

## Contents Summary

<b>Chapter 1:</b> Introduction	<b>1</b>
<b>Chapter 2:</b> Introducing Information Bridge Framework	<b>9</b>
<b>Chapter 3:</b> Connecting to Line-of-Business Services	<b>39</b>
<b>Chapter 4:</b> Developing the Service Metadata	<b>73</b>
<b>Chapter 5:</b> Developing Smart Tags	<b>107</b>
<b>Chapter 6:</b> Creating the User Interface	<b>123</b>
<b>Chapter 7:</b> Developing the Solution Metadata	<b>155</b>
<b>Chapter 8:</b> Deploying the Solution	<b>253</b>
<b>Chapter 9:</b> Enhancing Information Bridge	<b>271</b>
<b>Index</b>	<b>359</b>



# Table of Contents

<b>Chapter 1: <u>Introduction</u></b>	<b>1</b>
<b>Overview</b>	<b>1</b>
<b>Audience</b>	<b>2</b>
<b>Requirements</b>	<b>2</b>
<b>Support</b>	<b>3</b>
<b>Sample Code</b>	<b>3</b>
<b>Writing Style</b>	<b>3</b>
<b>What This Book Covers</b>	<b>4</b>
<b>The Problem</b>	<b>5</b>
<b>Information Bridge to the Rescue</b>	<b>6</b>
<b>The Business Case: BlueVision Publishing</b>	<b>6</b>
<b>Summary</b>	<b>8</b>
<b>Chapter 2: <u>Introducing Information Bridge Framework</u></b>	<b>9</b>
<b>Overview</b>	<b>9</b>
<b>Architecture</b>	<b>9</b>
<b>Data and Information Flow</b>	<b>13</b>
<b>Understanding Information Bridge Metadata</b>	<b>15</b>
The Metadata Hierarchy	15
Metadata Scopes	17
Entities	17
Ports	17
Schemas	17
Operations	18
Transformations	18
Translations	19
Groups	19
Operation Types	19
OperationBrowse	19
OperationCallComponent	19
OperationExecuteAction	20
OperationNavigate	20
OperationQueryMenu	20
OperationReturnActionResult	20
OperationSoapRequest	20
OperationStatusCheck	21
OperationTransformationAggregation	21
OperationCustom	21

<b>Planning Information Bridge Framework Solutions</b>	<b>21</b>
Entity Planning	22
Web Services Planning	22
Metadata Planning	23
User Interface Planning	23
Security Planning	23
Deployment Planning	24
<b>Installing Information Bridge Framework</b>	<b>25</b>
Server Installation	25
Development Installation	31
Client Installation	32
<b>Installing Information Bridge Framework Resource Kit</b>	<b>35</b>
<b>Summary</b>	<b>36</b>
<b>Chapter 3: <u>Connecting to Line-of-Business Services</u></b>	<b>39</b>
<b>Overview</b>	<b>39</b>
<b>Analysis</b>	<b>39</b>
Defining Entities	40
Defining Views	41
CustomerDefaultView	41
OrderDefaultView	42
BookDefaultView	42
Defining References	43
CustomerDefaultView References	43
OrderDefaultView References	44
BookDefaultViewReferences	44
Defining Relationships	44
<b>Developing the Web Service</b>	<b>45</b>
Creating the Business Classes	45
Customer	46
CustomerCollection	47
Order	48
OrderStatus	50
OrderCollection	50
Book	51
CustomerID	52
CustomerEmail	53
CustomerName	53
OrderID	54
BookID	54
BookTitle	54
Creating the Web Methods	55
<i>Get</i> Operations	55
<i>Put</i> Operations	57

<i>Act Operations</i>	57
<b>Unit Testing the Web Service</b>	<b>71</b>
<b>Deploying the Web Service</b>	<b>71</b>
<b>Summary</b>	<b>72</b>
<b>Chapter 4: <u>Developing the Service Metadata</u></b>	<b>73</b>
<b>Overview</b>	<b>73</b>
<b>Creating the Metadata Project</b>	<b>73</b>
<b>Importing the Base Metadata</b>	<b>74</b>
<b>Creating the Service Metadata</b>	<b>78</b>
<b>Creating the Entity and View Metadata</b>	<b>82</b>
Customer Entity	83
Default View	84
Order Entity	87
Default View	89
Book Entity	92
Default View	94
<b>Creating the Relationship Metadata</b>	<b>97</b>
<b>Summary</b>	<b>105</b>
<b>Chapter 5: <u>Developing Smart Tags</u></b>	<b>107</b>
<b>Overview</b>	<b>107</b>
<b>Implementing the Recognizer</b>	<b>109</b>
Defining the Smart Tag References	111
Initializing the Recognizer	112
Recognizing the Smart Tags	113
<b>Trusting the Recognizer</b>	<b>116</b>
Option 1: Using Caspol	116
Option 2: Using the .NET Configuration MMC Snap-In	117
<b>Summary</b>	<b>121</b>
<b>Chapter 6: <u>Creating the User Interface</u></b>	<b>123</b>
<b>Overview</b>	<b>123</b>
<b>The Information Bridge Information Window</b>	<b>123</b>
Panels and Regions	124
<b>Developing the User Controls</b>	<b>125</b>
Implementing <i>IRegion</i>	126
<i>HostProxy</i>	126
<i>Data</i>	126

<i>HostType</i>	126
<i>VisualStyle</i>	127
Creating the Project	127
CustomerRegion User Control	129
BookRegion User Control	132
OrderRegion User Control	133
ChangeOrderStatusDialog User Control	144
<b>Trusting the User Interface</b>	<b>150</b>
<b>Summary</b>	<b>154</b>

## **Chapter 7: Developing the Solution Metadata **155****

---

<b>Overview</b>	<b>155</b>
<b>Defining the User Interface Assembly Port</b>	<b>155</b>
<b>Defining the Captions</b>	<b>158</b>
CustomerDefaultView Caption	158
BookDefaultView Caption	165
OrderDefaultView Caption	166
<b>Defining the Actions</b>	<b>167</b>
DisplayCustomerInfo Action	168
QueryMenuAndCaption Operation	169
ShowMenuAndCaption Operation	171
ShowCustomerRegion Operation	173
Soap.GetCustomerOrders Operation	175
ShowCustomerOrdersRegion Operation	175
The Action Designer	177
Ports and Transformations	184
Xsl.CustomerRegionPort	184
Xsl.CustomerOrdersRegionPort	185
Xsl.CustomerToCustomerIDReferencePort	187
Xsl.CustomerRegionTransformation	188
Xsl.CustomerOrdersRegionTransformation	190
Xsl.CustomerToCustomerIDReferenceTransformation	191
DisplayOrderInfo Action	195
DisplayBookInfo Action	199
DisplayChangeOrderStatusDialog Action	203
ChangeOrderStatus Action	207
ProcessShipment Action	208
<b>Defining the Menu Items</b>	<b>214</b>
OrderToCustomerRelationship Menu Item Definition	214
DisplayChangeOrderStatusDialog Menu Item Definition	219
<b>Defining the Smart Tag Recognizer</b>	<b>222</b>
<b>Debugging the Metadata Project</b>	<b>234</b>
Debugging an Action	236
Debugging Metadata	236

Debugging Managed Code	245
Debugging the Solution	246
Debugging Metadata	246
Debugging Managed Code	249
<b>Summary</b>	<b>252</b>
<b>Chapter 8: <u>Deploying the Solution</u></b>	<b>253</b>
<b>Overview</b>	<b>253</b>
<b>Deploying the Assemblies</b>	<b>253</b>
Trusting the Assemblies	254
<b>Publishing the Metadata</b>	<b>259</b>
Using Visual Studio .NET	259
Using Metadata Publisher Tool	262
Example 1	264
Example 2	265
<b>Assigning Permissions</b>	<b>266</b>
Administrative Access	268
<b>Summary</b>	<b>269</b>
<b>Chapter 9: <u>Enhancing Information Bridge</u></b>	<b>271</b>
<b>Overview</b>	<b>271</b>
<b>Adding Search Functionality</b>	<b>271</b>
Importing and Merging the Starter Metadata	272
Defining the Search Results View	272
Defining the Search Results Region	277
Defining the Action	282
Testing the Action	284
Mapping the Search to the Action	285
Testing the Search Functionality	291
<b>Supporting Internet Explorer</b>	<b>294</b>
<b>Supporting InfoPath</b>	<b>300</b>
Designing the Form	301
Context Tracking	306
Flat Tracking	307
Hierarchical Tracking	307
Configuring the Form to Use Information Bridge	308
How the Connection Works	310
Connector	311
Pane	312
Developing the Metadata	312
Customer.ReturnImplicitContextXsl	316
Order.ReturnImplicitContextXsl	318

Book.ReturnImplicitContextXsl	318
<b>Developing an Attached Schema Solution</b>	<b>321</b>
Creating the Attached Schema	321
Defining the Metadata for the Solution	331
Xsd.Name	331
Xsd.OrderNumber	332
Xsd.Title	332
Xsd.ISBN	333
Xsl.NameToCustomerNameReferencePort	337
Xsl.OrderNumberToOrderIDReferencePort	337
Xsl.TitleToBookTitleReferencePort	338
Xsl.ISBNToBookIDReferencePort	338
<b>Branding Your Solution</b>	<b>345</b>
<b>Developing a Custom Wizard</b>	<b>351</b>
Implementing ICustomWizard	353
Using the Object Model	354
Installing the Wizard	355
<b>Summary</b>	<b>358</b>
<b>Index</b>	<b>359</b>

---