. For pie charts, you can also change the rotation, the measure of explosion, or the weighting.

For access to the complete set of control options, right-click the control and select *Properties*.

Saving a Control as an Image

To save a control as an image, right-click it and select *Save image*. Specify the destination and file name to save the control as a GIF file.

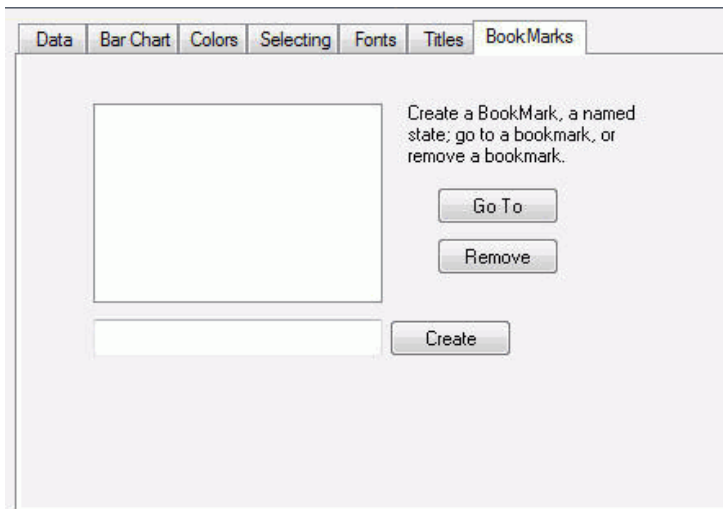
Saving the State of Analysis

A bookmark is a combination of display characteristics, such as the selection state (data that is selected, unselected, or excluded) and the colors used in the control. The Visual Discovery bookmark feature allows you to save a specific state in your analysis, so you can return to it at a later time without recreating it from the beginning.

To save the current state of your analysis, select the control, click *ActiveX Properties*, and access the *BookMarks* tab in the Visual Discovery Properties dialog box. In the input field, type a name for the bookmark and click *Create* and *OK*. The new bookmark will be available from the Bookmarks option on the pop-up menu for the control.

Reference: BookMarks Tab

The following image shows the BookMarks tab in the Visual Discovery Properties dialog box.



Create

On a webpage, this bookmarks the current view of the control so that you can return to it at a later date. Type a name and click *Create*.

Go To

Select a bookmark and click *Go To* to return to that view of the control.

Remove

Select a bookmark and click *Remove* to delete the bookmark.

Accessing Visual Discovery Online Help

The Visual Discovery design-time and run-time environments provide online help for the user interface and the JavaScript API. The JavaScript API online help includes full documentation on all controls and their properties, methods, and expected behavior.

Procedure: How to Access Visual Discovery Online Help

This procedure describes how to access online help for the user interface, and then navigate to information on the JavaScript API.

For specific steps on using online help to set colors, see the example that follows this general procedure.

1. In the design-time environment, select the control whose properties you are setting, and click *ActiveX Properties*.

In the run-time environment, right-click the control and select *Properties* from the pop-up menu.

The Visual Discovery Properties dialog box for the selected control opens.

2. Click the *Help* button in the lower-right corner of the dialog box.

The Common Property Pages window opens. It provides information on all the tabs for the control. These common tabs are the same for many controls.

3. Scroll down the page to locate information on the tab that you are interested in.

Online help information explains what the fields on the tab allow you to do.

4. On the Search tab in the left pane, in the field labeled Type in the keyword to find, enter a search string and click *List Topics*.
5. Select the topic that applies and click *Display*.

A new pane opens on the right, displaying the selected topic.

6. Scroll down the pane, following the highlighted instances of the keyword you entered until you come to the information you are looking for.
7. When you have retrieved and reviewed the information, close online help to return to the Visual Discovery control.

Example: Using Visual Discovery Online Help to Set Colors

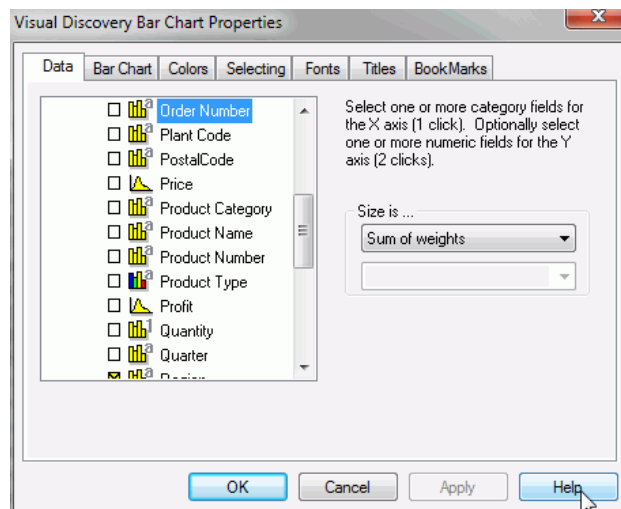
You can set the color of the various parts of a control, for instance, the background, the axis titles, the chart title, and so on. This example shows how to access online help for information on the Colors tab of the user interface, and then navigate to information on setting colors through the JavaScript API.

This example uses an HTML page with a bar chart. It accesses online help from the design-time environment.

1. Open the HTML page in design mode in the HTML Composer.
2. Select the bar chart control, whose color properties you are setting, and click *ActiveX Properties*.

The Visual Discovery Bar Chart Properties dialog box opens.

3. Click the *Help* button in the lower-right corner of the dialog box, as shown in the following image.



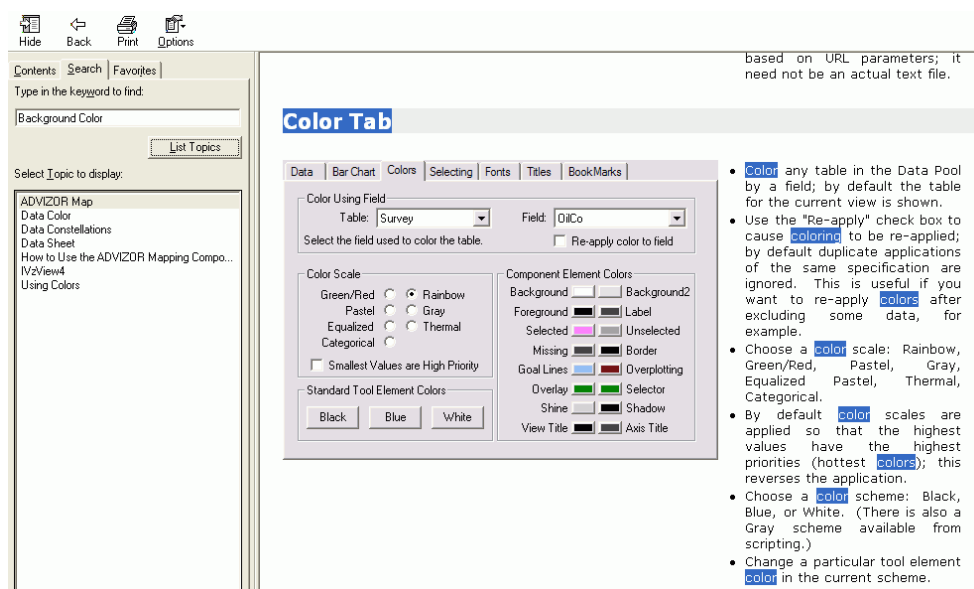
The Common Property Pages window opens. It provides information on all the tabs for the bar chart.

4. Scroll down the page to locate information on the Colors tab.

Online help information explains what the fields on the tab allow you to do, for example, apply a color to a control element, such as background.

5. In this example, we would like to know more about setting colors and additional color capabilities available through the JavaScript API.

On the Search tab in the left pane, in the field labeled Type in the keyword to find, enter *Background Color* and click *List Topics*.



The screenshot shows the Visual Discovery Online Help interface. On the left, the 'Search' tab is active, and the search results for 'Background Color' are listed. The 'List Topics' button is visible. The main pane displays the 'Color Tab' settings, which include a 'Color Using Field' section with a 'Table' dropdown set to 'Survey' and a 'Field' dropdown set to 'OilCo'. Below this, there are sections for 'Color Scale' (with options like Green/Red, Pastel, Equalized, Thermal, and Categorical) and 'Component Element Colors' (with options like Background, Foreground, Selected, Missing, Goal Lines, Overlay, Shine, View Title, Background2, Label, Unselected, Border, Overplotting, Selector, and Shadow). On the right, a list of topics is displayed, including 'Color' and 'Background Color'.

based on URL parameters; it need not be an actual text file.

Color Tab

Data | Bar Chart | Colors | Selecting | Fonts | Titles | BookMarks

Color Using Field
Table: Survey Field: OilCo
Select the field used to color the table. ☐ Re-apply color to field

Color Scale
Green/Red ☐ Rainbow
Pastel ☐ Gray
Equalized ☐ Thermal
Categorical ☐
☐ Smallest Values are High Priority

Standard Tool Element Colors
Black Blue White

Component Element Colors
Background ☐ Background2
Foreground ☐ Label
Selected ☐ Unselected
Missing ☐ Border
Goal Lines ☐ Overplotting
Overlay ☐ Selector
Shine ☐ Shadow
View Title ☐ Axis Title

- **Color** any table in the Data Pool by a field; by default the table for the current view is shown.
- Use the "Re-apply" check box to cause **coloring** to be re-applied; by default duplicate applications of the same specification are ignored. This is useful if you want to re-apply **colors** after excluding some data, for example.
- Choose a **color** scale: Rainbow, Green/Red, Pastel, Gray, Equalized, Pastel, Thermal, Categorical.
- By default **color** scales are applied so that the highest values have the highest priorities (hottest **colors**); this reverses the application.
- Choose a **color** scheme: Black, Blue, or White. (There is also a Gray scheme available from scripting.)
- Change a particular tool element **color** in the current scheme.

6. Select *IVZView4* and click *Display*.

The VzView4 window opens in the right pane, with details on the standard JavaScript API for all Visual Discovery controls, including properties and methods.

Instances of the keyword you entered in the search pane are highlighted ("background color" and "color").

7. Scroll down the pane, following the highlighted instances of background color or color, until you come to the color properties. Here you find that a color is encoded as a string that gives the RGB (red/green/blue) value in hexadecimal notation (0xRRGGBB). For example, red is 0xFF0000 and blue is 0x0000FF.

Properties

```
object.ForegroundColor = string;
stringvar = object.ForegroundColor;
object.BackgroundColor = string;
stringvar = object.BackgroundColor;
object.Background2Color = string;
stringvar = object.Background2Color;
object.SelectedColor = string;
stringvar = object.SelectedColor;
object.UnselectedColor = string;
stringvar = object.UnselectedColor;
object.OverlayColor = string;
stringvar = object.OverlayColor;
object.SelectorColor = string;
stringvar = object.SelectorColor;
object.LabelColor = string;
stringvar = object.LabelColor;
object.OverplotColor = string;
stringvar = object.OverplotColor;
object.MissingColor = string;
stringvar = object.MissingColor;
object.ShineColor = string;
stringvar = object.ShineColor;
object.ShadowColor = string;
stringvar = object.ShadowColor;
object.BorderColor = string;
stringvar = object.BorderColor;
object.GoallineColor = string;
stringvar = object.GoallineColor;
object.AxisColor = string;
stringvar = object.AxisColor;
object.TitleColor = string;
stringvar = object.TitleColor;
```

Get or set visualization component element `colors`. `Colors` are encoded as a string giving the RGB value of the `color` in hex: "0xRRGGBB". Thus red is "0xFF0000" and blue is "0x0000FF". See [VzDataColor](#) for a description of these `colors` and additional `color` control.

Tables describing hexadecimal color codes are available on many websites.

8. Close online help to return to the Visual Discovery control.

Visual Discovery Tutorial

The first part covers some of the most commonly used chart types and useful Visual Discovery add-ons. The second part allows you to create controls that can be customized for future applications, as well as creating an active report or PDF from the selected components.

Before You Begin

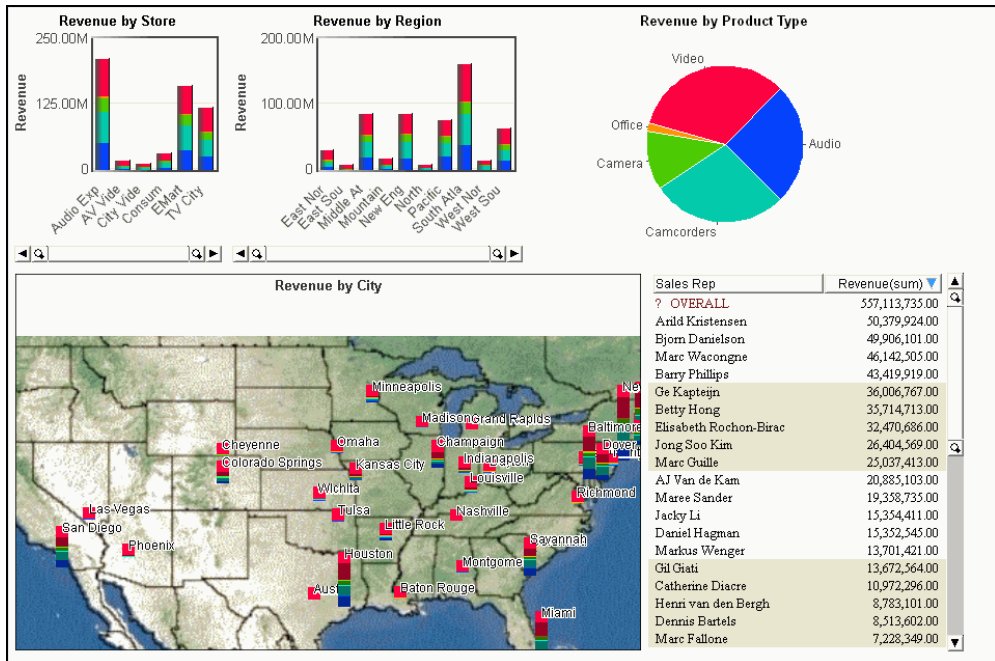
This tutorial assumes that you are already familiar with WebFOCUS Developer Studio and that you have done the following:

- ❑ Installed WebFOCUS Developer Studio.
- ❑ Confirmed that Developer Studio is connected to its internal WebFOCUS Reporting Server or to a remote WebFOCUS Reporting Server.
- ❑ Confirmed the use of Internet Explorer 8.0 or higher.
- ❑ Reviewed Visual Discovery documentation and learned how to create Visual Discovery .txt files (FORMAT VISDIS) and .fex files (PCHOLD FORMAT VISDIS).

Building an Analytic Dashboard With Visual Discovery Components

This section of the tutorial illustrates how to create an analytic dashboard that contains two bar charts, a data constellation, a pie chart, and a summary sheet. The first four controls show revenue by different values (store, region, city, product type). The last control (summary sheet) shows various values (quantity, returns, and revenue) for each sales representative. The data constellation is placed on top of a map of the United States.

The final output of this section should look similar to the following image:



Note: On any webpage, colors and appearance can vary slightly from machine to machine. Visual Discovery is particularly sensitive because it is an ActiveX object. Consequently, the images included in this tutorial may appear slightly different from the result you achieve.

Visual Discovery controls use data from a .txt or .fex (with PCHOLD FORMAT VISDIS) output file. To understand how to create this type of file, see the *Using WebFOCUS Visual Discovery to Develop Analytic Dashboards* manual. You create analytic dashboards using the HTML Composer, which you can access from:

- ☐ The Developer Studio project area.
- ☐ WebFOCUS Environments: Data Servers.
- ☐ WebFOCUS Environments: Repository.

Tip: As you perform the steps in the tutorial, save your work frequently.

Procedure: How to Create the HTML File

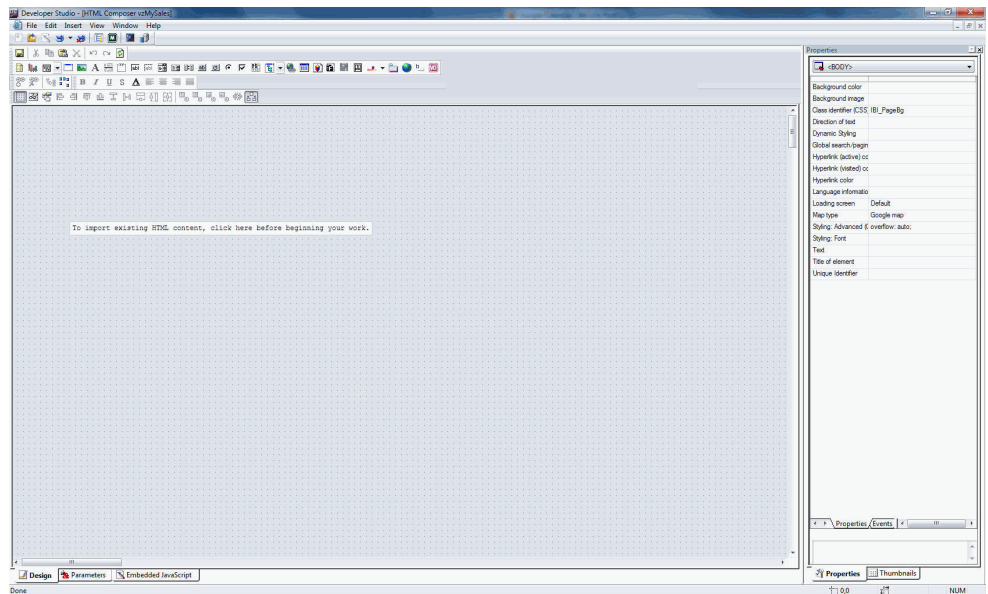
1. In your project or application folder, right-click the *HTML Files* folder and select *New*, then select *HTML File*.

If you are working in the Repository, right-click a folder and select *New, HTML File*.

2. Enter *vzMySales* as the file name and click *Open*.

If the Template Selector opens, click *No, thanks* to close it.

The HTML Composer opens, as shown in the following image.



Procedure: How to Create the Bar Charts

1. Click the *VD* (Visual Discovery) button on the components toolbar.
2. Drag your cursor across the canvas. The *Insert ActiveX Control* dialog box opens.
3. Select *Visual Discovery Bar Chart* and click *OK*.
4. Select the *Empty Bar Chart* component. The *Properties and settings* dialog box opens.

You need to associate data with the control before specifying the characteristics of the bar chart.

5. Click *Add Data Pool* in the *Properties and settings* dialog box.

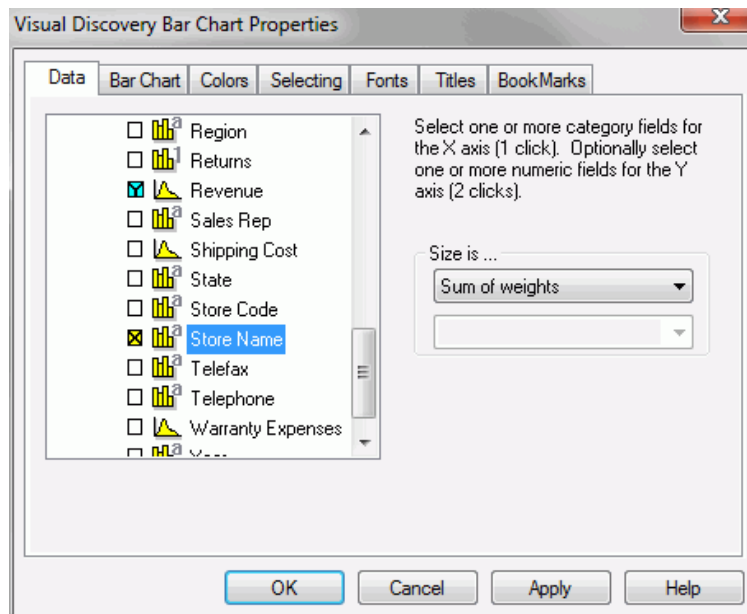
6. Navigate to your data file and click *Open*. In this example, we are using a file named *vzstoresales.txt*. You can copy this file to your current application from the *\ibi\apps\session* directory.
7. Click *ActiveX Properties* to open the Visual Discovery Bar Chart Properties dialog box.
8. In the *Data* tab and expand the data tree to see the available fields.

The bar chart in this example uses the Revenue and Store Name fields.

9. Click:

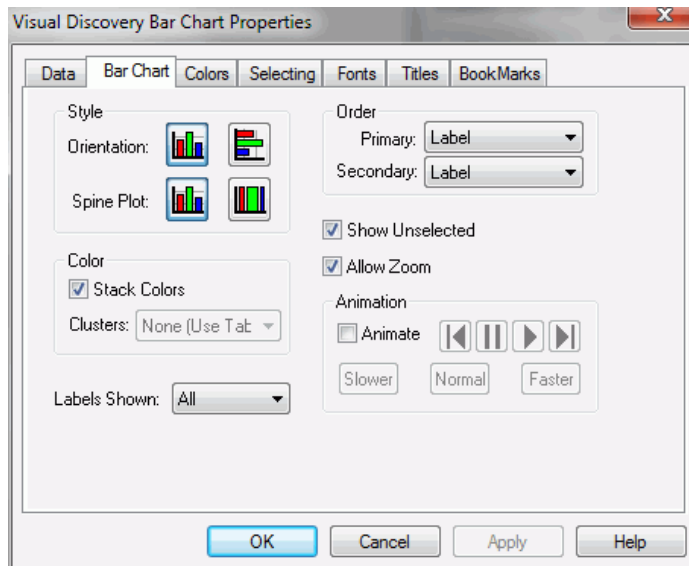
- ☐ Once on *Store Name* so an X appears in the box. This is the x-axis field.
- ☐ Twice on *Revenue* so a Y appears in the box. This is the y-axis field.

The following image shows the x-value and y-value selected in the *Data* tab.

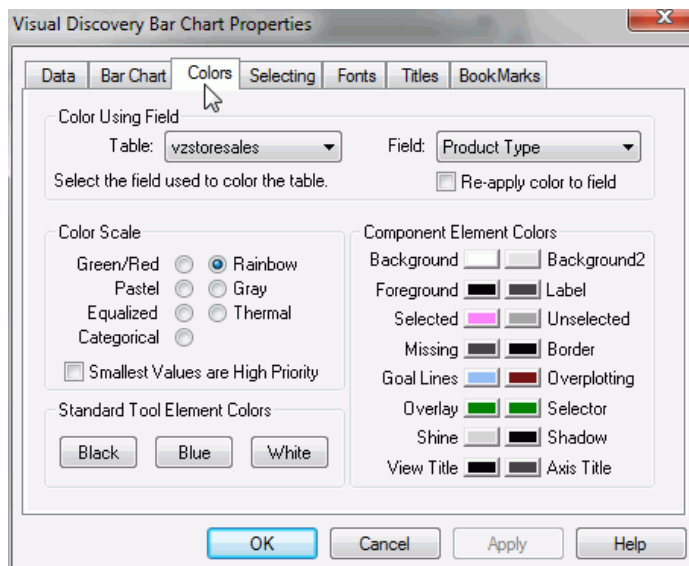


10. Click the *Bar Chart* tab, as shown in the following image.
 - ☐ Confirm the orientation of the chart is set vertically by clicking the first icon in the Orientation field.

- ❑ Set Labels Shown to *All*.

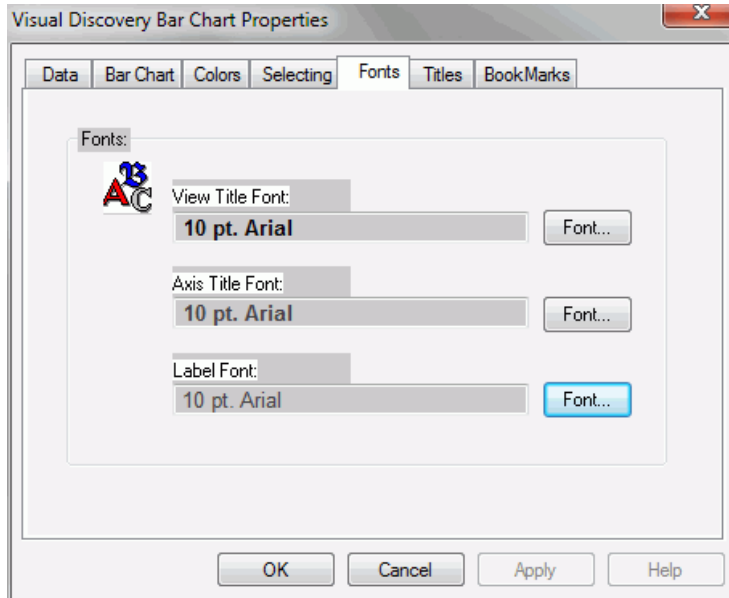


- Click the *Colors* tab, as shown in the following image. From the Field list, select *Product Type*. This colors the bars according to the values in the Product Type field.



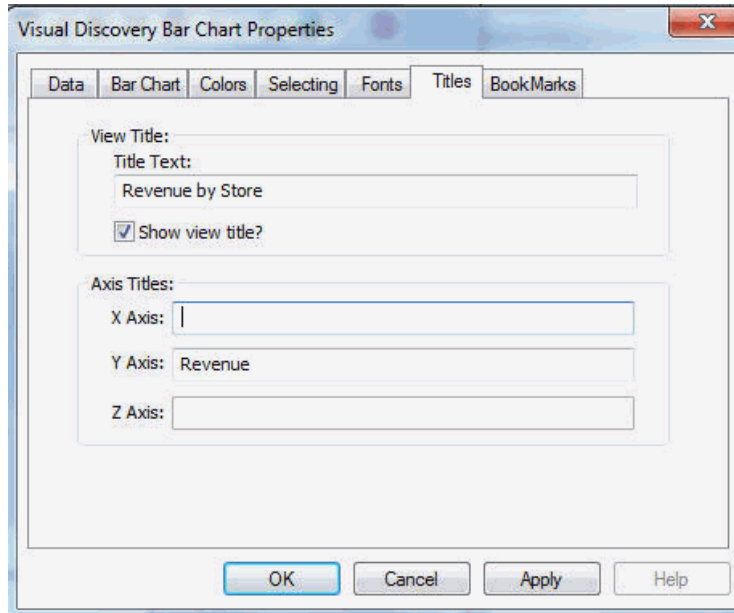
12. Click the *Fonts* tab, as shown in the following image.

For Label Font, click the *Font* button and set Size to 10.



13. Click the *Titles* tab, as shown in the following image. Change the following:

- ☐ Title Text to *Revenue by Store*.
- ☐ X Axis title to blank (no title).
- ☐ Y Axis title to *Revenue*.



14. Click *Apply*, and then *OK* to return to the HTML Composer window.

15. Save your work.

16. Access the Properties pane on the right (if needed, select *Properties* from the View menu).

From the Properties drop-down list, select *activex1 <OBJECT>*, if not already selected. For information on the way that Visual Discovery names components, see the *Using WebFOCUS Visual Discovery to Develop Analytic Dashboards* manual.

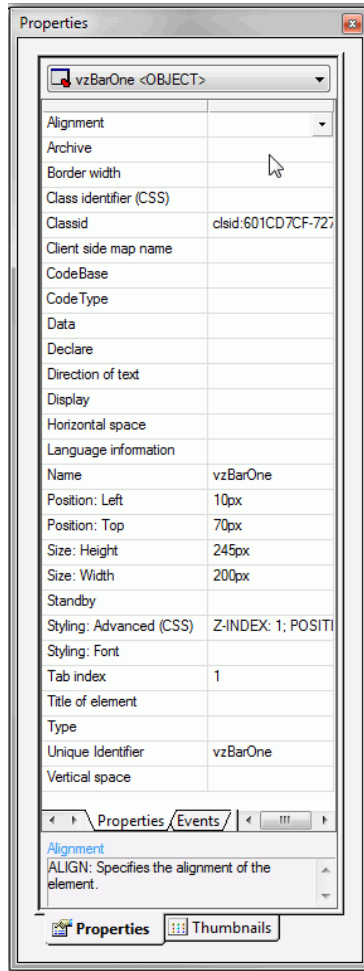
Specify the attributes as follows and then save your work:

- ☐ Name: *vzBarOne*
- ☐ Position: Left: *10px*
- ☐ Position: Top: *70px*
- ☐ Size: Height: *245px*

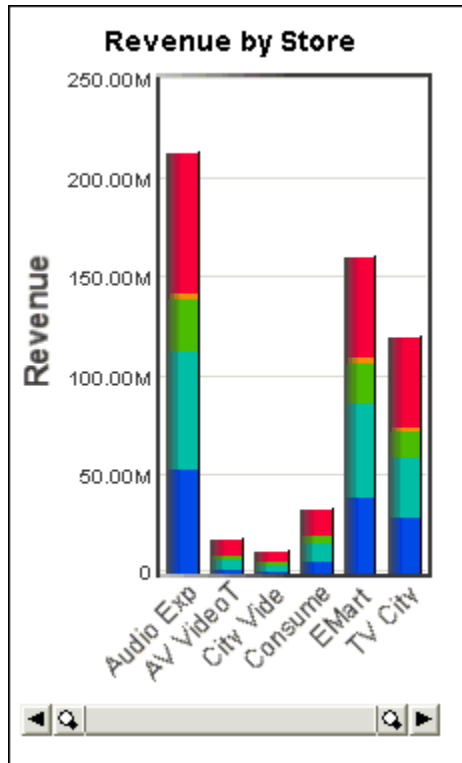
- ❑ Size: Width: 200px
- ❑ Unique Identifier: vzBarOne

Tip: You do not need to enter px for pixels. That is the default value.

The following image shows the Properties pane.



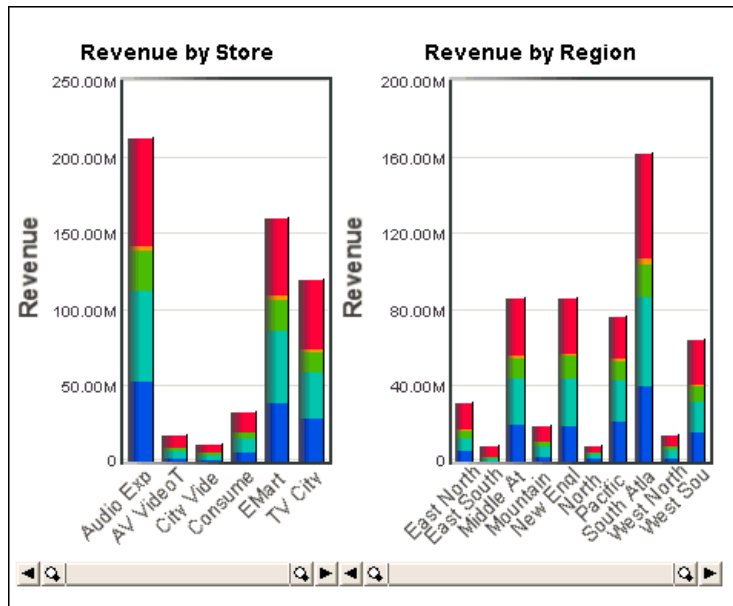
17. Run the webpage. The output should look similar to the following image.



18. Close the webpage to return to the HTML Composer.
19. Create another bar chart component by repeating Steps 1 through 18 in this procedure. When you create the second bar chart, note the following:
- ☐ The vzstoresales.txt data source is already part of the data pool.
 - ☐ From the Data tab, select *Region* as the x-axis field, then select *Revenue* as the y-axis field.
 - ☐ From the Bar Chart tab, set Labels Shown to *All*.
 - ☐ From the Titles tab, change the title text to *Revenue by Region* and the X axis title blank.
 - ☐ On the Properties pane, remember to select *activex2 <OBJECT>* from the drop-down list, if not already selected. Set these attributes as follows and then save your work:
 - ☐ Name: *vzBarTwo*

- ❑ Position: Left: 220px
- ❑ Position: Top: 70px
- ❑ Size: Height: 245px
- ❑ Size: Width: 280px
- ❑ Unique Identifier: vzBarTwo

20. Run the webpage. The output should look similar to the following image.



21. Close the webpage to return to the HTML Composer.

Procedure: How to Create the Data Constellation

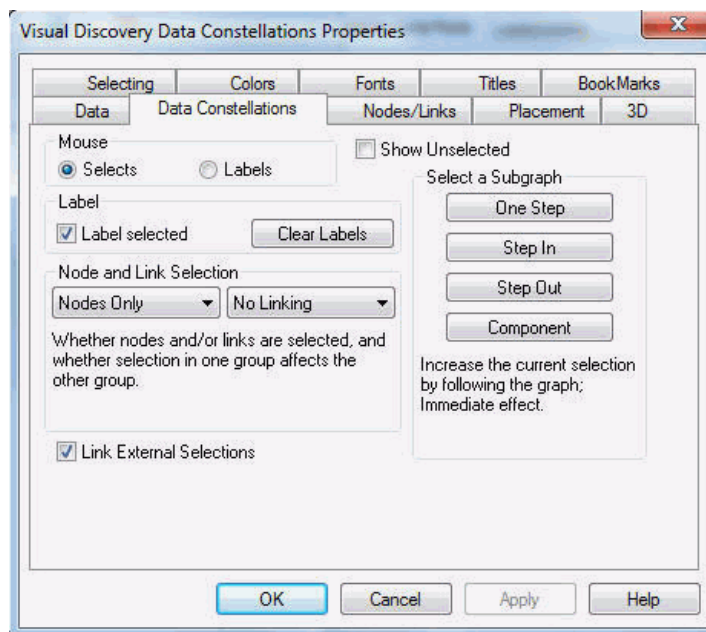
1. Insert another Visual Discovery control.
2. This time, select *Visual Discovery Data Constellations*.

We are going to bring in a map with dimensions of about 512 x 256.

3. Select the *Empty Data Constellations* component, and then select *vzstoresales.txt* from the Available Data Pools list on the Properties and settings dialog box.

In the Properties and settings dialog box, note that the data source is already available in the Available Data Pools list since you added it for the bar charts. Visual Discovery controls share the same data pool. If you want to add additional data, you can add more tables here.

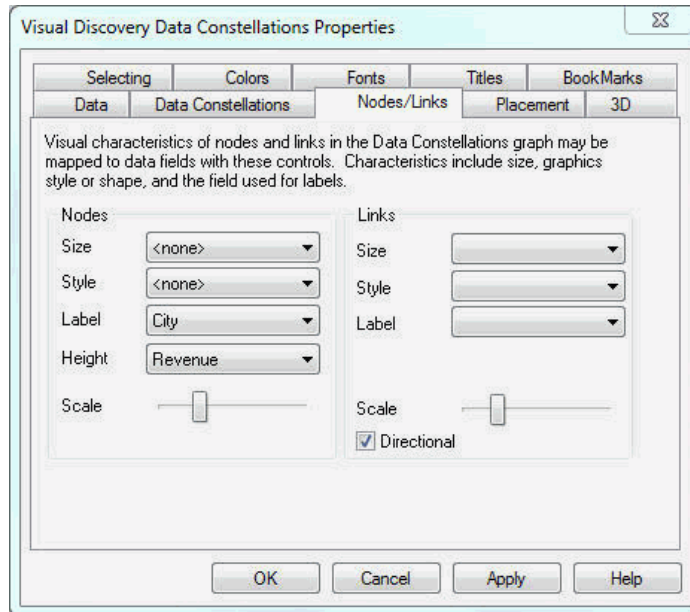
4. Click *ActiveX Properties*. The Visual Discovery Data Constellations Properties dialog box opens.
5. In the Data tab, expand the data tree and select *City*.
6. Click *Apply*.
7. Click the *Data Constellations* tab, as shown in the following image. In the:
 - ☐ Label area, select the *Label selected* check box.
 - ☐ Node and Link Selection area, select *Nodes Only* and *No Linking*. This shows only the specific cities as data points (nodes) and does not link the nodes.
 - ☐ Uncheck *Show Unselected*. When the webpage is run, this removes all the glyphs that are not selected.



8. Click the *Nodes/Links* tab, as shown in the following image. In the Nodes area:
 - ☐ Select *City* for the Label.

- ❑ Select *Revenue* for the Height.
- ❑ Move the Scale slider to the right to increase node size.

This labels all of the data points (nodes) with the value in the City field, and determines the height of the node from the value in the Revenue field. It also scales the nodes so they are visible on the map.



9. Click the *Placement* tab. Here you add the map image and the coordinates for longitude and latitude. In the Position File input area, three distinct parameter strings are required, each separated by a space, as follows:

`longfield, latfield 'imagepath' minmax1~ minmax2`

where:

`longfield, latfield`

Are the actual names in the data source for the fields that contain the X,Y (longitude and latitude) coordinates for the nodes, respectively.

`'imagepath'`

Is the full path of the map image. Use the Browse button to enter this value.

minmax1~ minmax2

Are the minimum X and Y (lower-left corner of the map) and maximum X and Y (upper-right corner of the map) values, separated by a tilde (~) and a space.

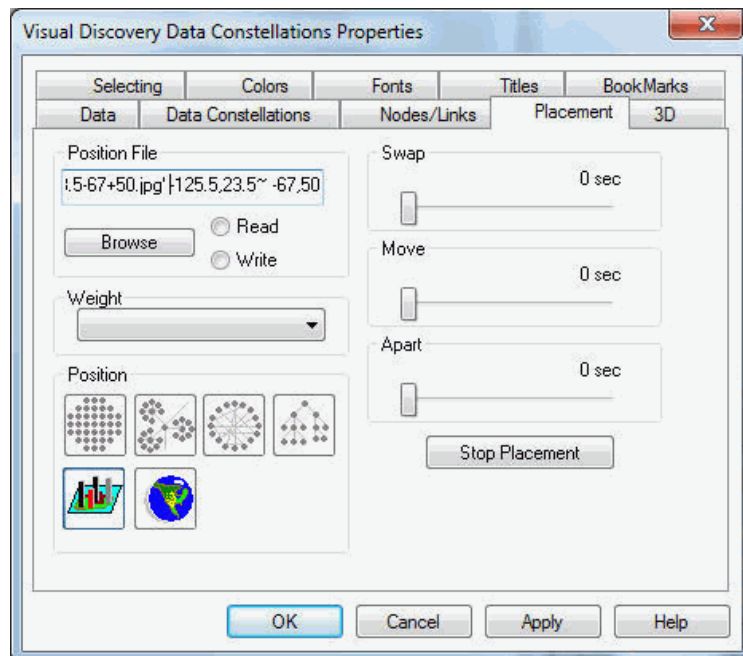
- a. In the Position area, click the map position image (the first image in the second row).
- b. Click *Browse* and navigate to the map file. In this example, we are using a file named *usMainlandDark-125.5+23.5-67+50.jpg*. Change the Files of type drop down to *All Files*, then copy this file to your current application from the *\ibi\apps\session* directory.
- c. Click the *Position File* text box and preceding the image path, enter the field names for the X, Y (longitude and latitude) coordinates. Ensure there is a space between Latitude and the path designation, for example:

Longitude, Latitude 'C:\ibi\apps\session\usMainlandDark-125.5+23.5-67+50.jpg'

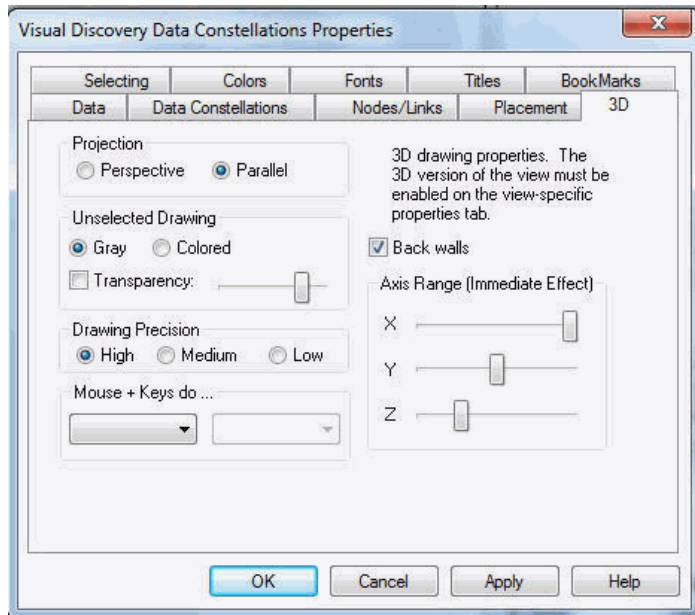
- d. In the *Position File* text box, go to the end of the string. Add the minimum X and Y values. Ensure the values are separated by a tilde (~) and a space, for example:

Longitude, Latitude 'C:\ibi\apps\session\usMainlandDark-125.5+23.5-67+50.jpg' -125.5, 23.5~ -67, 50

The following image shows the Placement tab.



10. Click the *Colors* tab. Confirm that *Product Type* is selected from the Field drop-down list for Color Using Field. This colors the nodes by the values in the Product Type field.
11. Click the *3D* tab, as shown in the following image. Select *Parallel* from the Projection field.

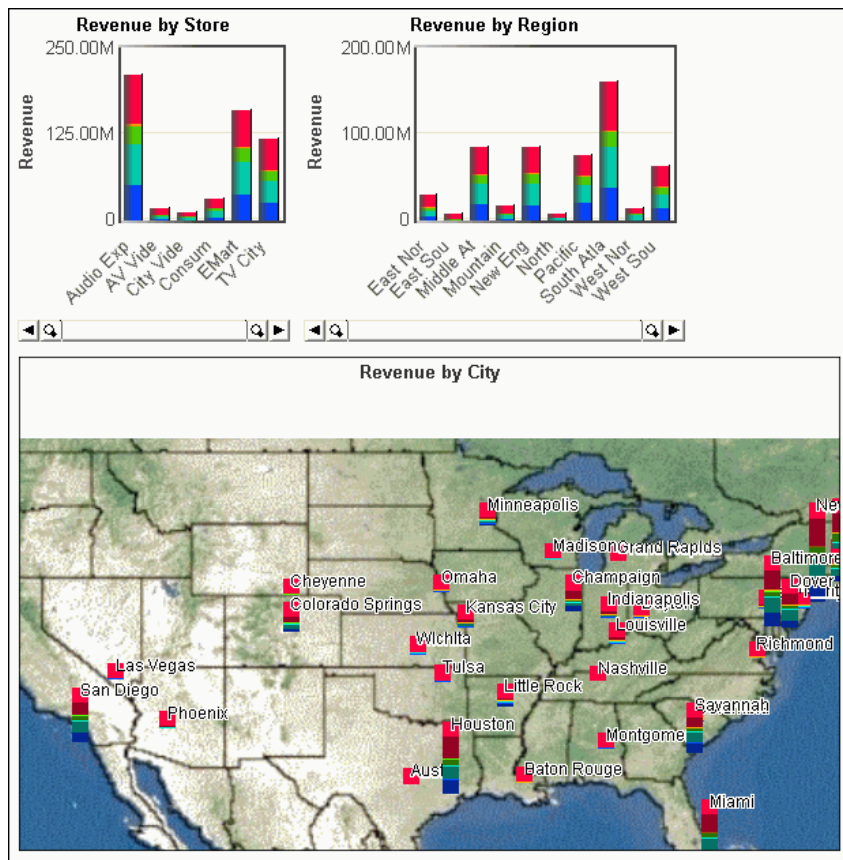


12. Select the *Fonts* tab.
For Label Font, click the *Font* button and set Size to 9.
13. Select the *Titles* tab and for the Title Text, enter *Revenue by City*.
Confirm that *Show view title* is checked.
14. Click *Apply*, and then *OK*. Save your work.
15. Access the Properties pane on the right. From the drop-down list, select *activex3 <OBJECT>*, if not already selected.
Specify the following values and then save your work:
 - ❑ Name: *vzMap*
 - ❑ Position: Left: *10px*
 - ❑ Position: Top: *325px*
 - ❑ Size: Height: *365px*
 - ❑ Size: Width: *605px*

- ❑ Unique Identifier: vzMap

16. Save your work.

17. Run the webpage. The output should look similar to the following image.



18. Close the webpage to return to the HTML Composer.

19. To enable handles on the map, which allows you to rotate the image during run time, change the data constellation 3D projection setting to *Perspective*.

To change the 3D projection setting:

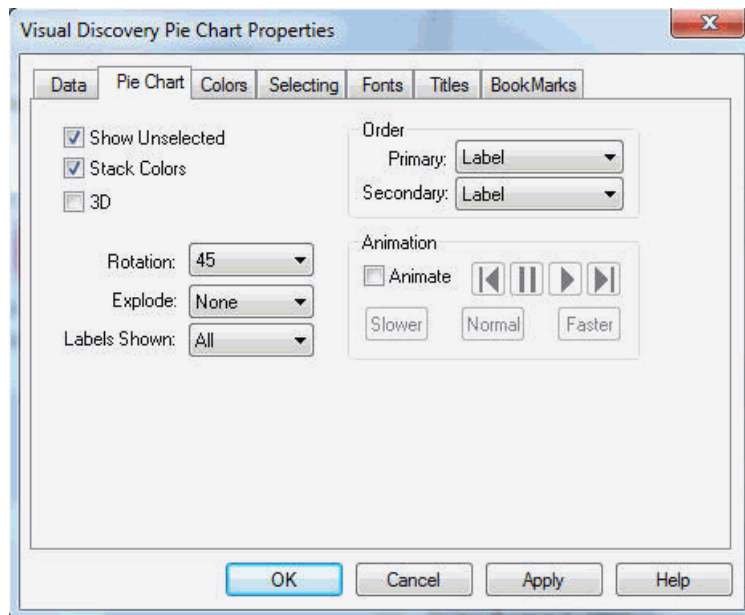
- ❑ Run the form.
- ❑ Right-click on the map and select *Properties*.
- ❑ Select the 3D tab, and then click the *Perspective* radio button.

- ❑ Drag the handles at the corners of the map to rotate the image.

Procedure: How to Create the Pie Chart

1. Insert another Visual Discovery control and select *Visual Discovery Pie Chart*.
2. Select the *Empty Pie Chart* component, and then select *vzstoresales.txt* from the Available Data Pool list.
3. Click *ActiveX Properties*.
4. In the Data tab, expand the data tree and click:
 - ❑ Once on *Product Type* so an X appears in the box. This is the x-axis field.
 - ❑ Twice on *Revenue* so a Y appears in the box. This is the y-axis field.
5. On the Pie Chart tab:
 - ❑ Set Rotation to 45.
 - ❑ Set Labels Shown to *All*.

The following image shows the Pie Chart tab.



6. Select the *Titles* tab and change the Title Text to *Revenue by Product Type*.

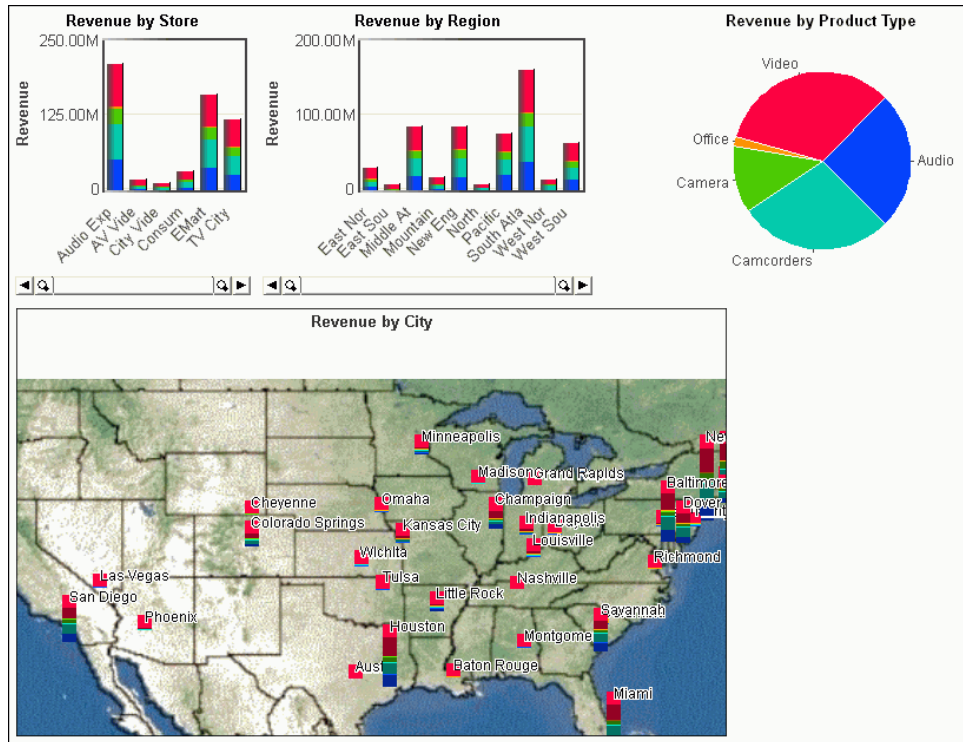
Confirm that the following is checked: Show view title.

7. Click *Apply*, and then *OK*.
8. Save your work.
9. Access the Properties pane on the right. From the drop-down list, select *activex4 <OBJECT>*, if not already selected.

Specify the following values and then save your work:

- ☐ Name: *vzPie*
- ☐ Position: Left: *570px*
- ☐ Position: Top: *70px*
- ☐ Size: Height: *245px*
- ☐ Size: Width: *250px*
- ☐ Unique Identifier: *vzPie*

10. Run the webpage. The output should look similar to the following image.

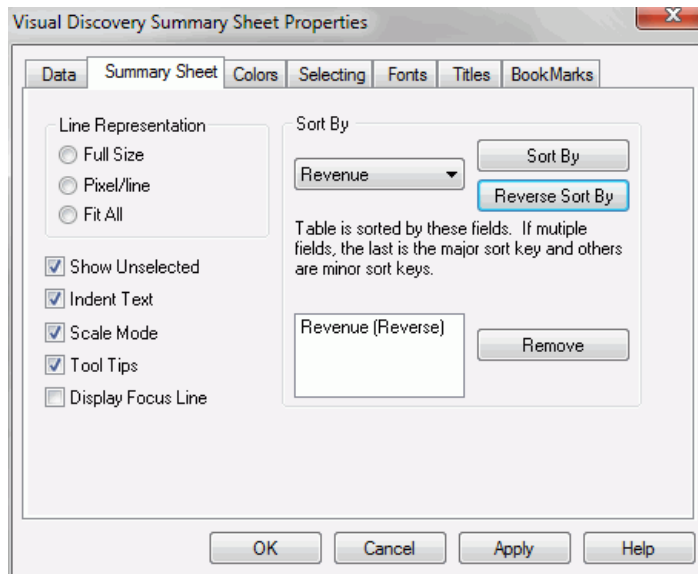


11. Close the page to return to the HTML Composer.

Procedure: How to Create the Summary Sheet

1. Insert another Visual Discovery control and select *Visual Discovery Summary Sheet*.
2. Select the *Empty Summary Sheet* component, and then select *vzstoresales.txt* from the Available Data Pool list.
3. Click *ActiveX Properties*, and then click the *Data* tab.
4. Select *Sales Rep* as the x-axis field. Select *Revenue* as the y-axis field.
5. Click the *Summary Sheet* tab. Select *Revenue* from the Sort By drop-down list and click *Reverse Sort By*.

The following image shows the Summary Sheet tab.

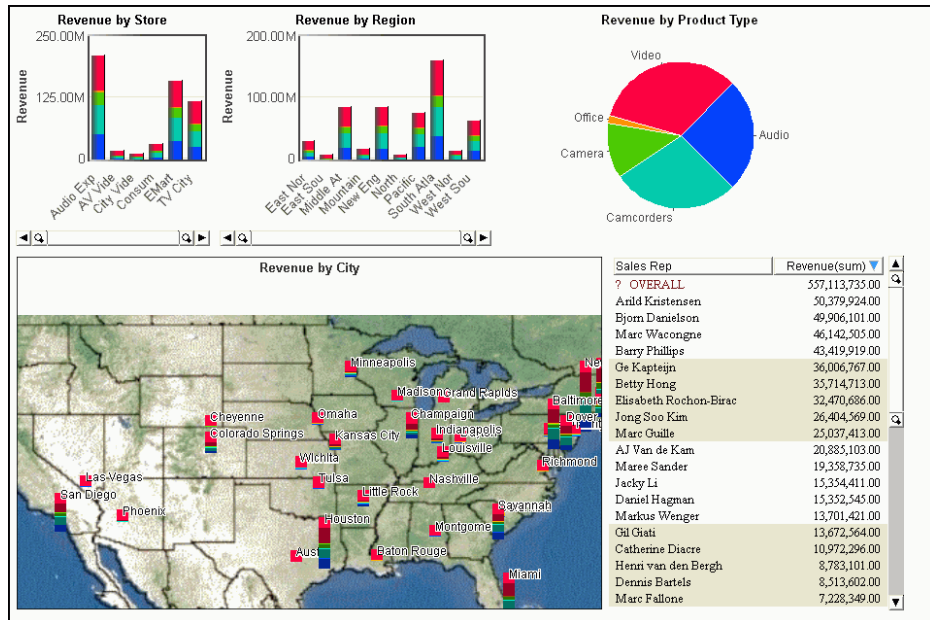


6. Click the *Titles* tab and remove any titles from the summary sheet.
7. Click *Apply*, and then *OK*.
8. Save your work.
9. Access the Properties pane on the right. From the drop-down list, select *activex5 <OBJECT>*, if not already selected.

Specify the following values:

- ☐ Name: *vzSummary*
 - ☐ Position: Left: *620px*
 - ☐ Position: Top: *325px*
 - ☐ Size: Height: *365px*
 - ☐ Size: Width: *305px*
 - ☐ Unique Identifier: *vzSummary*
10. Save your work.

11. Run the webpage. The final output should look similar to the following image.



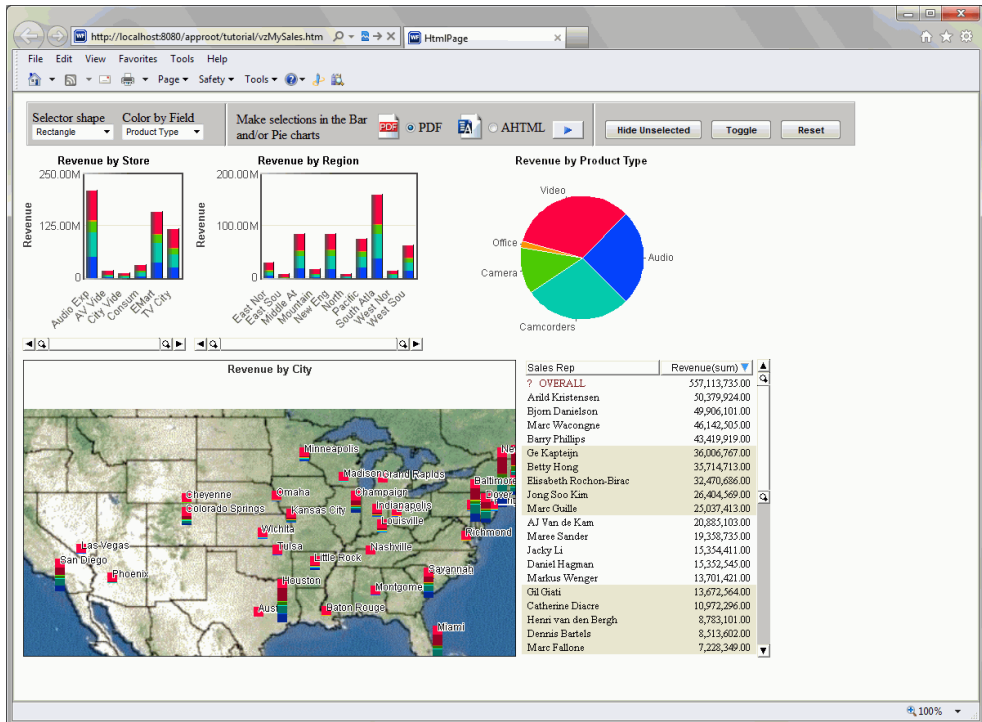
12. Close and save the page.

Building an Application With Advanced Chart Controls

This section of the tutorial illustrates how to build a sample chart control interface that allows the manipulation of information on the HTML page during run time. The chart controls are applied to the sample page, *vzMySales.htm*, using Visual Discovery controls and JavaScript API.

For more information on the JavaScript API, see the *Using WebFOCUS Visual Discovery to Develop Analytic Dashboards* manual.

The final output should look similar to the following image:



Procedure: How to Create a Visual Discovery Control Panel Menu Bar

1. From the Insert menu, select *Controls*, then click *Group Box*.
2. Click and drag your cursor across the top of the canvas. A group box appears.
3. Delete the Group Box text by right-clicking the words *Group Box* and selecting *Delete*.
4. Access the Properties menu pane on the right. If needed, select *Properties* from the View menu.

Make sure that *groupbox1 <FIELDSET>* is the selected property in the Properties menu pane, then click the *Styling: Advanced (CSS)* ellipsis button.

5. From the options on the left, click *Background*, then select *Silver* from the color drop-down list in the Background color section.
6. From the options on the left, click *Position*. Specify the attributes as follows:
 - ☐ Top: 10px
 - ☐ Left: 15px

- ☐ Height: 55px
- ☐ Width: 1015px

7. Click *OK* and save your work.
8. From the Insert menu, select *Components*, then click *Line*.
9. Click and drag your cursor within the group box to draw the line.
10. Access the Properties menu pane on the right. If needed, select *Properties* from the View menu.

Make sure that *line1 * is the selected property in the Properties menu pane, then click the *Styling: Advanced (CSS)* ellipsis button.

11. From the options on the left, click *Background*, then select *Gray* from the color drop-down list in the Background color section.
12. From the options on the left, click *Position*. Specify the attributes as follows:
 - ☐ Top: 0px
 - ☐ Left: 240px
 - ☐ Height: 54px
 - ☐ Width: 2px

13. From the options on the left, click *Edges*. In the Borders section, specify the attributes as follows:
 - ☐ Style: *Inset*
 - ☐ Width: *Thin*

14. Click *OK* and save your work.
15. Create another line by repeating Steps 8 through 13 in this procedure. When you create the second line, note the following:
 - ☐ The selected property in the Properties menu pane should now be *line2 *.
 - ☐ The positioning will be as follows:
 - ☐ Top: 0px
 - ☐ Left: 690px
 - ☐ Height: 54px

- ❑ Width: *2px*

- ❑ All other values will be the same as the previous line.

16. When the second line is inserted, save your work and run the webpage.

17. Close the webpage and return to the HTML Composer.

Procedure: How to Create a Drop Down List Control for Selector Shapes

This procedure adds a Drop Down List control to the menu bar, which can be used to set the way the mouse selects data graphically at run time. This applies to non-3D components only.

1. From the Insert menu, select *Controls*, then click *Drop Down List*.
2. Click and drag your cursor within the group box. The drop-down list appears.
3. Access the Properties menu pane on the right. If needed, select *Properties* from the View menu.

Make sure that *combobox1 <SELECT>* is the selected property in the Properties menu pane. Set these attributes as follows:

- ❑ Name: *cboSelection*

- ❑ Position: Left: *5px*

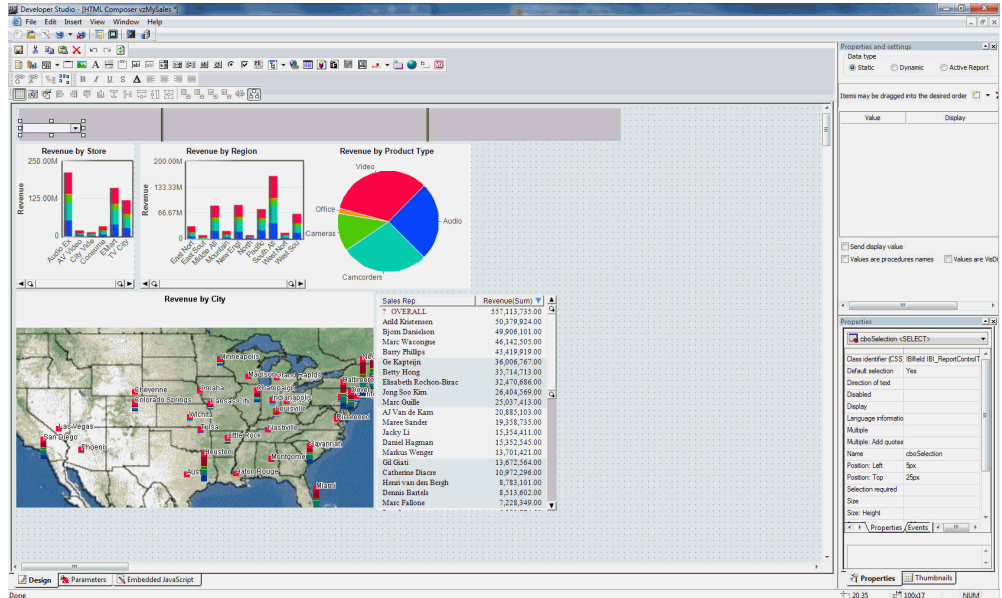
- ❑ Position: Top: *25px*

- ❑ Size: Width: *100px*

- ❑ Styling: Font: *Arial 8pt*

- ❑ Unique Identifier: *cboSelection*

- Click the *Parameters* tab located in the lower-left corner of the HTML Composer window.



The Properties and settings dialog box appears.

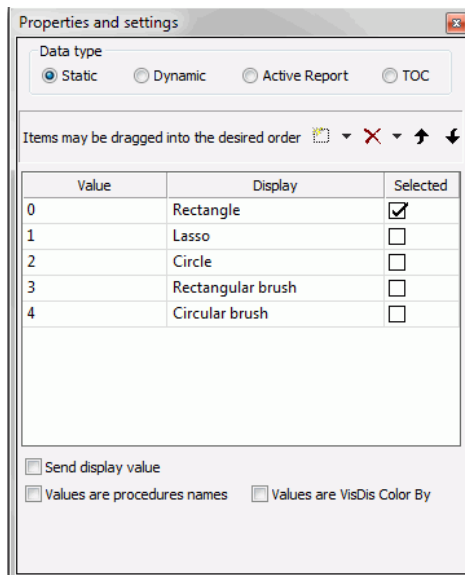
Note: For the steps below, it is important that you make sure that *cboSelection* <SELECT> is the selected property in the Properties menu pane before you open the Parameters window. If it is not selected, you can select it from the drop-down menu at the top of the Properties menu. If it does not appear in the drop-down menu, you need to refresh the menu. You can do this by clicking anywhere on the active form, then back on the Properties menu pane.

- Select *Static* from the Data Type radio button area.

6. Click the New  button, and add the following options:

<u>Value</u>	<u>Display</u>
0	Rectangle
1	Lasso
2	Circle
3	Rectangular brush
4	Circular brush

The following image shows the Properties and settings box with the newly added options.



- Return to the Design view by clicking on the *Design* tab located in the lower-left corner of the HTML Composer window.
- Click the *Events* tab located at the bottom of the Properties toolbox pane.
- To add an event to the drop-down list whenever you select an option at run time, select the event *onchange* and click the ellipsis button.

10. Add the code below to the `cboSelection_onchange` function and then save your work.

```
//VzSelectorShapeEnum
/*Shape      Value      Description
-----
VzSelRectangle  0      Rectangle
VzSelLasso     1      Lasso
VzSelCircle     2      Circle
VzSelRectBrush  3      Rectangular brush
VzSelCircleBrush 4      Circular brush
*/
var vzBarOne    =document.getElementById('vzBarOne');
var varSelected =ctrl.options[ctrl.selectedIndex].value;
vzBarOne.SelectorShape =varSelected;
```

Note: The steps above added JavaScript code to the project. For more information on JavaScript standards and best practices, see the *Using WebFOCUS Visual Discovery to Develop Analytic Dashboards* manual.

11. Return to the design view by selecting the *Design* tab and return to the Properties menu pane by selecting the *Properties* tab at the bottom of the Properties toolbox pane.
12. From the Insert menu, select *Components*, then click *Text*.
13. Click and drag your cursor within the group box. The text appears.
14. Double-click inside the text object. Enter the text *Selector shape*.
15. Access the Properties menu pane on the right. If needed, select *Properties* from the View menu.

Make sure that *text1 * is the selected property in the Properties menu pane. Set these attributes as follows:

- ☐ Position: Left: *5px*
- ☐ Position: Top: *8px*
- ☐ Size: Height: *28px*
- ☐ Size: Width: *100px*
- ☐ Unique Identifier: *txtSelector*

16. Save your work, then run the webpage.

Note: The selector shape control allows you to choose portions of the Visual Discovery controls during run time, through use of different shape selection options. With the HTML page open, select *Circle*, in the Selector shape drop-down list. Click and drag your cursor across the pie chart. Notice the selection you choose is selected in a circular shape.

Procedure: How to Create a Drop Down List Control to Color By Fields

This procedure adds a Drop Down List control to the menu bar, which can be used to color any table in the data pool by the specified field at run time.

1. From the Insert menu, select *Controls*, then click *Drop Down List*.
2. Click and drag your cursor within the group box. The drop-down list appears.
3. Access the Properties menu pane on the right. If needed, select *Properties* from the View menu.

Make sure that *combobox2 <SELECT>* is the selected property in the Properties menu pane. Set these attributes as follows:

- ❑ Name: *cboColorBy*
- ❑ Position: Left: *115px*
- ❑ Position: Top: *25px*
- ❑ Size: Width: *100px*
- ❑ Styling: Font: *Arial 8pt*
- ❑ Unique Identifier: *cboColorBy*

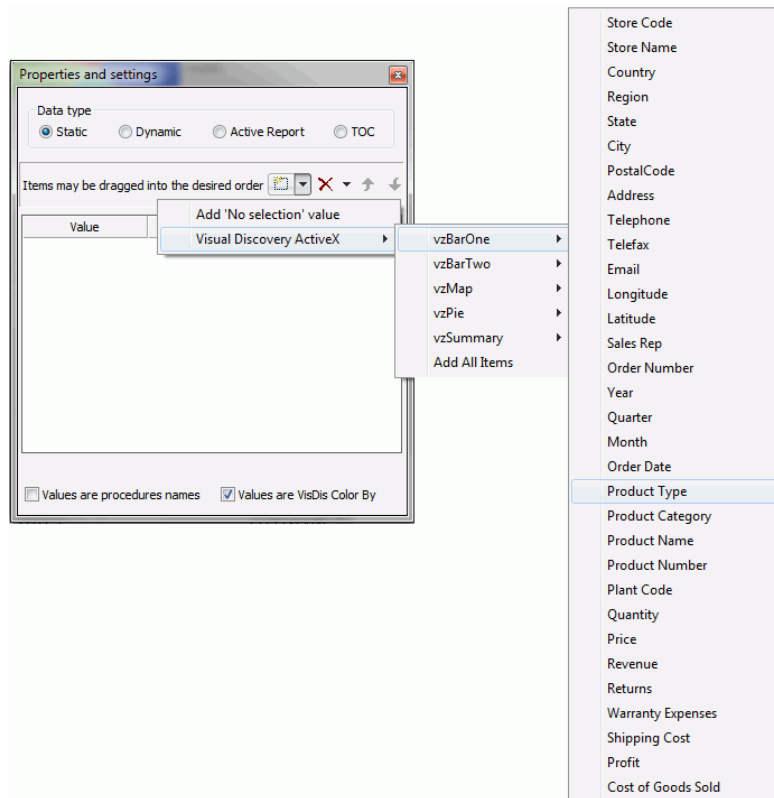
Note: For the steps below, it is important that you make sure that *cboColorBy <SELECT>* is the selected property in the Properties menu pane before you open the Parameters window. If it is not selected, you can select it from the drop-down menu at the top of the Properties menu. If it does not appear in the drop-down menu, you need to refresh the menu. You can do this by clicking anywhere on the active form, then back on the Properties menu pane.

4. Click the *Parameters tab* located in the lower-left corner of the HTML Composer window.

Note: The Properties and settings dialog appears, if not, select *View* in HTML Composer menu bar, and then click *Properties and settings*.

5. Select *Static* from the Data Type radio button area.
6. Click the *Values are VisDis Color By* check box at the bottom of the dialog box.
7. Click the New  button chart control drop-down list, select *Visual Discovery ActiveX*, and choose the following options from the cascading menus:
 - ☐ Select *vzBarOne*, then *Store Name*.
 - ☐ Select *vzBarTwo*, then *Region*.
 - ☐ Select *vzPie*, then *Product Type*.

The following image shows the cascading menu options of the Properties and settings dialog box.



8. Return to the Design view by clicking on the *Design* tab located in the lower-left corner of the HTML Composer window.
9. From the Insert menu, select *Components*, then click *Text*.

10. Click and drag your cursor within the group box. The text appears.
11. Double-click inside the text object. Enter the text *Color by Field*.
12. Access the Properties menu pane on the right. If needed, select *Properties* from the View menu.

Make sure that *text2 * is the selected property in the Properties menu pane. Set these attributes as follows:

- ☐ Position: Left: *115px*
- ☐ Position: Top: *8px*
- ☐ Size: Height: *28px*
- ☐ Size: Width: *100px*
- ☐ Unique Identifier: *txtColorBy*

13. Save your work, then run the webpage.

Note: The Color by Field control allows you to select a field in run time, and color the Visual Discovery controls on the page based on the field you choose. With the HTML page open, select *Region*, in the Color by Field drop-down list. Notice Visual Discovery controls on the page change color according to the region data. The same can be repeated for *Store Name* and *Product Type*.

Procedure: How to Create a Push Button Control That Hides Excluded Items

This procedure adds a Push Button control to the menu bar that omits unselected items from the current display.

Note: This method is different from excluding. When you hide unselected items, the data is still present in other views. It would not be if excluded.

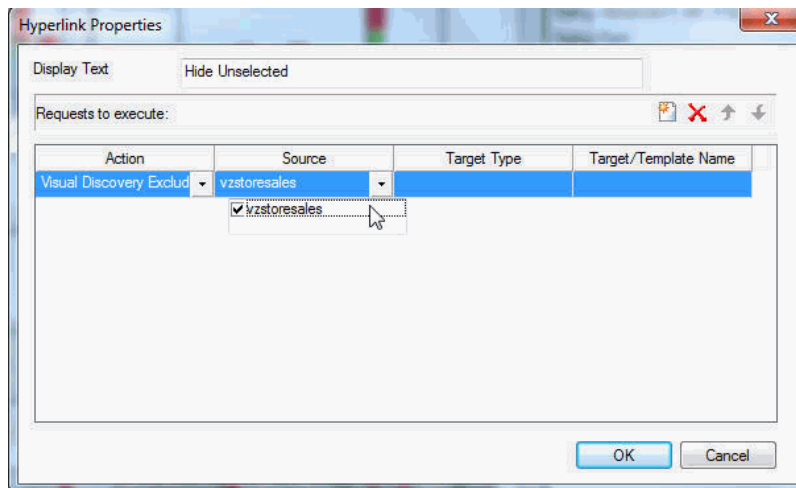
1. From the Insert menu, select *Controls*, then click *Push Button*.
2. Click and drag your cursor within the group box. The push button appears.
3. Access the Properties menu pane on the right. If needed, select *Properties* from the View menu.

Make sure that *button1 <INPUT>* is the selected property in the Properties menu pane. Set these attributes as follows:

- ☐ Name: *btnHide*

- ❑ Position: Left: 705px
 - ❑ Position: Top: 20px
 - ❑ Size: 24px
 - ❑ Size: Height: 25px
 - ❑ Size: Width: 120px
 - ❑ Styling: Font: *Arial 8pt Bold*
 - ❑ Unique Identifier: *btnHide*
 - ❑ Value: *Hide Unselected*
4. Right-click *Hide Unselected* and select *Create Hyperlink*.
 5. In the Hyperlink properties dialog box, click the New  button.
 6. Select *Visual Discovery Exclude* from the Action drop-down list, then the *vzstoresales* data pool from the Source drop-down list.

The following image shows Visual Discovery Exclude and vzstoresales selected in the Hyperlink Properties dialog box.



7. Save your work, then run the webpage.

Note: The Hide Unselected button allows you to select a field, option, or data selection from the HTML page, hiding all the unselected options. This control is not the same as excluding the data. With the HTML page open, select *Video* in the pie chart and click *Hide Unselected*. Notice other data is visible, and the only information on your page relates to the Video data.

Procedure: How to Create a Push Button Control That Toggles Actively Selected Items

This procedure adds a Push Button control to the menu bar that toggles the actively selected items. Selected items become unselected, and the unselected items become selected.

1. From the Insert menu, select *Controls*, then click *Push Button*.
2. Click and drag your cursor within the group box. The push button appears.
3. Access the Properties menu pane on the right. If needed, select *Properties* from the View menu.

Make sure that *button2 <INPUT>* is the selected property in the Properties menu pane. Set these attributes as follows:

- ❑ Name: *btnToggle*
 - ❑ Position: Left: *835px*
 - ❑ Position: Top: *20px*
 - ❑ Size: *15px*
 - ❑ Size: Height: *25px*
 - ❑ Size: Width: *75px*
 - ❑ Styling: Font: *Arial 8pt Bold*
 - ❑ Unique Identifier: *btnToggle*
 - ❑ Value: *Toggle*
4. Click the *Events* tab located at the bottom of the Properties toolbox pane.
 5. To add an event to the button whenever it is clicked, select the event *onclick* and click the ellipsis button.
 6. Add the code below to the *btnToggle onclick* function and then save your work.

```
vzBarOne.Command(7117, "", 0, 0); /***Toggle Unselected
```

Note: The steps above added JavaScript code to the project. For more information on JavaScript standards and best practices, see the *Using WebFOCUS Visual Discovery to Develop Analytic Dashboards* manual.

7. Return to the design view by selecting the *Design* tab and return to the Properties menu pane by selecting the *Properties* tab at the bottom of the Properties toolbox pane.
8. Save your work, then run the webpage.

Note: The Toggle button allows you to switch views between selected data of a Visual Discovery control and the unselected data. With the HTML page open, select *Video* in the pie chart. Click *Toggle*, notice the unselected data in the controls are selected. Click *Toggle* again, notice the Video data is selected.

Procedure: How to Create a Push Button Control to Refresh Components

This procedure adds a Push Button control to the menu bar that refreshes all components on the page to their original state.

1. From the Insert menu, select *Controls*, then click *Push Button*.
2. Click and drag your cursor within the group box. The push button appears.
3. Access the Properties menu pane on the right. If needed, select *Properties* from the View menu.

Make sure that *button3 <INPUT>* is the selected property in the Properties menu pane. Set these attributes as follows:

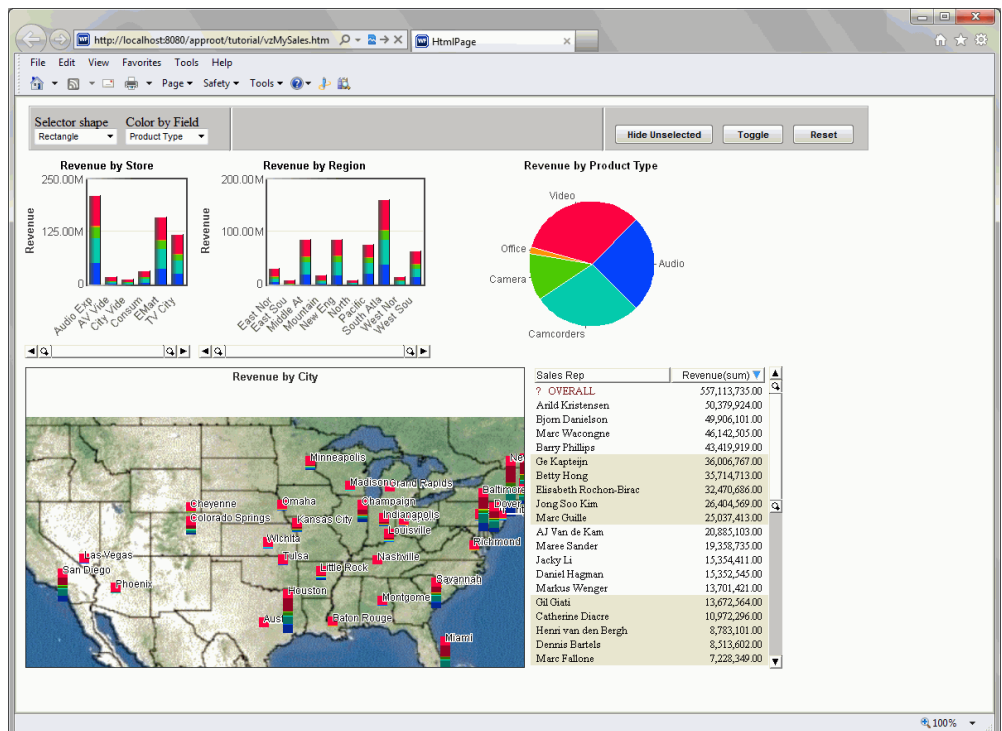
- ☐ Name: *btnReset*
- ☐ Position: Left: *920px*
- ☐ Position: Top: *20px*
- ☐ Size: *44px*
- ☐ Size: Height: *25px*
- ☐ Size: Width: *75px*
- ☐ Styling: Font: *Arial 8pt Bold*
- ☐ Unique Identifier: *btnReset*
- ☐ Value: *Reset*

- Click the *Events* tab located at the bottom of the Properties toolbox pane.
- To add an event to the button whenever it is clicked, select the event *onclick* and click the ellipsis button.
- Add the code below to the `btnReset_onclick` function and then save your work.

```
suspendThinClient(true);
vzBarOne.Command(7112, "", 0, 0); //***Restore Excluded
vzBarOne.Command(7115, "", 0, 0); //***Select All
```

Note: The steps above added JavaScript code to the project. For more information on JavaScript standards and best practices, see the *Using WebFOCUS Visual Discovery to Develop Analytic Dashboards* manual.

- Return to the design view by selecting the *Design* tab and return to the Properties menu pane by selecting the *Properties* tab at the bottom of the Properties toolbox pane.
- Save your work, then run the webpage. The HTML Page should look similar to the following image.



Note: The Reset button refreshes all components on the HTML page back to their original state. With the HTML page open, select *Audio* on the pie chart, and then click *Toggle*. Notice only the Audio data is visible. Next click *Reset*, to refresh all data in its original state.

Procedure: How to Create Radio and Push Button Controls to Collect Data and Pass to a Report

This procedure adds a Radio Button control and a Push Button control to the menu bar. Each control generates a list of strings representing the labels displayed for the selected items. One displays an active report, and the other displays a PDF.

1. From the Insert menu, select *Components*, then click *Text*.
2. Click and drag your cursor within the group box. The text appears.
3. Double-click inside the text object. Enter the text *Make selections in the Bar and/or Pie charts*.
4. Access the Properties menu pane on the right. If needed, select *Properties* from the View menu.

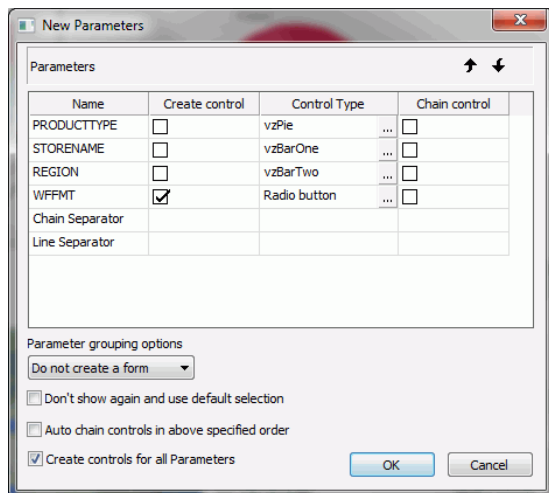
Make sure that *text3 * is the selected property in the Properties menu pane. Set these attributes as follows:

- ☐ Position: Left: 255px
 - ☐ Position: Top: 10px
 - ☐ Size: Height: 35px
 - ☐ Size: Width: 194px
 - ☐ Unique Identifier: *txtCollect*
5. From the Insert menu select *New Report*, and drag your cursor across a blank area of the dashboard to draw a report container.
 6. Right-click the report container, and select *Reference existing procedure*. The Get source file dialog box opens.
 7. Select the *VZDashboard.fex* file and click *Open*.

Note: If you did not add the ibidemo folder directory when you first created your new project in HTML Composer, you must copy the file into your application folder. *VZDashboard.fex* can be copied from `\ibi\apps\ibidemo`.

8. In the New Parameters dialog box, click the ellipsis buttons under Control Type as follows:

- ❑ PRODUCTTYPE. Select *Existing control*, then *vzPie*.
 - ❑ STORENAME. Select *Existing control*, then *vzBarOne*.
 - ❑ REGION. Select *Existing control*, then *vzBarTwo*.
9. Select *Do not create a form* from the Parameter grouping options section.
- The following image shows the New Parameters dialog box.



10. Click *OK*. A panel with the PDF icon and radio button appear on your dashboard.
11. From the Properties pane drop-down list, select *radio1* .

The chart control Properties and Settings dialog box opens.

12. From the Properties and settings dialog box, click the New  button to add a new control. Value2 appears below the PDF value.
13. Edit Value2 as follows:

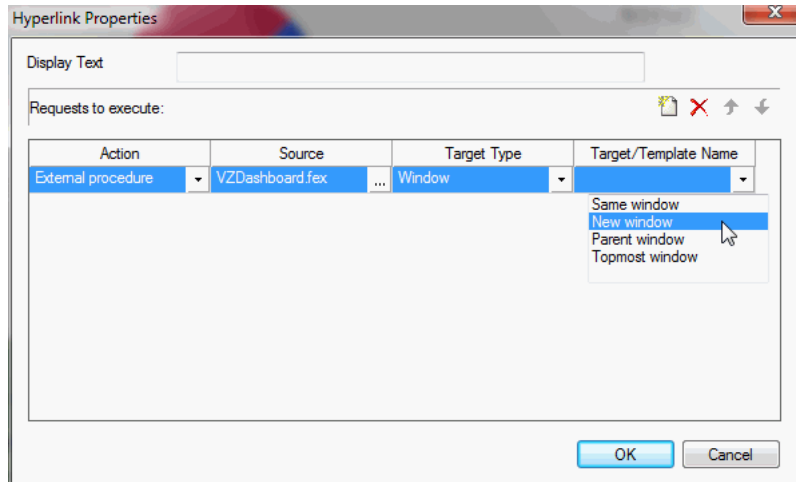
- ❑ Name Value2, *AHTML*, under Value and Display.
- ❑ Click the ellipsis button under Display. Select *format_ahmtl_32.png* and click *Open*.

An AHTML report icon and radio button appear next to the PDF icon and radio button.

Note: format_ahmtl_32.png, should be copied from the
 \ibi\DevStudio80\ibi_html\javaassist\ibi\html\describe folder to your application
 folder.

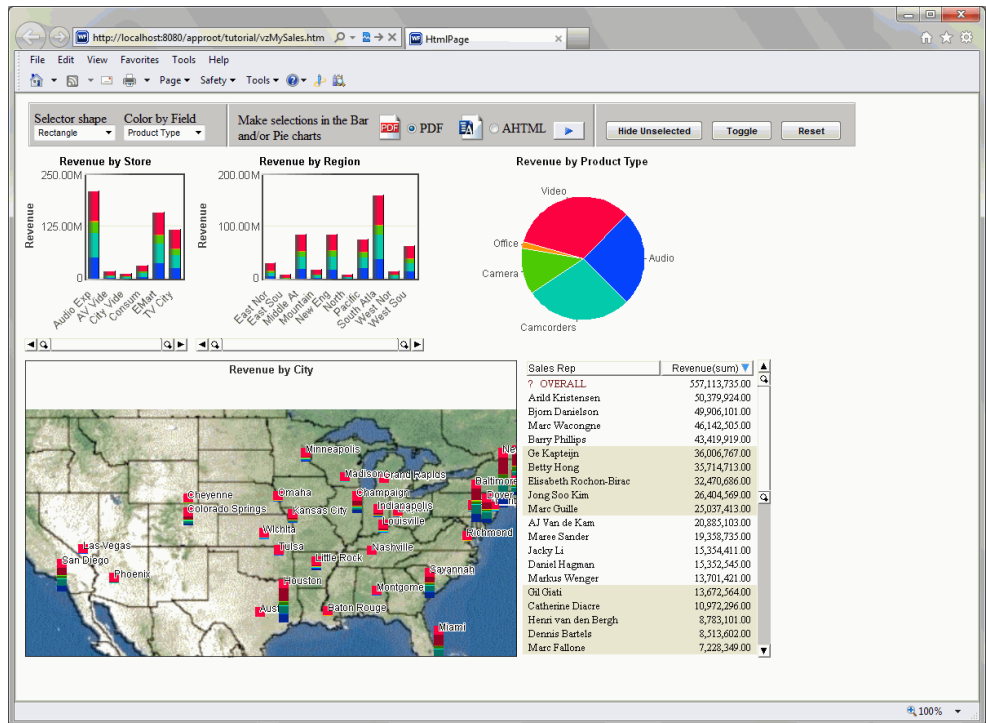
14. Click the *Parameters* tab, at the bottom left of your screen.
You must map the parameter names to the data pool fields properly to run the report selections properly.
15. Click the arrowhead under *vzBarOne*.
A Properties and settings dialog box appears.
16. Select *Store Name* from the Use Value From drop-down list.
17. Repeat for *vzBarTwo*, and *vzPie*. Select:
Region under *vzBarTwo*. *Product Type* under *vzPie*.
18. Select *radio1* in the Properties pane, hold down the ALT key and drag the radio buttons up to the group box, next to the *Make selections in the Bar and/or Pie Charts* text.
19. Make sure that <*radio1* is the selected property in the Properties menu pane. Set the attributes as follows:
 - ☐ Position: Left: 405px
 - ☐ Position: Top: 0px
 - ☐ Size: Height: 55px
 - ☐ Width: 205px
20. Select *button4* <INPUT>, hold down the ALT key and drag the button up to the group box, next to the radio button selections.
21. Right-click *button4* <INPUT>, and select *Hyperlink properties*.
The Hyperlink Properties dialog box opens.
22. In the Hyperlink Properties dialog box, make the following changes:
 - ☐ Delete text from the Display Text field.
 - ☐ Select *Window* from the Target Type drop-down list.
 - ☐ Select *New Window* from the Target/Template Name drop-down list.

The following image shows the Hyperlink Properties dialog box.



23. Make sure that *button4* <INPUT> is the selected property in the Properties menu pane. Set these attributes as follows:
 - ☐ Name: *btnRun*
 - ☐ Position: Left: 626px
 - ☐ Position: Top: 20px
 - ☐ Size: 20px
 - ☐ Size: Height: 22px
 - ☐ Size: Width: 38px
 - ☐ Unique Identifier: *btnRun*
24. From the Properties pane drop-down list, select *pane/1* and press Delete on your keyboard. Repeat for *report1* <IFRAME>.

25. Save your work, then run the webpage. The final output should look similar to the following image.



26. Make selections in the bar and pie charts, then select the desired output format, *PDF* or *AHTML*, and click the *Run* button.

The values from the charts are passed to the report. The report contains the selected data only.

Note: To accurately reflect the parameter values selected from the three charts, you must update the WHERE statements in the `Vzdashboard.fex` to use multi-select syntax.

To update the `Vzdashboard.fex`:

1. Make a backup copy of the `Vzdashboard.fex` file.
2. Comment out the following lines:

```
WHERE (PRODUCTTYPE EQ '&PRODUCTTYPE');
WHERE (STORENAME EQ '&STORENAME');
WHERE (REGION EQ '&REGION');
```

3. Add the following multi-select WHERE statements:

```
WHERE PRODUCTTYPE EQ &PRODUCTTYPE.(OR(FIND PRODUCTTYPE IN  
CENTURYSALES)).;  
WHERE STORENAME EQ &STORENAME.(OR(FIND STORENAME IN CENTURYSALES)).;  
WHERE REGION EQ &REGION.(OR(FIND REGION IN CENTURYSALES)).;
```

4. Save the updated Vzdashboard.fex file.
5. Run the webpage. Now, when you make selections in the bar and pie charts, multiple parameters can be passed to the report.

HTML Composer provides a straightforward and precise method for controlling the display of multiple reports, graphs, images (such as corporate logos), and other Web objects in a single HTML form. The HTML Composer makes it easy to layout report components to your exact specifications. You can develop report and graph procedures from the HTML Composer. The reports and graphs are positioned on the HTML form based on your settings.

With the HTML Composer, you can create a reporting application with procedures and HTML forms in one integrated process.

In this chapter:

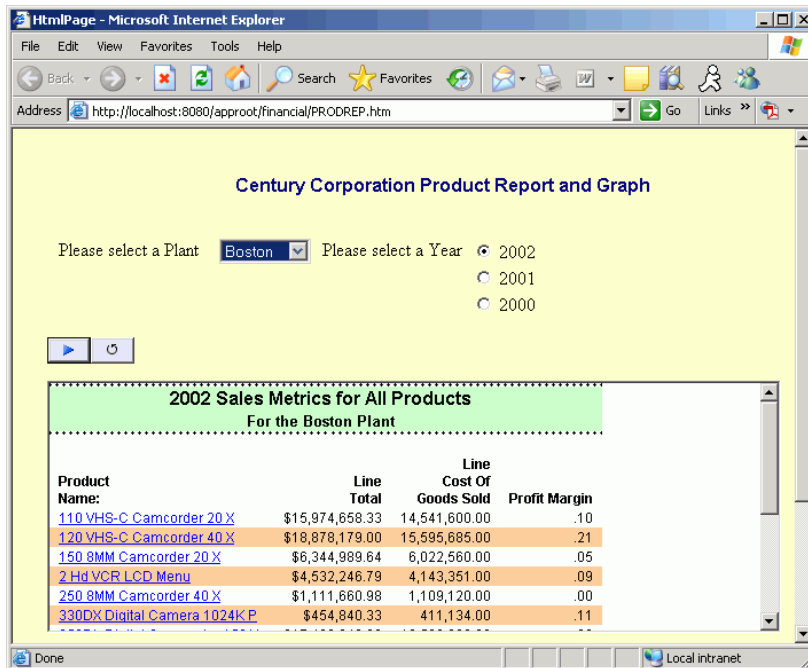
- ❑ [HTML Composer Tutorial Overview](#)
- ❑ [Creating the Century Project](#)
- ❑ [Creating the Graph](#)
- ❑ [Creating the Layout and the Report](#)
- ❑ [Running the Reporting Application](#)

HTML Composer Tutorial Overview

In this tutorial, before you run your reporting application, you will:

- ❑ Create the Century project.
- ❑ Add Master Files to the project.
- ❑ Create a graph.
- ❑ Create a layout into which you will insert text, an image, a report, a frame for drill-down output, and selection parameters.
- ❑ Create and style a report.
- ❑ Drill down from the report to the graph.

The following report output is generated when you finish the sequence of tasks required to create your reporting application.



Creating the Century Project

As an application developer for Century Corporation, your task is to create an application that contains reports about the sales metrics for all of the plants in the company. The report should include drill-down links that enable users to view a graphical display of data.

First, you will create a project called Century in the local projects area of the Developer Studio Explorer. This is where you access and create files. You will build your reporting application within this project.

Note: For details on how to create a project in the Developer Studio Explorer, see the *Creating Reporting Applications With Developer Studio* manual.

Add Master Files to Your Project

1. Click the Master Files folder under the Century project.

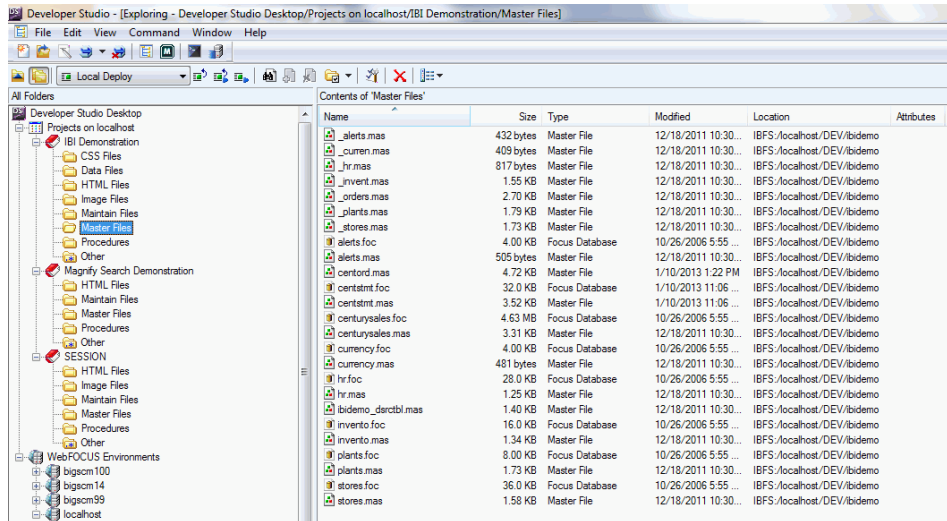
You will see a list of all Master Files in the path specified when you created the project.

Notice that the borders around each of the file icons in the Name column are dimmed. This indicates that the files are available, but not active for your project. In the following steps, you will associate the Master File required for the tutorial with the Century project.

2. Right-click *CENTORD.MAS*.
3. Select *Add to Project* from the menu.

The icon for this Master File is now active for your project and the border around this file icon is no longer grayed out.

4. Click the binoculars button to limit the list to the active Master Files.



Tip: You can view the full Master File list by clicking the binoculars button again.

Add the CENTORD Data Source to Your Project

The Centord data source is not installed by default. For the purposes of this tutorial, you must add the data source to your project.

1. Click the *Procedures* folder under the Century project.
2. Click the binoculars button to show all .fex procedure files in this folder.
3. Right-click *loadord.fex* (scroll down to find this file) and select *Add to Project*.
4. Right-click *loadord.fex* and select *Run*.

A new browser window opens displaying the following message, No HTML Output. This should confirm that the Centord data source has been added to your project.

5. Close the browser window.

Creating the Graph

Begin by creating a procedure that contains a graph. Later, you will add this graph to a frame in the HTML file and drill down to it from a report that you will soon create.

Procedure: How to Create the Graph

1. Right-click the *Procedures* folder under the Century project.
2. Select *New*, then select *Procedure* from the context menu.
The Add Procedure dialog box opens.
3. Type *STORSAL* in the File name text box and verify that Procedure Files (*.fex) is selected from the Files of type drop-down menu.
4. From the Create with drop-down menu, select *Procedure Viewer*.
5. Click *Open*.
The Procedure viewer window opens.
6. Click the diamond to the right of the default Comment component and select *Graph* from the component connector toolbar.
7. Select the *CENTORD* Master File and click *Open*.
InfoAssist opens.
8. Click *Build a Chart*.
9. Select the *CENTORD* Master File and click *Open*.
10. Select the Format tab and click *Other* from the Chart group.
The Other Chart Types window opens.
11. Select *Absolute* as the type of Line chart from the Line chart tab.
InfoAssist refreshes showing a sample absolute line chart.
12. From the Data panel, double-click *LINEPRICE* to add it to *Measure (Sum)* in the Query panel.
13. From the Data panel, double-click *STORENAME* to add it to X-Axis in the Query panel.
14. Select *PRODNAME* in the Data panel, then drag the field into the Multi-graph heading in the Query panel.
15. Click *Save*.

Procedure: How to Create a Heading for the Graph

Adding a heading to your graph provides important information to describe the data you want to display. You can add headings and footings for your graph by clicking the Heading & Footing button, located in the Home menu. In this tutorial, you will add a heading.

1. Click the Home tab, if it is not already selected.
2. Click the *Header & Footer* button.

The Header & Footer dialog box opens. Page Header is selected by default

3. Type *Sales of* and leave a space.
4. Drag *PRODNAME* from the Field list into the Header & Footer dialog box.
<PRODNAME is added to the Heading.

5. Place the cursor after <PRODNAME and leave a space.
6. Type *for Each Store*.

Your header will look like the following: *Sales of <PRODNAME for Each Store*

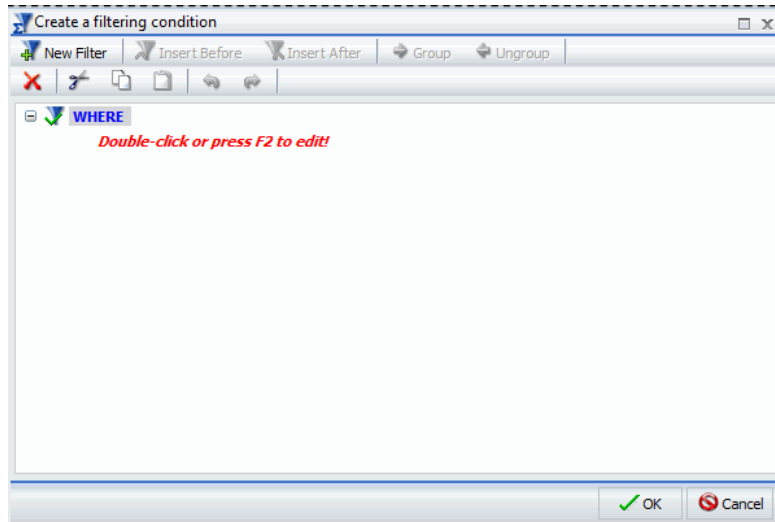
7. Click *Apply* then *OK* to apply and close the Heading dialog box.

Procedure: How to Limit Graphed Data

You can limit the data displayed in a report or graph by adding a filter. Here you will create a statement that limits the data in the graph to a certain product. You will enter this criteria as a parameter, and use the parameter later in the tutorial when you set the drill-down option for the report.

1. Click the *Data* tab.
2. Click the *Advanced* button from the Filter group to view the Advanced Filter expression builder.

The following image shows the Advanced Filter expression builder.



3. In the Advanced Filter expression builder:
 - ☐ Click the *New Filter* button.
 - ☐ From the Field drop-down list, select *PRODNAME*.
 - ☐ Select *Equal to* from the Logical Relation drop-down list. Equal to is the default value.
 - ☐ From the Value drop-down change the Type to *Parameter*.
 - ☐ Change the Parameter to *Static*.
 - ☐ Type *PNAME* in the Name field.
 - ☐ Type *Product Description* in the Description field.
 - ☐ Select the *Get Values* button and click *All*.

The box beneath the *Get Values* button is populated by data from the *PRODNAME* field.
 - ☐ Select all values in the now populated box and move them to the Multiple Values box by clicking .
 - ☐ Check the *Select multiple values at run-time* box.
4. Click *OK* to save your filter.

Creating the Layout and the Report

Here you will create the layout for the project and add elements to it, such as text, background color, reports, images, and a target frame for the drill-down output. You will also customize the parameters and rearrange the items in your layout.

For the report (which you will create directly from the layout), you will add calculated values, Where statements to limit the data in the report, and drill-down capabilities. You will also style the report with color, borders, and a page heading.

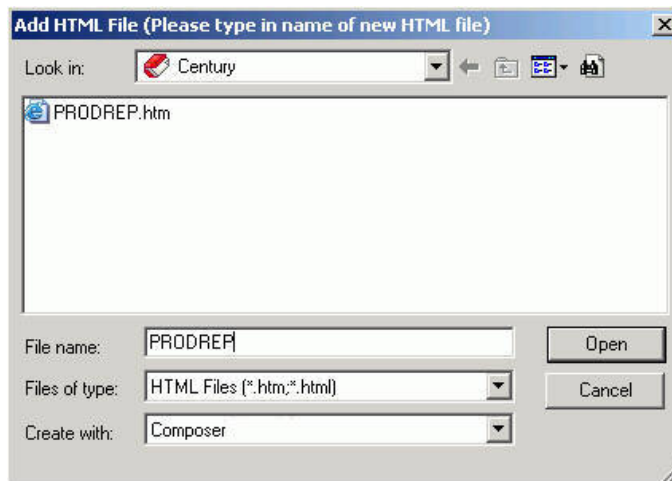
Procedure: How to Create the Report Layout

Complete the following steps to create a Layout procedure called PRODREP.

1. Right-click the *HTML Files* folder under the Century project.
2. Select *New*, then select *HTML File* from the context menus.

The Add HTML dialog box opens.

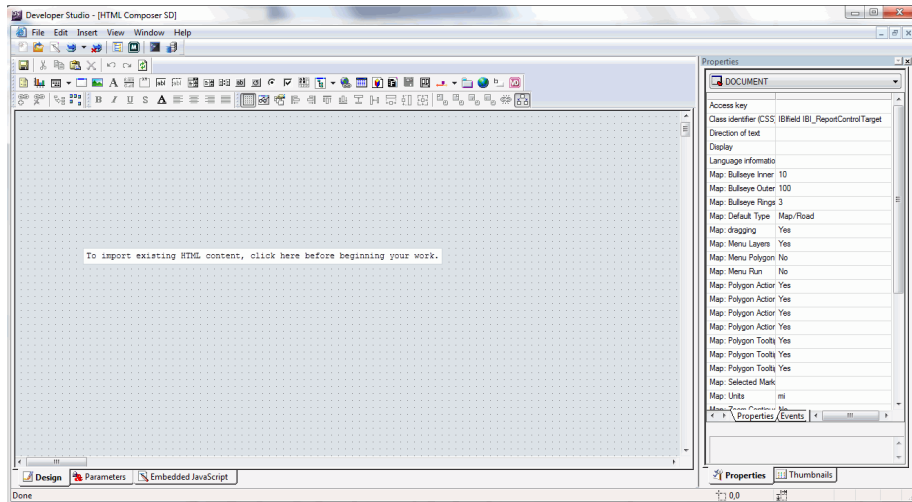
3. Type *PRODREP* in the File name text box.



Note: Composer is selected as the default.

4. Click *Open*.

The HTML Composer opens, as shown in the following image.



Procedure: How to Add Text and Color to the Layout

Add a heading to your application, style the heading, and add a background color.

1. Click the *Insert text*  button.
Your mouse pointer will change to crosshairs.
2. Click and drag the crosshairs to create a rectangular text box.
You can resize the box after you enter and style the text.
3. Click on the box and type *Century Corporation Product Report and Graph*.
4. Click anywhere outside of the heading text box, then right-click the text box and select *Style* from the context menu.

The Style Composer dialog box opens with *Font* highlighted in the list at the far left.

5. To set the font type, in the Font name area, select the *Family* option, then click the ellipsis button to the right. The Font Picker dialog box opens, select *Arial* in the Installed fonts area, click the right arrow to move *Arial* to the Selected fonts area, and click *OK*.
6. To set the font style, select *Bold* from the Absolute drop-down list in the Bold area.
7. To set the font size, in the Size area, select *px* from the Specific drop-down list and type *16* in the input area to the left.
8. To set the font color, select *Navy* from the Color drop-down list in the Font attributes area.

9. To set the text alignment, select *Text* below *Background* in the list at the far left, then select *Centered* from the Horizontal drop-down list in the Alignment area.

This centers the heading text horizontally within the text box.

10. To set the heading background color, select *Background* below *Font* in the list at the far left, then select the *Transparent* option below the Background color menu.

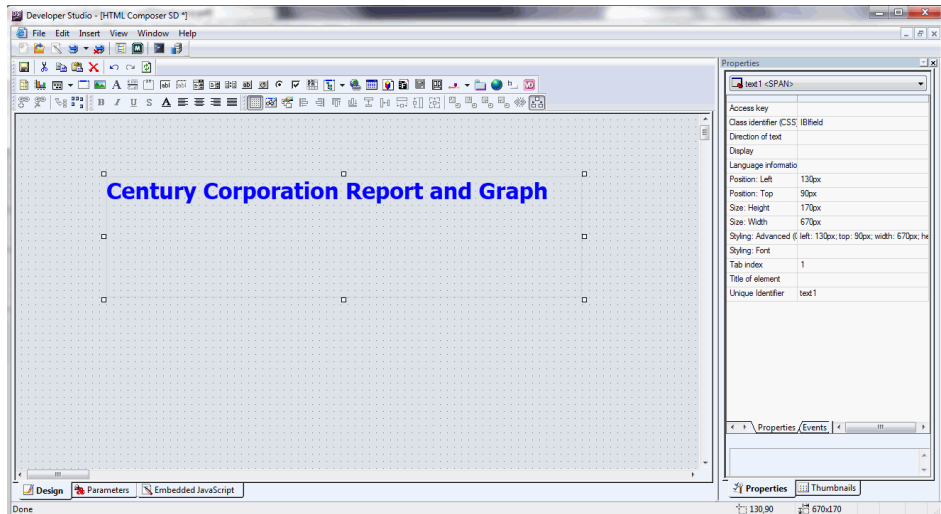
This allows the light color you will select for the background color to show through the heading.

11. Click *OK* to close the Style Composer.
12. Resize the heading text box as necessary by clicking and dragging the borders.
13. To set the background color for the HTML page, select *BODY* from the top drop-down list in the Properties tab of the Properties bar.
14. Click once in the empty field to the right of Background color, then click the ellipsis button that appears at the far right of the empty field.

The Color Picker dialog box opens.

15. Select any light color and click *OK*.

The following image shows how the HTML Composer should appear at this point, depending on the size of your text box.



Procedure: How to Create a Report From the Layout

You will now create the report in the Report Painter which is accessed directly from the HTML Composer.

1. Click the *Report*  button.

The mouse pointer changes to crosshairs.

2. Click and drag the crosshairs and create a report area placeholder.

Note: You can resize and reposition the report placeholder at any time.

3. Double-click the report placeholder.

The Open dialog box opens.

4. Select the *CENTORD* Master File and click *Open*.

The following image shows the Field Tree in the Report Painter window. The Object Inspector, located in the left pane, lists the fields in the *CENTORD* Master File.

Note: To change the Object Inspector to Field Tree view, right-click in the Object Inspector and select *Show Field Tree*.

5. Double-click the following fields in the Object Inspector Fields tab to add them to the report:

☐ *PRODNAME* (in the INVSEG directory)

☐ *LINEPRICE* (in the PINFO directory)

☐ *LINE_COGS* (in the INVSEG directory)

6. Select the *Product Name* field and click the *By*  button on the toolbar. This sorts all of the data vertically by product name.

7. Select the *Line Total* column and click the *Sum*  button. This sums the data in the Line Total column.

The following image shows how the new report should appear at this point.

Product Name:	Line Total	Line Cost Of Goods Sold
Axxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	\$111,111,111.11	111,111,111.11
Bxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	\$111,111,111.11	111,111,111.11

Procedure: How to Add a Calculated Value to the Report

Continue creating your report by adding a calculated value, called PROFIT. This field is created using a calculation with two existing fields in the CENTORD data source, LINE_PRICE and LINE_COGS.

- 1. Select *Computes* from the Report menu, or click the *Computes* button from the Setup toolbar.

The Report Options dialog box opens at the Computes tab.

- 2. Type *PROFIT* in the input area labeled Field.
- 3. Type *D4.2* in the input area labeled Format.

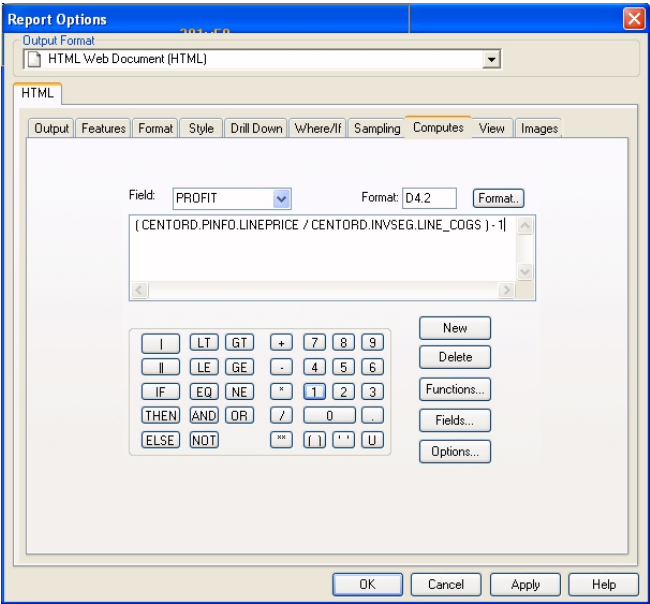
Tip: In this case, you know the exact format you want for this field. If you are unsure of the format and want to see all available formats, click the *Format* button to access the Format dialog box.

- 4. Place the cursor in the box below the input area labeled Field.
- 5. Create the following expression: $(LINEPRICE / LINE\_COGS) - 1$.

To create this expression:

- ☐ Click the *Fields* button.
- ☐ Double-click *LINEPRICE* in the CENTORD field list box.
- ☐ Click the forward slash (/) on the Report Options calculator.
- ☐ Double-click *LINE_COGS* in the CENTORD field list box.
- ☐ Highlight the statement and click the double parentheses ().
- ☐ Click the minus (-) sign and then the number 1.

The following image shows how the Report Options expression should appear.



- 6. Click *OK*.
The new column *PROFIT* is added to the Report Painter window.

- 7. Select the *PROFIT* column and then click the *Sum*  button.
- 8. Right-click the *PROFIT* column and select *Column Title*.
- 9. Change the title by typing *Profit Margin*.
- 10. Click *OK*.

The following image shows how the report should appear at this point.

Product Name:	Line Total	Line Cost Of Goods Sold	Profit Margin
Axxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	\$111,111,111.11	111,111,111.11	1.11
Bxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	\$111,111,111.11	111,111,111.11	1.11

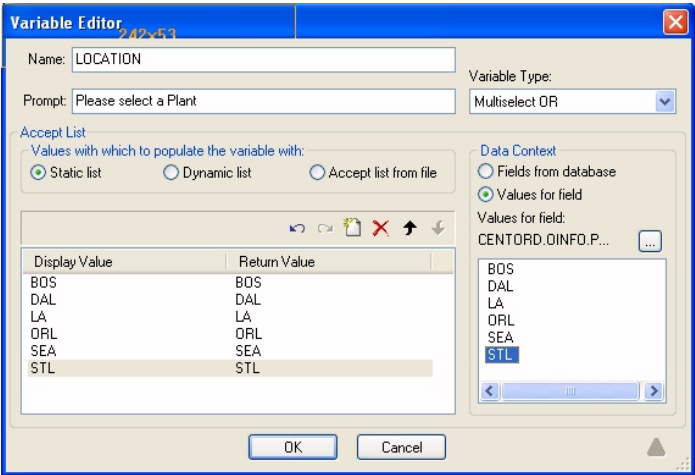
Procedure: How to Limit the Data to a Selected Plant and Year

You will now create a list of acceptable values for the plant location and the year. These are the values the user will be able to select when they are using this application. Later, you will use each set of values you create here to run a parameterized report.

To do this, you will need to create two Where statements.

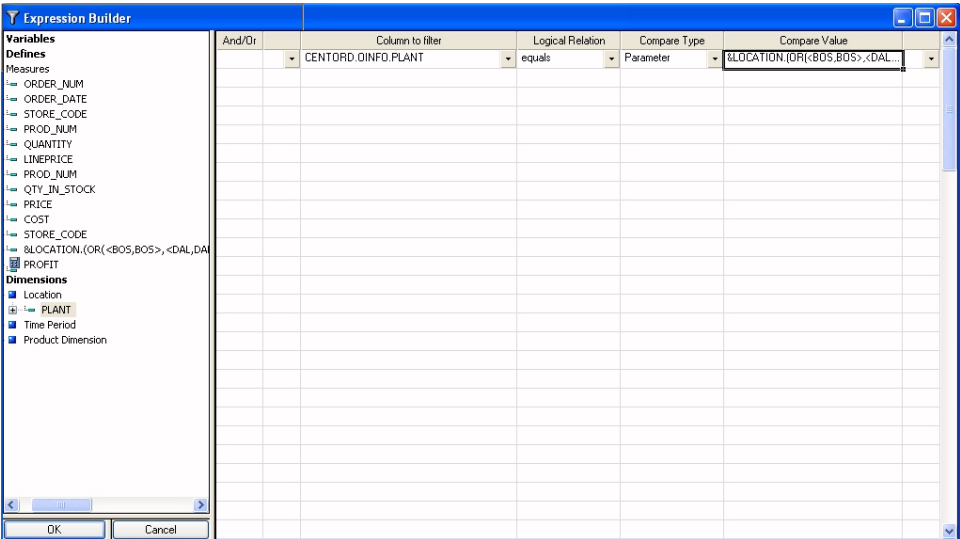
1. Click the *Where/If*  button on the toolbar.
The Report Options dialog box opens at the Where tab.
2. Click *Assist*.
The Expression Builder opens.
3. To create the first Where statement:
 - ❑ From the Fields list, double-click *PLANT* (under Location Dimension).
 - ❑ From the Logical Relation drop-down list, select *equals*.
 - ❑ In the Compare Type box, select *Parameter*.
 - ❑ Double-click the Compare Value box to open the Variable Editor.
4. In the Variable Editor:
 - ❑ For Name, type *LOCATION*.
 - ❑ In the Prompt input field, type *Please select a Plant*.
5. From the Variable Type drop-down list, select *Multiselect OR*.
6. In the Data Context area, select *Values for field*.
7. Click the *Select a field* ellipsis button to get values for the *PLANT* field. The Value Retrieval dialog box opens.
The Value Retrieval dialog box provides a list of available fields in your data source. Double-click the *PLANT* field to close the Value Retrieval dialog box and return to the Variable Editor. The available values for the *PLANT* field are listed.
8. Double-click each of the following values (*BOS*, *DAL*, *LA*, *ORL*, *SEA*, *STL*) to add them to the Accept List.

The following image shows the Variable Editor populated with the values you selected.



- 9. Click OK to close the Variable Editor.

The following image shows the Expression Builder populated with the values you selected.



- 10. Click OK to close the Expression Builder and return to the Where/If dialog box.
Leave the Where/If dialog box open to create the next Where statement.
- 11. Click New from the Where/If dialog box.

12. Click *Assist*.

The Expression Builder opens.

13. To create the second Where statement:

- ☐ From the Fields list, double-click *YEAR* (under the Time Period Dimension).
- ☐ From the Logical Relations drop-down list select *equals*.
- ☐ In the Compare Type box select *Parameter*.
- ☐ Double-click in the Compare Value box to open the Variable Editor.

14. In the Variable Editor:

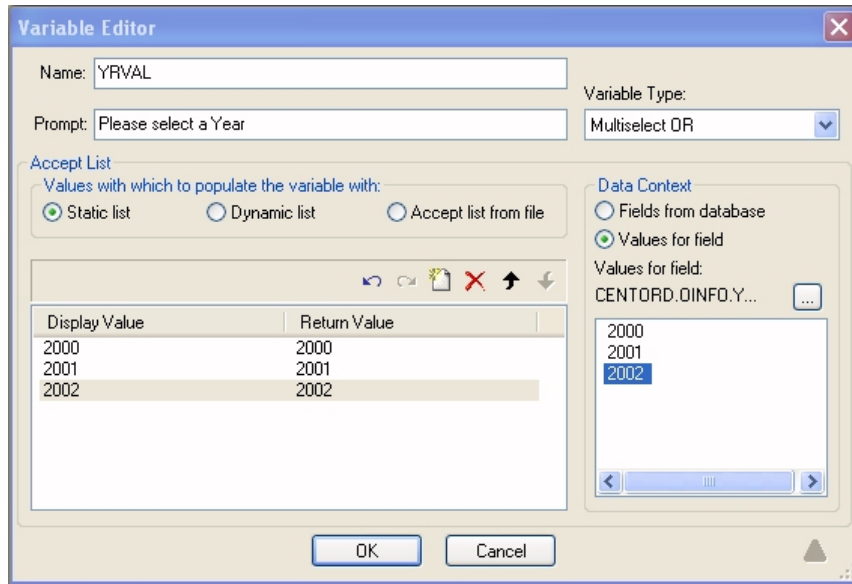
- ☐ For Name, type *YRVAL*.
- ☐ In the Prompt input field, type *Please select a Year*.

15. From the Variable Type drop-down list, select *Multiselect OR*.16. In the Data Context area, select *Values for field*.17. Click the *Select a field* ellipsis button to get values for the YEAR field. The Value Retrieval dialog box opens.

The Value Retrieval dialog box provides a list of available fields in your data source. Double-click the *YEAR* field to close the Value Retrieval dialog box and return to the Variable Editor. The available values for the YEAR field are listed.

18. Double-click each of the following values (*2000*, *2001*, *2002*) to add them to the Accept List.

The following image shows the Variable Editor populated with the values you selected.



19. Click OK to close the Variable Editor.
20. Click OK to close the Expression Builder.
21. Click OK to close the Report Options dialog box.

Procedure: How to Create a Page Heading for the Report

Now you will create a page heading for the report. Page headings appear at the top of every report page.

1. In the Report Painter window, place your cursor in the Page Heading area.
2. Double-click YEAR in the Object Inspector Fields tab.

The embedded field <YEAR appears in the Page Heading area.

3. After the <YEAR field, type *Sales Metrics for All Products*.
4. Press the Enter key.

5. Type *For the* followed by one space.
6. Double-click *PLANTLNG* in the Object Inspector Fields tab.
7. Move the cursor into the Page Heading area after `<PLANTLNG` and type *Plant*.

The following image shows how the report should appear at this point.

Page Heading			
<CENTORD.OINFO.YEAR Sales Metrics for All Products For the <CENTORD.OINFO.PLANTLNG Plant			
Product Name:	Line Total	Line Cost Of Goods Sold	Profit Margin
Axxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	\$111,111,111.11	111,111,111.11	1.11
Bxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	\$111,111,111.11	111,111,111.11	1.11
Page Footing			

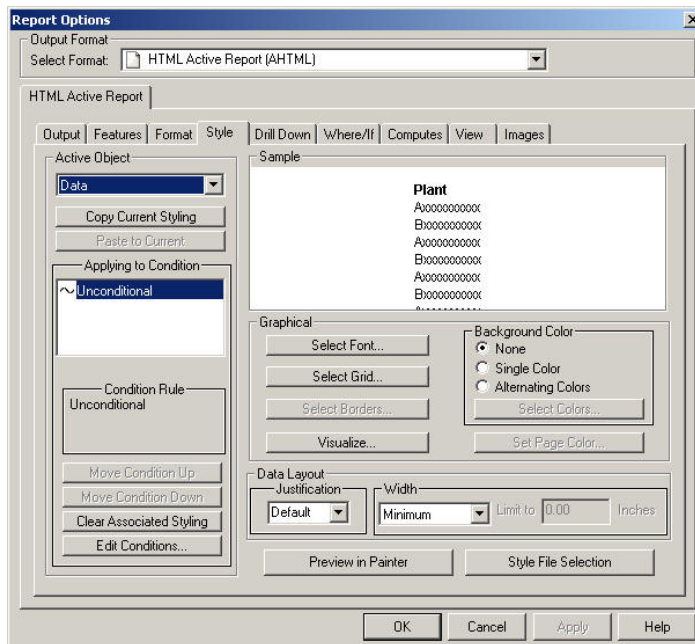
8. Highlight the second line of text in the heading.
9. From the Font toolbar, select the following font attributes:
 - ☐ For font type, select *Arial*.
 - ☐ For font style, select *Bold*.
 - ☐ For font size, select *10*.
10. Right-click in the *Page Heading* area and select *Options*.
The Properties for Page Header dialog box opens.
11. Select the *Style* tab, then click the *Single Color* option in the Background Coloring section.
12. Click the *Select Colors* button and choose a color from the color palette.
13. Click the *Justification* drop-down list and select *Center*.
14. Click *OK* to close the Properties for Page Header dialog box.

Procedure: How to Style Your Report

You will now style the report by adding alternating row colors to the report data and a border around the heading.

1. From the Report menu, select *Styling*.
2. Select *Data* from the active object drop-down list.

The following image shows the Report Options dialog box populated with the values you selected.



3. In the Background Color area, select the *Alternating Colors* option.
4. Click *Select Colors*.

The Choose Background Colors dialog box opens.

5. Leave the first color as the default selection of white.
6. Select the *Second Color* check box and select the second color.
7. Select the *Alternate On A By Field* check box.

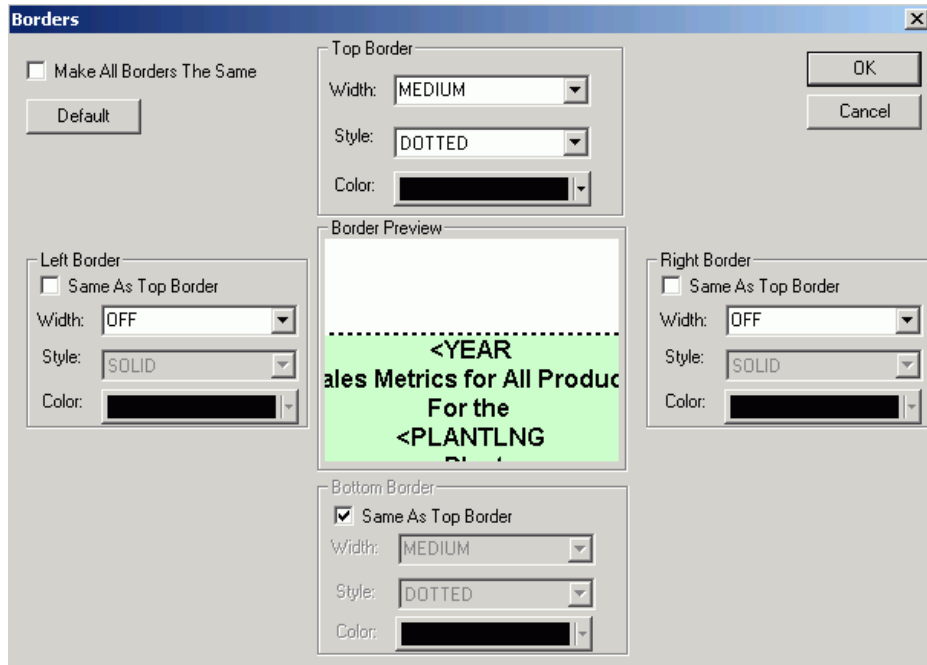
8. Select the *PRODNAME* field.

The following image shows the Choose Background Colors dialog box.



9. Click *OK* to close the Choose Background Colors dialog box.
10. Click *Apply* to apply your selection.
Leave the Report Options dialog box open to add a border to the heading.
11. In the Report Options dialog box, select *Heading* from the active object drop-down list.
12. In the Graphical area, click *Select Borders*.
13. Deselect the *Make all borders the same* check box.
14. In the Top Border area, select:
 - ☐ *Medium* for width.
 - ☐ *Dotted* for style.
 - ☐ *Black* for color.
15. In the Bottom Border area, select the *Same as Top Border* check box.

16. In the Left Border and Right Border areas, select *OFF* from the Width drop-down lists.
The following image shows the Border dialog box populated with the selected values.



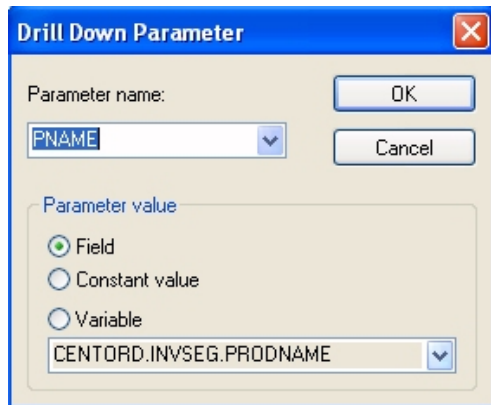
17. Click *OK* to close the Borders dialog box.
18. Click *Apply* in the Report Options dialog box, then click *OK*.

Procedure: How to Set Up the Drill-Down Report

Now you will set up this report so you can drill down from the data in the Product Name column to the STORSAL graph you created earlier. Drill down on the Product Name field, so the information you see in the resulting graph will be specific to that product.

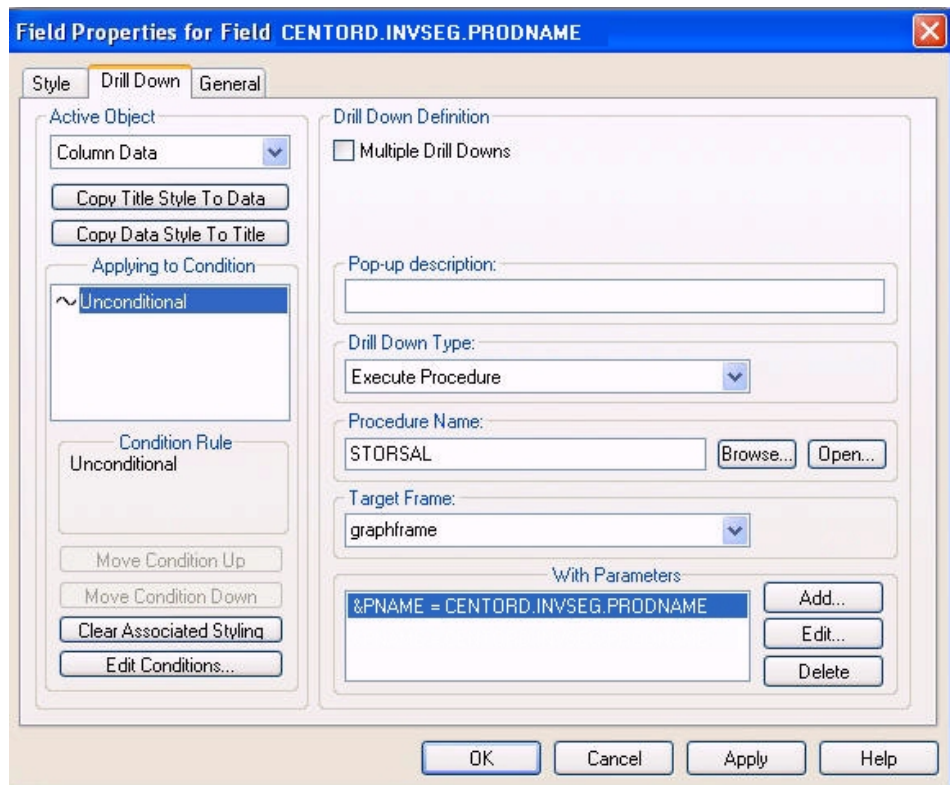
1. In the Report Painter, right-click the *Product Name* column and select *Options*.
The Field Properties dialog box opens.
2. Click the *Drill Down* tab.
3. In the active object drop-down list, select *Column Data*.
4. In the Drill Down Type drop-down list, select *Execute Procedure*.
5. Click the Procedure Name *Browse* button, select *STORSAL.fex* from the Open dialog box, and click *Open*.

6. In the Target Frame area, type *graphframe*.
7. In the With Parameters area, click *Add*.
The Drill Down Parameter dialog box opens.
8. Type *PNAME* in the Parameter Name input box.
PNAME is the parameter you created in the STORSAL procedure.
9. In the Parameter value area, select the *Field* option.
10. Select the *PRODNAME* field from the drop-down list in the Parameter value area.



11. Click *OK* to close the Drill Down Parameter dialog box.

The following image shows the Field Properties dialog box populated with the values you selected.



12. Click OK to close the Field Properties dialog box.
13. Select Close from the File menu to close the Report Painter.
14. When you are prompted to save your changes, click Yes.

You are returned to the HTML Composer and the New Parameters dialog appears.

15. Click OK to automatically add your parameters to the HTML page.

The following image shows how the HTML Composer should look at this point.

Product Name	Line Total	Line Cost Of Goods Sold	Profit Margin
110 VHS-C Camcorder 20 X	\$1,283,949.52	1,182,750.00	.09
120 VHS-C Camcorder 40 X	\$1,485,836.14	1,230,509.00	.21
150 8MM Camcorder 20 X	\$550,343.77	509,040.00	.08
2 Hd VCR LCD Menu	\$74,897.53	70,563.00	.06
250 8MM Camcorder 40 X	\$20,247.15	19,840.00	.02
330DX Digital Camera 1024K P	\$277.29	199.00	.39

Procedure: How to Customize Parameters

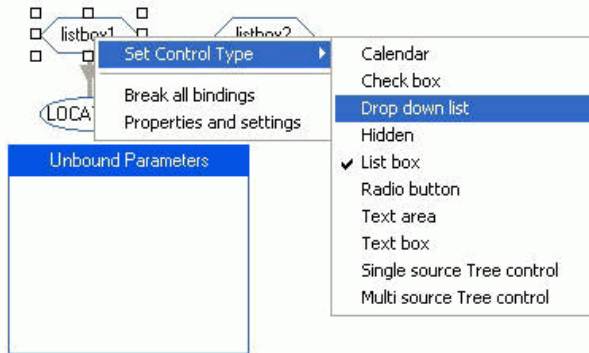
You will now customize the Plant (LOCATION) parameter by modifying the value from the data source to make it more user-friendly. You will also change the control type for the Year (YRVAL) parameter from a list box to a radio button, rearrange the order of values, and change the default value.

1. In the HTML Composer, select the *Parameters* tab.

The Properties and settings dialog box opens, showing a Legend of the available controls for the parameters on the HTML page.

2. Click the list box control (Input control *listbox1*) associated with the LOCATION parameter.

3. Change the control type to a drop-down list box by right-clicking the LOCATION list box control (Input control *listbox1*) and select *Drop down list* from the Set Control Type context menu.



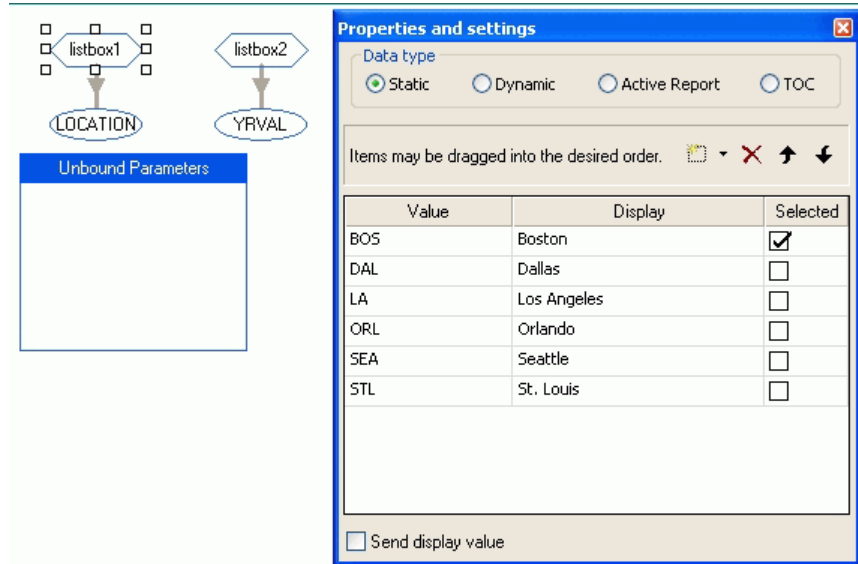
4. From the Properties and settings dialog box, double-click each of the values in the Display column and type the full city name, as indicated below:

- ☐ Change BOS to *Boston*
- ☐ Change DAL to *Dallas*
- ☐ Change LA to *Los Angeles*
- ☐ Change ORL to *Orlando*
- ☐ Change SEA to *Seattle*
- ☐ Change STL to *St. Louis*

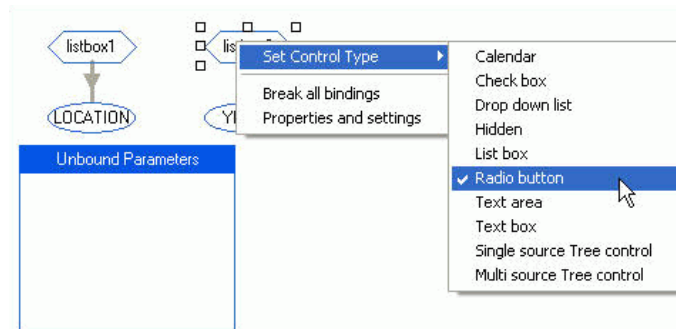
This changes the display name in the drop-down list from the value stored in the data source to the values you specify.

5. To make Boston the default selection, click the *Boston* check box in the Selected column.

The following image shows how the LOCATION drop-down list settings should appear.



6. Click the list box control (Input control *listbox2*) associated with the YRVAL parameter.
7. Change the control type to a Radio button by right-clicking the YRVAL list box control (Input control *listbox2*) and select *Radio button* from the Set Control Type context menu.



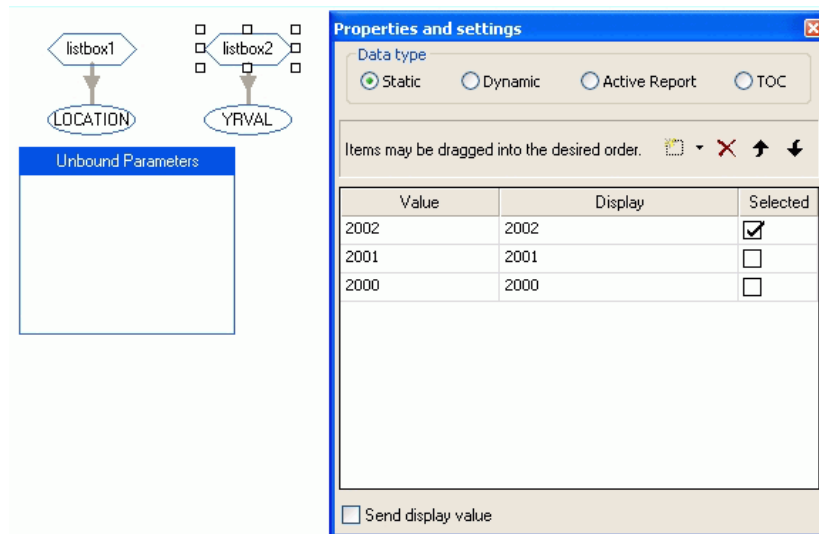
8. From the Properties and settings dialog box, drag and drop the Year values so they appear in descending order.

or

Select a year and use the up/down arrows above the Static Values area to change the order of the years.

9. To make 2002 the default selection, click the check box in the Selected column for the 2002 value.

The following image shows how the YRVAL Radio button settings should appear.



10. Close the Properties and settings dialog box for the YRVAL Radio button.
11. Switch to the *Design* tab to view the Parameter changes on the HTML page.

Procedure: How to Create the Target Frame For Drill-Down Output

You will now add an output target frame that will contain the graph output from the main report when a user selects a drill-down link. The frame is invisible to the user until a drill-down link is selected.

1. In the HTML Composer from the Insert menu, select *Components*, then select *Frame*.
Your mouse pointer changes to crosshairs.
2. Scroll down past the report placeholder to insert the frame by clicking and dragging the crosshairs to form a rectangular box just below the report area.

- Click anywhere inside the frame you inserted and view the Properties window.

The properties associated with the new frame are displayed in the Properties window.

- Double-click the *iframe1* value in the right column next to Name in the left column of the Properties tab. Replace this value by typing *graphframe* which is the same Target Name entered in the Drill Down tab. For more information, see [How to Set Up the Drill-Down Report](#) on page 634.

Procedure: How to Reorganize the Layout and Add an Image

Now you will move some items around in the HTML Composer and add an image.

- Rearrange the heading, the *Please select a Plant* prompt and selection box, and the *Please select a Year* prompt and option buttons so the report page in the HTML Composer appears like the following image.

The screenshot shows the HTML Composer interface with a report layout for Century Corporation. The layout includes a title, input fields for Plant and Year, a table of sales metrics, and a table of product data.

Century Corporation Product Report and Graph

Please select a Plant: Please select a Year: ☒ 2002 ☐ 2001 ☐ 2000

<YEAR Sales Metrics for All Products
For the <PLANTLNG Plant

Product Name:	Line Total	Line Cost Of Goods Sold	Profit Margin
A>oooooooooooooooooooooooooooo	\$111,111,111.11	111,111,111.11	1.11
B>oooooooooooooooooooooooooooo	\$111,111,111.11	111,111,111.11	1.11

- Click the new frame and grab the handles to resize it to almost the same size as the report placeholder.

This frame will contain graph output when a user clicks a drill-down link in the report.

3. Press the Ctrl key and click the report placeholder and then the frame placeholder.

4. Click the *Make same size*  button.

5. Click the *Align right*  button.

6. Click the *Insert image*  button.

The cursor changes into a crosshair.

7. Click and drag the crosshair to create a rectangular image box below the bottom-left corner of the new frame.

The Get source file dialog box opens.

8. Select the following from the drop-down box:

- a. *Developer Studio Desktop*
- b. *Window's Desktop*
- c. *My Computer*

9. Navigate to the following directory (where install_dir is most likely the C directory):

[install_dir:\ibi\apps\ibinccen\images\powered.gif](#)

10. Click *Open*.

The powered.gif image is added to your report layout.

11. Pressing the Ctrl key, click the image and then the frame.

12. Click the *Relate Bottom Left*  button.

This ensures that the image always appears in relation to the bottom-left corner of the frame, regardless of the size of the frame.

13. From the File menu, select *Save*.

The following image shows the completed reporting application. Your report layout will appear somewhat different depending on the size and location of the components you added to the *PRODREP.htm* file.

Century Corporation Product Report and Graph

Please select a Plant: **Boston** Please select a Year: ☒ 2002 ☐ 2001 ☐ 2000

<YEAR Sales Metrics for All Products
For the <PLANTNG Plant

Product Name:	Line Total	Line Cost Of Goods Sold	Profit Margin
Axxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	\$111,111,111.11	111,111,111.11	1.11
Bxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	\$111,111,111.11	111,111,111.11	1.11

POWERED BY WebFOCUS

14. From the File menu, select *Close*.

Running the Reporting Application

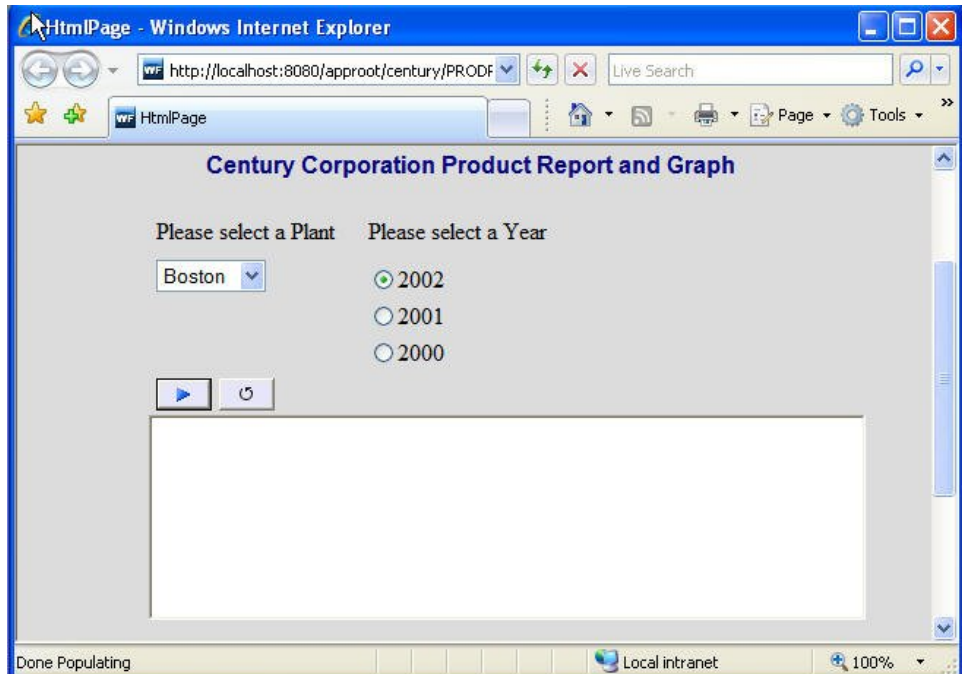
You have completed developing your reporting application. Now you can run it.

Procedure: How to Run Your Reporting Application

1. From the Projects area, open the *HTML Files* folder in the Century project.
2. Right-click the *PRODREP.htm* file and select *Run on Web Server*.

Note: You can run your reporting application directly from the HTML Composer by opening the *PRODREP.htm* file and clicking *Run*.

The following image shows how the completed reporting application should appear when you click *Run*.



3. Select a plant location and a year, then click the submit report button.

The report appears.

Century Corporation Product Report and Graph

Please select a Plant Please select a Year

Boston ☒ 2002
☐ 2001
☐ 2000

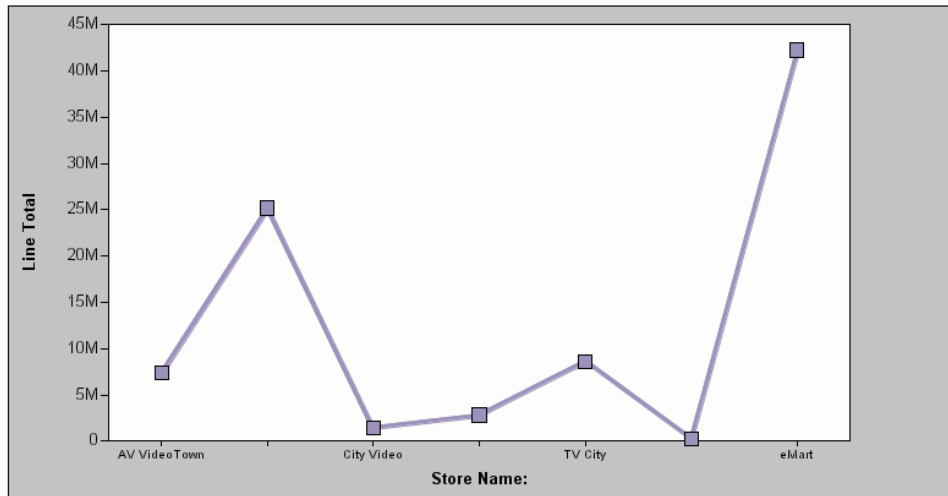
2002 Sales Metrics for All Products
For the Boston Plant

Product Name:	Line Total	Line Cost Of Goods Sold	Profit Margin
110 VHS-C Camcorder 20 X	\$15,974,658.33	14,541,600.00	.10
120 VHS-C Camcorder 40 X	\$18,878,179.00	15,595,685.00	.21
150 8MM Camcorder 20 X	\$6,344,989.64	6,022,560.00	.05
2 Hd VCR LCD Menu	\$4,532,246.79	4,143,351.00	.09
250 8MM Camcorder 40 X	\$1,111,660.98	1,109,120.00	.00

4. Click a link in the report and the graph output appears below the report.

The following image shows an example of how the graph output should appear.

Sales of 110 VHS-C Camcorder 20 X for Each Store



The HTML Composer creates HTML reporting applications. You can use a mobile device to access HTML pages created with the HTML Composer.

In this chapter:

- ❑ [Using an HTML Composer Application on an iPad or iPhone](#)
 - ❑ [Using an HTML Application on an Android Device](#)
-

Using an HTML Composer Application on an iPad or iPhone

When you access HTML pages from the Safari® browser of the iPad® or iPhone®, the functionality of certain elements is restricted or altered. The following is a list of the known issues and considerations when using the iPad or iPhone.

- ❑ The display and functionality of double list controls is different. For more information, see [Double List Controls](#) on page 647.
- ❑ Use finger swipes on the iPad or iPhone to scroll with an HTML control that normally has scroll bars. For more information, see [Scrolling](#) on page 650.
- ❑ The functionality for slider controls is restricted. For more information, see [Slider Controls](#) on page 651.
- ❑ The functionality of chained controls is different. For more information, see [Chained Controls](#) on page 651.
- ❑ RIA pages and regular pages are supported on the iPad and iPhone.

Double List Controls

Columns in a double list control display the name of a selected value only if a single value is selected. If no values are selected, the column displays *0 Items* and if more than one value is selected, the column displays *n Items*, where *n* is the number of values selected.

It is important to note that the number of items displayed refers only to the number of values that are selected, not all of the values in the column. To see all of the values currently in a column and to select more values, tap on a column and a pop-up menu appears, as shown in the following image.



Since columns do not display the names of all available values, you must tap on a column to select values. You can move values between columns in the same way, regardless of how the HTML page is accessed.

The following image shows the left column with no values selected and *0 Items* displayed.



A column with no values selected does not mean that the column contains no values. The following image shows the pop-up menu for the left column. All of the values shown are contained in the column but none are currently selected.



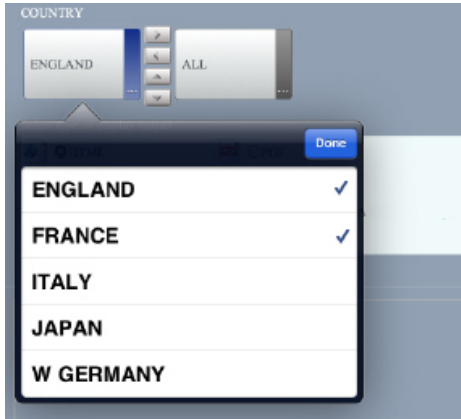
The following image shows the pop-up menu with *England* selected.



The following image shows the left column with England selected. The column displays the name of the selected value since there is only one value selected.



The following image shows the pop-up menu with *England* and *France* selected.



The following image shows the left column with England and France selected. The column displays *2 Items* since there is more than one value selected.



You can press the right arrow to move the selected values from the left column to the right column. In this example, England and France move from the left column to the right column. The left column now contains only the remaining values, as shown in the following image.



Scrolling

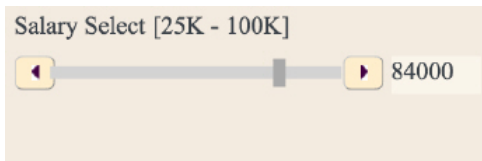
Elements that typically require scrolling do not utilize scroll bars on the iPad.

A frame that contains a report automatically expands to fit the entire report, depending on the Sizing and Scrolling property setting of the frame.

Slider Controls

Slider functionality is limited when you access an HTML page on the iPad or iPhone.

The slider bar on a slider cannot be used to slide the values up or down. To change the value, you must tap the end arrows to increase or decrease the selected number. The following image displays a slider control.



Note: A double tap in the Safari browser causes a zoom in. The iPad and iPhone interprets tapping the end arrows too quickly as a double tap and zooms in.

Chained Controls

The functionality of a chain of controls is not automatically triggered when a multi-select control is included in the chain. You must tap *Done* from the pop-up box of the multi-select control for the next control in the chain to populate. In the following image, the Done button is highlighted by a red box.



Using an HTML Application on an Android Device

When you access HTML pages from the Browser on an Android® device, the functionality of certain elements is restricted or altered. The following is a list of the known issues and considerations when using the HTML Composer on Android devices.

- ❑ RIA pages and regular pages are supported using the native Browser on the Motorola Xoom tablet. The Motorola Xoom uses the Android 3.0 Honeycomb OS.
- ❑ Devices running the Android 2.2 OS do not support RIA pages.
- ❑ On devices running Android 2.2 OS, regular pages are supported in Mozilla Firefox® for Android but not the native Browser. This is because of an issue with XMLHttpRequest calls. The run time for the RIA pages require both synchronous and asynchronous responses. The native Browser always sends these requests asynchronously, even if the call requests it to be synchronous.

Double List Controls

Double list controls in RIA pages behave similarly to double list controls in desktop browsers.

When an HTML report is run, all values are visible in the double list control. Double clicking a value will highlight and move it from list box1 to list box2 and vice versa.

CSS Support Matrix for Browsers

This appendix describes which browsers support certain CSS properties.

In this appendix:

- ❑ [CSS Support Matrix for Internet Explorer](#)
- ❑ [CSS Support Matrix for Firefox, Chrome, Safari, and Opera](#)

CSS Support Matrix for Internet Explorer

The following table is a list of all CSS properties and whether they are supported in Internet Explorer 9 and Internet Explorer 10.

CSS3 Property	Internet Explorer 9	Internet Explorer 10
Borders		
border-radius	Supported	Supported
box-shadow	Supported	Supported
border-image	Not Supported	Not Supported
Background		
background-size	Supported	Supported
background-origin	Supported	Supported
Animations		
keyframes	Not Supported	Supported
animation	Not Supported	Supported
animation-name	Not Supported	Supported
animation-duration	Not Supported	Supported

CSS3 Property	Internet Explorer 9	Internet Explorer 10
animation-timing-function	Not Supported	Supported
animation-delay	Not Supported	Supported
animation-iteration-count	Not Supported	Supported
animation-direction	Not Supported	Supported
animation-play-state	Not Supported	Supported
Text		
text-shadow	Not Supported	Supported
word-wrap	Supported	Supported
text-overflow	Supported	Supported
word-break	Supported	Supported
text-justify	Not Supported	Supported
2D and 3D Transforms		
transform	ms-transform - only 2D	Supported - 2D and 3D
transform-origin	ms-transform - only 2D	Supported - 2D and 3D
transform-style	Not Supported	Supported
perspective	Not Supported	Supported
perspective-origin	Not Supported	Supported
backface-visibility	Not Supported	Supported
Fonts		
font-feature-settings	Not Supported	Supported
hyphens	Not Supported	ms-hyphens

CSS3 Property	Internet Explorer 9	Internet Explorer 10
hyphenate-limit-zone	Not Supported	ms-hyphenate-limit-zone
hyphenate-limit-chars	Not Supported	ms-hyphenate-limit-chars
hyphenate-limit-lines	Not Supported	ms-hyphenate-limit-lines
Multi Column Layout		
columns	Not Supported	Supported
column-count	Not Supported	Supported
column-gap	Not Supported	Supported
column-rule	Not Supported	Supported
column-rule-color	Not Supported	Supported
column-rule-style	Not Supported	Supported
column-rule-width	Not Supported	Supported
column-span	Not Supported	Supported
column-width	Not Supported	Supported
column-fill	Not Supported	Supported
break-after	Not Supported	Supported
break-before	Not Supported	Supported
break-inside	Not Supported	Supported
Transitions		
transition	Not Supported	Supported
transition-property	Not Supported	Supported
transition-duration	Not Supported	Supported

CSS3 Property	Internet Explorer 9	Internet Explorer 10
transition-timing-function	Not Supported	Supported
transition-delay	Not Supported	Supported
User Interface		
resize	Not Supported	Not Supported
border-box	Supported	Supported
outline-offset	Not Supported	Not Supported
appearance	Not Supported	Not Supported
Gradients		
linear-gradient	Not Supported	Supported - ms-linear-gradient
radial-gradient	Not Supported	Supported - ms-radial-gradient
repeating-linear-gradient	Not Supported	Supported - ms-repeating-linear-gradient
repeating-radial-gradient	Not Supported	Supported - ms-repeating-radial-gradient

CSS Support Matrix for Firefox, Chrome, Safari, and Opera

The following table is a list of CSS properties and whether they are supported in Firefox, Chrome, Safari, and Opera™ browsers.

CSS3 Property	Firefox	Chrome	Safari	Opera
Borders				
border-radius	Supported - 4+	Supported	Supported	Supported
box-shadow	Supported	Supported	Supported	Supported

CSS3 Property	Firefox	Chrome	Safari	Opera
border-image	Supported	Supported	Supported - Safari 6 webkit- border-image- Safari 5	o-border-image
Background				
background-size	Supported	Supported	Supported	Supported
background-origin	Supported	Supported	Supported	Supported
Animations				
keyframes	Supported	webkit- keyframes	webkit- keyframes	Supported
animation	Supported	webkit- animation	webkit- animation	Supported
animation-name	Supported	webkit- animation-name	webkit- animation	Supported
animation-duration	Supported	webkit- animation- duration	webkit- animation	Supported
animation-timing-function	Supported	webkit- animation- timing-function	webkit- animation	Supported
animation-delay	Supported	webkit- animation-delay	webkit- animation	Supported
animation-iteration-count	Supported	webkit- animation- iteration-count	webkit- animation	Supported

CSS3 Property	Firefox	Chrome	Safari	Opera
animation-direction	Supported	webkit-animation-direction	webkit-animation	Supported
animation-play-state	Supported	webkit-animation-play-state	webkit-animation	Supported
Text				
text-shadow	Supported	Supported	Supported	Supported
word-wrap	Supported	Supported	Supported	Supported
text-overflow	Supported	Supported	Supported	Supported
word-break	Supported	Supported	Supported	Not Supported
text-justify	Not Supported	Not Supported	Not Supported	Not Supported
2D and 3D Transforms				
transform	Supported	webkit-transform - 2D and 3D	webkit-transform - 2D and 3D	Supported
transform-origin	Supported	webkit-transform-origin - 2D and 3D	webkit-transform - 2D and 3D	Supported
transform-style	Supported	webkit-transform-style	webkit-transform-style	Not Supported
perspective		webkit-perspective	webkit-perspective	Not Supported
perspective-origin		webkit-perspective-origin	webkit-perspective-origin	Not Supported

CSS3 Property	Firefox	Chrome	Safari	Opera
backface-visibility	moz-backface-visibility	webkit-backface-visibility	webkit-backface-visibility	Not Supported
Fonts				
font-feature-settings	moz-font-feature-settings	webkit-moz-feature-settings	webkit-moz-feature-settings	o-moz-font-feature-settings
hyphens	Not Supported	Not Supported	Not Supported	Not Supported
hyphenate-limit-zone	Not Supported	Not Supported	Not Supported	Not Supported
hyphenate-limit-chars	Not Supported	Not Supported	Not Supported	Not Supported
hyphenate-limit-lines	Not Supported	Not Supported	Not Supported	Not Supported
Multi Column Layout				
columns	moz-columns	webkit-columns	webkit-columns	Supported
column-count	moz-columns-count	webkit-column-count	webkit-column-count	Supported
column-gap	moz-columns-gap	webkit-column-gap	webkit-column-gap	Supported
column-rule	moz-columns-rule	webkit-column-rule	webkit-column-rule	Supported
column-rule-color	moz-columns-rule-color	webkit-column-rule-color	webkit-column-rule-color	Supported
column-rule-style	moz-columns-rule-style	webkit-column-rule-style	webkit-column-rule-style	Supported

CSS3 Property	Firefox	Chrome	Safari	Opera
column-rule-width	moz-columns-rule-width	webkit-column-rule-width	webkit-column-rule-width	Supported
column-span	Not Supported	webkit-column-span	webkit-column-span	Supported
column-width	moz-column-width	webkit-column-width	webkit-column-width	Supported
column-fill	Not Supported	Not Supported	Not Supported	Not Supported
break-after	Not Supported	Not Supported	Not Supported	Not Supported
break-before	Not Supported	Not Supported	Not Supported	Not Supported
break-inside	Not Supported	Not Supported	Not Supported	Not Supported
Transitions				
transition	Supported	Supported	webkit-transition	Supported
transition-property	Supported	Supported	webkit-transition-property	Supported
transition-duration	Supported	Supported	webkit-transition-duration	Supported
transition-timing-function	Supported	Supported	webkit-transition-timing-function	Supported
transition-delay	Supported	Supported	webkit-transition-delay	Supported
User Interface				
resize	Supported	Supported	Supported	Supported

CSS3 Property	Firefox	Chrome	Safari	Opera
border-box	Supported	Supported	Supported	Supported
outline-offset	Supported	Supported	Supported	Supported
appearance	Supported	Supported	Supported	Supported
Gradients				
linear-gradient	Not Supported	Not Supported	Not Supported	Not Supported
radial-gradient	Not Supported	Not Supported	Not Supported	Not Supported
repeating-linear-gradient	Not Supported	Not Supported	Not Supported	Not Supported
repeating-radial-gradient	Not Supported	Not Supported	Not Supported	Not Supported

Glossary

active report

An active report is a self-contained report that is designated for offline analysis. It contains all of the data and JavaScript within the output file.

Active Technologies Dashboard

An HTML form with one or more active report procedures, and controls to mimic active report menu options, to allow global modification of multiple active reports in HTML pages.

chaining

Enables you to populate controls based on the selected value from the prior control in the chain. You can chain static and dynamic controls, link or unlink parts of a chain, and create conditions on links in a chain. Chains are represented by lines connecting control objects on the Parameters tab. When you click the arrowhead in a link of a chain, the Properties and Settings dialog box opens. You can modify and set properties and conditions of the chain.

component

Objects that you can insert into the HTML page, for example, a report, graph, or image.

control

A control supplies a list of possible values, except in the instance of a text box, where the user supplies the value. A control enables you to prompt users for a parameter value. You can also add an input control and bind it to a parameter, using the Parameters tab.

dashboard

See Active Technologies Dashboard.

Design tab

A tab at the bottom of the HTML Composer window. You can add and position objects on the page layout.

Document Composer

A Developer Studio tool. Document Composer allows you to coordinate and distribute layouts made up of multiple reports and graphs in a single document. For more information, see the *Creating Compound Reports With Document Composer* manual.

Embedded JavaScript tab	A tab at the bottom of the HTML Composer that displays the HTML code and the JavaScript code for objects in the HTML layout.
form	See page layout.
graph	A graphical representation of data within a Master File. You can use the Graph tool to create graphs, which can be inserted in the page layout.
Graph tool	A Developer Studio application, in which you can create and style complex graphs.
latitude/longitude coordinates	Fields that must be in a report for a map to point to specific locations.
maps	A component you can insert into an HTML page. You can use either ESRI JavaScript, Bing, or Google maps.
object	Any component, parameter, or control that is on the Design View or Parameters View.
page layout	An individual document, or page, that displays images, drawing objects, text, page settings, reports, and graphs. You can save this pre-styled page and reuse it as a template, or make it available to others.
Parameters tab	A tab at the bottom of the HTML Composer window that you can use to create and modify parameter values, input controls, and customize parameter conditions. You can also bind parameters to controls and chain controls to one another.

Properties and Settings dialog box

This dialog box enables you to change the settings of components, controls, and parameters. When you select an object, or when an object is added to the canvas, the settings for that object display in the Properties and Settings dialog box. This dialog box opens when you select an object in the Design View or the Parameters View.

properties window

Shows the properties of the object or objects you selected. For example, if you select a hyperlink, the Properties window shows the properties of the hyperlink. General properties for the entire HTML page are shown when no object is selected. The Events subtab displays the JavaScript events associated with objects in the layout.

report

A component you can insert into the page layout. A visual representation of data within a Master File. You can use Report Painter to create reports.

Report Painter

A Developer Studio tool that you can use to create and style complex reports. You can design the report in the Report Painter window, a graphical representation of the report page.

ReportCaster schedule

A control that adds a schedule button in the HTML Composer page layout. A schedule button enables you to schedule a report or graph, using ReportCaster. Once you have created the schedule, you can access ReportCaster to edit information about the schedule.

RIA (Rich Internet Application)

Enables you to create an interactive webpage. Using RIA, you can generate the look and feel of a Windows-based graphical user interface in your web applications. RIAs provide rich and powerful graphics and themes. You may set a RIA theme and animation properties for objects in the Design tab of HTML Composer. Additionally, you may convert an existing page to a RIA or create a new page as a RIA.

template

You can use templates to standardize the layout and theme of HTML pages. Templates provide report and chart frames, a form for controls, text boxes, and other objects arranged in a fixed layout that simplifies the design process. You only have to provide information for the objects to create an HTML page that is ready to use. Controls cannot be added manually, they must come from parameters in the reports and charts. If you build a page using templates, you will not be able to freely arrange objects or add controls manually.

Visual Discovery

A type of control. Visual Discovery creates graphs using a tab-delimited data file as input.

Index

.fex file 577

//TODO 120, 127

&COORDINATES parameter 492

A

accessing HTML Composer 27, 335

accordion controls 440

active charts 396

active dashboards
 distributing 412
 exporting 410
 scheduling 412

ActiveX Properties 539

ActiveX Properties button 539

Add Data Pool 539

Add Move Items control 183

Add Paging control 187

Add Search control 193

adding a data source 538

adding data 538

adding data pools 538

adding objects to HTML pages 36, 37, 38, 43, 49,
 51, 56, 61, 64, 67, 68, 73, 74
 frames 43
 graphs 37, 38
 group boxes 67
 hyperlinks 61, 64
 images 51
 lines 49
 push buttons 68
 reports 37, 38
 reset buttons 73
 tab controls 74
 text 56

adding text 56

 Text Properties window 56

additional tabs 79

amper variable parameters 160
 setting controls 160

analytic dashboards 533

animating data 555

Animation properties 447

Animation properties dialog box 447

auto chain controls 356

automatic chaining 356

Available Data Pools 539

B

background color 541

background images 83, 84

bar charts
 animating data 555, 556
 primary order 556
 secondary order 556

binding active reports 395

binding buttons 249

binding objects 395, 396

Button Properties window 72

C

calculated values 625

calendars 237, 243

Cascading Style Sheets 274

categorical color scale 546

chain controls 359, 362, 364, 381, 388
 populating 388
 reversing the order 364

- chaining 224, 355, 356, 363, 367, 370, 381
 - automatic 356
 - breaking chains 363
 - conditions 367
 - controls 355
 - example 381
 - logic 367
 - new conditions 370
 - removing links 363
 - tree controls 224
- chaining into a Visual Discovery control 565
- changing the layout 641
- Check Box Properties window 203
- check boxes
 - supplying parameter values 200
- circle brush selector 551
- circle selector 551
- color 541, 542, 546
 - graph elements 542
 - using a field 546
- Color By 547
- color scale 543
- Colors tab 543
- component element colors 543
- Components toolbar 31
- conditions
 - actions 371
 - cache processing 380
 - multiselect operator 372
 - new 370
 - parameter compare operators 379
 - resolving parameters 378
 - values compare operator 371
- control names 538
- controls 96, 159, 160, 164, 165, 166, 169, 175, 180, 200, 203, 249, 312, 355, 400, 404, 408
 - active 400, 404, 408
 - adding amper variable parameters 160
 - adding to HTML pages 159

- controls (*continued*)
 - binding 165
 - chaining 355
 - changing 164
 - check boxes 200
 - defer button 312
 - drop-down lists 175
 - list boxes 180
 - populating 249
 - radio buttons 203
 - supplying parameter values 96, 159
 - text boxes 169
 - types 166
- Create controls for all Parameters 162
- creating a data constellation with a map 585
- creating a data file 533
- creating an HTML file 578
- custom procedures 133
- customizing colors 542
- customizing HTML pages 276

D

- dashboards 536
- data 538
- data files 533, 577
- data filtering 627
- data pool 538
- data sources 617
- Data tab 540
 - icons 540
- defer button 312
- Delete Container Only option 167
- deleting objects 399
- designing user interfaces 25
- Developer Studio Explorer 616

- developing a dashboard 533, 536
- Double List Box Properties window 187
- double list control 183
- drill-down outputs 621, 640
- Drop Down List Properties window 177, 180
- drop-down lists 175, 177, 180
 - Drop Down List Properties window 180
 - multiple values 177
 - supplying parameter values 175
- dynamic calendars 237
- dynamic values 118

E

- Embedded JavaScript tab 558
- embedded procedures 208
- equalized color scale 546
- Events subtab 87
- everything value option 113
- excluding data 567
- Export as Procedure 411, 412
 - limitations 412
- Expression Builder 627
- external reports 262, 263

F

- fields
 - coloring data by 546
- filters 619
- flicker-free drawing 551
- Form Settings dialog box 293, 302
 - Add defer button 293
 - Add schedule button 293
 - Default slider control type 293
 - Number of columns 293
 - Start each chain on a new line 293

- Form Settings dialog box (*continued*)
 - Vertical distance between controls 293
- format conversions for format VISDIS 534
- FORMAT VISDIS 533
- formatting reports 630, 631
- formatting text 57
- Formatting toolbar 35, 82
- Frame Properties window 43, 49, 50
- frames 43, 45, 49, 50
 - adding to HTML pages 43
 - Frame Properties window 43, 49, 50
 - hiding 45
 - showing 45
- full screen mode 76

G

- getting started 26
- global search and paging option 195
- goal lines 554, 555
 - adding 554
 - hiding 555
 - moving 555
 - removing 555
 - selecting values 555
- Google Maps 463, 464, 466, 469, 474, 477, 480, 488, 492, 496, 502, 505, 509, 511, 513, 517, 519, 520
 - API license key 464
 - bullseye charts 517
 - center location 474
 - clearing and removing shape selectors 519
 - combination of marker selection methods 509
 - customizing 480, 488
 - freehand polygons 513
 - inserting 477
 - integrating WebFOCUS 492
 - latitude/longitude coordinates 466
 - marker fields 469
 - marker visibility 509
 - N-sided polygons 513

- Google Maps (*continued*)
 - polygon shape selectors 520
 - polygons 513
 - rectangle polygons 513
 - refreshing 511
 - shape selection 505
 - showing and hiding markers 509
 - ToolTip fields 469
 - updating a WebFOCUS report 492
 - updating with JavaScript commands 496
 - WebFOCUS features and functionality 502
 - WebFOCUS procedures 466
- graph element colors 542
- Graph Properties window 39, 40
- graphs 37, 38, 39, 40, 41, 42, 619
 - adding to HTML pages 37, 38
 - Graph Properties window 39, 40
 - headings for 619
 - limiting data in 619
 - Manage Layout dialog box 41, 42
 - modifying components 41, 42
 - selecting components 41
 - selection criteria for 619
 - styling 619
- gray color scale 546
- green/red color scale 546
- Group Box Properties window 67, 68
- group boxes 67
 - adding to HTML pages 67
 - Group Box Properties window 67
- grouping objects 288

H

- headings and footings 139
- headings for graphs 619
- headings for reports 630
- hidden parameters 245
- HTML Composer 537

- HTML Composer Visual Discovery integration 547
- HTML files
 - loading screens 327
- HTML forms
 - converting to FOCUS procedure 411
 - exporting 410
- HTML pages 25, 36, 49, 274, 275, 276, 287, 288
 - adding lines 49
 - creating 25
 - customizing 276
 - HTML Page Properties window 275
 - laying out objects 287, 288
 - layout 287
 - properties 275
 - styling 274
 - templates 274
 - themes 274
- HTML templates 274
- Hyperlink Properties dialog box 69
- hyperlinks 61, 64, 66, 249, 263, 309
 - adding to HTML pages 61, 64
 - adding to text 64
 - binding 249
 - images 66
 - properties 309
 - push buttons 66
 - supplying parameter values 263

I

- IbComposer_enableHtmlElement 323
- IbComposer_execute 321
- IbComposer_getCurrentSelection 317, 318, 319, 526, 527, 528, 529
- IbComposer_isSelected 322
- IbComposer_ResetDownChainControls 324
- IbComposer_selectTab 324, 325
- IbComposer_setCurrentSelection 320
- IbComposer_showHtmlElement 322

icons in Data tab 540

iframe 45

ignore value option 112

Image Properties window 51, 53

images 51, 66, 249, 262, 641

adding to HTML pages 51

adding to reports 641

binding 249

hyperlinks 66

Image Properties window 51

supplying parameter values 262

input controls 168, 427

interface 28

J

JavaScript code 317

L

label color 541

Label Properties window 87

labels 86, 87, 557, 558

hiding 558

in bar, line, and pie charts 557

inserting 86

Label Properties window 87

showing 558

lasso selector 551

latitude/longitude coordinates in Google Maps 466

launch pages 634

line charts

animating data 555, 556

primary order 556

secondary order 556

lines 49, 50

adding to HTML pages 49

Frame Properties window 50

List Box Properties window 182

list boxes 180, 182, 183, 187

Double List Box Properties window 187

List Box Properties window 182

reordering values 183

supplying parameter values 180

loading screens 327

Location Animator 448

M

Maintain procedures 73

Manage Layout dialog box 41, 42

mask text property 170

Master Files 616

minimizing window controls 439

multiple tab controls 79

multiple-layer forms 160

N

naming conventions 538

New Parameters dialog box 160, 222, 356

O

object relationships 287, 288, 289

breaking 288

grouping objects 288

Positioning toolbar 289

setting distance 287

setting size 287

On Demand Paging 426

onafterload 327

onbeforeload 326

Opacity Animator 449

order 556

primary 556

- order (*continued*)
 - secondary 556
- output formats 533
- overlay text color 541

P

- parameter values 95, 96, 97, 100, 110, 112, 113, 114, 115, 118, 119, 123, 130, 131, 132, 133, 138, 139, 151, 159, 160, 165, 168, 169, 173, 175, 180, 200, 203, 245, 247, 637
 - adding filters 130
 - amper variables 160
 - binding 165
 - check boxes 200
 - controls 159
 - creating 95
 - custom procedures 133
 - customizing 637
 - default 151
 - drop-down lists 175
 - duplicate values 132
 - dynamic 118, 123, 130, 133, 151
 - dynamic list 96
 - everything value option 113
 - from a procedure 114
 - hidden 245
 - hyperlink actions 247
 - ignore value option 112
 - importing 115
 - list boxes 180
 - list options 138
 - Parameters (Dynamic Values) tab 119
 - Parameters (Static Values) window 100
 - Parameters tab 96
 - populating fields 138
 - radio buttons 203
 - sending display values 139
 - sorting 131
 - static 100, 110
 - static list 96
 - supplying 159
 - text areas 173
 - parameter values (*continued*)
 - text boxes 169
 - unbound 97
 - parameter values in active reports 401
 - parameterized procedure 559
 - Parameters (Dynamic Values) tab 119
 - Parameters (Static Values) window 100
 - Parameters tab 96, 132, 362, 637
 - Check for duplicate values 132
 - passing between a report and Visual Discovery control 559
 - passing between a Visual Discovery control and a report 559
 - pastel color scale 546
 - PCHOLD FORMAT VISDIS 577
 - pie charts
 - animating data 555, 556
 - primary order 556
 - secondary order 556
 - populating controls 249
 - Positioning toolbar 289
 - preselecting values 558
 - primary order 556
 - properties 398
 - Properties and settings 539
 - Properties and settings dialog box
 - bound parameters 105, 122
 - Check for duplicate values 132
 - conditions 367
 - dynamic values 119
 - incoming static parameter 100
 - unbound control 100
 - unbound parameters 102
 - Properties and settings dialog box for active reports 401
 - Properties subtab 87

- Properties window
 - moving 90
- Push Button Properties window 72
- push buttons 66, 68, 69, 72, 260
 - adding to HTML pages 68
 - hyperlinks 66
 - Push Button Properties window 72
 - supplying parameter values 260

R

- radio buttons 203
 - supplying parameter values 203
- Radio Buttons Properties window 207
- rainbow color scale 546
- re-apply color to field 546
- rectangle selector 551
- rectangular brush selector 551
- refreshing active reports 408
- Remove Data Pool 539
- report layouts 621
- Report Library
 - creating a dynamic list of values 421
 - creating a static list of values 414
 - Custom library 421
 - hyperlink properties 414, 421
 - integration 413
 - Show versions option 421
- Report Options dialog box 627
- Report Painter 159, 426, 624
- Report Properties window 39, 40
- ReportCaster schedule page 304, 311
- reports 36, 37, 38, 39, 41, 42, 312, 398, 427, 492, 621, 622, 625, 630, 631, 634, 641, 643
 - adding calculated values to 625
 - adding images to 641
 - adding to HTML pages 37, 38
 - drill-down 634
 - formatting 621, 622, 630, 631
- reports (*continued*)
 - headings for 630
 - layout 36
 - Manage Layout dialog box 41, 42
 - modifying components 41, 42
 - On Demand Paging 427
 - properties 398
 - Report Properties window 39
 - running 643
 - running deferred 312
 - selecting components 41
 - synchronized 398
 - Table of Contents 427
 - updating Google Map location 492
- Reset Button Properties window 74
- reset buttons 73
- resizing objects 287
- restoring data 567
- returning a range of dates 244
- RIA Components toolbar 435, 440
- Rich Internet Applications (RIA) 431, 432, 433, 435, 454, 457
 - adding components 433
 - animating objects 433
 - applying themes 432
 - creating pages 433
 - example 457
 - usage notes 454
 - window components 435
- running deferred reports 312

S

- Save Selection button 34
- Schedule button 304, 306
 - manually adding 306
- schedule capabilities 304
- schedule page 309, 311
 - default template 309
- search control 193

- secondary order 556
- selecting data 538
- Selecting tab 551
- selection options 550
- Single source Tree control 219
- single-layer forms 160
- Size Animator 449
- slider bars 233
- Slider Control Properties window 236
- slider controls 233, 235
 - changing the default 235
- smallest values are high priority option 546
- standard tool element colors 543
- Standard toolbar 30
- static parameters
 - importing 115
- static values 100
- Style Composer 45, 84, 277, 278, 279, 280, 281, 283, 284, 285, 286
 - background properties 279
 - edge styles 284
 - font styles 278
 - interface effects 286
 - layout styles 283
 - list styles 285
 - position mode 281
 - text styles 280
- submit buttons 68, 69
- supplying parameter values
 - hyperlinks 263
 - images 262
 - push buttons 260
- synchronized reports 398
- synchronizing active reports 395
- synchronizing objects 395, 396

T

- tab body 85
 - adding components 85
- tab controls 74, 75, 76, 79, 81, 82
 - formatting 82
 - full screen mode 76
 - location 82
 - multiple 79
 - properties 81
 - size 82
- tab edges 82
- tab items 83, 84
 - background images 84
- Table of Contents options 426
- target frames 640
- text
 - adding to HTML pages 56
- Text Area Properties window 175
- text areas 173
 - supplying parameter values 173
- Text Box Properties window 169, 172
- text boxes 169, 170, 172
 - masked text 170
 - properties 172
- Text Properties window 56, 61
- thermal color scale 546
- Thumbnails tab 87
- TOC data type 427
- TOC objects 427
- toolbars 28, 30, 31, 35, 289, 435
 - Components 31
 - Formatting 35
 - Positioning 289
 - RIA Components 435
 - Standard 30
- tree controls 207, 210, 219, 222, 224, 232
 - chaining 224
 - creating new controls 222
 - multi source 210
 - properties 232

tree controls (*continued*)
 static values 219
tutorial 615

U

Unbound Parameters box 165
using color 541

V

Variable Editor 627
VD button 537
VisDis Color By 547
VISDIS format 533
Visual Discovery button 537
Visual Discovery Control 537

Visual Discovery controls
 chaining 565
Visual Discovery Exclude 567
Visual Discovery format 533
Visual Discovery restore 567

W

web features 569
WebFOCUS Administration Console 464
Where statements 627
Where tab 627
Where/If button 627
window controls 439
 minimizing 439
working on web 569



Customer Connections

Where users partner with Information Builders to provide feedback and create quality documentation.

Partner With Us

Information Builders Technical Content Management team is comprised of many talented individuals who work together to design and deliver quality technical documentation products. Your feedback supports our ongoing efforts!

You can also join a usability study to get an early look at new documentation products and services. Your participation helps us create documentation products that meet your needs.

To send us feedback or make a customer connection, contact Michele Brady, Service Director, Technical Content Management at Michele_Brady@ibi.com.

Request Permission to Use Copyright Material

To request permission to repurpose copyrighted material, please contact Frances Gambino, Executive Director, Technical Content Management at Frances_Gambino@ibi.com.

Visit the Information Builders Technical Documentation Library

To visit the Technical Documentation Library, go to <http://documentation.informationbuilders.com/>.

WebFOCUS



Designing a User Interface for a Web
Application With the HTML Composer

Release 8.0 Version 04