

# Contents

<b>Acknowledgements</b> .....	<b>vii</b>
<b>Chapter 1 Introduction</b> .....	<b>1</b>
1.1 Introduction to the ARIS Platform.....	1
1.2 What's in this Book .....	3
1.3 How to Use this Book.....	5
1.4 References.....	6
1.5 Icons Used in This Book.....	6
1.6 Conventions Used in this Book.....	7
<b>Chapter 2 Before You Start Modelling</b> .....	<b>9</b>
2.1 Objectives for Modelling .....	9
2.1.1 Why Are You Modelling?.....	10
2.1.2 What Are You Modelling?.....	10
2.1.3 Who Are You Modelling?.....	12
2.1.4 When Are You Modelling?.....	13
2.2 Modelling Requirements.....	14
2.3 Key Principles.....	16
<b>Chapter 3 Process Capture and Modelling</b> .....	<b>17</b>
3.1 Introduction.....	17
3.2 Modelling in Teams .....	17
3.3 Modelling Standards .....	18
3.4 Process Modelling.....	19
3.4.1 Model Structure.....	19
3.4.2 Libraries and Processes .....	20
3.4.3 What Models to Use.....	21
3.5 Process Capture.....	22
3.5.1 Process Capture Using ARIS .....	22
3.5.2 A Two-Stage Approach to Process Capture.....	23
3.6 Verification and Validation.....	26
3.7 Roles and Responsibilities .....	27
3.7.1 Process Stakeholder.....	29
3.7.2 Information Gatherer.....	29
3.7.3 Process Designer .....	29
3.7.4 Process Modeller.....	30
3.7.5 Model Librarian .....	30
3.7.6 Model Verifier.....	30
3.7.7 Model Validator .....	31

3.7.8	Process Architect.....	31
3.7.9	Corporate Process Architect.....	31
3.7.10	ARIS Technical Consultant.....	32
3.7.11	ARIS Database Administrator.....	32
3.7.12	ARIS Server Administrator.....	33
3.7.13	ARIS Configuration Administrator.....	33
3.7.14	IT System Administrator.....	34
3.7.15	ARIS Model Publisher.....	34
3.7.16	ARIS Trainer.....	35
<b>Chapter 4</b>	<b>The Matrix Editor.....</b>	<b>37</b>
4.1	The Matrix Editor.....	37
4.2	Creating a Matrix.....	38
4.2.1	Creating an Empty Matrix.....	38
4.2.2	Creating a Matrix from Existing Objects.....	39
4.2.3	Opening a Matrix.....	39
4.3	Saving a Matrix.....	39
4.4	Deleting a Matrix.....	40
4.5	Matrix Window.....	40
4.5.1	Navigation Bar.....	41
4.5.2	Matrix Tabs.....	41
4.5.3	Contents Bar.....	42
4.6	Selecting Object Types.....	42
4.7	Inserting Objects into a Matrix.....	44
4.7.1	Inserting New Objects.....	46
4.7.2	Inserting Existing Objects.....	47
4.8	Selecting Connection Types.....	48
4.9	Selecting Connection Settings.....	50
4.10	Viewing Connections.....	52
4.10.1	Connection Display.....	52
4.10.2	Connection Properties, Attributes and Occurrences.....	53
4.10.3	Changing the Display Order.....	54
4.10.4	Hiding Rows and Columns.....	56
4.10.5	Zoom.....	56
4.10.6	Row and Column Titles.....	57
4.10.7	Connection Abbreviations.....	58
4.11	Editing Connections.....	58
4.11.1	Creating a Connection.....	59
4.11.2	Deleting a Connection.....	61
4.11.3	Interpreting Cell Displays.....	61
4.12	Exporting to Excel.....	62
4.13	Printing a Matrix.....	63
4.14	Matrix Editor 7.1.....	63

---

<b>Chapter 5</b>	<b>Find and Query .....</b>	<b>65</b>
5.1	Introduction to Find and Queries .....	65
5.2	Standard Find .....	65
5.2.1	Opening the Find Dialog Box .....	65
5.2.2	Selecting the Item Type.....	66
5.2.3	Search Based on Item Name .....	67
5.2.4	Searching with Wildcards .....	68
5.2.5	Search with Time and Date Qualifier .....	69
5.2.6	Search Based on Attribute Value .....	69
5.2.7	Viewing Search Results .....	70
5.2.8	Using Search Results.....	70
5.3	Find Objects with Identical Names .....	71
5.4	Creating Queries .....	73
5.4.1	Introduction to Queries.....	73
5.4.2	Opening the Query Wizard.....	73
5.4.3	Select Creation Mode .....	74
5.4.4	Create Query .....	75
5.4.5	Restrict Input Types .....	76
5.4.6	Restrict Result Types .....	77
5.4.7	Select Relationship.....	78
5.4.8	Select Attributes .....	82
5.4.9	Confirm Input.....	82
5.4.10	Editing Queries.....	83
5.4.11	Running a Query .....	83
5.4.12	Running an Attribute-Based Query .....	86
5.4.13	Example Queries .....	87
5.5	Nesting Queries.....	90
5.5.1	Creating Nested Queries.....	91
5.5.2	Example Nested Queries .....	92
5.6	Distributing Queries.....	94
5.6.1	Export.....	94
5.6.2	Import.....	94
<b>Chapter 6</b>	<b>Model Generation.....</b>	<b>95</b>
6.1	Introducing Model Generation.....	95
6.2	Using Model Generation.....	96
6.2.1	Generating Models from Other Models .....	96
6.2.2	Options for Generating Models from Models .....	98
6.2.3	Generating Models from Objects .....	102
6.2.4	Options for Generating Models from Objects .....	103
6.2.5	Managing Generated Models .....	105
6.2.6	Model Generation from Shortcuts.....	106
6.3	Generating Vertical Views of the Hierarchy.....	107
6.3.1	The Function Hierarchy and the Function Tree.....	107
6.3.2	Generating a Function Hierarchy .....	109
6.4	Horizontal Views of the Hierarchy .....	112

6.4.1	Model Generation of the End-to-End Process.....	112
6.4.2	Benefits of Generating an End-to-End Process Model.....	114
6.4.3	Handling Process Variants with Model Generation .....	114
6.5	Linking EPCs for Model Generation .....	114
6.5.1	Linking Models Using Events.....	115
6.5.2	Linking Using the Process Interface Object.....	116
6.6	Generating Models Spanning Levels of the Hierarchy .....	118
6.6.1	The Linking Diagram.....	118
<b>Chapter 7</b>	<b>Modelling in Rows and Columns .....</b>	<b>121</b>
7.1	Row and Column Models .....	121
7.1.1	Modelling in Swim-lanes .....	121
7.1.2	When to Use a Swim-lane Model .....	122
7.1.3	Horizontal or Vertical?.....	122
7.1.4	Row/Column EPCs in a Model Hierarchy .....	123
7.2	The Row and Column EPC.....	123
7.2.1	The Layout of a Row/Column EPC .....	123
7.2.2	The Implicit Relationship.....	125
7.2.3	Multiple Relationships in Row/Column EPCs .....	125
7.2.4	Modelling Multiple Systems .....	127
7.2.5	Modelling Other Resources in Row/Column EPCs .....	128
7.2.6	Changing Implicit Relationships.....	128
7.2.7	Row and Column Properties .....	130
7.2.8	Automatic Layout of Row and Column EPCs .....	131
7.2.9	Model Generation and Row/Column EPCs.....	132
7.3	Specialised Row/Column Models.....	135
7.3.1	The Process Chain Diagram.....	135
7.3.2	E-Business Scenario Diagram.....	137
7.3.3	Column EPC for Modelling Systems Interfaces .....	137
<b>Chapter 8</b>	<b>Modelling Process Variants.....</b>	<b>141</b>
8.1	Avoiding Stovepipes.....	141
8.2	Modelling Variety.....	141
8.3	Creating Multiple EPC Assignments .....	143
8.4	A Model Hierarchy with Variant Sub-Processes .....	144
8.4.1	Creating Variant Relationships Between Sub-Processes .....	145
8.4.2	Creating Sub-Processes as Variant Copies.....	146
8.4.3	Viewing Variant Relationships .....	147
8.4.4	Creating Variants of Variants.....	147
8.4.5	Modelling the Product/Process Hierarchy.....	148
8.4.6	Modelling the Product/Process Matrix.....	149
8.5	Generating a Product-Specific End-to-End Process.....	151
8.5.1	Model Generation from Shortcut Groups.....	152
8.6	Benefits of Modelling with a Variant Hierarchy.....	153

---

<b>Chapter 9</b>	<b>ARIS Evaluations .....</b>	<b>155</b>
9.1	Evaluations.....	155
9.1.1	Introduction .....	155
9.1.2	Reports .....	156
9.1.3	Semantic Checks .....	157
9.1.4	Macros.....	158
9.1.5	Transformations .....	158
9.2	Creating and Managing Evaluation Scripts.....	159
9.2.1	The Evaluation Folder.....	159
9.2.2	Creating New Evaluations.....	160
9.2.3	Editing Evaluation Scripts.....	160
9.2.4	Evaluation Properties .....	161
9.2.5	Exporting Scripts.....	161
9.2.6	Importing Scripts.....	162
9.3	Reports .....	162
9.3.1	Creating Reports.....	162
9.3.2	Modifying Report Settings .....	162
9.3.3	Running Reports.....	165
9.4	Semantic Checks .....	168
9.4.1	Creating Semantic Checks .....	168
9.4.2	Creating New Rule Types .....	169
9.4.3	Modifying Rule Type Settings .....	169
9.4.4	Creating New Rules .....	172
9.4.5	Modifying Rules.....	172
9.4.6	Creating New Profiles .....	172
9.4.7	Modifying Existing Profiles .....	173
9.4.8	Running Semantic Checks .....	175
9.5	Macros .....	177
9.5.1	Creating Macros .....	177
9.5.2	Modifying Macro Settings .....	178
9.5.3	Assign Macros to the Menu and Toolbar .....	180
9.5.4	Running Macros .....	181
9.5.5	Command Line Macros.....	182
9.6	Transformations .....	182
9.6.1	Creating a Transformation.....	182
9.6.2	Running a Transformation .....	186
<b>Chapter 10</b>	<b>Database Administration.....</b>	<b>187</b>
10.1	The Need for Administration .....	187
10.2	Administrative Accounts and Privileges.....	187
10.2.1	Passwords, Accounts and Privileges .....	187
10.2.2	Function Privileges.....	190
10.2.3	System Account .....	191
10.2.4	Administration Passwords.....	191
10.3	Server Administration .....	193
10.3.1	Server Connection.....	193

---

10.3.2	Server Configuration.....	194
10.4	Database Management.....	195
10.4.1	Create Database.....	195
10.4.2	Open and Close Database.....	195
10.4.3	Delete Database.....	196
10.4.4	Rename Database.....	196
10.4.5	Copy and Paste Database.....	196
10.4.6	Reorganise Database.....	197
10.4.7	Backup Database.....	198
10.4.8	Restore.....	199
10.4.9	Statistics.....	199
10.4.10	Export and Import.....	200
10.4.11	Merge.....	201
10.5	Database Configuration.....	202
10.5.1	Introduction.....	202
10.5.2	Users.....	202
10.5.3	Font Formats.....	203
10.5.4	Languages.....	205
10.5.5	Properties.....	208
10.5.6	Attributes.....	213
10.6	Database Administration.....	214
10.6.1	Managing Group Structure.....	214
10.6.2	Libraries.....	216
10.6.3	Access Privileges.....	218
10.6.4	Model and Object Management.....	218
10.6.5	Consolidating Objects.....	220
10.7	Merging Databases.....	226
10.7.1	Introduction to Merge.....	226
10.7.2	The GUID.....	227
10.7.3	The Merge Concept.....	227
10.7.4	Making a Merge.....	229
10.8	Administration Reports.....	234
10.9	The ARIS Admintool.....	234
<b>Chapter 11</b>	<b>User Administration.....</b>	<b>237</b>
11.1	Introduction to User Administration.....	237
11.1.1	The Need for User Administration.....	237
11.1.2	System Account.....	238
11.1.3	Strategy for User Management.....	238
11.1.4	Undertaking User Administration.....	240
11.2	Create New User Account.....	240
11.2.1	Create User.....	241
11.2.2	User Group Association.....	242
11.2.3	Identifier.....	243
11.2.4	Function Privileges.....	245
11.2.5	Method Filter.....	246

---

11.2.6	Confirm Input.....	246
11.2.7	User Attributes .....	247
11.2.8	Editing User Accounts .....	247
11.2.9	User Account Properties.....	248
11.2.10	Logging in as a User .....	249
11.3	Create New User Group.....	250
11.3.1	Create User Group.....	250
11.3.2	User Association .....	251
11.3.3	User Group Attributes .....	251
11.3.4	User Group Properties.....	252
11.4	Merging Users.....	252
11.5	Database Access Control .....	253
11.5.1	Introduction to Access Control.....	253
11.5.2	User and User Group Access Privileges.....	254
11.5.3	Group Access Privileges .....	257
11.6	User Administration Reports .....	259
11.7	Lightweight Directory Access Protocol (LDAP).....	259
<b>Chapter 12</b>	<b>Configuring the ARIS Method.....</b>	<b>261</b>
12.1	ARIS Configuration.....	261
12.1.1	Method .....	262
12.1.2	Conventions.....	263
12.1.3	Using ARIS Configuration.....	263
12.2	The Principles of Configuring ARIS.....	264
12.2.1	Introduction .....	264
12.2.2	The ARIS Method.....	265
12.2.3	The ARIS House .....	266
12.2.4	Why Not Just Use the Entire Method?.....	267
12.2.5	Things to Consider .....	268
12.2.6	Choosing Models, Objects and Relationships .....	270
12.2.7	A Reference Model .....	271
12.3	Configuring the Method.....	273
12.3.1	Introduction to Configuring the Method .....	273
12.3.2	Renaming Attribute Type Groups .....	273
12.3.3	Renaming Attributes .....	275
12.3.4	Allocating Attributes to Attribute Type Groups.....	276
12.3.5	Renaming Attribute Units .....	277
12.3.6	Renaming User Attributes .....	278
12.3.7	Renaming Connection Types .....	279
12.3.8	Renaming Model Types .....	281
12.3.9	Creating Derived Model Types .....	281
12.3.10	Renaming Object Types .....	283
12.3.11	Renaming Symbols .....	283
12.3.12	Creating User-defined Symbols .....	284
12.3.13	Saving Method Changes.....	285

<b>Chapter 13</b>	<b>The Symbol Editor .....</b>	<b>287</b>
13.1	Introduction.....	287
13.2	The Drawing Window .....	288
13.2.1	Scaling the Symbol View.....	288
13.2.2	The Overview Window .....	289
13.2.3	Window Properties.....	290
13.3	The Graphic Symbols Bar.....	290
13.3.1	Adding ARIS Symbols to the Graphic Symbols Bar .....	291
13.3.2	Removing a Symbol from the Graphic Symbols Bar.....	291
13.4	Creating a Symbol .....	292
13.4.1	Using Existing Symbols.....	292
13.4.2	Inserting Shapes .....	292
13.4.3	Inserting the Name Attribute.....	293
13.4.4	Inserting Text.....	294
13.4.5	Importing a Graphic File.....	294
13.4.6	Setting the Display Order.....	294
13.4.7	Aligning Shapes .....	295
13.4.8	Saving and Resizing a Symbol.....	295
13.4.9	Exporting a Symbol .....	296
13.4.10	Undo and Redo.....	296
13.5	Symbol Appearance Properties.....	297
13.5.1	Colours.....	297
13.5.2	Scaling.....	298
13.5.3	Rotation.....	300
13.5.4	Circular Arc .....	300
13.5.5	Rectangle.....	300
13.5.6	Text Properties .....	301
13.6	Using the New Symbol.....	302
<b>Chapter 14</b>	<b>Method Filters and Evaluation Filters .....</b>	<b>303</b>
14.1	The Importance of Method Filters .....	303
14.1.1	Evaluation Filters .....	303
14.1.2	Languages .....	304
14.2	Creating and Editing Filters.....	304
14.2.1	Create Filter .....	304
14.2.2	Edit Filter .....	305
14.2.3	Select Creation Mode.....	305
14.2.4	Create Filter .....	306
14.2.5	Select Model Types.....	308
14.2.6	Select Object Types .....	308
14.2.7	Select Connection Types.....	308
14.2.8	Select Symbols.....	310
14.2.9	Assign Connection Types .....	311
14.2.10	Select Assignments .....	313
14.2.11	Select Model Attributes.....	314
14.2.12	Select Object Attributes .....	315



---

14.2.13	Select Connection Attributes.....	316
14.2.14	Select Attribute Order .....	316
14.2.15	Select Symbol Order .....	317
14.3	Creating a Filter from a Database .....	318
14.3.1	Creating Reference Models.....	319
14.3.2	Attribute Selections .....	322
14.3.3	Symbol and Attribute Order .....	324
14.3.4	Creating the Filter from the Reference Models.....	325
14.4	Merging Filters.....	325
14.5	Applying Filters .....	326
14.6	Exporting and Importing Filters.....	327
14.6.1	Exporting a Filter .....	327
14.6.2	Importing a Filter .....	327
14.6.3	Method Configuration .....	328
<b>Chapter 15</b>	<b>Defining and Using Templates .....</b>	<b>331</b>
15.1	Introduction to Templates .....	331
15.2	Fonts and Languages.....	332
15.3	Creating a New Template .....	333
15.3.1	Create Template .....	334
15.3.2	Select Symbols .....	336
15.3.3	Select Symbol Appearance.....	336
15.3.4	Place Symbol Attributes.....	338
15.3.5	Select Connection Types .....	341
15.3.6	Select Connection Appearance.....	342
15.3.7	Place Connection Attributes.....	344
15.3.8	Select Model Background .....	346
15.4	Editing Templates .....	346
15.5	Exporting and Importing Templates .....	347
15.5.1	Exporting a Template .....	347
15.5.2	Importing a Template .....	347
15.6	Applying Templates.....	347
15.6.1	Applying a Template to a Model.....	348
15.6.2	Applying a Template to Objects and Connections .....	349
15.6.3	Setting the Current Model Template .....	349
15.6.4	Setting the Default Model Template .....	350
15.6.5	Effect of Templates .....	352
15.6.6	Special Templates .....	353

---

<b>Chapter 16 Administration Reports.....</b>	<b>355</b>
16.1 Introduction.....	355
16.2 Copying Users and User Groups Report.....	356
16.3 Database Information Report.....	357
16.4 Replace Font Formats Report .....	359
16.5 Replace Object Types Report .....	359
16.6 Replace Symbol Types Report.....	364
16.7 Consolidate Objects Report .....	366
16.8 Output Group Information Report .....	368
16.9 Replace Text Attributes Report .....	369
16.10 Transfer Groups and Users Report.....	372
16.11 Format Models Report.....	373
<b>Chapter 17 Model Verification .....</b>	<b>375</b>
17.1 Why Verify? .....	375
17.2 What Should be Verified?.....	375
17.2.1 Checks on Individual Models.....	376
17.2.2 Checks on the Database .....	376
17.2.3 Checks on Multiple Models .....	377
17.2.4 Checks on Model Structure and Linking.....	377
17.3 Tools for Verification .....	377
17.3.1 Animation .....	377
17.3.2 Compare.....	377
17.3.3 Find Objects with Identical Names .....	379
17.3.4 Consolidate .....	379
17.3.5 GUID and Identifiers.....	379
17.3.6 Object Occurrences .....	380
17.3.7 Semantic Checks .....	382
17.3.8 ARIS Reports.....	383
17.3.9 ARIS Macros.....	383
17.4 Verification Checks .....	384
17.4.1 Checks on Individual Models.....	384
17.4.2 Checks Across the Database .....	387
17.4.3 Checks on Multiple Models .....	390
17.4.4 Checks on Model Structure and Linking.....	392
<b>Appendix A ARIS Admintool Commands .....</b>	<b>393</b>
<b>Glossary.....</b>	<b>397</b>
<b>Subject Index .....</b>	<b>399</b>