SeeBeyond™ eBusiness Integration Suite

e*Xchange Partner Manager User's Guide

Release 4.5.2

SeeBeyond Proprietary and Confidential

The information contained in this document is subject to change and is updated periodically to reflect changes to the applicable software. Although every effort has been made to ensure the accuracy of this document, SeeBeyond Technology Corporation (SeeBeyond) assumes no responsibility for any errors that may appear herein. The software described in this document is furnished under a License Agreement and may be used or copied only in accordance with the terms of such License Agreement. Printing, copying, or reproducing this document in any fashion is prohibited except in accordance with the License Agreement. The contents of this document are designated as being confidential and proprietary; are considered to be trade secrets of SeeBeyond; and may be used only in accordance with the License Agreement, as protected and enforceable by law. SeeBeyond assumes no responsibility for the use or reliability of its software on platforms that are not supported by SeeBeyond.

e*Gate, e*Insight, e*Way, e*Xchange, e*Xpressway, eBI, iBridge, Intelligent Bridge, IQ, SeeBeyond, and the SeeBeyond logo are trademarks and service marks of SeeBeyond Technology Corporation. All other brands or product names are trademarks of their respective companies.

© 1999–2002 by SeeBeyond Technology Corporation. All Rights Reserved. This work is protected as an unpublished work under the copyright laws.

This work is confidential and proprietary information of SeeBeyond and must be maintained in strict confidence.

Version 20020213111200.

Contents

List of Tables 14

List of Figures 18

Chapter 1

Introduction 24

Intended Audience 24

Compatible Systems 24

Organization of Information 25

Writing Conventions 27

Supporting Documents 28

SeeBeyond eBusiness Integration Suite 29

SeeBeyond eBusiness Integration Suite Components 29

eBusiness Integration Solutions 30

e*Gate Integrator Components 31

Introducing e*Xchange Partner Manager 32

Introducing eSecurity Manager 33

Where the eSM fits into e*Xchange 34

Features 34

Sending and Receiving a Digitally Signed Message 35

eSM Outbound Event Processing Overview 35

eSM Inbound Event Processing Overview 38

For More Information on eSecurity Manager 40

Chapter 2

Web Interface: Overview and Administration 41

Supported Browsers 42

User Permissions: An Overview 42

Logging In to the e*Xchange Partner Manager Web Interface 43

Logging In for the First Time 44

System Administration 48

System Defaults 49
Code Tables 53
Connections 56
User Administration 63
Working With Users 65
Working With Groups 69
Changing Your Password 72
Editing the epm.std File 73
Extending the Session Inactivity Setting 76

Chapter 3
Web Interface: Security 77

Chapter 4
Web Interface: Profile Management 80
Profile Management 80
Supported Communications Protocols 81
Setting Up Company Information 82
Setting Up Trading Partner Information 88
Setting Up B2B Protocol Information 96
Copying Components 111
Setting Up Message Profile Information 112

Chapter 5
Web Interface: Profile Setup for X12 113
Setting Up X12 Message Profile Information 113
Setup Sequence 113
Setting Up a Message Profile 113

Chapter 6
Web Interface: Profile Setup for UN/EDIFACT 129
Setting Up UN/EDIFACT Message Profile Information 129
Setup Sequence 129
Setting Up a Message Profile 129
UN/EDIFACT Message Profile Parameter Values 139
Version 3 Batch 139

Version 4 Batch 145
Version 4 Interactive 152

Chapter 7
Web Interface: Profile Setup for RosettaNet 159
Setting Up RosettaNet Message Profile Information 159
Setup Sequence 159
Setting Up a Message Profile 159
RosettaNet Message Profile Parameter Values 169
RNIF 1.1 169
RNIF 2.0 172
Debug Mode in RosettaNet 2.0 176

Chapter 8
Web Interface: Profile Setup for CIDX 177
Setting Up CIDX Message Profile Information 177
Setup Sequence 177
Setting Up a Message Profile 177
CIDX Message Profile Parameter Values 185

Chapter 9
Web Interface: Message Tracking 190
Using the Message Tracking Feature 190
Entering General Search Criteria 191
Choosing the Messages to View 192
Viewing the Message Details 193
Resending a Message 198
Reviewing Message Access (Audit Feature) 200
Viewing Access Via Enveloped Message ID 204

Chapter 10
e*Xchange Repository Manager 206
Logging In to the e*Xchange Repository Manager 206
Export/Import from the e*Xchange Repository Manager 207
Running the Export Feature 208
Before Importing 209
Running the Import Feature 210
Archive/De-Archive from the e*Xchange Repository Manager 211

Changes to Settings During Archiving 212
Changes to Logging and Constraints 212
Restoring the Settings 213
Running the Archive Feature 214
Running the De-Archive Feature 217

Chapter 11
Getting Started With e*Xchange Client for Windows 219
Logging In to e*Xchange Client for Windows 219
Using e*Xchange Client for Windows 221
e*Xchange Client for Windows Workspace 221
e*Xchange Client for Windows Menus 222
File Menu 222
Edit Menu 223
Options Menu 223
Actions Menu 226
Functions Menu 226
Window Menu 227
Help Menu 227
e*Xchange Client for Windows Toolbars 227
Primary Toolbar 228
Function Toolbar 229
Using the Left Pane of e*Xchange Client for Windows 231
The e*Xchange Client for Windows Properties Editor 232
Working With e*Xchange Client for Windows Properties 233
General Tab 233
Extended Tab 234
Contacts Tab 235
Comments Tab 236
Security Tab 238
Understanding the Status Bar 238
User Preferences 239

Chapter 12
e*Xchange Client for Windows Administration 241
Validation Collaboration Setup 241
Archive/De-Archive 243
Changes to Settings During Archiving 244
Changes to Logging and Constraints 244
Restoring the Settings 245
Running the Archive Feature 245
Import/Export 250
Partner Manager Envelope Setup 255
Working With Inner Envelope Definitions 257

Creating Inner Envelope Definitions 258
Working With Message Tracking Attributes 262
Creating and Editing Message Tracking Attributes 262
Working With Field Lists 264
Creating and Editing Code Table Values 264
Working With System Defaults 266
Working With the Error Table 269
Pre-Set Error Codes 270
Attribute Value Maintenance 274

Chapter 13
Storing Contact Data in e*Xchange Client for Windows 278
About the Contacts Feature 278
Working With Contacts 279
Adding Contacts to a New Component 279
Adding Contacts to an Existing Component 281
Changing Contact Information 282
Deleting Contact Information 282
Copying Contacts 283

Chapter 14
Tracking Notes and Action Items in e*Xchange Client for Windows 284
Working With Notes and Action Items 284
Entering Notes 285
Entering Action Items 286
Adding Notes to an Existing Component 287
Adding Action Items to an Existing Component 288
Changing Notes and Action Items 289
Converting Notes and Action Items 289
Deleting Notes and Action Items 290
Responding to Action Items 290

Chapter 15
Access Control in e*Xchange Client for Windows 293
What Are Access Control Permissions? 293
Working With Access Privileges 294
Specifying Access Privileges on a New Component 294
Granting Access Privileges to Additional Users or Groups 297
Expiring Access Privileges 297

Reinstating Access Privileges 299
Deleting Access Privileges 299
Cascading Access Rights 300

Chapter 16
Company and Trading Partner Components in e*Xchange Client for Windows 302
Trading Partner Profiles 302
Trading Partner Profile Components 303
Information Structure of Trading Partner Profile Components 305
Using the Company and Trading Partner Levels 306
Adding a Company 306
Entering General Information About the Company 307
Entering Company Extended Attributes (Optional) 309
Defining Contacts, Notes, Action Items, and User Security 310
Adding a Trading Partner 310
Entering General Information About the Trading Partner 312
(Optional) Entering Trading Partner Extended Attributes 314
Defining Contacts, Notes, Action Items, and User Security 314
Streamlining Your Setup: Copying Components 315
Drag-and-Drop Copying of Components 315
Copying Trading Partner Profile Components 317
Copying a Trading Partner 317
Copying Outer Envelope Characteristics 318
Copying Inner Envelope Characteristics 321
Deleting Components 322

Chapter 17
Setting Up X12 Outer and Inner Envelopes in e*Xchange Client for Windows 324
X12 Header and Trailer Segment Values 325
X12 Delimiters 327
Transfer Modes in X12 328
Fast Batch Settings 328
Communications Protocols for X12 328
Entering Envelope Properties 329
Extended Envelope Attributes for X12 330
Entering Outer Envelope Properties 330
Entering General Outer Envelope Characteristics 331
Entering Outer Envelope Extended Attributes 333

X12 Extended Attributes—Outer Envelope 334
Entering Transport Component Information 336
Defining Contacts, Notes, Action Items, and User Security 339
Entering Inner Envelope Properties 339
Entering General Inner Envelope Characteristics 340
Entering Inner Envelope Attribute Values 344
X12 Extended Attributes—Inner Envelope 345
Additional Extended Attributes for Batch Processing 346
Defining Contacts, Notes, Action Items, and User Security 347
Return Inner Envelopes 348
About Return Inner Envelopes 348
Entering Return Inner Envelope Information 348
HIPAA Transactions 350
Standard e*Xchange Format HIPAA ETD Files 351
Complete HIPAA Transaction ETDs 352
Translating from a Proprietary Format to HIPAA 353
Tracking Responses to 276 HIPAA Transactions 355
Modifying the Unique ID for 276 and 277 Transactions 355
Error Handling in X12 357

Chapter 18

Setting Up RosettaNet Outer and Inner Envelopes in e*Xchange Client for Windows 358

Communications Protocols for RosettaNet 358
HTTP and HTTPS 359
SMTP 359
Security in RosettaNet 359
Non-Repudiation 359
Digital Signatures (RNIF 1.1 and 2.0) 360
Encryption (RNIF 2.0 Only) 360
Encryption of Inbound Messages 360
Encryption of Outbound Messages 361
Entering Envelope Properties 361
Extended Envelope Attributes for RosettaNet 361
Defining Envelopes for All Conditions 362
Entering Outer Envelope Properties 362
Entering General Outer Envelope Characteristics 363
Entering Outer Envelope Extended Attributes 365
RosettaNet Attributes—Outer Envelope 367
Entering Transport Component Information 368
Entering Secure Data Transport Information 370
Defining Contacts, Notes, Action Items, and User Security 373
Entering Inner Envelope Properties 374
Entering General Inner Envelope Characteristics 374
Entering Inner Envelope Attribute Values 377

RosettaNet Extended Attributes—Inner Envelope 379
Entering Return Inner Envelope Information 383
About Return Inner Envelopes 385
Defining Contacts, Notes, Action Items, and User Security 385
RosettaNet Message Processing 386
RNIF 1.1 386
Inbound RNIF 1.1 Message Processing 386
Outbound RNIF 1.1 Message Processing 387
RNIF 2.0 387
Inbound RNIF 2.0 Message Processing 387
Outbound RNIF 2.0 Message Processing 388
Acknowledgment Monitoring 389
RNIF 1.1 389
RNIF 2.0 389
RosettaNet Error Handling 390
RNIF 1.1 390
Inbound RNIF 1.1 Error Handling 390
Outbound RNIF 1.1 Error Handling 391
RNIF 2.0 391
Inbound RNIF 2.0 Error Handling 391
Outbound RNIF 2.0 Error Handling 392

Chapter 19

Setting Up UN/EDIFACT Outer and Inner Envelopes in e*Xchange Client for Windows 393

UN/EDIFACT Enveloping Segment Values 393
UN/EDIFACT Delimiters 398
Inbound 398
Outbound 399
Default UN/EDIFACT Delimiters 399
Transfer Modes in UN/EDIFACT 399
Fast Batch Settings 400
Communications Protocols for UN/EDIFACT 400
Entering Envelope Properties 401
Entering Outer Envelope Properties 401
Entering General Outer Envelope Characteristics 402
Entering Outer Envelope Extended Attributes 404
Extended Envelope Attributes for UN/EDIFACT 405
UN/EDIFACT Extended Attributes—Outer Envelope 406
Entering Transport Component Information 408
Defining Contacts, Notes, Action Items, and User Security 411
Entering Inner Envelope Properties 411
Obtaining Information About Each Inner Envelope 412
Entering General Inner Envelope Characteristics 412

Entering Inner Envelope Attribute Values 416
UN/EDIFACT Extended Attributes—Inner Envelope 417
Defining Contacts, Notes, Action Items, and User Security 419
Return Inner Envelopes 420
About Return Inner Envelopes 420
Entering Return Inner Envelope Information 421

Chapter 20
Message Tracking in e*Xchange Client for Windows 423
Searching for Messages 424
Using the Message Tracking List 426
Viewing the Message Details 428
Specifying Sort Columns 431
Understanding the Message Information 432
Viewing Message Errors 436

Chapter 21
Maintaining/Using Reports in e*Xchange Client for Windows 439
Report Maintenance 439
Entering General Report Information 440
Defining Report Window Controls 442
Defining Selection Criteria Parameters 444
Sample Report Settings 449
Defining Contacts, Notes, Action Items, and User Security 450
Saving the Report Information 451
Testing a New Report 451
Using e*Xchange Client for Windows Reports 451
Default Reports 452
Trading Partner Reports 452
Outer Envelope Reports 452
Inner Envelope Reports 452
Viewing Reports 453
Splitting the Reports Window 455
Printing Reports 456
Saving Report Data 456
Sending Reports Through E-Mail 457

Appendix A
eBusiness Protocol Support 460
Sample Business Process 460
X12 460

RosettaNet Scenario 461
UN/EDIFACT 462
Sequence of Setup Actions 462
Setting up e*Xchange Client for Windows 463
Setting up e*Gate 463
Configuring the ePM e*Way 464
Running the Message 464
Extended Attributes 464
Extended Attributes for BizTalk 464

Appendix B
Troubleshooting 466
Troubleshooting the e*Xchange Repository Manager 466
Troubleshooting the e*Xchange Web Interface with DB2 UDB 466
Troubleshooting the e*Xchange Web Interface with Oracle 467
Troubleshooting Tips for All Database Types 469

Appendix C
Using the Validation Rules Builder 471
Overview 471
Validation Rules Builder Files 471
Limitations 473
Prerequisites for Running the Validation Rules Builder 474
Third-Party Implementation Guide Editors 474
Using the Validation Rules Builder 476
Creating Input Data Files 476
Verifying Processing Properties 476
Starting the Validation Rules Builder 483
Memory Errors 484
Using the Debug Flag 485
Verifying ETD and Collaboration Rules Files 485
Troubleshooting Tips 486
General Validation Rules Builder Error Messages 486
Validation Rules Builder Error Messages for UN/EDIFACT 488

Appendix D
e*Xchange Database Tables 490
e*Xchange Tables 490
ES_MTRK_INB 490

ES_MTRK_OUTB 492
ES_WAITING_ACK 494
ES_MTRK_ERROR 495
Diagram of Message Tracking Tables 497

Glossary 498

Index 506

List of Tables

Table 1	System Defaults - Viewing: Fields	51
Table 2	Code Tables: Fields	55
Table 3	Connections - Adding: Fields	58
Table 4	Users - Adding: Fields	66
Table 5	Groups - Adding: Fields	70
Table 6	Supported Communications Protocols	81
Table 7	Company - Adding, Editing, Copying: Fields	84
Table 8	Trading Partner - Adding, Editing, Copying: Fields	90
Table 9	B2B Protocol, General Section	102
Table 10	B2B Protocol, Transport Component Section	103
Table 11	B2B Protocol, Message Security Section (Outbound)	104
Table 12	B2B Protocol, Message Security Section (Inbound)	105
Table 13	Message Profile, General Section (X12): Fields	118
Table 14	Message Profile, Interchange Control Envelope Section (X12): Fields	120
Table 15	Message Profile, Functional Group Envelope Section (X12): Fields	122
Table 16	Message Profile, Transaction Set Section (X12): Fields	123
Table 17	Cross-References to UN/EDIFACT Parameter Values	135
Table 18	Message Profile, General Section (UN/EDIFACT 3B): Fields	140
Table 19	Message Profile, Interchange Control Envelope Section (UN/EDIFACT 3B): Fields	142
Table 20	Message Profile, Functional Group Envelope Section (UN/EDIFACT 3B): Fields	144
Table 21	Message Profile, Message Envelope Section (UN/EDIFACT 3B): Fields	145
Table 22	Message Profile, General Section (UN/EDIFACT 4B): Fields	145
Table 23	Message Profile, Interchange Control Envelope Section (UN/EDIFACT 4B): Fields	148
Table 24	Message Profile, Functional Group Envelope Section (UN/EDIFACT 4B): Fields	150
Table 25	Message Profile, Message Envelope Section (UN/EDIFACT 4B): Fields	151
Table 26	Message Profile, General Section (UN/EDIFACT 4I): Fields	153
Table 27	Message Profile, Interchange Control Envelope Section (UN/EDIFACT 4I): Fields	154
Table 28	Message Profile, Message Envelope Section (UN/EDIFACT 4I): Fields	157
Table 29	Message Profile, General Section (RNIF 1.1): Fields	169
Table 30	Message Profile, Preamble Section (RNIF 1.1): Fields	171
Table 31	Message Profile, Service Header Section (RNIF 1.1): Fields	171
Table 32	Message Profile, General Section (RNIF 2.0): Fields	172
Table 33	Message Profile, Delivery Header Section (RNIF 2.0): Fields	174
Table 34	Message Profile, Service Header Section (RNIF 2.0): Fields	175
Table 35	Message Profile, General Section (CIDX 2.0.1): Fields	186
Table 36	Message Profile, Preamble Section (CIDX 2.0.1): Fields	187

Table 37	Message Profile, Service Header Section (CIDX 2.0.1): Fields	187
Table 38	Review Message Access, Search Criteria: Fields	203
Table 39	Export/Import Manager, Export Tab	208
Table 40	Export/Import Manager, Import Tab	211
Table 41	Changes to e*Xchange Operation During Archiving	212
Table 42	Archive/De-Archive Manager, Archive Tab	215
Table 43	Archive/De-Archive Manager, De-Archive Tab	218
Table 44	e*Xchange Client for Windows Login Fields	220
Table 45	e*Xchange Client for Windows File Menu	222
Table 46	e*Xchange Client for Windows Edit Menu	223
Table 47	e*Xchange Client for Windows Options Menu	223
Table 48	e*Xchange Client for Windows Actions Menu	226
Table 49	e*Xchange Client for Windows Functions Menu	226
Table 50	e*Xchange Client for Windows Window Menu	227
Table 51	e*Xchange Client for Windows Help Menu	227
Table 52	e*Xchange Client for Windows Primary Toolbar	228
Table 53	e*Xchange Client for Windows Function Toolbar	229
Table 54	User Preferences	239
Table 55	Validation Collaboration Setup Fields	243
Table 56	Changes to e*Xchange Operation During Archiving	244
Table 57	Archive/De-Archive Manager, Configuration Tab	246
Table 58	Archive/De-Archive Manager, Archive Tab	248
Table 59	Archive/De-Archive Manager, De-Archive Tab	250
Table 60	Import/Export Manager, Configuration Tab	251
Table 61	Import/Export Manager, Export Tab	253
Table 62	Import/Export Manager, Import Tab	255
Table 63	Partner Manager Envelope Setup Fields	256
Table 64	Inner Envelope Definition Setup, General Tab, Fields	260
Table 65	Inner Envelope Definition Setup, Details Tab, Fields	261
Table 66	Message Tracking Attributes Setup Fields	263
Table 67	Code Tables Window	265
Table 68	System Default Fields	267
Table 69	Error Table Fields	270
Table 70	X12 AK403 (Data Element Syntax) Error Codes	271
Table 71	X12 AK905 (Functional Group Syntax) Error Codes	271
Table 72	X12 TA105 (Interchange Note) Error Codes	272
Table 73	RosettaNet Error Codes	273
Table 74	Additional Error Codes Used in e*Xchange	274
Table 75	Attribute Value Maintenance Fields	276
Table 76	Contacts Tab Fields	280
Table 77	Note and Action Item Fields	286
Table 78	My Action Items Fields	292
Table 79	Trading Partner Profile Access Permission Types	293

Table 80	Security Tab Fields	296
Table 81	General Company Fields	308
Table 82	Extended Attribute Fields	310
Table 83	General Trading Partner Fields	313
Table 84	Copy Outer Envelope Fields	319
Table 85	Copy Inner Envelope Fields	321
Table 86	Interchange Header and Footer Values (X12 Version 4010)	325
Table 87	Functional Group Header and Footer Values	326
Table 88	Transaction Set Header And Footer Values	327
Table 89	General Outer Envelope Characteristics (X12)	331
Table 90	Extended Attributes Stored at the Outer Envelope Level (X12 4010)	334
Table 91	Outer Envelope Transport Component Fields	337
Table 92	General Inner Envelope Characteristics	342
Table 93	Extended Attributes Stored at the Inner Envelope Level (X12 4010)	345
Table 94	Additional Extended Attributes for Batch Processing (Inner Envelope)	347
Table 95	HIPAA Transactions (May 1999) Provided with e*Xchange	351
Table 96	HIPAA Transactions (May 2000) Provided with e*Xchange	352
Table 97	Error Handling for X12 Messages	357
Table 98	General Outer Envelope Characteristics	364
Table 99	Default RNIF 1.1 Extended Attributes (Outer Envelope Layer)	367
Table 100	Default RNIF 2.0 Extended Attributes (Outer Envelope Layer)	368
Table 101	Outer Envelope Transport Component Fields	369
Table 102	Outer Envelope Secure Data Transport (Outbound) Fields	372
Table 103	Outer Envelope Secure Data Transport (Inbound) Fields	373
Table 104	General Inner Envelope Characteristics	376
Table 105	Default RNIF 1.1 Extended Attributes (Inner Envelope Layer)	379
Table 106	Default RNIF 2.0 Extended Attributes (Inner Envelope Layer)	381
Table 107	RNIF 2.0 Outbound Error Handling	392
Table 108	UN/EDIFACT Interchange Header and Footer Values	394
Table 109	UN/EDIFACT Group Header and Footer Values	395
Table 110	UN/EDIFACT Message Header And Footer Values	397
Table 111	UN/EDIFACT Default Delimiters	399
Table 112	General Outer Envelope Characteristics	403
Table 113	Outer Envelope Extended Attributes (UN/EDIFACT Version 4)	406
Table 114	Outer Envelope Transport Component Fields	409
Table 115	General Inner Envelope Characteristics	414
Table 116	Inner Envelope Extended Attributes (UN/EDIFACT, Version 4 Batch)	417
Table 117	Message Tracking Search Fields	425
Table 118	Message Tracking List Fields	427
Table 119	Message Tracking List Fields: Advanced Search Criteria	428
Table 120	Message Tracking Details Fields	429
Table 121	Message Tracking List Columns	433
Table 122	Message Tracking Details Columns	433

Table 123	Report Maintenance General Fields	441
Table 124	Report Maintenance Advanced Fields	443
Table 125	Report Maintenance Parameters Fields	445
Table 126	Export Dialog Box (Report) Fields	457
Table 127	E-mail Header Fields, Send Mail Dialog Box	459
Table 128	Default BizTalk Extended Attributes	465
Table 129	Validation Rules Builder Files	471
Table 130	ValidationBuilder.properties Parameters	479
Table 131	Validation Rules Builder Error Messages	486
Table 132	Sample UN/EDIFACT VRB Error String	488
Table 133	Validation Rules Builder Error Messages for UN/EDIFACT	489
Table 134	ES_MTRK_INB	490
Table 135	ES_MTRK_OUTB	492
Table 136	ES_WAITING_ACK	494
Table 137	ES_MTRK_ERROR	495

List of Figures

Figure 1	SeeBeyond eBusiness Integration Suite	30
Figure 2	e*Xchange Partner Manager	33
Figure 3	eSecurity Manager	34
Figure 4	eSM Outbound Event Processing	37
Figure 5	eSM Inbound Event Processing	39
Figure 6	e*Xchange Web Interface Login Page	44
Figure 7	Database Connection Information	45
Figure 8	Database Connection Information: Test Connection Result	46
Figure 9	Database Connection Information: Reset Login Result	47
Figure 10	e*Xchange Partner Manager Web Interface Main Page	48
Figure 11	System Administration Main Page	49
Figure 12	System Defaults - Viewing	50
Figure 13	System Defaults - Editing	51
Figure 14	Code Tables - Viewing	54
Figure 15	Code Tables - Adding	55
Figure 16	Code Tables - Editing	56
Figure 17	Connections - Viewing	57
Figure 18	Connections - Adding	58
Figure 19	Choose Database Type	59
Figure 20	Specify Database Information (Oracle)	59
Figure 21	Connections - Editing	61
Figure 22	Connections - Copying	62
Figure 23	User Administration Main Page	64
Figure 24	Users - Viewing	65
Figure 25	Users - Adding	66
Figure 26	Users - Viewing Page, Showing User Information	67
Figure 27	Users - Editing	68
Figure 28	Groups - Viewing	69
Figure 29	Groups - Adding	70
Figure 30	Groups - Editing	71
Figure 31	Change Password	73
Figure 32	Default Entries in epm.std File	74
Figure 33	Sample epm.std File	75
Figure 34	The web.xml File	76
Figure 35	Security Management Page	78
Figure 36	Add Access Permission Page	79

Figure 37	Company Page	82
Figure 38	Company - Adding	84
Figure 39	Company Page Showing Company Information	85
Figure 40	Company - Editing	86
Figure 41	Copy Type (Copying a Company)	86
Figure 42	Company - Copying	87
Figure 43	Trading Partner Page	89
Figure 44	Trading Partner - Adding	90
Figure 45	Trading Partner Page Showing Trading Partner Information	91
Figure 46	Trading Partner - Editing	92
Figure 47	Copy Type (Copying a Trading Partner)	93
Figure 48	Trading Partner - Copying	94
Figure 49	Copy Type (Copying a Trading Partner)	95
Figure 50	Copy Setup (Copying a Trading Partner to Another Company)	95
Figure 51	B2B Protocol Page	97
Figure 52	B2B Protocol - Adding	98
Figure 53	B2B Protocol - Adding (General section)	99
Figure 54	B2B Protocol - Adding (Transport Component section)	100
Figure 55	B2B Protocol - Adding (Message Security section) (outbound)	101
Figure 56	B2B Protocol - Editing (General page)	106
Figure 57	Copy Type (Copying a B2B Protocol)	107
Figure 58	B2B Protocol - Copying	108
Figure 59	B2B Protocol - Copying (General page)	109
Figure 60	Copy Type (Copying a B2B Protocol)	110
Figure 61	Copy Setup (Copying a B2B Protocol to Another Trading Partner)	110
Figure 62	Message Profile Page	114
Figure 63	Message Profile - Adding (General section) (X12)	115
Figure 64	Message Profile - Adding (Interchange Control Envelope section) (X12)	116
Figure 65	Message Profile - Adding (Functional Group Envelope section) (X12)	117
Figure 66	Message Profile - Adding (Transaction Set section) (X12)	118
Figure 67	Message Profile - Editing (General section) (X12)	124
Figure 68	Copy Type (Copying a Message Profile)	125
Figure 69	Message Profile - Copying (General section) (X12)	125
Figure 70	Copy Type (Copying a Message Profile)	126
Figure 71	Copy Setup (Copying a Message Profile to Another B2B Protocol)	127
Figure 72	Message Profile Page	130
Figure 73	Message Profile - Adding (General section) (UN/EDIFACT) (4B)	131
Figure 74	Message Profile - Adding (Interchange Control Envelope section) (UN/EDIFACT)	132
Figure 75	Message Profile - Adding (Functional Group Envelope section) (UN/EDIFACT)	133
Figure 76	Message Profile - Adding (Message Envelope section) (UN/EDIFACT)	134
Figure 77	Message Profile - Editing (General section) (UN/EDIFACT)	135
Figure 78	Copy Type (Copying a Message Profile)	136
Figure 79	Message Profile - Copying (General section) (UN/EDIFACT)	136

Figure 80	Copy Type (Copying a Message Profile)	138
Figure 81	Copy Setup (Copying a Message Profile to Another B2B Protocol)	138
Figure 82	Message Profile Page	160
Figure 83	Message Profile - Adding (General section) (RosettaNet) (1.1)	161
Figure 84	Message Profile - Adding (Preamble section) (RNIF 1.1)	162
Figure 85	Message Profile - Adding (Delivery Header section) (RNIF 2.0)	163
Figure 86	Message Profile - Adding (Service Header section) (RNIF 2.0)	164
Figure 87	Message Profile - Editing (General) (RosettaNet) (2.0)	165
Figure 88	Copy Type (Copying a Message Profile)	166
Figure 89	Message Profile - Copying (General) (RosettaNet)	166
Figure 90	Copy Type (Copying a Message Profile)	167
Figure 91	Copy Setup (Copying a Message Profile to Another B2B Protocol)	168
Figure 92	Message Profile Page	178
Figure 93	Message Profile - Adding (General section) (CIDX)	179
Figure 94	Message Profile - Adding (Preamble section) (CIDX 2.0.1)	180
Figure 95	Message Profile - Adding (Service Header section) (CIDX 2.0.1)	181
Figure 96	Message Profile - Editing (General) (CIDX)	182
Figure 97	Copy Type (Copying a Message Profile)	183
Figure 98	Message Profile - Copying (General) (CIDX)	183
Figure 99	Copy Type (Copying a Message Profile)	184
Figure 100	Copy Setup (Copying a Message Profile to Another B2B Protocol)	184
Figure 101	TP Profile Selection	191
Figure 102	Message Profile Selection	192
Figure 103	Message Details	193
Figure 104	Message Tracking: Specify Sort Columns Page	194
Figure 105	Changing the Display on the Message Tracking Details Page	194
Figure 106	Message Tracking: “View Error Data” Window	195
Figure 107	Message Tracking: “View Raw Message” Window	195
Figure 108	Message Tracking: “View Original Message” Window	196
Figure 109	Message Tracking: “View Enveloped Message” Window	196
Figure 110	Message Tracking: “View Acknowledgment Message” Window	197
Figure 111	Message Tracking: “View Extended Attributes” Window	197
Figure 112	Message Tracking: “View Original Message” Window with Resend	199
Figure 113	Message Tracking: Resend Verification Message	200
Figure 114	Review Message Access: Search Criteria	201
Figure 115	Review Message Access: Results	202
Figure 116	Sample List Sorted by Timestamp, Ascending Order	202
Figure 117	Sample List Sorted by Timestamp, Descending Order	203
Figure 118	e*Xchange Repository Manager	207
Figure 119	Export/Import Manager, Export Tab	208
Figure 120	Export/Import Manager, Import Tab	210
Figure 121	Archive/De-Archive Manager, Archive Tab	215
Figure 122	Archive/De-Archive Manager, De-Archive Tab	218

Figure 123 e*Xchange Client for Windows Login 220
Figure 124 e*Xchange Client for Windows Workspace 221
Figure 125 e*Xchange Client for Windows Toolbars 228
Figure 126 Navigation Section of e*Xchange Client for Windows 231
Figure 127 e*Xchange Client for Windows Properties Editor 232
Figure 128 Company Properties, General Tab 233
Figure 129 Company Properties, Extended Tab 234
Figure 130 Company Properties, Contacts Tab 235
Figure 131 Company Properties, Comments Tab (Notes) 236
Figure 132 Company Properties, Comments Tab (Action Items) 237
Figure 133 Company Properties, Security Tab 238
Figure 134 e*Xchange Client for Windows Status Bar 238
Figure 135 User Preferences 239
Figure 136 Running e*Xchange Client for Windows in Debug Mode 240
Figure 137 Validation Collaboration Setup 242
Figure 138 Archive/De-Archive Manager, Configuration Tab (Oracle) 246
Figure 139 Archive/De-Archive Manager, Archive Tab 247
Figure 140 Archive/De-Archive Manager, De-Archive Tab 249
Figure 141 Import/Export Manager, Configuration Tab 251
Figure 142 Import/Export Manager, Export Tab 252
Figure 143 Import/Export Manager, Import Tab 254
Figure 144 Partner Manager Envelope Setup (Changing Default Attributes) 256
Figure 145 Inner Envelope Definition Setup, General Tab 260
Figure 146 Inner Envelope Definition Setup, Details Tab 261
Figure 147 Message Tracking Attributes Setup 263
Figure 148 Code Tables Window 265
Figure 149 System Defaults 267
Figure 150 Error Table 270
Figure 151 Attribute Value Maintenance 276
Figure 152 Contacts Tab 280
Figure 153 Trading Partner Properties, Contacts Tab (Adding a Contact) 281
Figure 154 Copy Contacts Prompt 283
Figure 155 New Company, Comments Tab (Notes) 285
Figure 156 New Trading Partner, Comments Tab (Action Items) 287
Figure 157 Trading Partner Properties, Comments Tab (Changing a Note or Action Item) 288
Figure 158 My Action Items 292
Figure 159 Access Control List 295
Figure 160 Security Tab 296
Figure 161 Select a Date 298
Figure 162 Select Groups/Users 300
Figure 163 Access Control List 300
Figure 164 Cascade Changes to Access Rights 301
Figure 165 New Company, General Tab 308

Figure 166	New Company, Extended Tab (example)	309
Figure 167	New Trading Partner, General Tab	313
Figure 168	New Trading Partner, Extended Tab (example)	314
Figure 169	Copy Cascade	316
Figure 170	Copy Trading Partner	317
Figure 171	Copy Outer Envelope	319
Figure 172	Copy Outer Envelope Detail, Extended Tab	320
Figure 173	Copy Outer Envelope Detail, Secure Data Transport Tab	320
Figure 174	Copy Inner Envelope	321
Figure 175	Copy Inner Envelope - Extended	322
Figure 176	Delete Statistics	323
Figure 177	New Outer Envelope, General Tab (X12)	331
Figure 178	New Outer Envelope, Extended Tab (X12)	334
Figure 179	New Outer Envelope, Transport Component Tab	337
Figure 180	Transaction Sets (X12)	341
Figure 181	New Inner Envelope, General Tab	342
Figure 182	New Inner Envelope, Extended Tab (X12)	345
Figure 183	New Inner Envelope, Return Inner Envelope Tab	349
Figure 184	HIPAA Transactions tsc File Shown in Text Editor	354
Figure 185	Translation Structure Name in .ssc File	355
Figure 186	Segments Used for Unique ID in HIPAA 276 and 277 Transactions	356
Figure 187	New Outer Envelope, General Tab (RosettaNet)	364
Figure 188	New Outer Envelope, Extended Tab (RNIF 1.1)	366
Figure 189	New Outer Envelope, Extended Tab (RNIF 2.0)	367
Figure 190	New Outer Envelope, Transport Component Tab	369
Figure 191	Decryption Key	371
Figure 192	New Outer Envelope, Secure Data Transport Tab (Outbound)	371
Figure 193	New Outer Envelope, Secure Data Transport Tab (Inbound)	373
Figure 194	Transaction Sets (RosettaNet)	375
Figure 195	New Inner Envelope, General Tab (RosettaNet)	376
Figure 196	New Inner Envelope, Extended Tab (RNIF 1.1)	378
Figure 197	New Inner Envelope, Extended Tab (RNIF 2.0)	378
Figure 198	New Inner Envelope, Return Inner Envelope Tab	384
Figure 199	New Outer Envelope, General Tab (UN/EDIFACT)	402
Figure 200	New Outer Envelope, Extended Tab (UN/EDIFACT)	405
Figure 201	New Outer Envelope, Transport Component Tab	409
Figure 202	Transaction Sets (UN/EDIFACT)	413
Figure 203	New Inner Envelope, General Tab	414
Figure 204	New Inner Envelope, Extended Tab (UN/EDIFACT)	416
Figure 205	New Inner Envelope, Return Inner Envelope Tab	421
Figure 206	Message Tracking, Search Tab	425
Figure 207	Message Tracking, List Tab (Outbound)	427
Figure 208	Message Tracking Dialog, Details Tab (Outbound)	429

Figure 209	Splitting the Message Tracking Details Window	431
Figure 210	Specify Sort Columns	432
Figure 211	Using the Specify Sort Columns Dialog Box	432
Figure 212	Example of an X12 Unique ID	435
Figure 213	Example of a RosettaNet Unique ID	435
Figure 214	Example of a UN/EDIFACT Unique ID	435
Figure 215	Message Tracking Details Error List	436
Figure 216	Message Tracking Details Extended Attributes List	436
Figure 217	Original Message View (RosettaNet)	437
Figure 218	Original Message View (X12)	438
Figure 219	Original Message View (UN/EDIFACT)	438
Figure 220	Report Maintenance, General Page	441
Figure 221	Report Maintenance Advanced Fields	442
Figure 222	Report Window Tools	444
Figure 223	Report Maintenance, Parameters Page	445
Figure 224	Sample Report Selection	447
Figure 225	Lookup Screen	448
Figure 226	Sample Report Settings: Report Maintenance	449
Figure 227	Sample Report Setting: Results	450
Figure 228	Reports Dialog Box	453
Figure 229	Report Sample	454
Figure 230	Report Window Tools	455
Figure 231	Splitting the Display in the Reports Dialog Box	456
Figure 232	Export	457
Figure 233	Send Mail	458
Figure 234	Sample Order/Fulfillment Process: X12	461
Figure 235	Pricing/Availability Request & Response: RosettaNet	462
Figure 236	Purchase Order Message and Response: UN/EDIFACT	462
Figure 237	Error 500 in Message Tracking	467
Figure 238	Classes12.zip missing from classpath: Logon Error	468
Figure 239	Classes12.zip missing from classpath: Tomcat Error	468
Figure 240	Tools.jar Missing from classpath	469
Figure 241	Default Port Is In Use (Tomcat Window)	470
Figure 242	Implementation Guide Open in Third-Party Tool	475
Figure 243	ValidationBuilder.properties Default File After Installation	478
Figure 244	Customized ValidationBuilder.properties File	478
Figure 245	Running the Validation Rules Builder	484
Figure 246	Sample Output Files	484
Figure 247	Using the Validation Rules Builder Additional Memory Parameters	485
Figure 248	e*Xchange Database Structure	497

Chapter 1

Introduction

This user's guide provides instructions and background information for all users of the e*Xchange Partner Manager application. It covers setting up and maintaining information, and performing various other activities, in the following GUI applications:

- e*Xchange Web Interface
- e*Xchange Repository Manager
- e*Xchange Client for Windows

For information on implementation of e*Xchange projects, and setting up e*Gate components to create a running e*Xchange schema, refer to the *e*Xchange Partner Manager Implementation Guide*.

1.1 Intended Audience

This book assumes the reader is familiar with the Microsoft Windows operating system and standard graphical user interface (GUI) concepts. It also assumes familiarity with the eBusiness protocols used by your company and your trading partners.

Some parts of the book are for all users, and some parts are intended only for the administrator or other person who will be performing certain setup procedures. A user with restricted security rights cannot access certain parts of the user interface. However, this book covers setup and use of all the user interfaces associated with e*Xchange, and provides procedures for all users.

1.2 Compatible Systems

Windows Systems—The SeeBeyond™ eBusiness Integration Suite is fully compliant with Windows NT and Windows 2000 platforms. When this document references Windows, such statements apply to both Windows platforms.

UNIX Systems—This guide uses the backslash ("\") as the separator within path names. If you are working on a UNIX system, please make the appropriate substitutions.

Note: *For a full list of supported operating systems, refer to the* ***e*Xchange Partner Manager Installation Guide****.*

1.3 Organization of Information

The e*Xchange™ Partner Manager User's Guide includes the following information:

Chapter	Contents
List of Tables	A complete list of all the tables in the *e*Xchange Partner Manager User's Guide*.
List of Figures	A complete list of all the figures (illustrations and diagrams) in the *e*Xchange Partner Manager User's Guide*.
Chapter 1, Introduction	Introduction to the various applications included in the SeeBeyond eBusiness Integration Suite and the components of each.
Chapter 2, Web Interface: Overview and Administration	Instructions for logging in to the e*Xchange Partner Manager Web interface and for using the System Administration and User Administration functions.
Chapter 3, Web Interface: Profile Management	Instructions for setting up and working with trading partner profiles in the e*Xchange Partner Manager Web interface (other than the protocol-specific Message Profile level).
Chapter 4, Web Interface: Security	Instructions on setting security for trading partner profiles in the e*Xchange Partner Manager Web Interface.
Chapter 5, Web Interface: Profile Setup for X12	Instructions on setting up X12 message profiles in the e*Xchange Partner Manager Web Interface.
Chapter 6, Web Interface: Profile Setup for UN/EDIFACT	Instructions on setting up UN/EDIFACT message profiles in the e*Xchange Partner Manager Web Interface.
Chapter 7, Web Interface: Profile Setup for RosettaNet	Instructions on setting up RosettaNet message profiles in the e*Xchange Partner Manager Web Interface.
Chapter 8, Web Interface: Profile Setup for CIDX	Instructions on setting up CIDX message profiles in the e*Xchange Partner Manager Web Interface.
Chapter 9, Web Interface: Message Tracking	Instructions for using the Message Tracking features of the Web interface.
Chapter 10, e*Xchange Repository Manager	Instructions for using the new e*Xchange Repository Manager user interface.

Chapter	Contents
Chapter 11, Getting Started With e*Xchange Client for Windows	Instructions for logging in to e*Xchange Client for Windows. Overview of the user interface including menus, toolbars, icons, properties windows, the status bar, and user preference settings.
Chapter 12, e*Xchange Client for Windows Administration	Instructions for completing various administrator functions such as Partner Manager Envelope Setup and Inner Envelope Definition Setup in e*Xchange Client for Windows. Instructions for setting system defaults.
Chapter 13, Storing Contact Information in e*Xchange Client for Windows	Instructions for creating and maintaining contact information at all levels in e*Xchange Client for Windows.
Chapter 14, Tracking Notes and Action Items in e*Xchange Client for Windows	Instructions for creating and maintaining notes and action items at all levels in e*Xchange Client for Windows.
Chapter 15, Access Control in e*Xchange Client for Windows	Instructions for specifying which users and user groups will have access to components and tailoring the access rights that they will have in e*Xchange Client for Windows.
Chapter 16, Company and Trading Partner Components in e*Xchange Client for Windows	Instructions for setting up the Company and Trading Partner component levels in e*Xchange Client for Windows.
Chapter 17, Setting Up X12 Outer and Inner Envelopes in e*Xchange Client for Windows	Instructions for setting up the extended attributes and other information necessary for processing X12 transactions in e*Xchange Client for Windows.
Chapter 18, Setting Up RosettaNet Outer and Inner Envelopes in e*Xchange Client for Windows	Instructions for setting up the extended attributes and other information necessary for processing RosettaNet message structures in e*Xchange Client for Windows.
Chapter 19, Setting Up UN/EDIFACT Outer and Inner Envelopes in e*Xchange Client for Windows	Instructions for setting up the extended attributes and other information necessary for processing UN/EDIFACT transactions in e*Xchange Client for Windows.
Chapter 20, Message Tracking in e*Xchange Client for Windows	Detailed instructions for using the **Message Tracking** dialog box in e*Xchange Client for Windows.
Chapter 21, Maintaining/Using Reports in e*Xchange Client for Windows	Instructions for using the reports feature in e*Xchange Client for Windows.
Appendix A, eBusiness Protocol Support	Information on how eBusiness protocols are supported by e*Xchange, including the extended attributes and Collaborations provided to support these protocols.

Chapter	Contents
Appendix B, Troubleshooting	provides information on resolving problems that might occur when running the e*Xchange Web interface or e*Xchange Repository Manager graphical user interfaces.
Appendix C, Using the Validation Rules Builder	An overview of the Validation Rules Builder command-line tool, instructions on converting EDI implementation guides and loading them into e*Gate™, and troubleshooting information.
Appendix D, e*Xchange Partner Manager Database Tables	An explanation of the e*Xchange message tracking database tables, with information on each column in each table.
Glossary	Definitions of technical terms specific to the e*Xchange Partner Manager, as well as some industry terms.
Index	An index to the guide.

1.4 Writing Conventions

The writing conventions listed in this section are observed throughout this document.

Hypertext Links

When you are using this guide online, cross-references are also hypertext links and appear in **blue text** as shown below. Click the **blue text** to jump to the section.

> For information on these and related topics, see **"Parameter, Function, and Command Names" on page 28**.

Command Line

Text to be typed at the command line is displayed in a special font as shown below.

```
java -jar ValidationBuilder.jar
```

Variables within a command line are set in the same font and bold italic as shown below.

```
stcregutil -rh host-name -rs schema-name -un user-name
-up password -ef output-directory
```

Code and Samples

Computer code and samples (including printouts) on a separate line or lines are set in Courier as shown below.

```
Configuration for BOB_Promotion
```

However, when these elements (or portions of them) or variables representing several possible elements appear within ordinary text, they are set in *italics* as shown below.

> *path* and *file-name* are the path and file name specified as arguments to **-fr** in the **stcregutil** command line.

Notes and Cautions

Points of particular interest or significance to the reader are introduced with ***Note***, ***Caution***, or ***Important***, and the text is displayed in *italics*, for example:

Note: *The Actions menu is only available when a Properties window is displayed.*

User Input

The names of items in the user interface such as icons or buttons that you click or select appear in **bold** as shown below.

Click **Apply** to save, or **OK** to save and close.

File Names and Paths

When names of files are given in the text, they appear in **bold** as shown below.

Use a text editor to open the **ValidationBuilder.properties** file.

When file paths and drive designations are used, with or without the file name, they appear in **bold** as shown below.

In the **Open** field, type **D:\setup\setup.exe** where **D:** is your CD-ROM drive.

Parameter, Function, and Command Names

When names of parameters, functions, and commands are given in the body of the text, they appear in **bold** as follows:

The default parameter **localhost** is normally only used for testing.

The Monk function **iq-put** places an Event into an IQ.

You can use the **stccb** utility to start the Control Broker.

1.5 Supporting Documents

The following documents support the e*Xchange Partner Manager. You can find these documents in the **\eGate\client\docs** folder for your e*Gate installation, or on the **\docs** folder on the installation CD.

- *e*Xchange Partner Manager Release Notes*
- *e*Xchange Partner Manager Installation Guide*
- *e*Xchange Partner Manager Implementation Guide*
- *RosettaNet ETD Library User's Guide*
- *ASC X12 ETD Library User's Guide*
- *UN/EDIFACT ETD Library User's Guide*
- *CIDX ETD Library User's Guide*
- *HIPAA ETD Library User's Guide*
- *Secure Messaging Extension User's Guide* (Monk version

1.6 SeeBeyond eBusiness Integration Suite

This section provides an overview of the SeeBeyond eBusiness Integration Suite and its parts. It also provides a detailed overview of the e*Xchange Partner Manager and eSecurity Manager components.

One of the biggest challenges today in conducting eBusiness is dealing with complex and dynamic partner relationships and coordinating control of the various activities participating in the eBusiness process. Both organizations and their trading partners are faced with the problem of managing disparate component applications and aligning proprietary software requirements. In addition, organizations and their trading partners must agree on data exchange and security standards.

The SeeBeyond eBusiness Integration Suite merges traditional Enterprise Application Integration (EAI) and Business-to-Business (B2B) interactions into a multi-enterprise eBusiness Integration (eBI) product suite. This suite allows you to:

- leverage your existing technology and applications
- create an eApplication consisting of component applications that are managed by your organization or your trading partners
- rapidly execute eBusiness strategies
- create and manage virtual organizations across the entire value chain
- rapidly implement industry standard business protocols
- quickly and easily establish new, or update existing, business partners
- automatically secure transmissions sent over the public domain

This suite also provides:

- extensive and flexible back-office connectivity
- powerful data transformation and mapping facilities
- content-based routing
- unparalleled scalability based on a fully distributed architecture

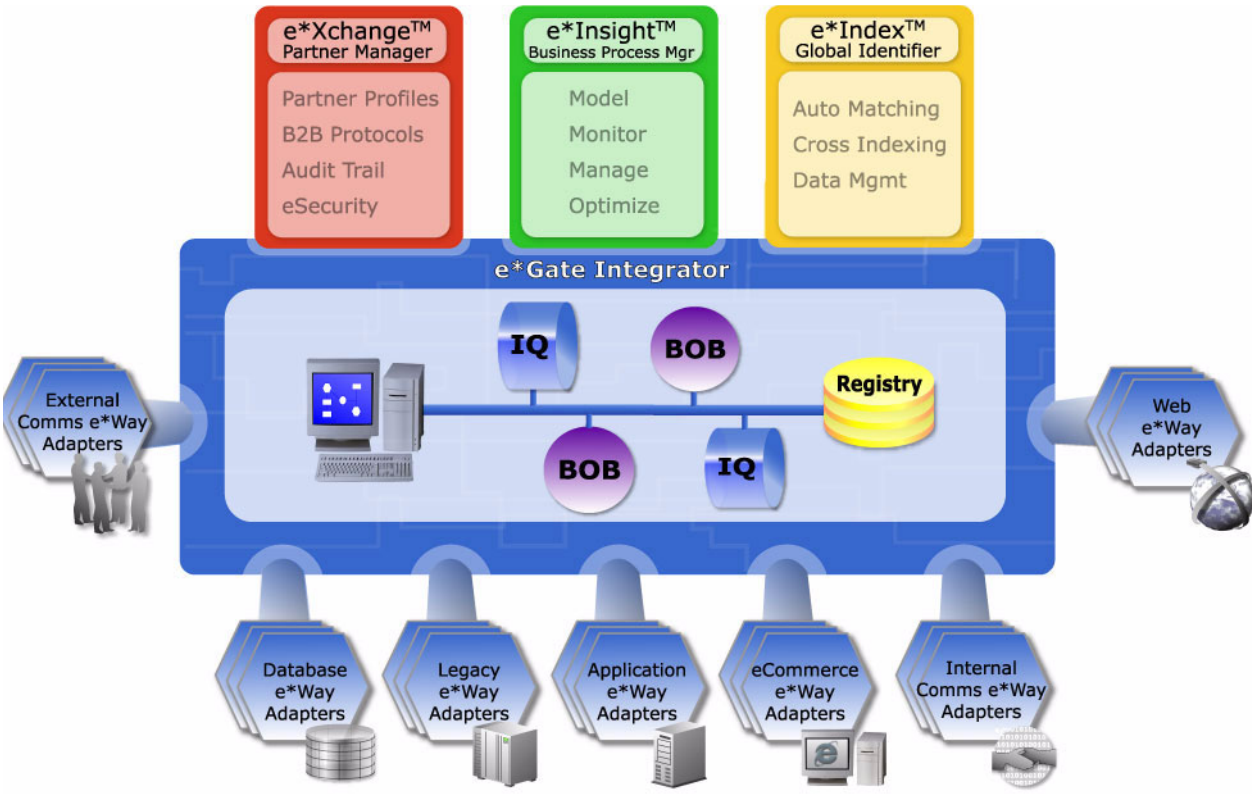
1.6.1 SeeBeyond eBusiness Integration Suite Components

The SeeBeyond eBusiness Integration Suite includes the following components and sub-components:

- eBusiness Integration Solutions:
  - e*Insight™ Business Process Manager
  - e*Xchange Partner Manager
  - eSecurity Manager
  - e*Index Global Identifier

- e*Gate™ Integrator:
  - e*Way™ Intelligent Adapters
  - IQ™ Intelligent Queues
  - Business Object Brokers (BOBs)

Figure 1 SeeBeyond eBusiness Integration Suite



eBusiness Integration Solutions

The eBusiness Integration Solutions suite includes features and functions to facilitate effective business process management, provide eBusiness protocol support, allow effective partner management, and ensure secure eBusiness communications.

e*Insight Business Process Manager

The e*Insight Business Process Manager facilitates the automation and administration of business process flow across eBusiness activities. Through graphical modeling and monitoring, business analysts can instantly assess the detailed state of a business process instance and identify bottlenecks in the process.

e*Xchange Partner Manager

The e*Xchange Partner Manager manages trading partner profiles and supports standard eBusiness message format and enveloping protocols, including X12, UN/EDIFACT, RosettaNet, and CIDX. The e*Xchange Partner Manager includes a

Validation Rules Builder to aid in the creation of X12 and UN/EDIFACT message validation based on industry implementation guides.

eSecurity Manager

The eSecurity Manager authenticates and ensures full integrity of message data sent to and from trading partners, which is imperative when conducting eBusiness over the public domain. The eSecurity Manager uses public key infrastructure (PKI) to ensure origin authentication of the sender.

e*Index Global Identifier

e*Index Global Identifier (e*Index) is a global cross-indexing application that provides a complete solution for automated person-matching across disparate source systems, simplifying the process of sharing member data between systems.

e*Index centralizes information about the people who participate throughout your business enterprise. The application provides accurate identification and cross-referencing of member information in order to maintain the most current information about each member. e*Index creates a single, consistent view of all member data by providing an automatic, common identification process regardless of the location or system from which the data originates.

e*Gate Integrator Components

The e*Gate Integrator enables the flow of information across an extended enterprise by providing comprehensive connectivity to applications and datastores across a network. e*Gate is based on a distributed architecture with an open design that deploys flexible load balancing options. e*Gate processes events according to user-defined business logic and integrates business processes between applications, ensuring end-to-end data flow into back-office systems.

e*Way Intelligent Adapters

e*Way Intelligent Adapters provide specialized application connectivity and also provide support for robust data processing such as business collaborations, transformation logic, and publish/subscribe relationships. e*Way adapters are multi-threaded to enable high-performance distributed processing capabilities. This multi-threaded processing allows for ultimate deployment flexibility and load balancing.

IQ Intelligent Queues

IQ Intelligent Queues are open queue services for SeeBeyond or third-party queuing technology, that provide robust data transport with guaranteed once-only message delivery.

Business Object Brokers

Business Object Brokers (BOBs) enable routing and load balancing between queues for implementing multi-step business processes.

1.7 Introducing e*Xchange Partner Manager

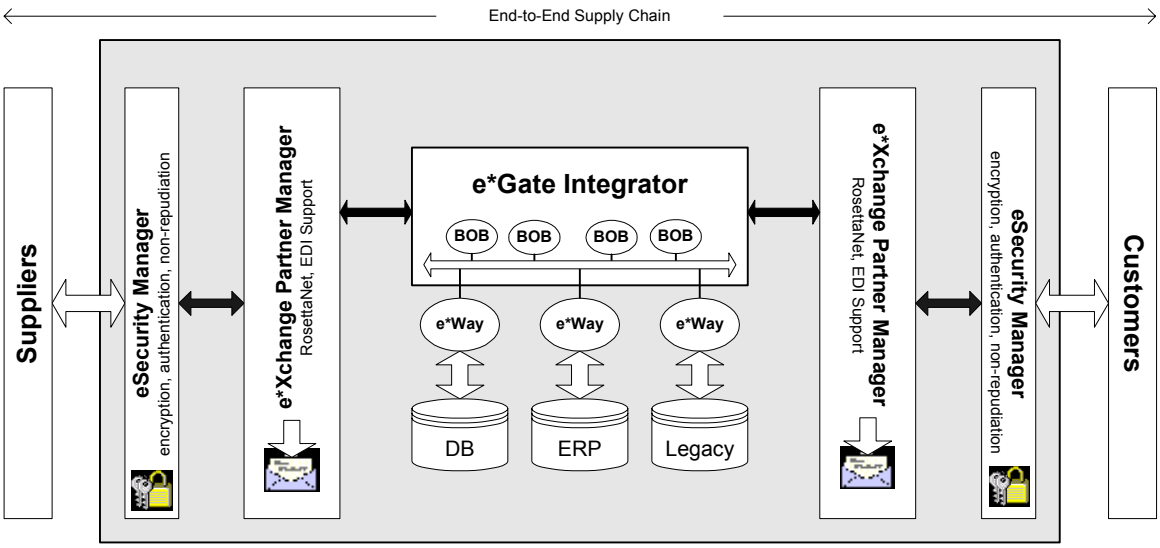
The e*Xchange Partner Manager (e*Xchange) manages trading partner profiles and supports standard eBusiness protocols such as X12, UN/EDIFACT, RosettaNet, and CIDX. e*Xchange also includes a command-line utility, the Validation Rules Builder, which converts EDI implementation guide files into files that are compatible for use with e*Xchange—X12 and UN/EDIFACT Validation Collaboration Rules (**.tsc**) files and Event Type Definition (**.ssc**) files.

Specifically, e*Xchange Partner Manager provides the following functionality:

- Receives, processes, and routes inbound and outbound messages in batch, fast batch, and interactive transmission modes.
- Validates messages based on libraries of Event Type Definitions (ETDs; templates of data to be exchanged, including fields, field sequences, and delimiters) and Collaboration scripts that conform to eBusiness protocols such as X12, UN/EDIFACT, RosettaNet, and CIDX.
- Stores trading partner information, messages, acknowledgments, and errors in a database.
- Automatically generates and reconciles acknowledgments.
- Handles and reports errors.
- Allows users to define trading partner profiles.
- Allows users to view messages.
- (Web interface only) Allows users to resend messages from the Message Tracking feature.
- (Web interface only) Allows tracking of access to messages (audit tracking)
- (e*Xchange Client for Windows only) Allows users to generate reports that have been predefined in Seagate Crystal Reports.
- Automatically supports message enveloping as specified by the supported standards.

See Figure 2 for a graphical representation of e*Xchange Partner Manager.

Figure 2 e*Xchange Partner Manager



1.8 Introducing eSecurity Manager

The eSecurity Manager (eSM) is an optional component that provides security features, allowing the secure transmission of business-to-business (B2B) exchanges over public domains such as the Internet. It provides the ability to use Public Key Infrastructure (PKI) technology to digitally sign and encrypt messages as they are sent to trading partners, and conversely to decrypt and authenticate messages when they are received from trading partners.

The eSM, in tandem with secure e*Ways (for example, the HTTPS e*Way), secures the data channel used to exchange sensitive information with trading partners.

Note: *HTTPS is only available if you are using the Web interface, since SSL is not available for selection in e*Xchange Client for Windows.*

The eSM can be separated into two parts: a front end and a back end. The front end is integrated with the e*Xchange Partner Manager (e*Xchange), and provides the ability to keep track of all the security configuration parameters. At the Outer Envelope level, on the **Secure Data Transport** tab, you can import the keys and certificates needed to encrypt and decrypt messages exchanged with trading partners.

The e*Xchange e*Gate Schema manipulates the messages. It is composed of a specially designed Monk extension that performs the encryption, decryption, signing, and authentication of messages using the S/MIME standard.

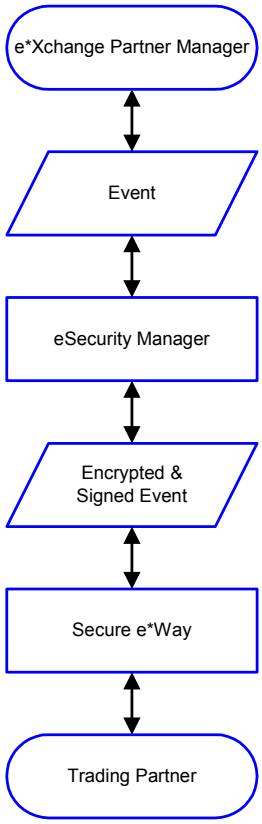
1.8.1 Where the eSM fits into e*Xchange

The eSecurity Manager acts as an interface for dealing with secure messages sent between the e*Xchange Partner Manager and the trading partners. Specifically, eSM performs two functions:

- Processes outbound messages as the last step before the messages are forwarded to a secure e*Way for transmission to a trading partner's system.
- Processes inbound messages as the first step after the messages are received by a secure e*Way.

Figure 3 shows the flow of information between e*Xchange Partner Manager and a trading partner when eSecurity Manager is in use.

Figure 3 eSecurity Manager



1.8.2 Features

The eSecurity Manager provides a comprehensive solution to security requirements for B2B exchanges and partnerships. It provides the following services:

- Encryption

  Messages can be encrypted using public key infrastructure (PKI) to ensure the confidentiality of the exchange.

- Exchange content integrity

  Data integrity is ensured through the use of standard one-way hash algorithms. This mechanism ensures that no modifications (additions, changes, or deletions) are made to the message while it is in transit between partners.

- Origin authentication

  The identity of the sender of a message is verified through the use of digital signatures using PKI. This ensures that the message was actually sent by the entity who claims to have sent it.

- Non-repudiation of transmission and receipt

  The eSecurity Manager provides the appropriate facilities for tracking all exchanges (messages) according to the defined parameters of the supported business protocol (for example, X12, UN/EDIFACT, RosettaNet, and CIDX) for the purpose of ensuring indisputable confirmation of both transmission and receipt.

- Key management

  Because all the above security functions are supported through the use of PKI, the e*Xchange Partner Manager also provides appropriate facilities for storing your own private key and the public keys for each trading partner.

1.8.3 Sending and Receiving a Digitally Signed Message

The following steps describe how to send and receive a digitally signed message.

1. The message is put through a "hash" function; that is, a function that creates a short, unique mathematical representation of the original message called the message digest (for example, MD5 or SHA).
2. The message digest is encrypted using the sender's private key to create a digital signature.
3. The original message and the digital signature are sent together as a signed message to the recipient.
4. The recipient takes the message portion of the signed message and puts it through the same hash function used by the sender to create a message digest.
5. The recipient takes the digital signature portion of the signed message and decrypts it using the sender's public key to create another copy of the message digest.
6. The recipient compares the message digests from steps 4 and 5. If they are equal, the message has arrived unaltered and was sent by the trading partner who holds the private key corresponding to the public key we have for the trading partner. In this way the authenticity of both the sender and the message can be verified.

1.8.4 eSM Outbound Event Processing Overview

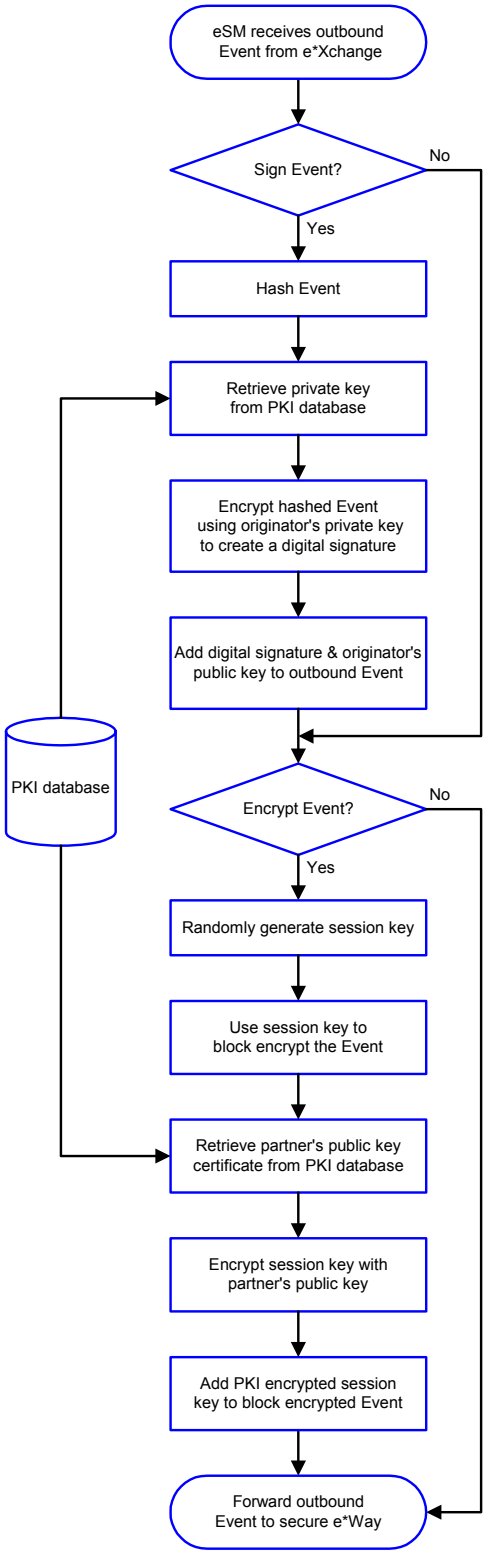
Figure 4 shows the processing of an outbound Event (message) as it passes through the eSM module.

If a digital signature is required, the eSM makes a logical hash of the Event and then encrypts it using your private key. The encrypted hash is the digital signature. Upon receipt of the message, the trading partner deciphers the hash using your public key. Since the hash correlates to the actual message content, any alterations to the message after it is signed would also invalidate the signature.

If encryption is required, the eSM randomly generates a session key. The session key is used to encrypt the Event. The session key itself is then encrypted using the trading partner's public key, and the encrypted key is added to the Event.

Once all necessary steps have been completed, the Event is forwarded to the secure e*Way.

Figure 4 eSM Outbound Event Processing



1.8.5 eSM Inbound Event Processing Overview

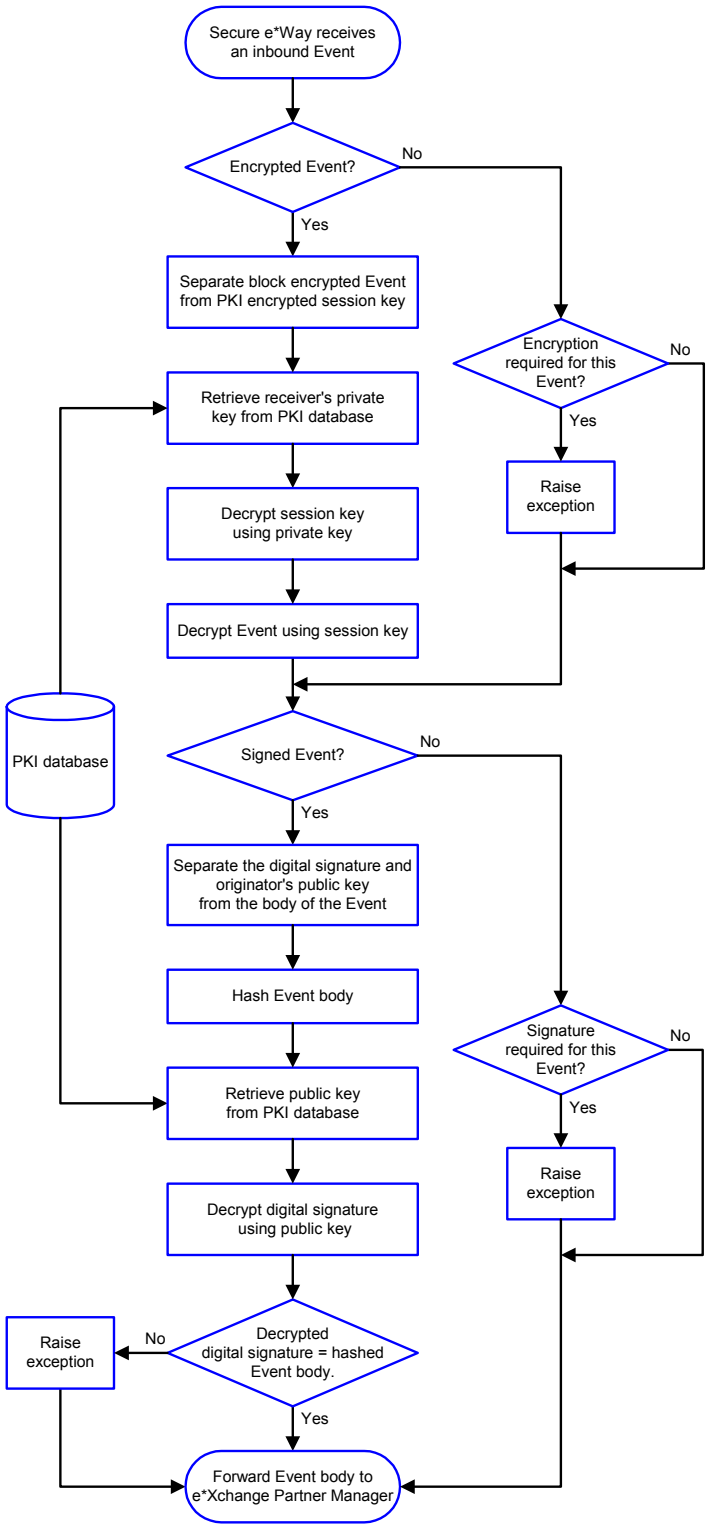
Figure 5 shows the processing of an inbound Event as it passes through the eSM module.

If the Event is encrypted, the eSM locates the encrypted session key within the Event and decrypts it using your private key. It then uses the decrypted session key to decrypt the body of the Event.

If the Event has a digital signature attached to it, the eSM decrypts the digital signature using the sender's public key. It also hashes the Event body with the hash algorithm, which is part of the digital signature. It then compares the decrypted digital signature with the hashed Event body. If they match, the signature has been verified.

Once all necessary steps have been completed, the Event is forwarded to the secure e*Way.

Figure 5 eSM Inbound Event Processing



1.8.6 For More Information on eSecurity Manager

For more information on the security features of e*Xchange, refer to the white paper *eSecurity: Providing Internet Security for eBusiness* at the following URL:

http://www.seebeyond.com/products/whitepapers.html

For more detailed information on the implementation of PKI technology in the e*Gate/e*Xchange environment, refer to the *Secure Messaging Extension User's Guide* (Monk version).

Chapter 2

Web Interface: Overview and Administration

e*Xchange Partner Manager includes a browser-based user interface so that you can set up and maintain trading partner profiles over the Web.

From the Web interface you can complete the activities listed below.

- Profile Management; you can add, edit, or delete any of the four layers that comprise a trading partner profile:
  - Company layer
  - Trading partner layer
  - B2B protocol layer (inbound or outbound)
  - Message profile layer

  In addition, you can set or change security individually for any one of these layers.
- Message Tracking; you can:
  - View any messages that have been processed by e*Xchange
  - Use the various search fields to narrow down your search before viewing message details
  - For any message, view an error list, extended attributes, or actual text of the original message, enveloped message, or acknowledgment message.
  - Resend certain messages that have not been sent due to errors.
  - View a list of users who have viewed specific messages (audit tracking feature).
- System Administration; you can:
  - Set system defaults
  - Add or modify values to system code tables
- User Administration; you can:
  - Add users
  - Expire and reinstate user access rights
  - Create user groups
  - Assign users to user groups

As of the current release, e*Xchange offers a choice of user interfaces: the Windows-based graphical user interface that has been available since the inception of e*Xchange, and the Web-based interface that has been available since version 4.5. In the future, the Web interface will entirely replace the Windows-based GUI. However, since some minor functions have not yet been migrated to the Web interface at this time, it is still included in the e*Xchange product.

The migration to the Web-based interface offers significant advantages. The Web interface is a three-tiered application that allows access from anywhere in the world. It is a "thin client" application and also reduces the complexities of working through firewalls and DMZs (De-Militarized Zones).

Note: *In the Web interface, an asterisk (*) on a field indicates that it is a required field.*

2.1 Supported Browsers

The e*Xchange Partner Manager Web interface works with the following browser versions:

- Microsoft Internet Explorer 5.0
- Microsoft Internet Explorer 5.5

2.2 User Permissions: An Overview

There is only one user for the e*Xchange Web interface at the database level; the schema/database owner. This user is assigned to all default application administration groups. The schema/database owner can set up additional users via the Web interface. These users are only created at the application level, and have no default database access privileges. When a new user logs in to the application, the application logs into the database as the schema owner and authenticates the new username and password from user information stored in the database tables.

The schema/database owner username and password are stored in the database connection definition file, **epm.std**. The default location for this file is **\eXchange\tomcat-3.2.1\webapps\stcepmweb\web-inf**. It is in XML format. Each database connection is described by a set of XML tags. The <username> and <password> tags store the encrypted version of the schema/database owner username and password. After initial installation, the value for each of these two tags is set to a default of six asterisks (******). When the connection is called for the first time from the Web interface, the user is asked to enter the schema owner's username and password information. e*Xchange encrypts this information and stores it in the **epm.std** file. Once those encrypted values are set up, any application users that have been defined in the database can log in to the Web interface directly. When each user logs on, e*Xchange verifies the username and password against the user information stored in the database tables.

This approach provides tighter security for the information stored in the e*Xchange schema/database than was available with e*Xchange Client for Windows. It also reduces the database-level privileges required for the schema/database owner. For Oracle, this allows for more than one schema per database instance.

When installing a second schema, make sure that tablespace names and locations are unique for the new schema.

2.3 Logging In to the e*Xchange Partner Manager Web Interface

To run the e*Xchange Partner Manager Web interface, you must specify your login ID, password, and the database instance you want to use.

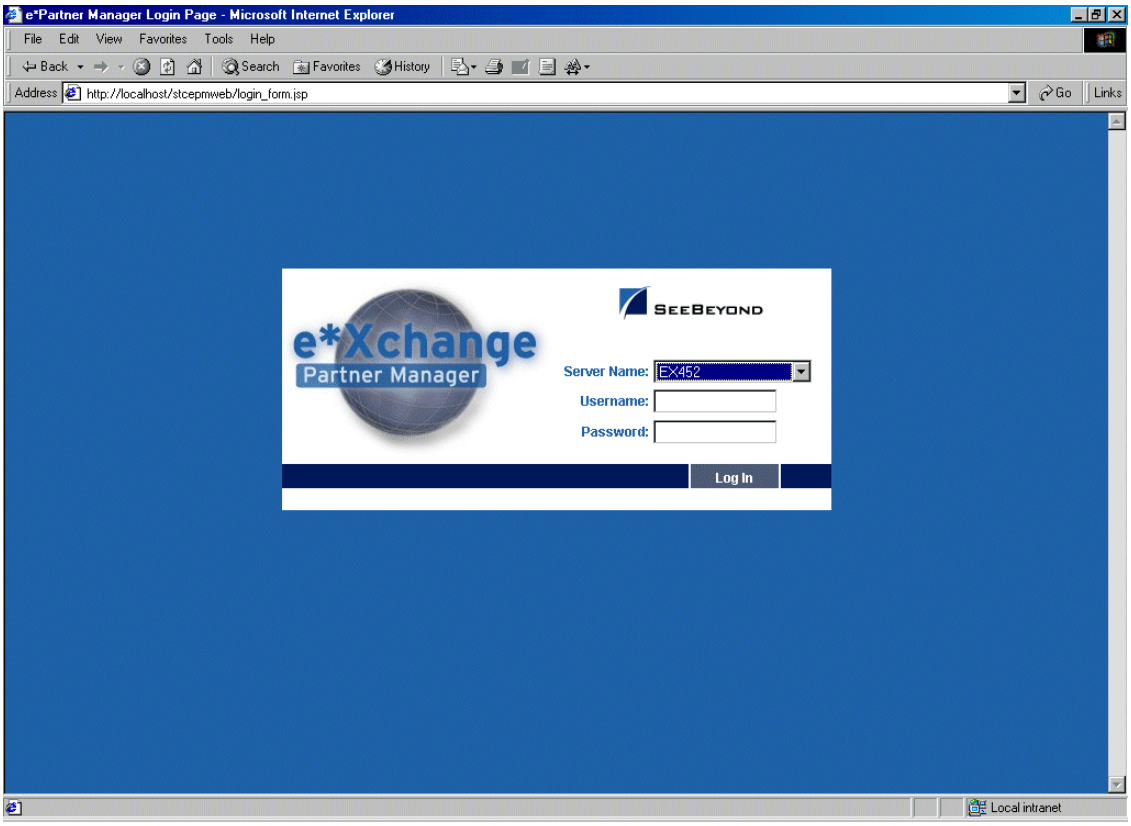
To log In to the e*Xchange Partner Manager Web interface

1. Start Tomcat (run the file **\eXchange\tomcat-3.2.1\bin\startup.bat**).

Note: *If you are using DB2 UDB, the e*Xchange e*Gate Schema and the Web interface cannot run on the same machine. This is because the Web interface uses JDBC and the e*Xchange e*Gate Schema uses ODBC. If you have already installed both on the same machine, refer to the* ***e*Xchange Installation Guide****, Chapter 12,* ***Installing the Web Interface and e*Gate Schema for e*Xchange****, for a workaround.*

2. Start your browser and go to the **http://localhost/stcepmweb/login_form.jsp** page.
3. The e*Xchange Partner Manager login page appears (see Figure 6).

Figure 6 e*Xchange Web Interface Login Page



4 In the **Server Name** field, select the database from the drop-down list.

5 Enter the username and password.

Note: *The username is case insensitive; the password is case sensitive.*

6 Click **Log In**.

7 One of two things occurs:

- If this is the first connection to the database, the **Database Connection Information** page appears and you must set up the password for the first time; refer to **"To set up the database connection information" on page 45**.
- If you have logged in before, the **Main** page appears (see **Figure 10 on page 48**).

Note: *If you have problems logging in, refer to* **"Troubleshooting" on page 466**.

2.3.1 Logging In for the First Time

If the e*Xchange Partner Manager Web interface has not previously been used to connect to the e*Xchange database, or if you have reset the password in the **epm.std** file (see **"Editing the epm.std File" on page 73**), e*Xchange verifies your access rights, and the database connection, via the **Database Connection Information** page before allowing you access to the e*Xchange Web interface.

This does not apply to each user's first connection, but to the first connection from the Web interface to the e*Xchange database. Once the connection is set up, any user can connect to the Web interface providing he/she has been set up as an authorized user.

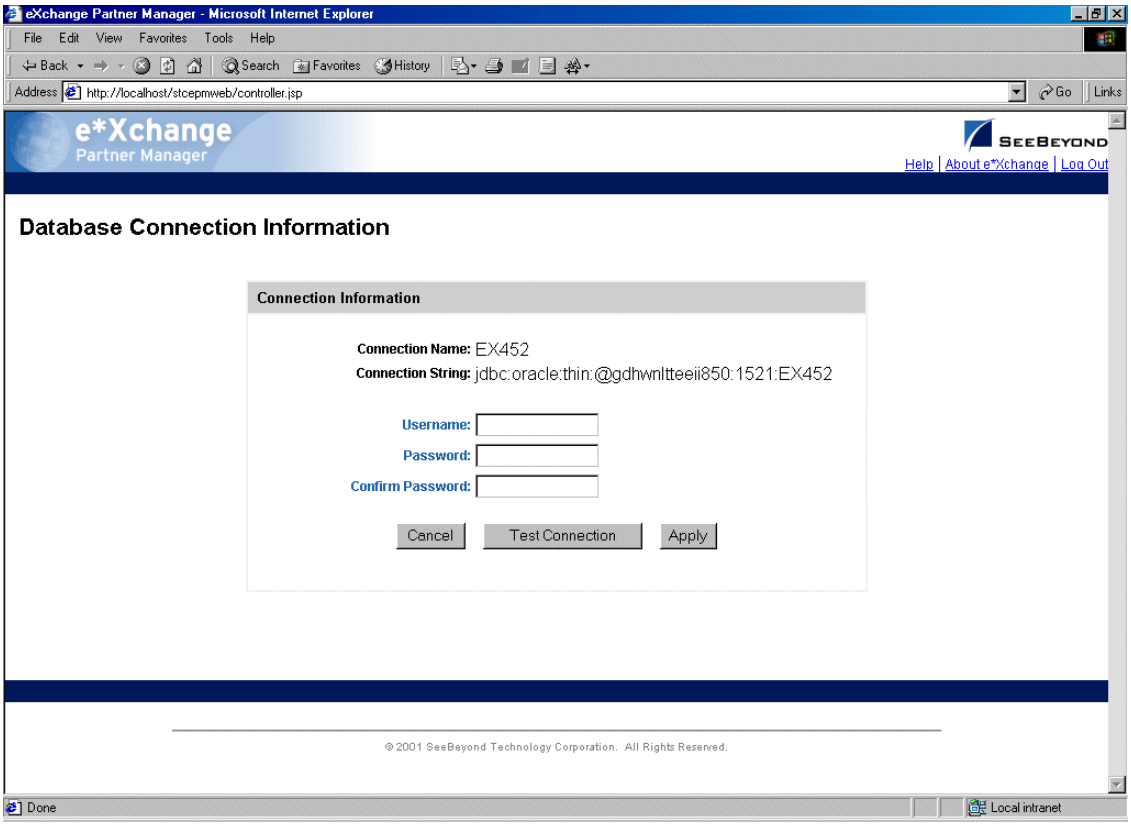
Note: *You must be the schema/database owner to set up the database connection.*

To set up the database connection information

1 Log in (see **"To log In to the e*Xchange Partner Manager Web interface" on page 43**).

The **Database Connection Information** page appears (see Figure 7).

Figure 7 Database Connection Information



2 Type the schema/database owner username.

3 Type the schema/database owner password once, and then again to confirm.

4 Click **Test Connection**.

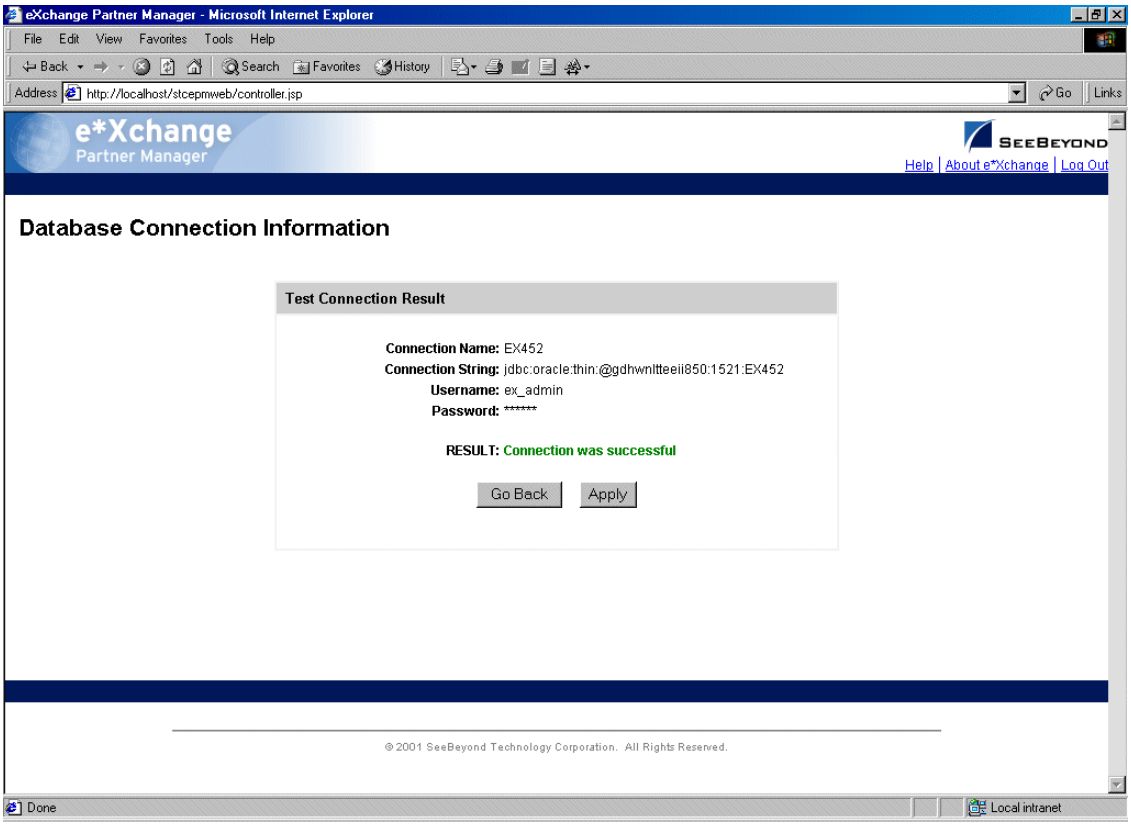
The **Test Connection Result** page appears (see Figure 8).

If you get a failure message, check the following:

- Is the database currently up and running?

- Are the username and password correct? To test this, make sure that you can log in to the database directly; for example, for Oracle, try to log in at the SQL Plus prompt.

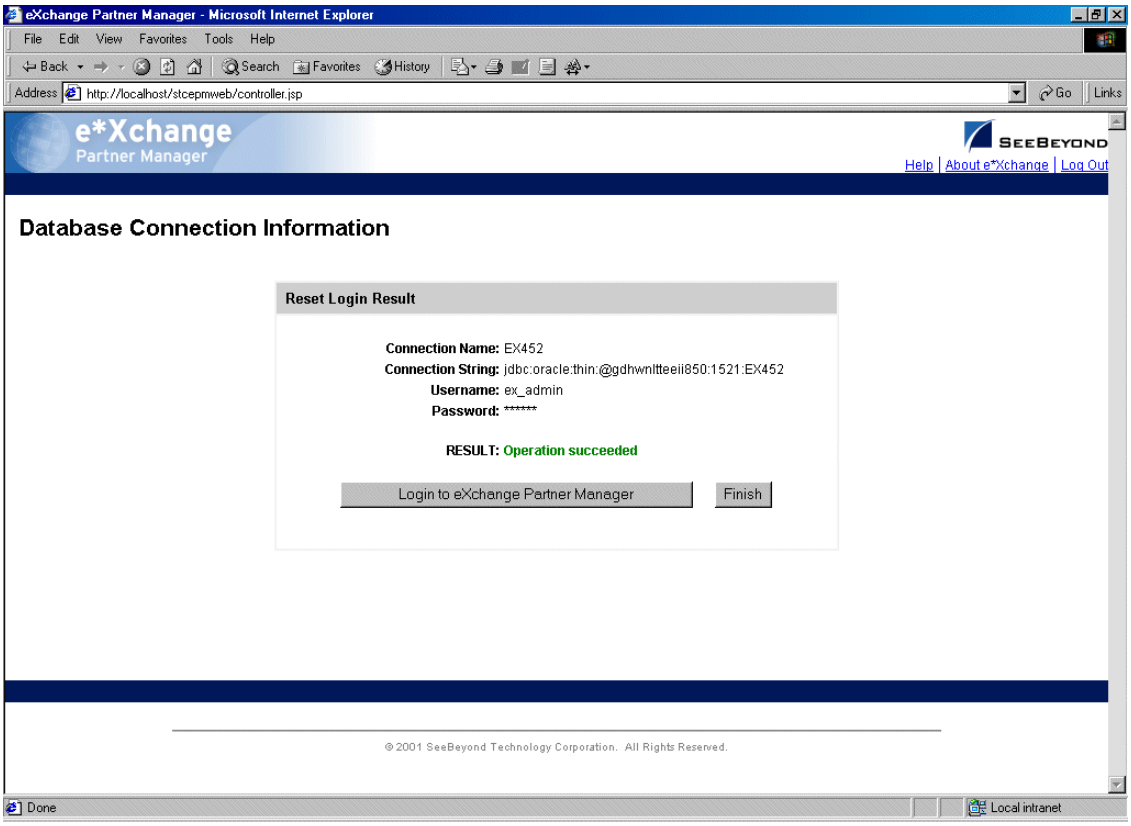
Figure 8 Database Connection Information: Test Connection Result



5 Click **Apply**.

6 The **Database Connection Information: Reset Login Result** page appears (see Figure 9).

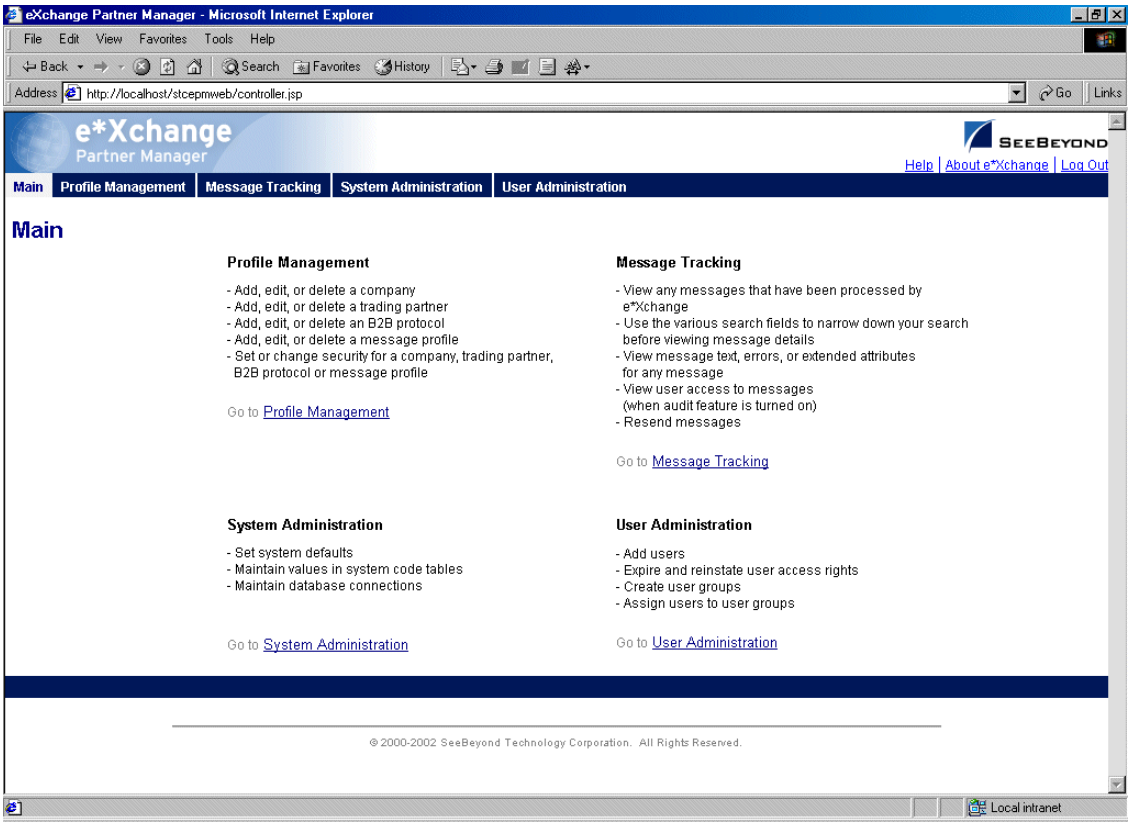
Figure 9 Database Connection Information: Reset Login Result



7 Click **Login to e*Xchange Partner Manager**.

The **Main** page appears (see Figure 10).

Figure 10 e*Xchange Partner Manager Web Interface Main Page



From this page you can access all the functions provided by the e*Xchange Partner Manager Web Interface. These break down into four main groups:

- Profile Management (see **"Profile Management" on page 80**)
- Message Tracking (see **"Using the Message Tracking Feature" on page 190**)
- System Administration (see **"System Administration" on page 48**)
- User Administration (see **"User Administration" on page 63**)

2.4 System Administration

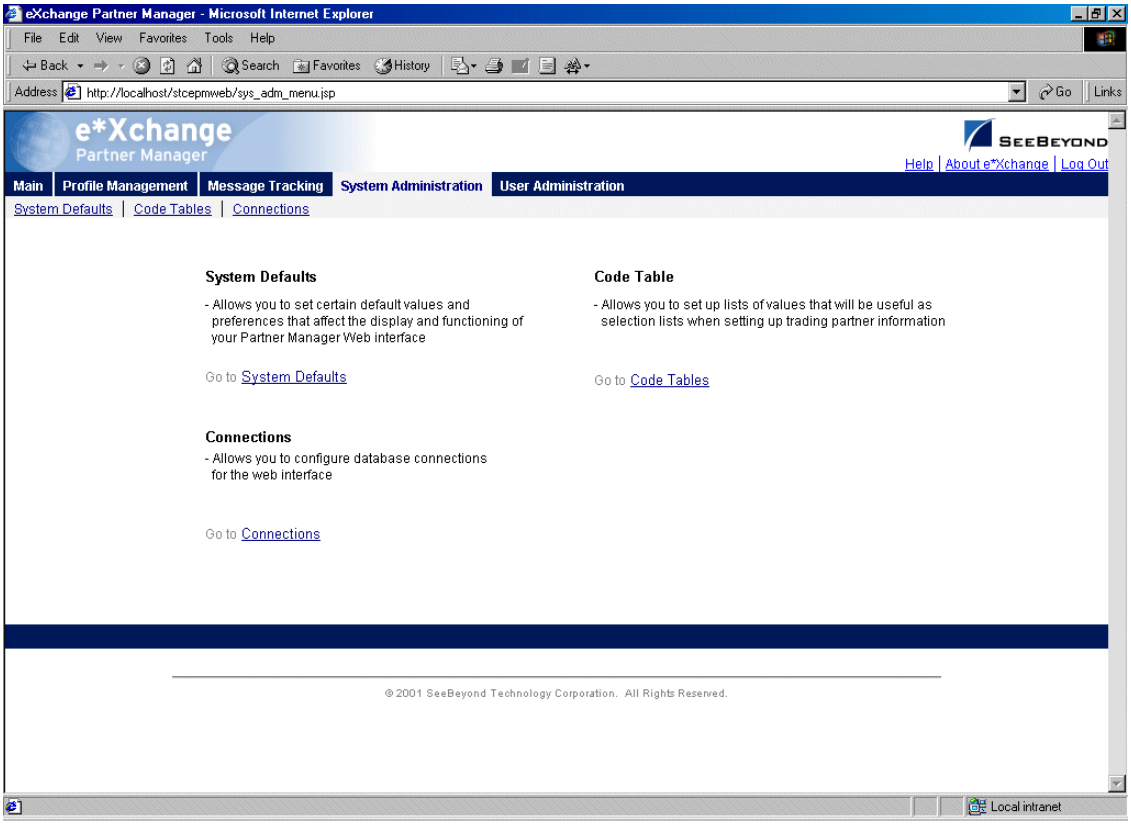
The System Administration page allows you to perform the following administrative tasks, providing you have access rights as a member of the eX Administrator user group:

- Setting system defaults that affect only e*Xchange Client for Windows, such as report title and idle shutdown time.
- Specifying the number of trading partner profiles to be cached in memory when e*Xchange is running.

- Setting up code tables so that you can add values to support a communications protocol other than HTTP, HTTPS, SMTP, and FTP (Batch).
- Setting up, changing, and testing database connections.

From the Web Interface **Main** page, click **System Administration** to access the System Administration main page (see Figure 11).

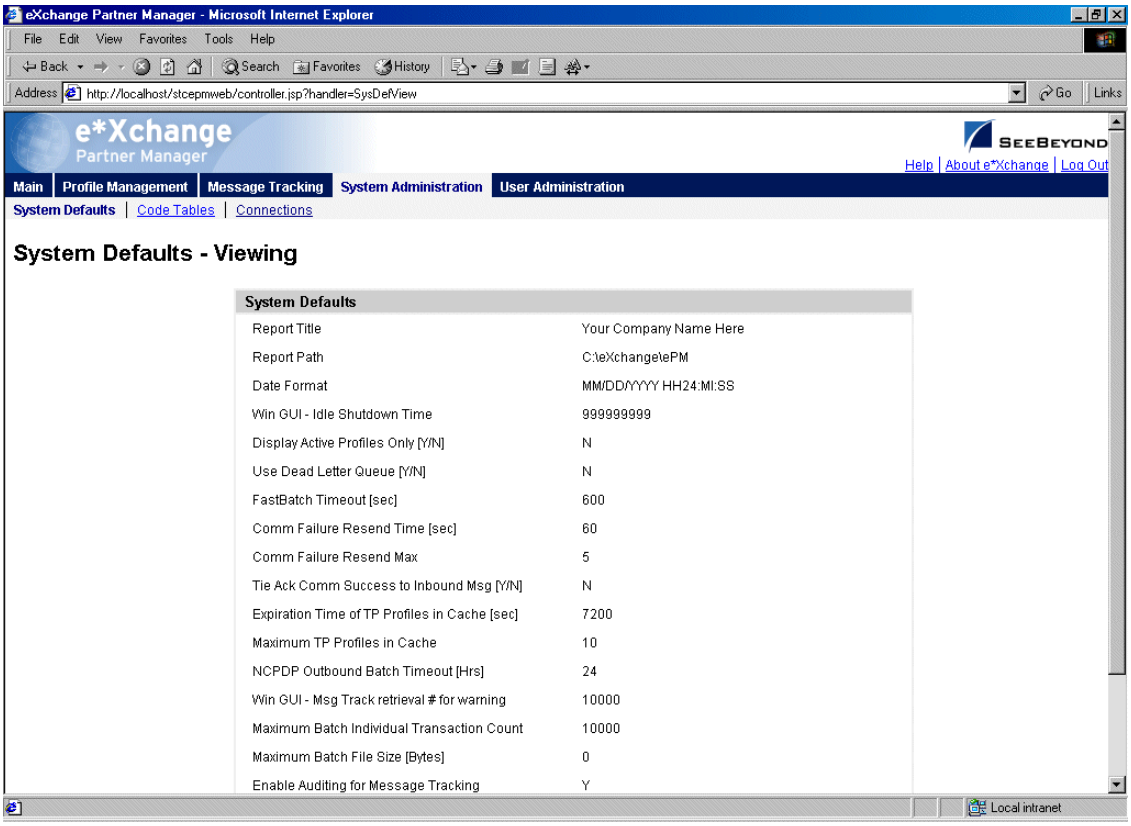
Figure 11 System Administration Main Page



2.4.1 System Defaults

From the System Administration main page, click **System Defaults** to access the **System Defaults - Viewing** page (see Figure 12).

Figure 12 System Defaults - Viewing



To change system defaults

If you need to change any of the default settings, follow the steps below.

1. From the **System Defaults - Viewing** page, click **Edit** to access the **System Defaults - Editing** page (see Figure 13).

Note: *You can only access this page if you are a member of the eX Administrator user group.*

2. Change the values as needed.

   For more information on specific fields, refer to Table 1.

3. Click **OK** to save the changes.

Figure 13 System Defaults - Editing

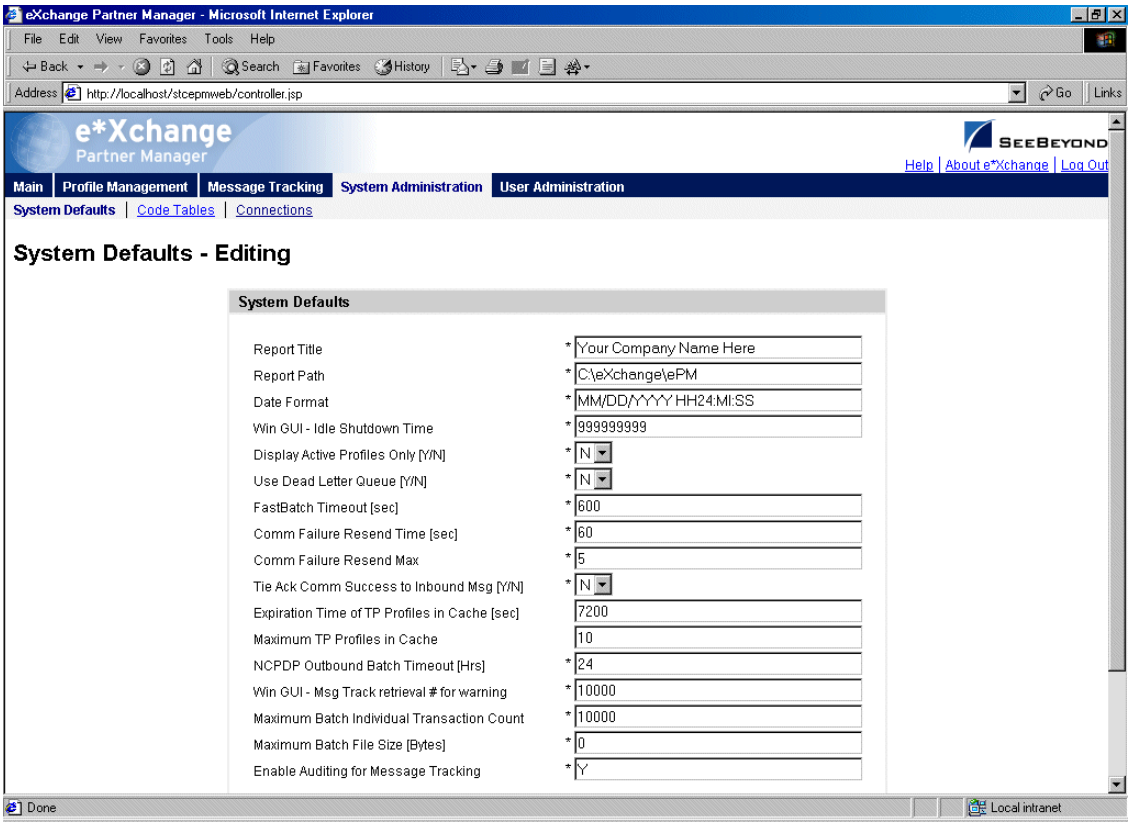


Table 1 System Defaults - Viewing: Fields

Name	Description
Report Title	The standard title to be listed on all reports generated from e*Xchange Client for Windows.
Report Path	The name of the drive and folder that contains reports that can be generated from e*Xchange Client for Windows. **Note**: Installation includes default reports, stored in the main e*Xchange folder set up during installation. If you accepted the default, this is C:\eXchange\ePM. Be sure to update the report path appropriately.
Date Format (Oracle only)	The date format used in the database and used for all dates displayed in the e*Xchange Partner Manager. The default is displayed; you can change it to any other date format supported by Oracle.
Win GUI - Idle Shutdown Time	The number of seconds of keyboard or mouse inactivity before e*Xchange Client for Windows is closed if it is not being used. The default is 999999999 seconds. **Note**: To change the idle shutdown time for the Web interface, change the setting in the **web.xml** file. For more information, refer to **"Extending the Session Inactivity Setting" on page 76**.
Display Active Profiles Only	Select this check box to display only active trading partner profiles in e*Xchange Client for Windows. If this box is not selected, all trading partner profiles, active or inactive, are displayed.

Table 1 System Defaults - Viewing: Fields (Continued)

Name	Description
Use Dead Letter Queue (X12 only)	Set this field to **Y** to send messages to the Dead Letter Queue if e*Xchange encounters errors sufficient that it cannot process the message. Some examples are given below. ▪ Invalid interchange information in a message from the trading partner ▪ Invalid data in the ST/SE segments in a message from the trading partner ▪ Duplicate message, either inbound or outbound **Note**: If you set this to **Y**, you must create a BOB or e*Way component in the e*Xchange e*Gate schema to subscribe to the **eX_Error** Event. If set to **N**, the Dead Letter Queue is not used.
FastBatch Timeout	The maximum amount of time that items for a batch are held before being sent out. As soon as e*Xchange receives all the messages for a batch, the batch is sent out. However, if one or more messages for a specific batch does not reach e*Xchange for any reason (for example, because of errors), the incomplete batch is sent out when the FastBatch Timeout value is reached.
Comm Failure Resend Time (RosettaNet 2.0 only)	For messages sent via HTTP or HTTPS, this controls the resend time for messages if the HTTP or HTTPS post was not successful.
Comm Failure Resend Max (RosettaNet 2.0 only)	For messages sent via HTTP or HTTPS, this controls the number of times a message is resent if the HTTP or HTTPS post was not successful.
Tie Ack Comm Success to Inbound Message (RosettaNet 2.0 only)	If you set this to **Y**, e*Xchange Partner Manager stores incoming messages sent by HTTP or HTTPS, sends the acknowledgment back to the trading partner, and waits to ensure that the HTTP or HTTPS post was successful before sending the message on to the internal system.
Expiration Time of TP Profiles in Cache	The amount of time for which a trading profile held in memory cache is used before being refreshed. Default: 7200 seconds (2 hours). ▪ If you want TP profiles to be refreshed every time the profile is accessed, not cached in memory at all, set this value to 0. ▪ If you do not want TP profiles to be refreshed at all once cached in memory for the session, set this value to -1.
Maximum TP Profiles in Cache	The maximum number of trading partner profiles to be held in memory. If a greater number of trading partner profiles is accessed during one session, the profile that has been in memory longest is discarded. Caching of trading partner profiles speeds up performance by reducing interaction with the database. Default: 10. If you want all profiles to be stored in cache, with no upper limit, set this value to 0 and ensure that a valid expiration time is set for Expiration Time of TP Profiles in Cache.
NCPDP Outbound Batch Timeout	Not yet implemented.
Win GUI - Msg Track retrieval # for warning	The maximum number of messages allowed in e*Xchange Client for Windows for the Message Tracking Details list before e*Xchange provides a warning, allowing the user the option to redefine search criteria to make a smaller list. **Note**: This setting does not affect the Web interface.

Table 1 System Defaults - Viewing: Fields (Continued)

Name	Description
Maximum Batch Individual Transaction Count	For batched transactions only: The maximum number of transactions of one type (for example, X12 version 4010 850) that can be sent in one batch. **Note**: Maximum Batch Individual Transaction Count and Maximum Batch File Size work together to ensure batches are not too large. The first of these limits that is reached determines the maximum batch size.
Maximum Batch File Size	For batched transactions only: The maximum total file size for one batch. **Note**: Maximum Batch Individual Transaction Count and Maximum Batch File Size work together to ensure batches are not too large. The first of these limits that is reached determines the maximum batch size.
Enable Auditing for Message Tracking	Set this flag to **Y** to turn on the Message Tracking audit feature. For more information, refer to **"Reviewing Message Access (Audit Feature)" on page 200**.

2.4.2 Code Tables

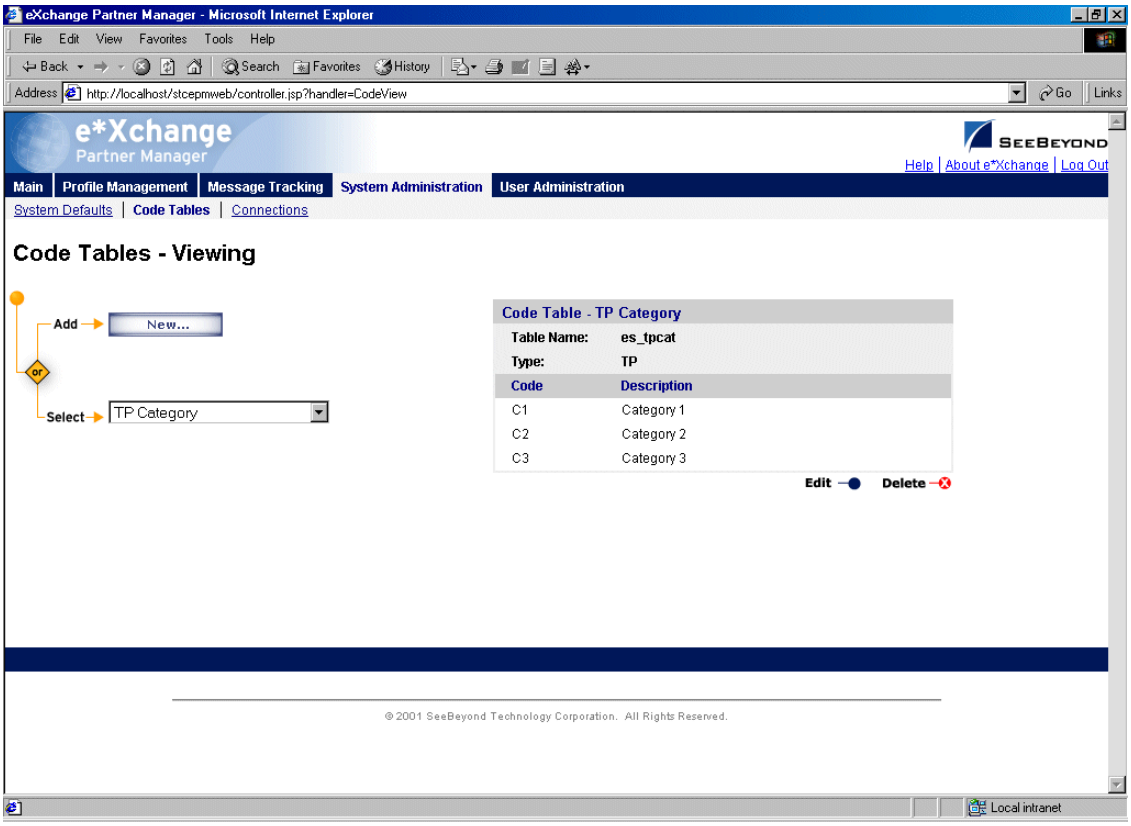
If you need to set up the Web interface to support an additional communications protocol, you must add certain code tables. For information on the steps to follow to add a custom protocol, refer to the *Advanced Configuration* chapter of the *e*Xchange Partner Manager Implementation Guide*.

Existing code tables are supplied with the default Web interface. Do not change these values unless advised by technical support personnel.

You can only make changes to code tables if you are a member of the eX Administrator user group.

From the System Administration main page, click **Code Tables** to access the **Code Tables - Viewing** page (see Figure 14).

Figure 14 Code Tables - Viewing



To add a code table

1 From the **Code Tables - Viewing** page, click **New** to access the **Code Tables - Adding** page (see Figure 15).

Note: *You can only access this page if you are a member of the eX Administrator user group.*

2 Enter the values as needed.

For more information on specific fields, refer to Table 2.

3 Click **OK** to save the changes.

Figure 15 Code Tables - Adding

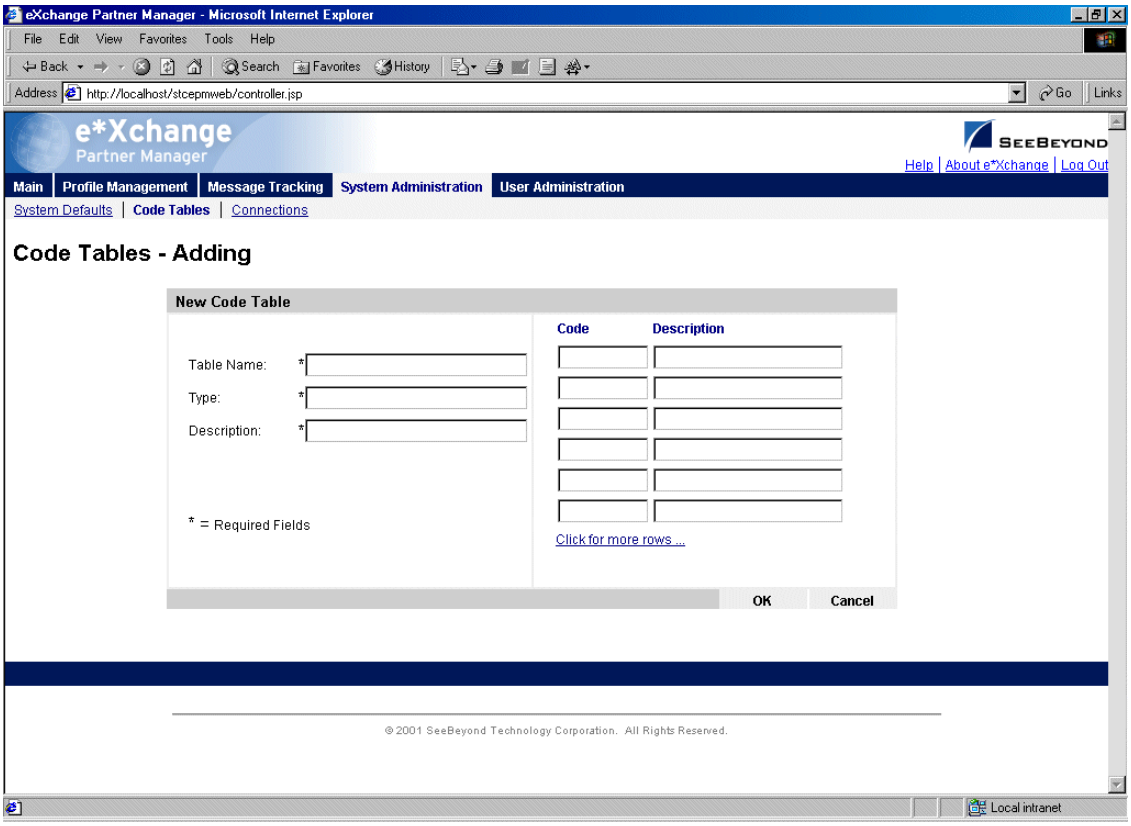


Table 2 Code Tables: Fields

Name	Description
Table Name	A short name for the code table; for example, the table name for the Error Severity table is ER. The table name must be unique.
Type	A description of the type of table; for example, the type for the Error Severity table is "severity." The table type must be unique.
Description	A short description of the code table. This is the name by which the code table is sorted when it is added to the code tables list and displayed in the left pane.
Code/Description	Each line in the code table includes the following information: ▪ Code-The code assigned to a specific list item. ▪ Description-The description of a specific list item. This is the value that will show up on the system list. To add more rows, as needed, click on the **Click for more rows...** link. To delete a row, click the **Delete** link to the right of the row.

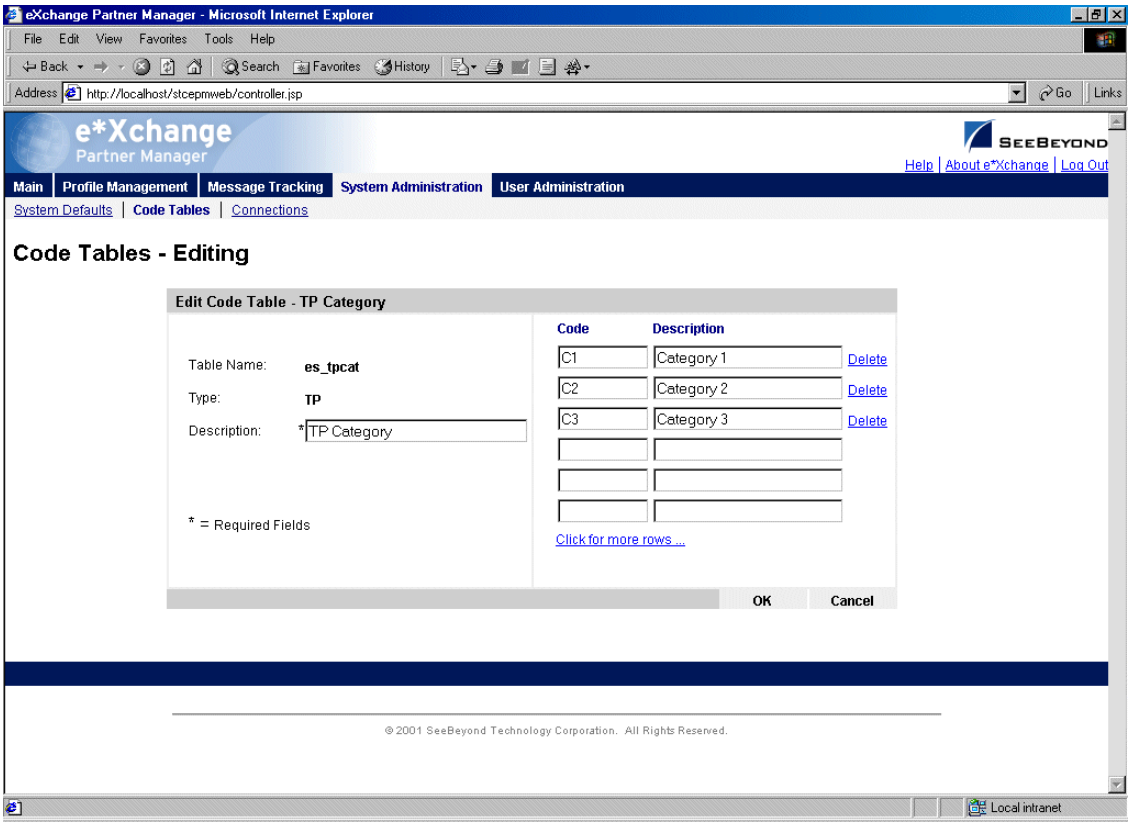
To edit a code table

1. From the **Code Tables - Viewing** page, select a code table, and then click **Edit** to access the **Code Tables - Editing** page (see Figure 16).
2. Edit the values as needed.

For more information on specific fields, refer to Table 2.

3 Click **OK** to save the changes.

Figure 16 Code Tables - Editing



2.4.3 Connections

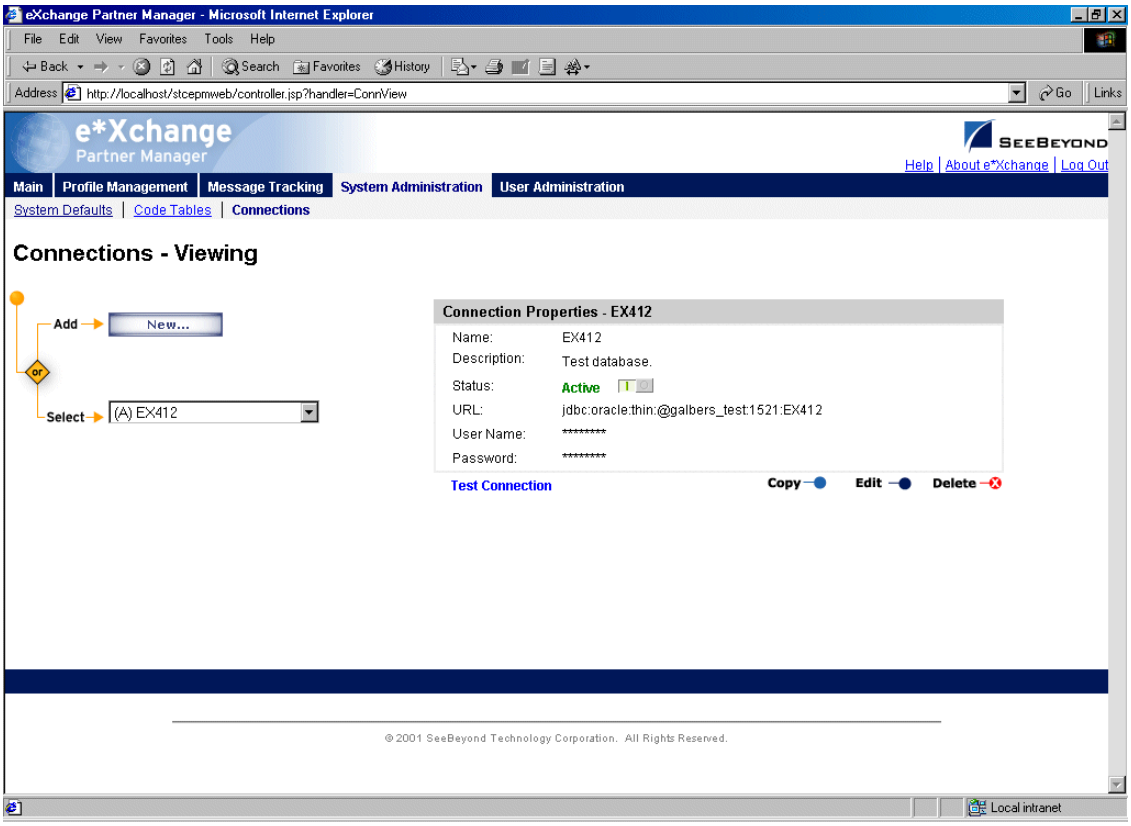
You can set up database connections via the e*Xchange Partner Manager Web interface. When you do this, e*Xchange modifies the **epm.std** file in the background. The default location for this file is **\eXchange\tomcat-3.2.1\webapps\stcepmweb\web-inf**.

Each time you change settings via the Web interface, e*Xchange backs up the **epm.std** file with a different name before making changes to the file.

You can also set up your database connections directly in the **epm.std** file, as covered in **"Editing the epm.std File" on page 73**.

From the System Administration main page, click **Connections** to access the **Connections - Viewing** page (see Figure 17).

Figure 17 Connections - Viewing



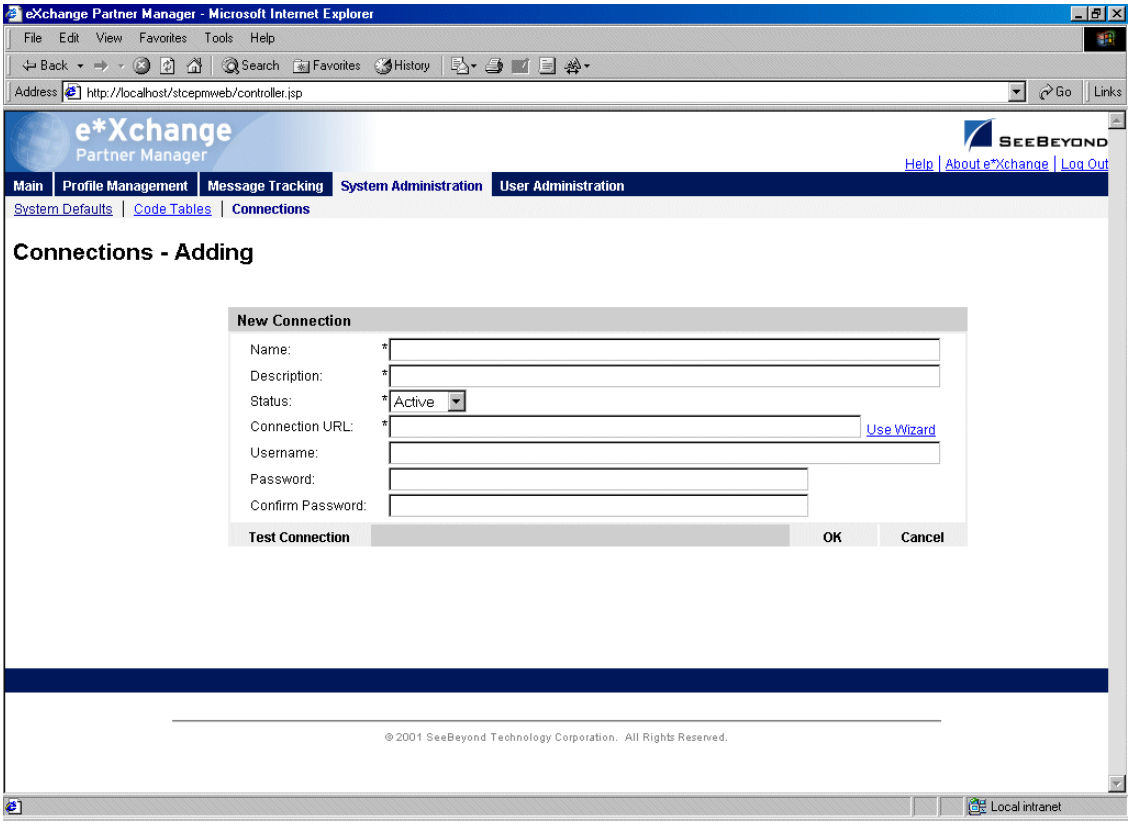
From the **Connections - Viewing** page you can complete the following activities:

- Add a connection (see **"To add a connection" on page 58**).
- Select a connection for viewing: choose from the drop-down list. The connection properties are displayed on the right side of the page.
- Test a connection (see **"To test a connection" on page 60**).
- Edit the selected connection (see **"To edit a connection" on page 60**).
- Create a new connection based on the selected one (see **"To copy a connection" on page 61**).
- Delete the selected connection (see **"To delete a connection" on page 62**).
- Activate or inactivate the selected connection (see **"To inactivate or reactivate a connection" on page 62**).

To add a connection

1 From the **Connections - Viewing** page, click **New** to access the **Connections - Adding** page (see Figure 18).

Figure 18 Connections - Adding



Note: *You can only access this page if you are a member of the eX Administrator user group.*

2 Enter the values as needed.

For more information on specific fields, refer to Table 3.

3 Click **OK** to save the changes and return to the **Connections - Viewing** page.

Table 3 Connections - Adding: Fields

Name	Description
Name	The server name (must be unique for e*Xchange).
Description	A written description of the entry. This is for your information only.
Status	The current status of the entry: **D** for deactivated or **A** for Active. An entry with a status of **D** does not show up on the **Server Name** drop-down list on the e*Xchange Web Interface login page.

Table 3 Connections - Adding: Fields (Continued)

Name	Description
Connection URL	The URL for access to the database. This is a string comprised of several elements. Click **Use Wizard** to access the URL Help pages: 1 On the **Choose Database Type** page, choose the database type (see Figure 19) and then click **Next**. 2 On the **Specify Database Information** page (see Figure 20 for an example), enter the following values: ♦ For Oracle: **Host Name**, **Port**, and **SID**. ♦ For Microsoft SQL Server or Sybase: **Host Name**, **Port**, and **Database Name**. ♦ For IBM DB2: **Database Name**. 3 Click **Finish**.
Username	The user name for database access.
Password	The password for database access.
Confirm Password	Confirmation of the database access password.
Test Connection	Click this link to test the connection to the database. The **Test Connection Result** dialog box displays the results.

Figure 19 Choose Database Type

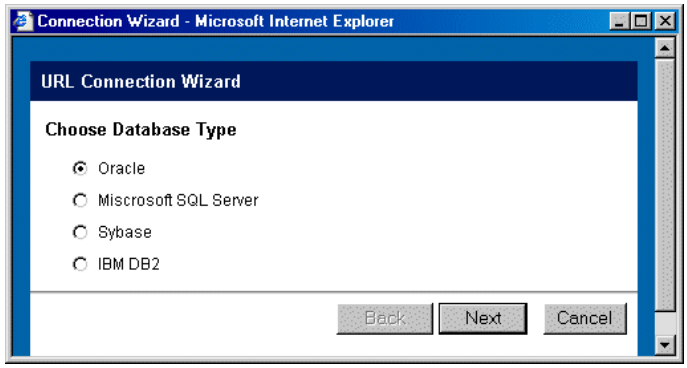
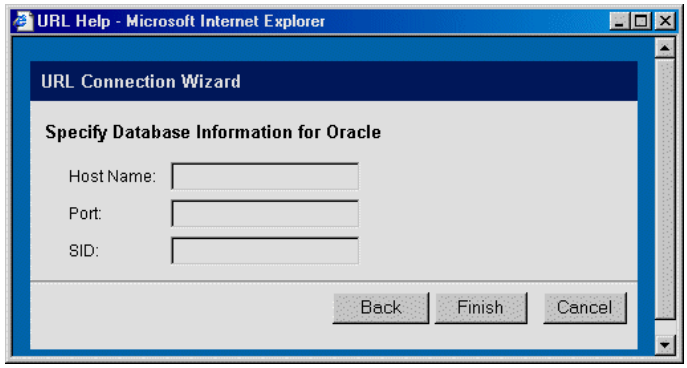


Figure 20 Specify Database Information (Oracle)



To test a connection

When you have set up the values for a connection entry, either before or after saving the connection, you should test the entry to make sure the connection works. Follow the instructions below to test after saving.

1. From the **Connections - Viewing** page, select the connection from the drop-down list.

   The connection properties are displayed on the right side of the page.

2. Click **Test Connection**.

3. A **Connection Test Result** message appears, stating either **Connection was Successful** or **Connection Failed**.

4. Troubleshoot if needed.

   If the connection fails, check the following:

   - Make sure the database is up and running.
   - Check that the username and password are correct. To test this, make sure that you can log in to the database directly; for example, for Oracle, try to log in at the SQL Plus prompt.
   - Make sure the host name is correct.

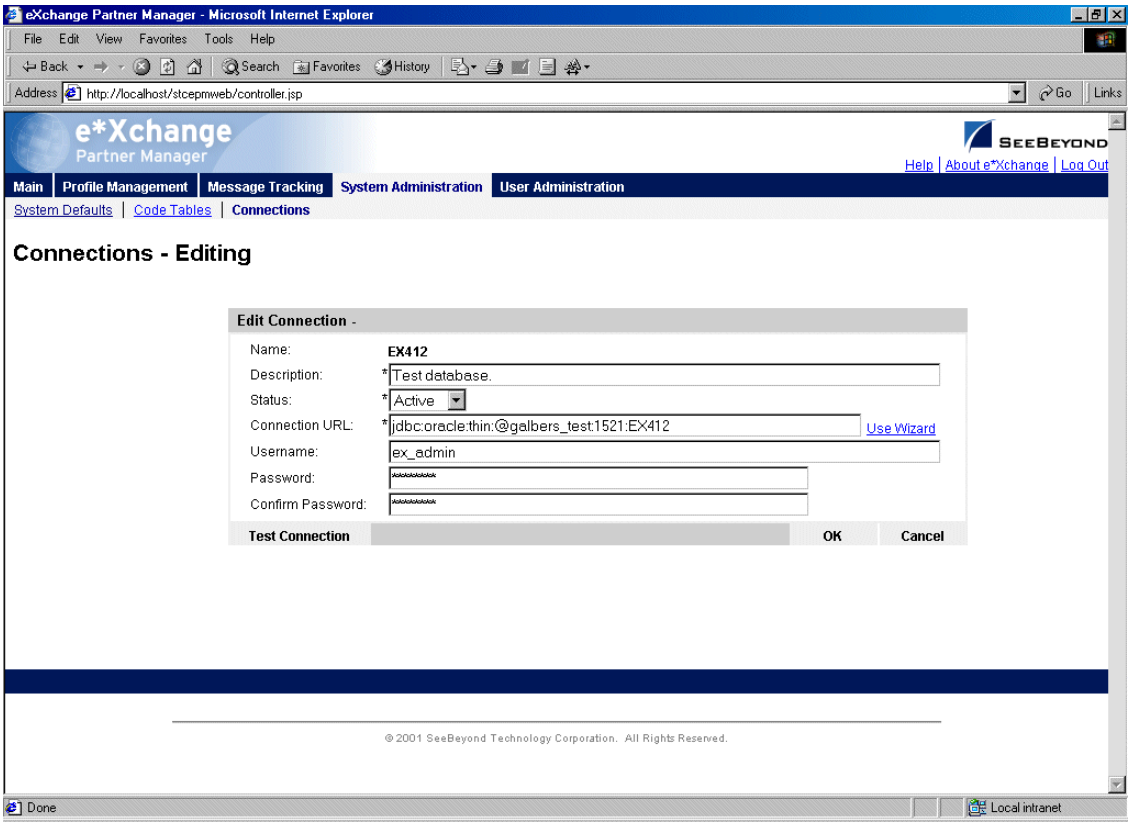
To edit a connection

1. From the **Connections - Viewing** page, select the connection from the drop-down list.

   The connection properties are displayed on the right side of the page.

2. Click the **Edit** button to access the **Connections - Editing** page (see Figure 21).

Figure 21 Connections - Editing



3 Edit the values as needed.

For more information on specific fields, refer to **Table 3 on page 58**.

4 Click **OK** to save changes and return to the **Connections - Viewing** page.

To copy a connection

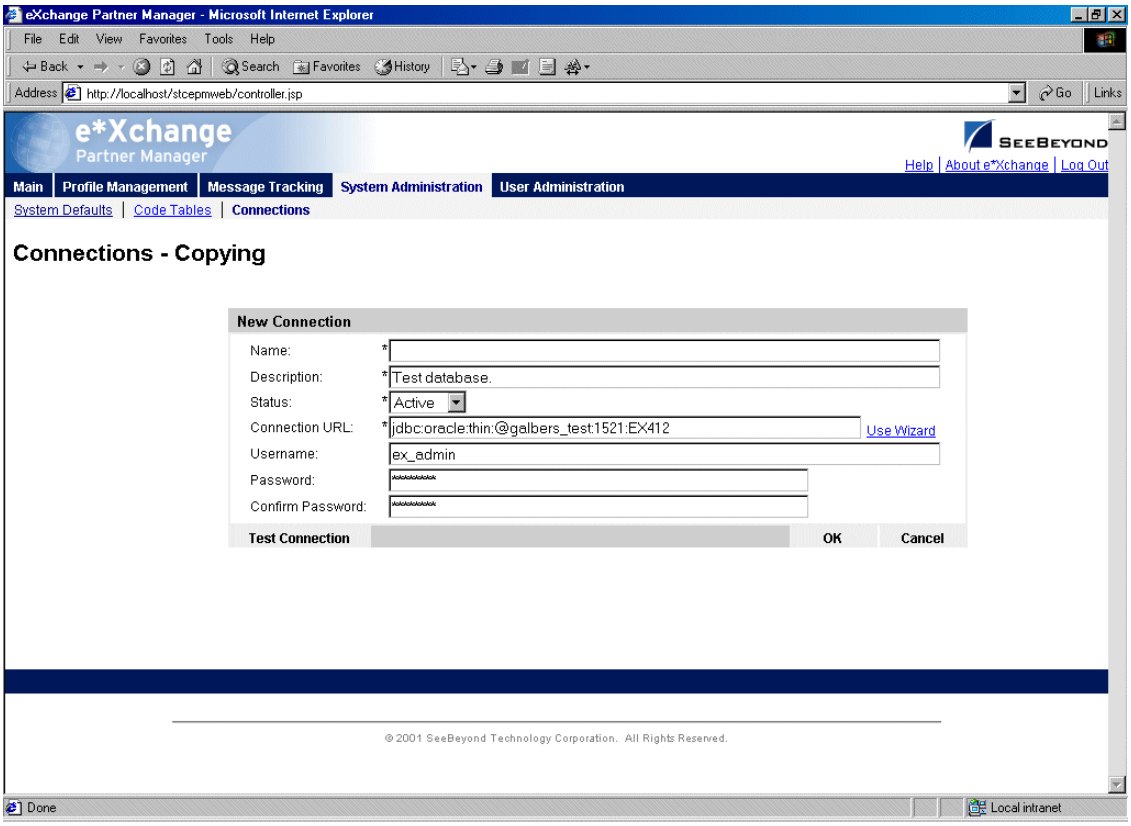
1 On the **Connections - Viewing** page, select the connection that you want to copy.

The connection properties are displayed on the right side of the page.

2 Click the **Copy** button.

The **Connections - Copying** page appears (see Figure 22).

Figure 22 Connections - Copying



3 Type a name for the new connection, and change any other values as needed. If necessary, use the Wizard.

4 Optional: click **Test Connection** to ensure the connection works.

For more information, refer to **Table 3 on page 58**.

5 Click **OK** to save and return to the **Connections - Viewing** page.

The new connection is now on the drop-down selection list.

To delete a connection

1 On the **Connections - Viewing** page, select the connection from the drop-down list.

The connection properties are displayed on the right side of the page.

2 Click the **Delete** button.

A warning message appears asking if you are sure you want to delete.

3 Click **OK**.

The connection is deleted. The Web interface creates a backup copy of the **epm.std** file and then updates the file.

To inactivate or reactivate a connection

1 On the **Connections - Viewing** page, select the connection from the drop-down list.

The connection properties are displayed on the right side of the page.

2 In the **Status** field, toggle the **Active/Inactive** graphic to change the status. Values are as follows:

-  Connection is active: click to inactivate.
-  Connection is inactive: click to reactivate.

2.5 User Administration

e*Xchange controls user access to various features by means of users and groups. Access rights to the user interface can be assigned to specific users. For convenience, you can also create user groups and assign users to them. By granting access to a group, you automatically grant access to all users within that group.

e*Xchange comes with several default user groups:

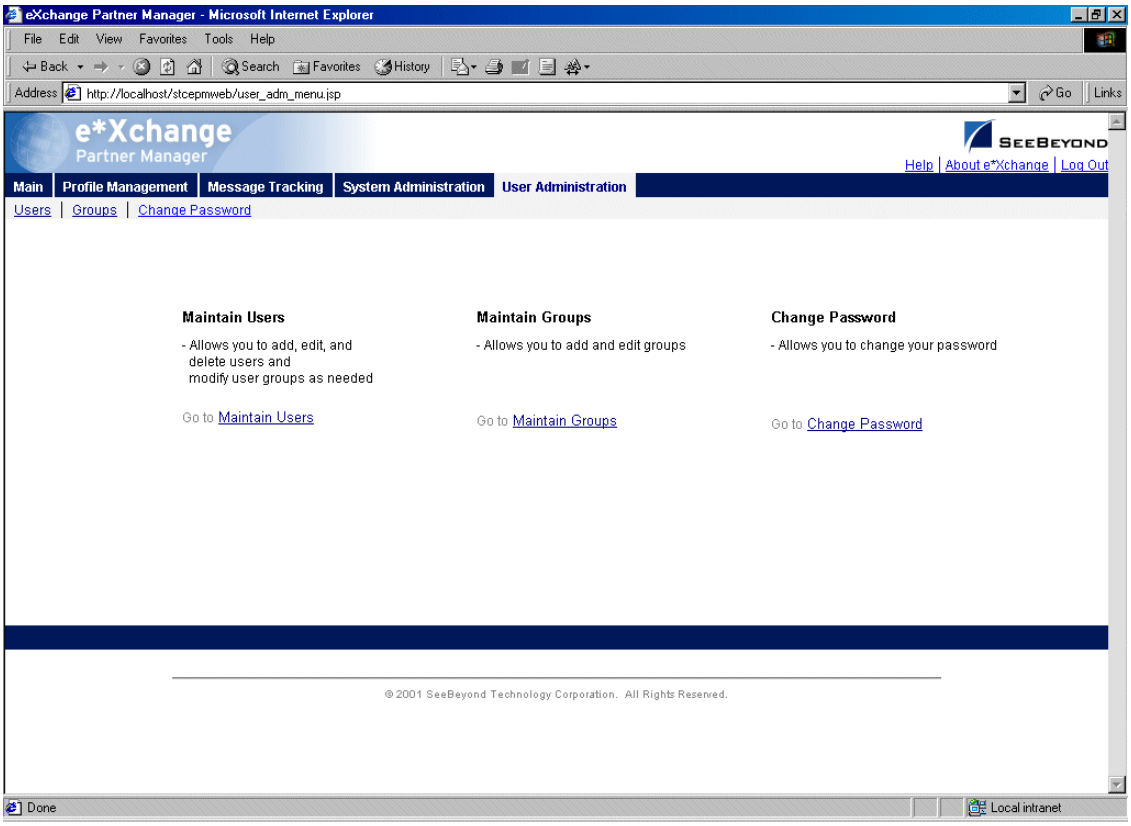
- User Administration
- eX Administrator
- ePartner Manager Access
- Partner Management

The User Administration features allow you to do the following:

- Add users
- Expire and reinstate user access rights
- Create user groups
- Assign users to user groups

From the **Main** page, click **User Administration** to access the User Administration main page (see Figure 23).

Figure 23 User Administration Main Page



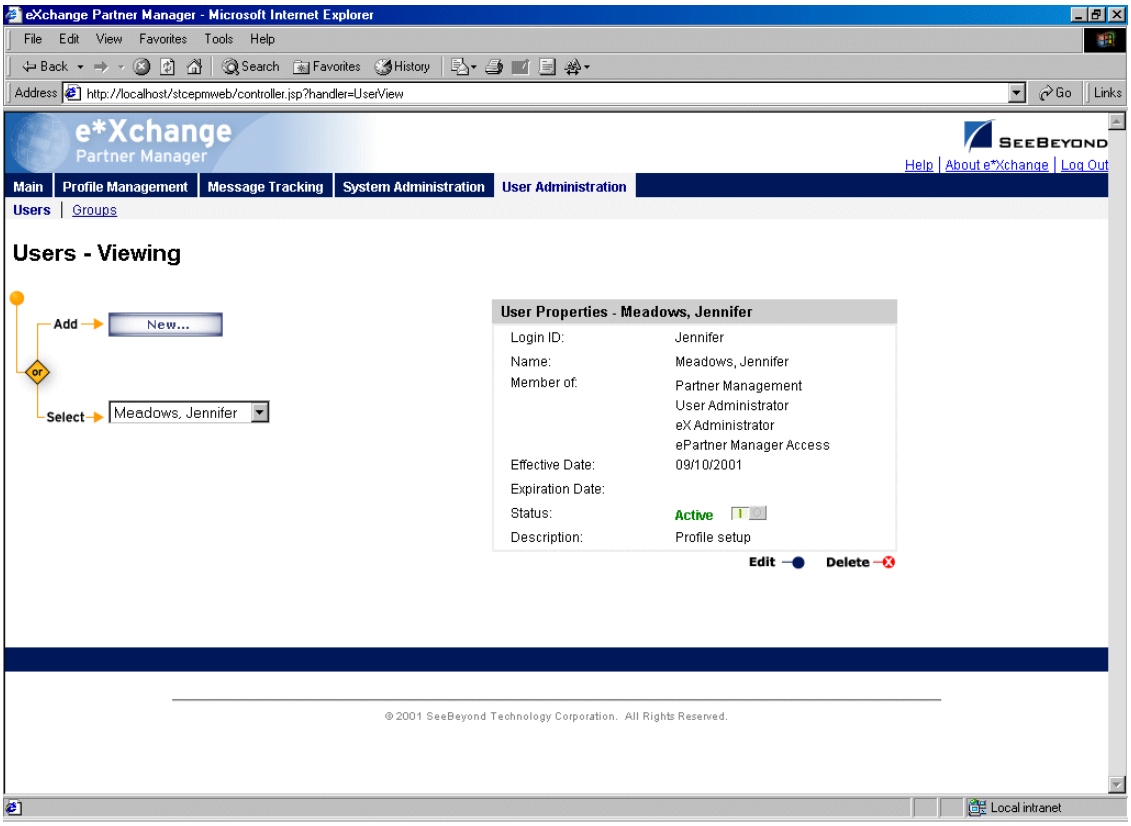
Some of these selections might not be available to you, as follows:

- If you are logged in as the schema owner, the Change Password feature is not available to you. You must change your password in the database itself.
- If you are not a member of the User Administrator group, the Maintain Users and Maintain Groups features are not available to you. You do not have sufficient access rights for these activities.

2.5.1 Working With Users

From the User Administration main page, click **Maintain Users** to access the **Users - Viewing** page (see Figure 24).

Figure 24 Users - Viewing



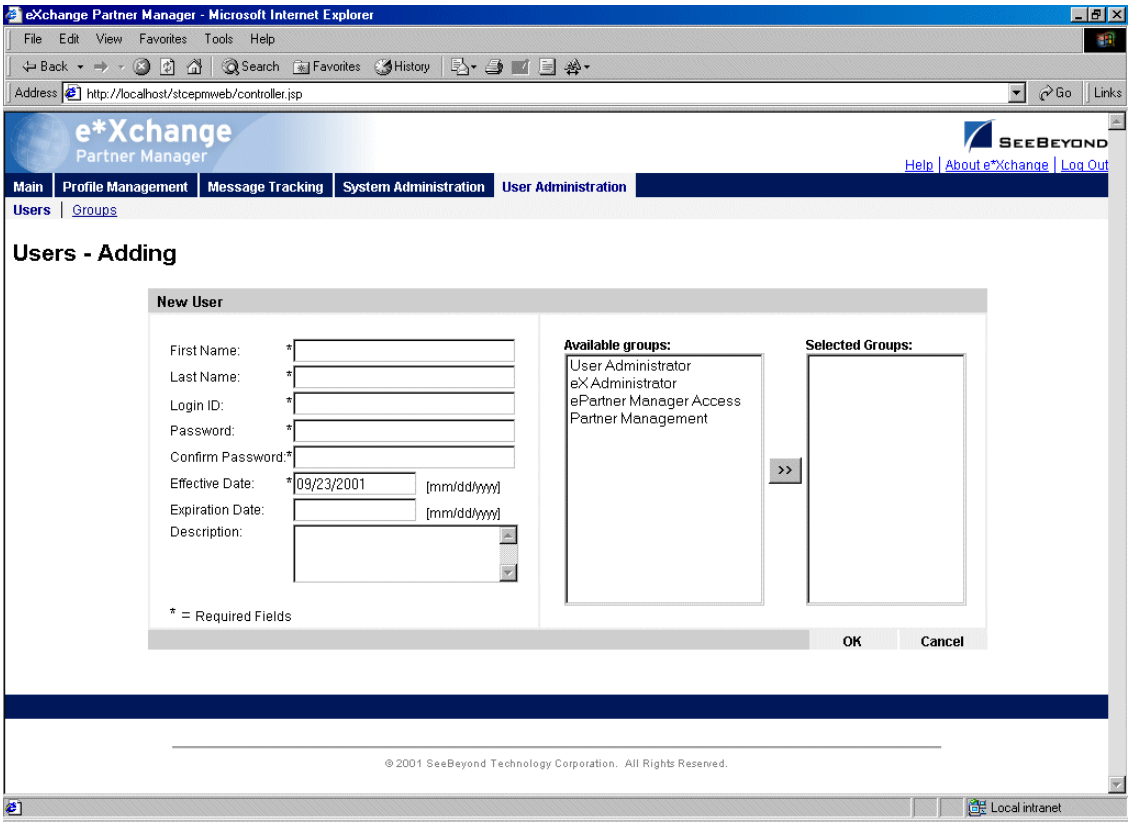
From the **Users - Viewing** page you can complete the following activities:

- Add a user (see **"To add a user" on page 65**).
- Select a user: choose from the drop-down list. The user properties are displayed on the right side of the page.
- Edit properties for the selected user; first select the user that you want to edit, and then click the **Edit** button to access the **Users - Editing** page (see **"To edit user properties" on page 67**).
- Delete the selected user (see **"To delete a user" on page 68**).
- Activate or inactivate the selected user (see **"To activate or inactivate a user" on page 68**).

To add a user

1 From the **Users - Viewing** page, click the **New** button to access the **Users - Adding** page (see Figure 25).

Figure 25 Users - Adding



2 Enter or select values for the user.

For more information on specific fields, refer to Table 4.

3 Click **OK** to save the new information and return to the **Users - Viewing** page.

The new user information is now displayed, as shown in Figure 26.

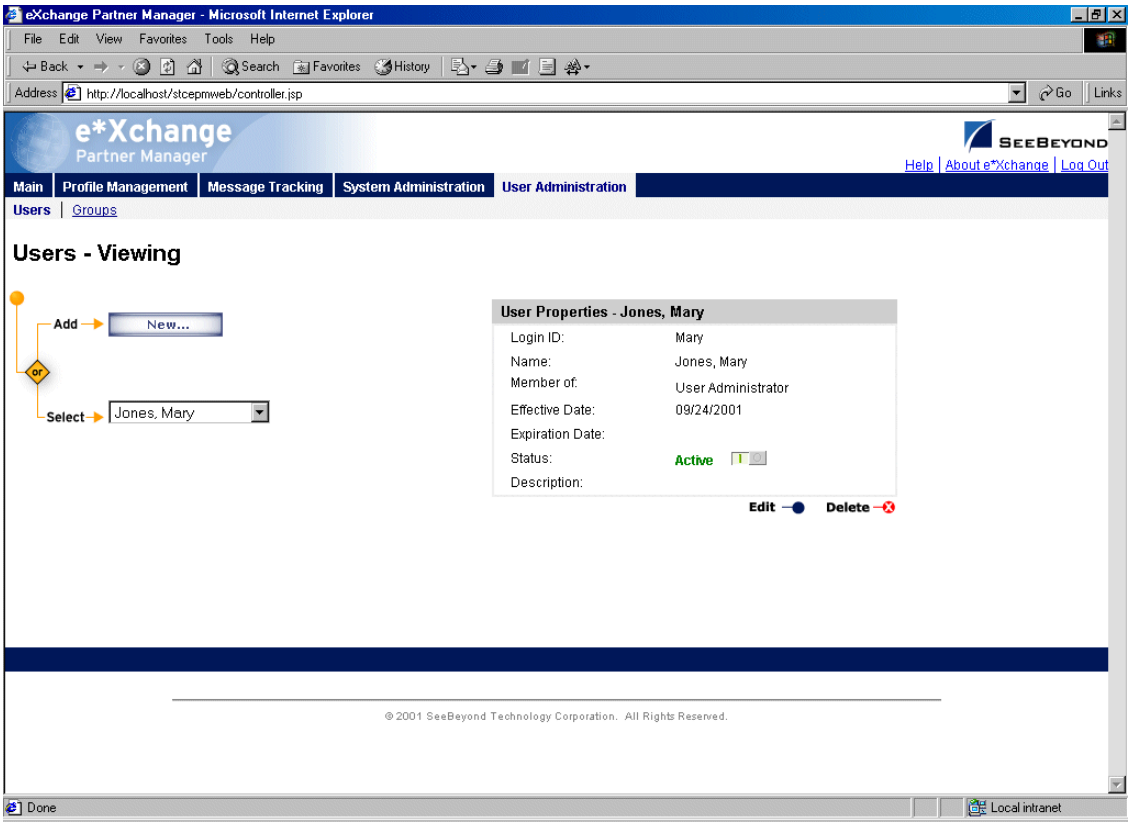
Table 4 Users - Adding: Fields

Name	Description
First Name	The user's first name.
Last Name	The user's last name.
Login ID	The user's login ID for accessing e*Xchange.
Password	The password the user must enter to access e*Xchange. Maximum password length is 20 characters.
Confirm Password	You must type the password a second time.
Effective Date	The first date on which the user can log in to e*Xchange. Default: The current date.
Expiration Date	The date on which the user's access rights expire. On this date, the user will not be able to log in to e*Xchange. Defaults to 00/00/00, which means that no expiration date is currently set.

Table 4 Users - Adding: Fields (Continued)

Name	Description
Description	A description of the user; for example, you could add a statement of the primary tasks or responsibilities performed by this user.

Figure 26 Users - Viewing Page, Showing User Information



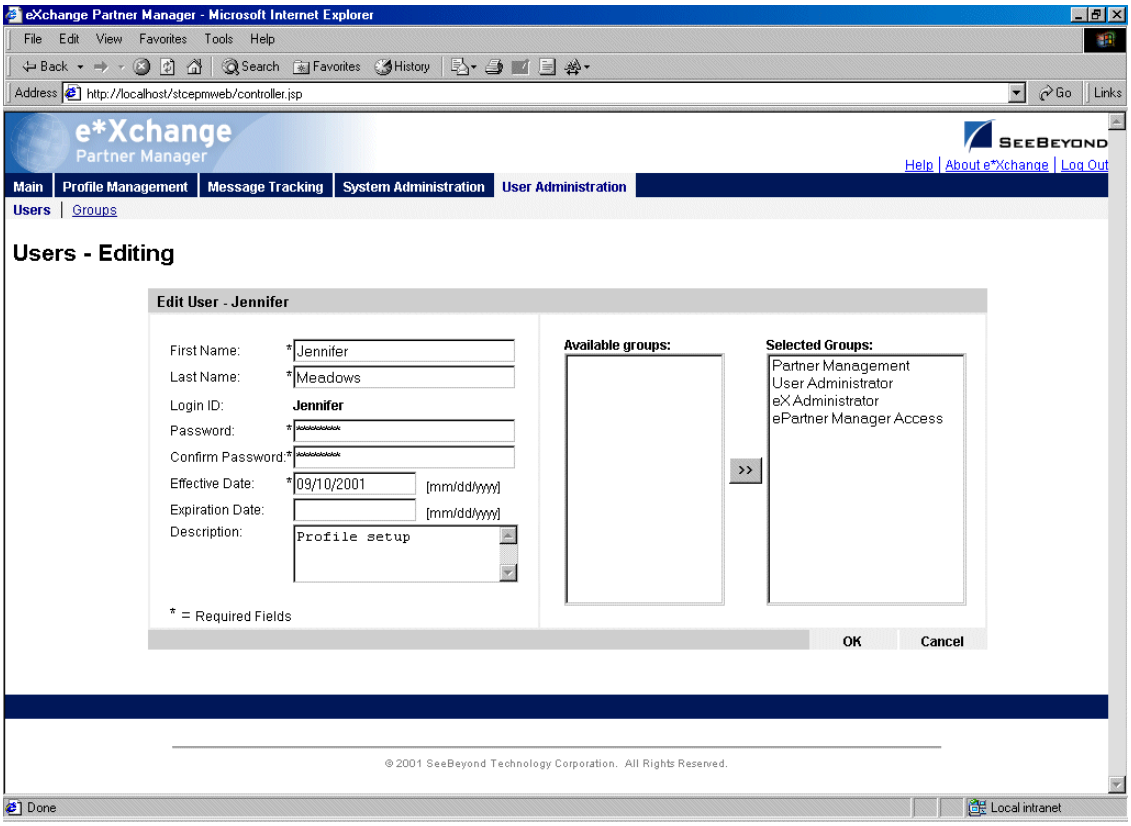
To edit user properties

1 From the **Users - Viewing** page, select the user from the drop-down list.

The user properties are displayed on the right side of the page.

2 Click the **Edit** button to access the **Users - Editing** page (see Figure 27).

Figure 27 Users - Editing



3 Edit the user properties as needed.

For more information on specific fields, refer to **Table 4 on page 66**.

4 Click **OK** to save changes and return to the **Users - Viewing** page.

To delete a user

1 On the **Users - Viewing** page, select the user from the drop-down list.

The user properties are displayed on the right side of the page.

2 Click the **Delete** button.

A warning message appears asking if you are sure you want to delete.

3 Click **OK**.

The user is deleted.

To activate or inactivate a user

1 On the **Users - Viewing** page, select the user from the drop-down list.

The user properties are displayed on the right side of the page.

2 In the **Status** field, toggle the **Active/Inactive** graphic to change the status. Values are as follows:

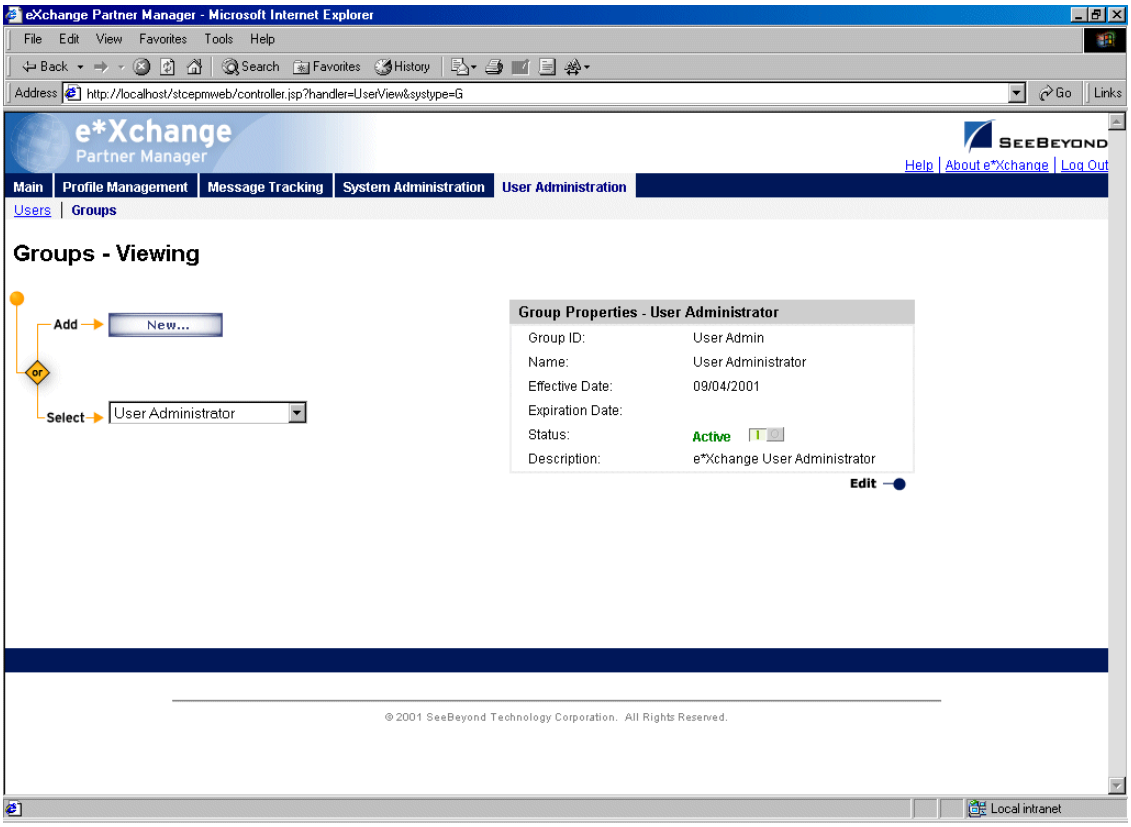
-  User is active: click to inactivate.

-  User is inactive: click to reactivate. You are offered the option to cascade the current access rights to the lower levels.

2.5.2 Working With Groups

From the User Administration main page, click **Maintain Groups** to access the **Groups - Viewing** page (see Figure 28).

Figure 28 Groups - Viewing



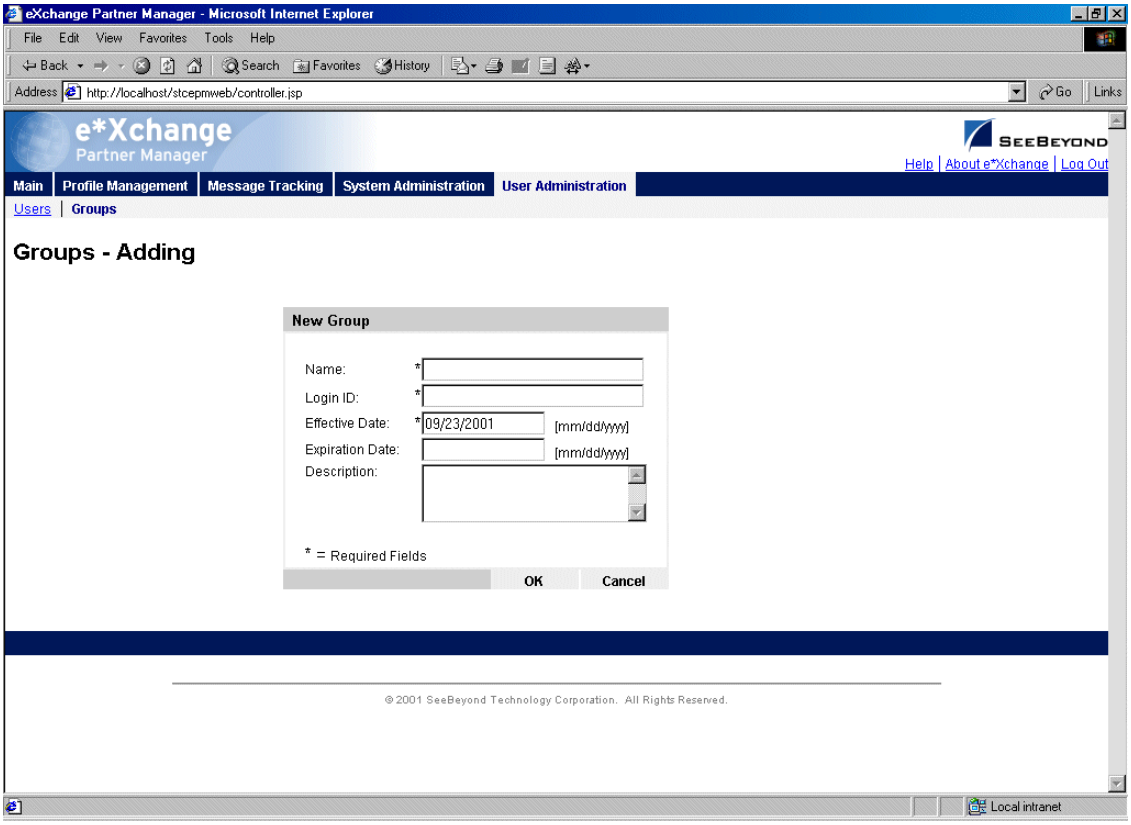
From the **Groups - Viewing** page you can complete the following activities:

- Add a group (see **"To add a group" on page 70**).
- Select a group: choose from the drop-down list. The group properties are displayed on the right side of the page.
- Edit properties for the selected group: first select the group that you want to edit, and then click the **Edit** button to access the **Groups - Editing** page (see **"To edit group properties" on page 71**).
- Activate or inactivate the selected group (see **"To activate or inactivate a group" on page 71**).

To add a group

1 From the **Groups - Viewing** page, click the **New** button to access the **Groups - Adding** page (see Figure 29).

Figure 29 Groups - Adding



2 Enter or select values for the group.

For more information on specific fields, refer to Table 5.

3 Click **OK** to save the new information and return to the **Groups - Viewing** page.

The new group information is now displayed.

Table 5 Groups - Adding: Fields

Name	Description
Name	The name of the user group. This is the name that will appear in the Groups list.
Login ID	An identification code for the user group.
Effective Date	The first date on which a user assigned to this user group can log in to e*Xchange. Default: The current date.

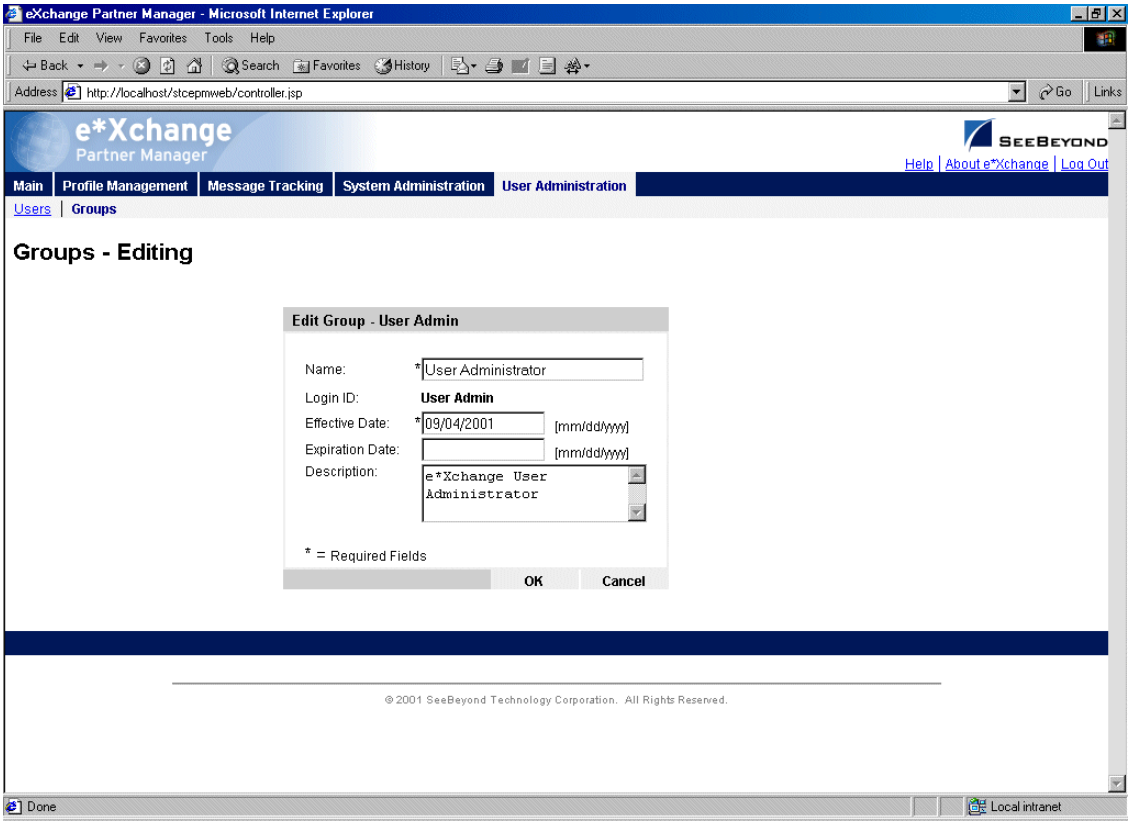
Table 5 Groups - Adding: Fields (Continued)

Name	Description
Expiration Date	The date on which the group's access rights expire. On this date, users assigned to this group will not be able to log in to e*Xchange unless they are also assigned to another group that has access. Defaults to 00/00/00, which means that no expiration date is currently set.
Description	A description of the primary tasks or responsibilities performed by users associated with this group.

To edit group properties

1. From the **Groups - Viewing** page, select the group from the drop-down list.
2. Click the **Edit** button to access the **Groups - Editing** page (see Figure 30).

Figure 30 Groups - Editing



3. Edit the group properties as needed.
4. Click **OK** to save changes and return to the **Groups - Viewing** page.

To activate or inactivate a group

1. On the **Groups - Viewing** page, select the group from the drop-down list.

   The group properties are displayed on the right side of the page.

2 In the **Status** field, toggle the **Active/Inactive** graphic to change the status. Values are as follows:

-  Group is active: click to inactivate.
-  Group is inactive: click to reactivate. You are offered the option to cascade the current access rights to the lower levels.

2.6 Changing Your Password

It is a good idea to change your password from time to time.

Note: *If you are logged in as the schema owner, this option is not available to you. You must change your password in the database itself.*

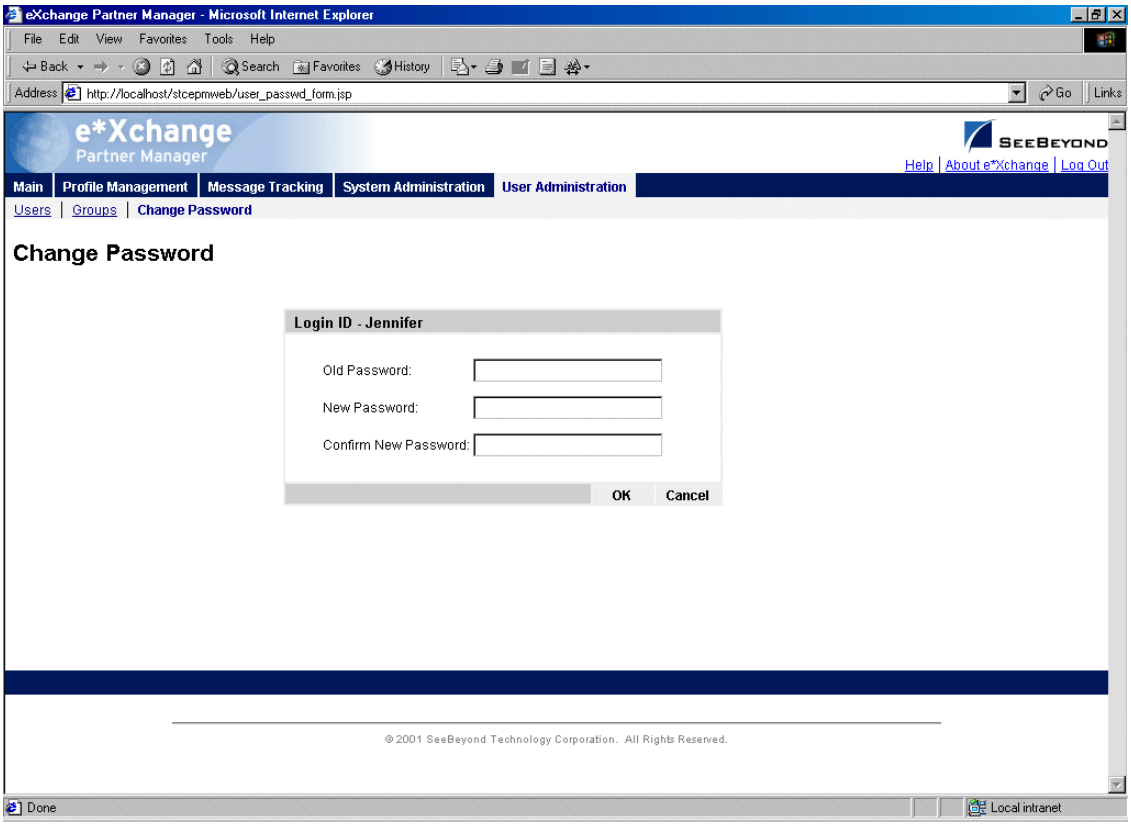
Follow the procedure below to change your password.

To change your password

1 From the e*Xchange Web Interface **Main** page, go to **User Administration**.

2 From the User Administration main page, click **Change Password** to access the **Change Password** page (see Figure 31).

Figure 31 Change Password



Note: *This option is also available as a link from the Users and Groups pages.*

3 Type the old password.

4 Type the new password.

5 Retype the new password for verification.

6 Click **OK**.

e*Xchange displays the following message:

Password for user: [name of current user] has been changed successfully.

2.7 Editing the epm.std File

Installation of the e*Xchange Web interface automatically creates a file, **epm.std**, which contains the information required so that the Web interface can access your database.

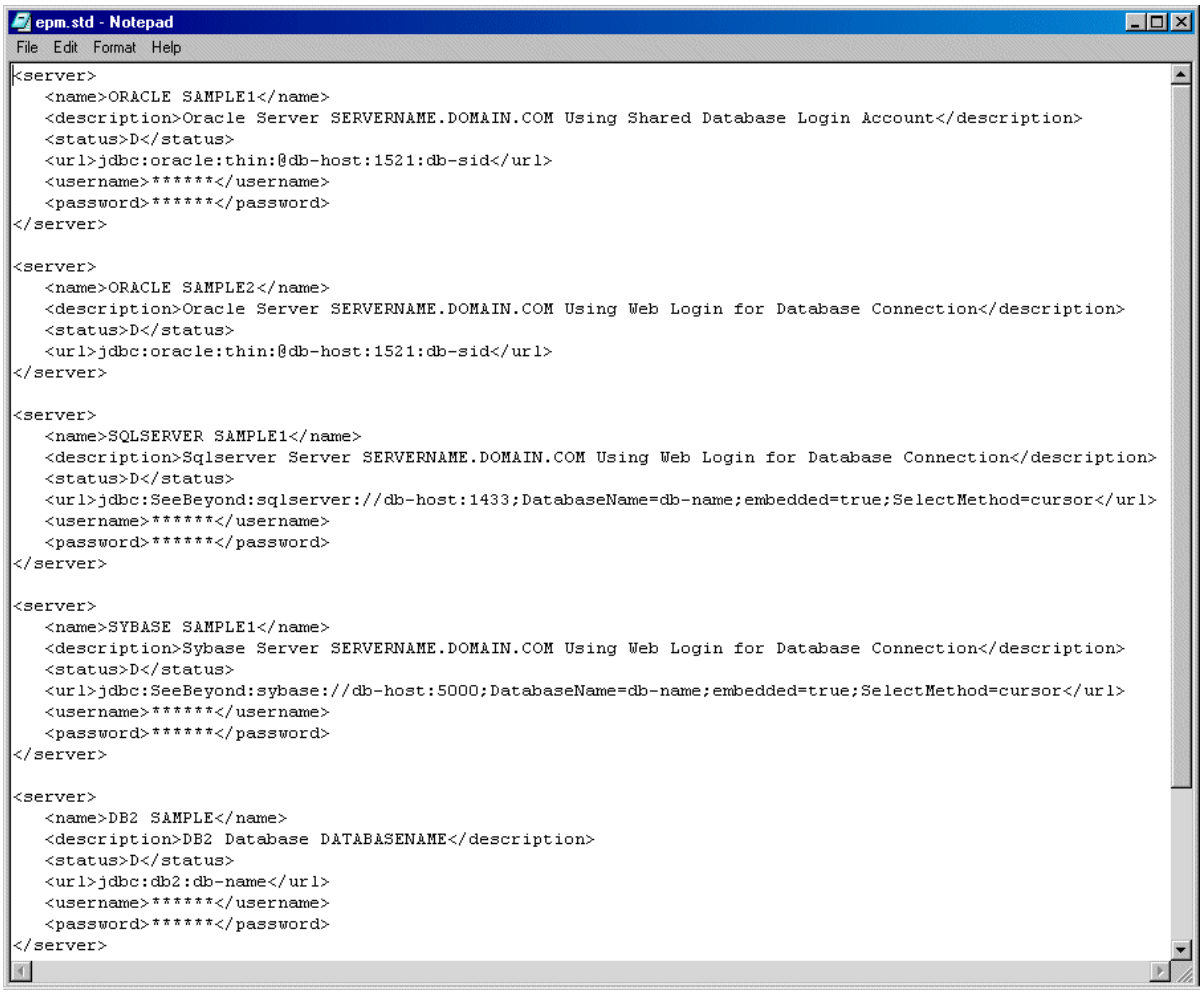
The default file includes sample entries for each database type. In addition, the database value that you enter during the installation process are used to create a new entry that is valid for your database. If you want to add access to additional databases, or change the settings for any reasons, you can edit the settings file directly.

By default, the **epm.std** file is located in the following folder:

\eXchange\tomcat-3.2.1\webapps\stcepmweb\web-inf

A sample default entry in **epm.std** is shown in Figure 32.

Figure 32 Default Entries in epm.std File



Each default entry includes the following XML tags:

- SERVER begin and end tag indicating that each entry lists a server.
- NAME tag for the server name (must be unique in the file).
- DESCRIPTION tag for a written description of the entry. This is for your information only.
- STATUS tag for the current status of the entry: D for deactivated or A for Active. An entry with a status of D does not show up on the **Server Name** drop-down list on the e*Xchange Web Interface login page.
- URL tag: The URL for access to the database. This is a string comprised of several elements. Replace the **db-host** value (for example, **db-host:5000**) with the host name and port number for the database, separated by a colon. Replace **db-name**

with the SID name (for Oracle) or database name (for SQL Server, Sybase, or DB2 UDB).

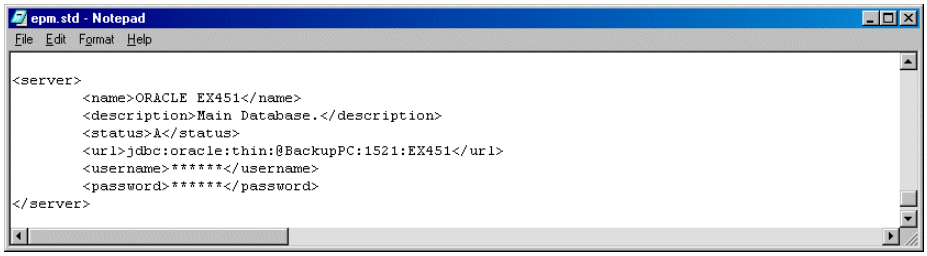
- Username tag: The user name for access to the database.
- Password tag: The password for access to the database.

For example, actual values might be as follows:

- Server type is Oracle, server name is EX451
- Description tag is "Main Database."
- Status is Active.
- Host name is BackupPC, port is 1521, Oracle SID is EX451.
- Username and password are both Jane (though these values cannot be read in the file).

With the above values, the entry in the **epm.std** file is shown in Figure 33.

Figure 33 Sample epm.std File



Note that the default value for both the username and password tags is six asterisks. For security reasons, username and password are never stored as plain text. Instead, when the schema/database owner sets the username and password in the e*Xchange Web interface, the encrypted values are stored in the **epm.std** file.

The schema/database owner has the option to test the database connection as well as setting the username and password. If the username and password are valid, e*Xchange allows the user access to the Web interface.

Some points to note about this file:

- You can reset the username and password by opening the file, deleting the encrypted values, and replacing them with six asterisks for each tag. The next time you log on, e*Xchange verifies the username and password against the database and stores the encrypted values in the **epm.std** file.
- The server name must be unique for the file; two identical server names might cause a problem.
- Entries with a status of D are not available on the drop-down list on the Login page.
- If you remove the **username** and **password** tags from the entry in the **epm.std** file entirely, e*Xchange expects that the user logging in exists both at the application level (entries in the user tables in the e*Xchange database) and also at the database level.

2.8 Extending the Session Inactivity Setting

The length of time an inactive database connection is kept open before timing out is determined by a setting in the **web.xml** file. If you want to extend (or reduce) the time your connection is kept open when you are not using it, you can do so by changing this setting.

By default, the **web.xml** file is located in the following folder:

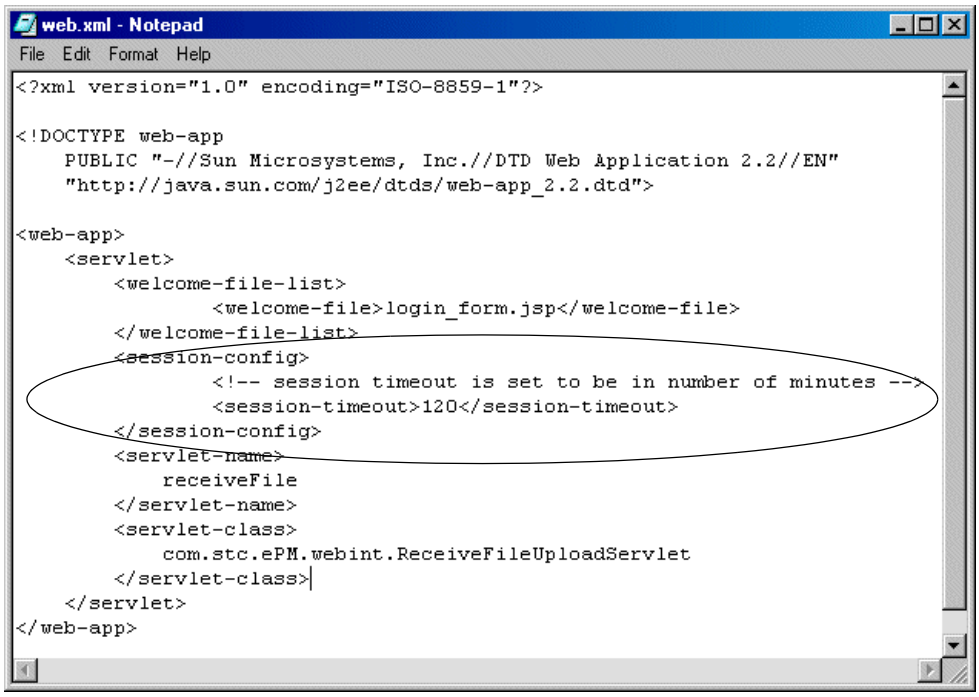
\eXchange\tomcat-3.2.1\webapps\stcepmweb\web-inf

To change the session time

1 Open **\eXchange\tomcat-3.2.1\webapps\stcepmweb\web-inf\web.xml** in Notepad.

The session timeout value, in minutes, is set in the session-timeout tag. The default is 120 minutes (2 hours) (see Figure 34).

Figure 34 The web.xml File



2 Change the numerical setting for the session-timeout value.

3 Save and close the file.

4 Restart Tomcat and the Web interface.

Chapter 3

Web Interface: Security

This chapter provides information on using the user security features in the e*Xchange Partner Manager Web interface.

Setup of users and groups is covered in **"Web Interface: Overview and Administration" on page 41**.

The user security feature for the e*Xchange Partner Manager Web interface works the same at all four levels:

- Company
- Trading Partner
- B2B Protocol
- Message Profile

From the **Security Management** page for a specific component, you can do the following:

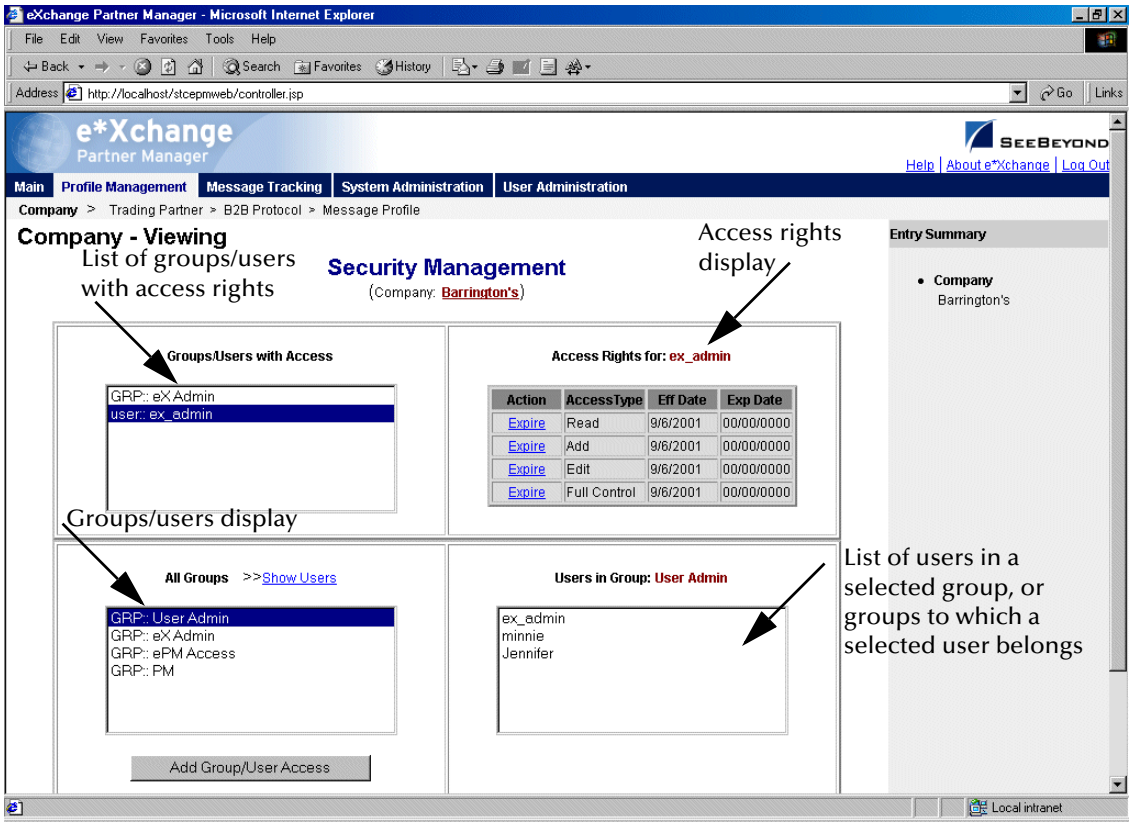
- Add group or user access to the component
- Specify customized access rights for a user or group, including:
  - Add access
  - Expire access
  - Reinstate access that has been expired

To set up security

1. From the main page for any level, click the **Security** button.

   The **Security Management** page appears (see Figure 35).

Figure 35 Security Management Page



2 Set the security values appropriately.

3 If needed, set access permissions for a specific group or user by following the procedure provided in **"To add access permission" on page 78**.

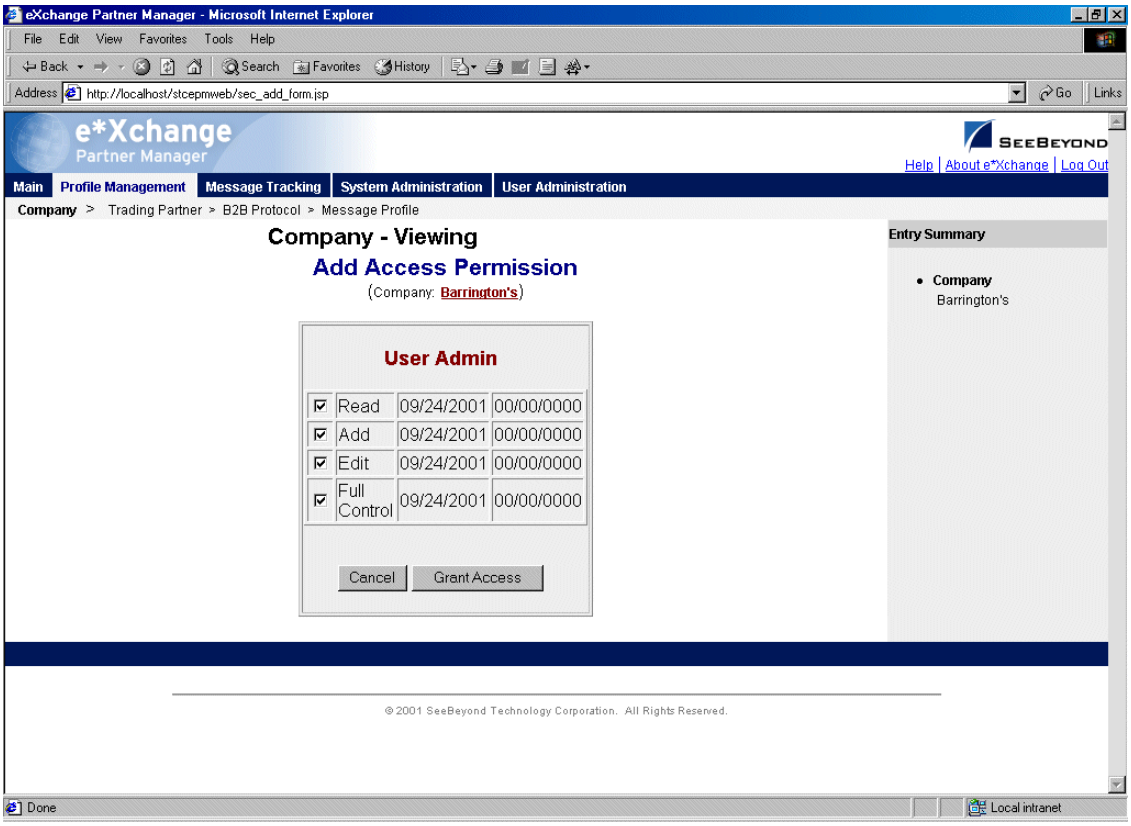
4 When done, click the **Done** button, or click the component name at the top of the page, to return to the **Properties** page for the component level.

Note: *To show users as well as groups, click* ***Show Users****.*

To add access permission

1 From the **Security Management** page, click the **Add Group/User Access** button to access the **Add Access Permission** page (see Figure 36).

Figure 36 Add Access Permission Page



2 Set the values as needed.

3 Click the **Grant Access** button to save the changes and return to the **Security Management** page.

Chapter 4

Web Interface: Profile Management

The e*Xchange Partner Manager Web interface allows you to set up all the information you need to exchange eBusiness messages with trading partners, via a browser interface.

From the Web interface you can complete the following activities relating to profile management:

- Add, edit, or delete a company
- Add, edit, or delete a trading partner
- Add, edit, or delete an eBusiness protocol (B2B protocol)
- Add, edit, or delete a message profile
- Set or change security for a company, trading partner, eBusiness protocol, or message profile.

Note: *In the Web interface, an asterisk (*) on a field indicates that it is a required field.*

This chapter provides information on working with the company, trading partner, and eBusiness protocol levels. The message profile level is addressed separately for each eBusiness protocol in the following chapters:

- X12—**"Web Interface: Profile Setup for X12" on page 113**
- UN/EDIFACT—**"Web Interface: Profile Setup for UN/EDIFACT" on page 129**
- RosettaNet—**"Web Interface: Profile Setup for RosettaNet" on page 159**
- CIDX—**"Web Interface: Profile Setup for CIDX" on page 177**

For information on setting up security at all levels, and for all eBusiness protocols, refer to **"Web Interface: Security" on page 77**.

4.1 Profile Management

Profile setup and management is divided into four component levels:

- Company (see **"Setting Up Company Information" on page 82**)

  The company component is the highest level of the trading partner profile. It includes the name of the company and any related information that your business requires you to store about the partner company.

The only information required at the company level is the company name.

- Trading Partner (see **"Setting Up Trading Partner Information" on page 88**)

  Information about your trading partner. This could be a subdivision of a company, it could be the same as the company, or you could set up your various trading partners under a "dummy" umbrella company.

  The only information required at the trading partner level is the trading partner name. Security is automatically inherited from the upper (company) level, although you can change it.

- B2B Protocol (see **"Setting Up B2B Protocol Information" on page 96**)

  This level allows you to define eBusiness protocol values that are unique to the trading partner but independent of the message being sent or received. This includes items such as the communications protocol to be used, encryption information (if applicable), and SSL information (if you are using HTTPS).

  For each trading partner, you would define one inbound B2B protocol and one outbound, for each message standard version.

  B2B protocol attributes are grouped into three sections:

  - General
  - Transport Component
  - Message Security

- Message Profile (see **"Setting Up Message Profile Information" on page 112**)

  This level, the final step in trading partner setup, allows you to define the values required so that you can successfully send and receive specific eBusiness messages. This includes items such as the Global Process Code and the Global Partner Role Classification Code for RosettaNet, the Transaction Set ID and Functional ID Code for X12, and the Message Type Identifier for UN/EDIFACT.

  You must define one message profile for each type of message you will send to the trading partner and one for each type of message you will receive from the trading partner.

4.2 Supported Communications Protocols

The communications protocols supported by the e*Xchange Partner Manager Web interface are shown in Table 6.

Table 6 Supported Communications Protocols

eBusiness Protocol	FTP (Batch)	HTTP	HTTPS	SMTP
RosettaNet 1.1	No	Yes	Yes	No
RosettaNet 2.0	No	Yes	Yes	Yes
UN/EDIFACT	Yes	Yes	Yes	Yes

Table 6 Supported Communications Protocols (Continued)

eBusiness Protocol	FTP (Batch)	HTTP	HTTPS	SMTP
X12	Yes	Yes	Yes	Yes
CIDX	No	Yes	Yes	No

4.3 Setting Up Company Information

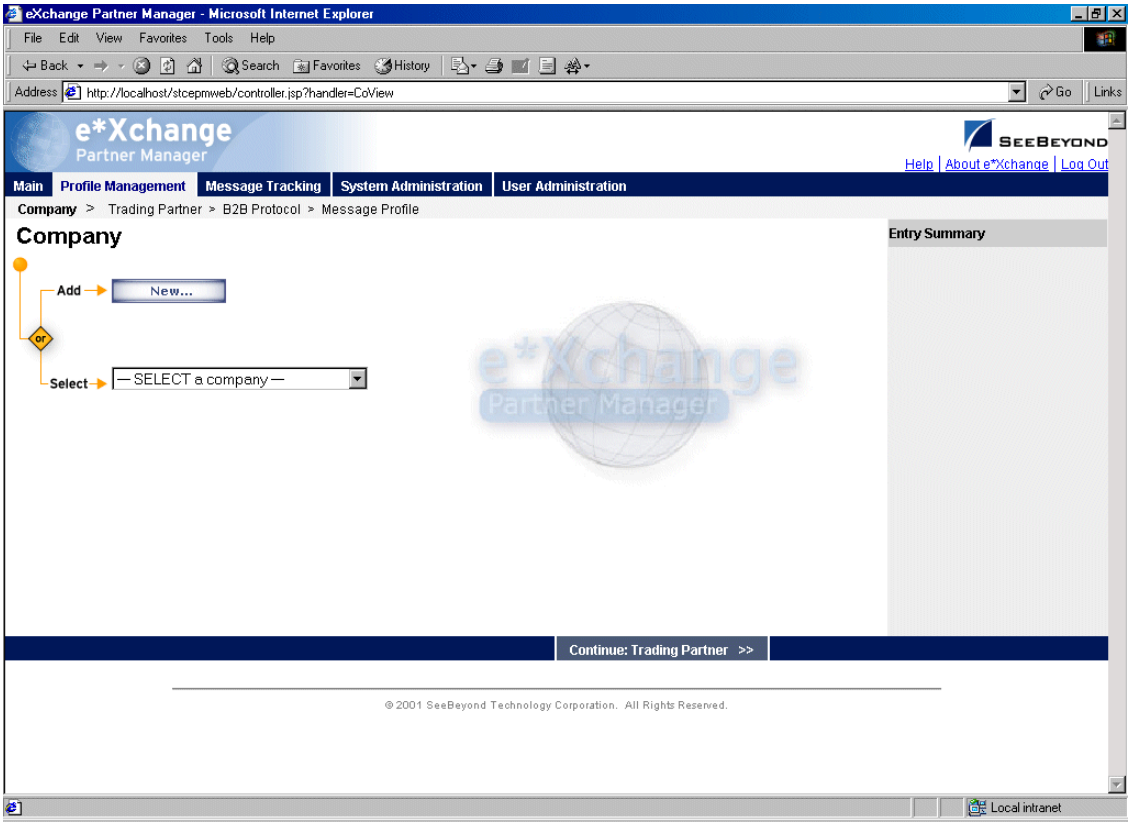
The Company List is the starting point for all the profile management functions provided by the e*Xchange Partner Manager Web interface.

To access the Company List

- From the **Main** page, click **Profile Management**.

  The **Company** page appears (see Figure 37).

Figure 37 Company Page



From the **Company** page you can complete the following activities:

- Add a company (see **"To add a company" on page 83**).
- Select a company: choose from the drop-down list. The company properties are displayed on the right side of the page.

- Edit the selected company (see **"To edit a company" on page 85**).
- Create a new company based on the selected one (see **"To copy a company" on page 86**).

  Note: For general information on the copy feature, refer to **"Copying Components" on page 111**.
- Delete the selected company (see **"To delete a company" on page 87**).
- Set or change security for the selected company (see **"Web Interface: Security" on page 77**).
- Go on to trading partner activities: select a company and then click **Continue: Trading Partner** to access the **Trading Partner** page.

To add a company

1. From the **Company** page, click the **New** button to access the **Company - Adding** page (see Figure 38).
2. Enter the company information.

   For more information, refer to Table 7.
3. Click **Next** to save the new information and return to the **Company** page.

   The new company information is now displayed, as shown in Figure 39.

Note: *Company profiles are only available if they were already set up in e*Xchange Client for Windows. If you select a company profile, more attributes might be available than are shown in Figure 38.*

Figure 38 Company - Adding

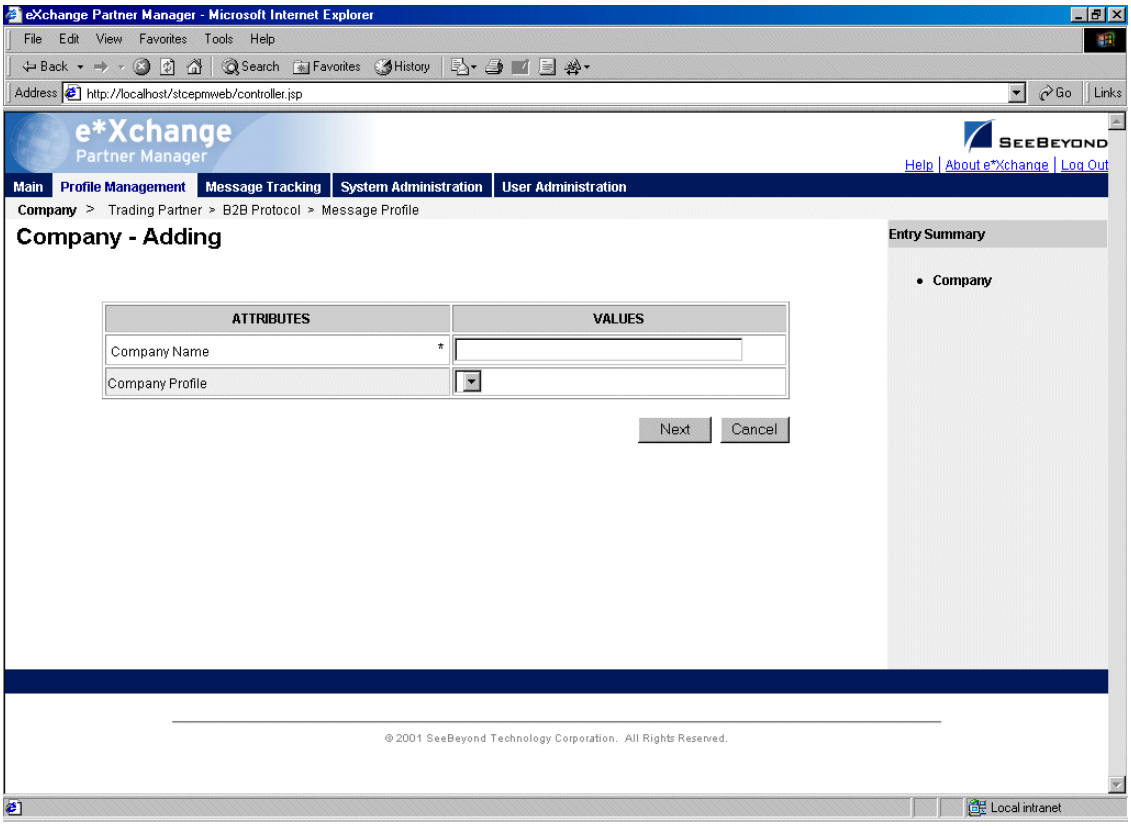
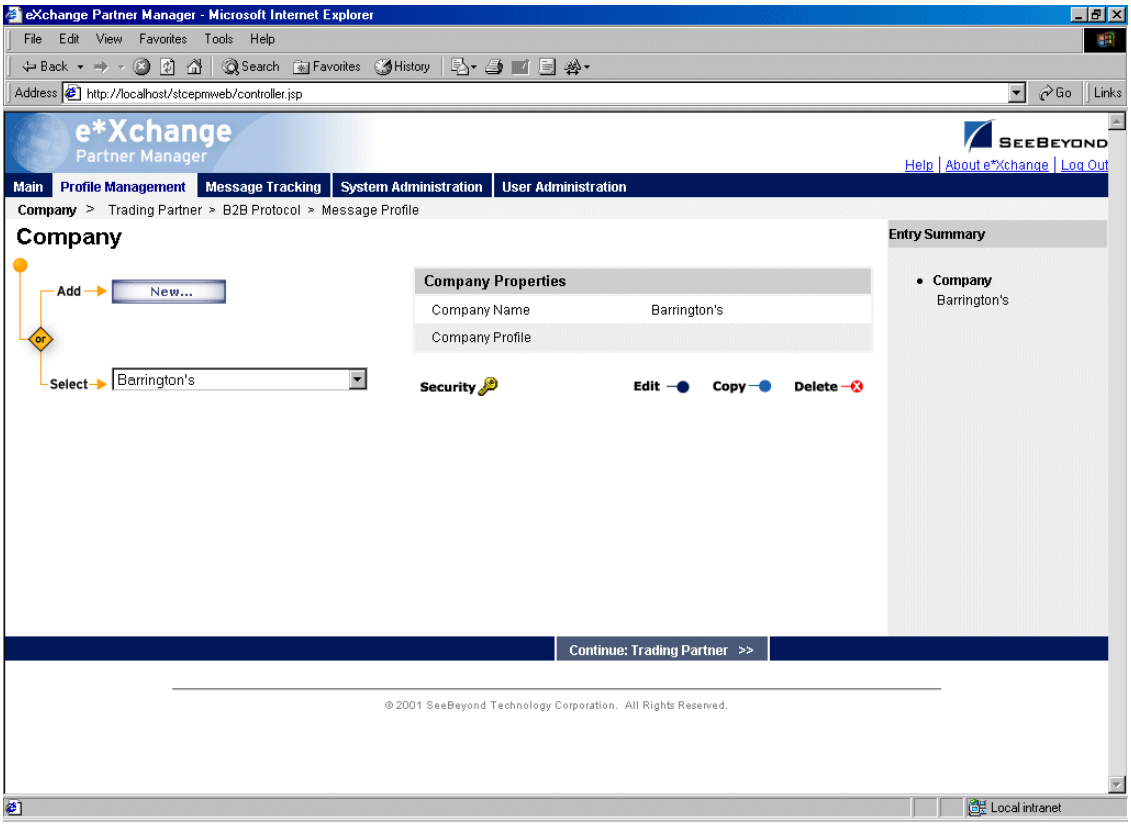


Table 7 Company - Adding, Editing, Copying: Fields

Name	Description
Company Name	The name of the company.
Company Profile	Not yet supported in the Web interface.

Figure 39 Company Page Showing Company Information

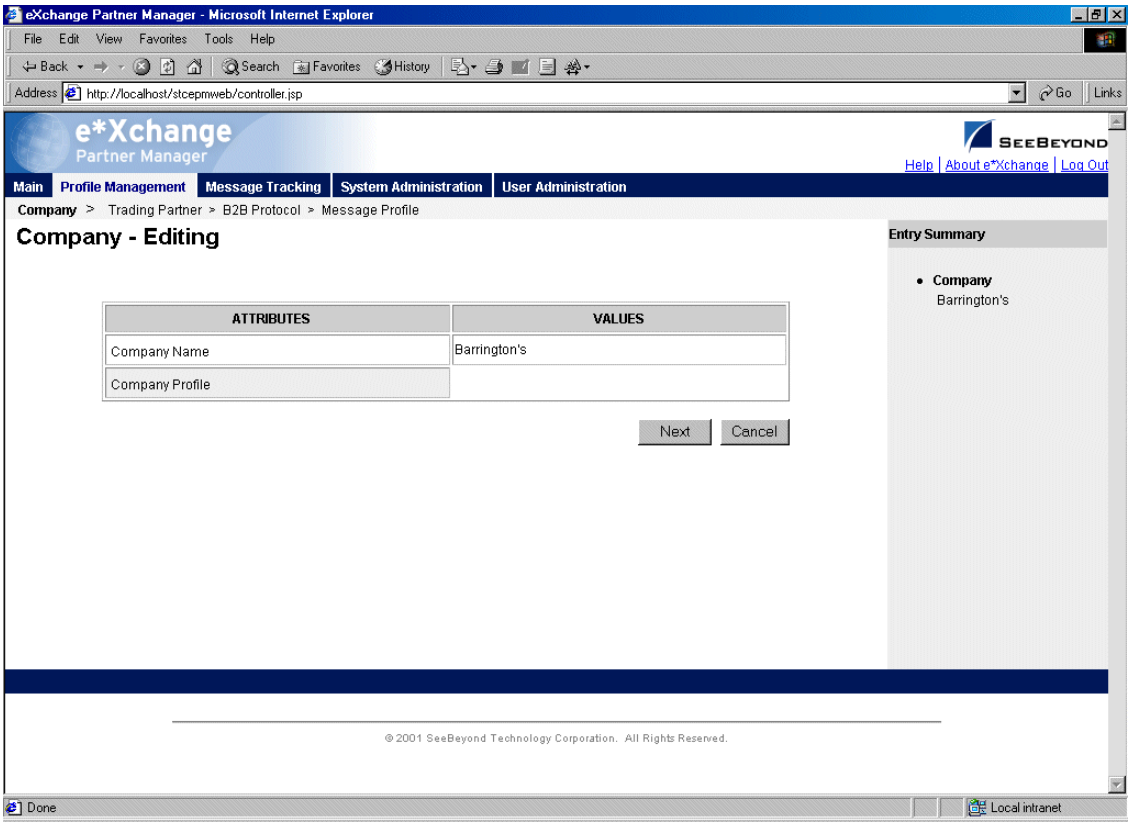


To edit a company

1. From the **Company** page, select the company from the drop-down list.

   The company properties are displayed on the right side of the page.
2. Click the **Edit** button to access the **Company - Editing** page (see Figure 40).

Figure 40 Company - Editing



3 Change the values as needed.

For more information, refer to Table 7 on page 84.

4 Click **Next** to return to the **Company** page.

To copy a company

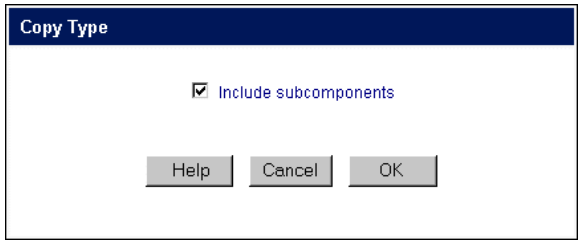
1 On the **Company** page, select the company that you want to copy.

The company properties are displayed on the right side of the page.

2 Click the **Copy** button.

The **Copy Type** page appears (see Figure 41).

Figure 41 Copy Type (Copying a Company)

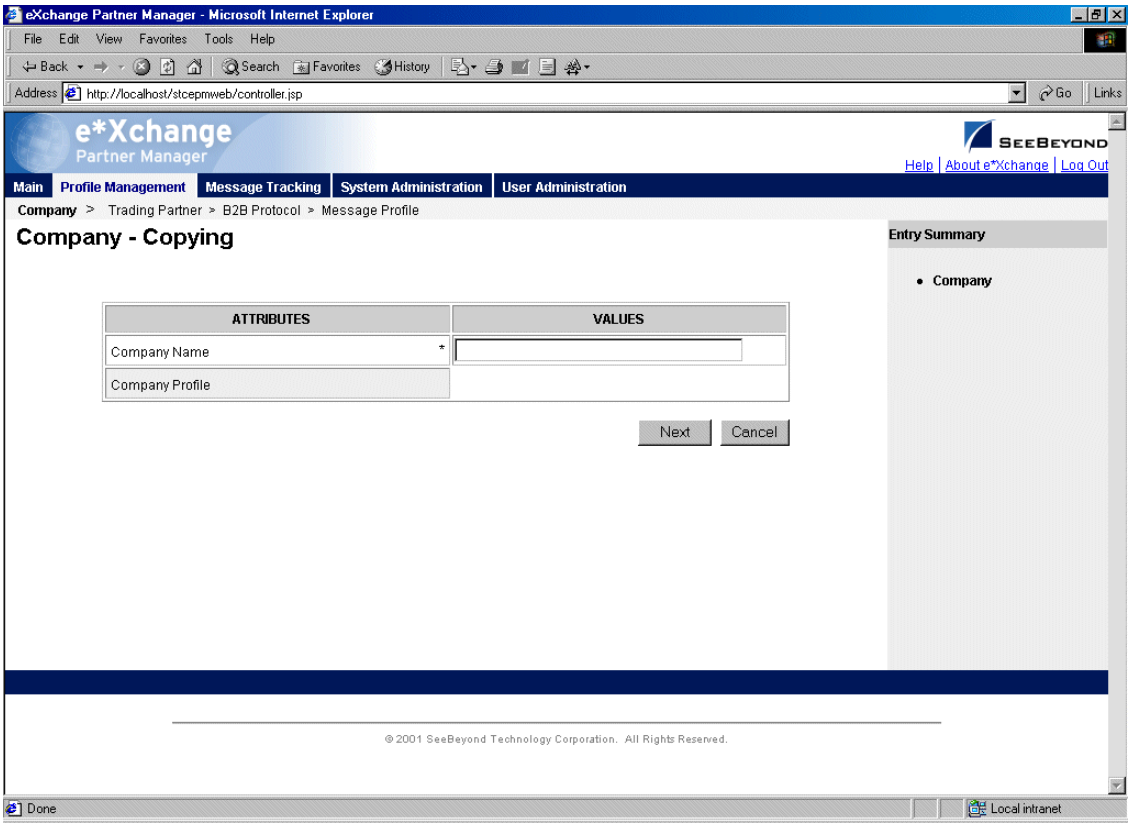


3 Optional: if you do not want to copy subcomponents (trading partners, B2B protocols, and message profiles), clear the **Include subcomponents** check box.

4 Click **OK**.

The **Company - Copying** page appears (see Figure 42).

Figure 42 Company - Copying



5 Type the new company name, and any other values as needed.

For more information, refer to **Table 7 on page 84**.

6 Click **Next** to save and return to the **Company** page.

The new company is now on the drop-down company list.

To delete a company

1 On the **Company** page, select the company from the drop-down list.

The company properties are displayed on the right side of the page.

2 Click the **Delete** button.

A warning message appears asking if you are sure you want to delete.

3 To delete the company, click **OK**.

The company is deleted.

To set up security

1. On the **Company** page, select the company from the drop-down list.

   The company properties are displayed on the right side of the page.

2. Click the **Security** button.

   The **Security Management** page appears.

3. Set the values as needed.

4. Click **OK**.

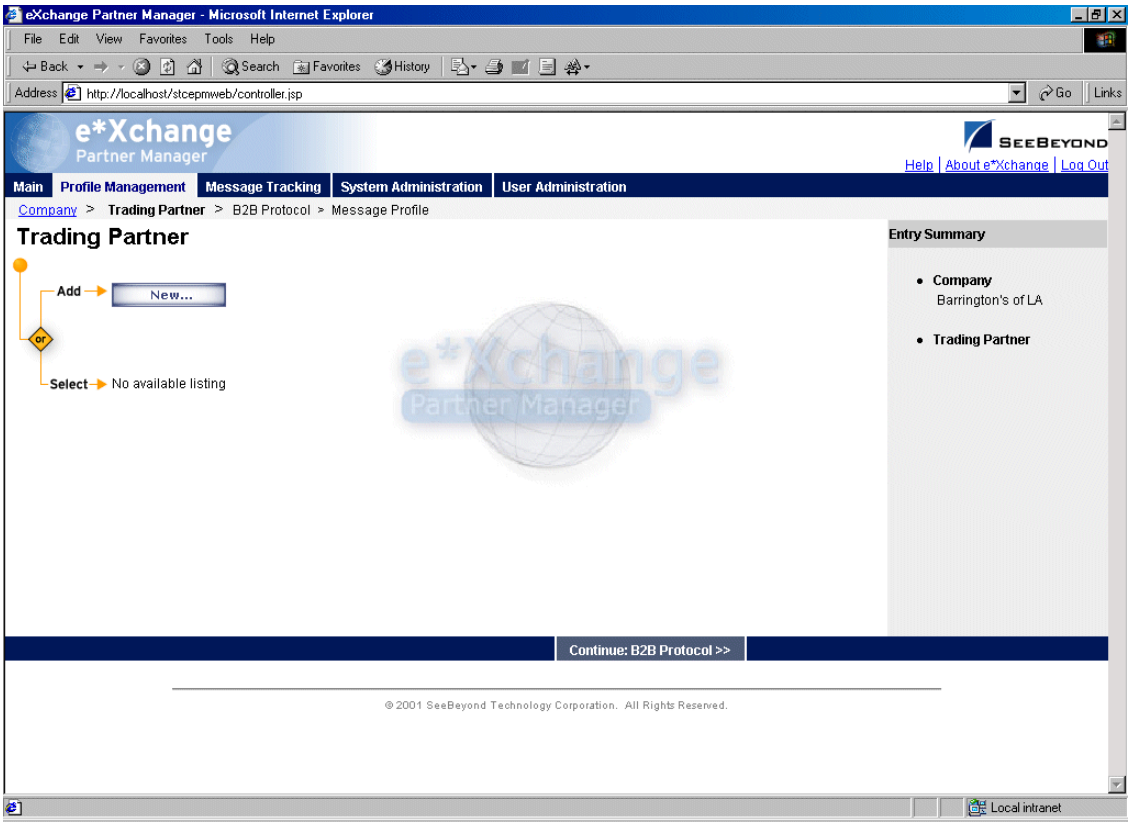
For detailed instructions on setting up security, refer to **"Web Interface: Security" on page 77**.

4.4 Setting Up Trading Partner Information

Once you have set up a company, the next step is to set up trading partners for that company. For example, if you do business with several divisions of the same company, you can set up each one as a separate trading partner.

From the **Company** page, select a company and click **Continue: Trading Partner** to access the **Trading Partner** page (see Figure 43).

Figure 43 Trading Partner Page



From the **Trading Partner** page you can complete the following activities:

- Add a trading partner for the selected company (see **"To add a trading partner" on page 90**).
- Select a trading partner: choose from the drop-down list. The trading partner properties are displayed on the right side of the page.
- Edit the selected trading partner (see **"To edit a trading partner" on page 91**).
- Create a new trading partner based on the selected one (see **"To copy a trading partner to the same company" on page 93** or **"To copy a trading partner to another company" on page 94**).

  Note: For general information on the copy feature, refer to **"Copying Components" on page 111**.
- Delete the selected trading partner (see **"To delete a trading partner" on page 95**).
- Activate or inactivate the selected trading partner (see **"To inactivate or reactivate a trading partner" on page 96**).
- Set or change security for the selected trading partner (see **"Web Interface: Security" on page 77**).
- Go on to B2B protocol activities: select a trading partner and then click **Continue: B2B Protocol** to access the **B2B Protocol** page.

To add a trading partner

1. From the **Trading Partner** page, click **New** to access the **Trading Partner - Adding** page (see Figure 44).
2. Enter or select values for the trading partner.

   For more information, see Table 8.
3. Click **Next** to save the new information and return to the **Trading Partner** page.

   The new trading partner information is now displayed, as shown in Figure 45.

Note: *Trading partner profiles are only available if they were already set up in e*Xchange Client for Windows. If you select a trading partner profile, there might be more attributes available than in the example shown in Figure 44.*

Figure 44 Trading Partner - Adding

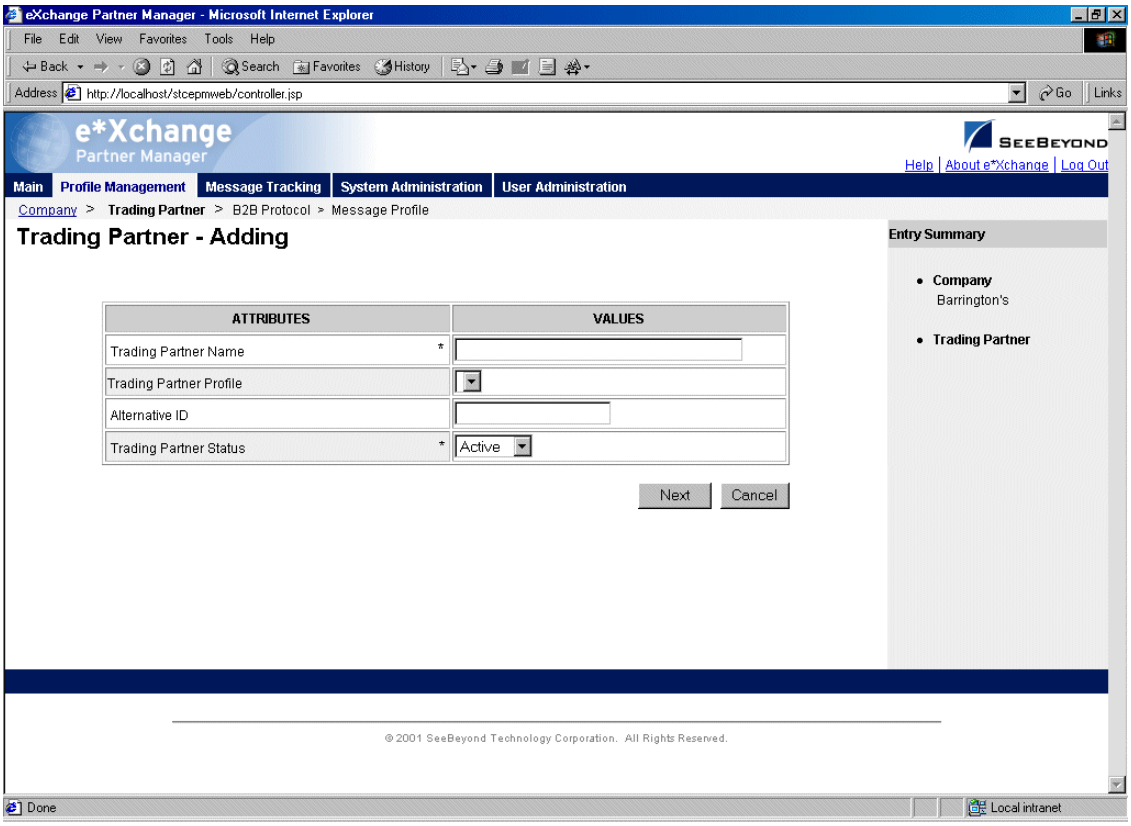


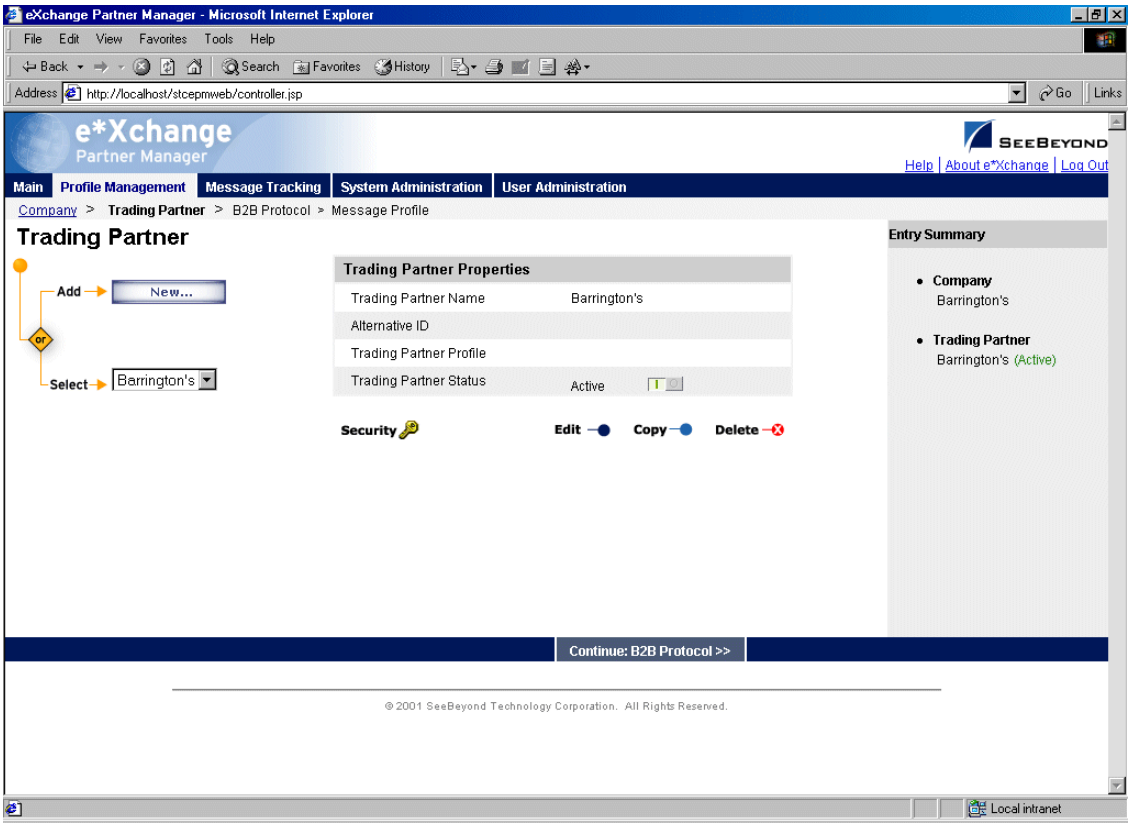
Table 8 Trading Partner - Adding, Editing, Copying: Fields

Name	Description
Trading Partner Name	The name of the trading partner.
Alternative ID	An optional alternative ID. This is not currently used.
Trading Partner Profile	Not yet supported in the Web interface.

Table 8 Trading Partner - Adding, Editing, Copying: Fields (Continued) (Continued)

Name	Description
Trading Partner Status	The status of the trading partner: **Active** or **Inactive**. Default: **Active**.

Figure 45 Trading Partner Page Showing Trading Partner Information

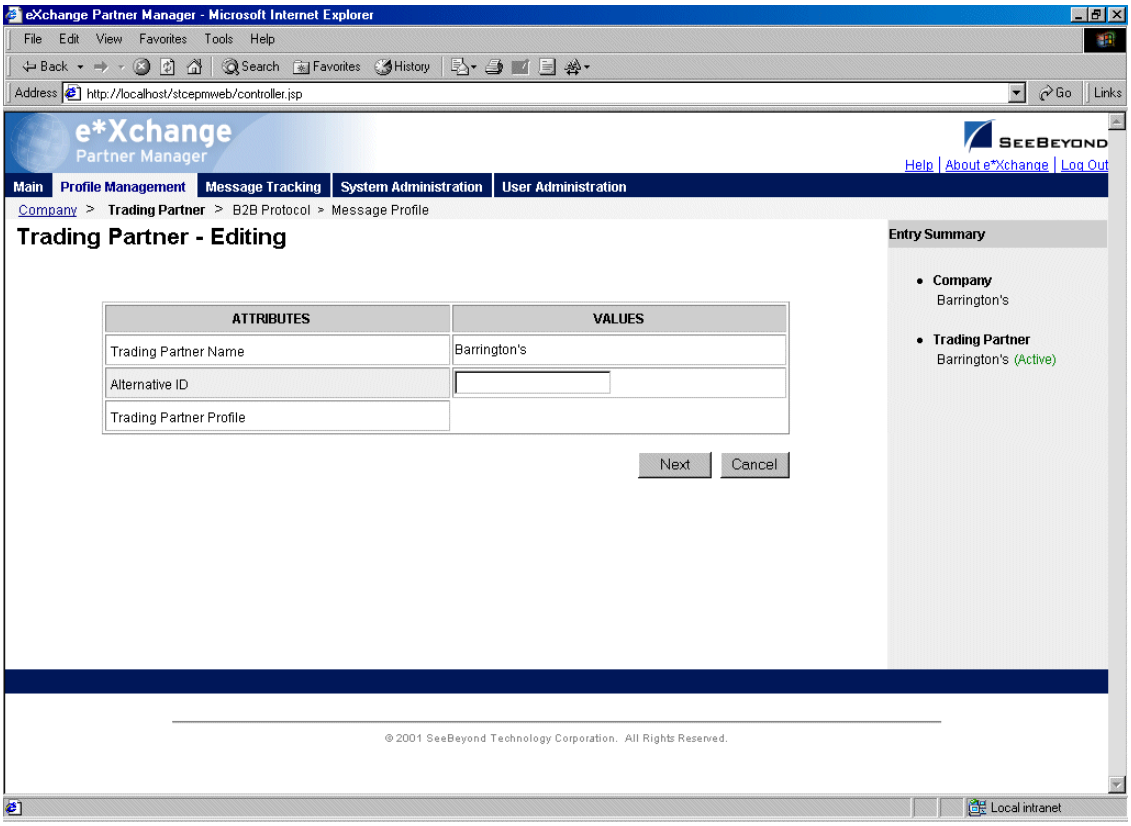


To edit a trading partner

1 From the **Trading Partner** page, select the trading partner from the drop-down list. The trading partner properties are displayed on the right side of the page.

2 Click the **Edit** button to access the **Trading Partner - Editing** page (see Figure 46).

Figure 46 Trading Partner - Editing



3 Edit the trading partner properties as needed.

For more information, see **Table 8 on page 90**.

4 Click **Next** to save changes and return to the **Trading Partner** page.

To copy a trading partner to the same company

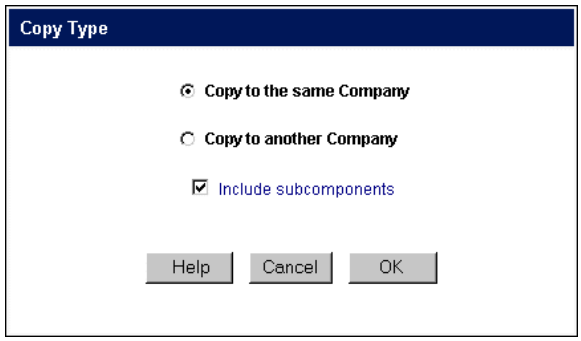
1 On the **Trading Partner** page, select the trading partner that you want to copy.

The trading partner properties are displayed on the right side of the page.

2 Click the **Copy** button.

The **Copy Type** page appears (see Figure 47).

Figure 47 Copy Type (Copying a Trading Partner)



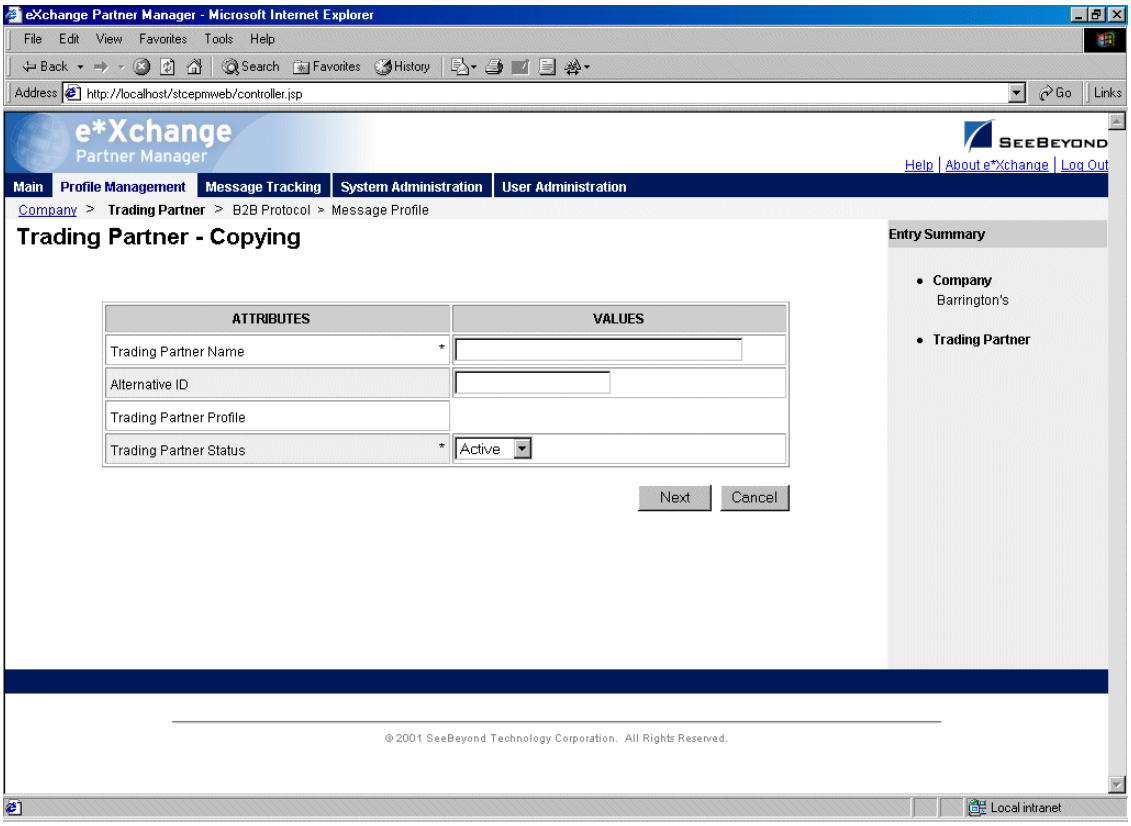
3 Make sure **Copy to the same Company** is selected.

4 Optional: if you do not want to copy subcomponents (B2B protocols and message profiles), clear the **Include subcomponents** check box.

5 Click **OK**.

The **Trading Partner - Copying** page appears (see Figure 48).

Figure 48 Trading Partner - Copying



6 Change the values as needed.

For more information, see Table 8 on page 90.

7 Click **Next** to save changes and return to the **Trading Partner** page.

The new trading partner is now on the drop-down trading partner list.

To copy a trading partner to another company

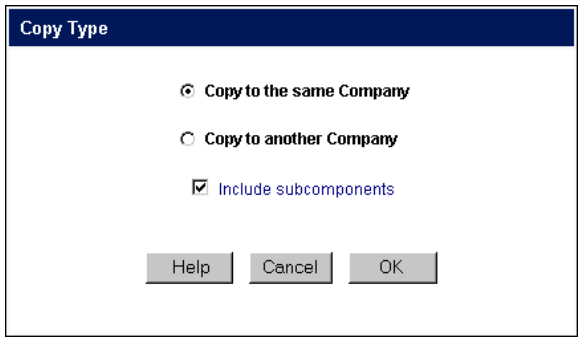
1 On the **Trading Partner** page, select the trading partner that you want to copy.

The trading partner properties are displayed on the right side of the page.

2 Click the **Copy** button.

The **Copy Type** page appears (see Figure 49).

Figure 49 Copy Type (Copying a Trading Partner)



3 Select **Copy to another Company**.

4 Optional: if you do not want to copy subcomponents (message profiles), clear the **Include subcomponents** check box.

5 Click **OK**.

The **Copy Setup** page appears (see Figure 50).

Figure 50 Copy Setup (Copying a Trading Partner to Another Company)

6 Select the destination company from the drop-down list.

7 If you want to change the trading partner name, type the new name.

8 Click **OK**.

The trading partner information is copied to the selected company. When done, e*Xchange displays a message letting you know that the copy was successful.

To delete a trading partner

1 On the **Trading Partner** page, select the trading partner from the drop-down list.

The trading partner properties are displayed on the right side of the page.

2 Click the **Delete** button.

A warning message appears asking if you are sure you want to delete.

3 To delete the profile, click **OK**.

The trading partner is deleted.

To inactivate or reactivate a trading partner

1 On the **Trading Partner** page, select the trading partner from the drop-down list.

The trading partner properties are displayed on the right side of the page.

2 In the **Trading Partner Status** field, toggle the **Active/Inactive** graphic to change the status. Values are as follows:

-  Trading partner is active: click to inactivate.

Note: *If you attempt to inactivate a trading partner when there are active messages (either in the queue or waiting for acknowledgment) for the trading partner, e*Xchange gives a warning that the messages will be deleted if you continue.*

-  Trading partner is inactive: click to reactivate. You are offered the option to cascade the current access rights to the lower levels.

To set up security

1 On the **Trading Partner** page, select the trading partner from the drop-down list.

The trading partner properties are displayed on the right side of the page.

2 Click the **Security** button.

The **Security Management** page appears.

3 Set the values as needed.

4 Click **OK**.

For detailed instructions on setting up security, refer to **"Web Interface: Security" on page 77**.

4.5 Setting Up B2B Protocol Information

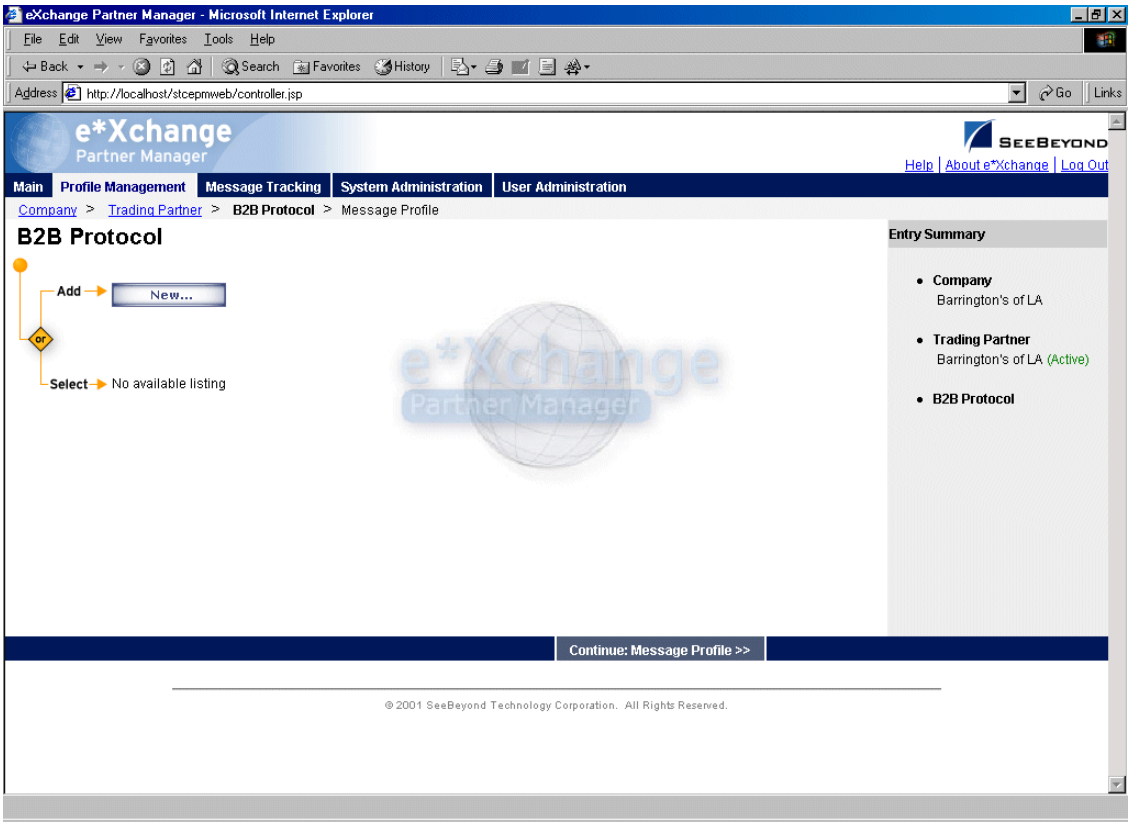
Once you have set up a trading partner, the next step is to enter B2B protocol information for that trading partner. For each eBusiness protocol, you must set up the outbound and inbound values separately.

The B2B protocol attributes that you must enter are grouped into three sections:

- General
- Transport Component
- Message Security

From the **Trading Partner** page, select a trading partner and click **Continue: B2B Protocol** to access the **B2B Protocol** page (see Figure 51).

Figure 51 B2B Protocol Page



From the **B2B Protocol** page you can complete the following activities:

- Add a B2B protocol for the selected trading partner (see **"To add a B2B protocol" on page 98**)
- Select a B2B protocol: choose from the drop-down list. The B2B protocol **General** properties are displayed on the right side of the page. Click on the **Transport Component** or **Message Security** links above the properties display to view those additional properties.
- Edit the selected B2B protocol; first select the section that you want to edit (**General**, **Transport Component**, or **Message Security**), and then click the **Edit** button to access the **B2B Protocol - Editing** page for that section (see **"To edit a B2B protocol" on page 105**)
- Create a new B2B protocol based on the selected one (see **"To copy a B2B protocol to the same trading partner" on page 107** and **"To copy a B2B protocol to another trading partner" on page 109**

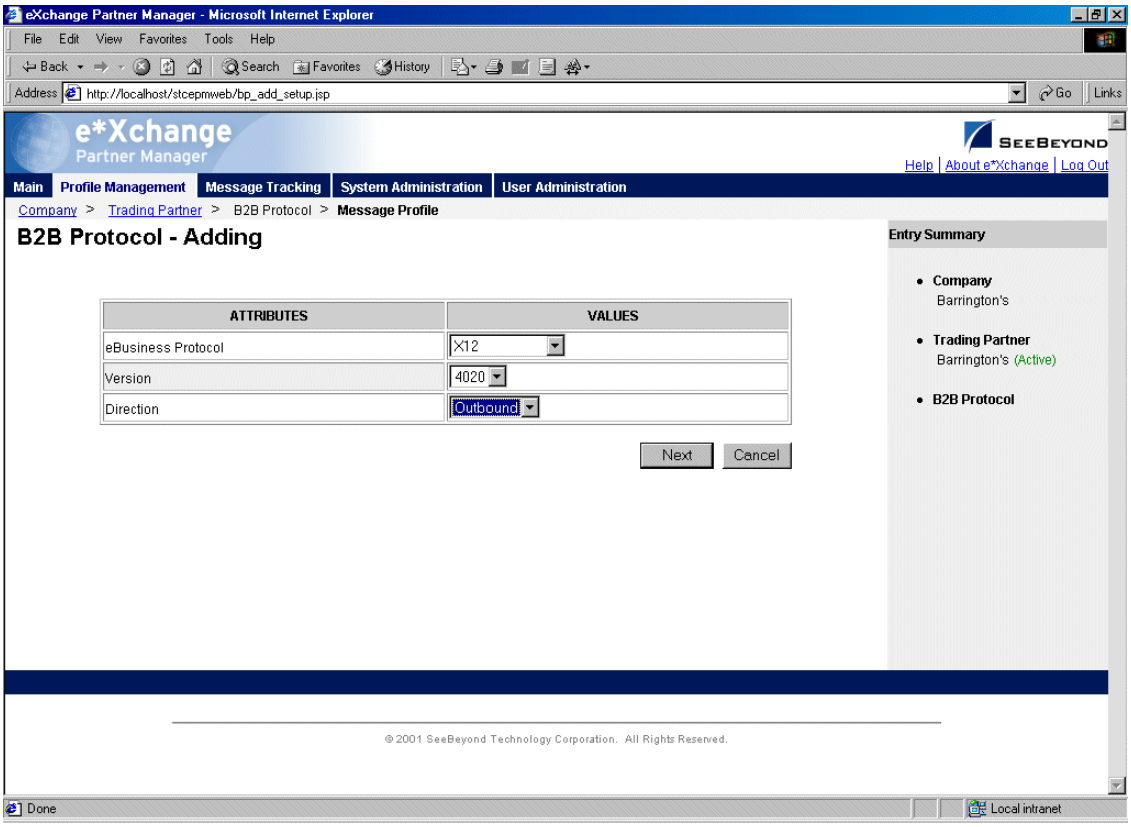
  Note: For general information on the copy feature, refer to **"Copying Components" on page 111**.
- Delete the selected B2B protocol (see **"To delete a B2B protocol for a trading partner" on page 110**)
- Activate or inactivate the selected B2B protocol (see **"To inactivate or reactivate a B2B protocol" on page 111**)

- Set or change security for the B2B protocol (see **"Web Interface: Security" on page 77**)
- Select an existing B2B protocol and click **Continue: Message Profile** to access the **Message Profile** page.

To add a B2B protocol

1 From the **B2B Protocol** page, click the **New** button to access the **B2B Protocol - Adding** page (see Figure 52).

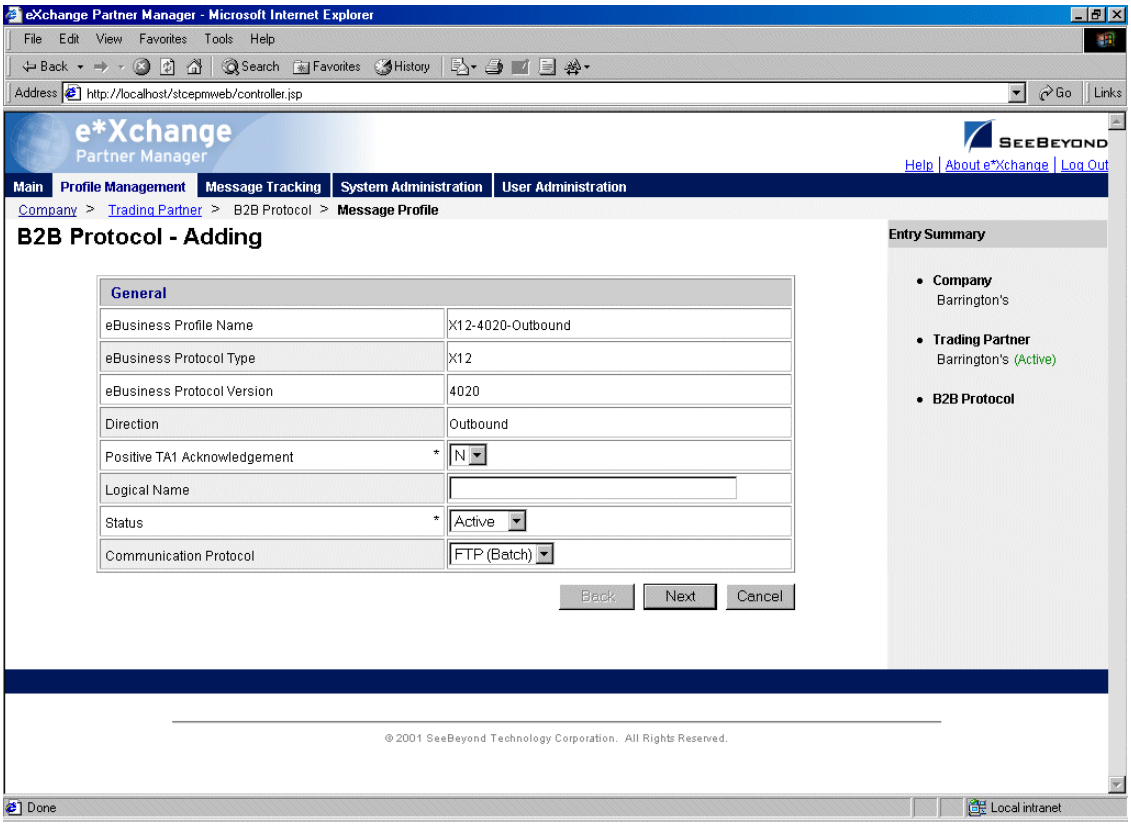
Figure 52 B2B Protocol - Adding



2 Select an eBusiness protocol, version, and direction, and then click **Next** to access the next **B2B Protocol - Adding** page, **General** section (see Figure 53).

Note: *The specific fields might vary according to the B2B protocol you have selected.*

Figure 53 B2B Protocol - Adding (General section)

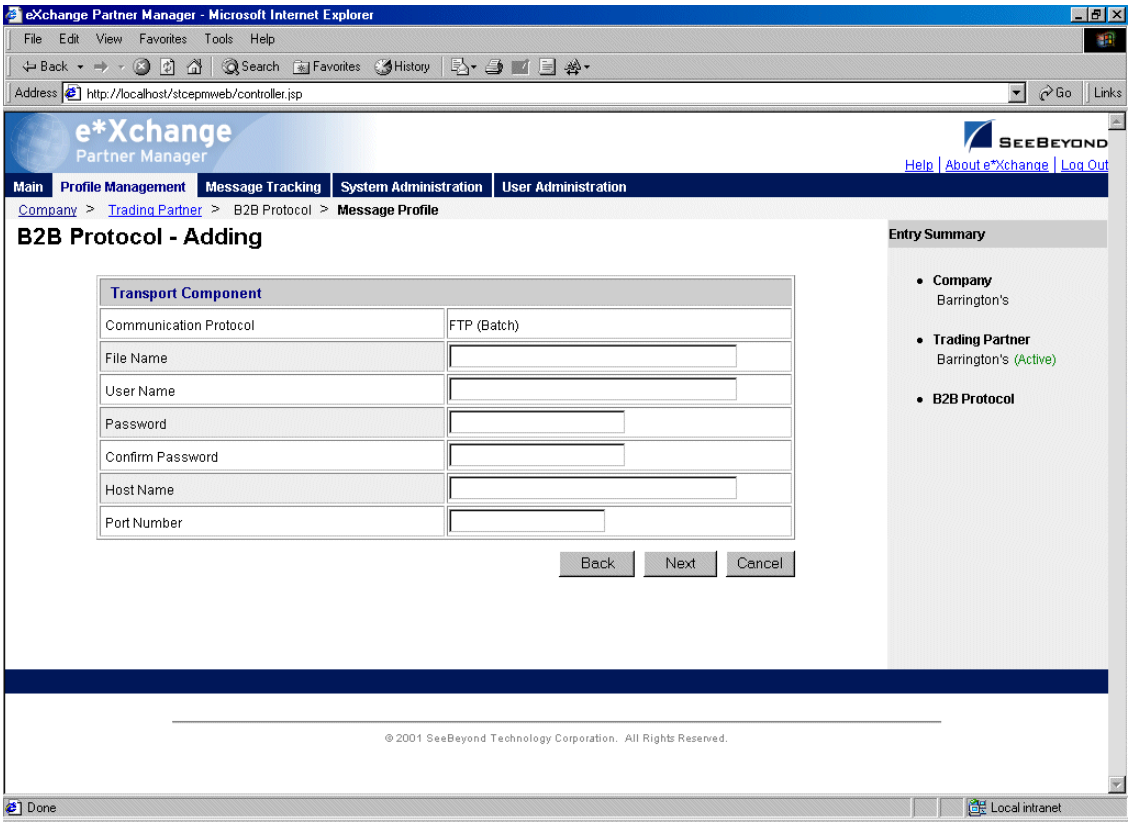


3 Enter the values for the **General** attributes.

For more information, see **Table 9 on page 102**.

4 Click **Next** to access the **Transport Component** section (see Figure 54).

Figure 54 B2B Protocol - Adding (Transport Component section)

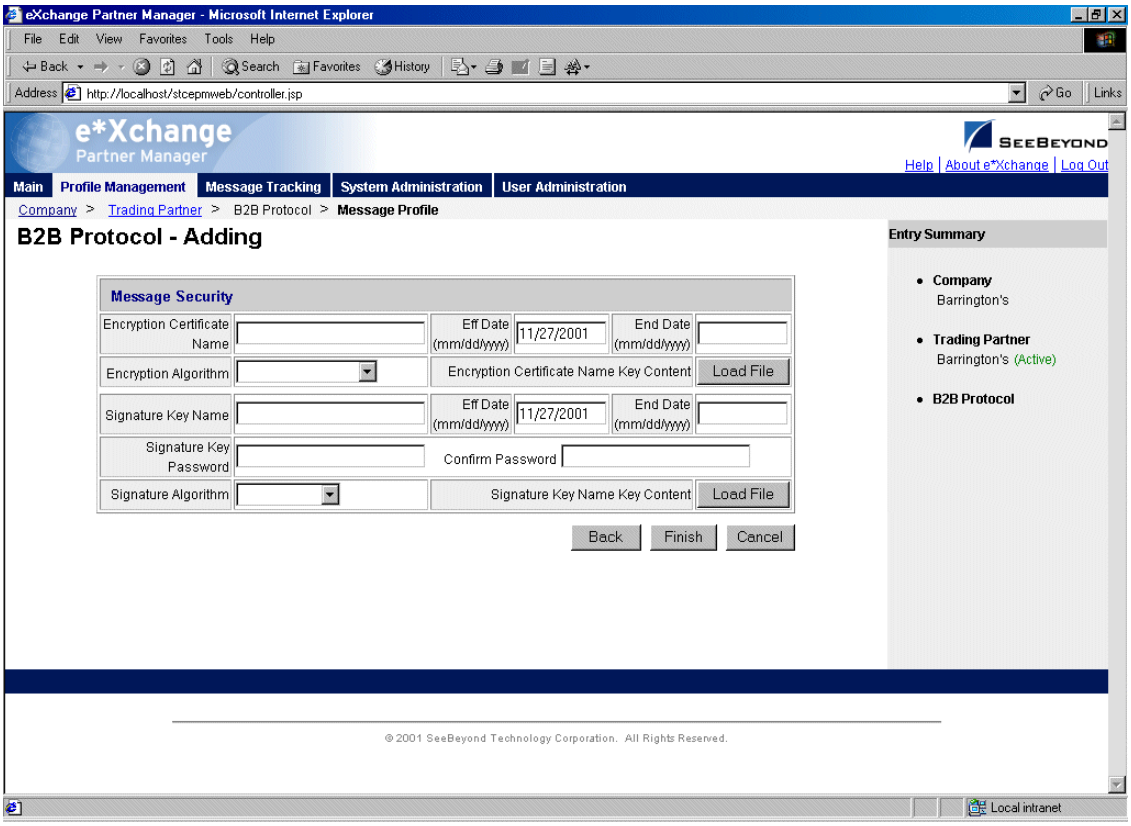


5 Enter the values for the **Transport Component** attributes.

For more information, see **Table 10 on page 103**.

6 Click **Next** to access the **Message Security** section (see Figure 55).

Figure 55 B2B Protocol - Adding (Message Security section) (outbound)



Note: *The values you chose for* ***Communications Protocol*** *and* ***Direction****, together with the eBusiness protocol being used, determine the selection of fields available on the* ***Message Security*** *page.* Figure 55 *is only an example.*

7 Enter the values for the **Message Security** attributes.

For more information, refer to **Table 11 on page 104** for outbound messages, or **Table 12 on page 105** for inbound messages.

8 Click **Finish** to save the information and return to the **B2B Protocol** page.

Table 9 B2B Protocol, General Section

Name	Description
eBusiness Profile Name	The name of the profile. This is automatically created out of the selected eBusiness protocol, version, and direction you chose on the first **B2B Protocol - Adding** page; for example, X12-4010-Inbound. However, you can change it.
eBusiness Protocol Type	An indication of the selected eBusiness protocol; X12, EDF (for UN/EDIFACT), ROS (for RosettaNet), or CIDX.
eBusiness Protocol Version	The version of the eBusiness protocol, as selected on the first **B2B Protocol - Adding** page.
Direction	The direction for the messages you are currently setting up; **Inbound** or **Outbound**.
Positive TA1 Acknowledgment (X12 only)	Indicates whether a positive TA1 is to be transmitted to the trading partner (for inbound) or received from the trading partner (for outbound); **Y** or **N**.
Logical Name	A unique value that you specify for the trading partner. There are several important conditions for the logical name: ▪ For X12 and UN/EDIFACT, the Logical Name, Version, Sender ID, and Receiver ID for the outbound outer envelope must match the Logical Name, Version, Receiver ID, and Sender ID for the inbound outer envelope. For example, if you are using X12 version 4020, use the same logical name value for the inbound and outbound envelopes for that version. ▪ It must be unique for each inbound/outbound envelope set. For example, if you are using X12 versions 4020 and 4030, use one value for the 4020 inbound and outbound envelope set, and another for the 4030 inbound and outbound envelopes. If you have only one outer envelope set per company, you can use the company name. You could also use a numerical value, or any other value as long as it is unique to the inbound/outbound envelope set. ▪ For outbound messages, the logical name is the primary value used when e*Xchange receives a message from an internal system to identify the trading partner to which the message is routed. The value in this field must be identical, including case, to the value set in the **eX_Standard_Event** structure's Partner Name node. For more information, refer to the *e*Xchange Partner Manager Implementation Guide*.
Status	Select a status for the B2B protocol; **Active** or **Inactive**. Default: **Active**.
Communication Protocol	The communications protocol to be used for sending or receiving messages using this B2B protocol; FTP (Batch), HTTP, HTTPS, or SMTP.
Internal Format (RosettaNet 2.0 and CIDX only)	A code used only for messages that will be sent to or received from the internal system, not to the trading partner. The internal format code indicates the message format. Acceptable values for RosettaNet 2.0: ▪ GEN for a message in RosettaNet 2.0 generic format (the default). ▪ RNBM for a message in RosettaNet 2.0 Business Message format. Acceptable values for CIDX: ▪ GEN for a message in CIDX generic format (the default). ▪ CIDXO for a CIDX Object.

Table 10 B2B Protocol, Transport Component Section

Name	Description
Communication Protocol	The communications protocol used for this B2B protocol component. ▪ FTP (Batch)—Messages are transmitted using the FTP protocol. **Note**: If you want the files to be stored on the local machine, supply the File Name but leave the User Name, Password, Host, and Port boxes empty. ▪ HTTP—Messages are transmitted with HTTP. ▪ HTTPS—Messages are transmitted using HTTP with SSL. ▪ SMTP—Messages are transmitted using the Simple Mail Transfer Protocol.
File Name (FTP)	For inbound—type the complete file name, including path and extension, of the file from which inbound outer envelopes based on this profile are read, or to which outbound outer envelopes are written. You can use wild cards in the filename or at the beginning of the extension but not at the end; for example, use ***.dat** or ***.*at** but not ***.da***. For outbound—type the complete file name, including path and extension, using variables as needed. %d adds a two-digit day (for example, 05 for the fifth day of the month) to the file name, and %# adds a sequential number (for example, 01, 02, and so forth); for example, **TP01%d_%#.dat**. **Windows**: If the FTP server is set up on a Windows machine, the path must be relative to the FTP server default directory. For example, if the FTP server default directory is **c:\eGate** and your full path for inbound messages is **c:\eGate\X12\input*.in**, type only **\X12\input.*in**. **UNIX**: If the FTP server is set up on a UNIX machine, use forward slashes. For example, your full path for outbound messages might be **/home/eGate/EFT/output/1400_EDF48_%d_%#.dat**.
URL (HTTP, HTTPS)	If the communication protocol is HTTP or HTTPS, enter the full URL, including prefix. For example: http://www.WebAddress.com or https://www.SecureWebAddress.com.
User Name (FTP, HTTP, HTTPS)	The user name to be used to access the host on which messages are stored. If the communications protocol is FTP (Batch), the user name and password are required for successful transfer of files to and from the FTP server. **Note**: To store the files on the local machine, leave this field empty.
Password (FTP, HTTP, HTTPS)	The password to be used to access the host used for storage and retrieval of messages. If the communication protocol is FTP (Batch), the user name and password are required for successful transfer of files to and from the FTP server. **Note**: To store the files on the local machine, leave this field empty.
Confirm Password (FTP, HTTP, HTTPS)	Type the password again. This helps prevent errors in entering a password.
Host Name (FTP)	The name of the host on which messages are stored. For inbound messages, this is the source of the messages; for outbound messages, it is the destination. If the communication protocol is FTP (Batch), this field is required for successful transfer of files to or from the host. If files are stored locally, leave empty.
Port Number (FTP)	You have the option to specify the port to be used to access the host. Leave this field blank to use the default port.

Table 10 B2B Protocol, Transport Component Section (Continued)

Name	Description
Sender Email Address (SMTP)	The e-mail address of the message sender.
Receiver Email (SMTP)	The e-mail address of the message recipient.
MailHost/IP Address (SMTP) (Outbound only)	The host name of the mail server.
MailHost Port (SMTP) (Outbound only)	The port for the mail server.

Table 11 B2B Protocol, Message Security Section (Outbound)

Name	Description
The following fields are only available for RosettaNet 2.0, X12, and UN/EDIFACT:	
Encryption Certificate Name	The name for your encryption certificate.
Eff Date/End Date	Set the effective date and expiration date for the encryption certificate.
Encryption Algorithm	The algorithm used for the message security. Choose DES_CBC, RC2_128, RC2_40, or DES_EDE3_CBC.
Encryption Certificate Name Key Content	To load the key content into the database, click the **Load File** button to access the **File Upload** page. Browse for the file, and then click the **Upload** button. When upload is complete, click **OK**.
The following fields are available for all:	
Signature Key Name	The name for your signature key.
Eff Date/End Date	Set the effective date and expiration date for the signature key.
Signature Key Password (Optional)	Type the password for the signature key, if it has one.
Confirm Password	Type the signature key password again, to confirm it.
Signature Algorithm	The algorithm used for the signature encryption. Choose RSA_MD5 or RSA_SHA1.
Signature Key Name Key Content	To load the key content into the database, click the **Load File** button to access the **File Upload** page. Browse for the file, and then click the **Upload** button. When upload is complete, click **OK**.
The following fields are only available if the Communications Protocol is HTTPS:	
SSL Keystore Value	The value for the SSL keystore file, used for authentication using SSL. **Note**: If you set SSL keystores in the Web interface, do not make later changes to the trading partner profile in e*Xchange Client for Windows. Since e*Xchange Client for Windows does not support the setup of SSL keystores, changing the information in e*Xchange Client for Windows after the keystore has been set up might cause problems.

Table 11 B2B Protocol, Message Security Section (Outbound) (Continued)

Name	Description
Eff Date/End Date	Set the effective date and expiration date for the SSL keystore.
SSL Keystore Password	Type the password for the SSL keystore, if any.
Confirm Password	Type the SSL keystore password again, to confirm it.
SSL Keystore Type	The type of keystore: JKCS or PKCS12.
SSL Keystore Value Key Content	To load the key content into the database, click the **Load File** button to access the **File Upload** page. Browse for the file, and then click the **Upload** button. When upload is complete, click **OK**.

Table 12 B2B Protocol, Message Security Section (Inbound)

Name	Description
The following fields are only available for RosettaNet 2.0, X12, and UN/EDIFACT:	
Decryption Key Name	The name for the decryption key.
Eff Date/End Date	Set the effective date and expiration date for the decryption key.
Decryption Key Password	The password for the decryption key.
Confirm Password	Type the decryption key password again, to confirm it.
Decryption Key Name Key Content	To load the key content into the database, click the **Load File** button to access the **File Upload** page. Browse for the file, and then click the **Upload** button. When upload is complete, click **OK**.
The following fields are available for all:	
Signature Verification Certificate Name	The name for your signature verification certificate.
Eff Date/End Date	Set the effective date and expiration date for the signature verification certificate.
Signature Verification Certificate Name Key Content	To load the key content into the database, click the **Load File** button to access the **File Upload** page. Browse for the file, and then click the **Upload** button. When upload is complete, click **OK**.

To edit a B2B protocol

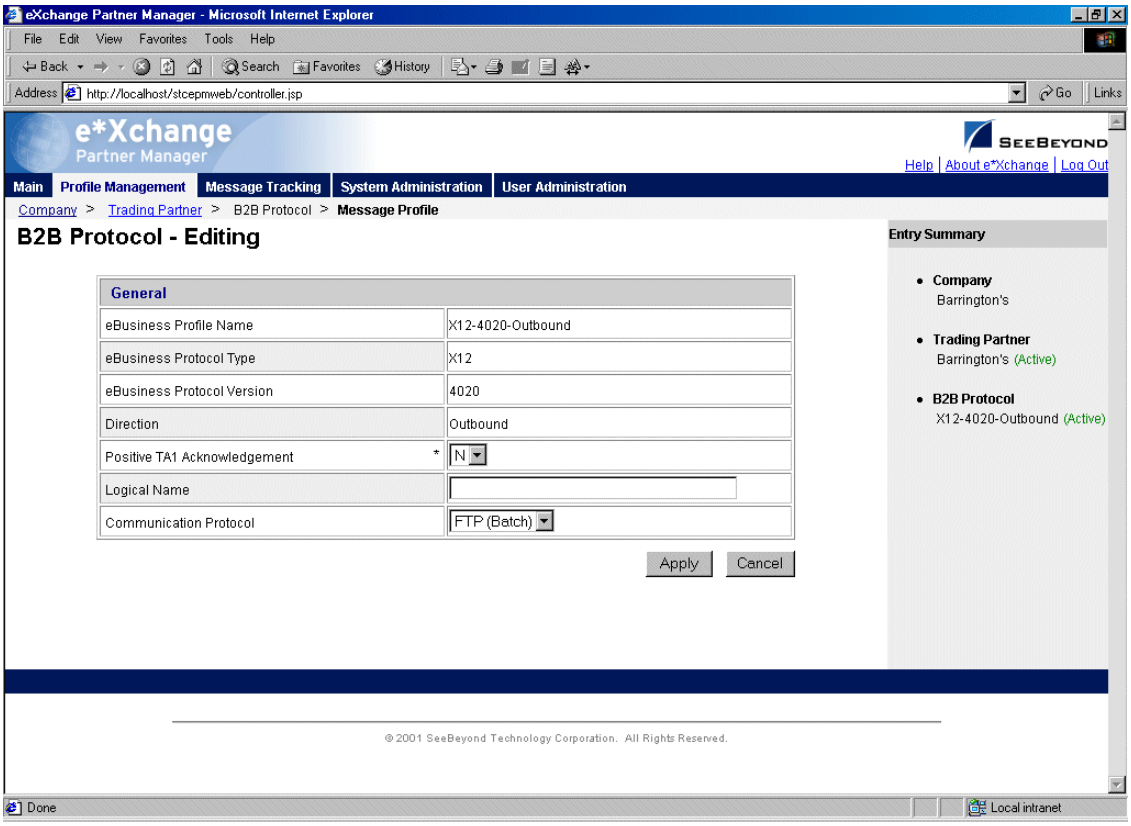
1. From the **B2B Protocol** page, select the B2B protocol from the drop-down list.

   The B2B protocol properties are displayed on the right side of the page.

2. Click the link for the section you want to edit: **General**, **Transport Component**, or **Message Security**.

3. Click the **Edit** button to access the **B2B Protocol - Editing** page listing the attribute section that you selected (see Figure 56).

Figure 56 B2B Protocol - Editing (General page)



4 Change the values as needed.

For more information on specific values, refer to the appropriate table:

- General—**Table 9 on page 102**
- Transport Component—**Table 10 on page 103**
- Message Security (outbound)—**Table 11 on page 104**
- Message Security (inbound)—**Table 12 on page 105**

5 Click **Apply** to save the changes and return to the **B2B Protocol** page.

To copy a B2B protocol to the same trading partner

1 On the **B2B Protocol** page, select the B2B protocol that you want to copy.

The B2B protocol properties are displayed on the right side of the page.

2 Click the **Copy** button.

The **Copy Type** page appears (see Figure 57).

Figure 57 Copy Type (Copying a B2B Protocol)

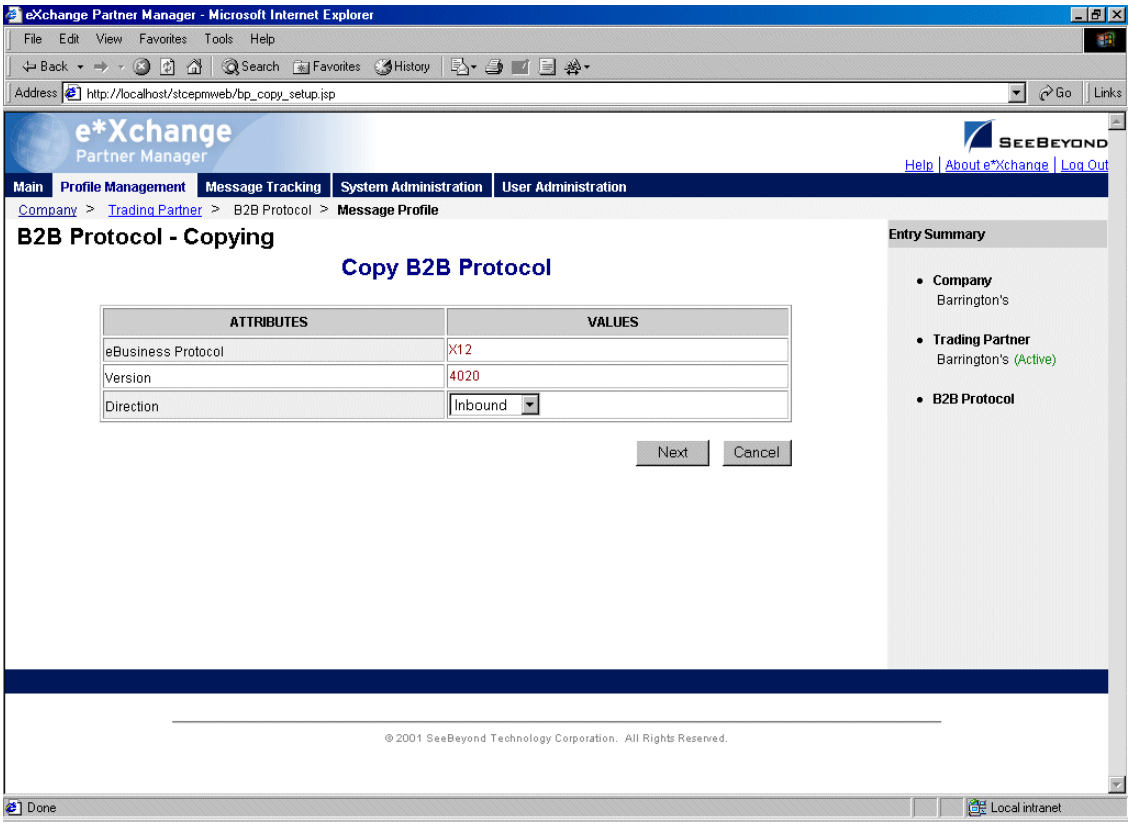
3 Make sure **Copy to the same Trading Partner** is selected.

4 Optional: if you do not want to copy subcomponents (message profiles), clear the **Include subcomponents** check box.

5 Click **OK**.

The **B2B Protocol - Copying** page appears (see Figure 58).

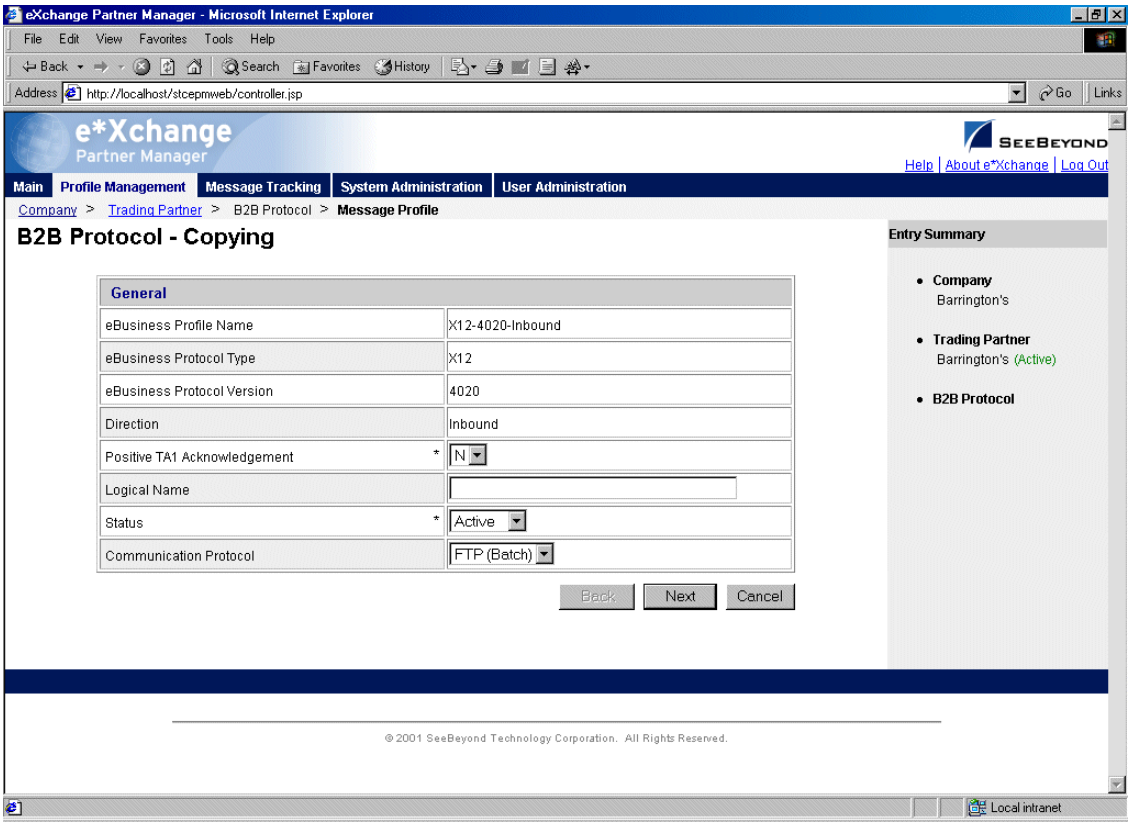
Figure 58 B2B Protocol - Copying



Note: *The Web interface automatically changes the direction.*

6 Click **Next** to access the **B2B Protocol - Copying** page showing the **General** section (see Figure 59).

Figure 59 B2B Protocol - Copying (General page)



7 Change the values for the **General** attributes as needed.

For more information, see **Table 9 on page 102**.

8 Click **Next**.

9 Change the values for the **Transport Component** attributes as needed.

For more information, see **Table 10 on page 103**.

10 Click **Next**.

11 Change the values for the **Message Security** attributes as needed.

For more information, refer to **Table 11 on page 104** for outbound messages, or **Table 12 on page 105** for inbound messages.

12 Click **Finish** to save the new B2B protocol and return to the **B2B Protocol** page.

To copy a B2B protocol to another trading partner

1 On the **B2B Protocol** page, select the B2B protocol that you want to copy from the drop-down list.

The B2B protocol properties are displayed on the right side of the page.

2 Click the **Copy** button.

The **Copy Type** page appears (see Figure 60).

Figure 60 Copy Type (Copying a B2B Protocol)

3 Select **Copy to another Trading Partner**.

4 Optional: if you do not want to copy subcomponents (message profiles), clear the **Include subcomponents** check box.

5 Click **OK**.

The **Copy Setup** page appears (see Figure 61).

Figure 61 Copy Setup (Copying a B2B Protocol to Another Trading Partner)

6 On the **Copy Setup** page, select the destination company.

7 Select the destination trading partner.

8 Click **OK**.

The B2B protocol information is copied to the selected company/trading partner. When done, e*Xchange displays a message letting you know that the copy was successful.

To delete a B2B protocol for a trading partner

1 On the **B2B Protocol** page, select the B2B protocol from the drop-down list.

The B2B protocol properties are displayed on the right side of the page.

2 Click the **Delete** button.

A warning message appears asking if you are sure you want to delete.

3 To delete the protocol, click **OK**.

The B2B protocol is deleted.

To inactivate or reactivate a B2B protocol

1 On the **B2B Protocol** page, select the B2B protocol from the drop-down list.

The B2B protocol properties are displayed on the right side of the page.

2 In the **B2B Protocol Status** field, toggle the **Active/Inactive** graphic to change the status. Values are as follows:

-  B2B protocol is active: click to inactivate.
-  B2B protocol is inactive: click to reactivate. You are offered the option to cascade the current access rights to the lower levels.

4.6 Copying Components

Once you have set up some components, e*Xchange allows you to copy the information that you have set up, so that the existing information can be reused in making new components.

e*Xchange provides several copying options that can help you to streamline the setup of your trading partner information.

By copying a component and using that as a basis for a new component, you can reuse information that you have already set up, modifying only those values that are unique for the new component. For example, for a specific trading partner you can set up inbound values at the B2B Protocol level and then copy this information as a basis for the outbound values. Alternatively, if you have two trading partners that use the same eBusiness protocol and the same transactions, you can set up one trading partner, all the way down to the message profiles, and then copy the trading partner and all subcomponents to a new company. You can then modify the values as needed.

Copying of components is available at each level as follows:

- Company
  - You can copy only the company itself, or you can include all subcomponents (trading partners, B2B protocols and message profiles that have been set up for that company) at the same time.
  - You must enter a new company name before saving.
- Trading Partner
  - You can copy to the same company or to a different company.
  - You must enter a new trading partner name before saving.
  - When copying to the same company, you have the option to change other trading partner parameters before saving.
  - You can copy only the trading partner itself, or you can include all subcomponents (B2B protocols and message profiles that have been set up for that trading partner) at the same time.

- B2B Protocol
  - You can copy to the same trading partner or to a different trading partner.
  - If you are copying to the same trading partner, the new B2B protocol automatically takes the opposite direction (if you are copying the outbound B2B protocol, the values are copied to the inbound B2B protocol).
  - If you are copying to a different trading partner, the new B2B protocol is the same direction as the one that was copied (for example, inbound to inbound).
  - When copying to the same trading partner, you have the option to change other B2B protocol parameters before saving.
  - You have the option to copy only the B2B protocol itself, or to copy all subcomponents (message profiles that have been set up for that B2B protocol) at the same time.
- Message Profile
  - You can copy to the same B2B protocol or to a different B2B protocol.
  - If you are copying to the same B2B protocol, you must provide a name for the new B2B protocol.
  - If you are copying to a different Company/Trading Partner/B2B protocol, you can only copy to a trading partner that has B2B protocols already set up for the eBusiness protocol for which the message profiles apply.
  - When copying to the same B2B profile, you have the option to change other message profile parameters before saving.

4.7 Setting Up Message Profile Information

The next step is to set up values for individual messages, at the message profile level.

Since the values are considerably different for each eBusiness protocol, message profile setup is addressed in separate chapters, as follows:

- X12—**"Web Interface: Profile Setup for X12" on page 113**
- RosettaNet (versions 1.1 and 2.0)—**"Web Interface: Profile Setup for RosettaNet" on page 159**
- UN/EDIFACT (versions 3 Batch, 4 Batch, and 4 Interactive)—**"Web Interface: Profile Setup for UN/EDIFACT" on page 129**
- CIDX—**"Web Interface: Profile Setup for CIDX" on page 177**

Chapter 5

Web Interface: Profile Setup for X12

This chapter provides information on setting up X12 transactions in the e*Xchange Partner Manager, at the Message Profile level.

The Company, Trading Partner, and B2B Protocol (inbound and outbound) levels must be set up first. For information on setting up these components, refer to **"Web Interface: Profile Management" on page 80**.

Note: *For HIPAA compliance, you must use the e*Xchange Web Interface to track access to data viewed through the Message Tracking facility, and limit e*Xchange Client for Windows access to Administrators only. e*Xchange Client for Windows does not audit data access.*

5.1 Setting Up X12 Message Profile Information

Once you have set up B2B protocol information for a trading partner, the next step is to set up message profiles.

5.1.1 Setup Sequence

Part of setting up a message profile is to specify the expected response message, if any.

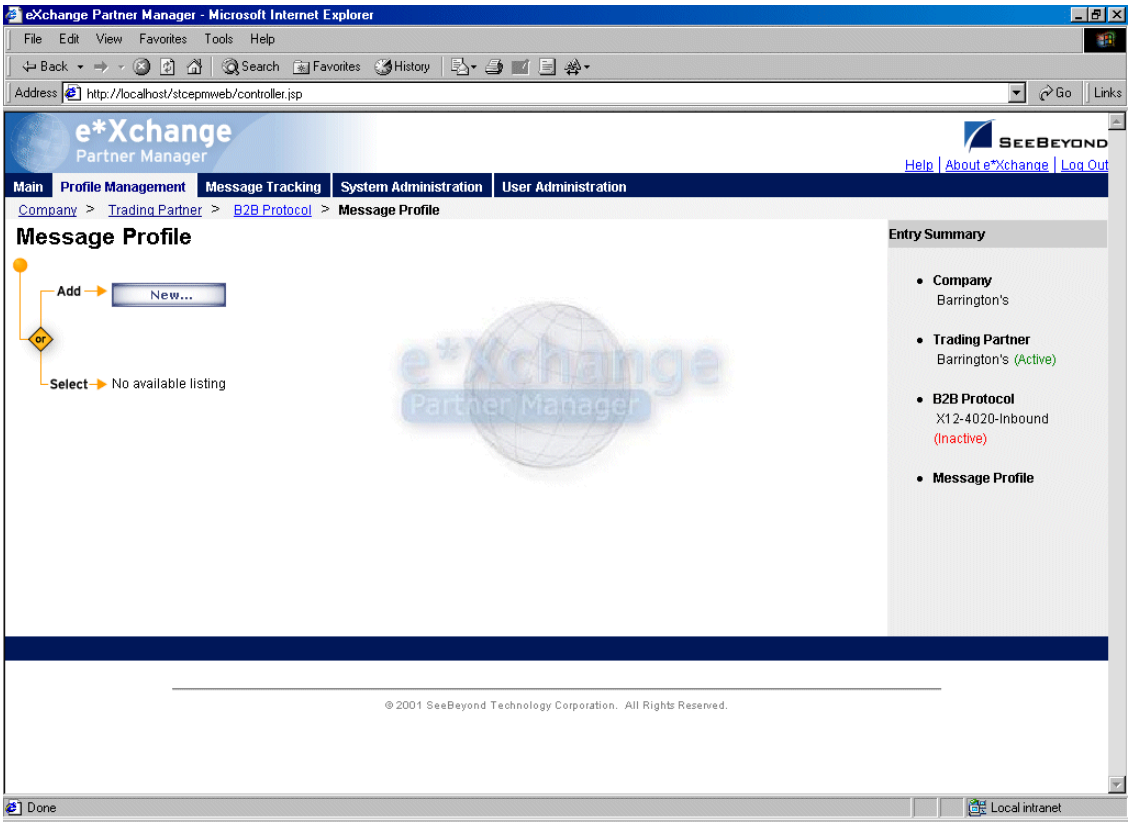
During initial setup, you will find that you cannot select the appropriate response messages because you have not yet created the message profiles for those response messages.

One approach to this is to first set up all message profiles, both inbound and outbound, and then go back into each message profile to select the return messages.

5.1.2 Setting Up a Message Profile

From the **B2B Protocol** page, select a B2B protocol and click **Continue: Message Profile** to access the **Message Profile** page (see Figure 62).

Figure 62 Message Profile Page



From the **Message Profile** page you can complete the following activities:

- Add a message profile for the selected B2B protocol (see **"To add a message profile" on page 115**).
- Select a message profile: choose from the drop-down list. The message profile **General** properties are displayed on the right side of the page. To view additional properties, click on the appropriate link above the properties display (specific property groups vary according to the eBusiness protocol).
- Edit the selected message profile; first select the section that you want to edit, and then click the **Edit** button to access the **Message Profile - Editing** page (see **"To edit a message profile" on page 123**).
- Create a new message profile based on the selected one (see **"To copy a message profile to the same B2B protocol" on page 124** and **"To copy a message profile to another B2B protocol" on page 126**).

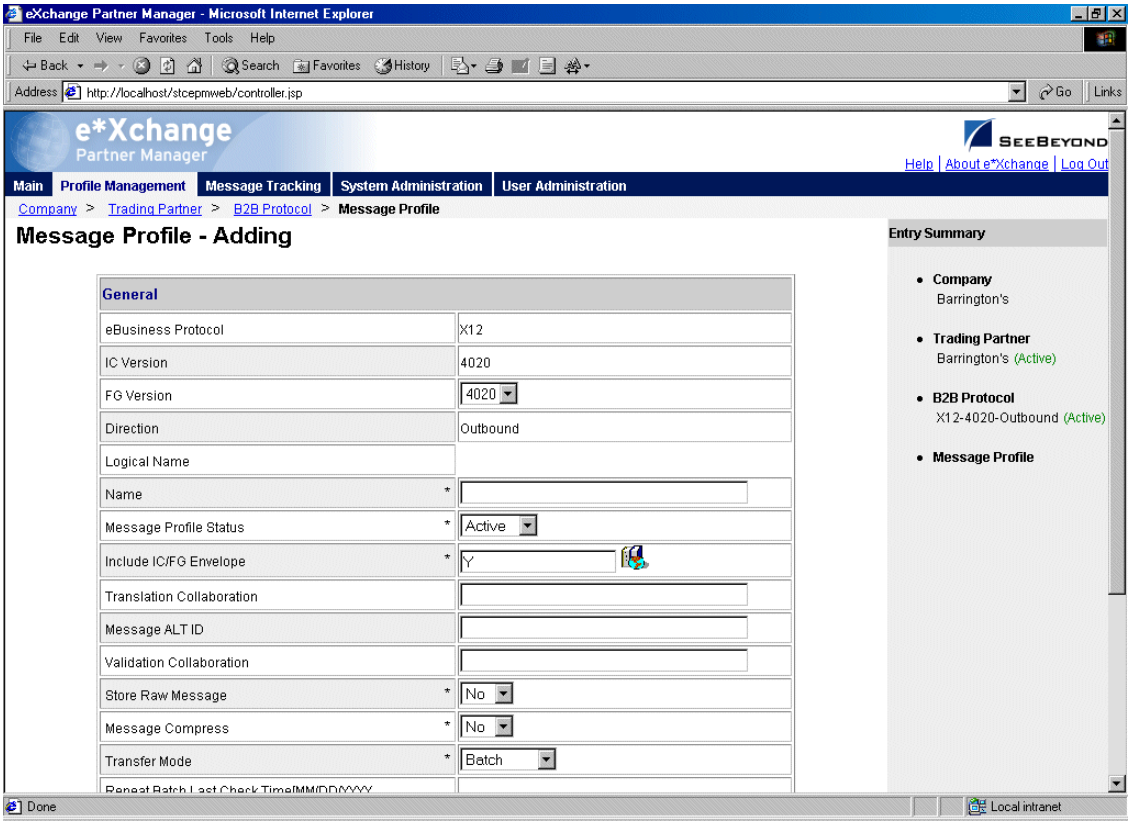
  Note: For general information on the copy feature, refer to **"Copying Components" on page 111**.
- Delete the selected message profile (see **"To delete a message profile" on page 127**).
- Activate or inactivate the selected message profile (see **"To inactivate or reactivate a message profile" on page 127**).

- Set or change security for the selected message profile (see **"Web Interface: Security" on page 77**).

To add a message profile

1 From the **Message Profile** page, click the **New** button to access the **Message Profile - Adding** page (General section) (see Figure 63).

Figure 63 Message Profile - Adding (General section) (X12)

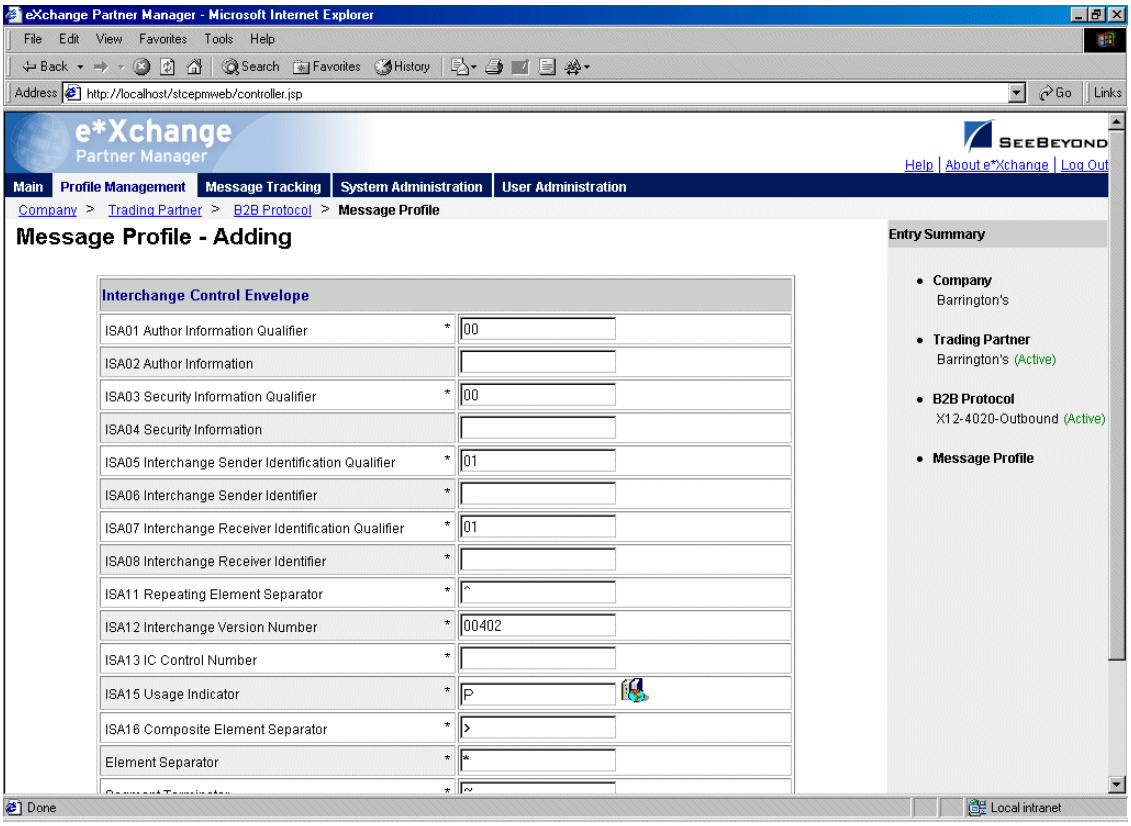


2 Enter or select values for the **General** section.

For more information, refer to **Table 13 on page 118**.

3 Click **Next** to access the **Interchange Control Envelope** section (see Figure 64).

Figure 64 Message Profile - Adding (Interchange Control Envelope section) (X12)

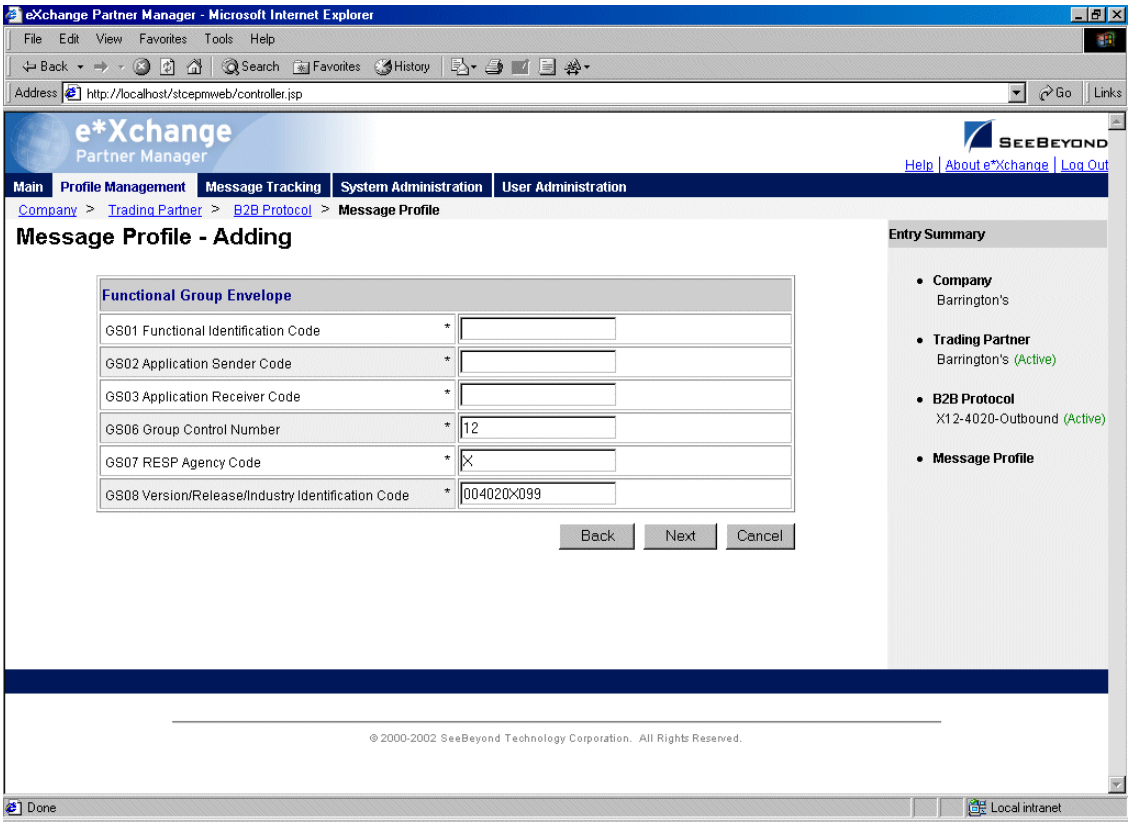


4 Enter or select values for the **Interchange Control Envelope** section.

For more information, refer to **Table 14 on page 120**.

5 Click **Next** to access the **Functional Group Envelope** section (see Figure 65).

Figure 65 Message Profile - Adding (Functional Group Envelope section) (X12)

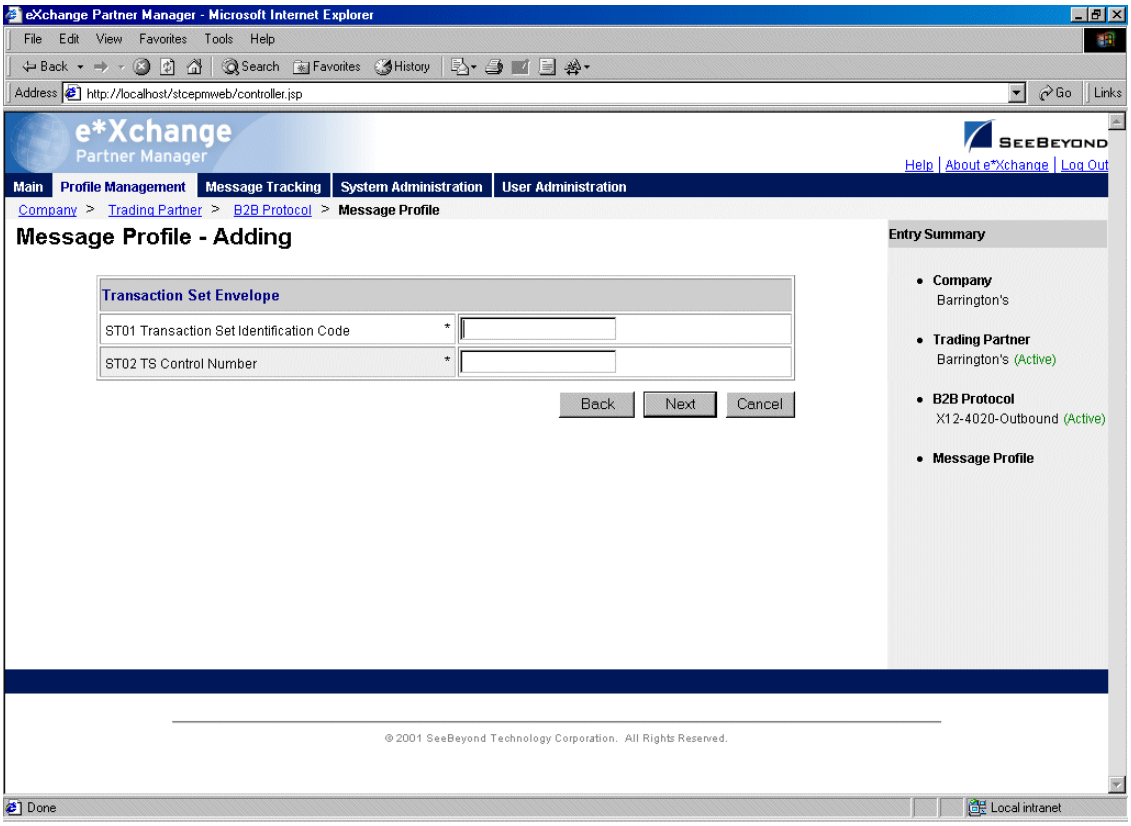


6 Enter or select values for the **Functional Group Envelope** section.

For more information, refer to **Table 15 on page 122**.

7 Click **Next** to access the **Transaction Set** section (see Figure 66).

Figure 66 Message Profile - Adding (Transaction Set section) (X12)



For more information, refer to Table 16 on page 123.

8 Click **Next** to access the **Return Messages** section.

9 Define return messages, or leave until later if you have not set up the message profiles for the return messages yet.

Note: *Define all message profiles for the B2B protocol, both inbound and outbound (acknowledgment and response messages), before defining return messages.*

10 Click **Apply** to save the profile and return to the **Message Profile** page.

Table 13 Message Profile, General Section (X12): Fields

Name	Description
eBusiness Protocol	The name of the protocol that you selected earlier is displayed.
IC Version	The eBusiness protocol version that you selected at the B2B Protocol level is displayed.
FG Version	The eBusiness protocol version that you are using at the functional group level. Select from the drop-down list.
Direction	The direction for the message profile, Inbound or Outbound, is displayed.
Logical Name	If you specified a logical name at the B2B protocol level, it is displayed.

Table 13 Message Profile, General Section (X12): Fields (Continued)

Name	Description
Name	A label for the message profile. It should be descriptive, and unique for the trading partner.
Message Profile Status	The status of the message profile. Choose one of the following values: ▪ **Active**—The message profile is currently active, and can be used. ▪ **Inactive**—The message profile is not active, and cannot be used. Default: **Active**. **Note**: This is only available when adding a message profile. When editing, you can change the status on the **Message Profile** page (see **"To inactivate or reactivate a message profile" on page 127**).
Include IC/FG Envelope	If your internal system expects the ISA/IEA and GS/GE segments on incoming transactions, you must set this value to **Y**. If your internal system does not use these segments, set to **N**. If set to **N**, e*Xchange relays only the ST/SE header and footer with the message. **Note**: For inbound messages, if your internal system expects the ISA/IEA and GS/GE segments on incoming messages, this flag must be set correctly for the messages to be read successfully.
Translation Collaboration	If your internal system will be sending messages to e*Xchange in raw data format, or expecting messages from e*Xchange in raw data format, you must specify the translation Collaboration that will be used to translate the messages to and from the appropriate eBusiness Protocol format. Type the file name (no extension). **Outbound**: If you provide a value in this field for an Outbound profile, e*Xchange also requires a value for Message ALT ID.
Message ALT ID (Outbound only)	If your internal system will be sending messages to e*Xchange in raw data format, or expecting messages from e*Xchange in raw data format, you must specify the message Alt ID. The value specified in this field must exactly match the value populated in the Name/Value pair element of the TP Event section in the **eX_Standard_Event**. If you are not receiving messages in raw data format, leave this field blank.
Event Type (Inbound only)	(Optional) If specified, this is the Event Type to which the inbound message will be published. If left empty, e*Xchange uses the default Event Type, **eX_to_eBPM**. **Note**: If you specify a custom Event Type, you must modify the e*Xchange e*Gate schema accordingly. Modify the **eX_from_ePM** Collaboration properties to publish to the new Event Type. There must also be a module that subscribes to this Event Type.
Validation Collaboration	The Collaboration that is used to validate the eBusiness protocol message (no extension). For X12 and UN/EDIFACT: ▪ **Inbound**—This field is required. ▪ **Outbound**—This field is required if a unique-id is not provided in the **eX_Standard_Event** MessageID field. **Note**: The message enveloping is automatically validated by e*Xchange. The validation Collaboration addresses only the message body.

Table 13 Message Profile, General Section (X12): Fields (Continued)

Name	Description
Store Raw Message	If you want to store the raw message in the database as well as the translated message, type **Y** in this field. If you store the raw message, it is available for viewing in Message Tracking.
Message Compress (required)	Indicates whether the messages will be compressed before they are stored in the database. Default: No. **Note**: Compressed messages cannot be viewed in Message Tracking.
Transfer Mode	The way in which the eBusiness messages are transmitted to, or received from, the trading partner: Batch, Fast Batch, or Interactive.
Repeat Batch Last Check Time (batch only)	Once the first batch has been sent out, this field is automatically updated by e*Xchange. Display-only. Maximum 255 characters.
Batch Repeat Time/ Batch Repeat Granularity (batch only)	To send batches at regular intervals, use these two attributes. BATCH REPEAT TIME sets the numerical value, and BATCH REPEAT GRANULARITY sets the time period: H for hours, MI for minutes, and D for days. For example, BATCH REPEAT TIME of 4 and BATCH REPEAT GRANULARITY of H means that batches are sent out every four hours; values of 30 and MI mean that batches are sent out every 30 minutes. **Note**: If you want to send batches at a preset daily time, do not set values for these attributes. Use BATCH TIME. If you set values for Batch Repeat Time/ Batch Repeat Granularity and also Batch Time, the Batch Time setting takes precedence. **Note**: If you use these fields to control batching, you can have a maximum of 10 Batch e*Ways running. This is because the display-only Repeat Batch Last Check Time field has a maximum of 255 characters.
Batch Time (batch only)	To send batches at a preset daily time, enter the time in the format hh:mm:ss (military time); for example, 09:00:00 for 9am or 15:30:00 for 3pm. If the batch is being set at a preset daily time, you do not need to set any other attributes. You can also set multiple batch times, using the pipe symbol as the delimiter (up to 50 characters). For example, 09:00:00|17:30:00|24:00:00 sends out batches at 9am, 5:30pm, and midnight. The values must be in ordered sequence, from the earliest time to the latest. **Note**: If you set values for Batch Repeat Time/Batch Repeat Granularity and also Batch Time, the Batch Time setting takes precedence.

Table 14 Message Profile, Interchange Control Envelope Section (X12): Fields

Name	Description
ISA01 Author Information Qualifier	The Authorization Information Qualifier; a code to identify the type of information in the Authorization Information (ISA02).
ISA02 Author Information	The Authorization Information; information used for additional identification or authorization of the interchange sender or the data in the interchange. The type of information is set by the Authorization Information Qualifier (ISA01).

Table 14 Message Profile, Interchange Control Envelope Section (X12): Fields (Continued)

Name	Description
ISA03 Security Information Qualifier	The code that identifies the type of information in the Security Information (ISA04).
ISA04 Security Information	Used for identifying the security information about the interchange sender or the data in the interchange. The type of information is set by the Security Information Qualifier (ISA03).
ISA05 Interchange Sender Identification Qualifier	The code that designates the system/method of code structure used to designate the sender or receiver ID element being qualified (ISA06).
ISA06 Interchange Sender Identifier	The identification code published by the sender for other parties to use as the receiver ID to route data to them. The sender always codes this value in the Sender ID element.
ISA07 Interchange Receiver Identification Qualifier	Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified.
ISA08 Interchange Receiver Identifier	Identification code published by the receiver of the data. When sending, it is used by the sender as the sending ID. Other parties sending to them will use this as a receiving ID to route data to them.
ISA11 IC Standards Identifier (below 4020)	A code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer.
ISA11 Repeating Element Separator (4020 and above)	The delimiter used to separate repeating elements (must be different from the other delimiters specified). **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.
ISA12 Interchange Version Number	The version number for the interchange control segments.
ISA13 IC Control Number	Interchange control number: a control number assigned by the sender. This setting in the partner profile affects outbound messages only. e*Xchange does the following: ▪ Checks the number stored in the database ▪ Increments by one (which ensures that the value is always unique) ▪ Uses that value, stores the value in the IC segment of the message ▪ Updates the database. **Note**: Since the interchange control number must be unique for each interchange, it is important that this value is *not* set to a negative number. The initial value must be 0 or greater.
ISA15 Test Indicator or ISA15 Usage Indicator (depending on X12 version)	A code to indicate whether the data enclosed in the interchange envelope is test or production.

Table 14 Message Profile, Interchange Control Envelope Section (X12): Fields (Continued)

Name	Description
ISA16 Composite Element Separator	Component element separator: The delimiter used to separate component data elements within a composite data structure (must be different from the data element separator and the segment terminator). **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.
Element Separator	The separator symbol used to separate data elements. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.
Segment Terminator	The symbol used to indicate the end of the segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.

Table 15 Message Profile, Functional Group Envelope Section (X12): Fields

Name	Description
GS01 Functional Identification Code	The two-letter code that identifies a specific transaction within the transaction set. For example, for a 997, Functional Acknowledgment, the functional ID code is FA.
GS02 Application Sender Code	The code that identifies the sender of the transmission. The codes are agreed upon by trading partners.
GS03 Application Receiver Code	The code that identifies the receiver of the transmission. The codes are agreed upon by trading partners.
GS06 Group Control Number	Functional group control number: a control number assigned by the message sender. The group control number must be unique within the interchange. This setting in the partner profile affects outbound messages only. **Note**: Make sure the initial value is 0 or greater. e*Xchange checks the number stored in the database, increments by one, uses that value, and updates the database. **Note**: The Functional Group control number GS06 in the header must be identical to the same data element in the associated Functional Group trailer, GE02.
GS07 RESP Agency Code	Responsible Agency Code: The code used in conjunction with GS08.
GS08 Version/ Release/Industry Identification Code	This code indicates the version, release, subrelease, and industry identifier of the EDI standard being used, including the GS and GE segments. This segment will have the following values, according to the values in GS07: GS07 code X-positions 1-3 are the version number, positions 4-6 are the release and subrelease level of the version, and positions 7-12 are the industry or trade association identifiers (optionally assigned by the user). GS07 code T-other formats are allowed.

Table 16 Message Profile, Transaction Set Section (X12): Fields

Name	Description
ST01 Transaction Set Identification Code	The unique ID code assigned to the transaction set; for example, 850 for a Purchase Order or 837 for a Health Care Claim.
ST02 TS Control Number	Transaction set control number: a control number assigned by the sender. This setting in the partner profile affects outbound messages only. **Note**: The control number in ST02 must be identical with that in SE02, and must be unique within a Functional Group (GS-GE). The number also aids in error resolution research. For example, start with the number 0001 and increment from there. The ST02 works a little differently depending on the Transfer Mode, as follows: ▪ For Batch or Fast Batch messages, e*Xchange does the following: Regardless of the value set in this field, e*Xchange always sets the Transaction Set control number to 1 within each Functional Group. This is due to conflicts in control numbers if more than one transaction set type is included in a single Functional Group. ▪ For Interactive messages, e*Xchange does the following: ♦ Transaction Set Control Number 0 or greater—e*Xchange increments from the initial value. ♦ Transaction Set Control Number less than 0—Control number always starts at 1, within each Functional Group.

To edit a message profile

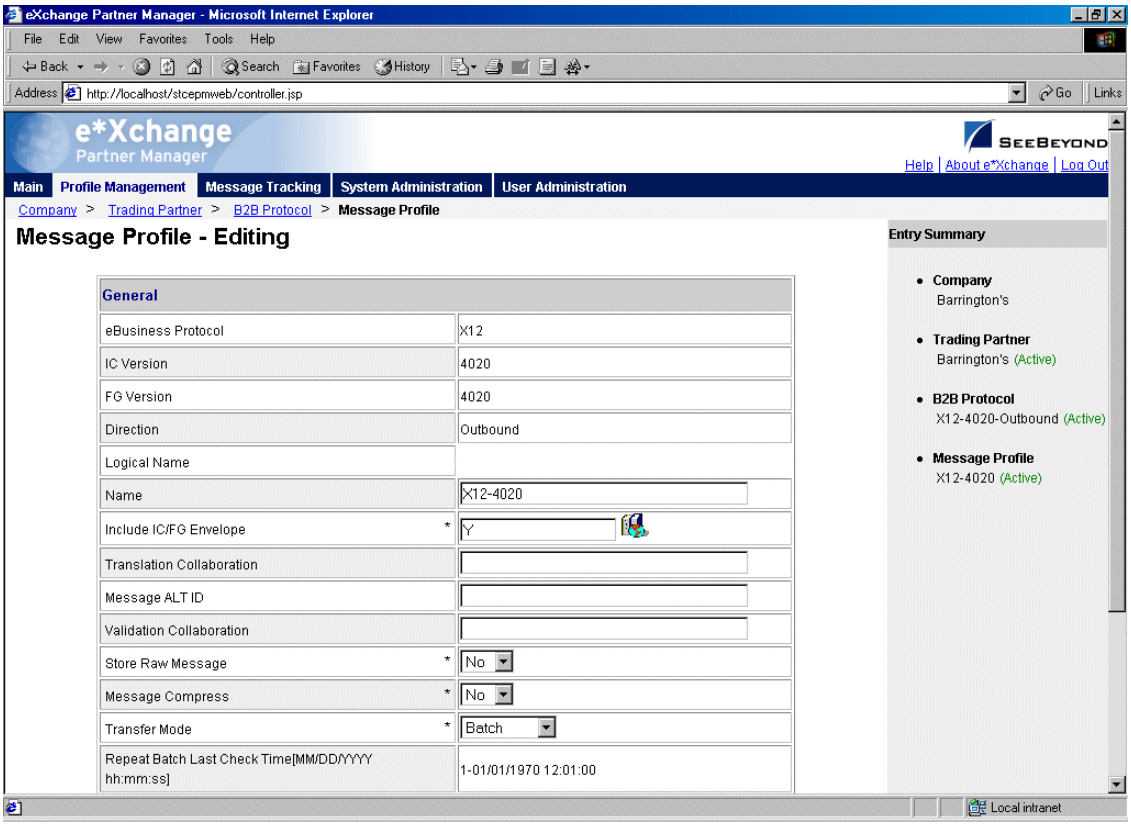
1. From the **Message Profile** page, select the message profile from the drop-down list.

   The message profile properties are displayed on the right side of the page.

2. In the Message Profile Properties section, click the link for the section you want to edit: **General**, **Interchange Control Envelope**, **Functional Group Envelope**, **Transaction Set Envelope**, or **Return Messages**.

3. Click the **Edit** button to access the **Message Profile - Editing** page listing the attribute section that you selected (see Figure 67 for an example).

Figure 67 Message Profile - Editing (General section) (X12)



4 Change the values as needed.

For more information on specific values, refer to the appropriate table:

- **General**—Table 13 on page 118
- **Interchange Control Envelope**—Table 14 on page 120
- **Functional Group Envelope**—Table 15 on page 122
- **Transaction Set Envelope**—Table 16 on page 123

5 Click **Apply** to save the changes and return to the **Message Profile** page.

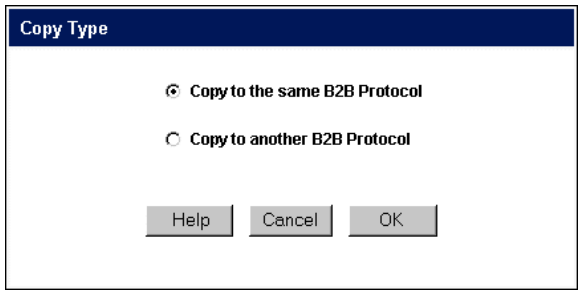
To copy a message profile to the same B2B protocol

1 On the **Message Profile** page, select the message profile that you want to copy.

2 Click the **Copy** button.

The **Copy Type** page appears (see Figure 68).

Figure 68 Copy Type (Copying a Message Profile)

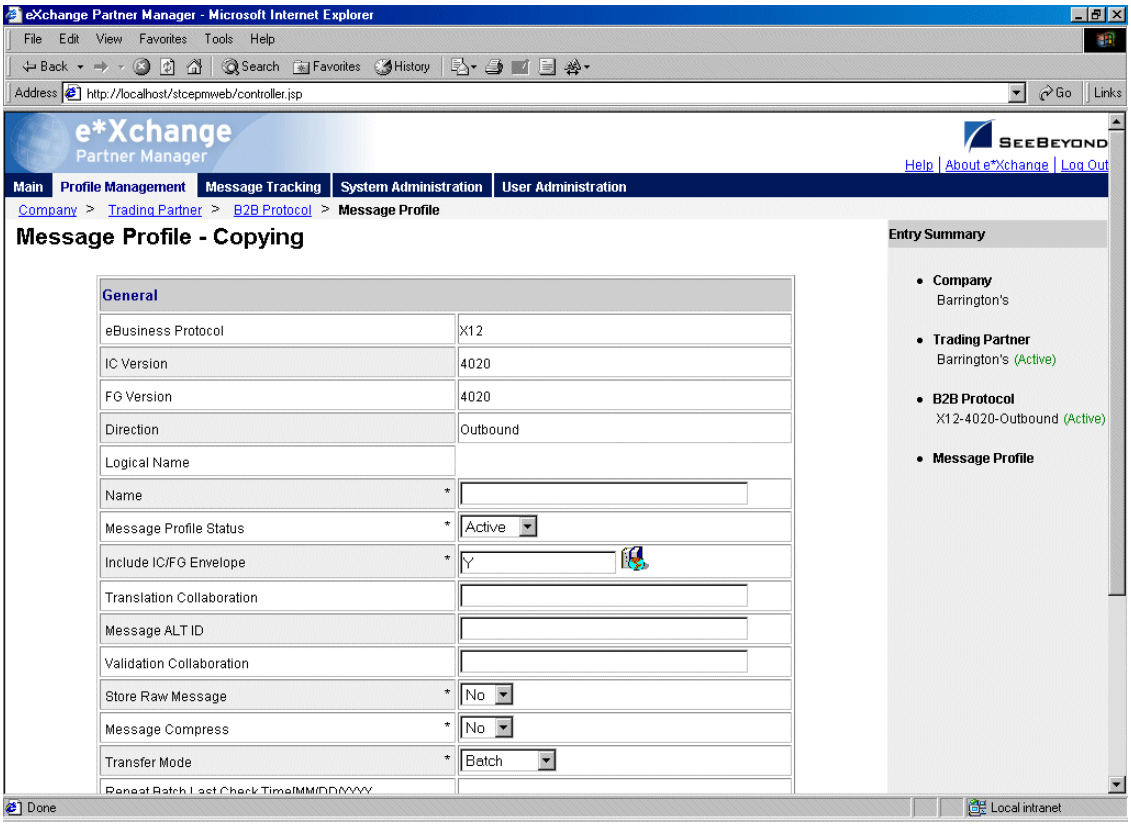


3 Make sure **Copy to the same B2B Protocol** is selected.

4 Click **OK**.

The **Message Profile - Copying** page (**General** section) appears (see Figure 69).

Figure 69 Message Profile - Copying (General section) (X12)



5 Change the values for the **General** attributes as needed.

For more information, see **Table 13 on page 118**.

6 Click **Next**.

7 Change the values for the **Interchange Control Envelope** as needed.

For more information, see **Table 14 on page 120**.

8 Click **Next**.

9 Change the values for the **Functional Group Envelope** as needed.

For more information, see **Table 15 on page 122**.

10 Click **Next**.

11 Change the values for the **Transaction Set Envelope** as needed.

For more information, see **Table 16 on page 123**.

12 Click **Next**.

13 Change the values for return messages as needed.

Note: *Define all message profiles for the B2B protocol, both inbound and outbound (acknowledgment and response messages), before defining return messages.*

14 Click **Finish** to return to the **Message Profile** page.

The new message profile is now on the drop-down list.

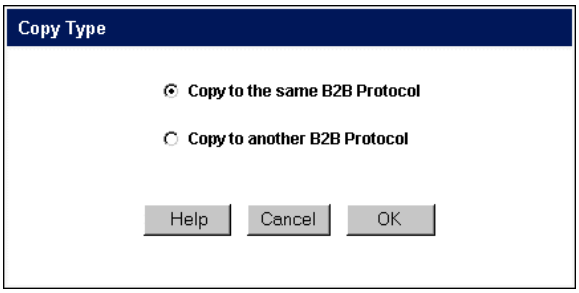
To copy a message profile to another B2B protocol

1 On the **Message Profile** page, select the message profile that you want to copy.

2 Click the **Copy** button.

The **Copy Type** page appears (see Figure 70).

Figure 70 Copy Type (Copying a Message Profile)

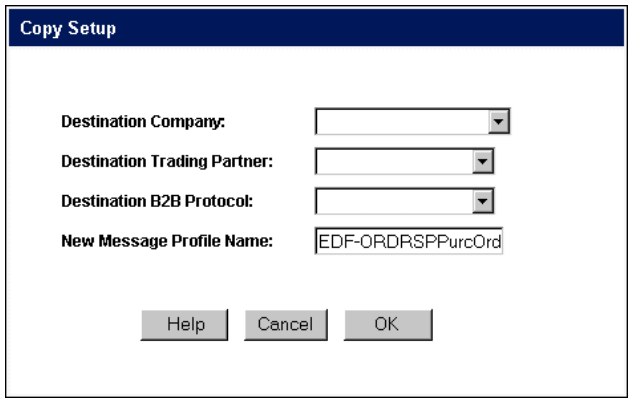


3 Select **Copy to another B2B Protocol**.

4 Click **OK**.

The **Copy Setup** page appears (see Figure 71).

Figure 71 Copy Setup (Copying a Message Profile to Another B2B Protocol)



5 On the **Copy Setup** page, select the destination company.

6 Select the destination trading partner.

7 Select the destination B2B Protocol.

8 If you want to change the message profile name, type the new name.

9 Click **OK**.

The message profile information is copied to the selected B2B protocol. When done, e*Xchange displays a message letting you know that the copy was successful.

To delete a message profile

1 On the **Message Profile** page, select the message profile from the drop-down list.

2 Click the **Delete** button.

A warning message appears asking if you are sure you want to delete.

3 To delete the profile, click **OK**.

The message profile is deleted.

To inactivate or reactivate a message profile

1 On the **Message Profile** page, select the message profile from the drop-down list.

The message profile properties are displayed on the right side of the page.

2 In the **Message Profile Status** field, toggle the **Active/Inactive** graphic to change the status. Values are as follows:

-  Message profile is active: click to inactivate.
-  Message profile is inactive: click to reactivate.

To set up security

1 On the **Message Profile** page, select the message profile from the drop-down list.

The message profile properties are displayed on the right side of the page.

2 Click the **Security** button.

The **Security Management** page appears.

3 Set the values as needed.

4 Click **OK**.

For detailed instructions on setting up security, refer to **"Web Interface: Security" on page 77**.

Chapter 6

Web Interface: Profile Setup for UN/EDIFACT

This chapter provides information on setting up UN/EDIFACT messages in the e*Xchange Partner Manager, at the Message Profile level.

The Company, Trading Partner, and B2B Protocol (inbound and outbound) levels must be set up first. For information on setting up these components, refer to **"Web Interface: Profile Management" on page 80**.

6.1 Setting Up UN/EDIFACT Message Profile Information

Once you have set up B2B protocol information for a trading partner, the next step is to set up message profiles.

6.1.1 Setup Sequence

Part of setting up a message profile is to specify the expected response message, if any.

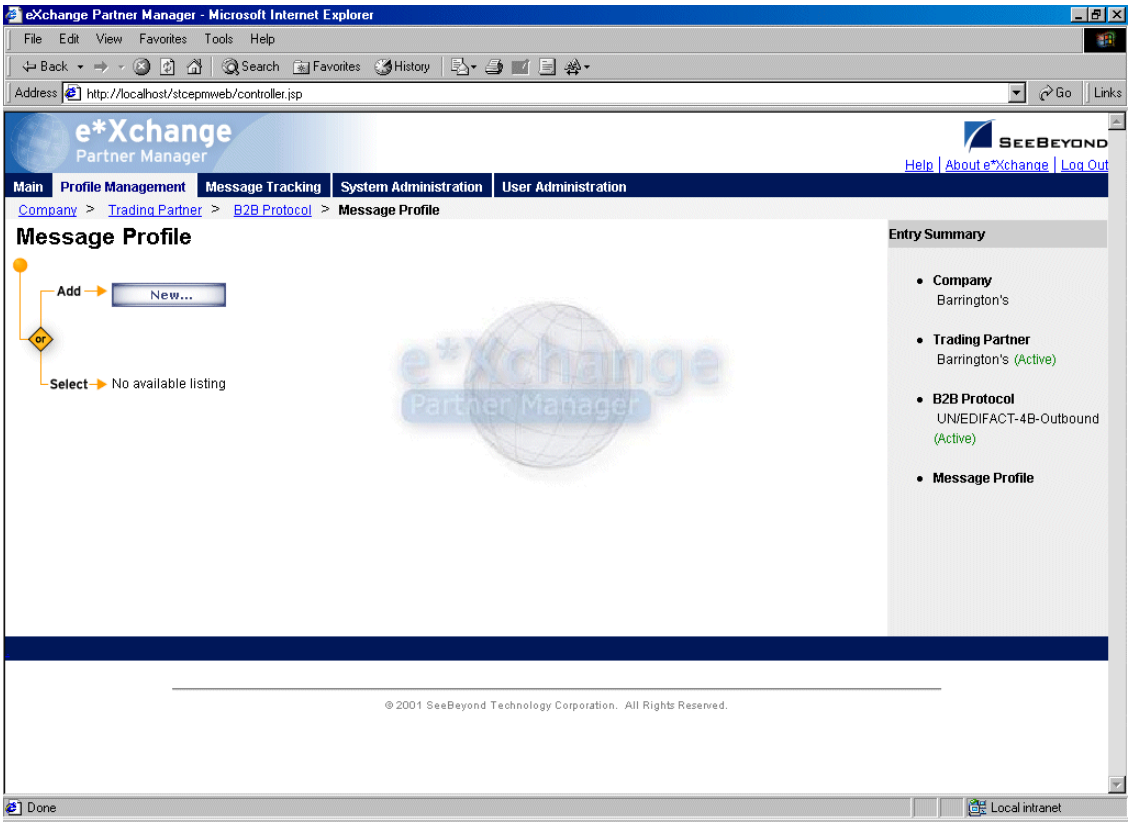
During initial setup, you will find that you cannot select the appropriate response messages because you have not yet created the message profiles for those response messages.

One approach to this is to first set up all message profiles, both inbound and outbound, and then go back into each message profile to select the return messages.

6.1.2 Setting Up a Message Profile

From the **B2B Protocol** page, select a B2B protocol and click **Continue: Message Profile** to access the **Message Profile** page (see Figure 72).

Figure 72 Message Profile Page



From the **Message Profile** page you can complete the following activities:

- Add a message profile for the selected B2B protocol (see **"To add a message profile" on page 131**).
- Select a message profile: choose from the drop-down list. The message profile **General** properties are displayed on the right side of the page. To view additional properties, click on the appropriate link above the properties display (specific property groups vary according to the eBusiness protocol).
- Edit the selected message profile; first select the section that you want to edit, and then click the **Edit** button to access the **Message Profile - Editing** page (see **"To edit a message profile" on page 134**).
- Create a new message profile based on the selected one (see **"To copy a message profile to the same B2B protocol" on page 135** and **"To copy a message profile to another B2B protocol" on page 137**).

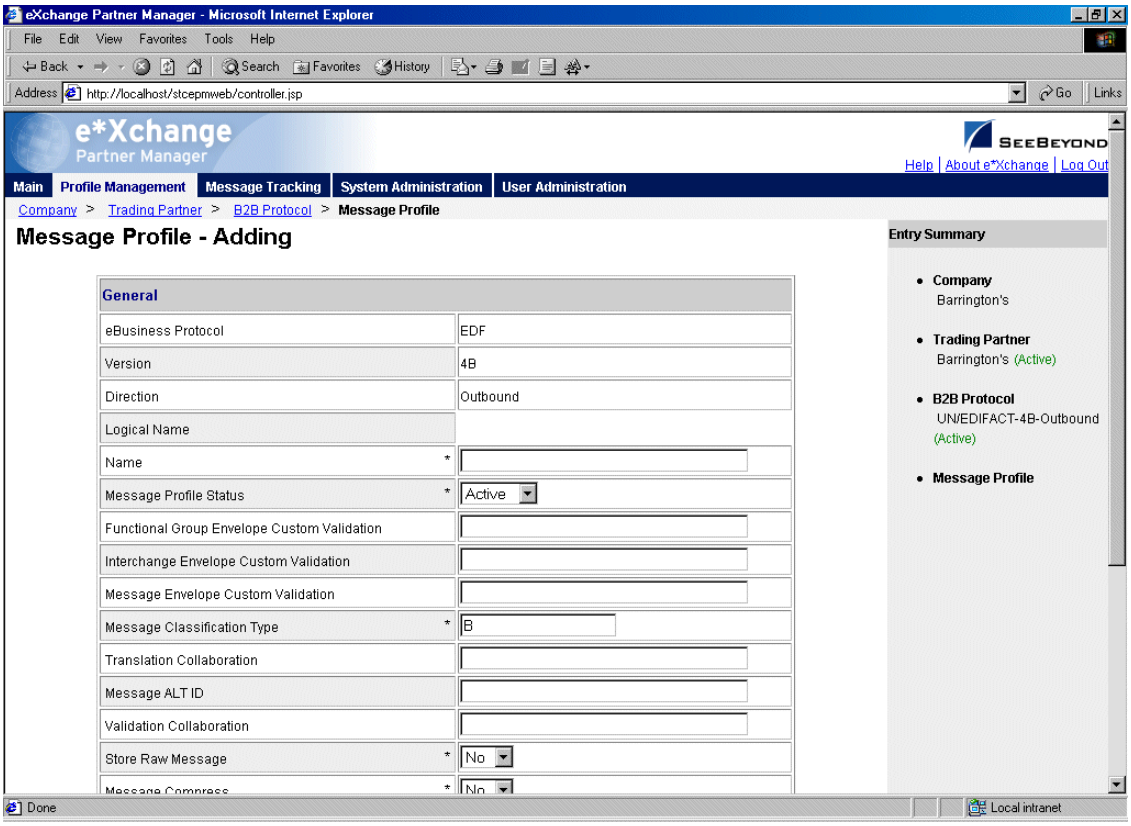
  Note: For general information on the copy feature, refer to **"Copying Components" on page 111**.
- Delete the selected message profile (see **"To delete a message profile" on page 138**).
- Activate or inactivate the selected message profile (see **"To inactivate or reactivate a message profile" on page 139**).

- Set or change security for the selected message profile (see **"Web Interface: Security" on page 77**).

To add a message profile

1 From the **Message Profile** page, click the **New** button to access the **Message Profile - Adding** page (**General** section). An example (for version 4B) is shown in Figure 73.

Figure 73 Message Profile - Adding (General section) (UN/EDIFACT) (4B)

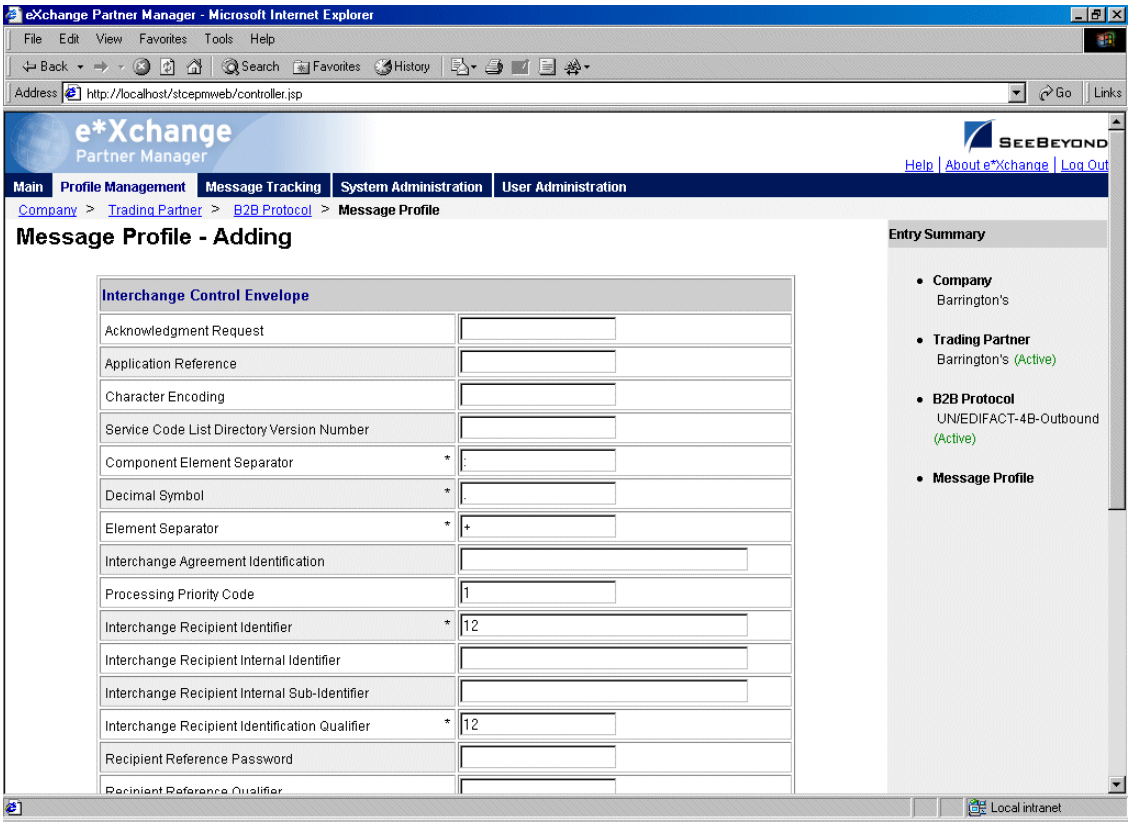


2 Enter or select values for the **General** section.

For more information, refer to **Table 18 on page 140** (for version 3B), **Table 22 on page 145** (for version 4B), or **Table 26 on page 153** (for version 4I).

3 Click **Next** to access the **Interchange Control Envelope** section (see Figure 74).

Figure 74 Message Profile - Adding (Interchange Control Envelope section) (UN/EDIFACT)

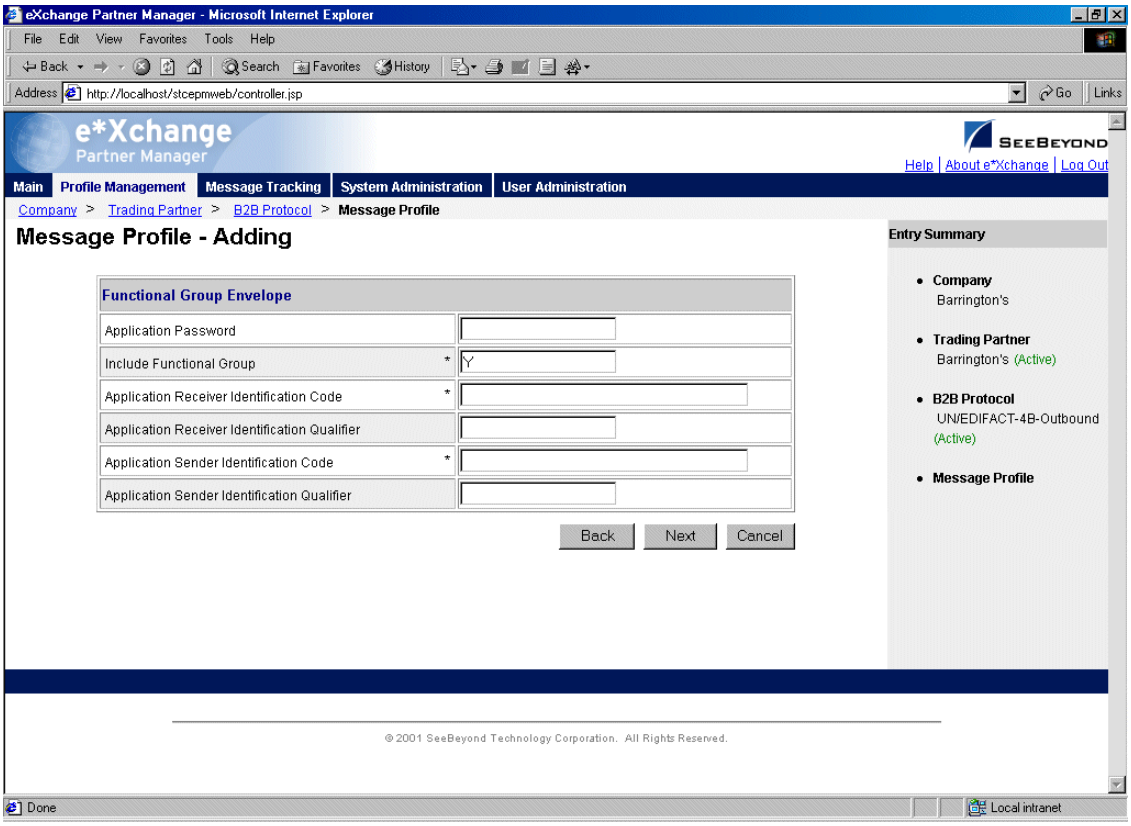


4 Enter or select values for the **Interchange Control Envelope** section.

For more information, refer to **Table 19 on page 142** (for version 3B), **Table 23 on page 148** (for version 4B), or **Table 27 on page 154** (for version 4I).

5 Click **Next** to access the **Functional Group Envelope** section (see Figure 75) if you are using version 3B or 4B, or the **Message Envelope** section (see Figure 76) if you are using version 4I.

Figure 75 Message Profile - Adding (Functional Group Envelope section) (UN/EDIFACT)

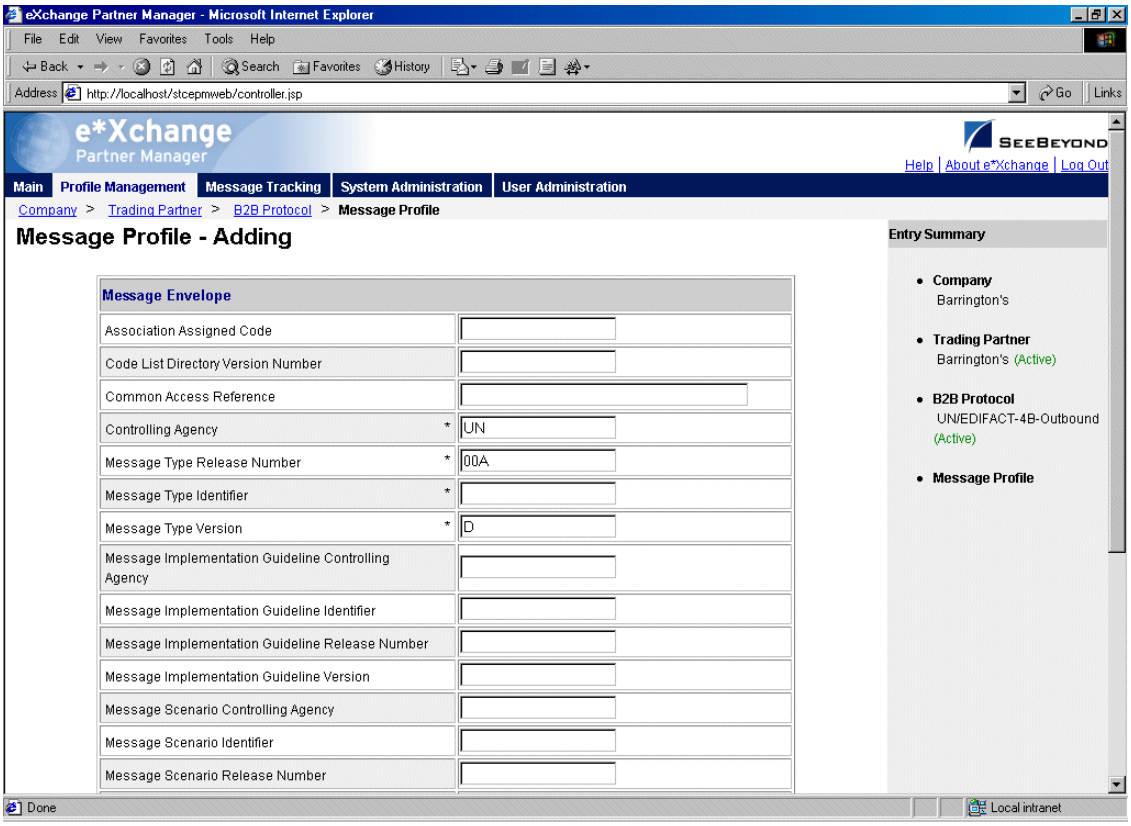


6 If you are using version 3B or 4B, enter or select values for the **Functional Group Envelope** section.

For more information, refer to **Table 20 on page 144** (for version 3B) or **Table 24 on page 150** (for version 4B).

7 Click **Next** to access the **Message Envelope** section (see Figure 76).

Figure 76 Message Profile - Adding (Message Envelope section) (UN/EDIFACT)



8 Enter or select values for the **Message Envelope** section.

For more information, refer to **Table 21 on page 145** (for version 3B), **Table 25 on page 151** (for version 4B), or **Table 28 on page 157** (for version 4I).

9 Click **Next** to access the **Return Messages** section.

10 Define return messages, or leave until later if you have not set up the message profiles for the return messages yet.

11 Click **Apply** to save the profile and go to the **Message Profile** page.

To edit a message profile

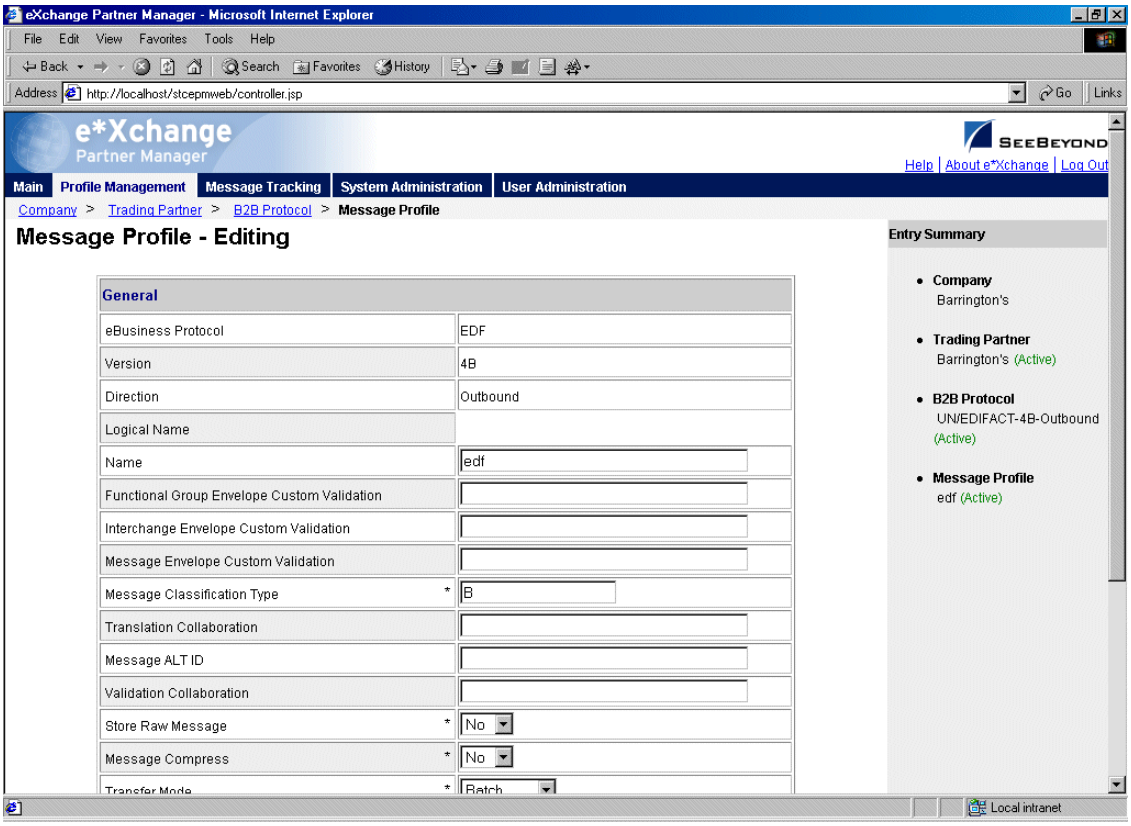
1 From the **Message Profile** page, select the message profile from the drop-down list.

The message profile properties are displayed on the right side of the page.

2 In the **Message Profile Properties** section, click the link for the section you want to edit: **General**, **Interchange Control Envelope**, **Functional Group Envelope** (3B or 4B only), **Message Envelope**, or **Return Messages**.

3 Click the **Edit** button to access the **Message Profile - Editing** page listing the attribute section that you selected (see Figure 77).

Figure 77 Message Profile - Editing (General section) (UN/EDIFACT)



4 Change the values as needed.

For more information, refer to the section for the appropriate UN/EDIFACT version, as shown in Table 17.

Table 17 Cross-References to UN/EDIFACT Parameter Values

Section	Version 3B	Version 4B	Version 4I
General	Table 18 on page 140	Table 22 on page 145	Table 26 on page 153
Interchange Control Envelope	Table 19 on page 142	Table 23 on page 148	Table 27 on page 154
Functional Group Envelope	Table 20 on page 144	Table 24 on page 150	N/A
Message Envelope	Table 21 on page 145	Table 25 on page 151	Table 28 on page 157

5 Click **Apply** to save changes and return to the **Message Profile** page.

To copy a message profile to the same B2B protocol

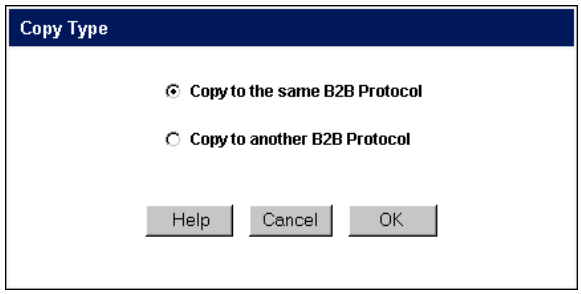
1 On the **Message Profile** page, select the message profile that you want to copy.

The message profile properties are displayed on the right side of the page.

2 Click the **Copy** button.

The **Copy Type** page appears (see Figure 78).

Figure 78 Copy Type (Copying a Message Profile)

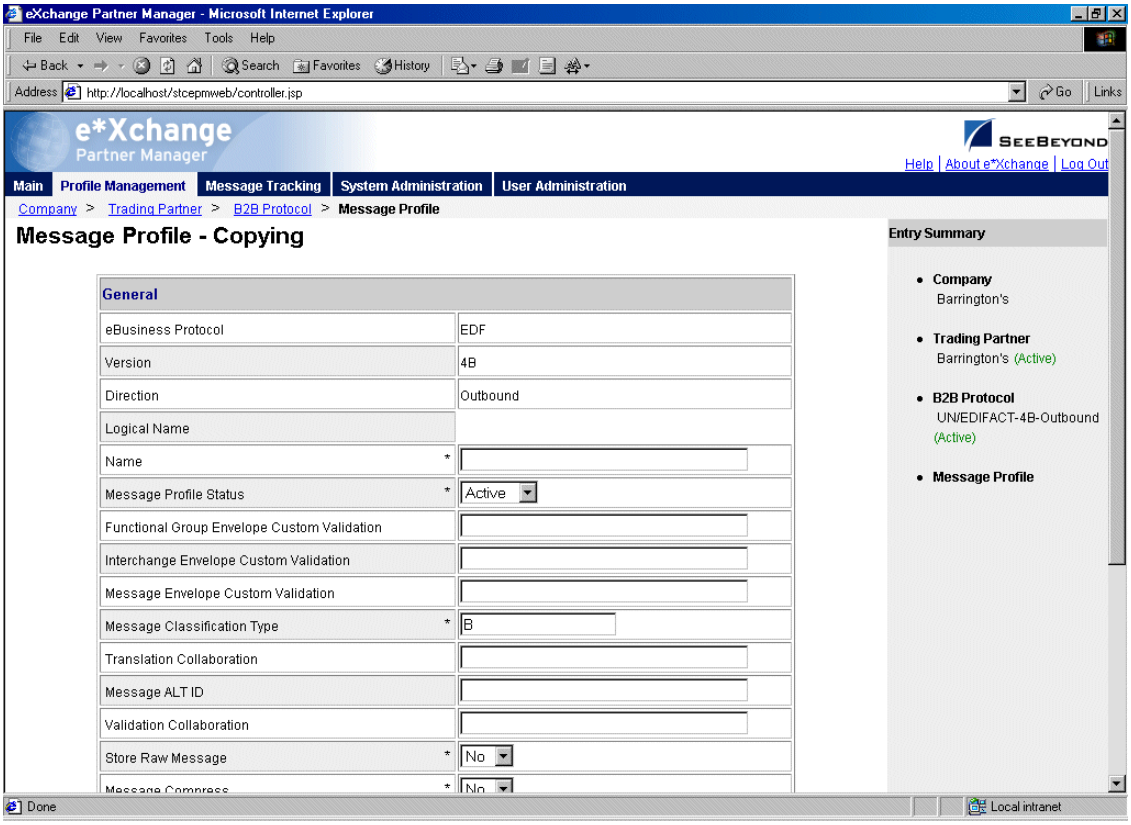


3 Make sure **Copy to the same B2B Protocol** is selected.

4 Click **OK**.

The **Message Profile - Copying** page (**General** section) appears (see Figure 79).

Figure 79 Message Profile - Copying (General section) (UN/EDIFACT)



5 Change the values for the **General** attributes as needed.

For more information, refer to one of the following tables:

- For version 3B—**Table 18 on page 140**

- For version 4B—Table 22 on page 145
- For version 4I—Table 26 on page 153

6 Click **Next**.

7 Change the values for the **Interchange Control Envelope** as needed.

For more information, refer to one of the following tables:

- For version 3B—Table 19 on page 142
- For version 4B—Table 23 on page 148
- For version 4I—Table 27 on page 154

8 Click **Next**.

9 Change the values for the **Functional Group Envelope** as needed.

For more information, refer to one of the following tables:

- For version 3B—Table 20 on page 144
- For version 4B—Table 24 on page 150

10 Click **Next**.

11 Change the values for the **Message Envelope** as needed.

For more information, refer to one of the following tables:

- For version 3B—Table 21 on page 145
- For version 4B—Table 25 on page 151
- For version 4I—Table 28 on page 157

12 Click **Next**.

13 Change the values for return messages as needed.

14 Click **Finish**.

You are returned to the **Message Profile** page. The new message profile is now on the drop-down list.

To copy a message profile to another B2B protocol

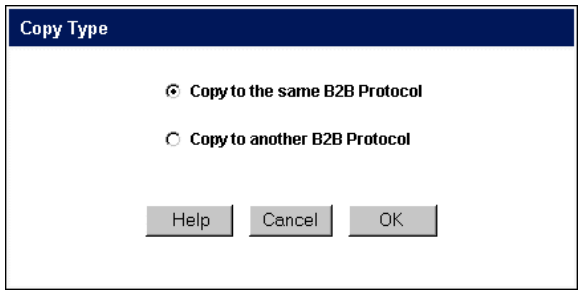
1 On the **Message Profile** page, select the message profile that you want to copy.

The message profile properties are displayed on the right side of the page.

2 Click the **Copy** button.

The **Copy Type** page appears (see Figure 80).

Figure 80 Copy Type (Copying a Message Profile)

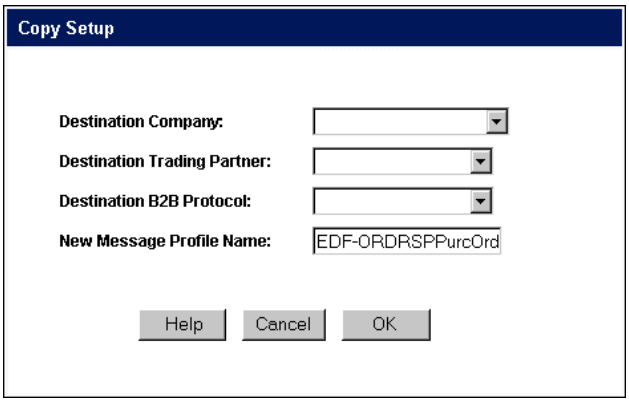


3 Select **Copy to another B2B Protocol**.

4 Click **OK**.

The **Copy Setup** page appears (see Figure 81).

Figure 81 Copy Setup (Copying a Message Profile to Another B2B Protocol)



5 On the **Copy Setup** page, select the destination company.

6 Select the destination trading partner.

7 Select the destination B2B Protocol.

8 If you want to change the message profile name, type the new name.

9 Click **OK**.

The message profile information is copied to the selected B2B protocol. When done, e*Xchange displays a message letting you know that the copy was successful.

To delete a message profile

1 On the **Message Profile** page, select the message profile from the drop-down list.

2 Click the **Delete** button.

A warning message appears asking if you are sure you want to delete.

3 To delete the profile, click **OK**.

The message profile is deleted.

To inactivate or reactivate a message profile

1 On the **Message Profile** page, select the message profile from the drop-down list.

The message profile properties are displayed on the right side of the page.

2 In the **Message Profile Status** field, toggle the **Active/Inactive** graphic to change the status. Values are as follows:

-  Message profile is active: click to inactivate.
-  Message profile is inactive: click to reactivate.

To set up security

1 On the **Message Profile** page, select the message profile from the drop-down list.

The message profile properties are displayed on the right side of the page.

2 Click the **Security** button.

The **Security Management** page appears.

3 Set the values as needed.

4 Click **OK**.

For detailed instructions on setting up security, refer to **"Web Interface: Security" on page 77**.

6.2 UN/EDIFACT Message Profile Parameter Values

This section lists field descriptions for the UN/EDIFACT values required for setting up a message profile.

Field descriptions are listed separately for each version:

- Version 3 Batch—See **"Version 3 Batch" on page 139**
- Version 4 Batch—See **"Version 4 Batch" on page 145**
- Version 4 Interactive—See **"Version 4 Interactive" on page 152**

6.2.1 Version 3 Batch

This section includes field descriptions for UN/EDIFACT version 3 Batch, for the following Message Profile setup sections:

- **General** section—**Table 18 on page 140**
- **Interchange Control Envelope** section—**Table 19 on page 142**
- **Functional Group Envelope** section—**Table 20 on page 144**
- **Message Envelope** section—**Table 21 on page 145**

Table 18 Message Profile, General Section (UN/EDIFACT 3B): Fields

Name	Description
eBusiness Protocol	The name of the protocol that you selected earlier is displayed.
Version	The eBusiness protocol version that you selected earlier is displayed.
Direction	The direction for the message profile, Inbound or Outbound, is displayed.
Logical Name	If you specified a logical name at the B2B protocol level, it is displayed.
Name	A label for the message profile. It should be descriptive, and unique for the trading partner.
Message Profile Status	The status of the message profile. Choose one of the following values: ▪ **Active**—The message profile is currently active, and can be used. ▪ **Inactive**—The message profile is not active, and cannot be used. Default: **Active**. **Note**: This is only available when adding a message profile. When editing, you can change the status on the **Message Profile** page (see **"To inactivate or reactivate a message profile" on page 139**).
Functional Group Envelope Custom Validation	Not implemented at this time.
Interchange Envelope Custom Validation	Not implemented at this time.
Message Envelope Custom Validation	Not implemented at this time.
Message Classification Type	A flag to specify the message type for the message: **B** for batch, **I** for interactive. Certain types of UN/EDIFACT messages are not batched. Since this is version 3 Batch, this field defaults to **B**. Do not change it.
Translation Collaboration	If your internal system will be sending messages to e*Xchange in raw data format, or expecting messages from e*Xchange in raw data format, you must specify the translation Collaboration that will be used to translate the messages to and from the appropriate eBusiness Protocol format. Type the file name (no extension). **Outbound**: If you provide a value in this field for an Outbound profile, e*Xchange also requires a value for Message ALT ID.
Message ALT ID (Outbound only)	If your internal system will be sending messages to e*Xchange in raw data format, or expecting messages from e*Xchange in raw data format, you must specify the message Alt ID. The value specified in this field must exactly match the value populated in the Name/Value pair element of the TP Event section in the **eX_Standard_Event**. If you are not receiving messages in raw data format, leave this field blank.

Table 18 Message Profile, General Section (UN/EDIFACT 3B): Fields (Continued)

Name	Description
Event Type (Inbound only)	(Optional) If specified, this is the Event Type to which the inbound message is published. If left empty, e*Xchange uses the default Event Type, **eX_to_eBPM**. **Note**: If you specify a custom Event Type, you must modify the e*Xchange e*Gate schema accordingly. Modify the **eX_from_ePM** Collaboration properties to publish to the new Event Type. There must also be a module that subscribes to this Event Type.
Validation Collaboration	The Collaboration that is used to validate the eBusiness protocol message (no extension). For X12 and UN/EDIFACT: ▪ **Inbound**—This field is required. ▪ **Outbound**—This field is required if a unique-id is not provided in the **eX_Standard_Event** MessageID field. **Note**: The message enveloping is automatically validated by e*Xchange. The validation Collaboration addresses only the message body.
Store Raw Message	If you want to store the raw message in the database as well as the translated message, type **Y** in this field. If you store the raw message, it will be available for viewing in Message Tracking.
Message Compress (required)	Indicates whether the messages will be compressed before they are stored in the database. Default: No. **Note**: Compressed messages cannot be viewed in Message Tracking.
Transfer Mode	The way in which the eBusiness messages are transmitted to, or received from, the trading partner: Batch, Fast Batch, or Interactive.
Repeat Batch Last Check Time (Batch transfer mode only)	Once the first batch has been sent out, this field is automatically updated by e*Xchange. Display-only.
Batch Repeat Time/ Batch Repeat Granularity (Batch transfer mode only)	To send batches at regular intervals, use these two attributes. BATCH REPEAT TIME sets the numerical value, and BATCH REPEAT GRANULARITY sets the time period: H for hours, MI for minutes, and D for days. For example, BATCH REPEAT TIME of 4 and BATCH REPEAT GRANULARITY of H means that batches are sent out every four hours; values of 30 and MI mean that batches are sent out every 30 minutes. **Note**: If you want to send batches at a preset daily time, do not set values for these attributes. Use BATCH TIME. If you set values for Batch Repeat Time/ Batch Repeat Granularity and also Batch Time, the Batch Time setting takes precedence. **Note**: If you use these fields to control batching, you can have a maximum of 10 Batch e*Ways running. This is because the display-only Batch Last Send Time field has a maximum of 255 characters.

Table 18 Message Profile, General Section (UN/EDIFACT 3B): Fields (Continued)

Name	Description
Batch Time (Batch transfer mode only)	To send batches at a preset daily time, enter the time in the format hh:mm:ss (military time); for example, 09:00:00 for 9am or 15:30:00 for 3pm. If the batch is being set at a preset daily time, you do not need to set any other attributes. You can also set multiple batch times, using the pipe symbol as the delimiter (up to 50 characters). For example, 09:00:00|17:30:00|24:00:00 sends out batches at 9am, 5:30pm, and midnight. The values must be in ordered sequence, from the earliest time to the latest. **Note**: If you set values for Batch Repeat Time/Batch Repeat Granularity and also Batch Time, the Batch Time setting takes precedence.

Table 19 Message Profile, Interchange Control Envelope Section (UN/EDIFACT 3B): Fields

Name	Ref #	Description
Acknowledgment Request	UNB 090 0031	An optional one-digit code requesting acknowledgment for the interchange.
Application Reference	UNB 070 0026	An optional value identifying the application area assigned by the sender, to which the messages in the interchange relate; for example, the message type, if all the messages in the interchange are of the same type. Whether or not this field is used, and if so the exact nature of the data, is specified in the trading partner Interchange Agreement.
Communication Agreement Identification	UNB 100 0032	An optional name or code indicating the type of agreement under which the interchange takes place. 1–35 characters.
Component Element Separator	UNA 010	The Component Data Element Separator: The symbol used as a component data element separator (delimiter). Default: colon (:). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.
Decimal Symbol	UNA 030	Decimal mark: The symbol used to indicate a decimal point. Default: period (.). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment.
Element Separator	UNA 020	The Data Element Separator: The symbol used as a separator between data elements (delimiter). Default: plus sign (+). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.

Table 19 Message Profile, Interchange Control Envelope Section (UN/EDIFACT 3B): Fields

Name	Ref #	Description
Processing Priority Code	UNB 080-0029	Optional: A single-character code determined by the sender requesting processing priority for the interchange. **Note**: The Interchange Agreement must state whether the field is to be used. If it is used, a list of codes and meanings must be provided.
Interchange Recipient Identifier	UNB 030 0010	(Required) The receiver's name or ID code, as specified in the Interchange Agreement.
Interchange Recipient Identifier Qualifier	UNB 030 0007	An optional qualifier referring to the receiver's identification code. Up to four characters.
Recipient Reference Password	UNB 060 0022	The reference or password required for the sender to access the recipient's system. Up to 14 characters.
Recipient Reference Qualifier	UNB 060 0025	An optional qualifier for the recipient's reference or password. Up to four characters.
Release Character	UNA 040	The symbol used as a release character. Default: question mark (?). The release character, immediately preceding one of the other separators, restores its normal meaning. For example, 10?+10=20 means 10+10=20. **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment.
Repetition Separator	UNA 050	The symbol used as a repetition separator (delimiter). Default: asterisk (*). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.
Reverse Receiver Routing Address	UNB 030 0014	The routing address; the address that the recipient has specified the sender should include in the interchange. This is used by the recipient to facilitate routing of incoming messages.
Reverse Sender Routing Address	UNB 020 0008	The address for reverse routing; an address specified by the sender of an interchange to be included by the recipient in the response interchanges. This facilitates internal routing.
Segment Terminator	UNA 060	The symbol used to indicate the end of a segment (delimiter). Default: apostrophe ('). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.

Table 19 Message Profile, Interchange Control Envelope Section (UN/EDIFACT 3B): Fields

Name	Ref #	Description
Interchange Sender Identifier	UNB 020 0004	The sender's name or ID code, as specified in the Interchange Agreement.
Interchange Sender Identifier Qualifier	UNB 020 0007	The qualifier for the Interchange Sender ID name or code. A qualifier code may refer to an organization identification, as in ISO 6523.
Interchange Syntax Identifier	UNB 010 0001	The syntax level used: UNOA for the basic level A UNOB for level B
Interchange Syntax Version	UNB 010 0002	The EDIFACT version used at the interchange level. e*Xchange supports versions 3 and 4. For the current version, ISO 9735-1, use 4. Use 3 for the 1988 version amended and reprinted in 1990 plus Amendment 1 of 1992.
Test Indicator	UNB 110 0035	An optional single-digit numeric code (1, 2, 3, or 4) indicating that this is a test.

Table 20 Message Profile, Functional Group Envelope Section (UN/EDIFACT 3B): Fields

Name	Ref #	Description
Application Password	UNG 080 0058	Optional: The reference or password required for the sender to access the recipient's division, department, or sectional application system/process (additional to the recipient's reference password at the interchange level, which is required). Up to 14 characters.
Include Functional Group	N/A	Only applicable to outbound messages sent by Interactive transfer mode. This field indicates whether the trading partner requires functional group information (UNG/UNE segments) in the message.
Application Receiver Identification Code	UNG 030 0044	Required: An additional ID code (for example, of a division, branch, or computer system or process), specified by the recipient to facilitate internal routing. Up to 35 characters.
Application Receiver Identification Qualifier	UNG 030 0007	Optional: A qualifier to the recipient's ID code. Four characters.
Application Sender Identification Code	UNG 020 0040	Required: An additional ID code (for example, of a division, branch, or computer system or process), specified by the sender to facilitate internal routing. Up to 35 characters.
Application Sender Identification Qualifier	UNG 020 0007	An optional qualifier to the sender's ID code. Four characters.

Table 21 Message Profile, Message Envelope Section (UN/EDIFACT 3B): Fields

Name	Ref #	Description
Association Assigned Code	UNH 020 0057	Optional: A code that further identifies the message. Assigned by the association responsible for the design and maintenance of the message type concerned. Up to six characters.
Common Access Reference	UNH 030 0068	Optional: A reference serving as a key to relate all subsequent transfers of data to the same business case or file. Up to 35 characters.
Controlling Agency	UNH 020 0051	The code for the controlling agency. For UN/EDIFACT, this value is always UN.
Message Type Release Number	UNH 020 0054	Required: The release number within the current message version number. 1–3 characters.
Message Type Identifier	UNH 020 0065	Required: Message Type—A code identifying a type of message and assigned by its controlling agency. Up to six characters.
Message Type Version	UNH 020 0052	Required: The version number for the message type. Up to three characters.
Message Transfer Indicator	UNH 040 0073	Optional: First and Last Transfer: An indicator used for the first and last message in a sequence of messages related to the same topic. One character.
Message Sequence	UNH 040 0070	The Sequence of Transfers: A number (up to two digits) assigned by the sender indicating the numerical sequence of one or more transfers.

6.2.2 Version 4 Batch

This section includes field descriptions for UN/EDIFACT version 4 Batch, for the following Message Profile setup sections:

- **General** section—**Table 22 on page 145**
- **Interchange Control Envelope** section—**Table 23 on page 148**
- **Functional Group Envelope** section—**Table 24 on page 150**
- **Message Envelope** section—**Table 25 on page 151**

Table 22 Message Profile, General Section (UN/EDIFACT 4B): Fields

Name	Description
eBusiness Protocol	The name of the protocol that you selected earlier is displayed.
Version	The eBusiness protocol version that you selected earlier.
Direction	The direction for the message profile, Inbound or Outbound, is displayed.
Logical Name	If you specified a logical name at the B2B protocol level, it is displayed.
Name	A label for the message profile. It should be descriptive, and unique for the trading partner.

Table 22 Message Profile, General Section (UN/EDIFACT 4B): Fields (Continued)

Name	Description
Message Profile Status	The status of the message profile. Choose one of the following values: ▪ **Active**—The message profile is currently active, and can be used. ▪ **Inactive**—The message profile is not active, and cannot be used. Default: **Active**. **Note**: This is only available when adding a message profile. When editing, you can change the status on the **Message Profile** page (see **"To inactivate or reactivate a message profile" on page 139**).
Functional Group Envelope Custom Validation	Not implemented at this time.
Interchange Envelope Custom Validation	Not implemented at this time.
Message Envelope Custom Validation	Not implemented at this time.
Message Classification Type	A flag to specify the message type for the message: **B** for batch, **I** for interactive. Certain types of UN/EDIFACT messages are not batched. Since this is version 4 Batch, this field defaults to **B**. Do not change it.
Translation Collaboration	If your internal system will be sending messages to e*Xchange in raw data format, or expecting messages from e*Xchange in raw data format, you must specify the translation Collaboration that will be used to translate the messages to and from the appropriate eBusiness Protocol format. Type the file name (no extension). **Outbound**: If you provide a value in this field for an Outbound profile, e*Xchange also requires a value for Message ALT ID.
Message ALT ID (Outbound only)	If your internal system will be sending messages to e*Xchange in raw data format, or expecting messages from e*Xchange in raw data format, you must specify the message Alt ID. The value specified in this field must exactly match the value populated in the Name/Value pair element of the TP Event section in the **eX_Standard_Event**. If you are not receiving messages in raw data format, leave this field blank.
Event Type (Inbound only)	(Optional) If specified, this will be the Event Type to which the inbound message will be published. If left empty, e*Xchange uses the default Event Type, **eX_to_eBPM**. **Note**: If you specify a custom Event Type, you must modify the e*Xchange e*Gate schema accordingly. Modify the **eX_from_ePM** Collaboration properties to publish to the new Event Type. There must also be a module that subscribes to this Event Type.

Table 22 Message Profile, General Section (UN/EDIFACT 4B): Fields (Continued)

Name	Description
Validation Collaboration	The Collaboration that is used to validate the eBusiness protocol message (no extension). For X12 and UN/EDIFACT: ▪ **Inbound**—This field is required. ▪ **Outbound**—This field is required if a unique-id is not provided in the **eX_Standard_Event** MessageID field. **Note**: The message enveloping is automatically validated by e*Xchange. The validation Collaboration addresses only the message body.
Store Raw Message	If you want to store the raw message in the database as well as the translated message, type **Y** in this field. If you store the raw message, it will be available for viewing in Message Tracking.
Message Compress (required)	Indicates whether the messages will be compressed before they are stored in the database. Default: No. **Note**: Compressed messages cannot be viewed in Message Tracking.
Transfer Mode	The way in which the eBusiness messages are transmitted to, or received from, the trading partner: Batch, Fast Batch, or Interactive.
Repeat Batch Last Check Time (Batch transfer mode only)	Once the first batch has been sent out, this field is automatically updated by e*Xchange. Display-only.
Batch Repeat Time/ Batch Repeat Granularity (Batch transfer mode only)	To send batches at regular intervals, use these two attributes. BATCH REPEAT TIME sets the numerical value, and BATCH REPEAT GRANULARITY sets the time period: H for hours, MI for minutes, and D for days. For example, BATCH REPEAT TIME of 4 and BATCH REPEAT GRANULARITY of H means that batches will be sent out every four hours; values of 30 and MI mean that batches will be sent out every 30 minutes. **Note**: If you want to send batches at a preset daily time, do not set values for these attributes. Use BATCH TIME. If you set values for Batch Repeat Time/ Batch Repeat Granularity and also Batch Time, the Batch Time setting takes precedence. **Note**: If you use these fields to control batching, you can have a maximum of 10 Batch e*Ways running. This is because the display-only Batch Last Send Time field has a maximum of 255 characters.
Batch Time (Batch transfer mode only)	To send batches at a preset daily time, enter the time in the format hh:mm:ss (military time); for example, 09:00:00 for 9am or 15:30:00 for 3:30pm. If the batch is being set at a preset daily time, you do not need to set any other attributes. You can also set multiple batch times, using the pipe symbol as the delimiter: for example, 09:00:00|17:30:00|24:00:00 sends out batches at 9am, 5:30pm, and midnight. The values must be in ordered sequence, from the earliest time to the latest. **Note**: If you set values for Batch Repeat Time/Batch Repeat Granularity and also Batch Time, the Batch Time setting takes precedence.

Table 23 Message Profile, Interchange Control Envelope Section (UN/EDIFACT 4B): Fields

Name	Ref #	Description
Acknowledgment Request	UNB 090 0031	An optional one-digit code requesting acknowledgment for the interchange.
Application Reference	UNB 070 0026	An optional value identifying the application area assigned by the sender, to which the messages in the interchange relate; for example, the message type, if all the messages in the interchange are of the same type. Whether or not this field is used, and if so the exact nature of the data, is specified in the trading partner Interchange Agreement.
Character Encoding	UNB 010 0133	(Optional) Character Encoding, Coded: The identification for the character encoding used in the interchange, as specified in the trading agreement. Acceptable values: any three-character code as defined in the trading agreement. If you do not specify a value, e*Xchange assumes the default encoding technique defined for the syntax version being used: 1—ASCII 7-bit code. 2—ASCII 8-bit code. 3—Code page 500 (EBCDIC Multinational No. 5) encoding schema for the repertoire as defined by the code page. 4—Code page 850 (IBM PC Multinational) encoding schema for the repertoire as defined by the code page.
Service Code List Directory Version Number	UNB 010 0080	The version number of the service code list directory.
Component Element Separator	UNA 010	The Component Data Element Separator: The symbol used as a component data element separator (delimiter). Default: colon (:). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.
Decimal Symbol	UNA 030	Decimal mark: The symbol used to indicate a decimal point. Default: period (.). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment.
Element Separator	UNA 020	The Data Element Separator: The symbol used as a separator between data elements (delimiter). Default: plus sign (+). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.

Table 23 Message Profile, Interchange Control Envelope Section (UN/EDIFACT 4B): Fields

Name	Ref #	Description
Interchange Agreement Identification	UNB 100 0032	An optional name or code indicating the type of agreement under which the interchange takes place.
Processing Priority Code	UNB 080-0029	Optional: A single-character code determined by the sender requesting processing priority for the interchange. **Note**: The Interchange Agreement must state whether the field is to be used. If it is used, a list of codes and meanings must be provided.
Interchange Recipient Identifier	UNB 030 0010	(Required) The receiver's name or ID code, as specified in the Interchange Agreement.
Interchange Recipient Internal Identifier	UNB 030 0014	The identification specified by the recipient of the interchange (for example, a division or a computer system). If agreed, this is included in response interchanges by the sender, to facilitate internal routing. Up to 35 characters.
Interchange Recipient Internal Sub-Identifier	UNB 030 0046	An optional sub-level of the receiver's internal ID. Up to 35 characters.
Interchange Recipient Identification Qualifier	UNB 030 0007	A qualifier referring to the receiver's identification code. Up to four characters.
Recipient Reference Password	UNB 060 0022	The reference or password required for the sender to access the recipient's system. Up to 14 characters.
Recipient Reference Qualifier	UNB 060 0025	An optional qualifier for the recipient's reference or password. Up to four characters.
Interchange Sender Identifier	UNB 020 0004	The sender's name or ID code, as specified in the Interchange Agreement.
Interchange Sender Internal Identifier	UNB 020 0008	An ID (it could be used to indicate a division, branch, or computer system/process) specified by the sender of the interchange. This ID can be used by the recipient in response interchanges, for the purposes of internal routing.
Interchange Sender Internal Sub-Identifier	UNB 020 0042	An optional sub-level of the sender's internal ID. Up to 35 characters.
Interchange Sender Identification Qualifier	UNB 020 0007	A qualifier for the Interchange Sender ID name or code. A qualifier code may refer to an organization identification, as in ISO 6523. Up to four characters.

Table 23 Message Profile, Interchange Control Envelope Section (UN/EDIFACT 4B): Fields

Name	Ref #	Description
Release Character	UNA 040	The symbol used as a release character. Default: question mark (?). The release character, immediately preceding one of the other separators, restores its normal meaning. For example, 10?+10=20 means 10+10=20. **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment.
Repetition Separator	UNA 050	The symbol used as a repetition separator (delimiter). Default: asterisk (*). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.
Segment Terminator	UNA 060	The symbol used to indicate the end of a segment (delimiter). Default: apostrophe ('). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.
Interchange Syntax Identifier	UNB 010 0001	The syntax level used: UNOA for the basic level A UNOB for level B
Interchange Syntax Version	UNB 010 0002	The EDIFACT version used at the interchange level. e*Xchange supports versions 3 and 4. For the current version, ISO 9735-1, use 4. Use 3 for the 1988 version amended and reprinted in 1990 plus Amendment 1 of 1992.
Test Indicator	UNB 110 0035	An optional single-digit numeric code (1, 2, 3, or 4) indicating that this is a test.

Table 24 Message Profile, Functional Group Envelope Section (UN/EDIFACT 4B): Fields

Name		Description
Application Password	UNG 080 0058	Optional: The reference or password required for the sender to access the recipient's division, department, or sectional application system/process (additional to the recipient's reference password at the interchange level, which is required). Up to 14 characters.
Include Functional Group	N/A	Only applicable to outbound messages sent by Interactive transfer mode. This field indicates whether the trading partner requires functional group information (UNG/UNE segments) in the message.

Table 24 Message Profile, Functional Group Envelope Section (UN/EDIFACT 4B): Fields

Name		Description
Application Receiver Identification Code	UNG 030 0044	Required: An additional ID code (for example, of a division, branch, or computer system or process), specified by the recipient to facilitate internal routing. Up to 35 characters.
Application Receiver Identification Qualifier	UNG 030 0007	Optional: A qualifier to the recipient's ID code. Four characters.
Application Sender Identification Code	UNG 020 0040	Required: An additional ID code (for example, of a division, branch, or computer system or process), specified by the sender to facilitate internal routing. Up to 35 characters.
Application Sender Identification Qualifier	UNG 020 0007	An optional qualifier to the sender's ID code. Four characters.

Table 25 Message Profile, Message Envelope Section (UN/EDIFACT 4B): Fields

Name		Description
Association Assigned Code	UNH 020 0057	Optional: A code that further identifies the message. Assigned by the association responsible for the design and maintenance of the message type concerned. Up to six characters.
Code List Directory Version Number	UNH 020 0110	Optional: The version number of the service code list directory.
Common Access Reference	UNH 030 0068	Optional: A reference serving as a key to relate all subsequent transfers of data to the same business case or file. Up to 35 characters.
Controlling Agency	UNH 020 0051	The code for the controlling agency. For UN/EDIFACT, this value is always UN.
Message Type Release Number	UNH 020 0054	Required: The release number within the current message version number. 1–3 characters.
Message Type Identifier	UNH 020 0065	Required: Message Type: A code identifying a type of message and assigned by its controlling agency. Up to six characters.
Message Type Version	UNH 020 0052	Required: The version number for the message type. Up to three characters.
Message Implementation Guideline Controlling Agency	UNH 060 0051	Optional: The controlling agency for the implementation guideline. For UN/EDIFACT, this value is always UN.

Table 25 Message Profile, Message Envelope Section (UN/EDIFACT 4B): Fields (Continued)

Name		Description
Message Implementation Guideline Identifier	UNH 060 0121	The coded identification of the message implementation guideline, assigned by its controlling agency.
Message Implementation Guideline Release Number	UNH 060 0124	The release number within the message implementation guideline version number.
Message Implementation Guideline Version	UNH 060 0122	Version number of the message implementation guideline.
Message Scenario Controlling Agency	UNH 070 0051	The code identifying the controlling agency for the message scenario.
Message Scenario Identifier	UNH 070 0127	The code identifying the scenario.
Message Scenario Release Number	UNH 070 0130	The release number within the scenario version number.
Message Scenario Version	UNH 070 0128	Version number of a scenario.
Message Subset Controlling Agency	UNH 050 0051	The code identifying the controlling agency for the message subset.
Message Subset Identifier	UNH 050 0115	Coded identification of a message subset, assigned by its controlling agency.
Message Subset Release Number	UNH 050 0118	The release number within the message subset version number.
Message Subset Version	UNH 050 0116	The version number of the message subset.
Message Transfer Indicator	UNH 040 0073	Optional: First and Last Transfer: An indication used for the first and last message in a sequence of messages related to the same topic. One character.
Message Type Sub-Function Identification	UNH 020 0113	The code identifying a sub-function of a message type.

6.2.3 Version 4 Interactive

This section includes field descriptions for UN/EDIFACT version 4 Interactive, for the following Message Profile setup sections:

- **General** section—Table 26 on page 153
- **Interchange Control Envelope** section—Table 27 on page 154
- **Message Envelope** section—Table 28 on page 157

Table 26 Message Profile, General Section (UN/EDIFACT 4I): Fields

Name	Description
eBusiness Protocol	The name of the protocol that you selected earlier is displayed.
Version	The eBusiness protocol version that you selected earlier is displayed.
Direction	The direction for the message profile, Inbound or Outbound, is displayed.
Logical Name	If you specified a logical name at the B2B protocol level, it is displayed.
Name	A label for the message profile. It should be descriptive, and unique for the trading partner.
Message Profile Status	The status of the message profile. Choose one of the following values: ▪ **Active**—The message profile is currently active, and can be used. ▪ **Inactive**—The message profile is not active, and cannot be used. Default: **Active**. **Note**: This is only available when adding a message profile. When editing, you can change the status on the **Message Profile** page (see "To inactivate or reactivate a message profile" on page 139).
Functional Group Envelope Custom Validation	Not implemented at this time.
Interchange Envelope Custom Validation	Not implemented at this time.
Message Envelope Custom Validation	Not implemented at this time.
Message Classification Type	A flag to specify the message type for the message: **B** for batch, **I** for interactive. Certain types of UN/EDIFACT messages are not batched. Since this is version 4 Interactive, this field defaults to **I**. Do not change it.
Translation Collaboration	If your internal system will be sending messages to e*Xchange in raw data format, or expecting messages from e*Xchange in raw data format, you must specify the translation Collaboration that will be used to translate the messages to and from the appropriate eBusiness Protocol format. Type the file name (no extension). **Outbound**: If you provide a value in this field for an Outbound profile, e*Xchange also requires a value for Message ALT ID.
Message ALT ID (Outbound only)	If your internal system will be sending messages to e*Xchange in raw data format, or expecting messages from e*Xchange in raw data format, you must specify the message Alt ID. The value specified in this field must exactly match the value populated in the Name/Value pair element of the TP Event section in the **eX_Standard_Event**. If you are not receiving messages in raw data format, leave this field blank.

Table 26 Message Profile, General Section (UN/EDIFACT 4I): Fields (Continued)

Name	Description
Event Type (Inbound only)	(Optional) If specified, this will be the Event Type to which the inbound message will be published. If left empty, e*Xchange uses the default Event Type, **eX_to_eBPM**. **Note**: If you specify a custom Event Type, you must modify the e*Xchange e*Gate schema accordingly. Modify the **eX_from_ePM** Collaboration properties to publish to the new Event Type. There must also be a module that subscribes to this Event Type.
Validation Collaboration	The Collaboration that is used to validate the eBusiness protocol message (no extension). For X12 and UN/EDIFACT: ▪ **Inbound**—This field is required. ▪ **Outbound**—This field is required if a unique-id is not provided in the **eX_Standard_Event** MessageID field. **Note**: The message enveloping is automatically validated by e*Xchange. The validation Collaboration addresses only the message body.
Store Raw Message	If you want to store the raw message in the database as well as the translated message, type **Y** in this field. If you store the raw message, it will be available for viewing in Message Tracking.
Message Compress (required)	Indicates whether the messages will be compressed before they are stored in the database. Default: No. **Note**: Compressed messages cannot be viewed in Message Tracking.
Transfer Mode	The way in which the eBusiness messages are transmitted to, or received from, the trading partner. Choose Interactive.

Table 27 Message Profile, Interchange Control Envelope Section (UN/EDIFACT 4I): Fields

Name	Ref #	Description
Character Encoding	UIB 010 0133	(Optional) The identification for the character encoding used in the interchange, as specified in the trading agreement (alphanumeric, up to three characters). Acceptable values: any three-character code as defined in the trading agreement. If you do not specify a value, e*Xchange assumes the default encoding technique defined for the syntax version being used: 1—ASCII 7-bit code. 2—ASCII 8-bit code. 3—Code page 500 (EBCDIC Multinational No. 5) encoding schema for the repertoire as defined by the code page. 4—Code page 850 (IBM PC Multinational) encoding schema for the repertoire as defined by the code page.
Service Code List Directory Version Number	UIB 010 0080	The version number of the service code list directory.

Table 27 Message Profile, Interchange Control Envelope Section (UN/EDIFACT 4I): Fields

Name	Ref #	Description
Component Element Separator	UNA 010	The Component Data Element Separator: The symbol used as a component data element separator (delimiter). Default: colon (:). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.
Decimal Symbol	UNA 030	Decimal mark: The symbol used to indicate a decimal point. Default: period (.). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment.
Dialogue Controlling Agency	UIB 050 0051	The code identifying the controlling agency for the dialogue.
Dialogue Identification	UIB 050 0311	The code identifying the dialogue.
Dialogue Release	UIB 050 0344	The release number of the dialogue.
Dialogue Version	UIB 050 0342	The version number of the dialogue.
Element Separator	UNA 020	The Data Element Separator: The symbol used as a separator between data elements (delimiter). Default: plus sign (+). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.
Initiator Controlling Agency	UIB 020 0051	The code identifying the controlling agency for the dialogue reference.
Initiator Reference Identifier	UIB 020 0300	The Initiator Control Reference: a reference assigned by the dialogue initiator.
Interchange Recipient Identifier	UIB 070-0010	The receiver's name or ID code, as specified in the Interchange Agreement.
Interchange Recipient Internal Identifier	UIB 070 0014	The identification specified by the recipient of the interchange (for example, a division or a computer system). If agreed, this is included in response interchanges by the sender, to facilitate internal routing. Up to 35 characters.
Interchange Recipient Internal Sub-Identifier	UIB 070 0046	An optional sub-level of the receiver's internal ID. Up to 35 characters.

Table 27 Message Profile, Interchange Control Envelope Section (UN/EDIFACT 4I): Fields

Name	Ref #	Description
Interchange Recipient Identification Qualifier	UIB 070 0007	A qualifier for the recipient's reference or password. Up to four characters.
Release Character	UNA 040	The symbol used as a release character. Default: question mark (?). The release character, immediately preceding one of the other separators, restores its normal meaning. For example, 10?+10=20 means 10+10=20. **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment.
Repetition Separator	UNA 050	The symbol used as a repetition separator (delimiter). Default: asterisk (*). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.
Response Control Reference Number	UIB 020 0304	The reference number assigned by the dialogue responder.
Scenario Controlling Agency	UIB 040 0051	The code identifying the controlling agency for the message scenario.
Scenario Identifier	UIB 040 0127	The code identifying the scenario.
Scenario Release	UIB 040 0130	The release number within the scenario version number.
Scenario Version	UIB 040 0128	Version number of a scenario.
Segment Terminator	UNA 060	The symbol used to indicate the end of a segment (delimiter). Default: apostrophe ('). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.
Interchange Sender Identifier	UIB 060 0004	The sender's name or ID code, as specified in the Interchange Agreement.
Interchange Sender Internal Identifier	UIB 060 0008	An ID (it could be used to indicate a division, branch, or computer system/process) specified by the sender of the interchange. This ID can be used by the recipient in response interchanges, for the purposes of internal routing.
Interchange Sender Internal Sub-Identifier	UIB 060 0042	An optional sub-level of the sender's internal ID. Up to 35 characters.

Table 27 Message Profile, Interchange Control Envelope Section (UN/EDIFACT 4I): Fields

Name	Ref #	Description
Interchange Sender Identification Qualifier	UIB 060-0007	The qualifier for the Interchange Sender ID name or code. A qualifier code may refer to an organization identification, as in ISO 6523.
Interchange Syntax Identifier	UIB 010 0001	The syntax level used: UNOA for the basic level A UNOB for level B
Interchange Syntax Version	UIB 10 0002	The EDIFACT version used at the interchange level. e*Xchange supports versions 3 and 4. For the current version, ISO 9735-1, use 4. Use 3 for the 1988 version amended and reprinted in 1990 plus Amendment 1 of 1992.
Test Indicator	UIB 100 0035	An optional single-digit numeric code (1, 2, 3, or 4) indicating that this is a test.
Transaction Control Agency	UIB 030 0051	The code identifying the controlling agency for the transaction reference.
Transaction Control Reference	UIB 030 0306	A reference number assigned by the transaction initiator.

Table 28 Message Profile, Message Envelope Section (UN/EDIFACT 4I): Fields

Name		Description
Association Assigned Code	UIH 010 0057	Optional: A code that further identifies the message. Assigned by the association responsible for the design and maintenance of the message type concerned. Up to six characters.
Controlling Agency	UIH 010 0051	The code for the controlling agency. For UN/EDIFACT, this value is always UN.
Initiator Controlling Agency	UIH 030 0051	The code identifying the controlling agency for the dialogue initiator.
Initiator Controlling Reference Number	UIH 030 0300	The code assigned by the dialogue initiator.
Initiator Reference Identifier	UIH 030 0303	The organization code or name assigned by the party that initiated the transaction or dialogue.
Message Type Release Number	UIH 010 0054	Required: The release number within the current message version number.
Message Type Identifier	UIH 010 0065	Required: Message Type: A code identifying a type of message and assigned by its controlling agency. Up to six characters.

Table 28 Message Profile, Message Envelope Section (UN/EDIFACT 4I): Fields (Continued)

Name		Description
Message Type Version	UIH 010 0052	Required: The version number for the message type. Up to three characters.
Message Type Sub-Function Identification	UIH 010 0113	The code identifying a sub-function of a message type.
Sender Sequence Number	UIH 040 0320	Identification of the sequence number of the message or package within the sender interchange.
Test Indicator	UIH 060 0035	An optional single-digit numeric code (1, 2, 3, or 4) indicating that this is a test.
Transfer Position	UIH 040 0323	An indication of the position of a transfer.

Chapter 7

Web Interface: Profile Setup for RosettaNet

This chapter provides information on setting up RosettaNet versions 1.1 and 2.0 transactions in the e*Xchange Partner Manager, at the Message Profile level.

The Company, Trading Partner, and B2B Protocol (inbound and outbound) levels must be set up first. For information on setting up these components, refer to **"Web Interface: Profile Management" on page 80**.

7.1 Setting Up RosettaNet Message Profile Information

Once you have set up B2B protocol information for a trading partner, the next step is to set up message profiles.

7.1.1 Setup Sequence

Part of setting up a message profile is to specify the expected response message, if any.

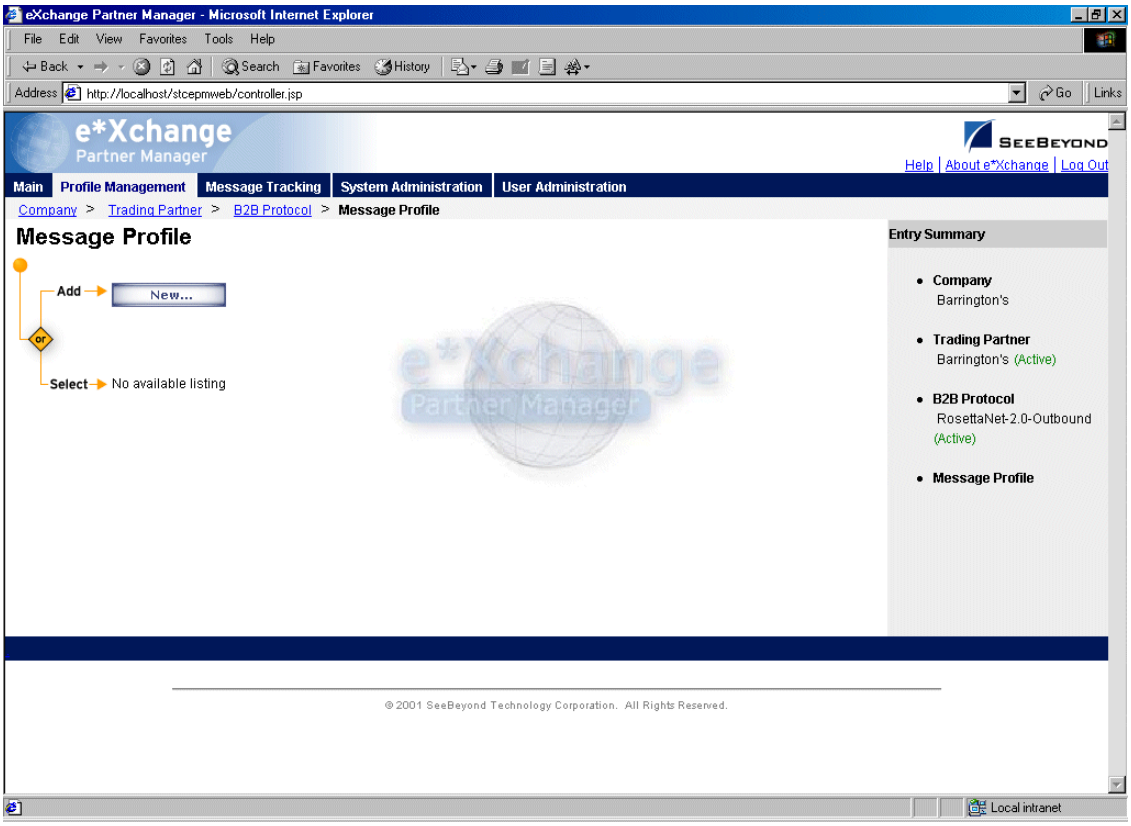
During initial setup, you will find that you cannot select the appropriate response messages because you have not yet created the message profiles for those response messages.

One approach to this is to first set up all message profiles, both inbound and outbound, and then go back into each message profile to select the return messages.

7.1.2 Setting Up a Message Profile

From the **B2B Protocol** page, select a B2B protocol and click **Continue: Message Profile** to access the **Message Profile** page (see Figure 82).

Figure 82 Message Profile Page



From the **Message Profile** page you can complete the following activities:

- Add a message profile for the selected B2B protocol (see **"To add a message profile" on page 161**).
- Select a message profile: choose from the drop-down list. The message profile **General** properties are displayed on the right side of the page. To view additional properties, click on the appropriate link above the properties display (specific property groups vary according to the eBusiness protocol).
- Edit the selected message profile; first select the section that you want to edit, and then click the **Edit** button to access the **Message Profile - Editing** page (see **"To edit a message profile" on page 164**).
- Create a new message profile based on the selected one (see **"To copy a message profile to the same B2B protocol" on page 165** and **"To copy a message profile to another B2B protocol" on page 167**).

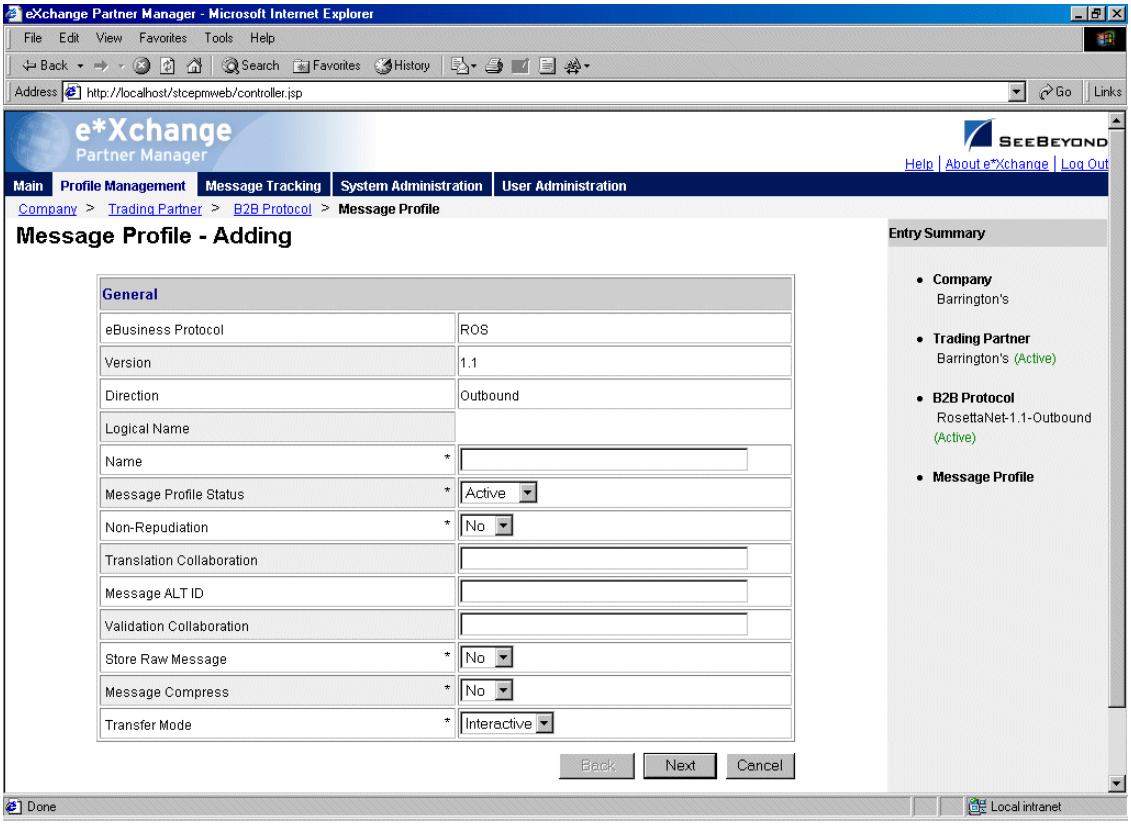
  Note: For general information on the copy feature, refer to **"Copying Components" on page 111**.
- Delete the selected message profile (see **"To delete a message profile" on page 168**).
- Activate or inactivate the selected message profile (see **"To inactivate or reactivate a message profile" on page 168**).

- Set or change security for the selected message profile (see **"Web Interface: Security" on page 77**).

To add a message profile

1 From the **Message Profile** page, click the **New** button to access the **Message Profile - Adding** page (see Figure 83).

Figure 83 Message Profile - Adding (General section) (RosettaNet) (1.1)



2 Enter or select values for the **General** section.

For more information, refer to one of the following tables:

- For RNIF 1.1: **Table 29 on page 169**
- For RNIF 2.0: **Table 32 on page 172**

Note: *For RosettaNet, if you are setting up a profile for a broadcast message not expecting any type of response, be sure to select* ***Asynchronous*** *in the* ***Transfer Mode*** *field (****General*** *properties).*

3 Click **Next** to access the **Preamble** section for RNIF 1.1 (see Figure 84) or the **Delivery Header** section for RNIF 2.0 (see Figure 85).

Figure 84 Message Profile - Adding (Preamble section) (RNIF 1.1)

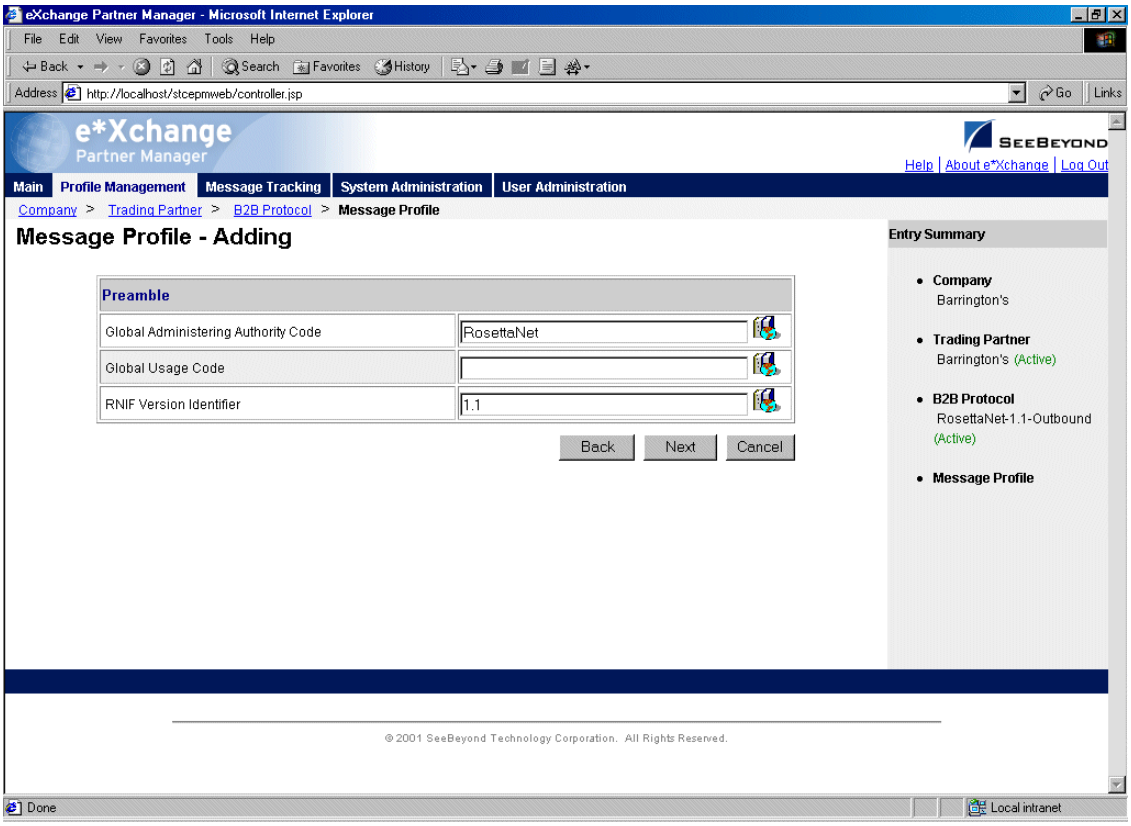
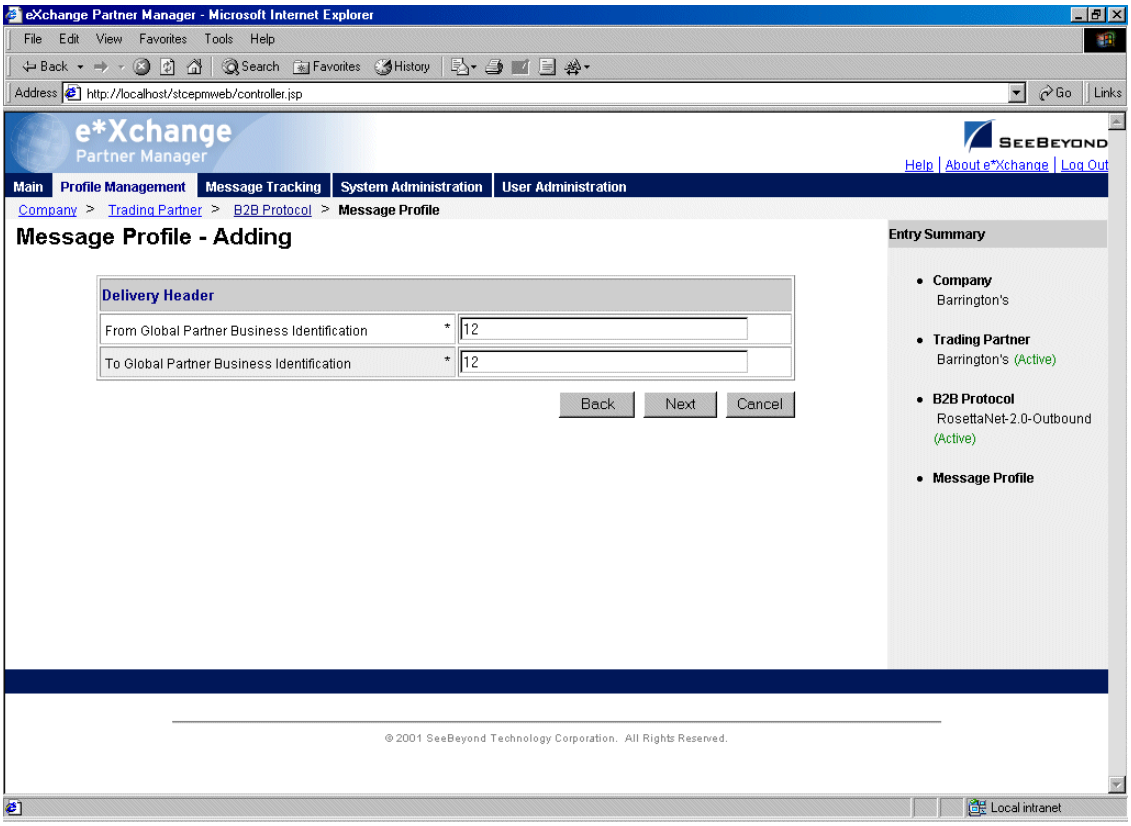


Figure 85 Message Profile - Adding (Delivery Header section) (RNIF 2.0)



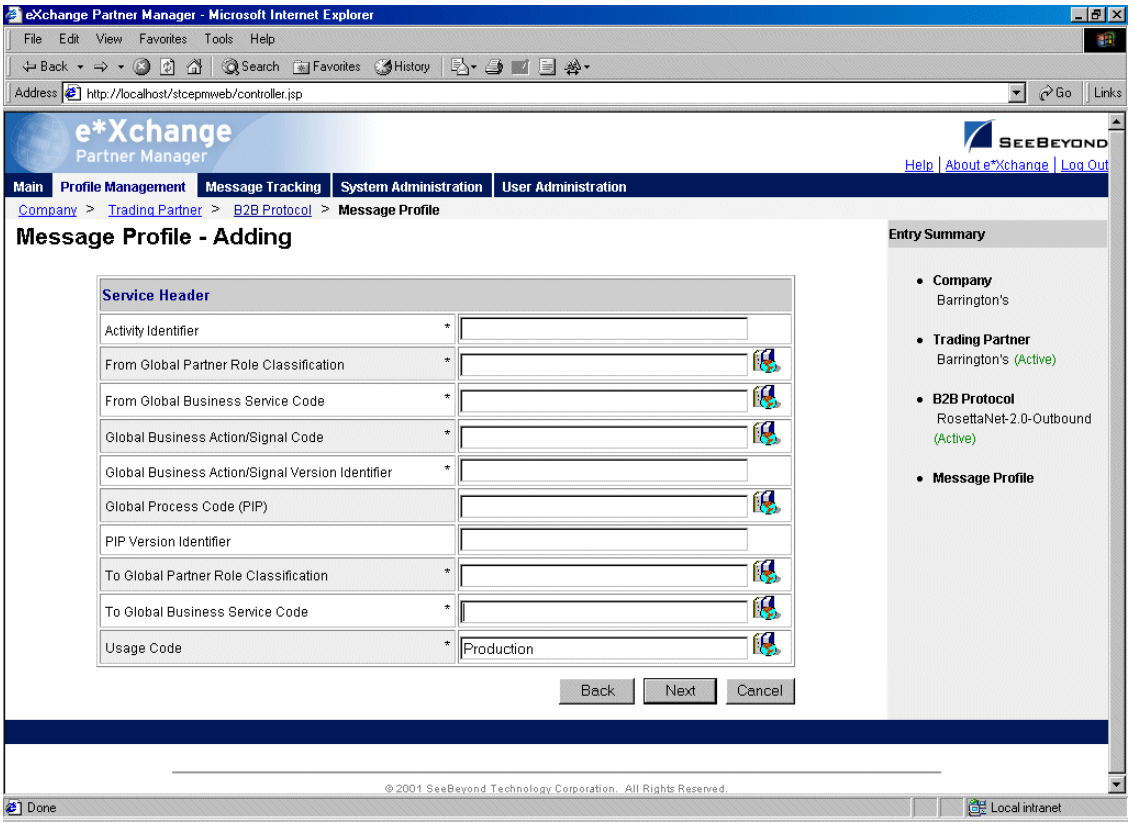
4 Enter or select values for the **Preamble** section (RNIF 1.1) or the **Delivery Header** section (RNIF 2.0).

For more information, refer to one of the following tables:

- For RNIF 1.1: **Table 30 on page 171**
- For RNIF 2.0: **Table 33 on page 174**

5 Click **Next** to access the **Service Header** section (see Figure 86).

Figure 86 Message Profile - Adding (Service Header section) (RNIF 2.0)



6 Enter or select values for the **Service Header** section.

For more information, refer to **Table 31 on page 171** for RNIF 1.1 or **Table 34 on page 175** for RNIF 2.0.

7 Click **Next**.

8 Define return messages, or leave until later if you have not set up the message profiles for the return messages yet.

9 Click **Apply** to save the profile and return to the **Message Profile** page.

To edit a message profile

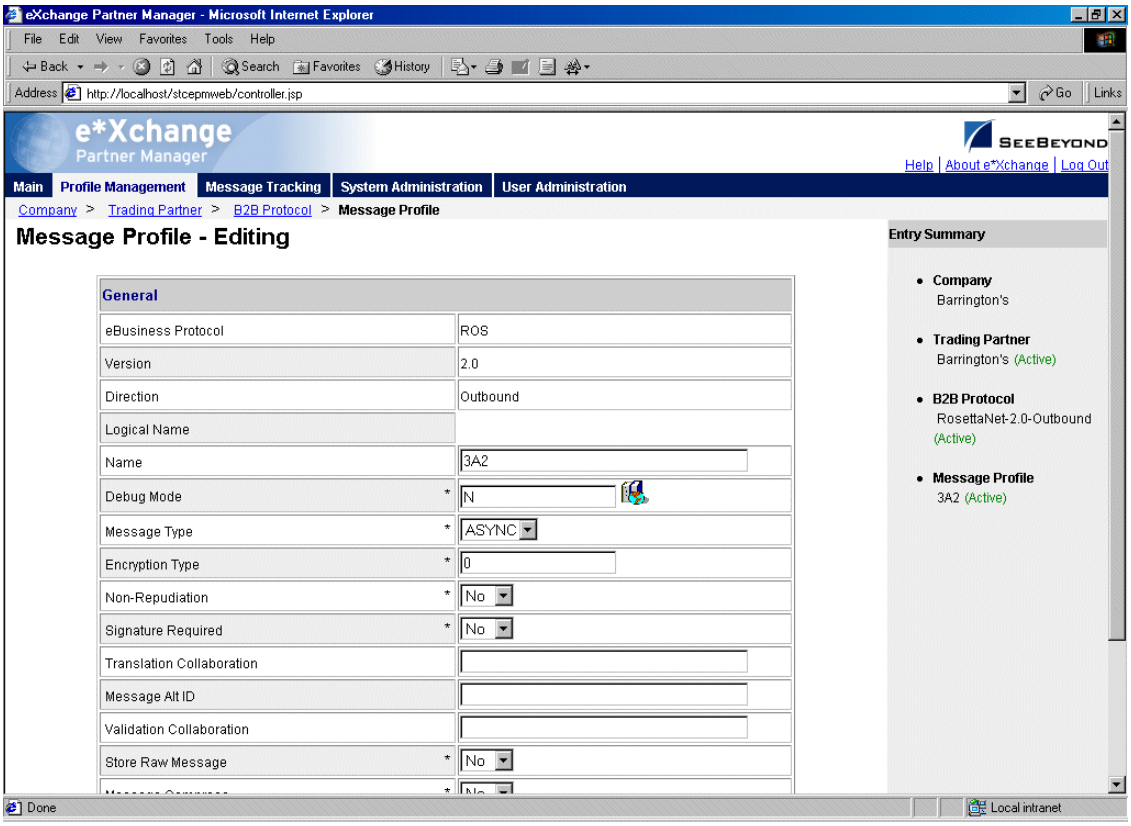
1 From the **Message Profile** page, select the message profile from the drop-down list.

The message profile properties are displayed on the right side of the page.

2 In the **Message Profile Properties** section, click the link for the section you want to edit: **General**, **Preamble (RNIF 1.1 only)**, **Delivery Header (RNIF 2.0 only)**, **Service Header**, or **Return Messages**.

3 Click the **Edit** button to access the **Message Profile - Editing** page listing the attribute section that you selected (see Figure 87 for an example).

Figure 87 Message Profile - Editing (General) (RosettaNet) (2.0)



4 Change the values as needed.

For more information, refer to the section for the appropriate RosettaNet version, in **"RosettaNet Message Profile Parameter Values" on page 169**.

5 Click **Apply** to save the changes and return to the **Message Profile** page.

The new message profile is now on the drop-down list.

To copy a message profile to the same B2B protocol

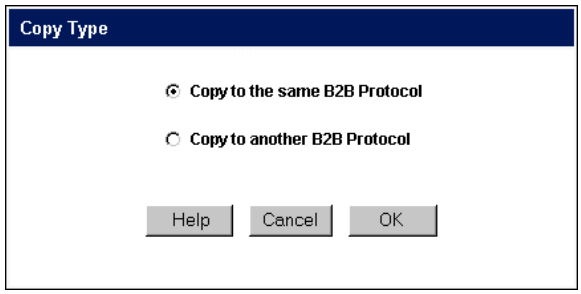
1 On the **Message Profile** page, select the message profile that you want to copy.

The message profile properties are displayed on the right side of the page.

2 Click the **Copy** button.

The **Copy Type** page appears (see Figure 88).

Figure 88 Copy Type (Copying a Message Profile)

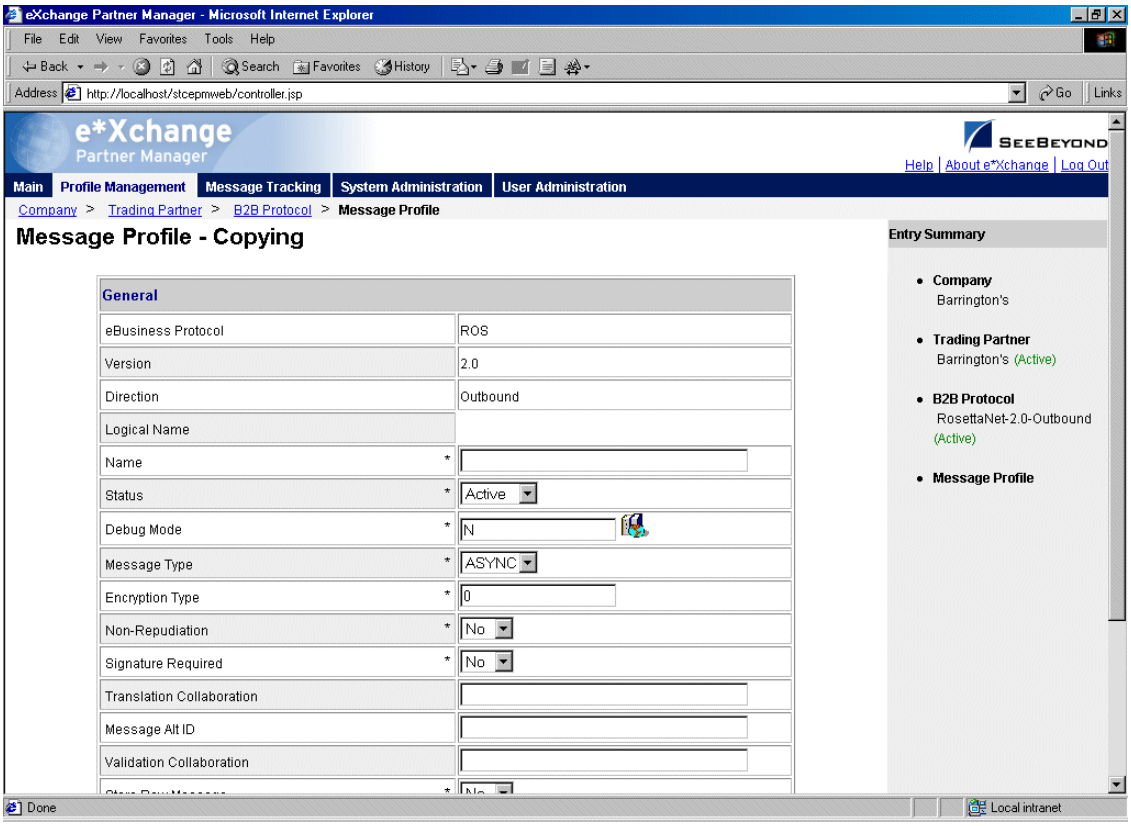


3 Make sure **Copy to the same B2B Protocol** is selected.

4 Click **OK**.

The **Message Profile - Copying** page (**General** section) appears (see Figure 89).

Figure 89 Message Profile - Copying (General) (RosettaNet)



5 Type the new message profile name, and change any other values as needed.

6 Click **Next** to access the **Preamble** section for RNIF 1.1 (see Figure 84) or the **Delivery Header** section for RNIF 2.0 (see Figure 85).

7 Change values as needed for the **Preamble** section (RNIF 1.1) or the **Delivery Header** section (RNIF 2.0).

For more information, refer to one of the following tables:

- For RNIF 1.1: **Table 30 on page 171**
- For RNIF 2.0: **Table 33 on page 174**

8 Click **Next** to access the **Service Header** section (see Figure 86).

9 Change values as needed for the **Service Header** section.

For more information, refer to **Table 31 on page 171** for RNIF 1.1 or **Table 34 on page 175** for RNIF 2.0.

10 Click **Next**.

11 Define return messages, or leave until later if you have not set up the message profiles for the return messages yet.

12 Click **Finish** to save the new profile and return to the **Message Profile** page.

The new message profile is now on the drop-down list.

To copy a message profile to another B2B protocol

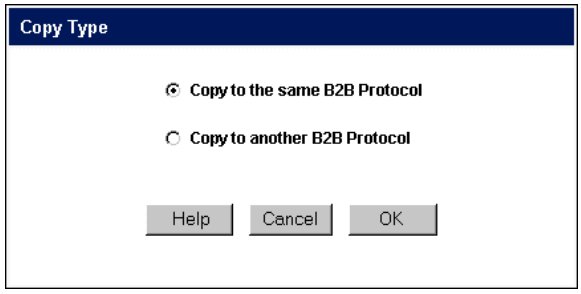
1 On the **Message Profile** page, select the message profile that you want to copy.

The message profile properties are displayed on the right side of the page.

2 Click the **Copy** button.

The **Copy Type** page appears (see Figure 90).

Figure 90 Copy Type (Copying a Message Profile)

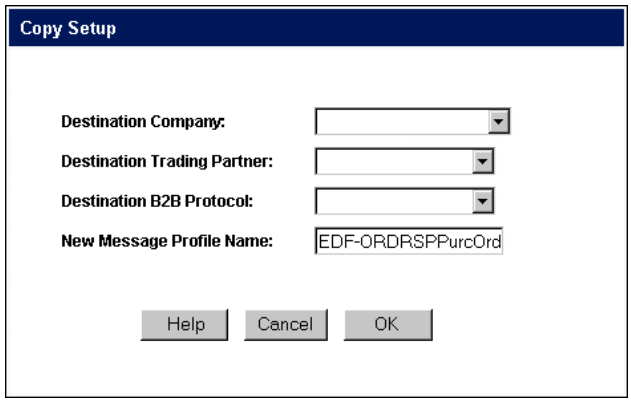


3 Select **Copy to another B2B Protocol**.

4 Click **OK**.

The **Copy Setup** page appears (see Figure 91).

Figure 91 Copy Setup (Copying a Message Profile to Another B2B Protocol)



5 On the **Copy Setup** page, select the destination company.

6 Select the destination trading partner.

7 Select the destination B2B Protocol.

8 If you want to change the message profile name, type the new name.

9 Click **OK**.

The message profile information is copied to the selected B2B protocol. When done, e*Xchange displays a message letting you know that the copy was successful.

To delete a message profile

1 On the **Message Profile** page, select the message profile from the drop-down list.

The message profile properties are displayed on the right side of the page.

2 Click the **Delete** button.

A warning message appears asking if you are sure you want to delete.

3 To delete the profile, click **OK**.

The message profile is deleted.

To inactivate or reactivate a message profile

1 On the **Message Profile** page, select the message profile from the drop-down list.

The message profile properties are displayed on the right side of the page.

2 In the **Message Profile Status** field, toggle the **Active/Inactive** graphic to change the status. Values are as follows:

-  Message profile is active: click to inactivate.
-  Message profile is inactive: click to reactivate.

To set up security

1 On the **Message Profile** page, select the message profile from the drop-down list.

The message profile properties are displayed on the right side of the page.

2 Click the **Security** button.

The **Security Management** page appears.

3 Set the values as needed.

4 Click **OK**.

For detailed instructions on setting up security, refer to **"Web Interface: Security" on page 77**.

7.2 RosettaNet Message Profile Parameter Values

This section lists field descriptions for the RosettaNet values required for setting up a message profile.

Field descriptions are listed separately for each version:

- RNIF 1.1—See **"RNIF 1.1" on page 169**
- RNIF 2.0—See **"RNIF 2.0" on page 172**

7.2.1 RNIF 1.1

This section includes field descriptions for RosettaNet version 1.1 messages, for the following Message Profile setup sections:

- **General** section—**Table 29 on page 169**
- **Preamble** section—**Table 30 on page 171**
- **Service Header** section—**Table 31 on page 171**

Table 29 Message Profile, General Section (RNIF 1.1): Fields

Name	Description
eBusiness Protocol	The name of the protocol that you selected at the B2B protocol level (ROS) is displayed.
Version	The eBusiness protocol version selected at the B2B protocol level (1.1) is displayed.
Direction	The direction for the message profile, Inbound or Outbound, is displayed.
Logical Name	If you specified a logical name at the B2B protocol level, it is displayed.
Name	A label for the message profile. It should be descriptive, and unique for the trading partner.
Message Profile Status	The status of the message profile. Choose one of the following values: ▪ **Active**—The message profile is currently active, and can be used. ▪ **Inactive**—The message profile is not active, and cannot be used. Default: **Active**. **Note**: This is only available when adding a message profile. When editing, you can change the status on the **Message Profile** page (see **"To inactivate or reactivate a message profile" on page 168**).

Table 29 Message Profile, General Section (RNIF 1.1): Fields (Continued)

Name	Description
Non-Repudiation (required)	Indicates whether non-repudiation is required for the message: **Y** or **N**. The default is **N**. **Note**: For RosettaNet (both versions) and CIDX, if the message is a business signal, the non-repudiation setting is ignored. Since a business signal does not have a response, non-repudiation is not available.
Translation Collaboration	If your internal system will be sending messages to e*Xchange in raw data format, or expecting messages from e*Xchange in raw data format, you must specify the translation Collaboration that will be used to translate the messages to and from the appropriate eBusiness Protocol format. Type the file name (no extension). **Outbound**: If you provide a value in this field for an Outbound profile, e*Xchange also requires a value for Message ALT ID.
Message ALT ID (Outbound only)	If your internal system will be sending messages to e*Xchange in raw data format, or expecting messages from e*Xchange in raw data format, you must specify the message Alt ID. The value specified in this field must exactly match the value populated in the Name/Value pair element of the TP Event section in the **eX_Standard_Event**. If you are not receiving messages in raw data format, leave this field blank.
Event Type (Inbound only)	(Optional) If specified, this is the Event Type to which the inbound message is published. If left empty, e*Xchange uses the default Event Type, **eX_to_eBPM**. **Note**: If you specify a custom Event Type, you must modify the e*Xchange e*Gate schema accordingly. Modify the **eX_from_ePM** Collaboration properties to publish to the new Event Type. There must also be a module that subscribes to this Event Type.
Validation Collaboration	The Collaboration that is used to validate the eBusiness protocol message (no extension). For RosettaNet 1.1 and 2.0, and CIDX, the validation Collaboration is optional. **Note**: The message header is automatically validated by e*Xchange. The validation Collaboration addresses only the service content portion of the message.
Store Raw Message	If you want to store the raw message in the database as well as the translated message, type **Y** in this field. If you store the raw message, it is available for viewing in Message Tracking.
Message Compress (required)	Indicates whether the messages will be compressed before they are stored in the database. Default: No. **Note**: Compressed messages cannot be viewed in Message Tracking.
Transfer Mode	The way in which the eBusiness messages are transmitted to, or received from, the trading partner. **Interactive** is the only valid transfer mode for RosettaNet.

Table 30 Message Profile, Preamble Section (RNIF 1.1): Fields

Name	Description
Global Administering Authority Code (Required)	The Global Administering Authority Code is RosettaNet.
Global Usage Code (Required)	There are two acceptable values: **Test** or **Production**.
RNIF Version Identifier	The RNIF version number. Select 1.1.

Table 31 Message Profile, Service Header Section (RNIF 1.1): Fields

Name	Description
Global From Business Identifier	The sender's unique business identifier. RosettaNet identifies this as the DUNS number. e*Xchange does not enforce the use of a DUNS number.
Global To Business Identifier	The receiver's unique business identifier. RosettaNet identifies this as the DUNS number. e*Xchange does not enforce the use of a DUNS number.
From Global Business Service Code	The sender's Global Business Service Code, which is the RosettaNet code for the business service: for example, Product Information Distributor Service, Seller Service, Product Supplier Service, or Buyer Service. Click on the Attributes List icon to select from a list of valid values.
From Global Partner Classification Code (Required)	The RosettaNet classification code identifying the sender's function in the supply chain: for example, Carrier, Distributor, Manufacturer, or Retailer. Click on the Attributes List icon to select from a list of valid values.
From Global Partner Role Classification Code (Required)	The sender's partner role classification code. This is the code for the partner role that uses product information to create or update enterprise systems and online promotion systems such as electronic catalog systems. Examples of valid codes are Buyer, Seller, Customer Manager, Supplier, and Shipment Information User. Click on the Attributes List icon to select from a list of valid values.
Global Business Action/Signal Code (Required)	If the message is a business action: The Global Business Action Code, such as Return Product Request Action, Financing Request Action, or Remittance Advice Notification Action. If the message is a signal: The Global Business Signal Code, such as General Exception or Receipt Acknowledge. Click on the Attributes List icon to select from a list of valid values.
Global Document Function Code (Required)	The code that indicates the type of document: either Request or Response. For example, for an OA1, Failure Notification, it should be set to Request. Click on the Attributes List icon to select from a list of valid values.
Global Process Code	The plain language name for the RosettaNet code assigned to the process; for example, Distribute New Product Information, or Query Price and Availability. Click on the Attributes List icon to select from a list of valid values.
Global Process Ind Code	The RosettaNet code assigned to the process; for example, 2A1 or 3A2. Click on the Attributes List icon to select from a list of valid values.

Table 31 Message Profile, Service Header Section (RNIF 1.1): Fields (Continued)

Name	Description
Global Tran Code	The RosettaNet Global Transaction Code. Examples: Process Return Product Request, Confirm Financing, or Create Remittance Advice. Click on the Attributes List icon to select from a list of valid values.
Signature INST Identifier	Not used.
To Global Business Service Code	The receiver's Global Business Service Code, which is the RosettaNet code for the business service: for example, Product Information Distributor Service, Seller Service, Product Supplier Service, or Buyer Service. Click on the Attributes List icon to select from a list of valid values.
To Global Partner Classification Code (Required)	The RosettaNet classification code identifying the receiver's function in the supply chain: for example, Carrier, Distributor, Manufacturer, or Retailer. Click on the Attributes List icon to select from a list of valid values.
To Global Partner Role Classification Code (Required)	The receiver's partner role classification code. This is the code for the partner role that uses product information to create or update enterprise systems and online promotion systems such as electronic catalog systems. Examples of valid codes are Buyer, Seller, Customer Manager, Supplier, and Shipment Information User. Click on the Attributes List icon to select from a list of valid values.
Business Action/ Signal Version Identifier (Required)	The PIP version number: for example, 1.0 or 2.0.

7.2.2 RNIF 2.0

This section includes field descriptions for RosettaNet version 2.0 messages, for the following Message Profile setup sections:

- **General** section—**Table 32 on page 172**
- **Delivery Header** section—**Table 33 on page 174**
- **Service Header** section—**Table 34 on page 175**

Table 32 Message Profile, General Section (RNIF 2.0): Fields

Name	Description
eBusiness Protocol	The name of the protocol selected at the B2B protocol level (ROS) is displayed.
Version	The eBusiness protocol version selected at the B2B protocol level (2.0) is displayed.
Direction	The direction for the message profile, Inbound or Outbound, is displayed.
Logical Name	If you specified a logical name at the B2B protocol level, it is displayed.
Name	A label for the message profile. It should be descriptive, and unique for the trading partner.

Table 32 Message Profile, General Section (RNIF 2.0): Fields (Continued)

Name	Description
Status (required)	The status of the message profile. Choose one of the following values: ▪ **Active**—The message profile is currently active, and can be used. ▪ **Inactive**—The message profile is not active, and cannot be used. Default: **Active**. **Note**: This is only available when adding a message profile. When editing, you can change the status on the **Message Profile** page (see **"To inactivate or reactivate a message profile" on page 168**).
Debug Mode (required)	Select **Y** if you want to include extra information in the RosettaNet message headers, to help track the type of transaction flowing between e*Xchange Partner Manager and the trading partner. Default: **N**. **Note**: It is best to use debug mode only for initial setup and testing. It can cause problems if used during production. For more information, refer to **"Debug Mode in RosettaNet 2.0" on page 176**.
Message Type (HTTP/HTTPS only) (required)	A flag for the message type: **SYNC** for synchronous or **ASYNC** for asynchronous. ▪ Inbound—Indicates whether the incoming message is synchronous or asynchronous. ▪ Outbound—Indicates whether the message should be sent out as synchronous or asynchronous. **Note**: When setting up a broadcast message that is not expecting any response, either receipt acknowledgment or business message (for example, a catalog update), if you are using HTTP, make sure you select **ASYNC**. If you select **SYNC**, the HTTP e*Way expects a post accepted response that includes a RosettaNet Business Message. The trading partner returns an empty string, and this causes errors. If you select **ASYNC**, the HTTP e*Way expects only the post accepted response, without the associated RosettaNet Business Message. It gets this from the receiving Web server.
Encryption Type (required)	The type of encryption to be used in the message (the default is no encryption). Enter one of the following values: 0—no encryption 1—encryption of Service Content and any attachments 2—encryption of Service Header, Service Content, and any attachments The preamble and delivery header are never encrypted.
Non-Repudiation (required)	Indicates whether non-repudiation is required for the message: **Y** or **N**. The default is **N**. **Note**: For RosettaNet (both versions) and CIDX, if the message is a business signal, the non-repudiation setting is ignored. Since a business signal does not have a response, non-repudiation is not available.
Signature Required (required)	Indicates whether a digital signature is required: **Y** or **N**. The default is **N**.

Table 32 Message Profile, General Section (RNIF 2.0): Fields (Continued)

Name	Description
Translation Collaboration	If your internal system will be sending messages to e*Xchange in raw data format, or expecting messages from e*Xchange in raw data format, you must specify the translation Collaboration that will be used to translate the messages to and from the appropriate eBusiness Protocol format. Type the file name (no extension). **Outbound**: If you provide a value in this field for an Outbound profile, e*Xchange also requires a value for Message ALT ID.
Message ALT ID (Outbound only)	If your internal system will be sending messages to e*Xchange in raw data format, or expecting messages from e*Xchange in raw data format, you must specify the message Alt ID. The value specified in this field must exactly match the value populated in the Name/Value pair element of the TP Event section in the **eX_Standard_Event**. If you are not receiving messages in raw data format, leave this field blank.
Event Type (Inbound only)	(Optional) If specified, this is the Event Type to which the inbound message is published. If left empty, e*Xchange uses the default Event Type, **eX_to_eBPM**. **Note**: If you specify a custom Event Type, you must modify the e*Xchange e*Gate schema accordingly. Modify the **eX_from_ePM** Collaboration properties to publish to the new Event Type. There must also be a module that subscribes to this Event Type.
Validation Collaboration	The Collaboration that is used to validate the eBusiness protocol message (no extension). For RosettaNet 1.1 and 2.0, and CIDX, the validation Collaboration is optional. **Note**: The message header is automatically validated by e*Xchange. The validation Collaboration addresses only the service content portion of the message.
Store Raw Message	If you want to store the raw message in the database as well as the translated message, type **Y** in this field. If you store the raw message, it is available for viewing in Message Tracking.
Message Compress (required)	Indicates whether the messages will be compressed before they are stored in the database. Default: No. **Note**: Compressed messages cannot be viewed in Message Tracking.
Transfer Mode (required)	The way in which the eBusiness messages are transmitted to, or received from, the trading partner. **Interactive** is the only valid transfer mode for RosettaNet.

Table 33 Message Profile, Delivery Header Section (RNIF 2.0): Fields

Name	Description
From Global Partner Business Identification	The sender's unique business identifier. RosettaNet identifies this as the DUNS number. e*Xchange does not enforce the use of a DUNS number.

Table 33 Message Profile, Delivery Header Section (RNIF 2.0): Fields (Continued)

Name	Description
From Global Partner Business Identification	The receiver's unique business identifier. RosettaNet identifies this as the DUNS number. e*Xchange does not enforce the use of a DUNS number.

Table 34 Message Profile, Service Header Section (RNIF 2.0): Fields

Name	Description
Activity Identifier (required)	The RosettaNet Activity Control Business Activity identifier. This value is used as part of the unique ID for storing and tracking RNIF 2.0 messages in e*Xchange.
From Global Partner Role Classification (required)	The RosettaNet classification code identifying the sender's function in the supply chain: for example, Carrier, Distributor, Manufacturer, or Retailer. Click on the Attributes List icon to select from a list of valid values.
From Global Business Service Code (required)	The sender's Global Business Service Code, which is the RosettaNet code for the business service: for example, Product Information Distributor Service, Seller Service, Product Supplier Service, or Buyer Service. Click on the Attributes List icon to select from a list of valid values.
Global Business Action/Signal Code (required)	If the message is a business action: The Global Business Action Code; for example, Return Product Request Action, Financing Request Action, or Remittance Advice Notification Action. If the message is a signal: The Global Business Signal Code, such as General Exception or Receipt Acknowledge. Click on the Attributes List icon to select from a list of valid values.
Global Business Action/Signal Version Identifier (required)	The RosettaNet version number of the message guideline for the business action or signal.
Global Process Code (PIP)	The alphanumeric code for the PIP; for example, 3A2. Click on the Attributes List icon to select from a list of valid values.
PIP Version Identifier	The version identifier for the PIP.
To Global Partner Role Classification (required)	The receiver's partner role classification code. This is the code for the partner role that uses product information to create or update enterprise systems and online promotion systems such as electronic catalog systems. Examples of valid codes are Buyer, Seller, Customer Manager, Supplier, and Shipment Information User. Click on the Attributes List icon to select from a list of valid values.
To Global Business Service Code (required)	The receiver's Global Business Service Code, which is the RosettaNet code for the business service: for example, Product Information Distributor Service, Seller Service, Product Supplier Service, or Buyer Service. Click on the Attributes List icon to select from a list of valid values.
Usage Code (required)	The Global Usage Code. There are two acceptable values: **Test** or **Production**.

7.3 Debug Mode in RosettaNet 2.0

The Message Profile **General** Settings for RosettaNet 2.0 include a **Debug Mode** flag. Acceptable values are **Y** or **N**.

If debug mode is turned on, extra information is included in the RosettaNet 2.0 message headers to help track the type of transaction flowing between e*Xchange Partner Manager and the trading partner.

It is recommended that this only be used for initial setup and testing. With debug headers, the trading partner receiving a message can send an exception to e*Xchange, or e*Xchange send an exception to the trading partner, even if the service header was not successfully read. Additionally, debug mode only applies to RosettaNet business actions, not business signals.

Additionally, it should not be used in production mode for security reasons.

If **Y** is selected, e*Xchange includes the following extra values in the standard event TP Attribute section for all outbound RosettaNet 2.0 messages:

- PIP_CODE
- PIP_INSTANCE_ID
- ACTIVITY_CODE
- ACTION_CODE
- ACTION_INSTANCE_ID
- PARTNER_ID

The e*Way that communicates with the trading partner (HTTP/HTTPS or SMTP) checks for the DEBUG_MODE flag in the standard event. If the flag exists, e*Xchange checks the value. If the value is **Y**, extra headers are included in the message being sent to the trading partner.

If DEBUG_MODE = **Y**, e*Xchange includes the flag x-RN-Debug-Mode: Yes

and looks for the following optional TP attributes in the standard event:

- PIP_CODE—if present, will include X-RN-PIP-Code
- PIP_INSTANCE_ID—if present, will include X-RN-PIP-Instance-ID
- ACTIVITY_CODE—if present, will include X-RN-Activity-Code
- ACTION_CODE—if present, will include X-RN-Action-Code
- ACTION_INSTANCE_ID—if present, will include X-RN-Action-Instance-ID
- PARTNER_ID—if present, will include X-RN-Partner-ID

Chapter 8

Web Interface: Profile Setup for CIDX

This chapter provides information on setting up CIDX version 2.0.1 transactions in the e*Xchange Partner Manager, at the Message Profile level.

The Company, Trading Partner, and B2B Protocol (inbound and outbound) levels must be set up first. For information on setting up these components, refer to **"Web Interface: Profile Management" on page 80**.

8.1 Setting Up CIDX Message Profile Information

Once you have set up B2B protocol information for a trading partner, the next step is to set up message profiles.

8.1.1 Setup Sequence

Part of setting up a message profile is to specify the expected response message, if any.

During initial setup, you will find that you cannot select the appropriate response messages because you have not yet created the message profiles for those response messages.

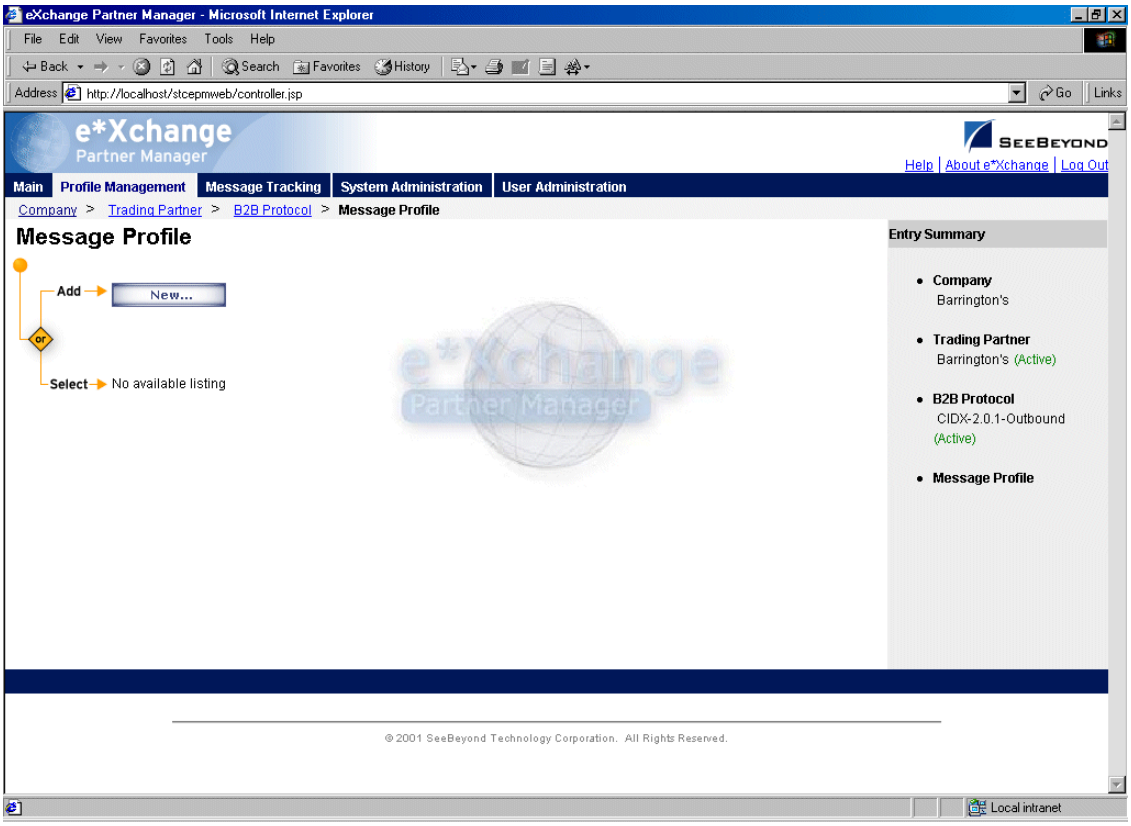
One approach to this is to first set up all message profiles, both inbound and outbound, and then go back into each message profile to select the return messages.

Note: *When setting up a CIDX profile, be especially careful that the Failure Notification transaction is configured correctly. If a situation occurs where both you and your trading partner have an error in the Failure Notification transaction, one Failure Notification from the trading partner can generate another Failure Notification from you, and yours generates another from the Trading Partner, in an infinite loop. If you do encounter this, check the setup of your Failure Notification and correct the error.*

8.1.2 Setting Up a Message Profile

From the **B2B Protocol** page, select a B2B protocol and click **Continue: Message Profile** to access the **Message Profile** page (see Figure 92).

Figure 92 Message Profile Page



From the **Message Profile** page you can complete the following activities:

- Add a message profile for the selected B2B protocol (see **"To add a message profile" on page 179**).
- Select a message profile: choose from the drop-down list. The message profile **General** properties are displayed on the right side of the page. To view additional properties, click on the appropriate link above the properties display (specific property groups vary according to the eBusiness protocol).
- Edit the selected message profile; first select the section that you want to edit, and then click the **Edit** button to access the **Message Profile - Editing** page (see **"To edit a message profile" on page 181**).
- Create a new message profile based on the selected one (see **"To copy a message profile to the same B2B protocol" on page 182** and **"To copy a message profile to another B2B protocol" on page 184**).

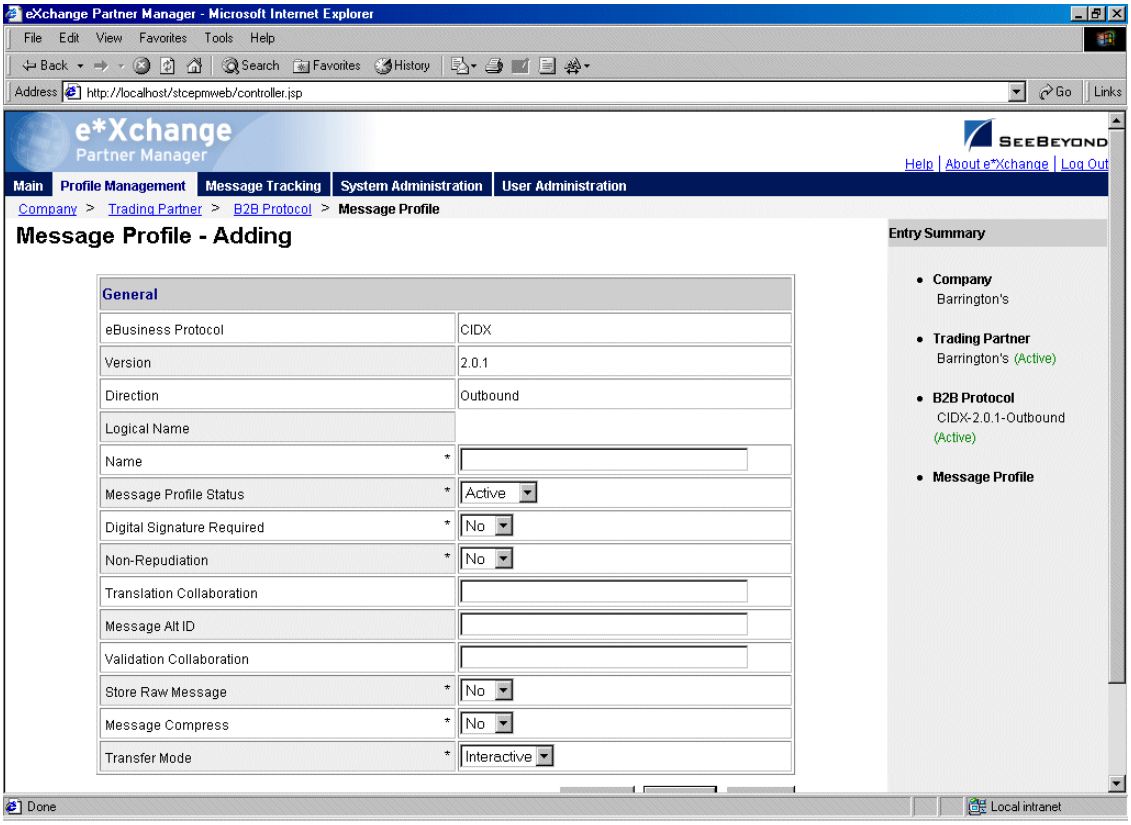
  Note: For general information on the copy feature, refer to **"Copying Components" on page 111**.
- Delete the selected message profile (see **"To delete a message profile" on page 185**).
- Activate or inactivate the selected message profile (see **"To inactivate or reactivate a message profile" on page 185**).

- Set or change security for the selected message profile (see **"Web Interface: Security" on page 77**).

To add a message profile

1 From the **Message Profile** page, click the **New** button to access the **Message Profile - Adding** page (see Figure 93).

Figure 93 Message Profile - Adding (General section) (CIDX)

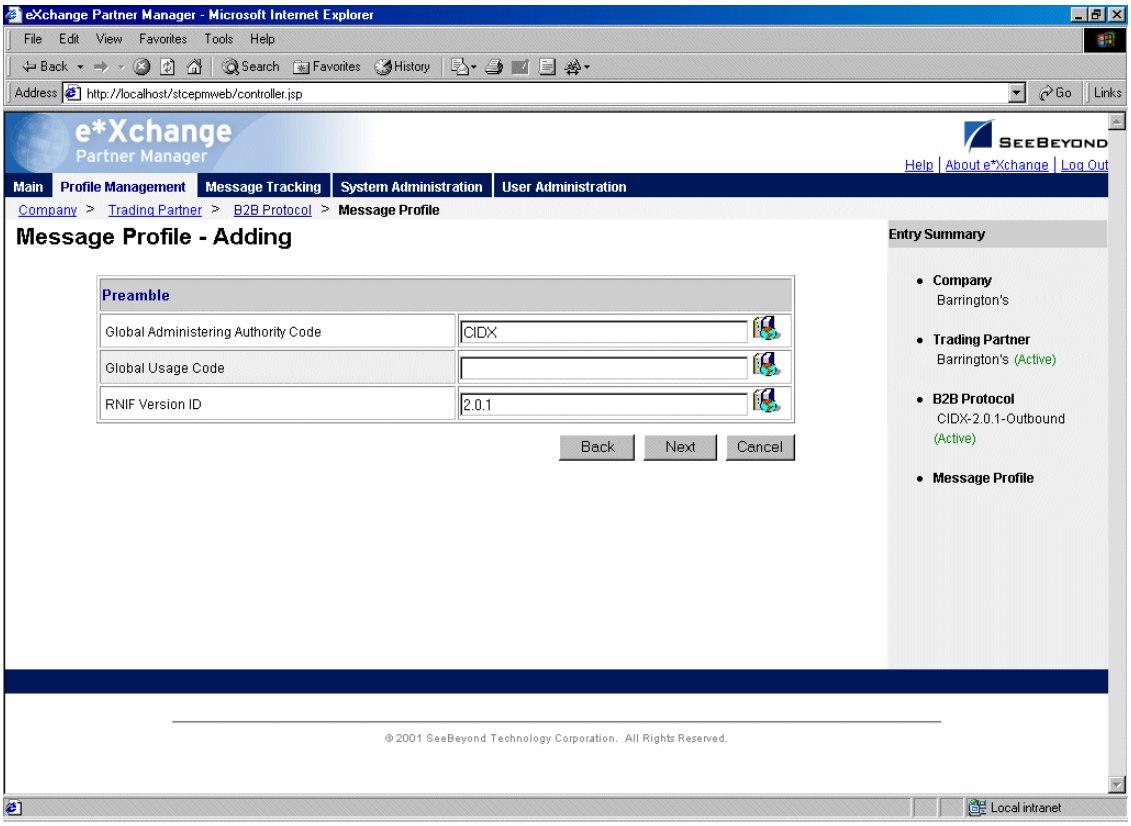


2 Enter or select values for the **General** section.

For more information, refer to **Table 35 on page 186**.

3 Click **Next** to access the **Preamble** section (see Figure 94).

Figure 94 Message Profile - Adding (Preamble section) (CIDX 2.0.1)

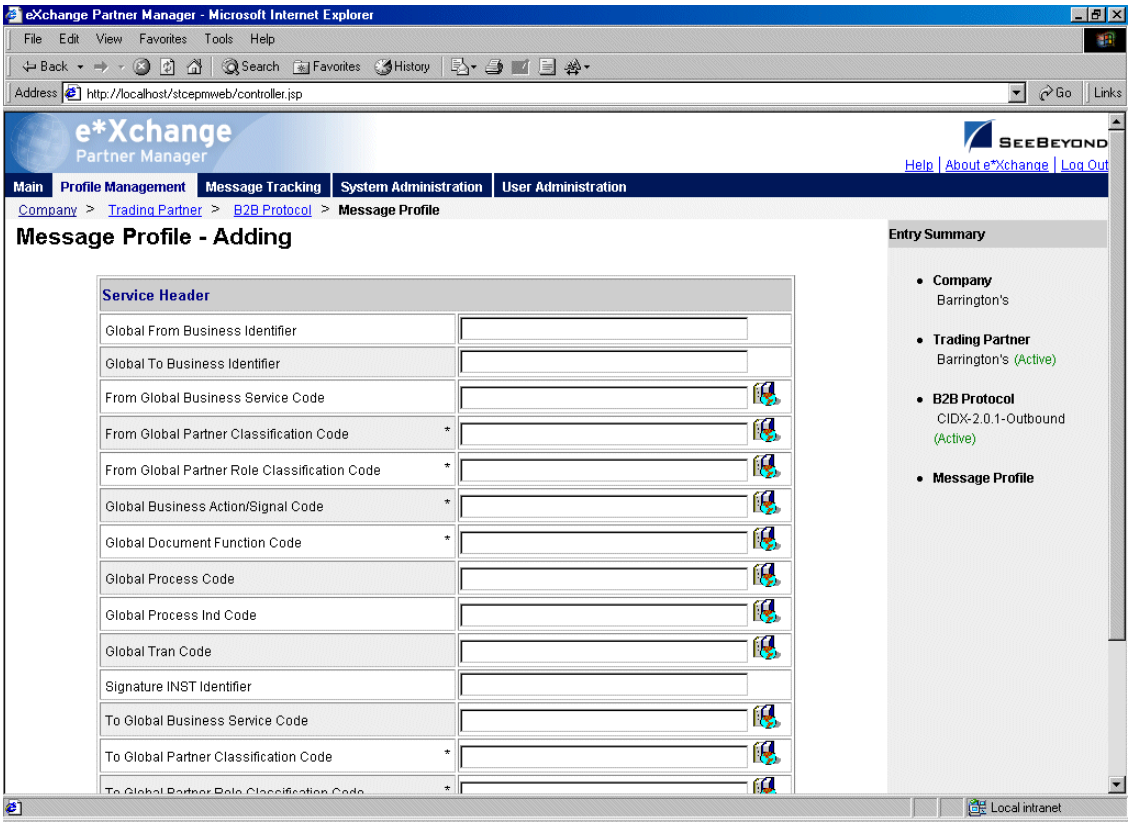


4 Enter or select values for the **Preamble** section.

For more information, refer to **Table 36 on page 187**.

5 Click **Next** to access the **Service Header** section (see Figure 95).

Figure 95 Message Profile - Adding (Service Header section) (CIDX 2.0.1)



6 Enter or select values for the **Service Header** section.

For more information, refer to **Table 37 on page 187**.

7 Click **Next**.

8 Define return messages, or leave until later if you have not set up the message profiles for the return messages yet.

9 Click **Apply** to save the profile and return to the **Message Profile** page.

To edit a message profile

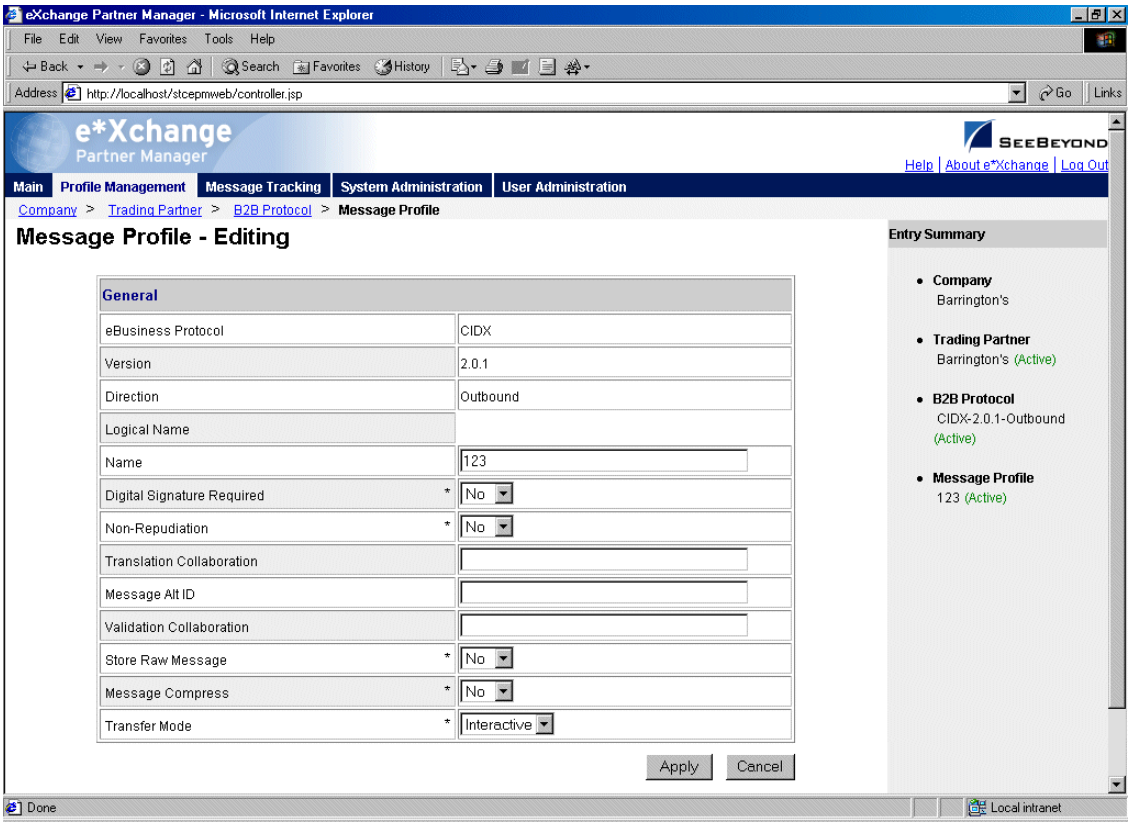
1 From the **Message Profile** page, select the message profile from the drop-down list.

The message profile properties are displayed on the right side of the page.

2 In the **Message Profile Properties** section, click the link for the section you want to edit: **General**, **Preamble**, **Service Header**, or **Return Messages**.

3 Click the **Edit** button to access the **Message Profile - Editing** page listing the attribute section that you selected (see Figure 96 for an example).

Figure 96 Message Profile - Editing (General) (CIDX)



4 Change the values as needed.

For more information, refer to **"CIDX Message Profile Parameter Values" on page 185**.

5 Click **Apply** to save the changes and return to the **Message Profile** page.

The new message profile is now on the drop-down list.

To copy a message profile to the same B2B protocol

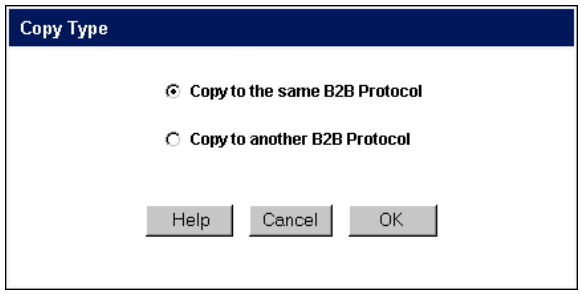
1 On the **Message Profile** page, select the message profile that you want to copy.

The message profile properties are displayed on the right side of the page.

2 Click the **Copy** button.

The **Copy Type** page appears (see Figure 97).

Figure 97 Copy Type (Copying a Message Profile)

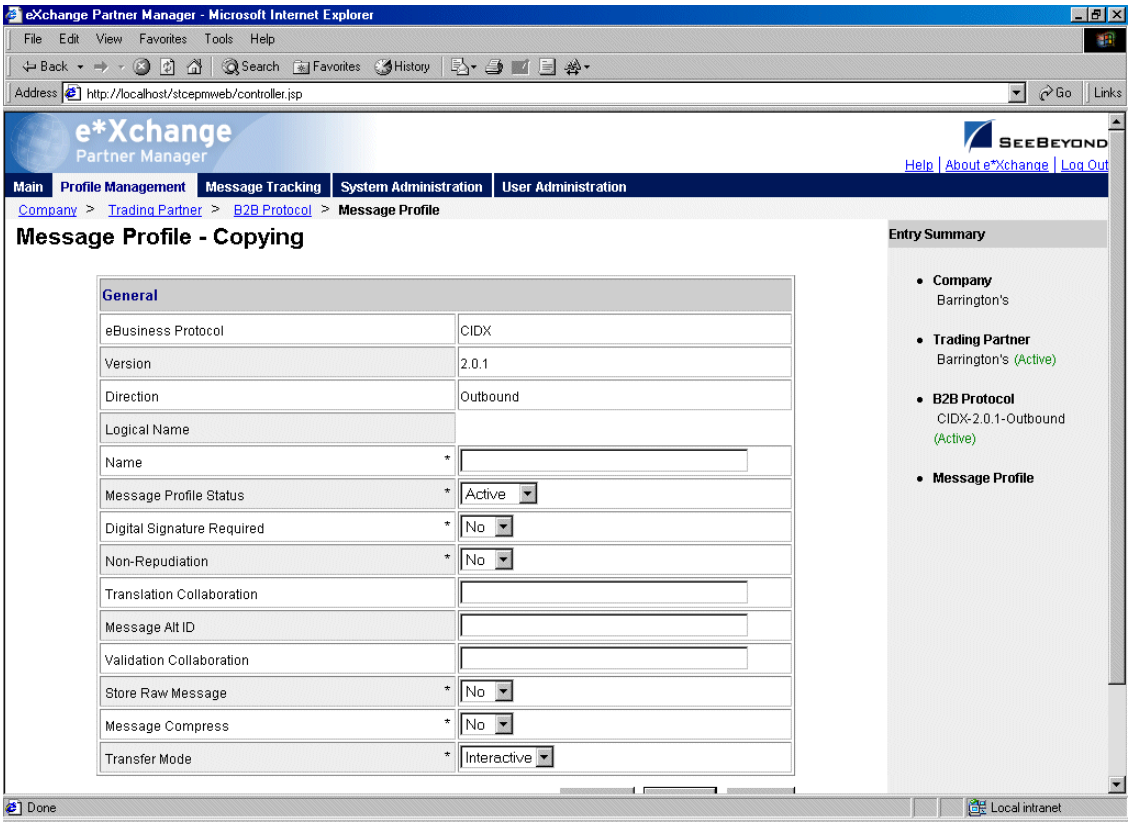


3 Make sure **Copy to the same B2B Protocol** is selected.

4 Click **OK**.

The **Message Profile - Copying** page (**General** section) appears (see Figure 98).

Figure 98 Message Profile - Copying (General) (CIDX)



5 Type the new message profile name, and change any other values as needed.

6 Click **Next** to access the **Preamble** section (see Figure 94).

7 Change values as needed for the **Preamble** section.

For more information, refer to **Table 36 on page 187**.

8 Click **Next** to access the **Service Header** section (see Figure 95).

9 Change values as needed for the **Service Header** section.

For more information, refer to **Table 37 on page 187**.

10 Click **Next**.

11 Define return messages, or leave until later if you have not set up the message profiles for the return messages yet.

12 Click **Finish** to save the new profile and return to the **Message Profile** page.

The new message profile is now on the drop-down list.

To copy a message profile to another B2B protocol

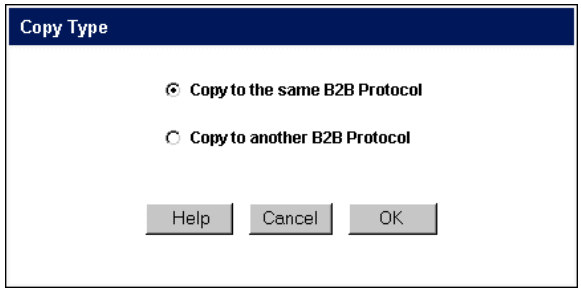
1 On the **Message Profile** page, select the message profile that you want to copy.

The message profile properties are displayed on the right side of the page.

2 Click the **Copy** button.

The **Copy Type** page appears (see Figure 99).

Figure 99 Copy Type (Copying a Message Profile)

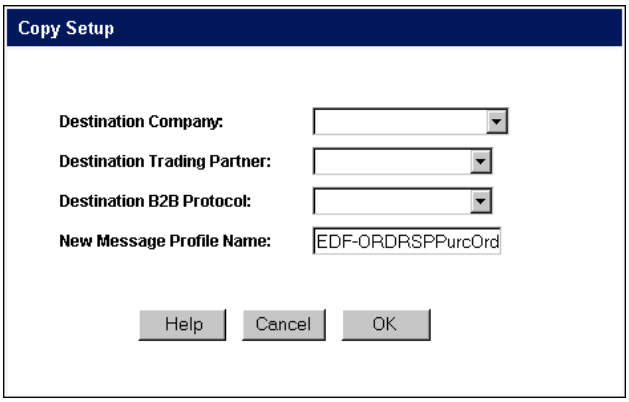


3 Select **Copy to another B2B Protocol**.

4 Click **OK**.

The **Copy Setup** page appears (see Figure 100).

Figure 100 Copy Setup (Copying a Message Profile to Another B2B Protocol)



5 On the **Copy Setup** page, select the destination company.

6 Select the destination trading partner.

7 Select the destination B2B Protocol.

8 If you want to change the message profile name, type the new name.

9 Click **OK**.

The message profile information is copied to the selected B2B protocol. When done, e*Xchange displays a message letting you know that the copy was successful.

To delete a message profile

1 On the **Message Profile** page, select the message profile from the drop-down list.

The message profile properties are displayed on the right side of the page.

2 Click the **Delete** button.

A warning message appears asking if you are sure you want to delete.

3 To delete the profile, click **OK**.

The message profile is deleted.

To inactivate or reactivate a message profile

1 On the **Message Profile** page, select the message profile from the drop-down list.

The message profile properties are displayed on the right side of the page.

2 In the **Message Profile Status** field, toggle the **Active/Inactive** graphic to change the status. Values are as follows:

-  Message profile is active: click to inactivate.
-  Message profile is inactive: click to reactivate.

To set up security

1 On the **Message Profile** page, select the message profile from the drop-down list.

The message profile properties are displayed on the right side of the page.

2 Click the **Security** button.

The **Security Management** page appears.

3 Set the values as needed.

4 Click **OK**.

For detailed instructions on setting up security, refer to **"Web Interface: Security" on page 77**.

8.2 CIDX Message Profile Parameter Values

This section lists field descriptions for the CIDX values required for setting up a message profile.

This section includes field descriptions for the CIDX version 2.0.1 values required for setting up the following Message Profile setup sections:

- **General** section—Table 35 on page 186
- **Preamble** section—Table 36 on page 187
- **Service Header** section—Table 37 on page 187

Table 35 Message Profile, General Section (CIDX 2.0.1): Fields

Name	Description
eBusiness Protocol	The name of the protocol that you selected at the B2B protocol level (CIDX) is displayed.
Version	The eBusiness protocol version selected at the B2B protocol level (2.0.1) is displayed.
Direction	The direction for the message profile, Inbound or Outbound, is displayed.
Logical Name	If you specified a logical name at the B2B protocol level, it is displayed.
Name	A label for the message profile. It should be descriptive, and unique for the trading partner.
Message Profile Status	The status of the message profile. Choose one of the following values: ▪ **Active**—The message profile is currently active, and can be used. ▪ **Inactive**—The message profile is not active, and cannot be used. Default: **Active**. **Note**: This is only available when adding a message profile. When editing, you can change the status on the **Message Profile** page (see "To inactivate or reactivate a message profile" on page 185).
Digital Signature Required	Indicates whether a digital signature is required: **Y** or **N**. The default is **N**. Select from the drop-down list.
Non-Repudiation (required)	Indicates whether non-repudiation is required for the message: **Y** or **N**. The default is **N**. **Note**: For RosettaNet (both versions) and CIDX, if the message is a business signal, the non-repudiation setting is ignored. Since a business signal does not have a response, non-repudiation is not available.
Translation Collaboration	If your internal system will be sending messages to e*Xchange in raw data format, or expecting messages from e*Xchange in raw data format, you must specify the translation Collaboration that will be used to translate the messages to and from the appropriate eBusiness Protocol format. Type the file name (no extension). **Outbound**: If you provide a value in this field for an Outbound profile, e*Xchange also requires a value for Message ALT ID.
Message ALT ID (Outbound only)	If your internal system will be sending messages to e*Xchange in raw data format, or expecting messages from e*Xchange in raw data format, you must specify the message Alt ID. The value specified in this field must exactly match the value populated in the Name/Value pair element of the TP Event section in the **eX_Standard_Event**. If you are not receiving messages in raw data format, leave this field blank.

Table 35 Message Profile, General Section (CIDX 2.0.1): Fields (Continued)

Name	Description
Event Type (Inbound only)	(Optional) If specified, this will be the Event Type to which the inbound message will be published. If left empty, e*Xchange uses the default Event Type, **eX_to_eBPM**. **Note**: If you specify a custom Event Type, you must modify the e*Xchange e*Gate schema accordingly. Modify the **eX_from_ePM** Collaboration properties to publish to the new Event Type. There must also be a module that subscribes to this Event Type.
Validation Collaboration	The Collaboration that is used to validate the eBusiness protocol message (no extension). For RosettaNet 1.1 and 2.0, and CIDX, the validation Collaboration is optional. **Note**: The message header is automatically validated by e*Xchange. The validation Collaboration addresses only the service content portion of the message.
Store Raw Message	If you want to store the raw message in the database as well as the translated message, type **Y** in this field. If you store the raw message, it will be available for viewing in Message Tracking.
Message Compress (required)	Indicates whether the messages will be compressed before they are stored in the database. Default: No. **Note**: Compressed messages cannot be viewed in Message Tracking.
Transfer Mode	The way in which the eBusiness messages are transmitted to, or received from, the trading partner. **Interactive** is the only valid transfer mode for CIDX.

Table 36 Message Profile, Preamble Section (CIDX 2.0.1): Fields

Name	Description
Global Administering Authority Code (Required)	The Global Administering Authority Code is CIDX.
Global Usage Code (Required)	There are two acceptable values: **Test** or **Production**.
RNIF Version ID	The RosettaNet Implementation Framework version number. 1.1 is the only choice.

Table 37 Message Profile, Service Header Section (CIDX 2.0.1): Fields

Name	Description
Global From Business Identifier	The sender's unique business identifier (optional).
Global To Business Identifier	The receiver's unique business identifier (optional).

Table 37 Message Profile, Service Header Section (CIDX 2.0.1): Fields (Continued)

Name	Description
From Global Business Service Code	The sender's Global Business Service Code, which is the code for the business service: for example, Product Information Distributor Service, Seller Service, Product Supplier Service, or Buyer Service. Click on the Attributes List icon to select from a list of valid values.
From Global Partner Classification Code (Required)	The classification code identifying the sender's function in the supply chain: for example, Carrier, Distributor, Manufacturer, or Retailer. Click on the Attributes List icon to select from a list of valid values.
From Global Partner Role Classification Code (Required)	The sender's partner role classification code. This is the code for the partner role that uses product information to create or update enterprise systems and online promotion systems such as electronic catalog systems. Examples of valid codes are Buyer, Seller, Customer Manager, Supplier, and Shipment Information User. Click on the Attributes List icon to select from a list of valid values.
Global Business Action/Signal Code (Required)	If the message is a business action—the Global Business Action Code, such as Order Create, Order Response, or Order Change. If the message is a signal—the Global Business Signal Code, such as General Exception or Receipt Acknowledge. The Global Business Action/Signal Code must be unique for the trading partner. Click on the Attributes List icon to select from a list of valid values.
Global Document Function Code (Required)	The code that indicates the type of document: either Request or Response. For example, for a Failure Notification Action, it should be set to Request. Click on the Attributes List icon to select from a list of valid values.
Global Process Code	The plain language name for the code assigned to the process; for example, Delivery Receipt or Demand Plan. Click on the Attributes List icon to select from a list of valid values.
Global Process Ind Code	The CIDX code assigned to the process; for example, E41 for an Order Create or F15 for a Demand Plan. Click on the Attributes List icon to select from a list of valid values.
Global Tran Code	The Global Transaction Code. Examples: Delivery Receipt or Posting Accept Response. Click on the Attributes List icon to select from a list of valid values.
Signature INST Identifier	Not used.
To Global Business Service Code	The receiver's Global Business Service Code, which is the code for the business service: for example, Product Information Distributor Service, Seller Service, Product Supplier Service, or Buyer Service. Click on the Attributes List icon to select from a list of valid values.
To Global Partner Classification Code (Required)	The classification code identifying the receiver's function in the supply chain: for example, Carrier, Distributor, Manufacturer, or Retailer. Click on the Attributes List icon to select from a list of valid values.

Table 37 Message Profile, Service Header Section (CIDX 2.0.1): Fields (Continued)

Name	Description
To Global Partner Role Classification Code (Required)	The receiver's partner role classification code. This is the code for the partner role that uses product information to create or update enterprise systems and online promotion systems such as electronic catalog systems. Examples of valid codes are Buyer, Seller, Customer Manager, Supplier, and Shipment Information User. Click on the Attributes List icon to select from a list of valid values.
Business Action/ Signal Version Identifier (Required)	The PIP version number: for example, 2.0.1.

Chapter 9

Web Interface: Message Tracking

The e*Xchange Partner Manager Web interface includes Message Tracking features so that you can:

- View any messages that have been processed by e*Xchange
- Use the various search fields to narrow down your search before viewing message details
- For any message, view an error list, extended attributes, or actual text of the original message, enveloped message, or acknowledgment message.

It also includes a message audit feature. When this is turned on, the system maintains, with each message, a list of users that have looked at the message.

Note: *For HIPAA compliance, you must use the e*Xchange Web Interface to track access to data viewed through the Message Tracking facility, and limit e*Xchange Client for Windows access to Administrators only. e*Xchange Client for Windows does not audit data access.*

9.1 Using the Message Tracking Feature

The Message Tracking feature allows you to view any messages that have been processed by e*Xchange, including any errors that might be associated with a message. This useful tool helps you to pinpoint the source of an error so that it can be resolved.

You can use the various search fields to narrow down your search before viewing message details. For example, you might want to view all inbound RosettaNet 2.0 messages from a specific trading partner, or all outbound X12 batch message to a specific trading partner.

For any message, you can view message errors (if applicable), extended attributes, or the actual text of the message.

This tool can be used for troubleshooting message errors and monitoring message flow.

Searching for messages is a three-step process:

1. Enter general search criteria to view a list of message profiles that meet the criteria.
2. View the list and select the desired message profiles to view a list of messages that meet the criteria.
3. View the message information as needed.

This section includes the following step-by-step instructions:

- Entering general search criteria: see **"Entering General Search Criteria" on page 191**
- Choosing a range of message profiles for which you want to view messages: see **"Choosing the Messages to View" on page 192**
- Viewing message details: see **"Viewing the Message Details" on page 193**

9.1.1 Entering General Search Criteria

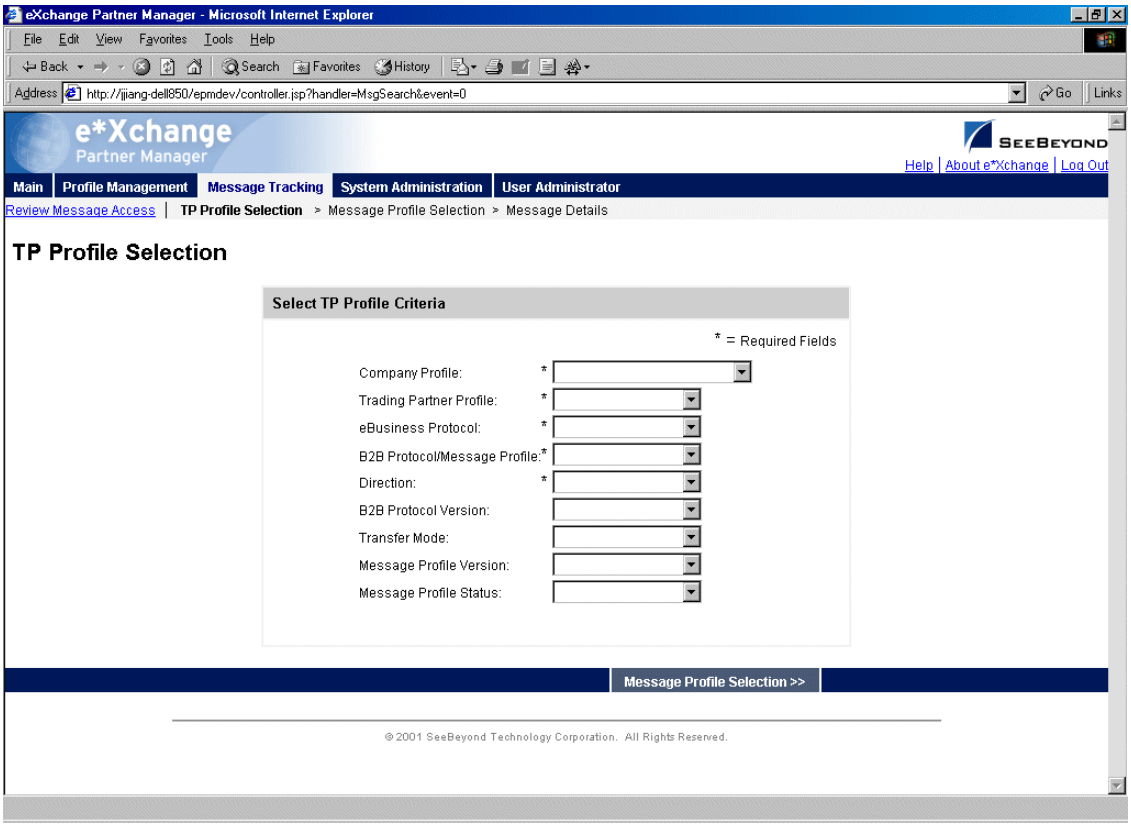
The first step is to enter general search criteria that e*Xchange will use to provide you with a list of message profiles.

To enter general search criteria

1 From the **Main** page, click **Message Tracking**.

The **TP Profile Selection** page appears (see Figure 101).

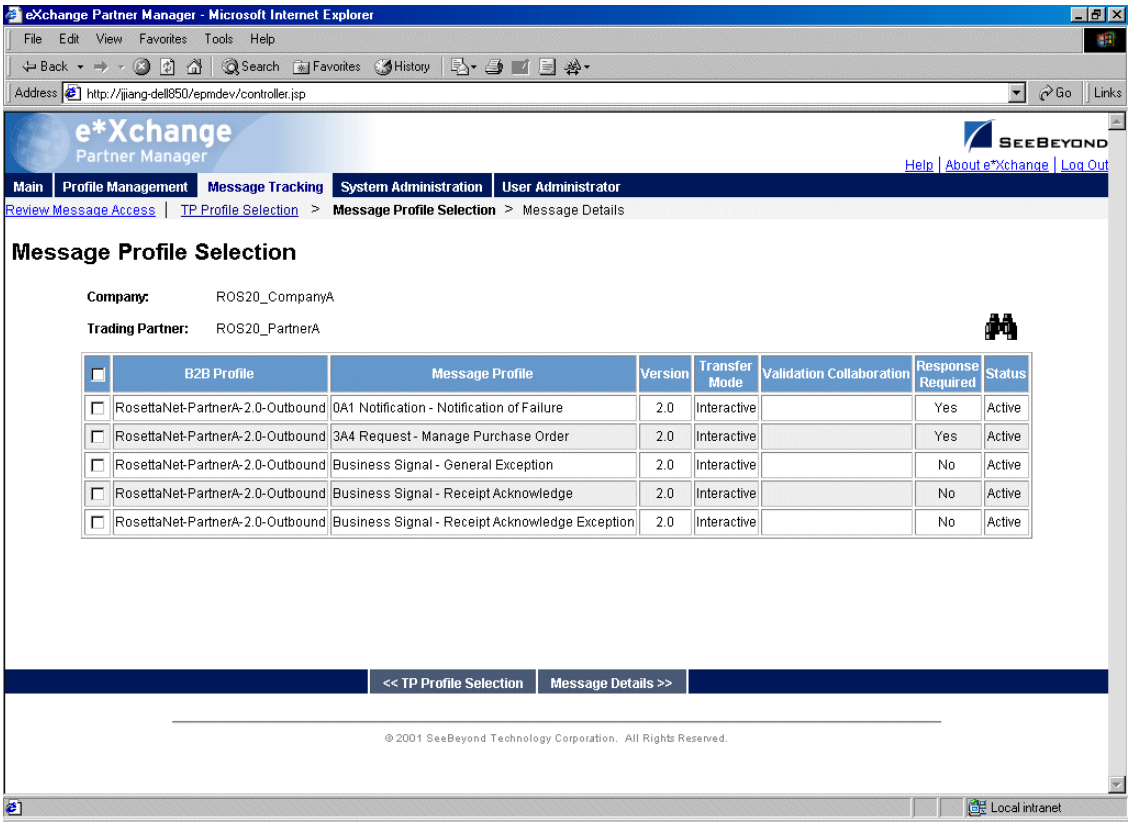
Figure 101 TP Profile Selection



2 Enter or select search criteria, and then click **Message Profile Selection** to create a list of message profiles matching the search criteria.

The **Message Profile Selection** page appears (see Figure 102).

Figure 102 Message Profile Selection



9.1.2 Choosing the Messages to View

The **Message Profile Selection** list shows you the message profiles that match the search criteria you entered on the **TP Profile Selection** page. The next step is to select, from this list, one or more message profiles for which you want to view messages.

To choose the messages to view

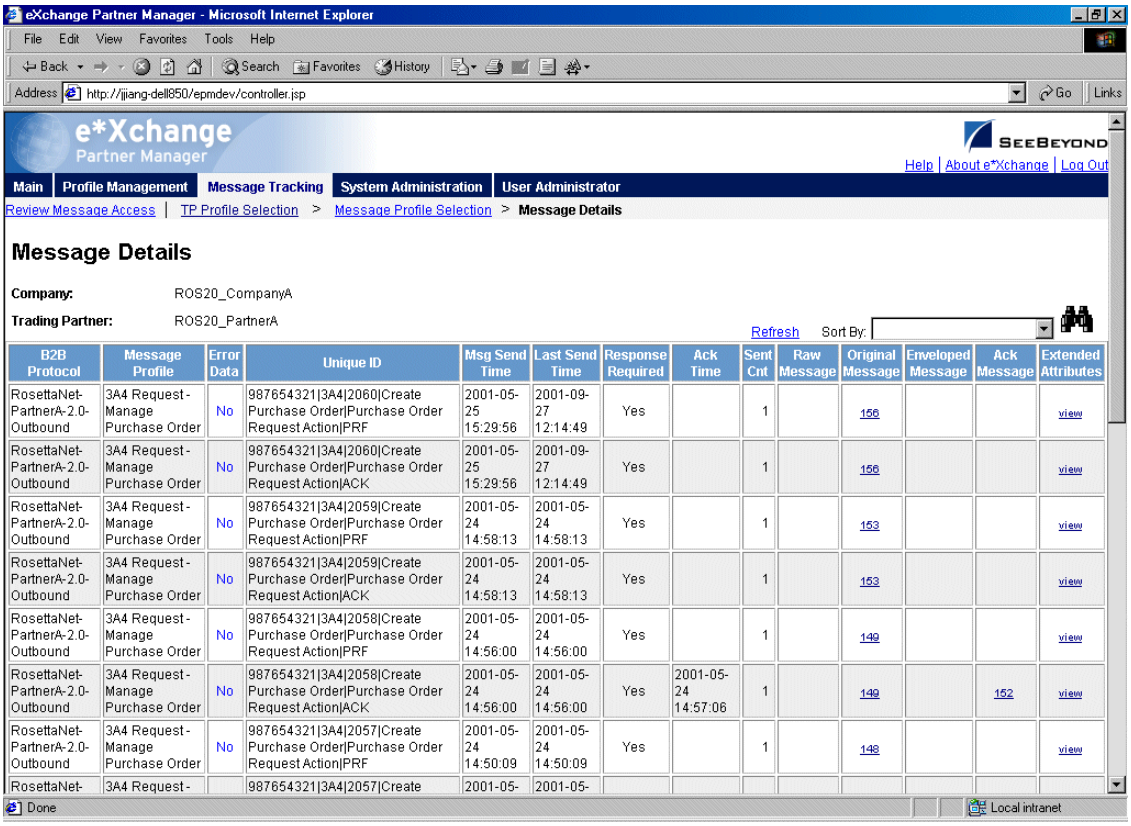
1 At the **Message Profile Selection** list, do one of the following:

- To select an individual profile for which you want to view messages, check the check box to the left of the message profile.
- To select all profiles, check the check box in the column header. You can then clear individual check boxes as needed.

2 Click the **Message Details** link to view the resulting message list.

The **Message Details** page appears (see Figure 103).

Figure 103 Message Details



9.1.3 Viewing the Message Details

The next step is to look at the actual messages.

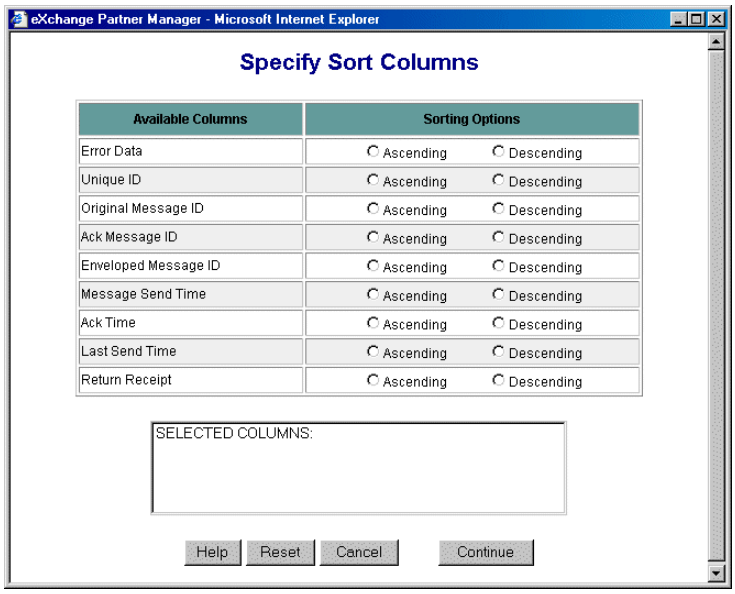
To view the message details

1 Select the message you want to view. To assist you in locating the message, you can sort the list by any of the following fields:

- **Unique ID**
- **Original Message ID**
- **Ack Message ID**
- **Enveloped Message ID** (outbound only)

You can also choose **Specify Sort Columns** to access the **Specify Sort Columns** page (Figure 104) and sort by multiple columns.

Figure 104 Message Tracking: Specify Sort Columns Page



2 If needed, change the display to show more messages per page (or fewer):

- Click on the **Page Size** link as shown in Figure 105.

Figure 105 Changing the Display on the Message Tracking Details Page

- At the prompt, type the new record count (1–100).
- Click **OK**.

3 If necessary, page through the message list by clicking on the **Next** link at the bottom of the **Message Details** page.

4 Do any of the following, if available for the selected message:

- View message errors—click the red underlined **Yes** in the **Error Data** column to view the error information in a separate window. For an example, see Figure 106.
- View the raw message—click the blue underlined value in the **Raw Message** column to view the message in a separate window. For an example, see Figure 107.
- View the original message—click the blue underlined value in the **Original Message** column to view the message in a separate window. For an example, see Figure 108.
- View the enveloped message—click the blue underlined value in the **Enveloped Message** column to view the message in a separate window. For an example, see Figure 109.

- View the acknowledgment message—click the blue underlined value in the **Ack Message** column to view the message in a separate window. For an example, see Figure 110.
- View extended attributes—click the blue underlined value in the **Extended Attributes** column to view the attributes in a separate window. For an example, see Figure 111.

Figure 106 Message Tracking: "View Error Data" Window

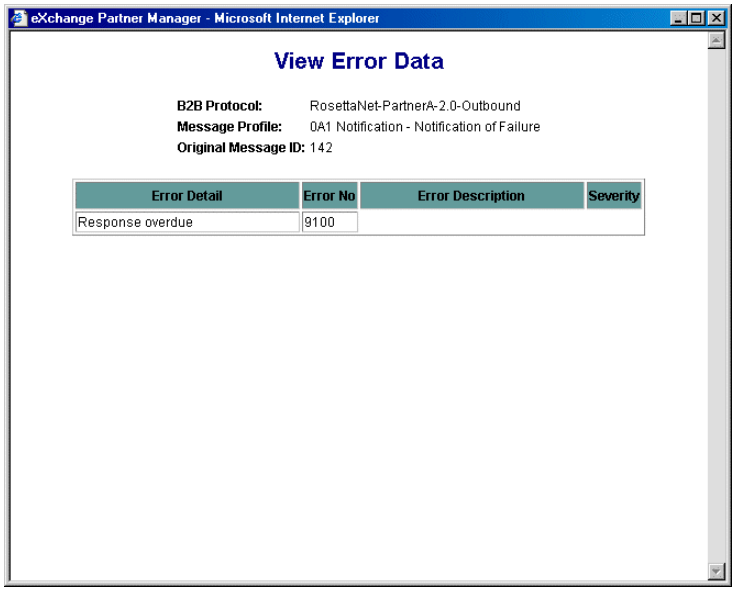


Figure 107 Message Tracking: "View Raw Message" Window

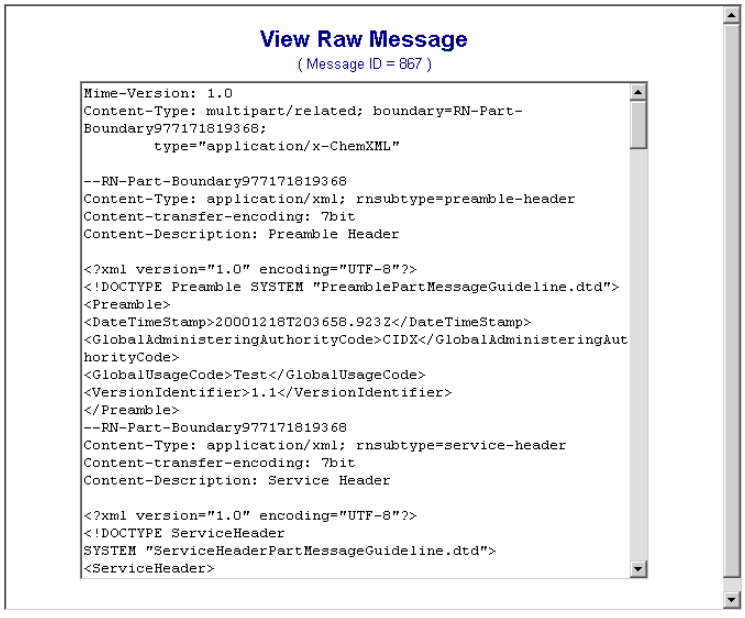


Figure 108 Message Tracking: "View Original Message" Window

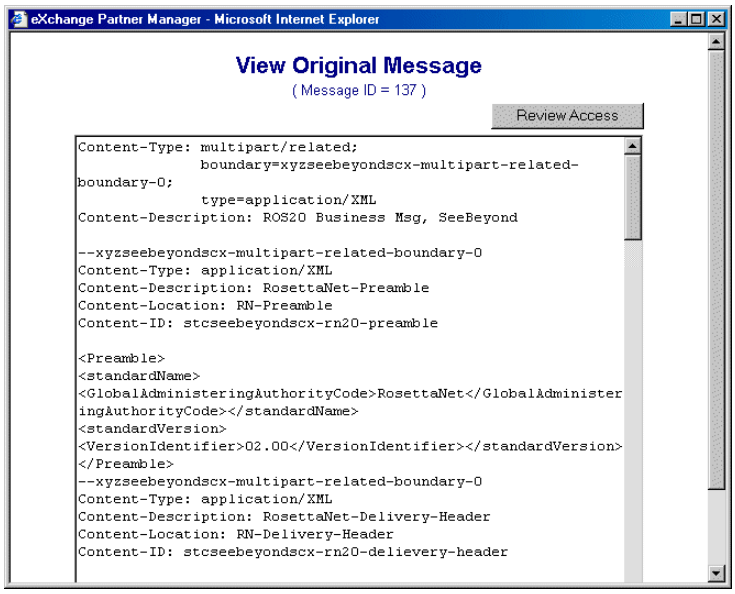


Figure 109 Message Tracking: "View Enveloped Message" Window

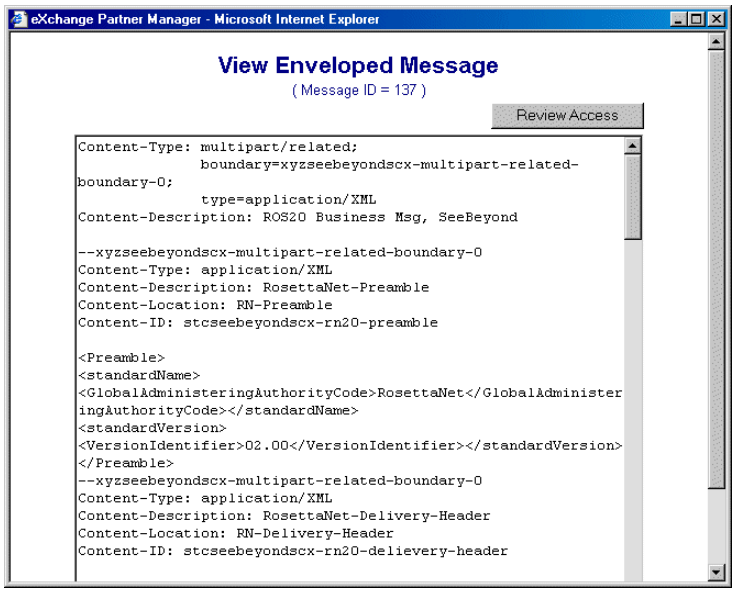


Figure 110 Message Tracking: "View Acknowledgment Message" Window

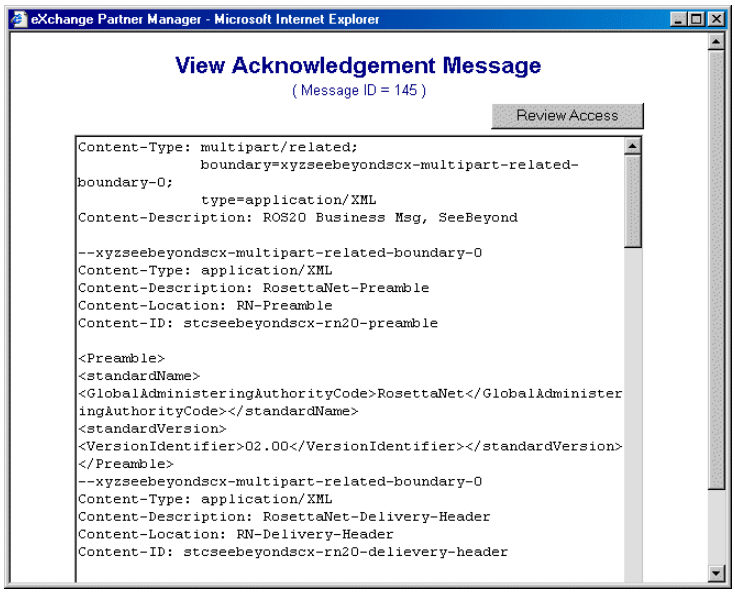
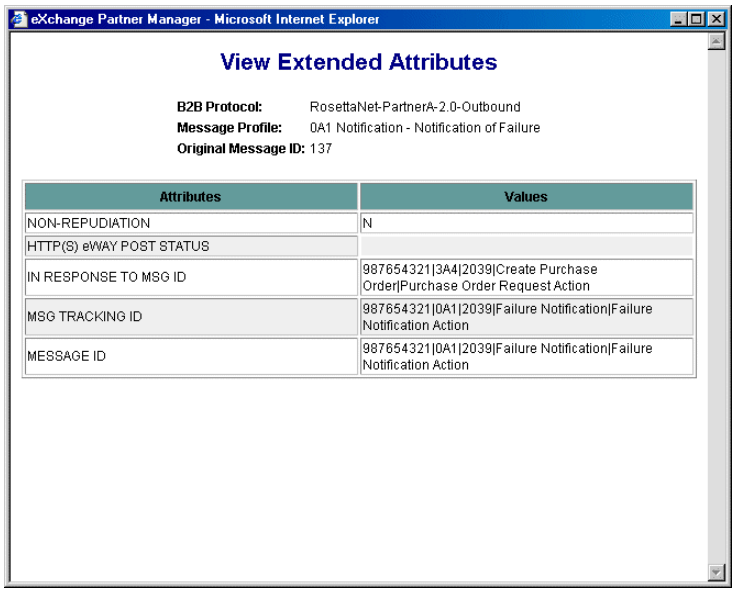


Figure 111 Message Tracking: "View Extended Attributes" Window



5 Optionally, review message access on any window (other than View Extended Attributes) by clicking the **Review Access** button. For more detailed information, refer to **"To review message access on an individual message" on page 200**.

9.2 Resending a Message

The e*Xchange Partner Manager Web interface allows you to manually resend a message to a trading partner from within the Message Tracking feature.

Certain conditions have to be met, as outlined below.

- A message that is not expecting a response can always be resent.
- A message that is expecting a single response can be resent providing there is an error on the response and the error is one of the following types:
  - Response overdue
  - Hit max re-send limit (or any error beginning with this)
- A message that is expecting multiple responses can be resent providing there is an error on *each* response and each error is one of the following types:
  - Response overdue
  - Hit max re-send limit (or any error beginning with this)

A message that has already been resent cannot be resent again until the resend process has been completed.

Acknowledgments can be resent.

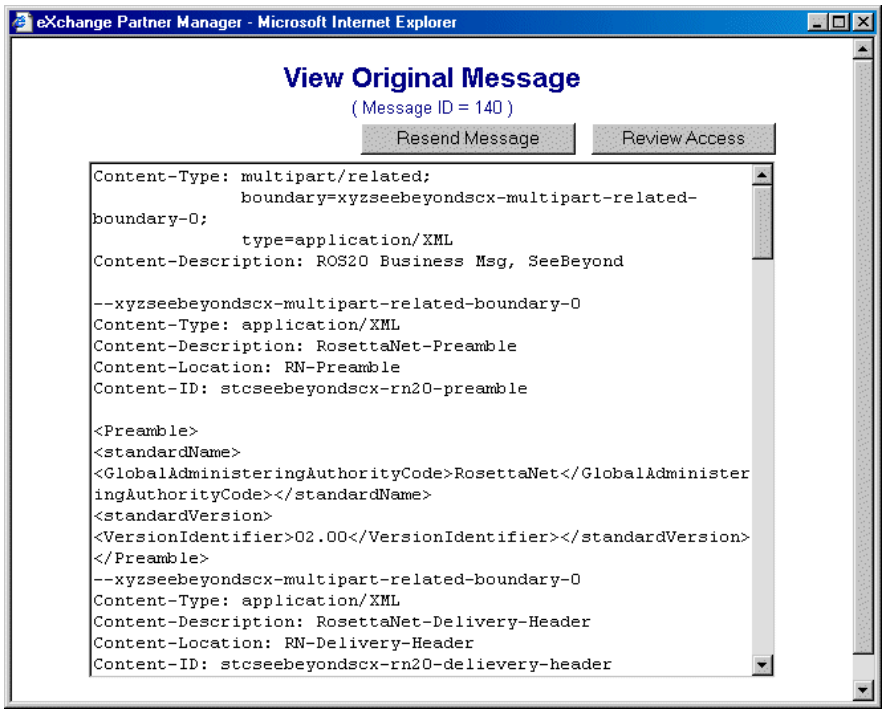
When a message is resent, the send count and last send time are updated. A manual resend overrides the maximum send count setting.

To resend a message to a trading partner

1. On the **Message Details** page, click on the link in the **Original Message** column for that message.

   The **View Original Message** window appears, as shown in Figure 112.

Figure 112 Message Tracking: "View Original Message" Window with Resend

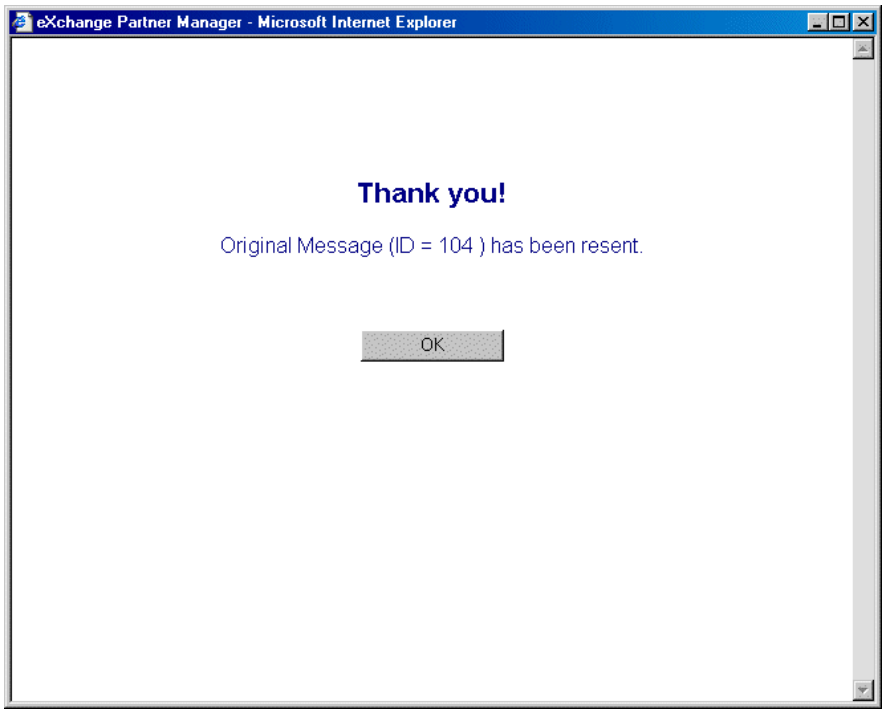


2 Click **Resend Message**.

Note: *If there is no Resend Message button on the message, the message does not meet the resend criteria and cannot be resent.*

A resend verification message appears, as shown in Figure 113.

Figure 113 Message Tracking: Resend Verification Message



3 Click **OK**.

9.3 Reviewing Message Access (Audit Feature)

The e*Xchange Partner Manager Web interface includes an optional Message Tracking Audit feature. This feature is turned on or off via the **System Defaults** page via the **Enable Auditing for Message Tracking** setting.

When Message Tracking Audit is turned on, an additional option is available in all the Message Tracking screens. You can review the audit log of all users that have accessed a specific message. Information recorded in the audit log includes user ID and timestamp for each time the message was viewed.

When turned on, this feature is available via a **Review Message Access** link on the following Message Tracking pages:

- TP Profile Selection
- Message Profile Selection
- Message Details

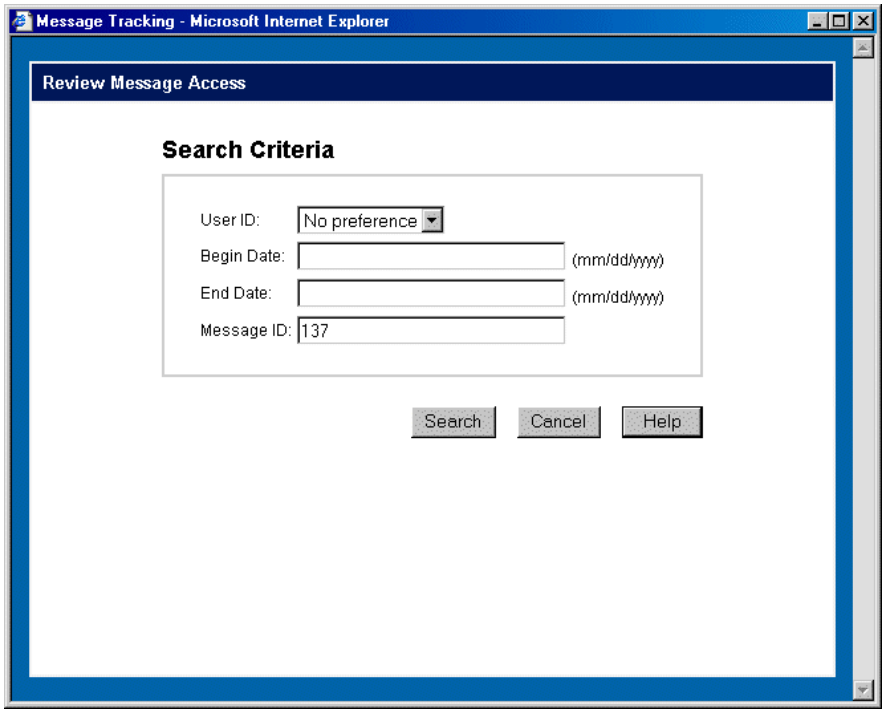
It is also available at the individual message level. From the **Message Details** page, click any message for which access information is available.

To review message access on an individual message

1 From one of the Message Tracking pages, click the **Review Message Access** link.

The **Search Criteria** page appears (see Figure 114).

Figure 114 Review Message Access: Search Criteria



2 Set search criteria as needed.

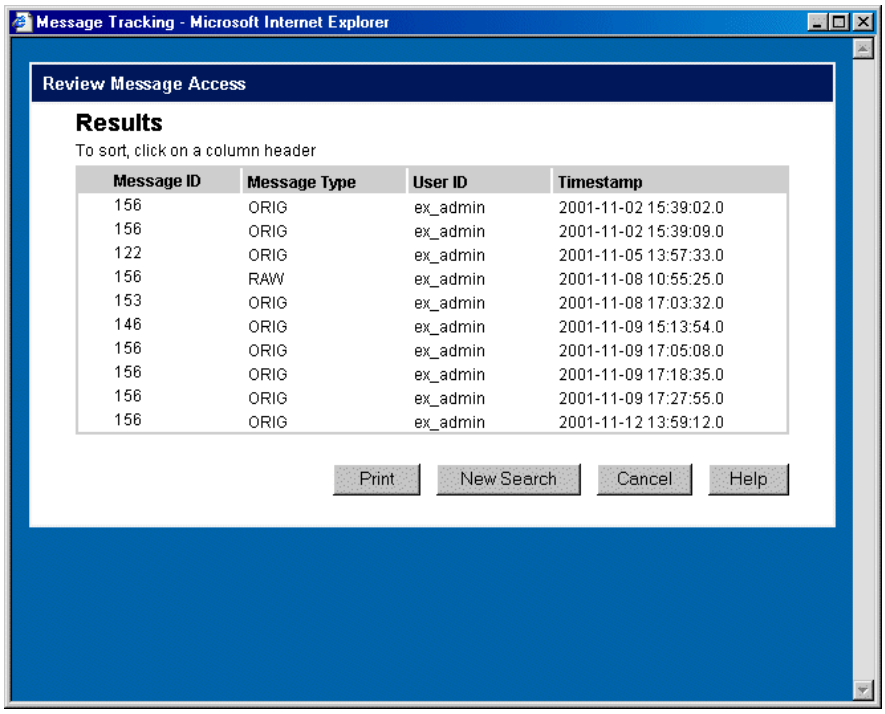
For more information, refer to **Table 38 on page 203**.

3 Click the **Search** button.

e*Xchange creates a list of all messages that meet the viewing criteria you have set (see Figure 115 for an example).

Note: *If you do not choose search criteria, the resulting message access report might be very large. Choose search criteria based on your knowledge of message volume. If the message list does not match your requirements, you can go back and redefine the criteria.*

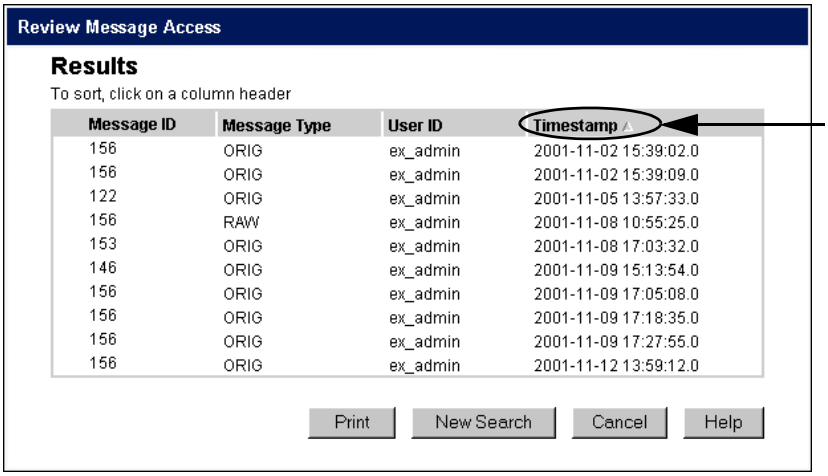
Figure 115 Review Message Access: Results



4 View the message access list. You can sort the columns as needed:

- To sort by a specific column, click the column heading. For example, to sort by timestamp, click the **Timestamp** column title. A triangle appears in the column heading, indicating that it is the sort column (see Figure 116). By default, columns are sorted in ascending order (lowest values at the top).

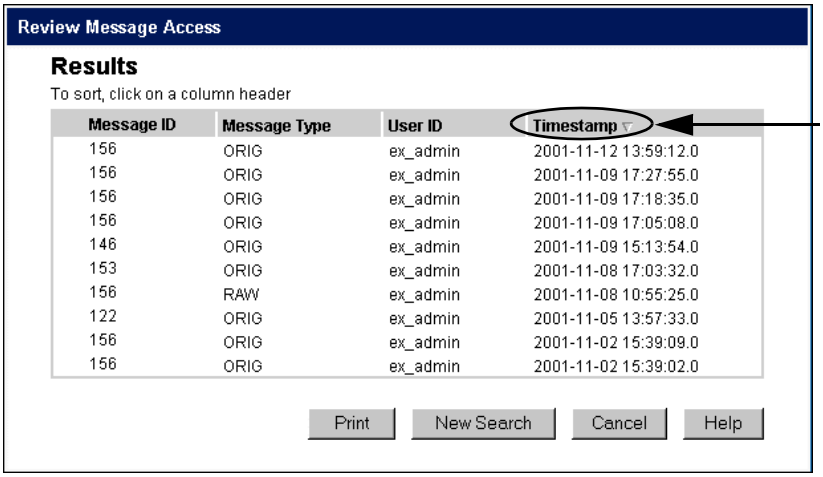
Figure 116 Sample List Sorted by Timestamp, Ascending Order



- To sort a column in descending order rather than ascending, first click the column heading once to select it as the sort column, and then click it again. The

triangle reverses, indicating that the column is sorted in descending order (see Figure 117).

Figure 117 Sample List Sorted by Timestamp, Descending Order



Note: *For additional information on message IDs for outbound batch messages when message type is ENV (Enveloped Message ID), refer to* **"Viewing Access Via Enveloped Message ID" on page 204**.

5 If the list does not match your requirements, click **New Search** to return to the **Search Criteria** page.

6 If you want to print the list, click **Print**.

7 When done, click **Cancel** to close the list window.

Table 38 Review Message Access, Search Criteria: Fields

Name	Description
User ID	Select a user ID from the drop-down list, or leave as **No preference**.
Begin Date/End Date	Optionally, set begin and/or end dates, as follows: ▪ If desired, type a begin date in the format MM/DD/YYYY; for example, 01/01/2001. ▪ If desired, type an end date in the format MM/DD/YYYY; for example, 12/31/2001. **Note**: If you set only a begin date, e*Xchange includes everything from that date onwards. If you set only an end date, e*Xchange includes everything up to and including that date.
Message ID	If desired, set a specific message ID.

To review message access (individual message view)

1 In Message Tracking, define message criteria so that the message is displayed on the **Message Details** page.

For more information, refer to **"To enter general search criteria" on page 191** and **"To choose the messages to view" on page 192**.

2 Select the link in one of the available columns to view the message; for example, to view the original message, click the link in the **View Original Message** column.

The **View Original Message** page appears (or another page, according to your selection).

3 Click the **Review Access** button.

The **Review Message Access** page appears (see Figure 114).

4 Set search criteria as needed.

For more information, refer to **Table 38 on page 203**.

5 Click **Search**.

The results are displayed (see Figure 115).

6 If desired, sort the columns as needed:

- To sort by a specific column, click the column heading. For example, to sort by timestamp, click the **Timestamp** column title. A triangle appears in the column heading, indicating that it is the sort column. By default, columns are sorted in ascending order (lowest values at the top).
- To sort a column in descending order rather than ascending, first click the column heading once to select it as the sort column, and then click it again. The triangle reverses, indicating that the column is sorted in descending order.
- To print, click **Print**.
- To modify the results list, click **New Search** to return to the **View Message** page and change the search criteria.

7 If the list does not match your requirements, click **New Search** to return to the **Search Criteria** page.

8 If you want to print the list, click **Print**.

9 When done, click **Cancel** to close the list window.

Viewing Access Via Enveloped Message ID

For outbound batch messages, e*Xchange Partner Manager assigns a new Enveloped Message ID each time the message is resent. For example, if a message is sent once and then resent twice, there are three separate Enveloped Message IDs for the same message.

However, whether a user views the original message or the enveloped message, access is always logged against the Original Message ID. This ensures that the access information for a specific message is stored in one place.

Because of this, if you try to review access using the Enveloped Message ID, e*Xchange provides audit information only for the Original Message ID. If you click the **Review Access** button, e*Xchange uses the corresponding Original Message ID to prepare the access list. This ensures that you see all instances of access to the message.

The Review Message Access **Results** page displays the Original Message ID in the **Message ID** column; however, the value in the **Message Type** column is **ENV** to indicate that the user viewed the enveloped message rather than the original message.

Chapter 10

e*Xchange Repository Manager

The e*Xchange Repository Manager is a Java-based graphical user interface, provided for import/export and archive/de-archive activities.

Because it is Java-based it has the following advantages:

- Can be run on platforms other than Microsoft Windows; for example, UNIX
- Supports DB2 UDB databases (the comparable functions in e*Xchange Client for Windows do not support DB2 UDB)

The Repository Manager is provided as a separate option during e*Xchange Partner Manager installation.

From this user interface you can complete the following activities:

- Archiving of company profiles
- Dearchiving of previously archived company profiles
- Exporting of company information
- Importing of previously exported company information

10.1 Logging In to the e*Xchange Repository Manager

The Repository Manager is a separate user interface. To log in with e*Xchange Repository Manager installed on Microsoft Windows, follow the steps below.

Note: *When you start the Repository Manager, a DOS window opens up as well as the GUI. The Repository Manager requires this DOS window to run in the background; do not close it. When you close the Repository Manager, the DOS window closes automatically.*

To log In to the Repository Manager

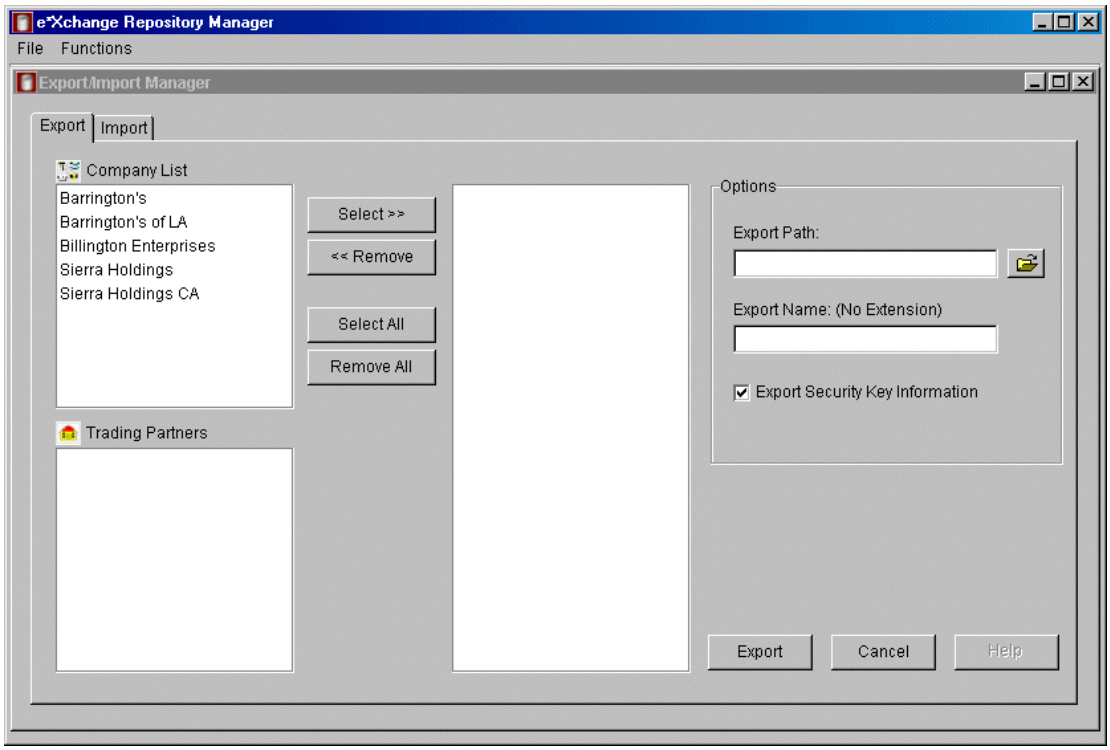
1. Start the Repository Manager in one of the following ways:
   - From the Start menu, select **Programs**, **e*Xchange Partner Manager**, **e*Xchange Repository Manager**.
   - Double-click the e*Xchange Repository Manager icon on your desktop.
2. Enter your database login ID.

3 Enter your database password.

4 Click the **Login** button.

The Repository Manager appears (see Figure 118).

Figure 118 e*Xchange Repository Manager



10.2 Export/Import from the e*Xchange Repository Manager

You can export data from the Repository Manager to an external file, and you can import information from the external file into another database.

The Export/Import feature allows importing and exporting between any supported database types; for example, you can take the export file created by exporting from a SQL Server database and import it into an Oracle database, or take a DB2 UDB export file and import it into a Sybase database.

10.2.1 Running the Export Feature

To export information

1. On the **Functions** menu, click **Export/Import**.

   The **Export/Import Manager** appears.
2. Click the **Export** tab.
3. Set the values as needed.

   For more information, refer to Table 39.
4. Click the **Export** button to start the export operation.

   When done, the **View Log** button appears (see Figure 119).
5. If desired, click the **View Log** button to view the log.

Figure 119 Export/Import Manager, Export Tab

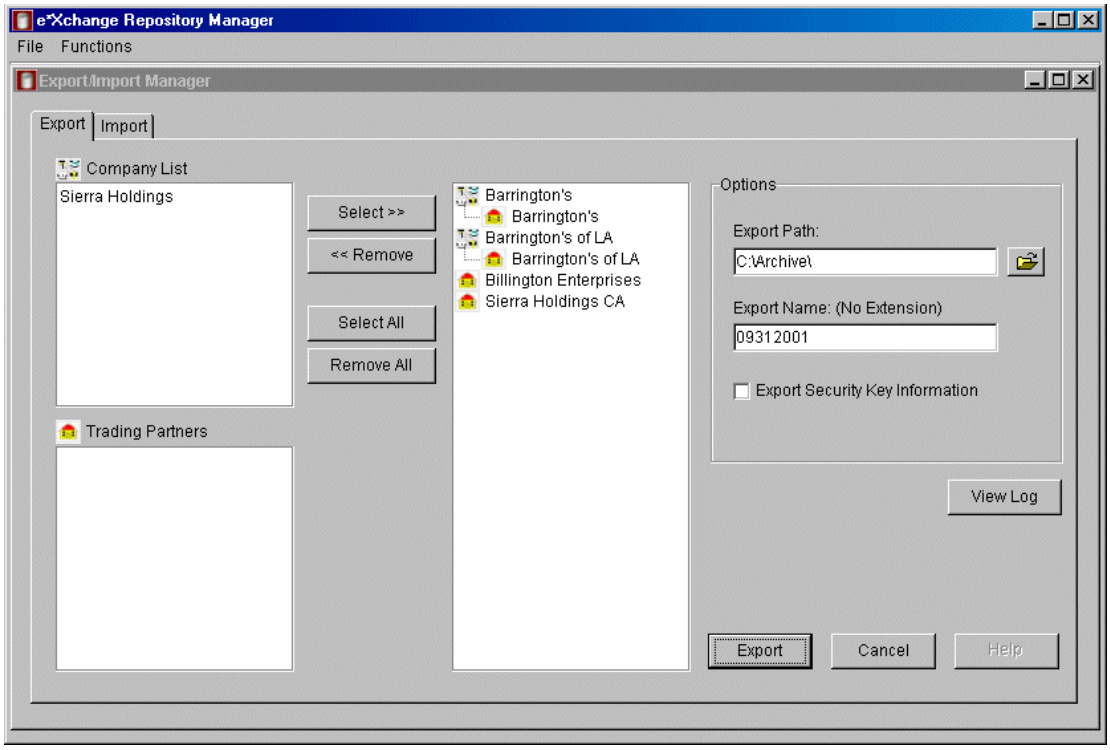


Table 39 Export/Import Manager, Export Tab

Name	Description
Company List	All companies are shown on the list.
Trading Partners list	When you click a company, all trading partners set up for that company are shown on the list.

Table 39 Export/Import Manager, Export Tab (Continued)

Name	Description
Selection Buttons	Use the selection buttons to create a list of companies/trading partners whose messages you want to export, as follows: ▪ To select a company and all its trading partners, highlight the company in the left pane, and then click **Select**. ▪ To select a trading partner and its parent company, highlight the trading partner on the **Trading Partners** list and then click **Select**. To select multiple trading partners, hold down the **Shift** or **Ctrl** keys when selecting. ▪ To remove a company and all its trading partners from the export list, highlight the company in the right pane and then click **Remove**. ▪ To remove a trading partner from the export list, highlight the trading partner in the right pane and then click **Remove**. To remove multiple trading partners, hold down the **Shift** or **Ctrl** keys when selecting. ▪ To select all companies and trading partners for the export list, click **Select All**. ▪ To remove all companies and trading partners from the export list, click **Remove All**.
Export Path	Specify the path for the export file. Click on the icon to the right to access the **Browse for Folder** dialog box, and then choose a folder. **Note**: browse to the parent folder, *single-click* the folder in which you want to store the file, and then click **OK**.
Export Name (No extension)	Type the name of the export file, without extension. The Repository Manager exports the information to an ASCII file with the extension **.exp**.
Export Security Key Information	Clear this check box if you do *not* want security key information to be included in the export file. By default, security key information is exported.
Export	Click this button to start the export operation. When done, the Repository Manager displays an information message.
View Log	When the operation is complete, the **View Log** button appears. Click this button to view the log file. The log file is located in the folder specified in the **Export Path** and is always named **epmExport.log**. If for any reason you want to preserve a specific log file, back it up or rename it so that the next export process does not overwrite the file.
Cancel	Click this button to cancel the settings and close the dialog box.

10.2.2 Before Importing

There are some important points to note before you start the import process:

- When you import the information, the associations between messages and responses might not be preserved. When you have imported, check the Return Envelope settings in the Web interface (Message Profile level) to ensure the correct return envelopes are selected.
- Make sure the import file was exported from an e*Xchange database that was up to date. Importing from a file that was exported from an earlier version database

structure might cause problems. Run all database upgrade scripts on the database prior to exporting the file or the import might not be successful.

10.2.3 Running the Import Feature

To import information

1. On the **Functions** menu, click **Export/Import**.

   The **Export/Import Manager** appears.

2. Click the **Import** tab (see Figure 120).
3. Set the values as needed.

   For more information, refer to Table 40.

4. Click the **Import** button to start the import operation.

   When done, the Repository Manager displays an information message.

5. Click **OK**.

Figure 120 Export/Import Manager, Import Tab

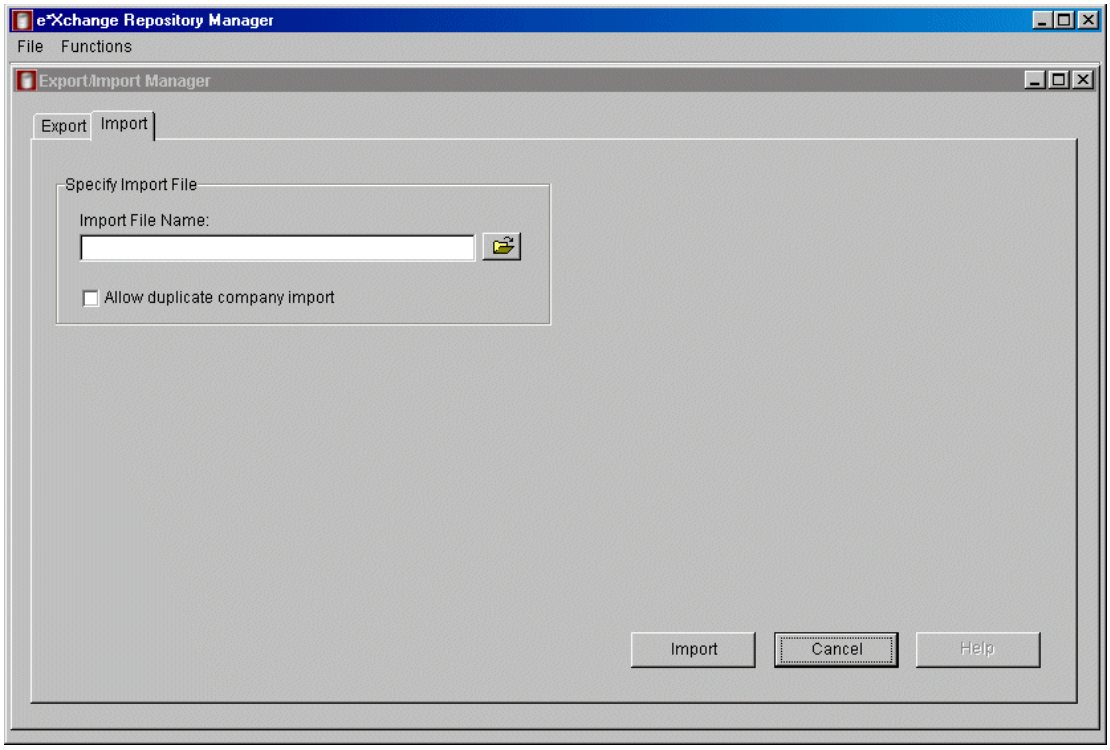


Table 40 Export/Import Manager, Import Tab

Name	Description
Import File Name	Specify the path for the file to be imported. Click on the icon to the right to access the **Select Import File** dialog box, navigate to the folder if needed, and then choose the file.
Allow duplicate company import	This check box controls whether duplicate information will be imported. If the import file contains components already in the database, and you want to import the duplicate information, check this check box. The Repository Manager appends a unique ID to the company name for any duplicates that are imported. Leave this check box clear to skip the duplicates when importing.
Import button	Click this button to start the import operation. When done, the Repository Manager displays an information message.
View Log	When the operation is complete, the **View Log** button appears. Click this button to view the log file. The log file is located in the folder where the import file is located and is always named **epmImport.log**. If for any reason you want to preserve a specific log file, back it up or rename it so that the next import process does not overwrite the file.
Cancel	Click this button to cancel the settings and close the dialog box.

10.3 Archive/De-Archive from the e*Xchange Repository Manager

Using the Repository Manager, you can archive data from the e*Xchange Partner Manager database to an external file. You can also use the external file to de-archive the information into a new, empty database.

Only companies for which there are no active messages within the selected date range are available for archiving. If there are any active messages (either in the queue to be sent, or expecting a response) within the date range, the company does not appear on the selection list.

The Archive/De-Archive feature allows archiving and de-archiving between any supported database types; for example, you can take the file created by archiving from a SQL Server database and de-archive it to an Oracle database, or take the file created by archiving from a DB2 UDB database and de-archive it to a Sybase database.

De-archived data is for reference only since the sequence numbers would not match the sequence numbers in a new database and only those Message Tracking attributes that are used by the de-archived file are available for use.

When you de-archive, e*Xchange always deletes any information already existing in the database. You cannot combine multiple archive files.

The archive file is in compressed format.

Caution: *This operation deletes information from your database. As with any major operation affecting your business information, you should back up your data before starting the archiving process. Make a full backup of your e*Xchange database tables using the standard backup procedure for your database.*

10.3.1 Changes to Settings During Archiving

It is important to realize that during the archive process certain logging features are turned off, and constraints dropped, in the interests of getting the archive completed as quickly as possible.

Changes to Logging and Constraints

The changes to the e*Xchange operation during archiving vary according to the type of database you are using. Refer to Table 41 for specific information on activities and tables that are affected during the archiving process.

Table 41 Changes to e*Xchange Operation During Archiving

Database	Changes
Oracle	▪ Logging is disabled for the following tables: ♦ es_mtrk_inb ♦ es_mtrk_outb ♦ es_msg_storage ♦ es_msg_ascii ♦ es_msg_security ♦ es_msg_binary ♦ es_mtrk_error ♦ es_mtrk_ext_data ▪ The following constraints are disabled: ♦ es_mtrk_inb_fk1 ♦ es_mtrk_inb_fk2 ♦ es_mtrk_inb_fk3 ♦ es_mtrk_outb_fk1 ♦ es_mtrk_outb_fk2 ♦ es_mtrk_outb_fk3 ♦ es_mtrk_outb_fk4
SQL Server	▪ The following constraints are disabled: ♦ es_mtrk_inb_fk1 ♦ es_mtrk_inb_fk2 ♦ es_mtrk_inb_fk3 ♦ es_mtrk_outb_fk1 ♦ es_mtrk_outb_fk2 ♦ es_mtrk_outb_fk3 ♦ es_mtrk_outb_fk4

Table 41 Changes to e*Xchange Operation During Archiving

Database	Changes
Sybase	▪ The following constraints are dropped during the archive and recreated later: ♦ es_mtrk_inb_fk1 ♦ es_mtrk_inb_fk2 ♦ es_mtrk_inb_fk3 ♦ es_mtrk_outb_fk1 ♦ es_mtrk_outb_fk2 ♦ es_mtrk_outb_fk3 ♦ es_mtrk_outb_fk4
DB2 UDB	▪ The following constraints are dropped during the archive and recreated later: ♦ es_mtrk_inb_fk1 ♦ es_mtrk_inb_fk2 ♦ es_mtrk_inb_fk3 ♦ es_mtrk_outb_fk1 ♦ es_mtrk_outb_fk2 ♦ es_mtrk_outb_fk3 ♦ es_mtrk_outb_fk4

Restoring the Settings

Once the archiving procedure is complete, logging is re-enabled and the constraints are enabled.

However, if there is an error during archiving—for example, a power outage—you must make sure that your settings are restored so that you have the correct logging and constraints. To do this, follow the instructions below for each type of database.

To restore Oracle logging and constraints

1. At the Oracle prompt, re-enable logging by running the following command (substituting the specific table names):

   ALTER TABLE <table name> LOGGING

2. At the Oracle prompt, re-enable constraints by running the following command (substituting the specific table names and also constraint names):

   ALTER TABLE <table name> ENABLE CONSTRAINT <constraint name>

To restore SQL Server constraints

- At the SQL Server prompt, re-enable constraints by running the following command (substituting the specific table names and also constraint names):

  ALTER TABLE <table name> CHECK CONSTRAINT <constraint name>

To restore Sybase or DB2 UDB constraints

- At the Sybase or DB2 UDB prompt, re-enable constraints by running the following commands:

  ALTER TABLE es_mtrk_inb ADD CONSTRAINT es_mtrk_inb_fk1 foreign key (orig_msg_id) references es_msg_storage (msg_storage_id)

ALTER TABLE es_mtrk_inb ADD CONSTRAINT es_mtrk_inb_fk2 foreign key (ack_msg_id) references es_msg_storage (msg_storage_id)

ALTER TABLE es_mtrk_inb ADD CONSTRAINT es_mtrk_inb_fk3 foreign key (raw_msg_id) references es_msg_storage (msg_storage_id)

ALTER TABLE es_mtrk_outb ADD CONSTRAINT es_mtrk_outb_fk1 foreign key (orig_msg_id) references es_msg_storage (msg_storage_id)

ALTER TABLE es_mtrk_outb ADD CONSTRAINT es_mtrk_outb_fk2 foreign key (env_msg_id) references es_msg_storage (msg_storage_id)

ALTER TABLE es_mtrk_outb ADD CONSTRAINT es_mtrk_outb_fk3 foreign key (ack_msg_id) references es_msg_storage (msg_storage_id)

ALTER TABLE es_mtrk_outb ADD CONSTRAINT es_mtrk_outb_fk4 foreign key (raw_msg_id) references es_msg_storage (msg_storage_id)

10.3.2 Running the Archive Feature

To archive information

1. On the **Functions** menu, click **Archive/De-archive**.

   The **Archive/De-Archive Manager** appears.

2. Click the **Archive** tab (see Figure 121).

3. Set the values as needed. For more information, refer to Table 42.

   Since companies with active messages cannot be archived, changing the date selection might increase or decrease the number of companies available for archiving.

4. Click the **Archive** button to start the archiving operation.

   When done, the Repository Manager displays an information message.

Note: *If you have selected **Delete Message Records**, the Repository Manager creates the archive file before deleting the message records. However, it does not close the archive file until the deletion operation is also complete. Wait for the entire process to be complete before attempting to do anything with the archive file. In addition, Repository Manager used a background DOS window; you must leave this window open.When you close Repository Manager, the DOS window closes automatically.*

5. Click **OK**.

Figure 121 Archive/De-Archive Manager, Archive Tab

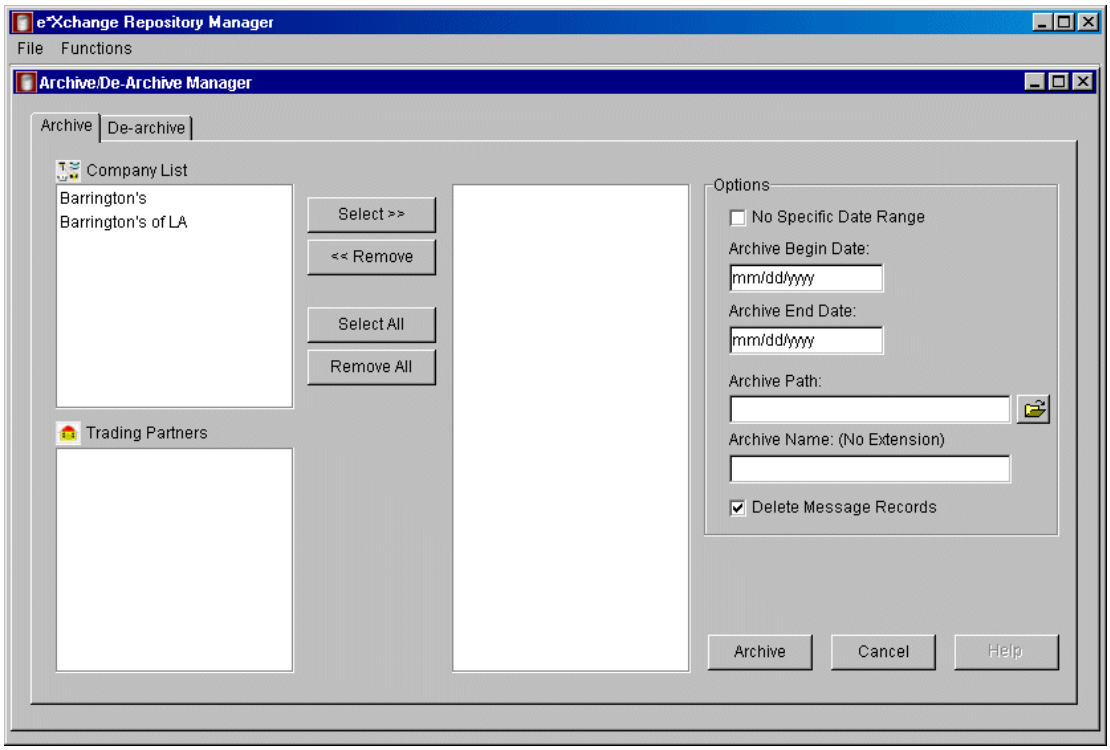


Table 42 Archive/De-Archive Manager, Archive Tab

Name	Description
Company List	All companies for which there are message profiles set up are shown on the list.
Trading Partners list	All trading partners for which there are message profiles set up are shown on the list.

Table 42 Archive/De-Archive Manager, Archive Tab (Continued)

Name	Description
Selection Buttons	Use the selection buttons to create a list of companies/trading partners for message archiving, as follows: ▪ To select a company and all its trading partners, highlight the company in the left pane, and then click **Select**. ▪ To select a trading partner and its parent company, highlight the trading partner on the **Trading Partners** list and then click **Select**. You can also select multiple trading partners by holding down the **Shift** or **Ctrl** keys when selecting. ▪ To remove a company and all its trading partners from the archiving list, highlight the company in the right pane and then click **Remove**. ▪ To remove a trading partner from the archiving list, highlight the trading partner in the right pane and then click **Remove**. You can also remove multiple trading partners by holding down the **Shift** or **Ctrl** keys when selecting. ▪ To select all companies and trading partners from the archiving list, click **Select All**. ▪ To remove all companies and trading partners from the archiving list, click **Remove All**.
No Specific Date Range	To archive all companies and trading partners that do not have active messages, check this check box. **Note**: Companies or trading partners that have active messages (for example, expecting a response) within the selected date range cannot be archived.
Archive Begin Date/ Archive End Date	To specify a date range for archiving, set beginning and ending dates. These values default to a date range that includes all the information in the database.
Archive Path	Specify the path for the archive file. Click on the icon to the right to access the **Browse for Folder** dialog box, and then choose a folder. Do not choose a file name. **Note**: browse to the parent folder, *single-click* the folder in which you want to store the file, and then click **OK**.
Archive Name (No extension)	Type the name of the archive file, without extension. The Repository Manager makes a compressed file with the extension **.zip**. **Note**: After archiving, do not change the name of the archive file. If you do, the de-archive process will not work.
Delete Message Records	If you want the archived messages to be deleted from the database, leave this as checked (the default). If you want to leave the messages in the database, clear this check box.
Archive	Click this button to start the archiving operation. When done, the Repository Manager displays an information message.

Table 42 Archive/De-Archive Manager, Archive Tab (Continued)

Name	Description
View Log	When the operation is complete, the **View Log** button appears. Click this button to view the log file. The log file is located in the folder specified in the **Archive Path** and is always named **epmARC.log**. If for any reason you want to preserve a specific log file, back it up or rename it so that the next archive process does not overwrite the file.

10.3.3 Running the De-Archive Feature

When you de-archive, e*Xchange always deletes any information already existing in the database. You cannot combine multiple archive files.

De-archived data is for reference only since the sequence numbers would not match the sequence numbers in a new database and only those Message Tracking attributes that are used by the de-archived file are available for use.

The de-archived database is useful for auditing information collected over a long period of time, perhaps years—for example, to meet HIPAA audit requirements.

To de-archive information

1. On the **Functions** menu, click **Archive/De-Archive**.

   The **Archive/De-Archive Manager** appears.
2. Click the **De-Archive** tab (see Figure 122).
3. Set the values as needed.

   For more information, refer to Table 43.
4. Click the **De-Archive** button to start the de-archiving operation.

   When done, the Repository Manager displays an information message.
5. Click **OK**.

Figure 122 Archive/De-Archive Manager, De-Archive Tab

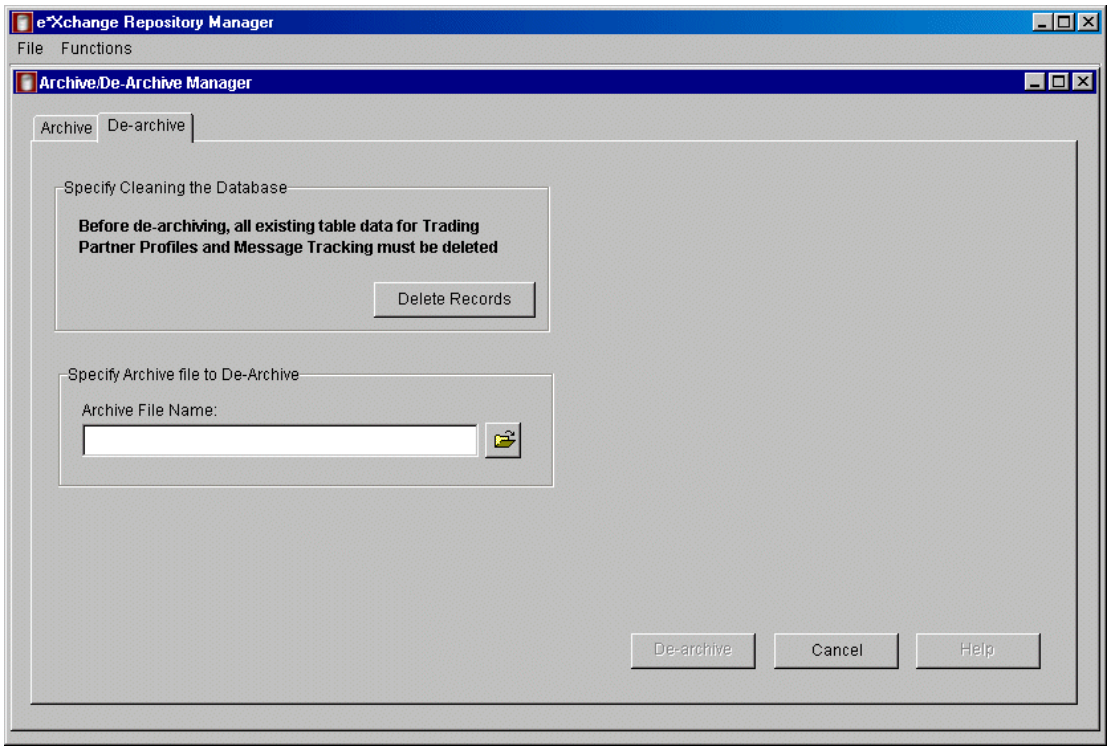


Table 43 Archive/De-Archive Manager, De-Archive Tab

Name	Description
Delete Records	You must click **Delete Records** before de-archiving the archive file. This ensures that the target database is empty.
Archive File Name	Specify the path for the archive file. Click on the icon to the right to access the **Select Archive File** dialog box, navigate to the folder if needed, and then choose the file. **Note**: The archive file name must be the name selected when you originally archived the information. If the archive file has been renamed, the de-archive process will not work.
De-Archive button	Click this button to start the de-archiving operation. When done, the Repository Manager displays an information message.
View Log	When the operation is complete, the **View Log** button appears. Click this button to view the log file. The log file is located in the folder where the archive file is located and is always named **epmDearc.log**. If for any reason you want to preserve a specific log file, back it up or rename it so that the next de-archive process does not overwrite the file.

Chapter 11

Getting Started With e*Xchange Client for Windows

e*Xchange Client for Windows allows you to set up and store information about each of your trading partners so that you can exchange (send and receive) messages.

e*Xchange Client for Windows also includes features to assist you with managing and troubleshooting the information exchange process. For example, you can use the Message Tracking feature to view the actual text of messages that generated errors.

This chapter provides basic information to help you become familiar with the e*Xchange Client for Windows portion of e*Xchange. It includes the following:

- Instructions for logging in.
- Information on the components of the e*Xchange Client for Windows user interface, including menus, toolbars, icons, properties dialog boxes, and the status bar.
- Instructions for setting user preferences.

Note: *In the future, the Web interface will entirely replace the Windows-based GUI. However, since some minor functions have not yet been migrated to the Web interface at this time, is still included in the e*Xchange product.*

11.1 Logging In to e*Xchange Client for Windows

To run e*Xchange Client for Windows, you must specify your login ID, password, and the database instance you want to use.

To log in to e*Xchange Client for Windows

1. On the Windows **Programs** menu, point to **eXchange Partner Manager**.

   The e*Xchange Client for Windows login dialog box appears (see Figure 123).

2. Specify the server.

   Select the name of the data source that you want to use from the drop-down list.

3. Type your login ID and password. For more information, see Table 44.
4. Click **Log In**.

The Partner Manager window appears (see **Figure 124 on page 221**).

Note: *When you first log in, you will probably be using a default password. It is a good idea to select a unique password as soon as possible. To change the password, on the* ***File*** *menu, click* ***Change Password****.*

Figure 123 e*Xchange Client for Windows Login

Table 44 e*Xchange Client for Windows Login Fields

Field	Description
Server	The data source name that was set up during the ODBC configuration. Select from the drop-down list. Next time you log in, it defaults to your last selection.
Login ID	Your user ID, which is case-sensitive. The login ID must match the user ID required for you to access the server on which the e*Xchange Client for Windows data files are stored. If you have logged in previously, this field defaults to the user ID last used to log in.
Password	Your password (5–20 characters), which must match the password required for you to access the server on which the e*Xchange Client for Windows data files are stored. **Note**: If your database is case-sensitive, make sure you use the correct capitalization in the password. If you are using Sybase, the password must have at least six characters.
Log In	When you have specified login ID, password and server, click **Log In** to log in to e*Xchange Client for Windows.
Cancel	This button cancels the login operation.

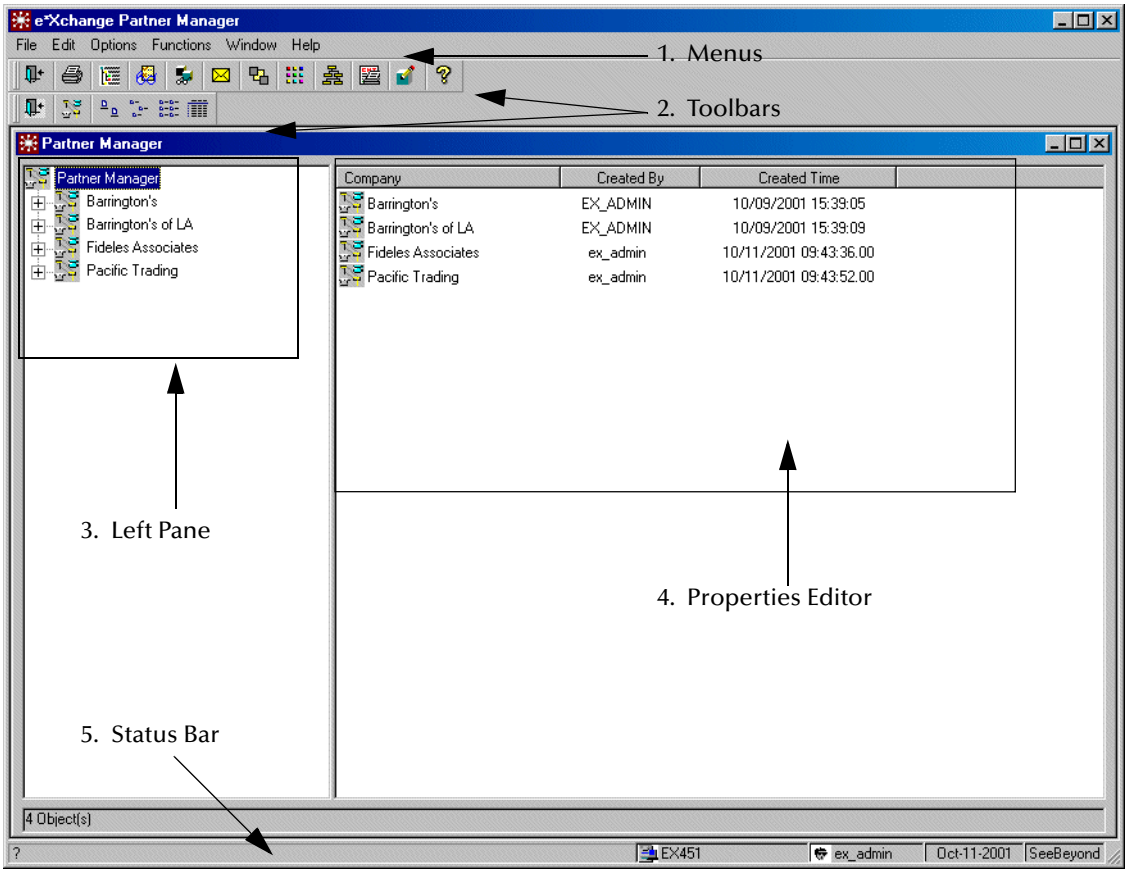
11.2 Using e*Xchange Client for Windows

This section provides information on the e*Xchange Client for Windows workspace, the menus, and the **Properties** dialog box.

11.2.1 e*Xchange Client for Windows Workspace

e*Xchange Client for Windows, as shown in Figure 124, allows you to create and configure profiles for each of your trading partners.

Figure 124 e*Xchange Client for Windows Workspace



The e*Xchange Client for Windows workspace consists of several components:

1 Menus

A list of options that provide access to functions for completing specific tasks.

2 Toolbars

A set of graphic icons (tools) that provide quick access to basic functions.

3 Left Pane

The trading partner components, arranged in a tree-like structure, similar to the left pane in Windows Explorer.

4 Properties Editor (right pane)

A list of sub-components associated with the component selected in the left pane.

5 Status Bar

The bar along the bottom of the e*Xchange Client for Windows workspace that displays system information. From left to right, it displays: system message, server, login ID, date, and company name.

11.2.2 e*Xchange Client for Windows Menus

e*Xchange Client for Windows provides the following drop-down menus:

- File
- Edit
- Options
- Actions (appears when a **Properties** dialog box is displayed)
- Functions
- Window
- Help

File Menu

Table 45 e*Xchange Client for Windows File Menu

Menu Command	Description
Close	Closes the active window or dialog box. Only available if a window or dialog box is currently open.
Connection	Displays the login dialog box so you can log in using a different database instance. Only available if all windows are closed.
Print Active Screen	Prints an image of the active window or dialog box to the default printer. Additional information is included on the printout, such as the application name and server name.
Print Setup	Accesses the **Printer Setup** dialog box so you can change the default printer and the print properties.
Change Password	Accesses the **Change Password** dialog box so that you can change your password. Type the new password (5–20 characters) once and then type it again to confirm. **Note**: If you are using a Sybase database, the password must be at least six characters long.
Exit	Closes e*Xchange Client for Windows.

Edit Menu

Table 46 e*Xchange Client for Windows Edit Menu

Menu Command	Description
Undo	Undoes the last text editing action performed in a dialog box. **Note**: Some actions you perform cannot be undone. If the Undo command is unavailable, you cannot cancel your last action.
Copy	Copies a text string selected in a dialog box to the Windows Clipboard.
Cut	Cuts a selected text string from a dialog box.
Paste	Pastes a text string from the Windows Clipboard to a box in a dialog box, at the cursor location.

Options Menu

Table 47 e*Xchange Client for Windows Options Menu

Menu Command	Description	
Company	Displays a sub-menu, from which you can choose one of the following options. The command is only available if you have highlighted a company folder in the left pane of e*Xchange Client for Windows.	
	New Company	Accesses the **New Company** dialog box so that you can add a new company to the database.
	Paste	If you have previously copied trading partner information to the clipboard, this option allows you to paste the information, creating a new sub-component of the company.
	Delete	Allows you to delete a company and all the levels below it. Before deleting, e*Xchange displays a **Delete Statistics** dialog box so you can view a summary of the components being deleted, and cancel if necessary.
	Reports	Accesses the **Reports** dialog box so that you can generate any reports available for the component level.
	New Trading Partner	Allows you to create a new trading partner for the highlighted company.
	Properties	Allows you to view or modify the properties of the highlighted company.

Table 47 e*Xchange Client for Windows Options Menu (Continued)

Menu Command	Description	
Trading Partner	Displays a sub-menu, from which you can choose one of the following options. The command is only available if you have highlighted a trading partner folder in the left or right pane of e*Xchange Client for Windows.	
	New Trading Partner	Allows you to create a new trading partner.
	Copy Trading Partner	Copies the highlighted trading partner information to a new trading partner under the same company.
	Copy Cascade to Another Company	Allows you to copy the trading partner information to the clipboard. You can then paste it to a different company.
	Paste	If you have previously copied outer envelope information to the clipboard, this option allows you to paste the information, creating a new sub-component of the trading partner.
	Delete	Allows you to delete a trading partner and all the levels below it. Before deleting, e*Xchange displays a **Delete Statistics** dialog box so you can view a summary of the components being deleted, and cancel if necessary.
	Reports	Accesses the **Reports** dialog box so that you can generate any reports available for the component level.
	New Outer Envelope	Allows you to create a new outer envelope for the highlighted trading partner.
	Properties	Accesses the **Properties** dialog box for the selected trading partner, so that you can view or modify the trading partner properties.

Table 47 e*Xchange Client for Windows Options Menu (Continued)

Menu Command	Description	
Outer Envelope	Displays a sub-menu, from which you can choose one of the following options. The command is only available if you have highlighted an outer envelope in the left or right pane.	
	New Outer Envelope	Allows you to create a new outer envelope.
	Copy Outer Envelope	Copies the highlighted outer envelope to a new outer envelope under the same trading partner.
	Copy Cascade to Another Trading Partner	Allows you to copy the outer envelope information to the clipboard. You can then paste it to a different trading partner.
	Paste	If you have previously copied outer envelope information to the clipboard, this option allows you to paste the information, creating a new sub-component of the trading partner.
	Delete	Allows you to delete an outer envelope and all the inner envelopes below it. Before deleting, e*Xchange displays a **Delete Statistics** dialog box so you can view a summary of the components being deleted, and cancel if necessary.
	Reports	Accesses the **Reports** dialog box so that you can generate any reports available for the component level.
	New Inner Envelope	Allows you to create a new inner envelope for the highlighted outer envelope.
	Properties	Allows you to view or modify the properties of the highlighted outer envelope.
Inner Envelope	Displays a sub-menu, from which you can choose one of the following options. The command is only available if you have highlighted an inner envelope in the Properties Editor (right pane).	
	New Inner Envelope	Allows you to create a new inner envelope.
	Copy Inner Envelope	Copies the highlighted inner envelope to a new inner envelope under the same outer envelope.
	Copy Cascade to Another Outer Envelope	Allows you to copy the inner envelope information to the clipboard. You can then paste it to a different outer envelope.
	Delete	Allows you to delete an inner envelope. Before deleting, e*Xchange displays a **Delete Statistics** dialog box so you can view a summary of the components being deleted, and cancel if necessary.
	Reports	Accesses the **Reports** dialog box so that you can generate any reports available for the component level.
	Properties	Allows you to view or modify the properties of the highlighted inner envelope.

Actions Menu

*Note: The Actions menu is only available when a **Properties** dialog box is displayed.*

Table 48 e*Xchange Client for Windows Actions Menu

Menu Command	Description
Apply	Saves changes that you have made to the **Properties** dialog box.
Delete	Allows you to delete certain elements from the properties of a company, trading partner, outer envelope, or inner envelope; for example, you can delete a contact or an action item.
New	When the **Contacts** or **Comments** tab is selected in the **Properties** dialog box, this option deletes any existing information and leaves all boxes blank for you to enter new information.
Cancel	Closes the **Properties** dialog box without saving any changes.

Functions Menu

Table 49 e*Xchange Client for Windows Functions Menu

Menu Command	Description
Partner Manager	Displays the Partner Manager workspace.
My Action Items	Displays the **My Action Items** dialog box, showing any items currently logged as action items.
Message Tracking	Displays the **Message Tracking** dialog box, showing any current messages.
System Administration	Allows you to access the following system administration functions: ▪ Partner Manager Envelope Setup ▪ Inner Envelope Definition Setup ▪ Message Tracking Attributes Setup ▪ Code Tables ▪ System Defaults ▪ Error Table ▪ Attribute Value Maintenance ▪ Report Maintenance
User Preferences	Allows you to set individual user preferences that will override the system defaults.
Validation Collaboration Setup	Allows you to set up validation Collaborations created outside e*Xchange Client for Windows so that they will be available on a selection list in **Inner Envelope Definition Setup**.
Reports	Allows you to select any of the reports available in e*Xchange Client for Windows for viewing and printing.
Archive/De-Archive	Allows you to archive messages and to de-archive messages that have been archived.
Import/Export	Allows you to export trading partner information to a file and to import trading partner information that has been exported.

Table 49 e*Xchange Client for Windows Functions Menu (Continued)

Menu Command	Description
View	Provides access to the various views available: Large Icon—Displays items on the right pane as large icons. Small Icon—Displays items on the right pane as small icons. List—Displays items on the right pane as list item (includes icon and title for each item). Detail—Displays items on the right pane in detail (includes icon, title, status, ID of creator, and creation date for each item).

Window Menu

Table 50 e*Xchange Client for Windows Window Menu

Menu Command	Description
Vertical	Allows you to resize and arrange multiple windows without overlap so that each window is longer than it is wide.
Horizontal	Allows you to resize and arrange multiple windows without overlap so that each window is wider than it is long.
Layer	Allows you to layer multiple windows one on top of another so that only the top window is visible.
Cascade	Allows you to layer multiple windows in a cascading arrangement so that each window's title bar remains visible.
Arrange Icons	This option is not applicable to e*Xchange Client for Windows.
Toolbars	Allows you to adjust the placement and appearance of the e*Xchange Client for Windows toolbars.

Help Menu

Table 51 e*Xchange Client for Windows Help Menu

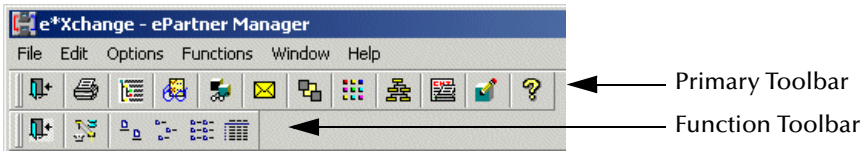
Menu Command	Description
Help Contents	Displays the online Help.
Search for Help On	Displays online Help for the current window or dialog box.
About e*Xchange Partner Manager	Displays copyright information about e*Xchange Client for Windows, and the version number. Also provides access to information about your system, such as CPU type and screen resolution.

11.2.3 e*Xchange Client for Windows Toolbars

e*Xchange Client for Windows includes two toolbars, as shown in Figure 125, that provide access to common functions:

- Primary toolbar
- Function toolbar

Figure 125 e*Xchange Client for Windows Toolbars



Primary Toolbar

The Primary toolbar appears below the e*Xchange Client for Windows Menu bar and contains the tools listed in Table 52.

Table 52 e*Xchange Client for Windows Primary Toolbar

Tool	Name	Description
	Exit	Exits e*Xchange Client for Windows.
	Print Active Screen	Prints an image of the active window or dialog box.
	Partner Manager	Displays the e*Xchange Client for Windows workspace.
	My Action Items	Displays the **My Action Items** dialog box.
	Message Tracking	Displays the **Message Tracking** dialog box.
	Partner Manager Envelope Setup	Displays the **Partner Manager Envelope Setup** dialog box (members of eX Administrator user group only).
	Inner Envelope Definition Setup	Displays the **Inner Envelope Definition Setup** dialog box (members of eX Administrator user group only).
	System Defaults	Displays the System Defaults dialog box (members of eX Administrator user group only).
	Validation Collaboration Setup	Displays the **Validation Collaboration Setup** dialog box (members of eX Administrator user group only).
	Reports	Allows you to select any of the reports available in e*Xchange Client for Windows for viewing and printing.
	Attribute Value Maintenance	Displays the **Attribute Value Maintenance** dialog box (members of eX Administrator user group only).
	Help	Displays the online Help.

Function Toolbar

The Function toolbar appears below the primary toolbar and contains, at any point, a selection of the following tools. The availability of these tools on this toolbar depends on which folder you have highlighted on the left pane or which dialog box is running.

Table 53 e*Xchange Client for Windows Function Toolbar

Tool	Name	Description
	Close	Closes the window or dialog box that is currently open.
	New Company	Accesses the **New Company** dialog box so that you can add a new company to the database. Available when the Partner Manager icon or a company is highlighted.
	New Trading Partner	Allows you to create a new trading partner for the highlighted company.
	New Outer Envelope	Allows you to create a new outer envelope for the highlighted trading partner.
	New Inner Envelope	Allows you to create a new inner envelope for the highlighted outer envelope.
	▪ Copy Trading Partner ▪ Copy Outer Envelope ▪ Copy Inner Envelope	▪ Allows you to create a new trading partner based on the one that is highlighted. ▪ Allows you to create a new outer envelope based on the one that is highlighted. ▪ Allows you to create a new inner envelope based on the one that is highlighted.
	▪ Copy Cascade to Another Company ▪ Copy Cascade to Another Outer Envelope ▪ Copy Cascade to Another Inner Envelope	▪ Allows you to copy the trading partner information to the clipboard. You can then paste it to a different company. ▪ Allows you to copy the outer envelope information to the clipboard. You can then paste it to a different trading partner. ▪ Allows you to copy the inner envelope information to the clipboard. You can then paste it to a different outer envelope.
	Paste	If you have previously copied a trading partner, outer envelope, or inner envelope to the clipboard, this option allows you to paste it as a sub-component of a different component. For example, you can copy a trading partner set up under one company, and paste it, along with its outer and inner envelopes, to another company.
	Delete	▪ Allows you to delete certain elements from the properties of a company, trading partner, outer envelope, or inner envelope; for example, you can delete a contact or an action item. ▪ Allows you to delete an entire component (company, trading partner, outer envelope, or inner envelope) and all the levels below it.

Table 53 e*Xchange Client for Windows Function Toolbar (Continued)

Tool	Name	Description
	Reports	Allows you to generate reports for the specific component level.
	Properties	Allows you to view or modify the properties of the highlighted company.
	Large Icon	Displays items on the right pane as large icons.
	Small Icon	Displays items on the right pane as small icons.
	List	Displays items on the right pane as list items (includes icon and title for each item).
	Detail	Displays items on the right pane in detail (includes icon, title, status, ID of creator, and creation date for each item).
	Apply	Saves changes you have made in a **Properties** dialog box.
	New	When the **Contacts** or **Comments** tab is selected in the **Properties** dialog box, this option starts a new Contact, Note, or Action Item record with all boxes blank for you to enter new information.
	Cancel	Closes the **Properties** dialog box without saving any changes.
	Clear (Message Tracking only)	Clears selections already made in the current tab of the Message Tracking dialog box.
	View Original Message (Message Tracking only)	Allows you to view the original message. The message text is opened in a text window (see **Figure 219 on page 438**). Text can be viewed and printed, but it cannot be edited. To close the message, from the File menu, select **Close**.
	View Enveloped Message (Message Tracking only)	Allows you to view the enveloped message. The message text is opened in a text window. Text can be viewed and printed, but it cannot be edited. To close the message, on the **File** menu, click **Close**. Only available when Message Tracking is open and the selected message has a value for the **Env Msg ID**. **Note**: If the message is an outbound batch message, you will see only the inner segments (ST-SE for X12, UNH-UNT for UN/EDIFACT). If the message is an inbound batch message, or is interactive, you will see all the envelope layers.

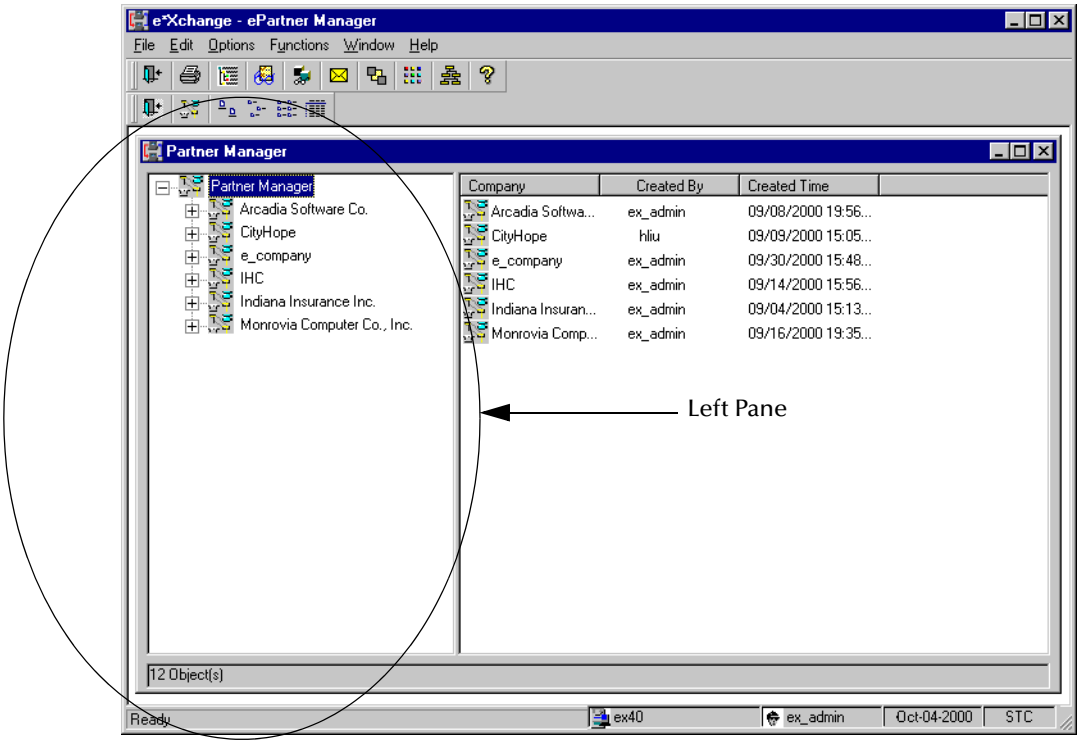
Table 53 e*Xchange Client for Windows Function Toolbar (Continued)

Tool	Name	Description
	View Acknowledgment Message (Message Tracking only)	Allows you to view the acknowledgment message. The message text is opened in a text window. Text can be viewed and printed, but it cannot be edited. To close the message, on the **File** menu, click **Close**. Only available when Message Tracking is open and the selected message has a value for the **Ack Msg ID**.

11.2.4 Using the Left Pane of e*Xchange Client for Windows

The left pane of e*Xchange Client for Windows is similar to the left pane of the Windows Explorer (see Figure 126).

Figure 126 Navigation Section of e*Xchange Client for Windows



Working With the Left Pane of e*Xchange Client for Windows

Do any of the following:

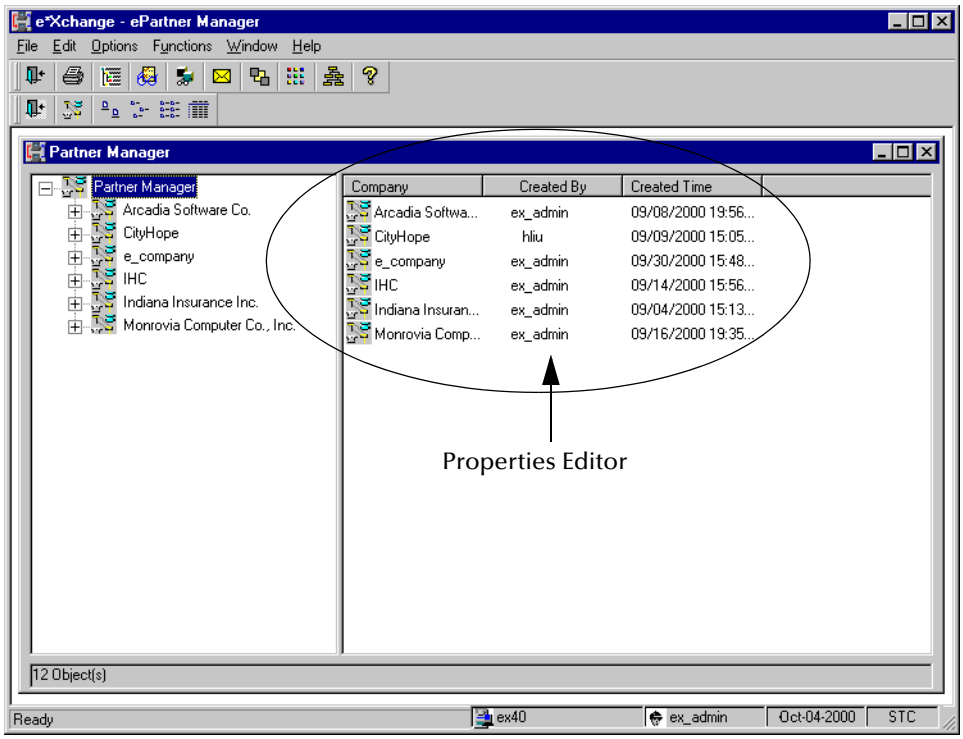
- Click a "plus" icon (⊞) to open a folder.
- Click a "minus" icon (⊟) to close a folder.
- Double-click a folder to open or close it.

- Click a folder to select that component. The child components appear in the Properties Editor (right pane).
- To view or modify a component's properties, click on the component and click **Properties**  . The **Properties** dialog box for that component appears.

11.2.5 The e*Xchange Client for Windows Properties Editor

The Properties Editor is similar to the right pane of the Windows Explorer (see Figure 127).

Figure 127 e*Xchange Client for Windows Properties Editor



Working With the Properties Editor

Within the Properties Editor, you can:

- Double-click the name of a company, trading partner, or outer envelope to display the contents of the folder.
- Double-click an inner envelope to display its properties.
- Right-click a trading partner, outer envelope, or inner envelope to display an action menu.

11.2.6 Working With e*Xchange Client for Windows Properties

To add, view, or modify trading partner profile components, you must use the **Properties** dialog box for the appropriate component.

Working With a Properties Dialog Box

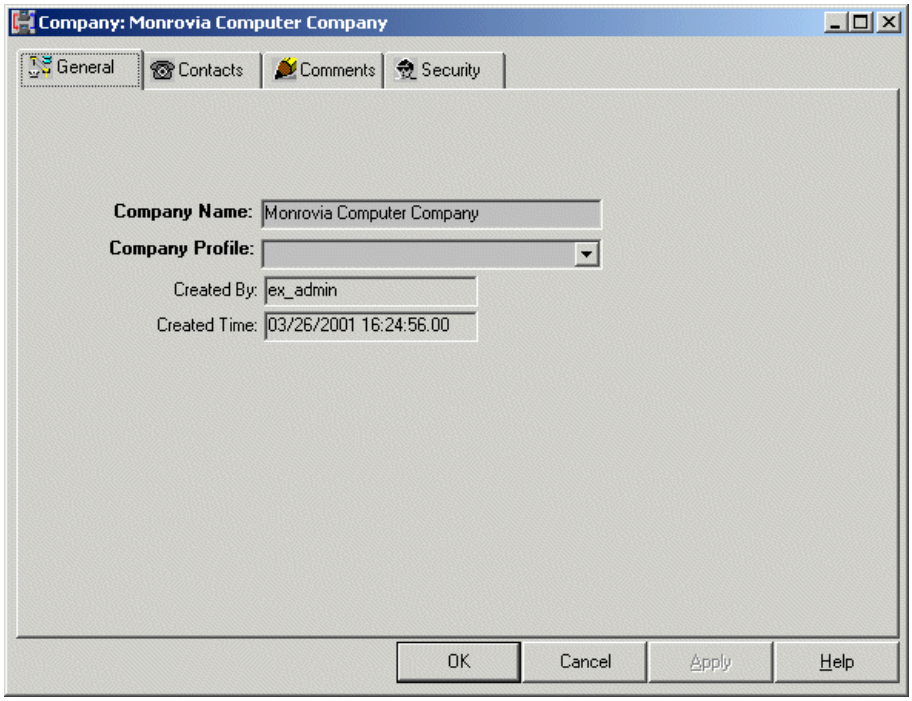
Within the **Properties** dialog box, you can:

- Click a tab to display a different page
- Click **Apply** to save information without closing
- Click **OK** to save information and close
- Click **Cancel** to close without saving
- Click **Help** to access the online Help system

General Tab

Use the **General** tab of a **Properties** dialog box for entering and viewing basic information that identifies parent companies and trading partners (see Figure 128). For outer and inner envelopes, the information you enter for a trading partner profile is necessary for the exchange of messages; for example, the eBusiness protocol version used and whether the message is compressed.

Figure 128 Company Properties, General Tab



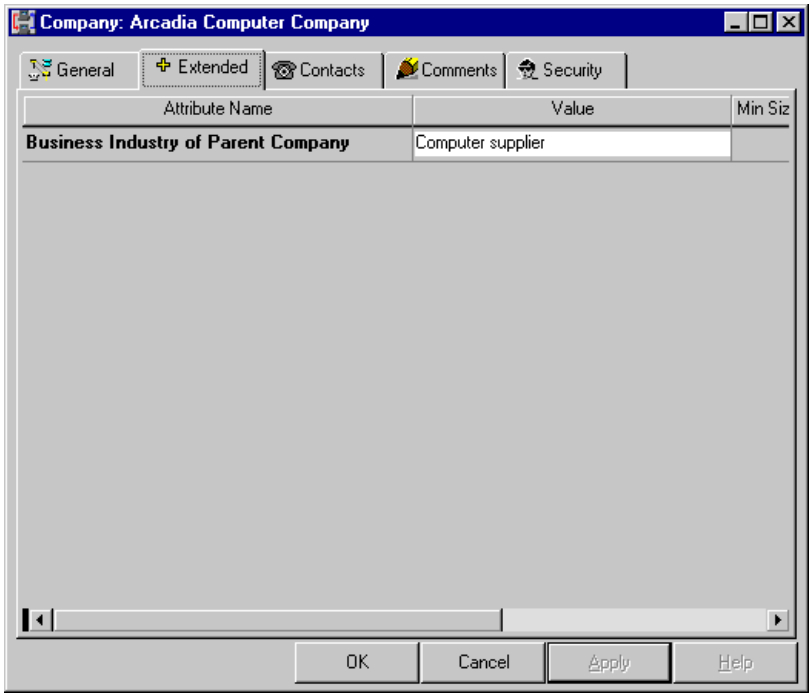
Extended Tab

At the Outer Envelope and Inner Envelope levels, use the **Extended** tab of a **Properties** dialog box to store information that is specific to the eBusiness protocol. You can also use the Extended tab to track additional information at the Company and Trading Partner levels, as shown in Figure 129.

The extended tab is most important at the Outer Envelope and Inner Envelope levels. For example, characteristics of ASC X12 Interchange, Functional Group, and transaction set envelopes are required values that you enter as extended attributes if you are using X12.

Figure 129 shows the **Extended** tab of the **Company** dialog box.

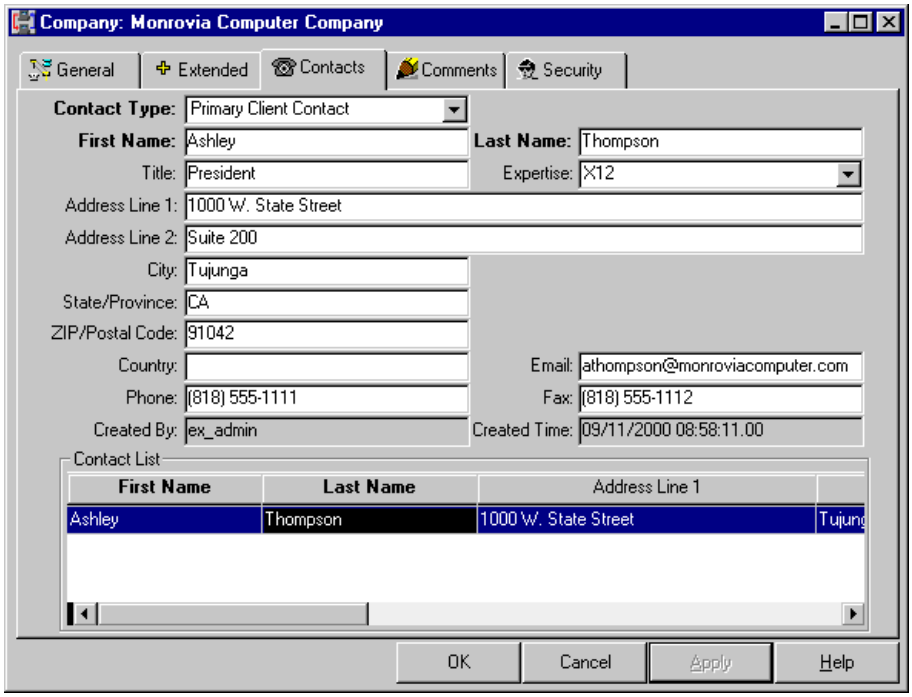
Figure 129 Company Properties, Extended Tab



Contacts Tab

Use the **Contacts** tab of a **Properties** dialog box to store names, phone numbers, and addresses of contracts for a particular parent company, trading partner, outer envelope, or inner envelope (see Figure 130).

Figure 130 Company Properties, Contacts Tab



Comments Tab

Use the **Comments** tab of a **Properties** dialog box to enter supplementary information about a particular trading partner (see Figure 131). You can also assign action items that are related to the trading partner profile component (see Figure 132).

Figure 131 Company Properties, Comments Tab (Notes)

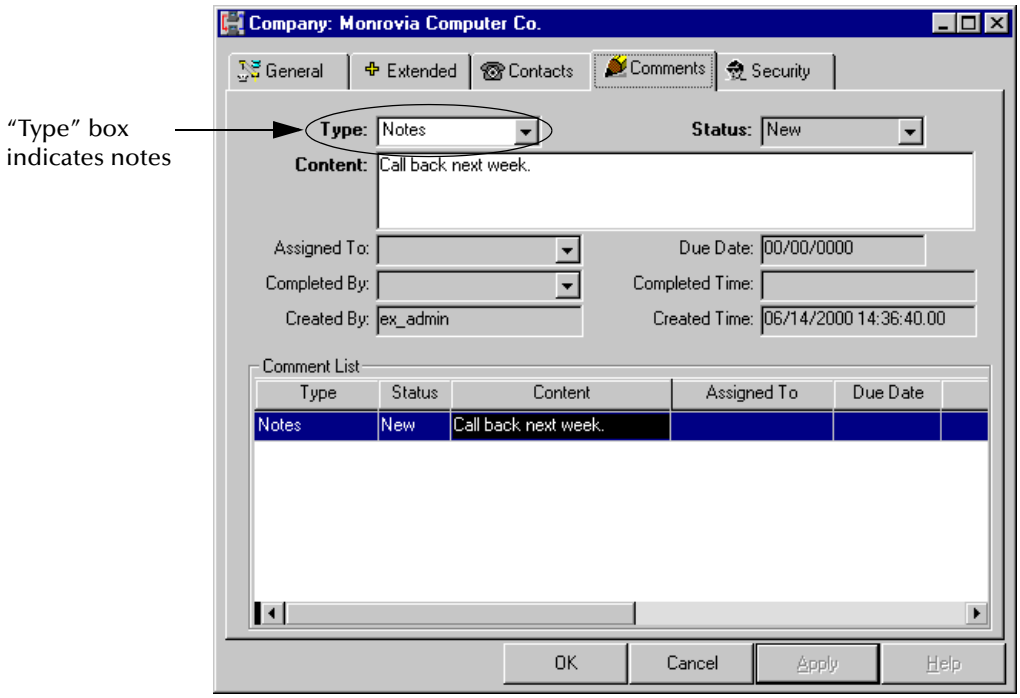
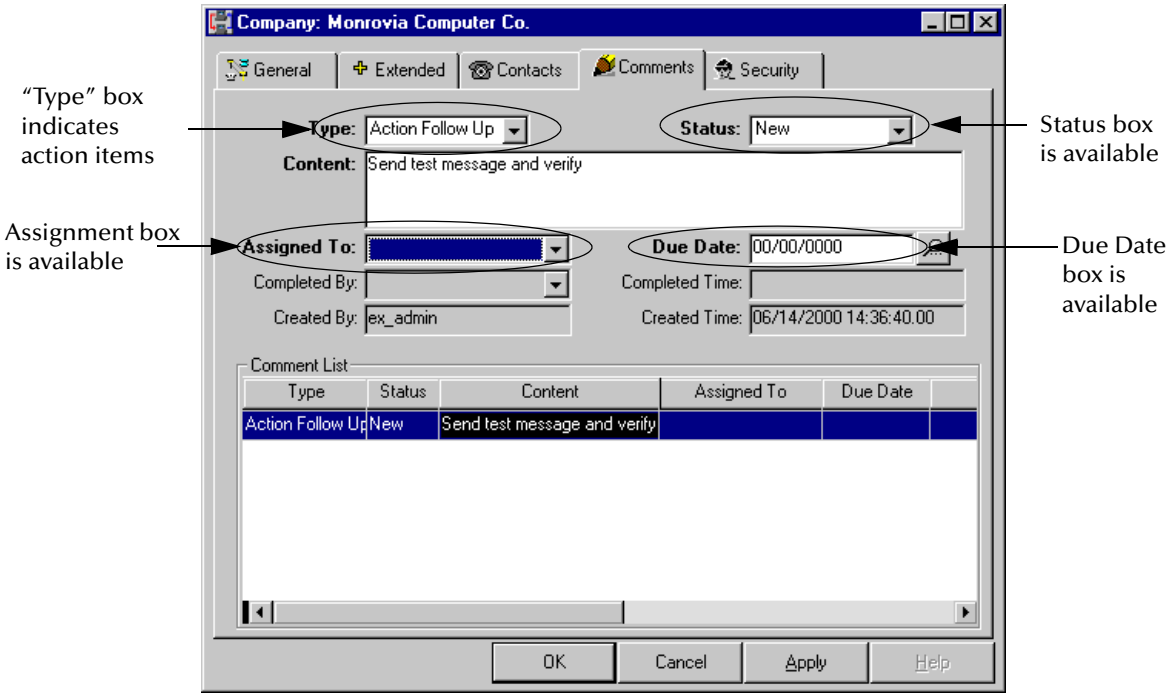


Figure 132 Company Properties, Comments Tab (Action Items)

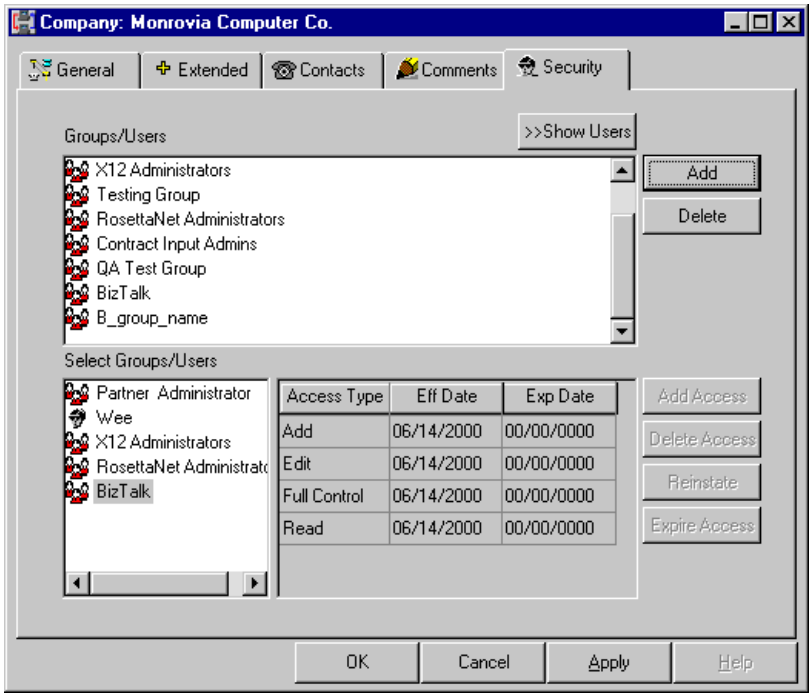


For information on how an action item is followed up and completed, see **"Responding to Action Items" on page 290**.

Security Tab

Use the **Security** tab of a **Properties** dialog box to identify which users and user groups can access a particular trading partner profile component (see Figure 133). You can also assign certain privileges to each user or group (add, edit, full control, or read).

Figure 133 Company Properties, Security Tab

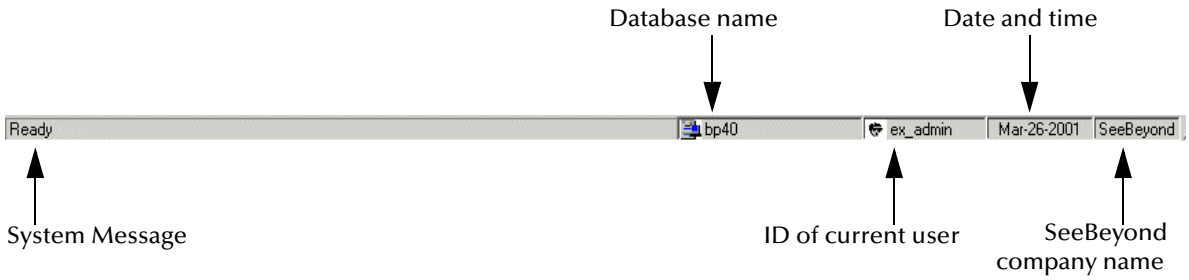


For information on how security is set up, see **"Access Control in e*Xchange Client for Windows" on page 293**.

11.2.7 Understanding the Status Bar

The status bar at the bottom of e*Xchange Client for Windows displays the name of the database instance you connected to when you logged in, your user ID, the current date, and the SeeBeyond company name (see Figure 134).

Figure 134 e*Xchange Client for Windows Status Bar



11.3 User Preferences

Certain aspects of e*Xchange Client for Windows, such as some report information and the paths to certain files, can be tailored for each user as User Preferences.

To set user preferences

1. On the **Functions** menu, click **User Preferences**.

   The **User Preferences** dialog box appears (see Figure 135).

2. Enter **Report Path**, **Report Title**, and **Miscellaneous** information. For more information, see Table 54.

3. Click **OK** to save and close.

Figure 135 User Preferences

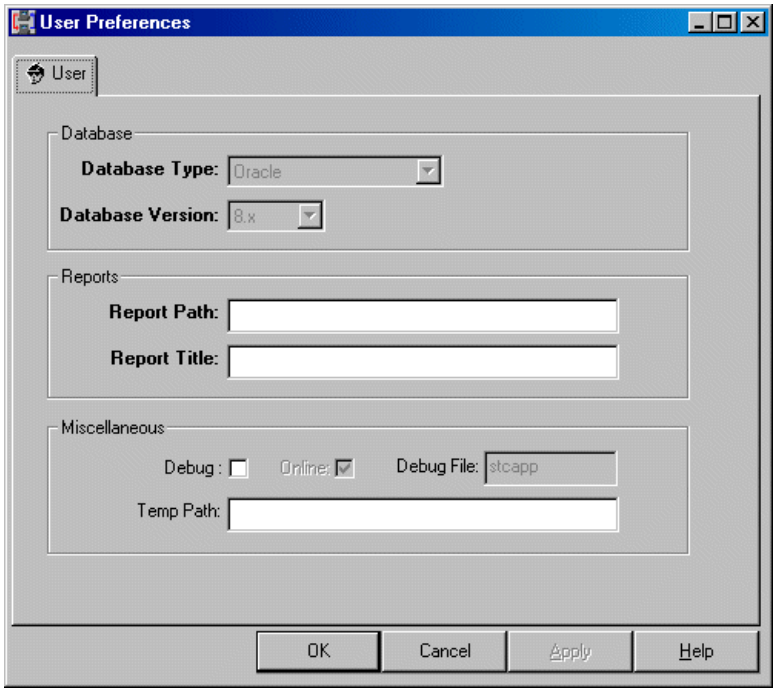


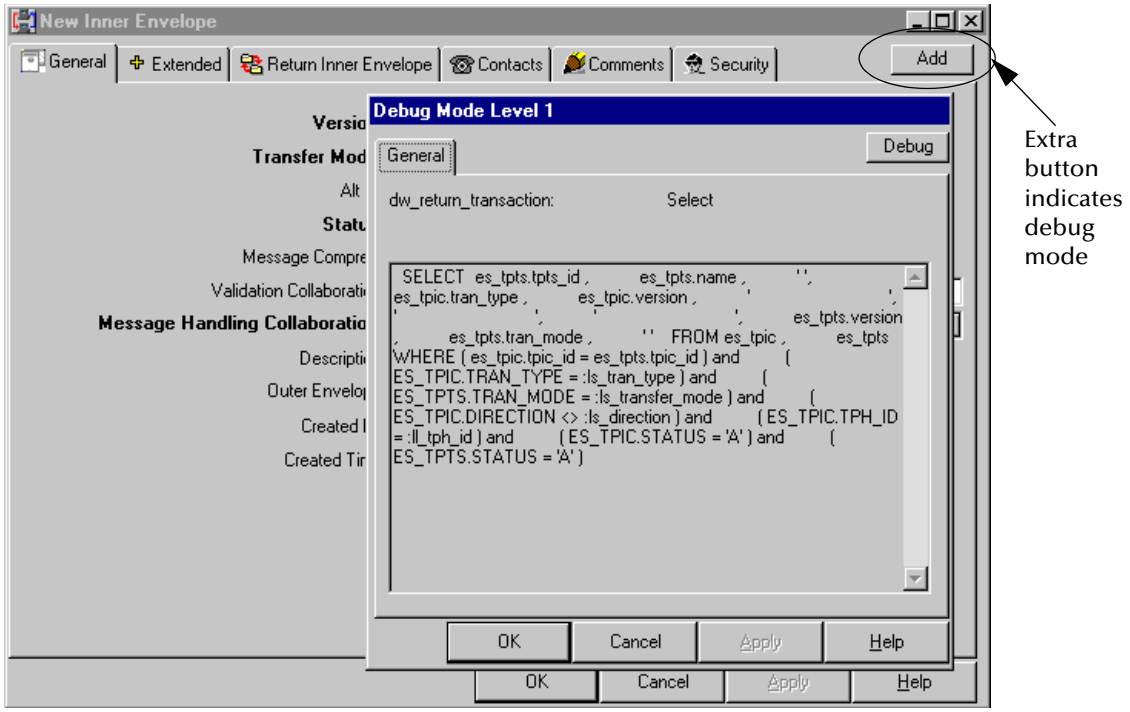
Table 54 User Preferences

Box	Description
Database Type	The database type is displayed, and cannot be changed.
Database Version	The version of the database software is displayed, and cannot be changed.
Report Path	The full path for the location in which the Crystal Reports files will be stored; for example, **c:\eXchange\ePM**. If no value is recorded in this box, the system uses the report path set up in the **System Defaults** dialog box.
Report Title	The title to be displayed at the top of system reports. If no value is recorded in this box, the system uses the report title set up in the **System Defaults** dialog box.

Table 54 User Preferences (Continued)

Box	Description
Debug	This offers the option of turning on a troubleshooting feature. To turn on the debug feature, select this check box. In debug mode, you can view the code when running e*Xchange Client for Windows (see Figure 136).
Online	If you select Debug, Online is the default. This displays the code in a dialog box (see Figure 136). If you prefer to write the code to a file, clear this check box. The code is written to the file **stcapp.dbg** in your e*Xchange root folder.
Debug File	If you want the code to be written to a different file, type the new file name.
Temp Path	If you want the debug file to be stored in a location other than the e*Xchange root folder, type the new path.

Figure 136 Running e*Xchange Client for Windows in Debug Mode



If you select Debug Mode in your User Preferences, you will be able to view code when running e*Xchange Client for Windows, as shown in Figure 136.

Chapter 12

e*Xchange Client for Windows Administration

Before the typical user begins to create trading partner profiles in e*Xchange Client for Windows, some setup is required. This is done by a member of the eX Administrator user group, who must perform some or all of the following tasks:

- Set up validation Collaborations that will be used in routing and processing messages
- Set default attribute values for each eBusiness protocol version that you will be using
- Define the specific messages that you will use, with the validation Collaboration and attribute values of each, for each eBusiness protocol version that you will be using
- Define default values for the eBusiness messages that you will be using

Note: *If an X12 or UN/EDIFACT transaction or a RosettaNet Action Message/Business Signal is to be used in a profile, you must define it in* ***Inner Envelope Definition Setup*** *first.*

- Update drop-down value lists (optional)
- Establish system defaults (required only if you want to change the predefined defaults)
- Add report definitions (required if you want to generate reports)

12.1 Validation Collaboration Setup

Within e*Xchange, a validation Collaboration defines the syntax and validates the content of electronic business-to-business messages.

Within the e*Xchange user interface, you can specify a validation Collaboration for each unique type of electronic message that is sent or received. The Collaboration enables e*Gate to verify that the message follows the standard format for that protocol and version.

If you are communicating with a specific trading partner using X12 or UN/EDIFACT, you can use the Validation Rules Builder to automatically generate a validation

Collaboration and an Event Type Definition based on the SEF (see **"Standard Exchange Format (SEF)" on page 503**) file for the transaction. Once generated by the Validation Rules Builder, you can add the validation Collaboration files to the list in the user interface via **Validation Collaboration Setup**. Once added, they are available for selection within e*Xchange Client for Windows, in **Inner Envelope Definition Setup**.

To add a validation Collaboration in e*Xchange Client for Windows

1. On the **Functions** menu, click **Validation Collaboration Setup**.

   The **Validation Collaboration Setup** dialog box appears (see Figure 137).

2. To add a Collaboration to the table, click **New**  .
3. In the **Select File** column, click the magnifying glass, navigate to the file location, and select the appropriate **tsc** file.
4. In the **eBusiness Protocol** box, choose the appropriate protocol from the drop-down list.
5. In the **Version** box, choose the appropriate version from the drop-down list.
6. In the **Transaction Set ID** box, type the ID number for the message type.
7. Click **Apply** to validate and save the new values.
8. Click **OK** to close the Validation Collaboration Setup window.

Figure 137 Validation Collaboration Setup

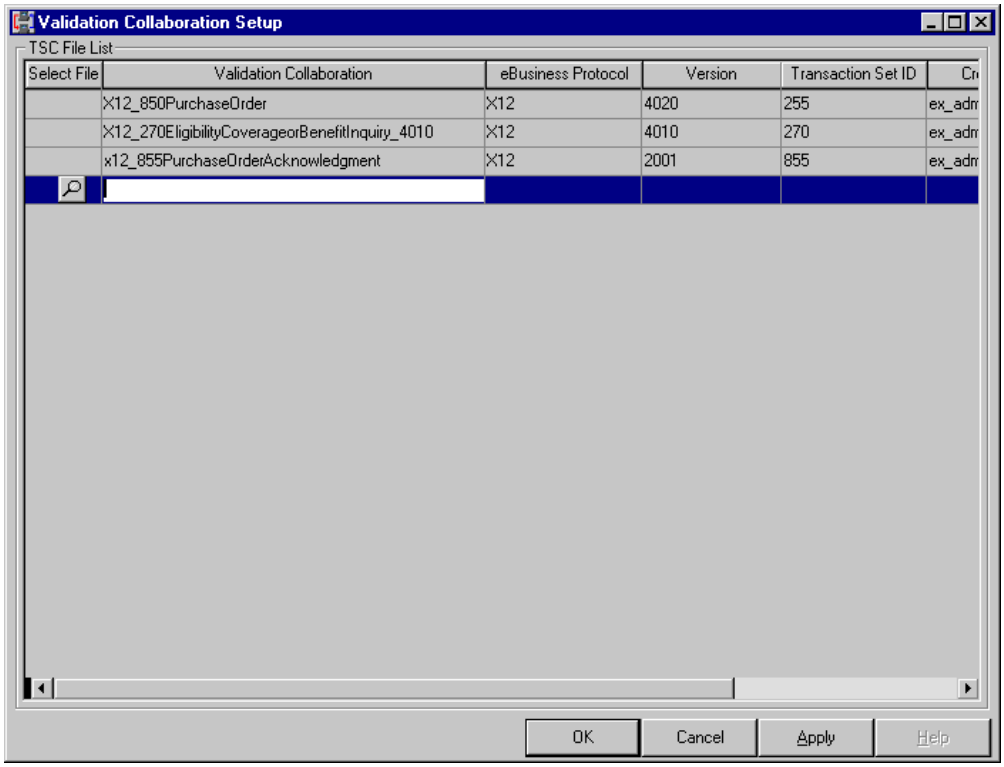


Table 55 Validation Collaboration Setup Fields

Name	Description
Select File	This allows you to select a ***.tsc** (validation Collaboration) file. Click on the magnifying glass to access the **Open** dialog box so that you can navigate to the location of the file.
Validation Collaboration	Once you have selected a validation Collaboration file, the name is displayed.
eBusiness Protocol	The eBusiness protocol to which the Collaboration file relates.
Version	The version of the eBusiness protocol to which the file relates. Select from the drop-down list. **Note**: The Validation Rules Builder automatically appends the protocol version to the file name; for example, X12_850PurchaseOrder_3070. Make sure you select the correct version as indicated by the file name.
Transaction Set ID	The ID for the actual message type; for example, 850 for a Purchase Order in X12.
Created By	The user ID of the person who added the Collaboration is displayed.
Created Time	The date and time the Collaboration was saved or updated is displayed.

12.2 Archive/De-Archive

You can archive data from the e*Xchange database to an external file. You can also use the external file to de-archive the information into a new, empty database.

e*Xchange offers two facilities for archiving and de-archiving:

- The e*Xchange Client for Windows Archive/De-Archive feature
- The e*Xchange Repository Manager

The e*Xchange Client for Windows Archive/De-Archive feature allows archiving and de-archiving between different database types; for example, you can take the file created by archiving from a SQL Server database and de-archive it to an Oracle database.

e*Xchange Client for Windows supports archiving and de-archiving from and to Oracle, Sybase, and SQL Server. The e*Xchange Repository Manager supports these three and also DB2 UDB.

De-archived data is for reference only since the sequence numbers would not match the sequence numbers in a new database and only those Message Tracking attributes that are used by the de-archived file are available for use.

When you de-archive, it always deletes any information already existing in the database. For this reason, you cannot combine multiple archive files.

The archive file is in compressed format.

Caution: *This operation deletes information from your database. As with any major operation affecting your business information, you should back up your data before starting the archiving process. Make a full backup of your e*Xchange database tables using the standard backup procedure for your database.*

12.2.1 Changes to Settings During Archiving

It is important to realize that during the archive process certain logging features are turned off, and constraints dropped, in the interests of getting the archive completed as quickly as possible.

Changes to Logging and Constraints

The changes to the e*Xchange operation during archiving vary according to the type of database you are using. Refer to Table 56 for specific information on activities and tables that are affected during the archiving process.

Table 56 Changes to e*Xchange Operation During Archiving

Database	Changes
Oracle	▪ Logging is disabled for the following tables: ♦ es_mtrk_inb ♦ es_mtrk_outb ♦ es_msg_storage ♦ es_msg_ascii ♦ es_msg_security ♦ es_msg_binary ♦ es_mtrk_error ♦ es_mtrk_ext_data ▪ The following constraints are disabled: ♦ es_mtrk_inb_fk1 ♦ es_mtrk_inb_fk2 ♦ es_mtrk_outb_fk1 ♦ es_mtrk_outb_fk2 ♦ es_mtrk_outb_fk3
SQL Server	▪ The following constraints are disabled: ♦ es_mtrk_inb_fk1 ♦ es_mtrk_inb_fk2 ♦ es_mtrk_outb_fk1 ♦ es_mtrk_outb_fk2 ♦ es_mtrk_outb_fk3
Sybase	▪ The following constraints are dropped during the archive and recreated later: ♦ es_mtrk_inb_fk1 ♦ es_mtrk_inb_fk2 ♦ es_mtrk_outb_fk1 ♦ es_mtrk_outb_fk2 ♦ es_mtrk_outb_fk3

Restoring the Settings

Once the archiving procedure is complete, logging is re-enabled and the constraints are enabled.

However, if there is an error during archiving—for example, a power outage—you must make sure that your settings are restored so that you have the correct logging and constraints. To do this, follow the instructions below for each type of database.

To restore Oracle logging and constraints

1. At the Oracle prompt, re-enable logging by running the following command (substituting the specific table names):

   ALTER TABLE <table name> LOGGING

2. At the Oracle prompt, re-enable constraints by running the following command (substituting the specific table names and also constraint names):

   ALTER TABLE <table name> ENABLE CONSTRAINT <constraint name>

To restore SQL Server constraints

- At the SQL Server prompt, re-enable constraints by running the following command (substituting the specific table names and also constraint names):

  ALTER TABLE <table name> CHECK CONSTRAINT <constraint name>

To restore Sybase constraints

1. At the Sybase prompt, re-enable constraints by running the following commands:

   ALTER TABLE es_mtrk_inb ADD CONSTRAINT es_mtrk_inb_fk1 foreign key (orig_msg_id) references es_msg_storage (msg_storage_id)

   ALTER TABLE es_mtrk_inb ADD CONSTRAINT es_mtrk_inb_fk2 foreign key (ack_msg_id) references es_msg_storage (msg_storage_id)

   ALTER TABLE es_mtrk_outb ADD CONSTRAINT es_mtrk_outb_fk1 foreign key (orig_msg_id) references es_msg_storage (msg_storage_id)

   ALTER TABLE es_mtrk_outb ADD CONSTRAINT es_mtrk_outb_fk2 foreign key (env_msg_id) references es_msg_storage (msg_storage_id)

   ALTER TABLE es_mtrk_outb ADD CONSTRAINT es_mtrk_outb_fk3 foreign key (ack_msg_id) references es_msg_storage (msg_storage_id)

12.2.2 Running the Archive Feature

To set up the archiving feature

1. On the **Functions** menu, click **Archive/De-Archive**.

   The **Archive/De-Archive Manager** appears.

2. Click the **Configuration** tab (see Figure 138).
3. Set the values as needed. For more information, refer to Table 57.
4. Click **OK** to save and close, or click another tab to archive or de-archive messages.

Figure 138 Archive/De-Archive Manager, Configuration Tab (Oracle)

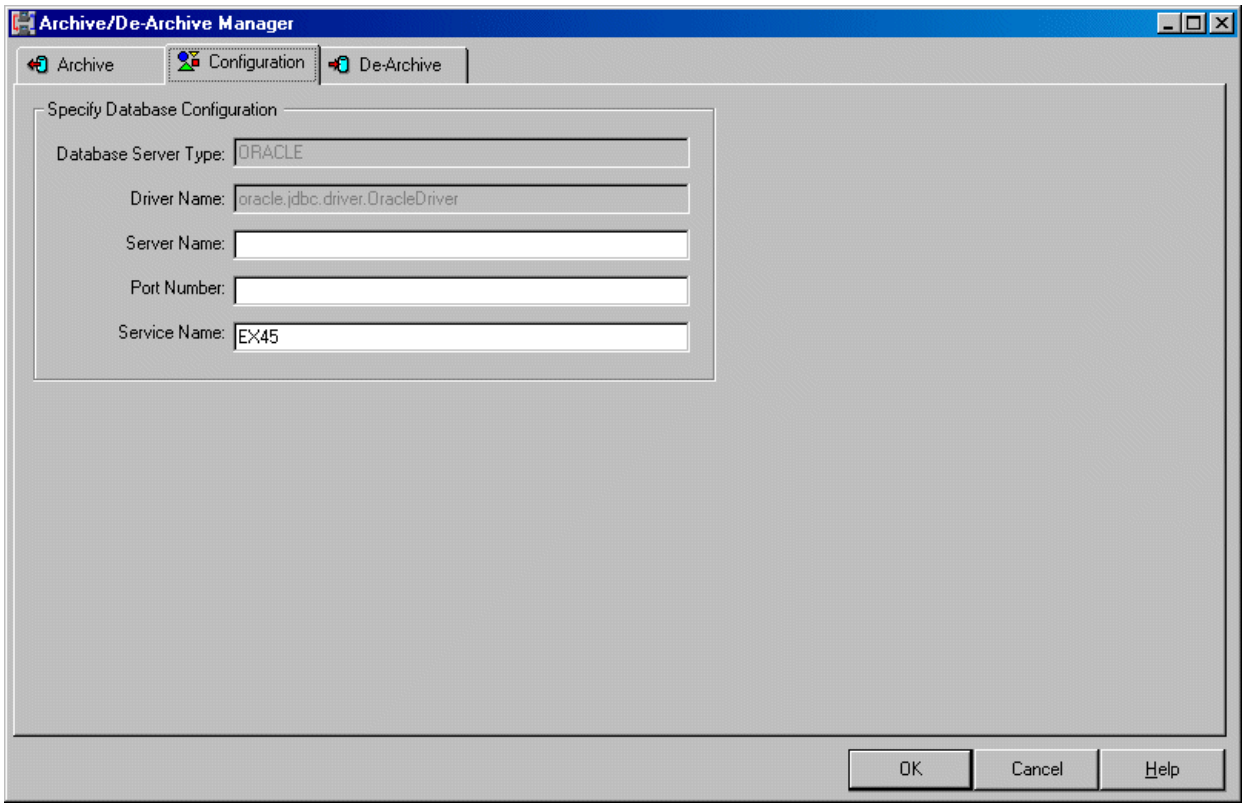


Table 57 Archive/De-Archive Manager, Configuration Tab

Name	Description
Database Server Type	The database server type is displayed.
Driver Name	The name of the database driver is displayed.
Server Name (Oracle only)	Type the Oracle server name. The value must match the HOST value for the database in the **tnsnames.ora** file.
Port Number (Oracle only)	Type the port number for Oracle database access. This must match the PORT value for the database in the **tnsnames.ora** file.
Service Name (Oracle only)	Type the Oracle database service name. This must match the SERVICE_NAME or SID value for the database in the **tnsnames.ora** file.
ODBC Driver Name (SQL Server and Sybase only)	The name of the SQL Server or Sybase database driver is displayed.

To archive information

1 On the **Functions** menu, click **Archive/De-Archive**.

The **Archive/De-Archive Manager** appears.

2 On the **Configuration** tab, set the configuration parameters correctly.

For more information, refer to **"Archive/De-Archive Manager, Archive Tab" on page 248**.

3 Click the **Archive** tab (see Figure 139).

4 Set the values as needed. For more information, refer to Table 58.

Note: *If you are deleting messages, it is a good idea to set a date range so that you do not delete messages that are still active.*

5 Click the **Archive** button to start the archiving operation.

When done, e*Xchange displays an information message.

Note: *If you have selected Delete Message Records, e*Xchange creates the archive file before deleting the message records. However, it does not close the archive file until the deletion operation is also complete. Wait for the entire process to be complete before attempting to do anything with the archive file.*

6 Click **OK**.

Figure 139 Archive/De-Archive Manager, Archive Tab

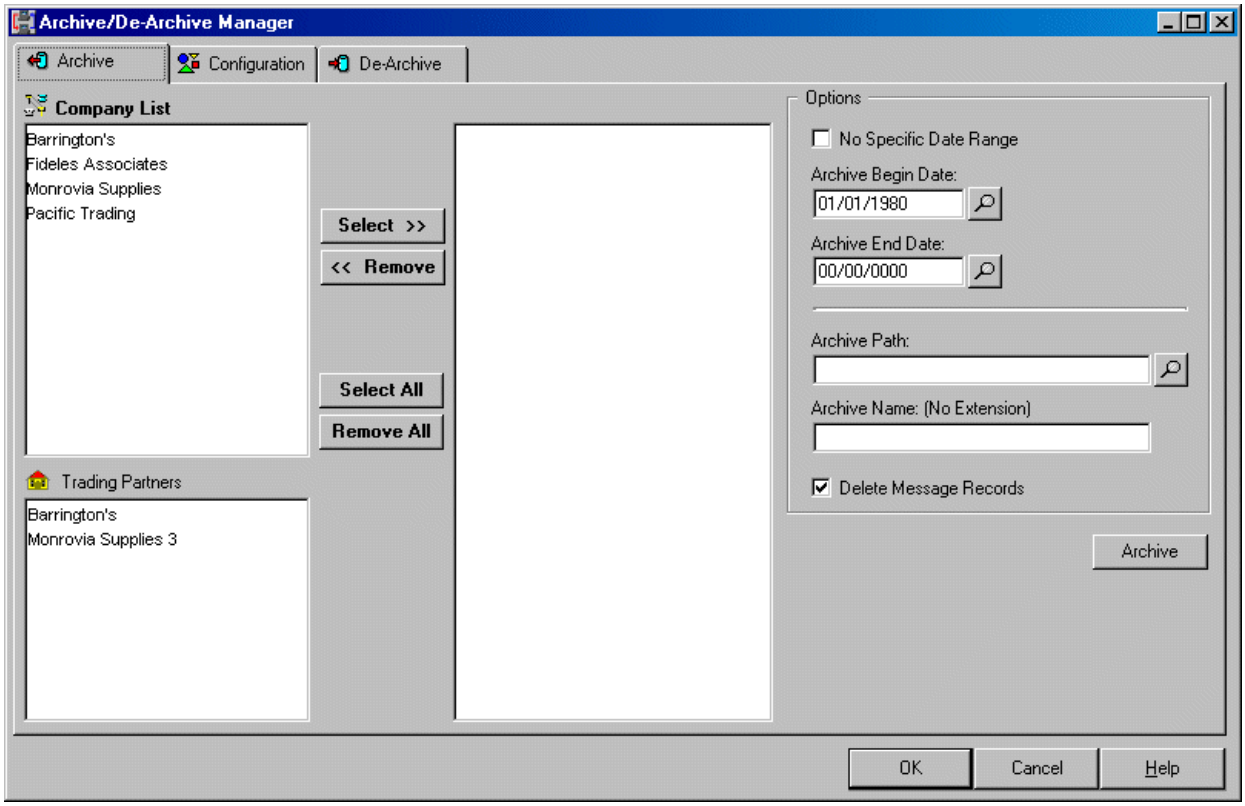


Table 58 Archive/De-Archive Manager, Archive Tab

Name	Description
Company List	All companies for which there are inner envelopes set up are shown on the list.
Trading Partners list	All trading partners for which there are inner envelopes set up are shown on the list.
Selection Buttons	Use the selection buttons to create a list of companies/trading partners for message archiving, as follows: ▪ To select a company and all its trading partners, highlight the company in the left pane, and then click **Select**. ▪ To select a trading partner and its parent company, highlight the trading partner on the **Trading Partners** list and then click **Select**. You can also select multiple trading partners by holding down the **Shift** or **Ctrl** keys when selecting. ▪ To remove a company and all its trading partners from the archiving list, highlight the company in the right pane and then click **Remove**. ▪ To remove a trading partner from the archiving list, highlight the trading partner in the right pane and then click **Remove**. You can also remove multiple trading partners by holding down the **Shift** or **Ctrl** keys when selecting. ▪ To select all companies and trading partners from the archiving list, click **Select All**. ▪ To remove all companies and trading partners from the archiving list, click **Remove All**.
No Specific Date Range	To archive all messages, check this check box. **Note**: If you are deleting message records when you archive, ensure you do not archive messages that are still active (either in the queue to be sent, or expecting a response).
Archive Begin Date/ Archive End Date	To specify a date range for archiving, set beginning and ending dates. These values default to a date range that includes all the information in the database.
Archive Path	Specify the path for the archive file. Click on the icon to the right to access the **Browse for Folder** dialog box, and then choose a folder.
Archive Name (No extension)	Type the name of the archive file, without extension. e*Xchange makes a compressed file with the extension **.zip**. **Note**: After archiving, do not change the name of the archive file. If you do, the de-archive process will not work.
Delete Message Records	If you want the archived messages to be deleted from the database, leave this as checked (the default). If you want to leave the messages in the database, clear this check box. **Note**: If you are deleting messages, it is a good idea to set a date range so that you do not delete messages that are still active.
Archive	Click this button to start the archiving operation. When done, e*Xchange displays an information message.

Table 58 Archive/De-Archive Manager, Archive Tab (Continued)

Name	Description
View Log	When the operation is complete, the **View Log** button appears. Click this button to view the log file.

To de-archive information

1. On the **Functions** menu, click **Archive/De-Archive**.

   The **Archive/De-Archive Manager** appears.

2. On the **Configuration** tab, set the configuration parameters correctly.

   For more information, refer to **"Archive/De-Archive Manager, De-Archive Tab" on page 250**.

3. Click the **De-Archive** tab (see Figure 140).

4. Set the values as needed. For more information, refer to Table 59.

5. Click the **De-Archive** button to start the de-archiving operation.

   When done, e*Xchange displays an information message.

6. Click **OK**.

Figure 140 Archive/De-Archive Manager, De-Archive Tab

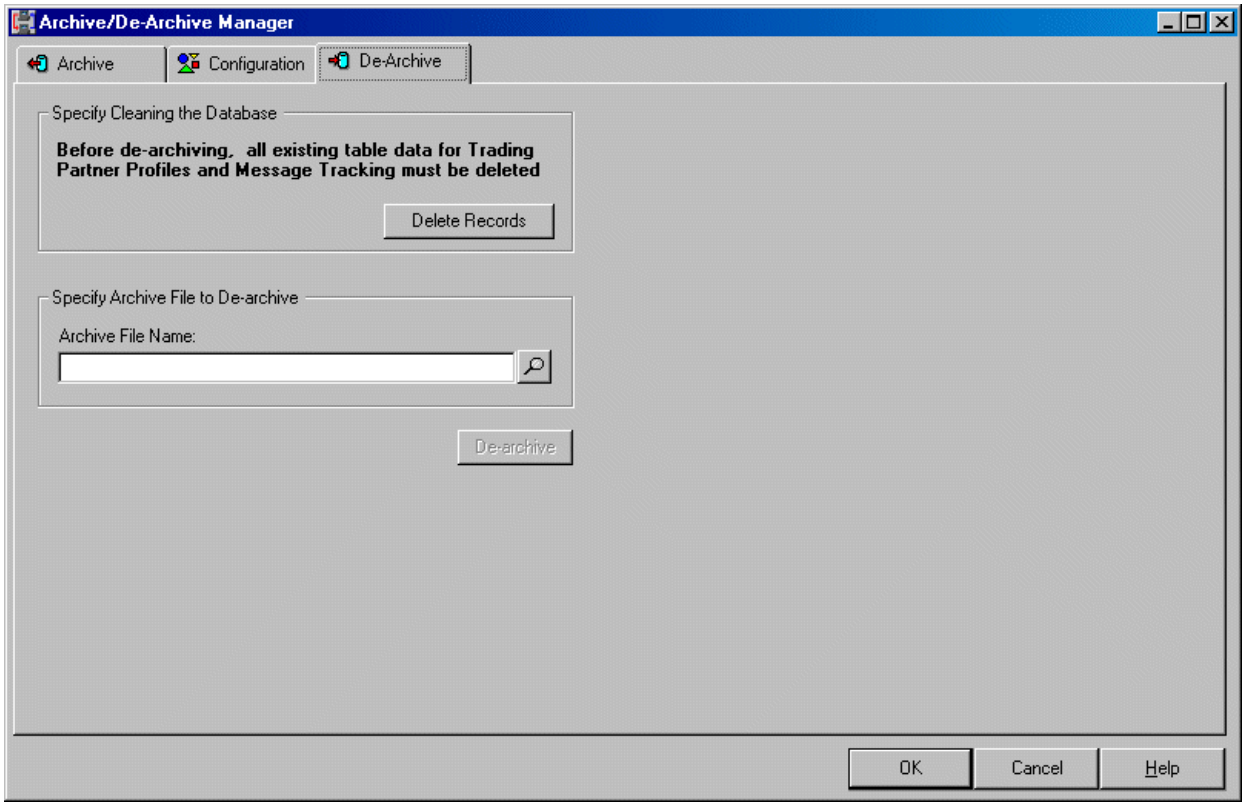


Table 59 Archive/De-Archive Manager, De-Archive Tab

Name	Description
Delete Records	You must click **Delete Records** before de-archiving the archive file. This ensures that the target database is empty.
Archive File Name	Specify the path for the archive file. Click on the icon to the right to access the **Select Archive File** dialog box, navigate to the folder if needed, and then choose the file. **Note**: The archive file name must be the name selected when you originally archived the information. If the archive file has been renamed, the de-archive process will not work.
De-Archive button	Click this button to start the de-archiving operation. When done, e*Xchange displays an information message.
View Log	When the operation is complete, the **View Log** button appears. Click this button to view the log file.

12.3 Import/Export

You can export data from e*Xchange to an external file, and you can import information from the external file into another database.

The Import/Export feature allows importing and exporting between different database types; for example, you can take the export file created by exporting from a SQL Server database and import it into an Oracle database.

To set up the import/export feature

1. On the **Functions** menu, click **Import/Export**.

   The **Import/Export Manager** appears.
2. Click the **Configuration** tab (see Figure 141).
3. Set the values as needed. For more information, refer to Table 60.
4. Click **OK** to save and close, or click another tab to export or import messages.

Figure 141 Import/Export Manager, Configuration Tab

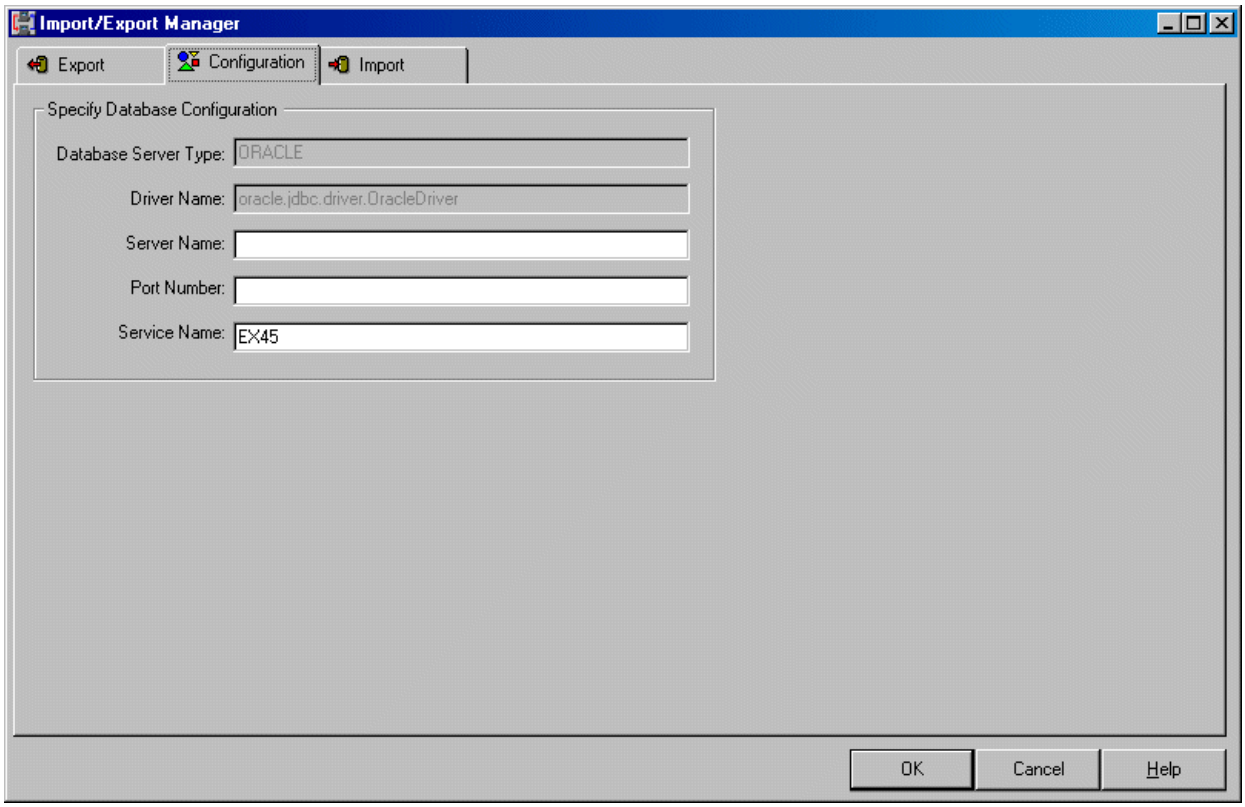


Table 60 Import/Export Manager, Configuration Tab

Name	Description
Database Server Type	The database server type is displayed.
Driver Name	The name of the database driver is displayed.
Server Name (Oracle only)	Type the Oracle server name. This must match the HOST value for the database in the **tnsnames.ora** file.
Port Number (Oracle only)	Type the port number for Oracle database access. This must match the PORT value for the database in the **tnsnames.ora** file.
Service Name (Oracle only)	Type the Oracle database service name. This must match the SERVICE_NAME or SID value for the database in the **tnsnames.ora** file.
ODBC Driver Name (SQL Server and Sybase only)	The name of the SQL Server or Sybase database driver is displayed.

To export information

1. On the **Functions** menu, click **Import/Export**.

   The **Import/Export Manager** appears.
2. On the **Configuration** tab, set the configuration parameters correctly.

   For more information, refer to **"To set up the import/export feature" on page 250**.
3. Click the **Export** tab (see Figure 142).
4. Set the values as needed. For more information, refer to Table 61.
5. Click the **Export** button to start the export operation.

   When done, e*Xchange displays an information message.
6. Click **OK**.

Figure 142 Import/Export Manager, Export Tab

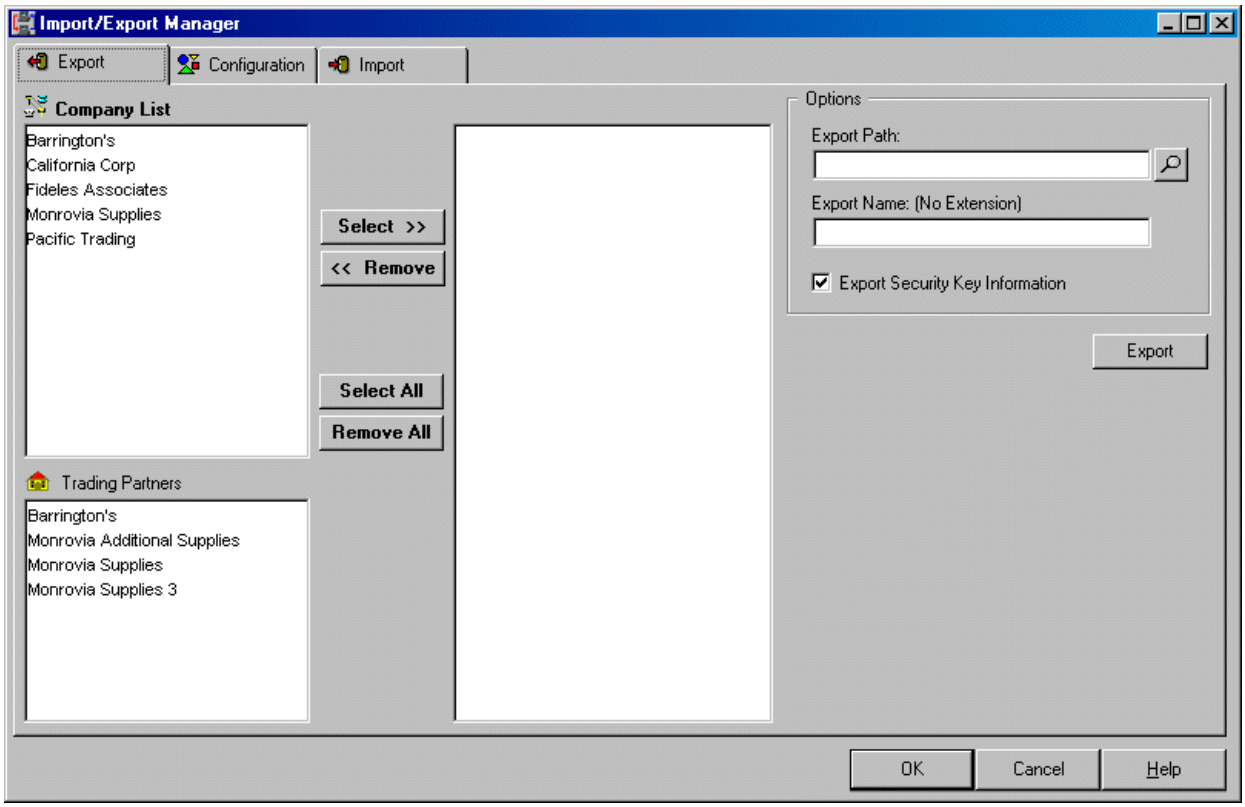


Table 61 Import/Export Manager, Export Tab

Name	Description
Company List	All companies are shown on the list.
Trading Partners list	All trading partners are shown on the list.
Selection Buttons	Use the selection buttons to create a list of companies/trading partners whose messages you want to export, as follows: ▪ To select a company and all its trading partners, highlight the company in the left pane, and then click **Select**. ▪ To select a trading partner and its parent company, highlight the trading partner on the **Trading Partners** list and then click **Select**. You can also select multiple trading partners by holding down the **Shift** or **Ctrl** keys when selecting. ▪ To remove a company and all its trading partners from the export list, highlight the company in the right pane and then click **Remove**. ▪ To remove a trading partner from the export list, highlight the trading partner in the right pane and then click **Remove**. You can also remove multiple trading partners by holding down the **Shift** or **Ctrl** keys when selecting. ▪ To select all companies and trading partners from the export list, click **Select All**. ▪ To remove all companies and trading partners from the export list, click **Remove All**.
Export Path	Specify the path for the export file. Click on the icon to the right to access the **Browse for Folder** dialog box, and then choose a folder. **Note**: make sure there are no spaces in the export path and file name.
Export Name (No extension)	Type the name of the export file, without extension. e*Xchange exports the information to an ASCII file with the extension **.exp**. **Note**: make sure there are no spaces in the export path and file name.
Export Security Key Information	Clear this check box if you do *not* want security key information to be included in the export file. By default, security key information is exported.
Export	Click this button to start the export operation. When done, e*Xchange displays an information message.
View Log	When the operation is complete, the **View Log** button appears. Click this button to view the log file.

To import information

Note: *When you import the information, the associations between messages and responses might not be preserved. When you have imported, check the Return Inner Envelope settings to ensure the correct return inner envelopes are selected.*

1. On the **Functions** menu, click **Import/Export**.

   The **Import/Export Manager** appears.

2. On the **Configuration** tab, set the configuration parameters correctly.

   For more information, refer to **"To set up the import/export feature" on page 250**.

3. Click the **Import** tab (see Figure 143).

4. Set the values as needed. For more information, refer to Table 62.

5. Click the **Import** button to start the import operation.

   When done, e*Xchange displays an information message.

6. Click **OK**.

Figure 143 Import/Export Manager, Import Tab

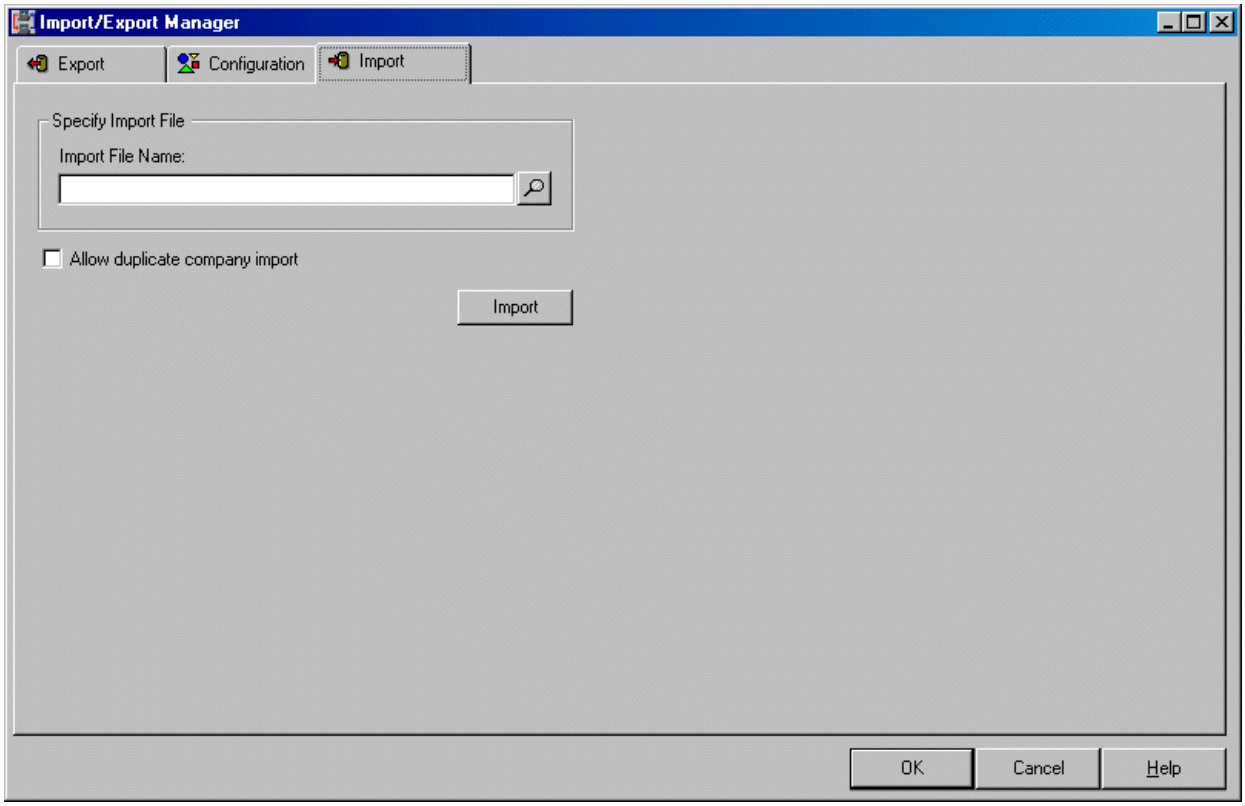


Table 62 Import/Export Manager, Import Tab

Name	Description
Import File Name	Specify the path for the file to be imported. Click on the icon to the right to access the **Select Import File** dialog box, navigate to the folder if needed, and then choose the file.
Allow duplicate company import	This check box controls whether duplicate information will be imported. If the import file contains components already in the database, and you want to import the duplicate information, check this check box. e*Xchange appends a unique ID to the company name for any duplicates that are imported. Leave this check box clear to skip the duplicates when importing.
Import button	Click this button to start the import operation. When done, e*Xchange displays an information message.
View Log	When the operation is complete, the **View Log** button appears. Click this button to view the log file.

12.4 Partner Manager Envelope Setup

e*Xchange Client for Windows comes with a set of extended attributes for each version of each supported eBusiness protocol. The extended attributes provide a place for you to set the values that will enable the message to be correctly relayed and interpreted; for example, the Sender ID for X12 and the RNIF Version Identifier for RosettaNet.

Although these attributes have already been set up, and some default values provided, you can set other defaults, specific to your installation, as part of setup.

You can set or change the values for extended attributes at three levels:

Partner Manager Envelope Setup—Used if the defaults are likely to apply everywhere in your system; for example, your Sender ID.

Inner Envelope Definition Setup—Used if the defaults are likely to apply to all instances of a specific message type, regardless of the trading partner. If you did not set a default value in **Partner Manager Envelope Setup**, you can set it here. If you did set a default, you can override it here.

On the **Extended** tab for the outer or inner envelope—Set values on this tab for the specific envelope level and trading partner. Whether or not you set defaults at an earlier stage, you can set or edit the value when you create (or edit) the actual envelope.

To work with **Partner Manager Envelope Setup**, you must be logged on as a member of the eX Administrator group.

To set or change default extended attribute values

1 On the **Functions** menu, point to **System Administration**, and then click **Partner Manager Envelope Setup**.

The **Partner Manager Envelope Setup** dialog box appears (see Figure 144).

2 In the left pane, select the outer envelope or inner envelope for which you want to set default attribute values. Outer envelopes are listed at the top; scroll down to see the inner envelopes.

Note: *Two profiles might have the same name if one is for an outer envelope and the other is for an inner envelope. Make sure you select the profile for the correct envelope layer before continuing to the next step.*

3 On the **General** tab, in the **Default Value** column, set the default attribute values as needed for your business. Do not change any of the other values. For more information, see Table 63.

Any defaults set will appear in Inner Envelope Definition Setup and in any new envelopes that are based on this profile, but can be changed if needed.

4 Click **Apply** to validate and save the new values.

5 Click **OK** to close the **Partner Manager Envelope Setup** dialog box.

Figure 144 Partner Manager Envelope Setup (Changing Default Attributes)

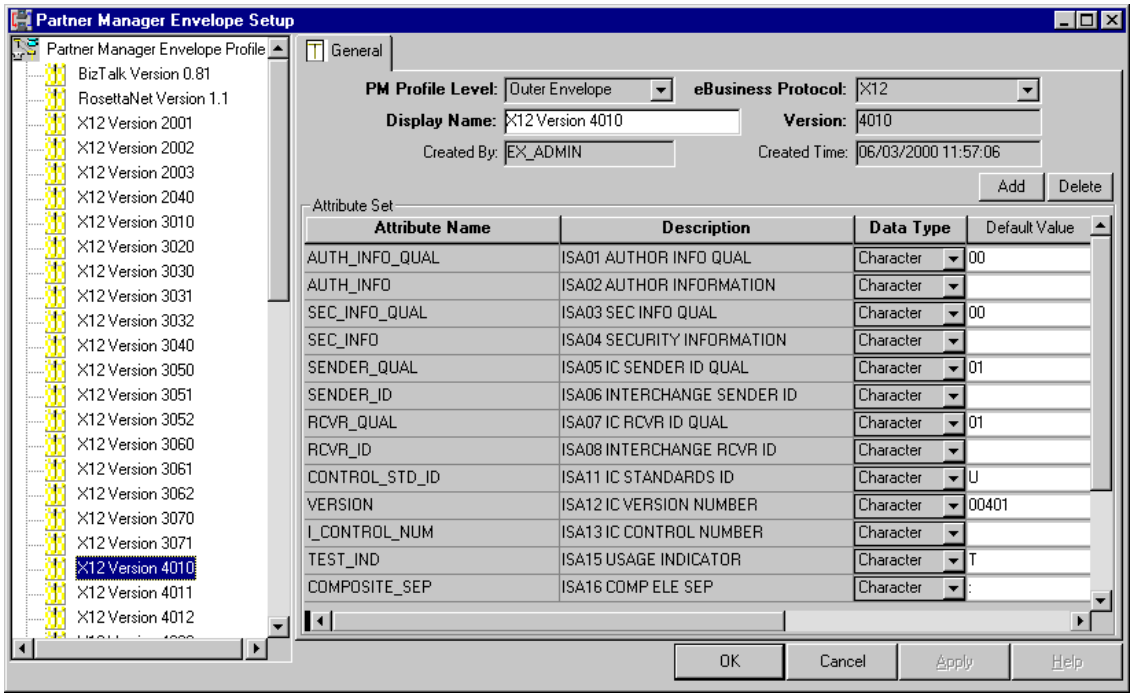


Table 63 Partner Manager Envelope Setup Fields

Name	Description
PM Profile Level	The trading partner profile level: Company, Trading Partner, Outer Envelope, or Inner Envelope. Components are sorted first by type and then by name, so you will have to scroll down to select an inner envelope.

Table 63 Partner Manager Envelope Setup Fields (Continued)

Name	Description
eBusiness Protocol	(For outer and inner envelopes) The eBusiness protocol that you are using; X12, UN/EDIFACT, RosettaNet, or CIDX.
Display Name	The name of the profile as it appears in e*Xchange Client for Windows.
Version	(For outer and inner envelopes) The version of the eBusiness protocol that applies to this profile; for example, 4010 for X12 or 1.1 for RosettaNet.
Created By	The user ID of the person who created the profile is displayed.
Created Time	The time at which the profile was created is displayed.
Attribute Set	The attributes for this version of the outer or inner envelope. Each attribute includes the following: **Attribute Name**—The name of the attribute is displayed. **Description**—A description of the attribute is displayed. **Data Type**—The data type of the attribute (Boolean, character, date, datetime, integer, or time) is displayed. **Default Value**—To set a default value for this attribute, type the value. The default applies to all instances of the attribute for that eBusiness protocol version, although the default can be changed at a later level. **Min Size**—The minimum number of characters allowed for this attribute. **Note**: Do not change this value for existing attributes. **Max Size**—The maximum number of characters allowed for this attribute. **Note**: Do not change this value for existing attributes. **Required**—A value is displayed indicating whether the attribute is required or not. **Created By**—The user ID of the person who last saved the attribute. **Created Time**—The date and time the default attribute value was last saved.

12.5 Working With Inner Envelope Definitions

An inner envelope definition is a set of parameters you specify for each unique message type you process with e*Xchange. This window allows you to specify default values for each eBusiness message. The inner envelope definition also associates the Validation Collaboration that is needed to validate the message.

As part of Inner Envelope Definition Setup you must do the following:

- Create a separate inner envelope definition for each eBusiness protocol version that you will be using. Once the definition is in place, you will be able to create trading partner profile inner envelopes for that protocol version.
- Create one inner envelope definition for each message you intend to send or receive as a request or inquiry to or from a trading partner, and one inner envelope for each message you intend to send or receive as an acknowledgment or response to or from a trading partner.

- For each eBusiness protocol version that you will be using, set default attribute values.
- For each eBusiness protocol version that you will be using, define the specific messages that you will use, with the validation Collaboration and attribute values of each.

You must set up messages separately for each eBusiness protocol you will be using.

Part of defining the inner envelope definition is specifying the validation Collaboration, if applicable. You can either select from the list, or type in the validation Collaboration name.

If you are using a validation Collaboration, you can create it in either of the following ways:

- With the Validation Rules Builder (see **Appendix C**)
- With the e*Gate Collaboration Editor. Once you have created the validation Collaboration, you must promote it to runtime.

Once set up, the validation Collaborations are available for selection when setting up trading partner information.

12.5.1 Creating Inner Envelope Definitions

Once you have set the defaults for your extended attributes, the next step is to set up each type of eBusiness message that you will be using, for each protocol version in use at your installation.

In the **Inner Envelope Definition Setup** dialog box you have the opportunity to override the defaults you set in **Partner Manager Envelope Setup**. Defaults set in **Inner Envelope Definition Setup** are carried forward to any inner envelopes you set up that reference the specific transaction description/validation Collaboration combination.

You must finish this step before setting up the actual trading partners, outer envelopes, and inner envelopes.

To create or edit inner envelope definitions, you must be a member of the eX Administrator group.

Note: *The default values that you set here are applied to future trading partner profiles only. Changes made in **Partner Manager Envelope Setup** or **Inner Envelope Definition Setup** to the default values do not affect existing trading partner profiles.*

To add an eBusiness message type for an eBusiness protocol version

1. On the **Functions** menu, point to **System Administration**, and then click **Inner Envelope Definition Setup**.

   The **Inner Envelope Definition Setup** dialog box appears (see **Figure 145 on page 260**).
2. In the left pane, select the eBusiness protocol version.
3. Click the **Details** tab.

4 Click **Add** <<.

5 Define new inner envelope message types for this outer envelope, as follows:

- Enter a description of the inner envelope message.
- Choose or type the name of the validation Collaboration that you want to use to process messages of this type.
- Click **Apply** to validate and save the new values.

6 Optional: Add extended attributes, as follows:

- Select the item on the list for which you want to set default extended attributes.
- In the **Available Attributes** box, highlight an attribute name.
- Click **Add**. The attribute appears in the **Current Attributes** box.
- In the **Data Value** box, type the value for the attribute.
- Click **Apply**.
- Repeat as needed to add additional extended attributes.

7 Optional: set or modify default extended attribute values, as follows:

- Select the item to be modified.
- In the **Current Attributes** group box, in the **Data Value** box, type the default attribute value.
- Click **Apply**.

8 Repeat steps 4 through 7 for each inner envelope message type.

9 Click **OK** to save and close.

To set up detailed information for predefined inner envelope definitions

1 On the **Functions** menu, point to **System Administration**, and then click **Inner Envelope Definition Setup**.

The Inner Envelope Definition Setup dialog box appears (see Figure 145).

2 In the left pane, select the eBusiness protocol version.

3 Click the **Details** tab.

4 On the **Details** tab (see **Figure 146 on page 261**), highlight the message type to be edited. You can change the Description and Validation Collaboration; you can also add, edit, or delete Current Attributes. For more information, see **Table 65 on page 261**.

5 Click **Apply** to save the new information, and **OK** to close the Inner Envelope Definition Setup dialog box.

Figure 145 Inner Envelope Definition Setup, General Tab

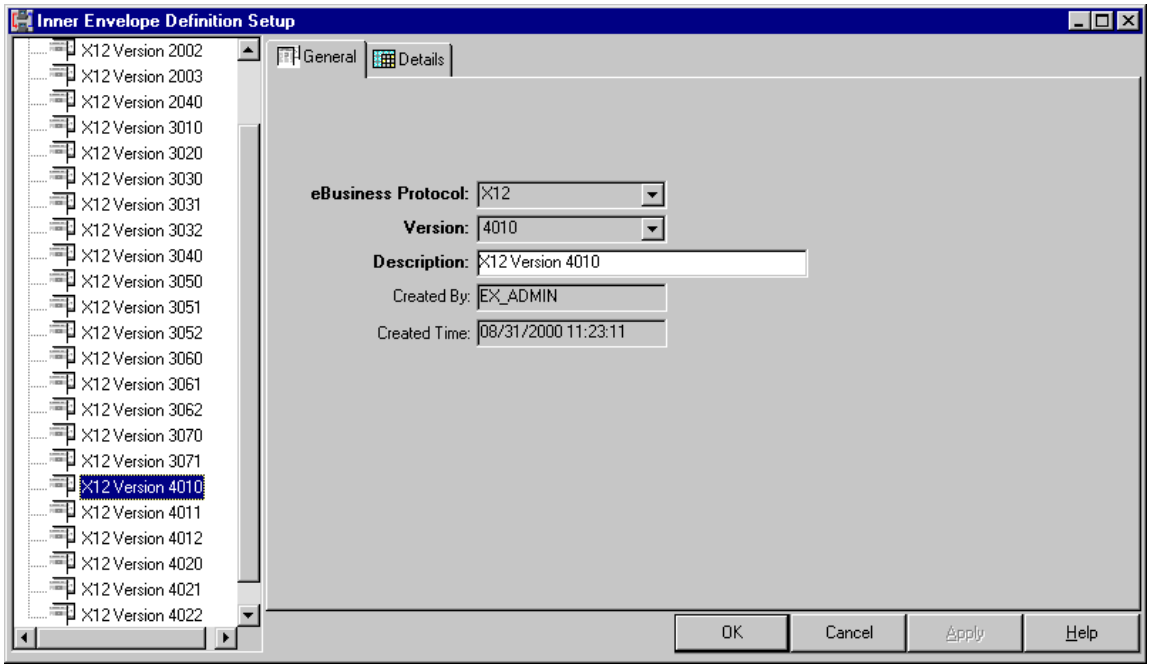


Table 64 Inner Envelope Definition Setup, General Tab, Fields

Name	Description
eBusiness Protocol	The eBusiness protocol that you are using; X12, UN/EDIFACT, RosettaNet, or CIDX.
Version	The version number of the eBusiness protocol that applies to this type of message. The values that appear in this drop-down list are determined by the eBusiness protocols and versions defined on the **Partner Manager Envelope Setup** dialog box.
Description	The description of this inner envelope definition is displayed.
Created By	The user ID of the person who created the inner envelope definition is displayed.
Created Time	The date and time the inner envelope definition was created is displayed.

Figure 146 Inner Envelope Definition Setup, Details Tab

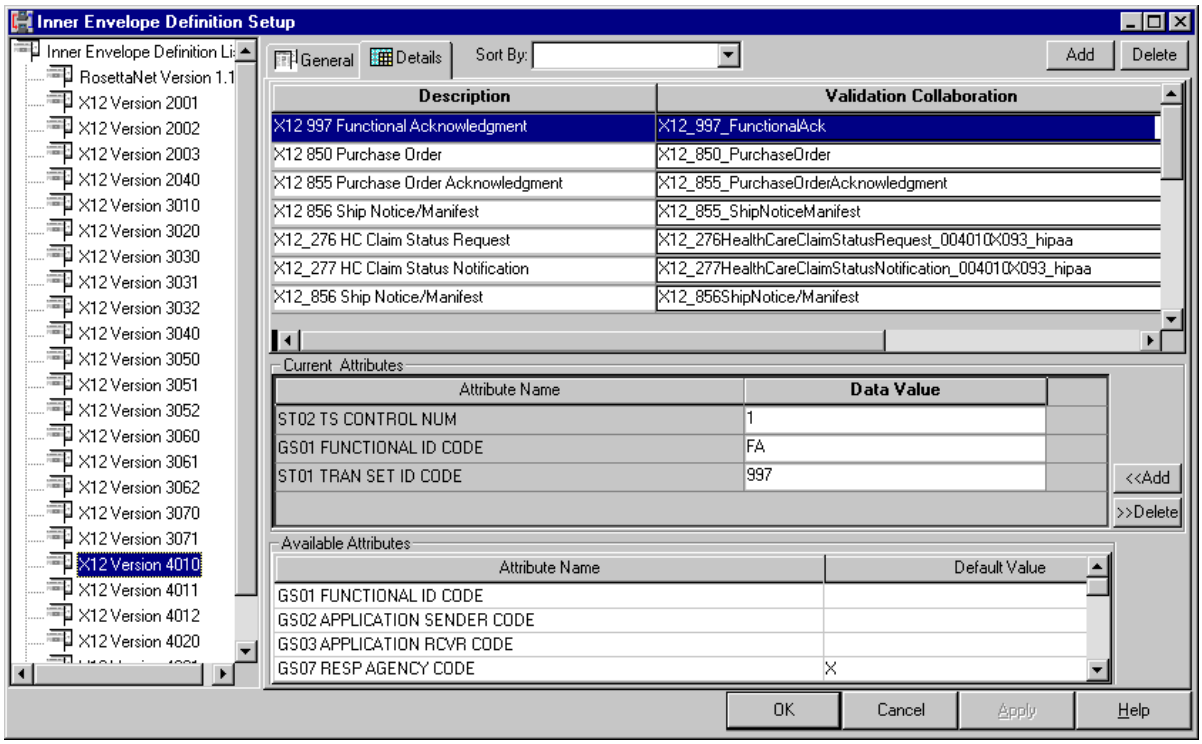


Table 65 Inner Envelope Definition Setup, Details Tab, Fields

Name	Description
Sort By	The value by which you want to sort the list of message types. Choices: Description or Validation Collaboration.
Add button	To add a message to the list, click **Add**.
Delete button	To delete a message from the list, highlight it, and then click **Delete**.
Description	A description of the message type.
Validation Collaboration	The name of the validation Collaboration you created for this message. You can type a name or select from the drop-down list.
Created By	The user ID of the person who last saved the inner envelope definition is displayed.
Created Time	The date and time the inner envelope definition was updated or saved is displayed.
Current Attributes	Any attributes currently specified for the highlighted message type are listed. You can set a default data value for any of these, override an existing default value, or delete an attribute. Default values for the attributes can be set up in **Partner Manager Envelope Setup**. For more information, see **"Partner Manager Envelope Setup" on page 255**.

Table 65 Inner Envelope Definition Setup, Details Tab, Fields (Continued)

Name	Description
Available Attributes	The attributes available for selection to the inner envelope, as preloaded during e*Xchange installation, are listed. You can add any of these attributes to the inner envelope definition by highlighting the attribute and then clicking the **Add** button.

12.6 Working With Message Tracking Attributes

Message tracking attributes are unique values, or combinations of values, used to identify a specific message stored in the e*Xchange database. These are the specific enveloping values required for the eBusiness protocol: for example, I_CONTROL_NUM for X12, IC_CONTROL_REF for UN/EDIFACT, or MSG_TRACKING_ID for RNIF 2.0.

12.6.1 Creating and Editing Message Tracking Attributes

The system comes with predefined attributes. It is important that you do not change these. However, to accommodate possible future changes in the database, the system offers the flexibility of adding new attributes when needed.

You can also edit existing message tracking attribute sets. This is not recommended for most instances; but if you do modify existing default attributes or add new attributes, this must be accompanied by the relevant changes to the Monk Collaborations that perform the message handling in the **eX_ePM** e*Way.

Note: *To access message tracking attributes, you must be a member of the eX Administrator group.*

To create a new message tracking attributes set

1. On the **Functions** menu, point to **System Administration**, and then click **Message Tracking Attributes Setup**.

   The **Message Tracking Attributes Setup** dialog box appears (see Figure 147).

2. On the e*Xchange Client for Windows Toolbar, click **New**  .
3. In the upper portion of the **General** tab, enter general information about the message tracking attributes set (see Table 66).
4. For each attribute, click **Add**, and then enter the appropriate information in the Attribute Set fields (see Table 66).
5. Click **Apply** to validate and save the new information.
6. Click **OK** to close the **Message Tracking Attributes Setup** dialog box.

To edit a predefined message tracking attributes set

1. On the **Functions** menu, point to **System Administration**, and then click **Message Tracking Attributes Setup**.

   The **Message Tracking Attributes Setup** dialog box appears (see **Figure 147 on page 263**).

2. In the left pane, select the name of the profile you want to change.

Note: *Two profiles might have the same name if one is for an outer envelope and the other is for an inner envelope. Make sure you select the profile for the correct envelope layer (in the **PM Profile Level** display box) before continuing to the next step.*

3. On the **General** tab, change the default attribute values as needed for your business. Only **Display Name**, **Min Size** and **Max Size** can be changed. For more information, see Table 66.
4. Click **Apply** to validate and save the new values.
5. Click **OK** to close the **Message Tracking Attributes Setup** dialog box.

Figure 147 Message Tracking Attributes Setup

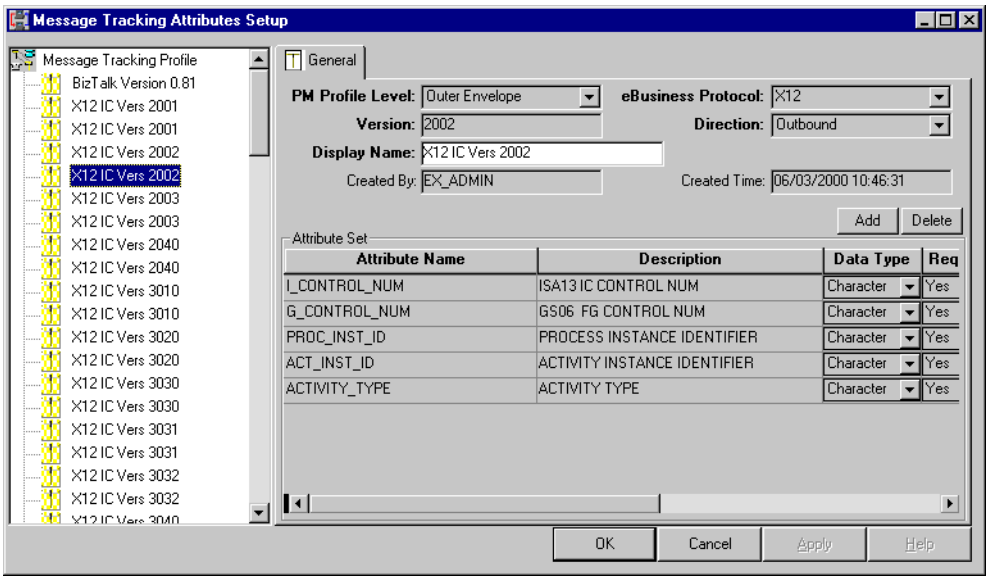


Table 66 Message Tracking Attributes Setup Fields

Name	Description
PM Profile Level	The trading partner profile level: Outer Envelope or Inner Envelope. When viewing an existing profile, this reflects the selection highlighted in the left pane. When adding a profile, select the appropriate level.
eBusiness Protocol	The eBusiness protocol; X12, UN/EDIFACT, RosettaNet, or CIDX.
Version	The version of the eBusiness protocol.
Direction	The direction (outbound or inbound) of the eBusiness protocol.

Table 66 Message Tracking Attributes Setup Fields (Continued)

Name	Description
Display Name	The name of the profile, as you want it to appear in e*Xchange Client for Windows. Default: a combination of eBusiness protocol, version, and direction; for example, X12-2001-IC-Inb for X12 version 2001 Interchange inbound.
Created By	The user ID of the person who created the attribute set is displayed.
Created Time	The date and time the attribute set was created is displayed.
Attribute Set	The attributes for the profile. Each attribute includes the following: **Attribute Name**—The name of the attribute. This is display-only for predefined attributes. **Description**—A description of the attribute. This is display-only for predefined attributes. **Data Type**—The data type of the attribute (Boolean, character, date, datetime, integer, or time). This is display-only for predefined attributes. **Required**—A value indicating whether the attribute is required or not: Yes or No. **Default Value**—The default value that will appear for this attribute when users define new trading partner profiles. **Min Size**—The minimum size, in characters, of the default attribute value. **Max Size**—The maximum size, in characters, of the default attribute value. Setting minimum and maximum size restricts the user, when using this attribute, to appropriate values. This helps prevent user error. **Created By**—The user ID of the person who last saved the attribute. **Created Time**—The date and time the default attribute value was last saved.

12.7 Working With Field Lists

e*Xchange Client for Windows provides various drop-down selection lists for your use when setting up companies, trading partners, outer envelopes, and inner envelopes. The items available for selection from these lists are determined by the code tables. Code tables do not normally need to be changed. Maintenance and any necessary updating is normally done by the administrator.

12.7.1 Creating and Editing Code Table Values

Most of the code tables are required by the system, and cannot be changed. However, the system allows you to add values to some of the lists, and to edit some of the existing values. For example, the system includes a list of trading partner categories. When adding a new trading partner, you can assign a trading partner to a category; for example, you could set up trading partner categories of Wholesaler, Retailer, and Manufacturer. By going into the code table and adding or changing values, you can change your category list.

Note: *To create or edit code tables, you must be a member of the eX Administrator group.*

To edit list values

1 On the **Functions** menu, point to **System Administration**, and then click **Code Tables**.

The **Code Tables** window appears (see Figure 148).

2 In the left pane, select the name of the code table you want to edit. The properties for the selected code table appear in the right pane.

Note: *You cannot edit a read-only table or read-only values in any table. Read-only code tables and values are maintained by SeeBeyond because the values affect processing.*

3 To add a code to the table, click **Add**.

4 In the **Code** box, type the code for the new list item.

5 In the **Description** box, type a short description of the new list item.

6 Click **Apply** to validate and save the new item.

7 Repeat steps 3 through 6 as needed until all values have been added to the table.

8 Click **OK** to close the Code Tables window.

Figure 148 Code Tables Window

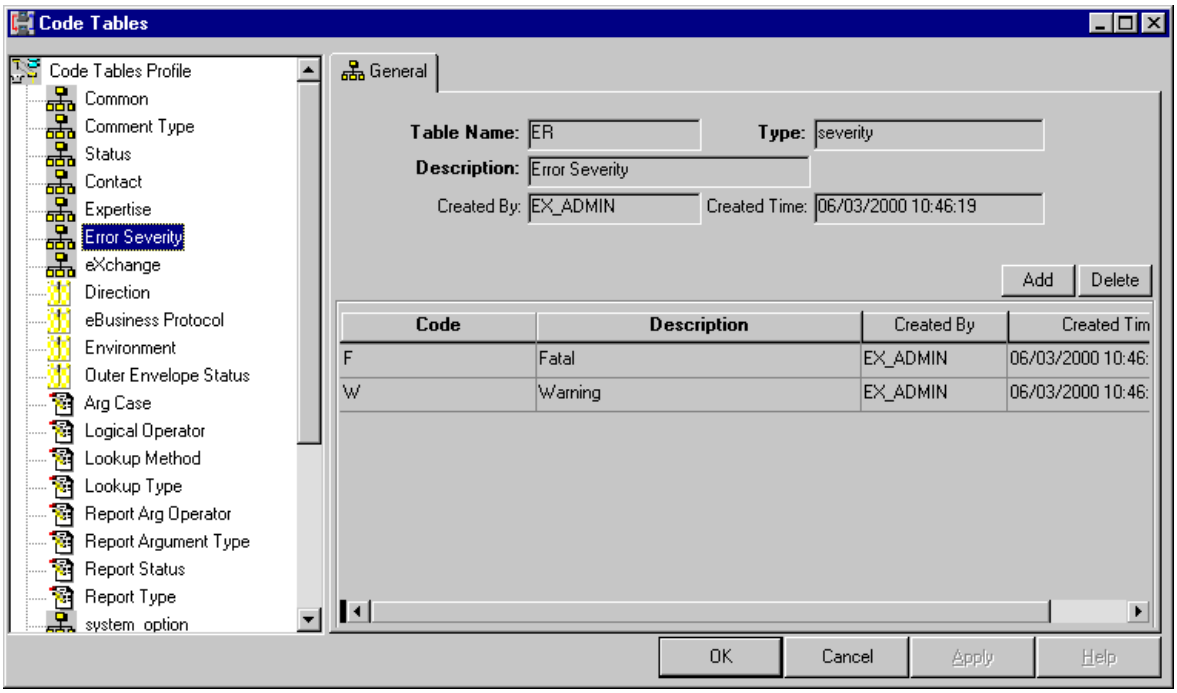


Table 67 Code Tables Window

Name	Description
Table Name	A short name for the code table; for example, the table name for the Error Severity table is ER. The table name must be unique.

Table 67 Code Tables Window (Continued)

Name	Description
Type	A description of the type of table; for example, the type for the Error Severity table is "severity." The table type must be unique.
Description	A short description of the code table. This is the name by which the code table is sorted when it is added to the code tables list and displayed in the left pane.
Created By	The user ID of the person who created the code table is displayed.
Created Time	The date and time the code table was created is displayed.
	Each line in the code table includes the following information: **Code**—The code assigned to a specific list item. **Description**—The description of a specific list item. This is the value that the user sees on the system list. **Created By**—The user ID of the person who created this item on the code table. **Created Time**—The date and time at which this item on the code table was created.

12.8 Working With System Defaults

Before you use e*Xchange Client for Windows, you should verify the default processing options to ensure they are appropriate for your business.

Note: *To set system defaults, you must be a member of the eX Administrator group.*

To establish system defaults

1. On the **Functions** menu, point to **System Administration**, and then click **System Defaults**.

   The **System Defaults** dialog box appears (see Figure 149).

2. Set default values that are appropriate for your business (see Table 68).

Note: *Some values, such as **Idle Shutdown Time** and **FastBatch Timeout**, require e*Xchange Client for Windows to be restarted before the changes come into effect. Others, such as **Display Active Profiles Only**, are updated immediately.*

3. Click **Apply** to validate and save the system default values.
4. Click **OK** to close.

Figure 149 System Defaults

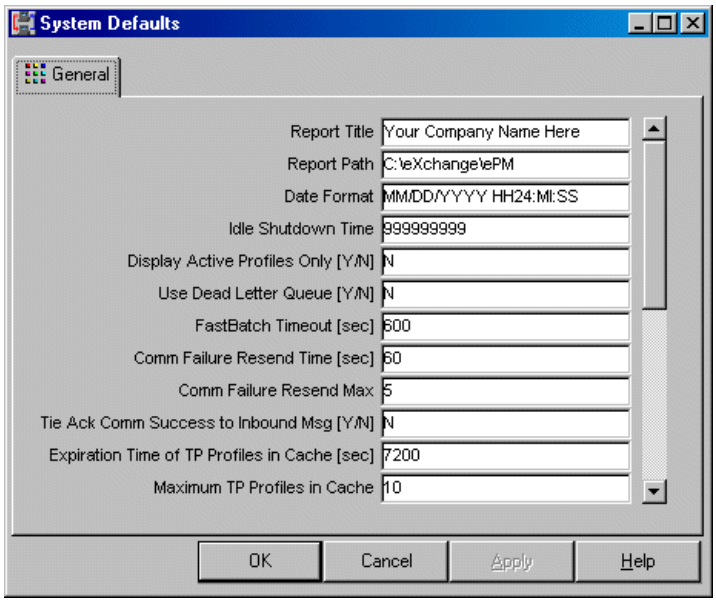


Table 68 System Default Fields

Name	Description
Report Title	The standard title to be listed on all reports generated from e*Xchange Client for Windows.
Report Path	The name of the drive and folder that contains reports that can be generated from e*Xchange Client for Windows. **Note**: Installation includes default reports, stored in the main e*Xchange folder set up during installation. If you accepted the default, this is **C:\eXchange\ePM**. Be sure to update the report path appropriately.
Date Format	(Oracle databases only) The date format used in the database and used for all dates displayed in e*Xchange Client for Windows. The default is displayed; you can change it to any other date format supported by Oracle.
Idle Shutdown Time	The number of seconds of keyboard or mouse inactivity before e*Xchange Client for Windows is closed if it is not being used. The default is 999999999 seconds.
Display Active Profiles Only	Select this check box to display only active trading partner profiles in e*Xchange Client for Windows. If this box is not selected, all trading partner profiles, active or inactive, will be displayed in the left pane of the Partner Manager window.
Use Dead Letter Queue	(X12 only) Set this field to **Y** to send messages to the Dead Letter Queue if e*Xchange encounters any of the following errors with a message: ▪ Invalid interchange information in a message from the trading partner ▪ Invalid data in the ST/SE segments in a message from the trading partner ▪ Duplicate message, either inbound or outbound **Note**: If you set this to **Y**, you must create a BOB or e*Way component in the e*Xchange e*Gate schema to subscribe to the **eX_Error** Event. If set to **N**, the Dead Letter Queue is not used.

Table 68 System Default Fields (Continued)

Name	Description
FastBatch Timeout	The maximum amount of time that items for a batch are held before being sent out. As soon as e*Xchange receives all the messages for a batch, the batch is sent out. However, if one or more messages for a specific batch does not reach e*Xchange for any reason (for example, because of errors), the incomplete batch is sent out when the **FastBatch Timeout** value is reached.
Comm Failure Resend Time	(RosettaNet 2.0 only) For messages sent via HTTP or HTTPS, this controls the resend time for messages if the HTTP or HTTPS post was not successful.
Comm Failure Resend Max	(RosettaNet 2.0 only) For messages sent via HTTP or HTTPS, this controls the number of times a message will be resent if the HTTP or HTTPS post was not successful.
Tie Ack Comm Success to Inbound Message	(RosettaNet 2.0 only) If you set this to **Y**, e*Xchange Client for Windows stores incoming messages sent by HTTP or HTTPS, sends the acknowledgment back to the trading partner, and waits to ensure that the HTTP or HTTPS post was successful before sending the message on to the internal system.
Expiration Time of TP Profiles in Cache	The amount of time for which a trading partner profile held in memory cache is used before being refreshed. Default: 7200 seconds (2 hours). If you do not want TP profiles to be cached in memory, set this value to 0. If you do not want TP profiles to be refreshed at all once cached in memory for the session, set this value to -1.
Maximum TP Profiles in Cache	The maximum number of trading partner profiles to be held in memory. If a greater number of trading partner profiles is accessed during one session, the profile that has been in memory longest is discarded. Caching of trading partner profiles speeds up performance by reducing interaction with the database. Default: 10. If you want all profiles to be stored in cache, with no upper limit, set this value to 0 and ensure that a valid expiration time is set for **Expiration Time of TP Profiles in Cache**.
Win GUI - Msg Track retrieval # for warning	The maximum number of messages allowed in e*Xchange Client for Windows for the Message Tracking Details list before e*Xchange provides a warning, allowing the user the option to redefine search criteria to make a smaller list. **Note**: This setting does not affect the Web interface.
Maximum Batch Individual Transaction Count	For batched transactions only: The maximum number of transactions of one type (for example, X12 850) that can be sent in one batch. **Note**: Maximum Batch Individual Transaction Count and Maximum Batch File Size work together to ensure batches are not too large. The first of these limits that is reached determines the maximum batch size.
Maximum Batch File Size	For batched transactions only: The maximum total file size for one batch. **Note**: Maximum Batch Individual Transaction Count and Maximum Batch File Size work together to ensure batches are not too large. The first of these limits that is reached determines the maximum batch size.

Note: *The optimum values for the last two boxes, above, will vary according to the amount of memory available. The more information your system can store in memory, the*

*faster e*Xchange will run, since there is less interaction with the database. If you want to increase performance, experiment with these settings to determine the optimum values.*

12.9 Working With the Error Table

If there is an error in processing a message, e*Xchange assigns one of a number of predefined numerical error codes to the message. For a list of the predefined error codes, see **Table 70 on page 271**.

These codes come with descriptions in the form of short messages; however, you can change the messages. For example, you could indicate who should be alerted if there is a specific error. Your revised messages will appear in the Message Tracking dialog box if a specific message generates that error.

Note: *To access the error table, you must be a member of the eX Administrator group.*

To redefine an error message

Note: *Although you can redefine the default error messages, it is better to leave them as they are unless there is a good reason to change them.*

1. On the **Functions** menu, point to **System Administration**, and then click **Error Table**.

   The **Error Table** dialog box appears (see Figure 150).
2. Highlight the message in the list, and then type the new error description.
3. Click **Apply** to validate and save the error message information.
4. Click **OK** to close the **Error Table** dialog box.

Figure 150 Error Table

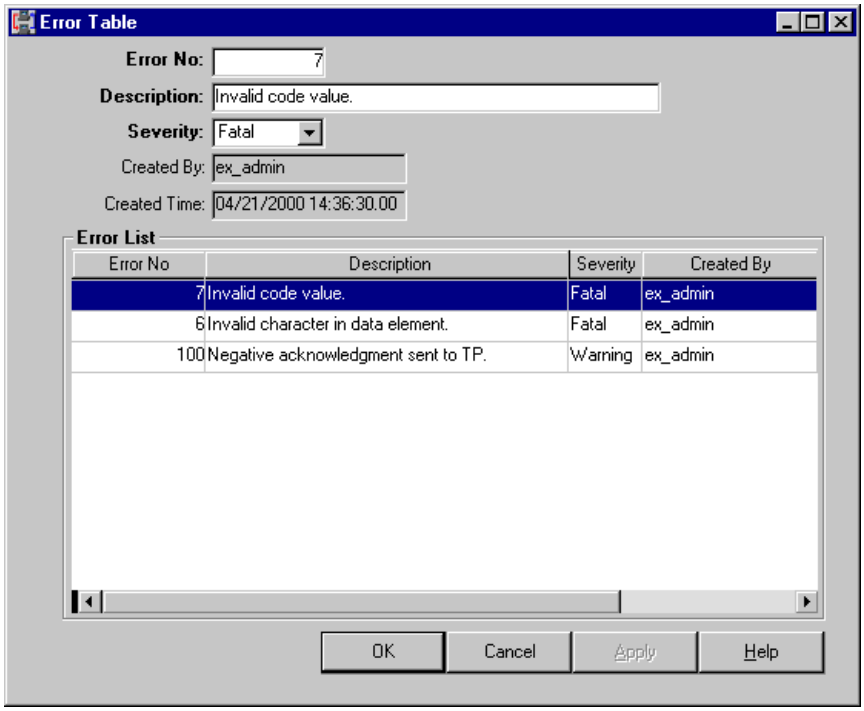


Table 69 Error Table Fields

Name	Description
Error No	The number that you want to assign to the error message.
Description	The error message description.
Severity	The severity level of the error (Fatal or Warning).
Created By	The user ID of the person who updated the system defaults is displayed.
Created Time	The date and time the system defaults were updated is displayed.

12.9.1 Pre-Set Error Codes

The following types of error codes are used by e*Xchange. They are listed in the tables below, broken down by type:

- **"X12 AK403 (Data Element Syntax) Error Codes" on page 271**
- **"X12 AK905 (Functional Group Syntax) Error Codes" on page 271**
- **"X12 TA105 (Interchange Note) Error Codes" on page 272**
- **"RosettaNet Error Codes" on page 273**
- **"Additional Error Codes Used in e*Xchange" on page 274**

Note: *Only the codes listed in Table 70 can be edited in the* ***Error Table*** *dialog box.*

Table 70 X12 AK403 (Data Element Syntax) Error Codes

Error Code	Description
1	Mandatory data element missing.
2	Conditional required data element missing.
3	Too many data elements.
4	Data element too short.
5	Data element too long.
6	Invalid character in data element.
7	Invalid code value.
8	Invalid date.
9	Invalid time.
10	Exclusion condition violated.

Table 71 X12 AK905 (Functional Group Syntax) Error Codes

Code	Description
1	Functional group not supported.
2	Functional group version not supported.
3	Functional group trailer missing.
4	Group control numbers in the Functional Group header and trailer do not agree.
5	Number of included transaction sets does not match actual count.
6	Group control number violates syntax.
10	Authentication key name unknown.
11	Encryption key name unknown.
12	Requested service (authentication or encryption) not available.
13	Unknown security recipient.
14	Unknown security organizer.
15	Syntax error in decrypted text.
16	Security not supported.
17	Incorrect message length (encryption only).
18	Message authentication code failed.
23	S3S security end segment missing for S3E security start segment.
24	S3E security start segment missing for S3E security end segment.
25	S3E security end segment missing for S4S security start segment.
26	S3E security start segment missing for S4S security end segment.

Table 72 X12 TA105 (Interchange Note) Error Codes

Code	Description
0	No error.
1	Interchange control numbers in header and trailer do not match.
2	This standard as noted in the control standards identifier is not supported.
3	This version of the controls is not supported.
4	The segment terminator is invalid.
5	Invalid interchange ID qualifier for sender.
6	Invalid interchange sender ID.
7	Invalid interchange ID qualifier for receiver.
8	Invalid interchange receiver ID.
9	Unknown interchange receiver ID.
10	Invalid authorization information qualifier value.
11	Invalid authorization information value.
12	Invalid security information qualifier value.
13	Invalid security information value.
14	Invalid interchange date value.
15	Invalid interchange time value.
16	Invalid interchange standards identifier value.
17	Invalid interchange version ID value.
18	Invalid interchange control number value.
19	Invalid acknowledgment requested value.
20	Invalid test indicator value.
21	Invalid number of included groups value.
22	Invalid control structure. **Note**: If you get an error 22, check for a space at the end of the X12 message. An extra space before the end of the message will cause this error.
23	Improper (premature) end-of-file (transmissions).
24	Invalid interchange content (e.g., invalid GS segment).
25	Duplicate interchange control number.
26	Invalid data element separator.
27	Invalid component element separator.
28	Invalid delivery data in deferred delivery request.
29	Invalid delivery time in deferred delivery request.
30	Invalid delivery time code in deferred delivery request.
31	Invalid grade of service code.

Table 73 RosettaNet Error Codes

Code	Description
5005	Invalid Global Administering Authority Code.
5010	Invalid Global Usage Code.
5015	Invalid Date/Time.
5020	Invalid VersionIdentifier.
5025	Invalid Global Process Code.
5030	Invalid Process Indicator Code.
5035	Invalid From Global Business Service Code.
5025	Invalid To Global Business Service Code.
5040	Invalid From Global Partner Role Classification Code.
5040	Invalid To Global Partner Role Classification Code.
5045	Invalid Transaction Code.
5045	Missing Transaction Code.
5050	Invalid Time To Acknowledge Acceptance.
5055	Invalid Time To Acknowledge Receipt.
5060	Invalid Time To Perform.
5065	Invalid Global Document Function Code.
5070	Invalid Global Business Action Code.
5070	Missing Global Business Action Code.
5075	Invalid From Global Partner Classification Code.
5075	Missing From Global Partner Classification Code.
5080	Invalid To Global Partner Classification Code.
5080	Missing To Global Partner Classification Code.
5085	Invalid Sender Business ID.
5085	Missing Sender Business ID.
5090	Invalid Destination Business ID.
5090	Missing Destination Business ID.
5092	Invalid From Global Partner Classification Code.
5092	Missing From Global Partner Classification Code.
5095	Missing Global Business Signal Code.
5095	Invalid Global Business Signal Code.
5097	Invalid To Global Partner Classification Code.
5097	Missing To Global Partner Classification Code.
6010	eX_ROS_main: Internal error. Unknown signal name <processing error message>.
6020	ux-get-header failed for ack.

Table 73 RosettaNet Error Codes (Continued)

Code	Description
6030	ux-init-trans() failed for ack store_msg: <processing error message>.
6040	eX_Convert_ROSG_to_ContentSig failed.
6050	ex-security-process failed in eX_ROS_main.
6060	ex-security-process failed in eX_ROS_main.
6070	eX_Convert_ContentSig_to_ROS failed.
6080	ux_ack_handler failed.
6090	ux_init_trans failed for ack_handler.
6100	ux_store_msg failed.
6110	event-send-to-egate failed.
6120	ux-init-trans() failed: <processing error message>.
6130	Got Monk exception: <processing error message>.
6140	Got Monk exception <processing error message>.
6160	Got Monk exception <processing error message>.
6170	Got Monk exception <processing error message>.
6180	ex_Convert_ContentSig_To_ROS failed.
6190	ux-dbproc-ros-outb() failed: <processing error message>.
6200	database process failed.
6210	event-send-to-egate failed.
6220	event-send-to-egate failed.
6300	Late or unexpected response.
8000	SetRetryMax: db-sql-fetch failed.
8010	SetRetryMax: db-sql-select failed.

Table 74 Additional Error Codes Used in e*Xchange

Code	Description
1	Invalid control number.
6	Invalid character in data element.
7	Data error in specified position.

12.10 Attribute Value Maintenance

As part of trading partner setup, you must enter values for the various enveloping layers of the eBusiness protocol that you use. These values are set in the Extended Attributes tab at the Outer Envelope and Inner Envelope layers for each trading partner.

Most of the attributes have a predefined range of acceptable values, as defined by the eBusiness protocol. For example, in X12 version 4020, the ISA15 Usage Indicator is T (for Test) or P (for Production); in RosettaNet, the Global Usage Code is Test or Production; in UN/EDIFACT, the Syntax Version is 3 or 4. Some attributes have a long list of acceptable values, or the values have long names; in these cases, selection lists of acceptable values are particularly useful. These acceptable values are set up in Attribute Value Maintenance.

e*Xchange Client for Windows comes with many attributes predefined and their sets of acceptable values already entered. You can add, change, or delete these predefined values. You can also add new attributes and define values for them.

To define a new extended attribute and its list of possible values

1. On the **Functions** menu, point to **System Administration**, and then click **Attribute Value Maintenance**.

   The **Attribute Value Maintenance** dialog box appears (see Figure 151).

   For more information on individual fields, refer to Table 75.

2. To add an attribute, click **New**  .
3. Specify the eBusiness protocol and version.
4. In the **Attribute Proper Name** box, enter the attribute as it is referenced in the documentation for the eBusiness protocol.
5. Enter the minimum size and maximum size for the attribute.
6. If needed, add aliases for the attribute.
7. Under **Attribute Values**, add a line for each possible value of the attribute.
8. Click **OK** to save and close.

Figure 151 Attribute Value Maintenance

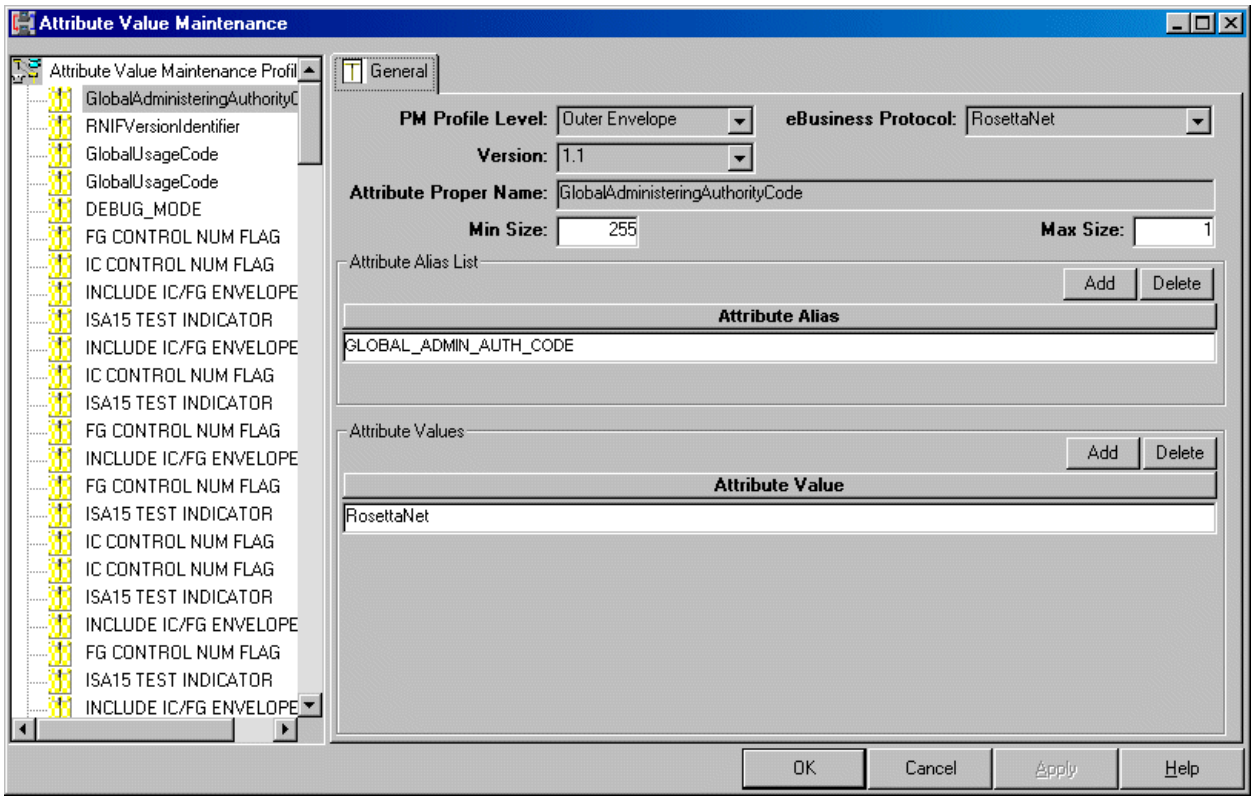


Table 75 Attribute Value Maintenance Fields

Name	Description
PM Profile Level	The trading partner profile level to which the attribute applies: Company, Trading Partner, Outer Envelope, or Inner Envelope.
eBusiness Protocol	The eBusiness protocol; X12, UN/EDIFACT, RosettaNet, or CIDX.
Version	The version of the specified eBusiness protocol to which the attribute applies.
Attribute Proper Name	The standard name of the attribute, by which it is known in the documentation for the eBusiness protocol.
Min Size	The minimum number of characters allowed for this attribute. **Note**: Do not change this value for existing attributes.
Max Size	The maximum number of characters allowed for this attribute. **Note**: Do not change this value for existing attributes.
Attribute Alias	If the same list of values is applicable to more than one extended attribute, you can set up aliases for the attribute as needed. For example, in RosettaNet, the set of values applying to the Global Partner Classification Code is used in the *from* and *to* attributes. By setting up an alias, you maintain only one list and cross-reference the other attributes to that list. ▪ To add an alias, click the **Add** button, and then enter the alias name. ▪ To change an alias, highlight it, and then enter the new information. ▪ To delete an alias, highlight it, and then click the **Delete** button.

Table 75 Attribute Value Maintenance Fields (Continued)

Name	Description
Attribute Value	The list of acceptable values for the attribute. ▪ To add a new value, click the **Add** button, and then enter the value. ▪ To change a value, highlight it, and then enter the new information. ▪ To delete a value, highlight it, and then click the **Delete** button.

Chapter 13

Storing Contact Data in e*Xchange Client for Windows

You can use e*Xchange Client for Windows to store information about the people you might need to contact in connection with the processing of messages to and from a specific trading partner.

For example, you could list your support contact at the trading partner's site. If there is one contact, you might store it at the company or trading partner level; if there is more than one contact you could store the information at different levels. For example, if there is a contact for certain transactions, you could store that information at the inner envelope level.

13.1 About the Contacts Feature

You can store contact information at the following levels:

- Company
- Trading Partner
- Outer Envelope
- Inner Envelope
- Reports

You can store information for up to four contacts per component:

- Primary Client Contact
- Secondary Client Contact
- Primary Internal Contact
- Secondary Internal Contact

Contact information is optional. You can add it when setting up a component for the first time, or at any point afterwards.

When you are setting up contacts for a subcomponent and have already set up contacts at a higher level, you can copy the contact information to the lower level. For example, if you already recorded a contact at the Trading Partner level and are setting up an

outer envelope, e*Xchange offers you the option of copying the contact information from the Trading Partner level.

The procedures below explain how to perform various activities relating to contact information. The **Contacts** tab works the same at all levels.

13.2 Working With Contacts

This section includes instructions for carrying out the following activities:

- Entering contacts when adding a new component: see **"Adding Contacts to a New Component" on page 279**
- Adding contacts to an existing component: see **"Adding Contacts to an Existing Component" on page 281**
- Updating existing contact information: see **"Changing Contact Information" on page 282**
- Deleting contacts: see **"Deleting Contact Information" on page 282**
- Copying contact information from an existing component: see **"Copying Contacts" on page 283**

13.2.1 Adding Contacts to a New Component

You can store information for up to four contacts per component.

To enter contacts when adding a new component

1. With the **New [Company, Trading Partner, Outer Envelope, or Inner Envelope]** window open, click **Contacts**.

   The **Contacts** tab appears, as shown in Figure 152.
2. In the **Contact Type** box, select from the drop-down list.
3. Enter contact address and other information as needed.

   For more information, see Table 76.
4. Click **Apply**.
5. If you want to add another contact, click **New**  , and then repeat steps 2 through 4 above.

Figure 152 Contacts Tab

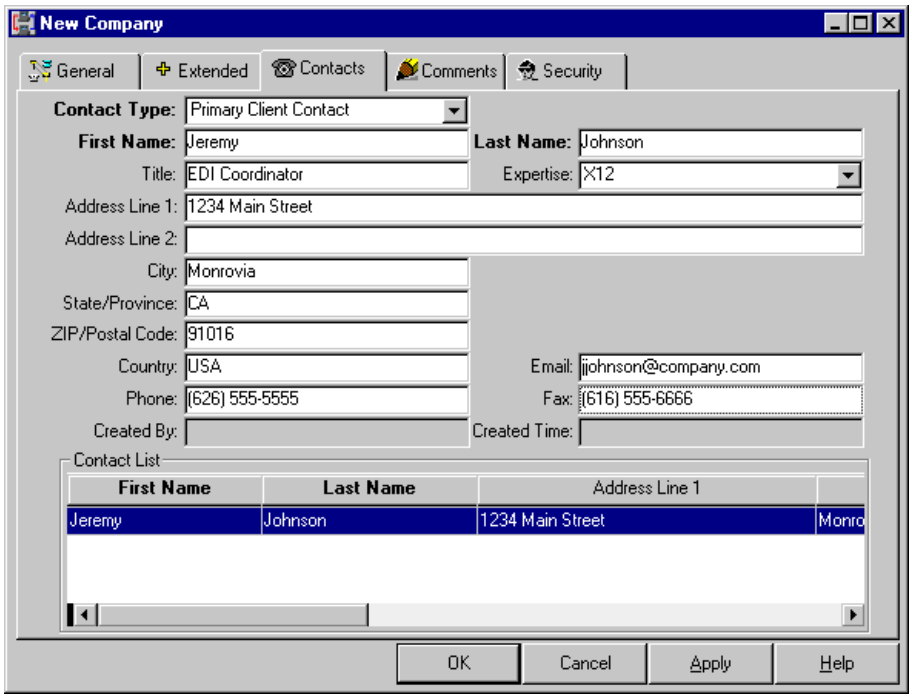


Table 76 Contacts Tab Fields

Name	Description
Contact Type	A value that specifies the kind of contact. These values are defined according to your business needs and are maintained by your administrator. Select from the drop-down list.
First Name	The contact's first name.
Last Name	The contact's last name.
Title	The contact's job title.
Expertise	The contact's primary area of knowledge and experience. Select from the drop-down list. These values are defined according to your business needs and are maintained by your administrator.
Address Line 1	The first line of the contact's street address.
Address Line 2	The second line of the contact's street address.
City	The city in which the contact is located.
State/Province	The abbreviation or name of the state in which the contact is located, or the name or code for the province.
ZIP/Postal Code	The ZIP or postal code associated with the contact's street address. You can enter a 5-digit ZIP code, a 9-digit ZIP+4 code, or any other postal code.
Country	The name or abbreviation for the country in which the contact is located.
Email	The contact's e-mail address.
Phone	The telephone number for the contact. Include the area code.
Fax	The fax number for the contact. Include the area code.

Table 76 Contacts Tab Fields (Continued)

Name	Description
Created By	The user ID of the person who added or updated the contact information is displayed.
Created Time	The date and time the contact was added or updated are automatically displayed when the record is saved.
Contact List	When a contact is set up for the company, it is added to the Contact List. To view the information for any pre-existing contact, highlight the contact on the Contact List. The contact information is displayed in the various boxes.

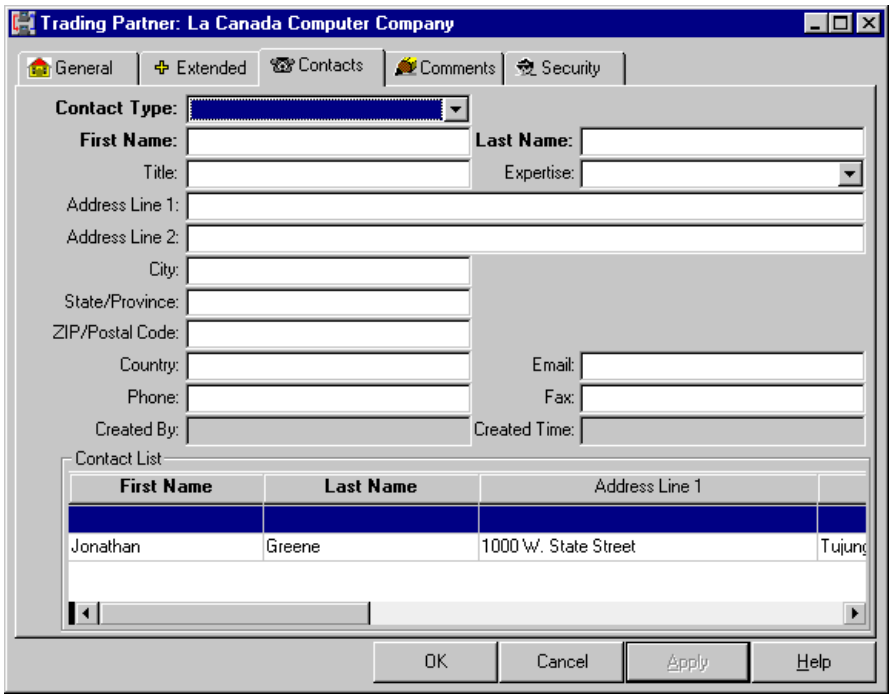
13.2.2 Adding Contacts to an Existing Component

Once a component has been saved, you can add contacts at any time.

To add a contact to an existing component

1. In the Partner Manager window, highlight the component.
2. On the toolbar, click **Properties** .
3. Click **Contacts**.
4. The **Contacts** tab appears, as shown in Figure 153.

Figure 153 Trading Partner Properties, Contacts Tab (Adding a Contact)



5 Click **New**  .

The values are cleared so that you can enter information about the new contact. Any pre-existing contacts are displayed on the Contact List.

6 Enter contact address and other information as needed.

For more information, see **"Contacts Tab Fields" on page 280**.

7 Click **Apply** to validate and save the new contact.

8 Repeat steps 5 through 7 as needed to add more contacts.

9 Click **OK** to close the **Properties** dialog box.

13.2.3 Changing Contact Information

You can update contact information at any point, as needed.

To update contact information

1 In the Partner Manager window, highlight the component.

2 On the toolbar, click **Properties**  .

The **Properties** dialog box for the selected component appears.

3 Click **Contacts**.

4 The **Contacts** tab appears.

5 On the Contact List at the bottom of the **Contacts** tab, highlight the contact to be edited.

6 Change any editable values as needed.

For more information, see **"Contacts Tab Fields" on page 280**.

7 Click **Apply** to validate and save the changed contact information.

8 Click **OK** to close the **Properties** dialog box.

13.2.4 Deleting Contact Information

You can delete contacts that are no longer valid or no longer needed.

To delete a contact from a component

1 In the Partner Manager window, highlight the component.

2 On the toolbar, click **Properties**  .

The **Properties** dialog box for the selected component appears.

3 Click **Contacts**.

4 The **Contacts** tab appears.

5 For each contact you want to delete, click the appropriate name at the bottom of the **Contacts** tab, and then click **Delete** .

The contact is deleted.

6 Click **Apply** to validate and save the deletion.

7 Click **OK** to close the **Properties** dialog box.

13.2.5 Copying Contacts

To save time, you can copy contact information from a component that you have already added to a component directly below it. You can copy contacts:

- From a company to a trading partner
- From a trading partner to an outer envelope
- From an outer envelope to an inner envelope

Once you have copied the information, you can modify it as needed.

To copy contact information from an upper component level to a lower level

1 In the Partner Manager window, highlight the component.

2 On the toolbar, click **Properties** .

The **Properties** dialog box for the selected component appears.

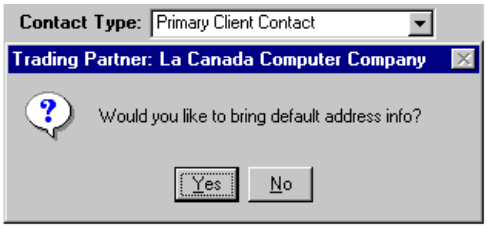
3 Click **Contacts**.

4 The **Contacts** tab appears.

5 In the **Contact Type** box, choose the kind of contact you want to copy.

A prompt appears, as shown in Figure 154.

Figure 154 Copy Contacts Prompt



6 Click **Yes**.

7 Modify the copied contact information if needed.

8 Click **Apply** to validate and save the new contact information.

9 Click **OK** to close the **Properties** dialog box.

Chapter 14

Tracking Notes and Action Items in e*Xchange Client for Windows

You can use e*Xchange Client for Windows to store supplemental information at each component level via the **Comments** tab.

You can include two types of information:

- Notes—You can record multiple notes, stored as free-form text.
- Action Items—You can record and track action follow-up items. Each item shows what needs to be done, its status, to whom it is assigned, and the due date. When the action item has been completed, you can record the resolution and close the action item.

14.1 Working With Notes and Action Items

You can store notes and action items at the following levels:

- Company
- Trading Partner
- Outer Envelope
- Inner Envelope
- Reports

The procedures below explain how to enter new notes and action items. The **Comments** tab works the same at all component levels.

This section includes instructions for carrying out the following activities:

- Adding a new note: see **"Entering Notes" on page 285**
- Adding a new action item: see **"Entering Action Items" on page 286**
- Add another note: see **"Adding Notes to an Existing Component" on page 287**
- Add another action item: see **"Adding Action Items to an Existing Component" on page 288**
- Change information about existing notes and action items: see **"Changing Notes and Action Items" on page 289**

- Convert a note into an action item, or an action item into a note: see **"Converting Notes and Action Items" on page 289**
- Delete a note or an action item: see **"Deleting Notes and Action Items" on page 290**
- Mark action items as complete: see **"Responding to Action Items" on page 290**

14.1.1 Entering Notes

You can store multiple notes, with a paragraph of free-form text for each.

To enter notes when adding a new component

1. With the **New [Component]** window open, click **Comments**.

   The **Comments** tab appears (see Figure 155).
2. In the **Type** box, select **Notes** (see Figure 155).
3. In the **Content** box, enter additional information as needed.

   For more information, see Table 77.
4. Click **Apply** to save.

   The comment is added to the Comment List.
5. If you want to add another note, click **New** , and then repeat steps 2 through 4 above.

Figure 155 New Company, Comments Tab (Notes)

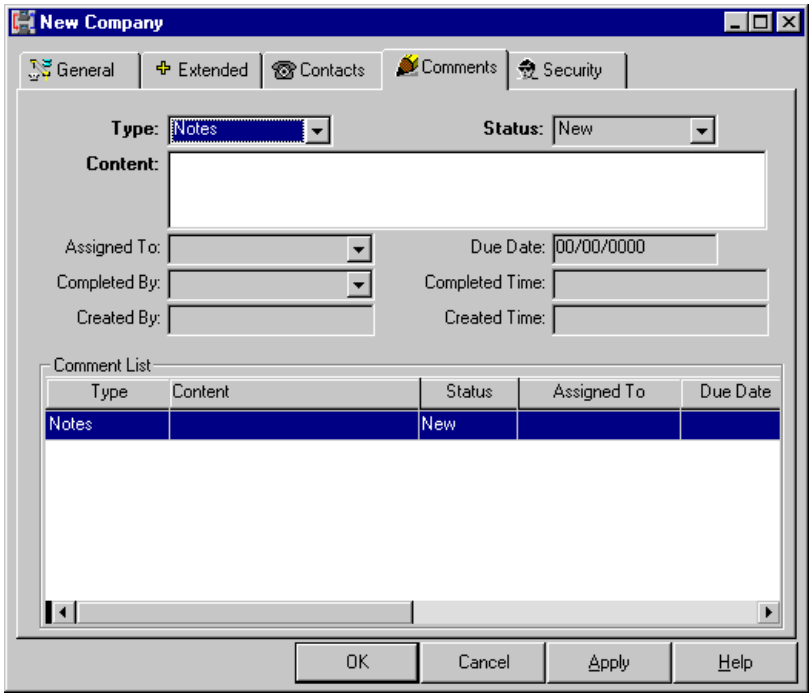


Table 77 Note and Action Item Fields

Name	Description
Type	The type of comment you are creating: **Notes**—indicates additional information about the component. **Action Follow Up**—indicates a task to be followed up and completed. Default: **Notes**.
Status	(Action Items Only) The current status of the action item. The status is always **New** when you add a new action item. After the action item is saved, you can change this status to either **Pending** or **Completed**. Default: **New**.
Content	The text of the note, or a description of the follow-up task. This is free-form, allowing up to 255 characters of text.
Assigned To	(Action Items Only) The name of the person to whom you want to assign the task. Actions assigned to a particular user (including yourself) are routed to that user and can be viewed on the My Action Items dialog box. For more information, see **"Responding to Action Items" on page 290**.
Due Date	(Action Items Only) The date by which the action should be completed. You can click the **Search** button next to this box to display a calendar, from which you can choose the date.
Completed By	(Action Items Only) When you change the status of an action item to Completed, you must specify the person who completed the action. At all other times, this is display-only.
Completed Time	(Action Items Only) The date and time an action item was completed. The completion time is recorded as soon as the name of the person who completed the task is specified in the **Completed By** box.
Created By	The ID of the person who last saved the note or action item.
Created Time	The time at which the note or action item was last saved.
Comment List	A default, blank note is always included in the list. Any notes or follow-up items that have already been recorded are also displayed. For each item, the list includes the following information: Type, Content, Status, Assigned To, Due Date, Completed By, and Completed Time.

14.1.2 Entering Action Items

You can store multiple action items at any component level.

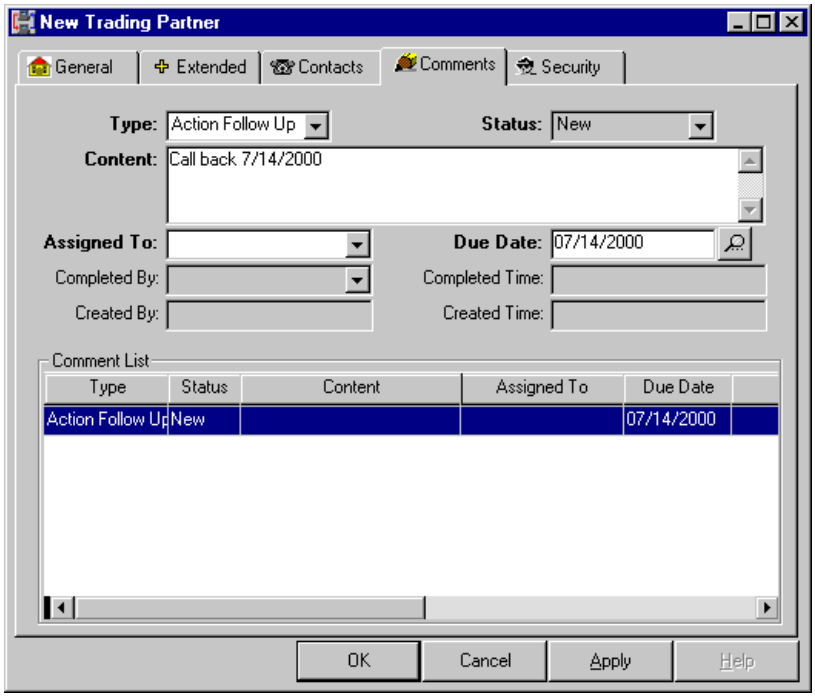
To enter action items when adding a new component

1 With the **New [Component]** window open, click **Comments**.

The **Comments** tab appears.

2 In the **Type** box, select **Action Follow Up** (see Figure 156).

Figure 156 New Trading Partner, Comments Tab (Action Items)



3 In the **Content** box, enter information about the action item.

For more information, see **"Note and Action Item Fields" on page 286**.

4 In the **Assigned To** box, select the ID of the user to whom the action is assigned.

5 In the **Due Date** box, specify the date by which the action should be completed.

6 Click **Apply** to validate and save the new action item.

7 If you want to add another action item, click **New**  , and then repeat steps 2 through 6 above.

14.1.3 Adding Notes to an Existing Component

If you do not add notes when you are creating a component, you can go back and add them later.

To add another note

1 In the Partner Manager window, highlight the component.

2 On the toolbar, click **Properties**  .

The **Properties** dialog box for the selected component appears.

3 Click **Comments**.

The **Comments** tab appears, as shown in Figure 157.

4 Conditional: if any notes have already been entered, click **New** to add a new one.

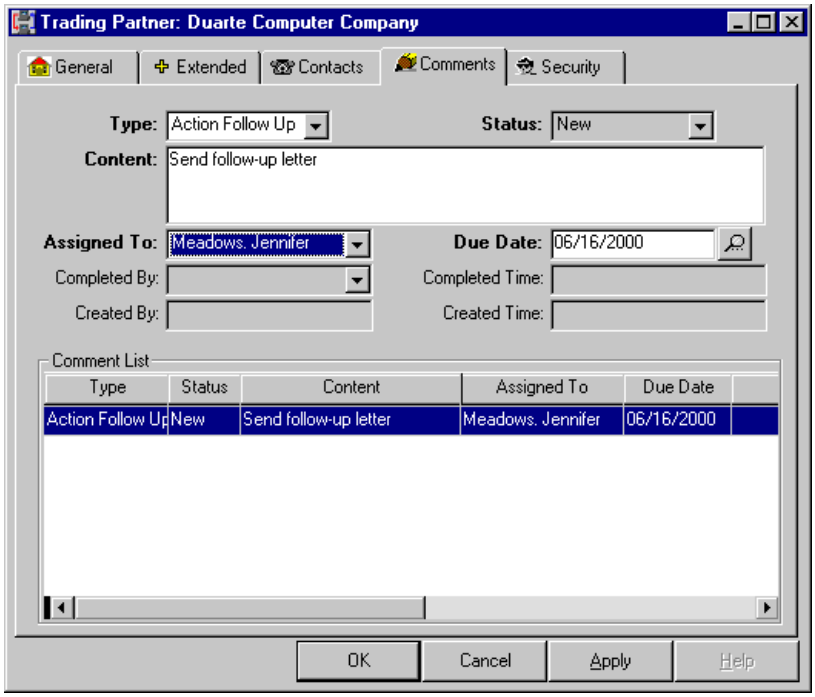
5 In the **Content** box, enter the note.

For more information, see **"Note and Action Item Fields" on page 286**.

6 Click **Apply** to validate and save the new note.

7 Click **OK** to close the **Properties** dialog box.

Figure 157 Trading Partner Properties, Comments Tab (Changing a Note or Action Item)



14.1.4 Adding Action Items to an Existing Component

If you do not add action items when you are creating a component, you can go back and add them later.

To add another action item

1 In the Partner Manager window, highlight the component.

2 On the toolbar, click **Properties** .

The **Properties** dialog box for the selected component appears.

3 Click **Comments**.

The **Comments** tab appears, as shown in Figure 157.

4 In the **Type** box, select **Action Follow Up**.

5 Conditional: if any action items have already been entered, click **New**  to add a new one.

6 In the **Content** box, enter information about the action item.

For more information, see **"Note and Action Item Fields" on page 286**.

7 In the **Assigned To** box, select the ID of the user to whom the action is assigned.

8 In the **Due Date** box, specify the date by which the action should be completed.

9 Click **Apply** to validate and save the new action item.

10 Click **OK** to close the **Properties** dialog box.

14.1.5 Changing Notes and Action Items

If necessary, you can modify information about a note or action item that you previously saved. For example, you can change the text of a comment, reassign an action item to another user, or change the due date of an action item.

To change a note or action item

1 In the Partner Manager window, highlight the component.

2 On the toolbar, click **Properties**  .

The **Properties** dialog box for the selected component appears.

3 Click **Comments**.

The **Comments** tab appears, as shown in Figure 157.

4 Click the appropriate row in the Comment List for the note or action item that you want to update, and then change any editable values as needed. For more information, see **"Note and Action Item Fields" on page 286**.

5 Click **Apply** to validate and save the changed notes or action items.

6 If you want to edit another note or action item, repeat steps 4 and 5 as needed.

7 Click **OK** to close the **Properties** dialog box.

14.1.6 Converting Notes and Action Items

If necessary, you can convert an existing note into an action item, or you can convert an existing action item into a note.

To convert a note or action item

1 In the Partner Manager window, highlight the component.

2 On the toolbar, click **Properties**  .

The **Properties** dialog box for the selected component appears.

3 Click **Comments**.

The **Comments** tab appears, as shown in Figure 157.

4 For each note or action item you want to convert, do the following:

- Click the appropriate row in the Comment List.
- Change the value of the **Type** box to either **Notes** or **Action Follow Up**.
- Modify any editable values as needed. For more information, see **"Note and Action Item Fields" on page 286**.

5 Click **Apply** to validate and save the changed note or action item.

6 Click **OK** to close the **Properties** dialog box.

14.1.7 Deleting Notes and Action Items

You can delete notes or action items that are no longer needed.

To delete a note or action item

1 In the left pane of the Partner Manager window, select the trading partner.

2 On the toolbar, click **Properties**  .

The **Properties** dialog box for the selected component appears.

3 Click **Comments**.

4 For each note or action item you want to delete, click the appropriate row in the Comment List, and then click **Delete**  .

5 Click **Apply** to validate and save the deletion.

6 Click **OK** to close the **Properties** dialog box.

14.1.8 Responding to Action Items

Recording the resolution of action items provides a data trail for future reference.

There are two ways to record an action item as complete:

- If you have access rights, you can open up the trading partner profile component and record the action as completed in the **Comments** tab. If you use this method, you can record the resolution of the action item or any other information as needed.
- If you do not have access to the trading partner component, you can still update the status of any action items assigned to you via the My Action Items dialog box. However, if you use this method, you cannot update any of the other values, such as the **Content** text box.

To respond to an action item within the trading partner component

1 Highlight the trading partner component, and then click **Properties**  .

2 Click **Comments**.

3 In the Comment List, highlight the action item to be updated.

4 If needed, add information about the action item in the **Content** text box.

5 If the status of the action item has changed, update the status to reflect either that the action item is being worked on (**Pending**) or that it has been finished (**Completed**).

6 If the action item has been completed, enter the name of the person who completed the task.

7 Click **Apply** to save and validate the changes.

8 Repeat steps 3 through 7 as needed.

9 Click **OK** to close.

To respond to an action item in the My Action Items dialog box

1 On the toolbar, click **My Action Items**  .

The **My Action Items** dialog box appears (see Figure 158).

2 Review the information provided by each action item. For more information, see Table 78.

3 If the status of an action item has changed, update the status to **Pending** or **Completed**.

4 To display the most current set of tasks assigned to you, click **Refresh**.

The list refreshes with any action items assigned to you since you opened the My Action Items dialog box.

5 Click **Apply** to save any status changes you make.

6 Click **OK** to close.

Figure 158 My Action Items

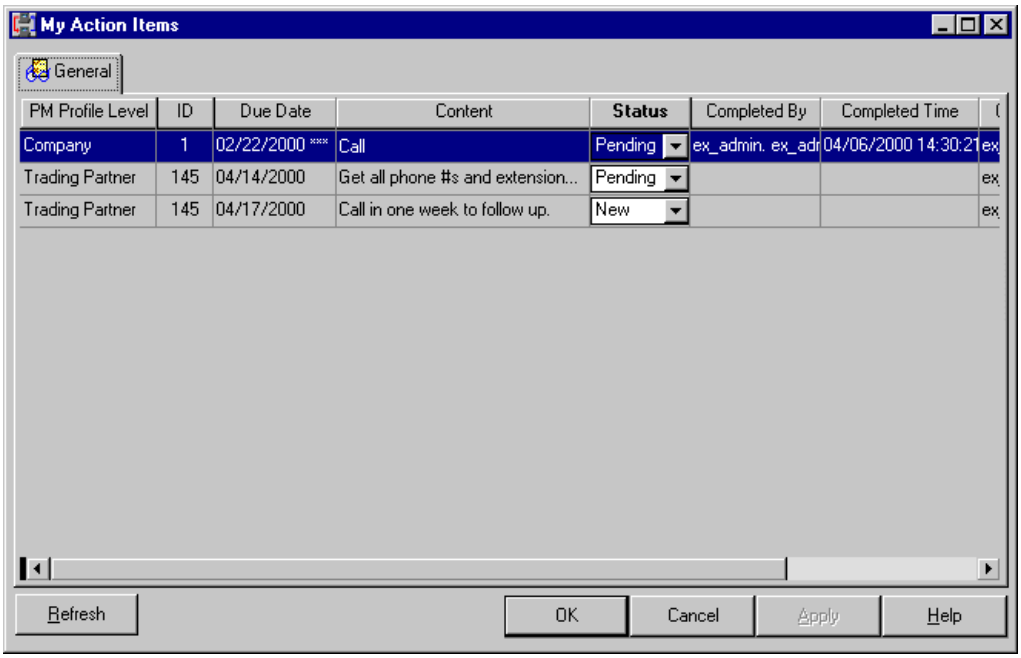


Table 78 My Action Items Fields

Name	Description
PM Profile Level	The profile level to which the action item applies: Company, Trading Partner, Outer Envelope, or Inner Envelope.
ID	The ID of the action item.
Due Date	The date by which the action item should be completed. If the due date has expired, three asterisks are displayed next to the date.
Content	Information regarding the action item.
Status	The status of the action item: New, Pending, or Completed.
Completed By	When an action item is marked as completed, the user ID of the person marking it as complete is automatically logged.
Completed Time	When an action item is marked as completed, the date and time at which completion was recorded are automatically logged.
Created By	The user ID of the person who last saved the action item.
Created Time	The date and time at which the action item was last saved.

Chapter 15

Access Control in e*Xchange Client for Windows

When adding a company or a custom report definition in e*Xchange Client for Windows, you must specify the groups or individuals who will have access privileges to the information and what specific access rights they will have. The defining of access privileges is a required setup step, to protect the security of your information.

15.1 What Are Access Control Permissions?

A member of the eX Administrator user group adds companies to e*Xchange and indicates which users and groups can access information associated with each company, and what the specific access rights are (read, add, edit, or full control).

If your administrator has allowed you "Add" access for a particular company, you can add new trading partner components to that company. In addition, you can specify user access rights for all components set up for that company; trading partners, outer envelopes, and inner envelopes.

The following table describes each kind of access permission and how each type of permission controls access to various trading partner profile components.

Table 79 Trading Partner Profile Access Permission Types

This type of permission…	allows a user to…
Read	▪ Access the component to view the information ▪ Display a list of sub-components set up for this component (for example, outer envelopes set up for a trading partner)
Add	Perform all functions allowed with read access and also: ▪ Add a new component ▪ When adding a component, grant other users access to the component
Edit	Perform all functions allowed with read access and also: ▪ Change existing information and save changes ▪ Grant access to existing company information to other users at any time
Full Control	Perform all functions allowed with read, edit, and add access.

15.2 Working With Access Privileges

You must set access privileges at the following levels:

- Company
- Reports

Once you set security at the Company level, the same access rights are automatically assigned to any trading partners, outer envelopes, and inner envelopes that you set up for that company. However, you can change the access rights at any level. If you do change access rights, it is the modified access rights that are cascaded to the next level when you create a subsequent component.

For example, let's say you create a company with full access granted to the eX Administrator user group only. Then you create a trading partner and add the e*Xchange Access user group to the list of groups that have access. When you create an outer envelope, it will automatically allow access to both groups unless you change it.

Access privileges can be any of the following:

- Read—Users can view information but cannot change it.
- Add—Users can add new information.
- Edit—Users can edit existing information.
- Full control—Users can read, add, edit, or delete information.

User groups are set up by a member of the User Administrator user group.

This section includes instructions for carrying out the following activities:

- **"Specifying Access Privileges on a New Component" on page 294**
- Granting access privileges to additional users or groups: see **"Granting Access Privileges to Additional Users or Groups" on page 297**
- Setting expiration dates for access privileges: see **"Expiring Access Privileges" on page 297**
- Reinstating access privileges that have expired: see **"Reinstating Access Privileges" on page 299**
- Deleting access privileges (can only be done when they have just been added, before clicking **Apply** or **OK**): see **"Deleting Access Privileges" on page 299**

15.2.1 Specifying Access Privileges on a New Component

When creating a company, e*Xchange requires you to specify access privileges before saving the new company component. When creating a trading partner, outer envelope, or inner envelope, e*Xchange uses the access privileges specified at the company level unless you change the privileges.

Note: *Specify at least one user or group that will have full access to the component.*

To grant access privileges

1 With the **New [Component]** window open, click **Security**.

A list of all user groups that can access e*Xchange Client for Windows appears in the **Groups/Users** box at the top of the **Security** tab (see **Figure 160 on page 296**).

2 Do either of the following, as needed, to tailor the list of users that you want to appear in the **Groups/Users** box:

- To display a list of all user groups and also individual users, click **Show Users**.
- To display only the list of user groups, click **Hide Users**.

3 To add a user or group to the access control list at the bottom of the tab, choose the name of the user or group in the **Groups/User** box, and then click **Add**.

The name you selected appears in the **Select Groups/Users** list (see **Figure 160 on page 296**).

4 To restrict a type of access to a particular user or group, do the following:

- Click the name of the user or group in the **Select Groups/Users** list.
- Choose the level of access you want to restrict.
- Click **Expire Access**. The **Select a Date** dialog box appears.
- Choose the current date and click **OK**. The access type you selected is expired for the selected user or group (see Figure 159). If you choose a future date, the access type automatically expires on that date.

Figure 159 Access Control List

5 To delete the name of a user or group that you have added to the access control list during the current session, click the desired name, and then click **Delete**  .

The name is removed from the access control list.

Note: *You can remove an account or user group name from the access control list after it has been added, only until the point at which you save the information. Once you add an access type and click **Apply** or **OK**, you cannot delete the access type from the access control list. You can, however, add back an access type that was deleted in a previous session. You can also expire access rights at any time.*

6 Click **Apply** to save, or **OK** to save and close.

Figure 160 Security Tab

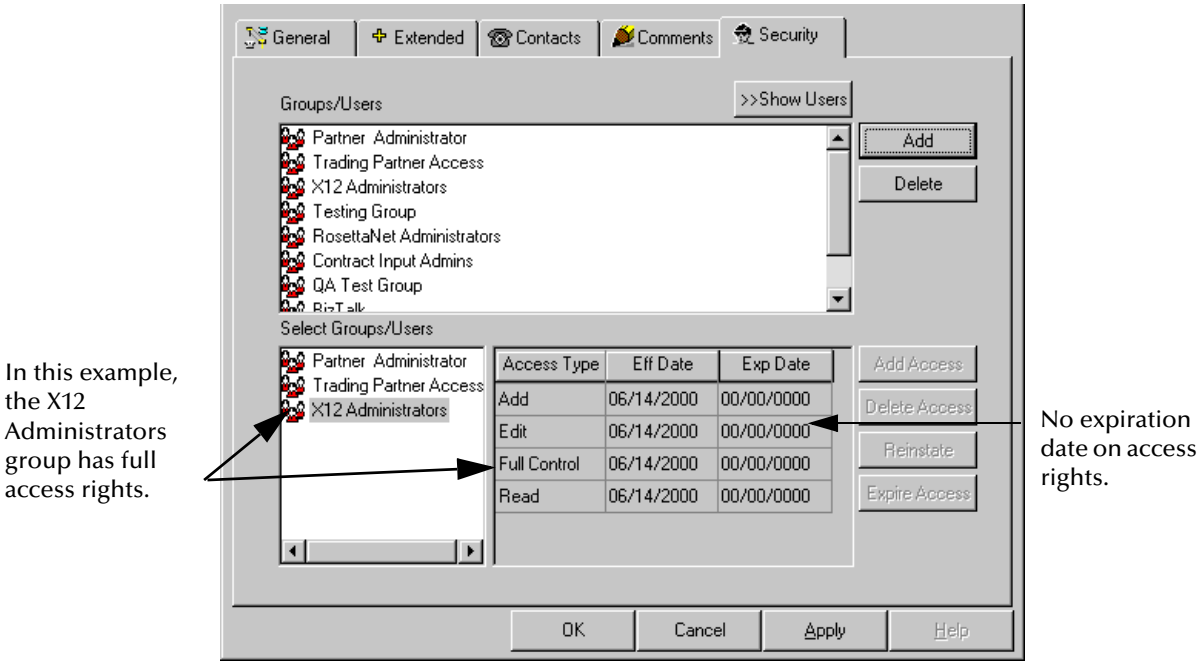


Table 80 Security Tab Fields

Name	Description
Groups/Users list	The list of groups currently set up in the system is displayed.
Show Users /Hide Users button	If you click **Show Users**, users are listed as well as groups in the **Groups/Users** list, and the button name changes to **Hide Users**. If you click again, users are no longer listed.
Add button	When a group or a user is highlighted in the **Groups/Users** list, click the **Add** button to add the selected group or user to the list of groups and users that will have access to this dialog box.
Delete button	If you have added a group or user to the **Select Groups/Users** list, you can delete the group or user within the same session by clicking the **Delete** button. Once you have saved the information by clicking **Apply** or **OK**, the group or user cannot be deleted.
Select Groups/Users list	The list of groups and users selected for access rights to this dialog box.
Access Type	The kind of access that the highlighted user or group has to this trading partner profile component, which can be any combination of the following: **Add**—Selected users and groups can add a child component (a trading partner) to the current component. **Edit**—Selected users and groups can modify the current component. **Full Control**—Selected users and groups have complete access to the current component. **Read**—Selected users and groups can view the current component.
Eff Date	The first date that the level of access is granted to a user or group for the current trading partner profile component.

Table 80 Security Tab Fields (Continued)

Name	Description
Exp Date	The date on which the level of access granted to a user or group for the current trading partner profile component expires. On this date, the user is denied access to the component.

15.2.2 Granting Access Privileges to Additional Users or Groups

Once you have set access privileges, the same settings are cascaded to all components created at a lower component level. For example, if you do not change the access rights, they will be the same for all trading partners, outer envelopes, and inner envelopes that you create for a company. However, you can change the access rights at any point. If you change access rights at a higher level, e*Xchange Client for Windows prompts you to check if you want to cascade the change to the lower levels.

You can expand or reduce the access privileges granted to specific users and user groups at any time.

To grant access privileges to additional users or groups

1. In the Partner Manager window, highlight the component to be edited.
2. On the toolbar, click **Properties**  .
3. Click **Security**.

   The **Security** tab appears, as shown in **Figure 160 on page 296**.

   A list of all user groups that have been set up appears in the **Groups/Users** box at the top of the tab.
4. Do either of the following, as needed, to tailor the list of users that will appear in the **Groups/Users** box:
   - To display a list of all accounts and user groups added to e*Xchange, click **Show Users**.
   - To redisplay just the list of user groups added to e*Xchange, click **Hide Users**.
5. Choose the name of the user or group you want to add and click **Add**.

   The name you selected appears in the **Select Groups/Users** list (see **Figure 160 on page 296**).
6. Customize the access privileges for the new user or group as needed.
7. Click **OK** to close the **Properties** dialog box.

15.2.3 Expiring Access Privileges

If an existing user or group should no longer have access to e*Xchange, either temporarily or permanently, you can set an expiration date on their access rights. On the specified date, the user is no longer able to access the component.

To set expiration dates for access privileges

1 In the left pane of the Partner Manager window, select the trading partner.

2 On the toolbar, click **Properties** .

The **Properties** dialog box for the selected component appears.

3 Click the **Security** tab.

The **Security** tab appears (see **Figure 160 on page 296**).

A list of all user groups that have been selected for access rights to e*Xchange appears in the **Select Groups/Users** box at the bottom of the tab.

4 Highlight the group or user for whom you want to set an access rights expiration date.

5 Select the access type for which you want to set an expiration date: Full Control, Edit, Add, or Read.

6 Click the **Expire Access** button. The **Select a Date** dialog box appears (see Figure 161), with the current date highlighted.

Figure 161 Select a Date

7 Select the date on which access rights for the selected group/user will expire.

- To move one month forward, click on the blue button to the immediate right of the **Today** button.
- To move one year forward, click on the black button to the far right of the **Today** button.

8 To set an expiration date on another access type for the same user or group, repeat steps 5 through 7.

9 To set an expiration date on access rights for another user or group, repeat steps 4 through 7.

10 Click **Apply** to save changes.

11 Click **OK** to close.

15.2.4 Reinstating Access Privileges

You might need to reinstate a user's access privileges after they have been suspended; for example, if a user returns from a vacation or leave of absence.

To reinstate access privileges

1. In the left pane of the Partner Manager window, select the trading partner.
2. On the toolbar, click **Properties**  .

   The **Properties** dialog box for the selected component appears.
3. Click the **Security** tab.

   The **Security** tab appears (see **Figure 160 on page 296**).

   A list of all user groups that have been selected for access rights to e*Xchange appears in the **Select Groups/Users** box at the bottom of the tab.
4. Highlight the group or user for whom you want reinstate access rights.
5. Select the access type for which you want to reinstate rights.
6. Click the **Reinstate** button.

   Access is reinstated and the expiration date reset to 00/00/0000.

Note: *The **Reinstate** button is only available if access has been expired. If the **Reinstate** button is grayed out, it means that the user already has access rights.*

7. Click **Apply** to save changes.
8. Click **OK** to close.

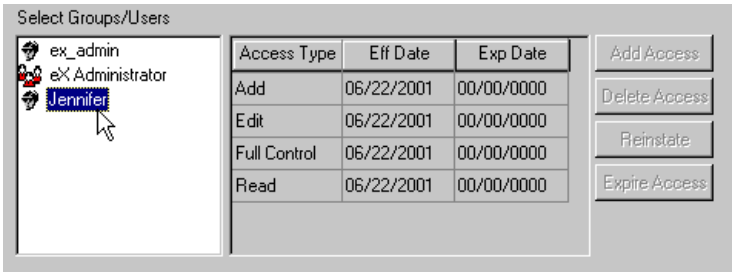
15.2.5 Deleting Access Privileges

You can only delete access privileges if the user or group was selected for access rights in the current session. Once a user or group has been granted access rights and the information saved, you cannot delete access privileges. If you do not want an existing user or group to have access, expire the access rights, as explained in **"Expiring Access Privileges" on page 297**.

To delete access privileges

1. On the **Security** tab, in the **Select Groups/Users** list, highlight the group or user for whom you want to delete access rights (see Figure 162).

Figure 162 Select Groups/Users



2 To delete certain access rights for a specific user or group, do the following:

- Select the access type for which you want to delete rights: Full Control, Edit, Add, or Read.
- Click the **Delete Access** button. The access type is removed from the **Access Type** list for that user or group.

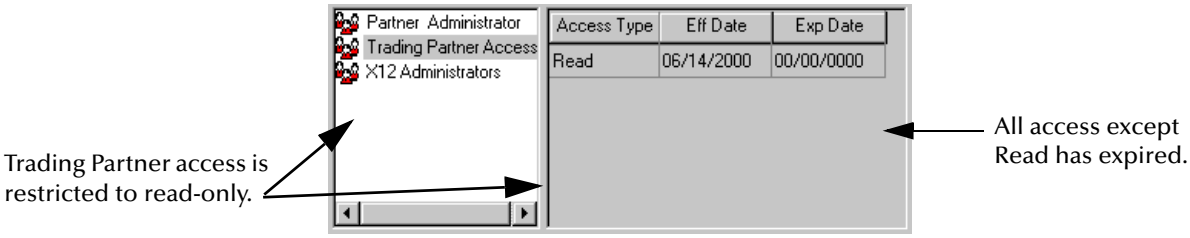
3 To delete the user or group from the **Select Groups/Users** list entirely, do the following:

- Click **Delete**  . The name is removed from the access control list (see Figure 163).

4 Click **Apply** to save changes.

5 Click **OK** to close.

Figure 163 Access Control List



15.3 Cascading Access Rights

If you need to change access rights for an entire company, an entire trading partner, an outer envelope, or an inner envelope, you can set the access rights at the highest level and e*Xchange will allow you to cascade your changes to all levels below.

For example, you might have granted User Group ABC full access rights at all levels for a certain company and then decide to remove the right to add records. e*Xchange offers you the choice of cascading your change to the levels below or restricting it to the current level. Instructions for accomplishing this task are provided below.

To cascade access rights in e*Xchange Client for Windows

1. Open the **Properties** dialog box for the element for which you want to edit access rights, and then click the **Security** tab.
2. Edit the access rights as needed.

   For example, you might choose to remove Edit access at the Trading Partner level.
3. Click **Apply** or **OK**.

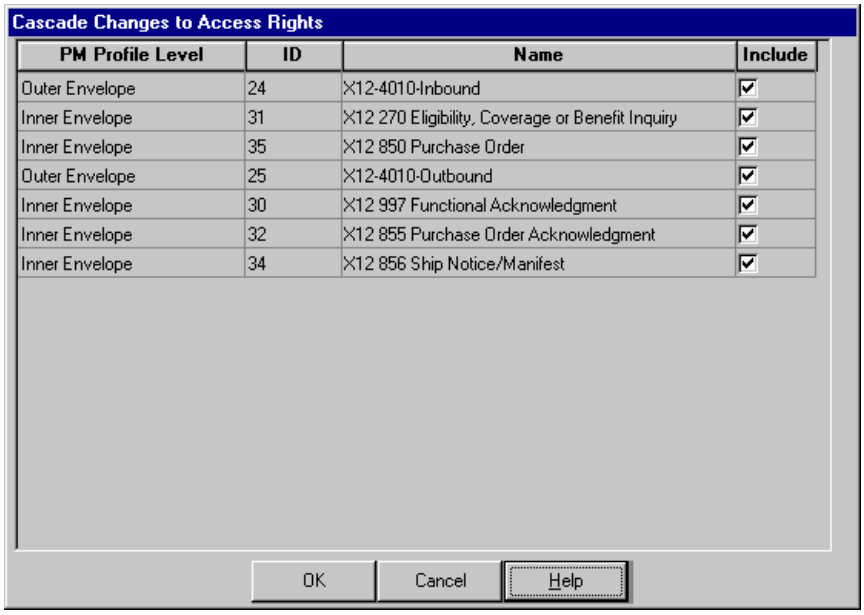
   A confirmation message appears:

   Cascade access right to the lower level(s)?
4. Click **Yes** to cascade access, or **No** if you want the change to affect only the current component.

   Yes—the **Cascade Changes to Access Rights** dialog box appears (see Figure 164). All components below the one you selected are listed. For example, if you selected a company, all the trading partners, outer envelopes, and inner envelopes set up for that company are displayed.

   No—the changes are only saved at the current level.
5. If there are any components at the lower level you do *not* want to update, clear the check box next to those components.
6. Click **OK**.

Figure 164 Cascade Changes to Access Rights



Chapter 16

Company and Trading Partner Components in e*Xchange Client for Windows

The company and trading partner levels of a trading partner profile contain general information about a trading partner.

The outer envelope and inner envelope layers are used to set up the specific technical information required to exchange electronic messages with the trading partner.

This chapter provides information on how to set up the company and trading partner levels of the trading partner profile in e*Xchange Client for Windows. Setup of the outer and inner envelope layers is covered in the specific chapter relating to the eBusiness protocol being used:

- X12—**"Setting Up X12 Outer and Inner Envelopes in e*Xchange Client for Windows" on page 324**
- RosettaNet—**"Setting Up RosettaNet Outer and Inner Envelopes in e*Xchange Client for Windows" on page 358**
- UN/EDIFACT—**"Setting Up UN/EDIFACT Outer and Inner Envelopes in e*Xchange Client for Windows" on page 393**

16.1 Trading Partner Profiles

A trading partner profile is a set of characteristics and related information that you enter in e*Xchange to describe how to exchange electronic messages with a particular trading partner. Each profile can also include supplemental information about the trading partner, such as contact data, notes, and action items.

The trading partner information is stored in a database. Later, when electronic messages to or from the trading partner are processed, e*Xchange uses information from the trading partner profile to process the messages.

e*Xchange Client for Windows has a great deal of built-in flexibility so that it can deal with the structures of different eBusiness protocols. Information that is common to all eBusiness scenarios can be stored at each level of the trading partner profile—for example, company information, contacts, notes about the trading partner, action items, eBusiness protocol and version used, communications protocol used, and security information. Information that is specific to one eBusiness protocol is stored on the Extended Attributes tab at the appropriate level; for example, the Interchange

properties in X12, the Interchange properties in UN/EDIFACT, and the Preamble for RosettaNet are stored at the outer envelope level.

There are four levels, as outlined in **"Trading Partner Profile Components" on page 303**, for storing general information about the trading partner and specific information about the outer envelope and inner envelope layers of the messages.

For a specific electronic message exchange scenario, see **eBusiness Protocol Support** on page 460.

16.1.1 Trading Partner Profile Components

Each trading partner profile consists of the following components:

Company

The company component is the highest level of the trading partner profile. It includes the name of the company and related information that your business requires you to store about the partner company.

The only information required at the company level is the company name and user access assignment.

Trading partner

Information about your trading partner. This could be a subdivision of a company, it could be the same as the company, or you could set up the trading partner under a "dummy" umbrella company.

The only information required at the trading partner level is the trading partner name. All other values are optional. Security is automatically inherited from the company level, although you can change it.

Outer envelope characteristics

Use the outer envelope level to define items that are specific to a trading partner but independent of the message being sent or received. This includes items such as the communications protocol to be used, the Duns number (for RosettaNet) the Interchange Version Number (for X12), or the Interchange Sender ID (for UN/EDIFACT).

For each trading partner, you would define one inbound outer envelope and one outbound outer envelope for each message standard version.

Note: *e*Xchange Client for Windows only allows one outer envelope for each combination of eBusiness protocol, protocol version, and direction. For example, you can only have one outer envelope for X12 version 4010 Inbound, RosettaNet version 1.1 Outbound, or UN/EDIFACT version 4 Outbound.*

X12

For X12, for example, if a trading partner used version 4010, you would create an X12 version 4010 outer envelope for outbound transactions and another for inbound transactions. The values on the Interchange control header would be set up on the **Extended Attributes** tab of the **Properties** dialog box. The transmission or Interchange

envelope properties are also set up in the outer envelope. The Functional Group properties are set up as extended attributes in the outer and inner envelopes.

RosettaNet

For RosettaNet, you would create a RosettaNet version 1.1 outer envelope for outbound messages and another for inbound messages. The Global Administering Authority Code, Global Usage Code, RNIF Version Identifier, From Global Business Identifier and To Global Business Identifier are set up in the outer envelope.

UN/EDIFACT

For UN/EDIFACT, for example, if a trading partner used version 4 and is using a batch message (for example, a Purchase Order Message), you would create a UN/EDIFACT version 4B outer envelope (4B = batch, 4I = interactive) for outbound transactions and another for inbound transactions. The values on the Interchange control header would be set up on the **Extended Attributes** tab of the **Properties** dialog box. The transmission or Interchange envelope properties are also set up in the outer envelope. The Group and Message properties are set up as extended attributes in the inner envelope.

Inner envelope characteristics

Use the inner envelope level to define the specific messages being sent and received, and the information directly relating to them. This includes items such as the Global Process Code and the Global Partner Role Classification Code (for RosettaNet), the Transaction Set ID and Functional ID Code (for X12), and the Message Type Identifier (for UN/EDIFACT).

Define one inner envelope for each message you will send to the trading partner and for each message you will receive from the trading partner.

X12

For X12, the transaction set properties would be set up as extended attributes in the inner envelope.

Note: *e*Xchange Client for Windows only allows one inner envelope for each combination of X12 version, active status, transaction set ID, sender ID, and receiver ID. For example, for a specific trading partner, within the 4010 outbound outer envelope, you can only have one active 997 inner envelope, though you can have multiple inactive envelopes.*

RosettaNet

For RosettaNet, values such as the Global Transaction Code, Global Process Code, and Global Business Service codes are set up as extended attributes in the inner envelope.

Note: *e*Xchange Client for Windows only allows one inner envelope for each combination of RosettaNet version, active status, PIP, sender ID, and receiver ID. For example, for a specific trading partner, within the RosettaNet version 1.1 outbound outer envelope, you can only have one active 3A4 - Manage Purchase Order inner envelopes, though you can have multiple inactive envelopes.*

UN/EDIFACT

For UN/EDIFACT, values such as the Message Type and Message Version Number are set up as extended attributes in the inner envelope.

Note: *e*Xchange Client for Windows only allows one inner envelope for each combination of UN/EDIFACT version, active status, message type, sender ID, and receiver ID. For example, for a specific trading partner, within the UN/EDIFACT 4B inbound outer envelope, you can only have one active inner envelope for the same transaction, though you can have multiple inactive envelopes.*

16.1.2 Information Structure of Trading Partner Profile Components

Each trading partner profile component (company, trading partner, outer envelope, and inner envelope) includes several tabs for you to enter the various types of required or optional information, as described below.

General characteristics

Basic information about the trading partner profile, appropriate to the component level. At the company and trading partner levels, this includes the company name and the trading partner name. At the outer envelope level, general information includes eBusiness protocol and version used, status, and (for X12 only) whether a response is required. At the inner envelope level, it includes eBusiness protocol version, data transfer mode, compression information, and the names of Collaborations used by e*Gate in processing the message.

Extended attributes

Outer envelope and inner envelope characteristics that are unique to a particular eBusiness protocol; for example, the Interchange and Functional Group properties in X12 and the Service Header and Preamble for RosettaNet. Extended attributes can also be used to store information about companies and trading partners.

Contacts

Contact information, such as names, telephone numbers, and levels of expertise. Contacts can be set up at all levels. For example, there might be one contact for the entire company, there might be one for each department, or there might be different contacts specializing in certain message types.

Notes

Supplementary information about a profile component can be stored in the form of notes.

Action Items

Reminders to perform specific tasks. You can assign these tasks to yourself or to other e*Xchange Client for Windows users. You can track progress of the action item and then mark it as completed when all required steps have been done.

Access Control List

A list of users and user groups that have been granted specific access rights to a particular trading partner profile component (view, edit, full control, or read-only).

16.2 Using the Company and Trading Partner Levels

Because you might exchange electronic eBusiness messages with more than one separate division in the same company, e*Xchange Client for Windows is structured so that you set up the company information first, and then set up the separate divisions as separate trading partners for that company.

If you don't have multiple trading partners within one company, you have two options:

- Set up a "one company-one trading partner" structure
- Set up each trading partner under a "dummy" umbrella company

You could also combine these options and set up a separate company record for each company where you exchange electronic messages with more than one department, and one "dummy" company for all your other trading partners.

The Company level requires very little setup, so whatever option you choose it will not have a significant effect on your setup time.

16.3 Adding a Company

The very first action in setting up e*Xchange Client for Windows so that you can send and receive messages is to set the defaults under the System Administration menu. Setting default values helps make setting up the partner information as smooth and fast as possible.

Once that is done, you are ready to set up trading partners.

The first step in setting up a trading partner is to add a company component and enter basic information about the company.

The only information that is required is the company name and user security assignment. All other data is optional.

The following steps walk you through the process of adding a new company to e*Xchange Client for Windows.

Note: *Only a member of the eX Administrator user group can perform these steps.*

To add a company

1 Enter general information about the company: see **"Entering General Information About the Company" on page 307**

2 Optional: Enter information about the company: see **"Entering Company Extended Attributes (Optional)" on page 309**

3 Optional: Add information about company contacts: see **"Storing Contact Data in e*Xchange Client for Windows" on page 278**

4 Optional: Add notes and action items relating to the company: see **"Tracking Notes and Action Items in e*Xchange Client for Windows" on page 284**

5 Grant user access privileges to the company information: see **"Access Control in e*Xchange Client for Windows" on page 293**

When you have done the above, to finish adding a trading partner profile, you must also add the following information:

- Trading partner information for each company. This is explained in **"Adding a Trading Partner" on page 310**.
- The technical information required to exchange information with the trading partner; for example, the attributes specific to each eBusiness protocol, the communications protocol, and the security keys and certificates. This includes the following:
  - At least two outer envelopes for each trading partner; one for inbound messages, and one for outbound.
  - An inner envelope for each message that will be sent to the trading partner (under the Outbound outer envelope) and one for each message that will be received from the trading partner (under the Inbound outer envelope).

  This information is addressed separately for each eBusiness protocol, in the following chapters:
  - For X12: Chapter 17 **"Setting Up X12 Outer and Inner Envelopes in e*Xchange Client for Windows"**
  - For RosettaNet: Chapter 18 **"Setting Up RosettaNet Outer and Inner Envelopes in e*Xchange Client for Windows"**
  - For UN/EDIFACT: Chapter 19 **"Setting Up UN/EDIFACT Outer and Inner Envelopes in e*Xchange Client for Windows"**

Note: *Additional eBusiness protocols are supported in the e*Xchange Partner Manager Web interface; however, the above are the only eBusiness protocols supported by e*Xchange Client for Windows.*

16.3.1 Entering General Information About the Company

The first step in setting up a new company as a trading partner is to create the company component and add basic information.

To add the general company information

1 In the Partner Manager window, click **New Company**  .

The **New Company** dialog box appears (see Figure 165).

2 Enter the company name, or select it from the drop-down list. For more information, see Table 81.

Note: *If the company name is not on the drop-down list, no extended attributes have been set up for the company. Extended attributes are not required at the company level; this is an extra facility that is provided so that you can track additional information about the company—for example, number of employees or type of business. If you do want to track extended attributes at the company level, ask the administrator to add the company in* ***Partner Manager Envelope Setup****. If not, just enter the company name.*

3 Continue to **"Entering Company Extended Attributes (Optional)" on page 309**.

Figure 165 New Company, General Tab

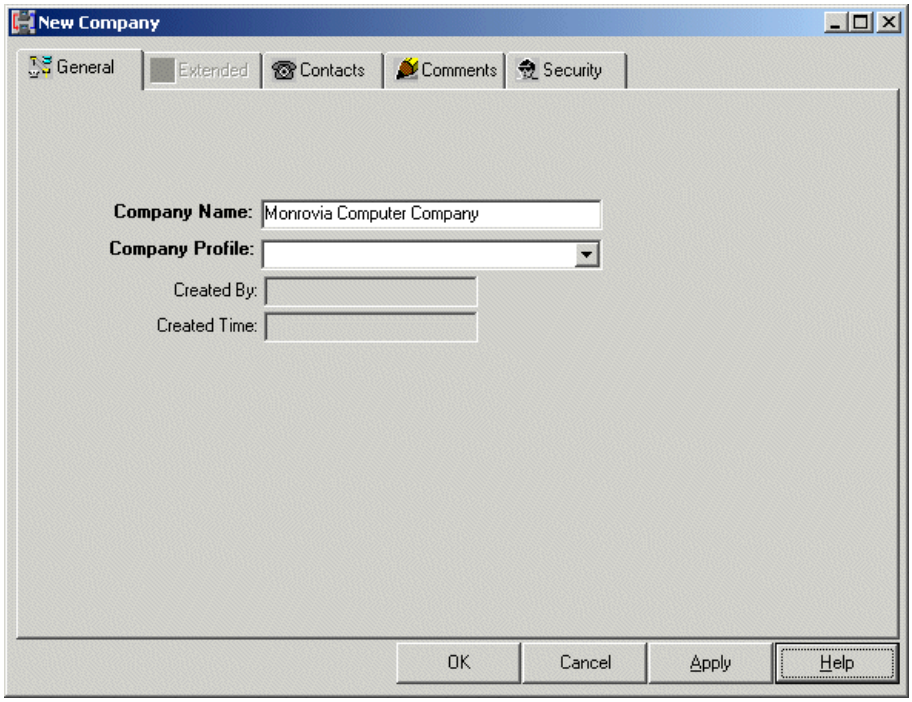


Table 81 General Company Fields

Name	Description
Company Name	The name of the company.
Company Profile	If you have set up company profiles in **Partner Manager Envelope Setup**, you can choose a profile from the list. Using profiles helps streamline data entry since you can specify default values.
Created By	The user ID of the person who saved or updated the company name is automatically displayed when the record is saved.
Created Time	The date and time the company profile was saved or updated are automatically displayed when the record is saved.

16.3.2 Entering Company Extended Attributes (Optional)

If you want to store additional information about a company—number of employees, type of business, or any other values—you can add this information to e*Xchange Client for Windows as extended attributes at the company level. You must first set up a profile at the Company level in **Partner Manager Envelope Setup** (see **"Partner Manager Envelope Setup" on page 255**).

When you select the profile on the **General** tab of the **New Company** dialog box, the **Extended** tab becomes available.

Note: *e*Xchange Client for Windows does not include any default profiles or extended attributes at the Company level.*

To set extended attribute values at the company level

Before you begin, complete **"Entering General Information About the Company" on page 307**.

1. On the **New Company** dialog box, click the **Extended** tab.

   The **Extended** tab of the **New Company** dialog box appears (see Figure 166).

2. Enter the appropriate attribute values, as required by your business.

   For more information, see Table 82.

Figure 166 New Company, Extended Tab (example)

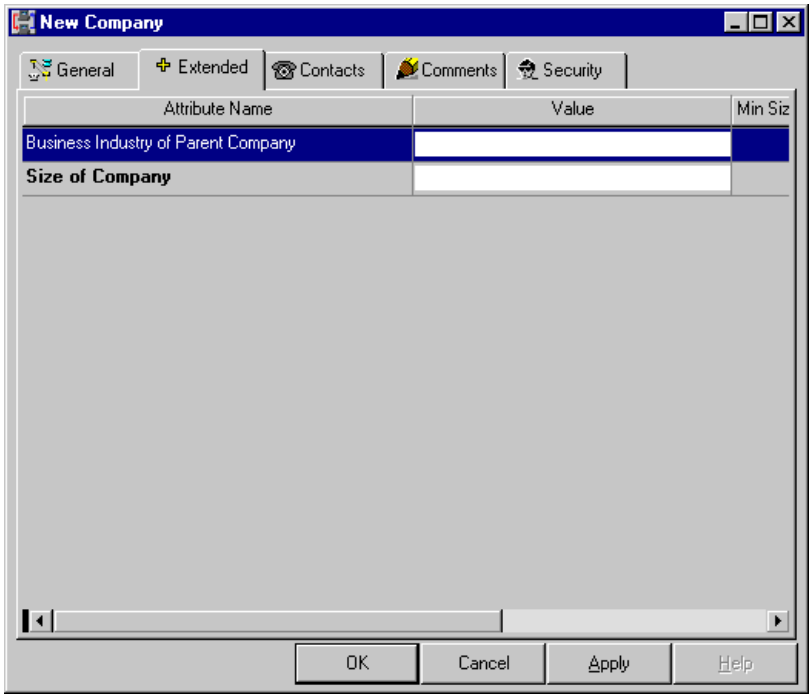


Table 82 Extended Attribute Fields

Name	Description
Attribute Name	The name of the extended attribute, as entered in **Partner Manager Envelope Setup**. Display only.
Value	The value of the extended attribute. If a default value is provided, you can accept it or change it. Defaults are specified by your administrator.
Min Size	The minimum size, in characters, for the attribute value.
Max Size	The maximum size, in characters, for the attribute value.
Created By	The user ID of the person who saved or updated the extended attribute is displayed.
Created Time	The date and time the extended attribute was saved or updated are automatically displayed when the record is saved.

16.3.3 Defining Contacts, Notes, Action Items, and User Security

As part of setting up each component, you have the option to set up the following additional information:

- On the **Contacts** tab—contact information
- On the **Comments** tab—notes and action items
- On the **Security** tab—user access (already inherited from the parent component level, but can be customized for the current outer envelope).

At the Company level, some designation of user access on the Security Access is required. All the rest is optional. However, each of these tabs provides you with additional capabilities.

Detailed instructions on using each of these tabs is provided in additional chapters, as follows:

Contacts tab—**Storing Contact Data in e*Xchange Client for Windows** on page 278

Comments tab—**Tracking Notes and Action Items in e*Xchange Client for Windows** on page 284

Security tab—**Access Control in e*Xchange Client for Windows** on page 293

For information on using these tabs, refer to the appropriate chapter or to the online Help system.

16.4 Adding a Trading Partner

Once you have set up the company component, the next step is to add a trading partner.

If you only send messages to one location for the company, there will be only one trading partner for the company. However, having the company and trading partner

levels separately allows you to set up multiple trading partners per company if you wish to do so.

For example, if the company has several facilities with which you exchange messages separately, you can add a separate trading partner for each facility.

The trading partner component allows you to enter general information about the trading partner. It has a five-tab structure similar to that of the company component.

The only information that is required is the trading partner name. User security assignments are inherited from the Company level unless you change them.

The following steps walk you through the process of adding a new trading partner component to e*Xchange Client for Windows.

To add a trading partner

1. Enter general information about the trading partner: see **"Entering General Information About the Trading Partner" on page 312**
2. (Optional) Enter extended attributes for the trading partner: see **"(Optional) Entering Trading Partner Extended Attributes" on page 314**
3. (Optional) Add information about trading partner contacts: see **"Storing Contact Data in e*Xchange Client for Windows" on page 278**
4. (Optional) Add notes or action items about the trading partner: see **"Tracking Notes and Action Items in e*Xchange Client for Windows" on page 284**
5. (Optional) Customize user access privileges to the trading partner information: see **"Access Control in e*Xchange Client for Windows" on page 293**

When you have done the above, to finish adding a trading partner profile, you must also add the technical information required to exchange information with the trading partner; for example, the attributes specific to each eBusiness protocol, the communications protocol, and the security keys and certificates. This includes the following:

- At least two outer envelopes for each trading partner; one for inbound messages, and one for outbound.
- An inner envelope for each message that will be sent to the trading partner (under the Outbound outer envelope) and one for each message that will be received from the trading partner (under the Inbound outer envelope).

This information is addressed separately for each eBusiness protocol, in the following chapters:

- For X12: **Chapter 17 "Setting Up X12 Outer and Inner Envelopes in e*Xchange Client for Windows"**
- For RosettaNet:**Chapter 18 "Setting Up RosettaNet Outer and Inner Envelopes in e*Xchange Client for Windows"**
- For UN/EDIFACT: **Chapter 19 "Setting Up UN/EDIFACT Outer and Inner Envelopes in e*Xchange Client for Windows"**

16.4.1 Entering General Information About the Trading Partner

To identify a company or a subdivision of a company as one of your trading partners, you must add information about the trading partner to e*Xchange Client for Windows.

To add the trading partner general information

1. In the left pane of the Partner Manager window, choose the name of the company to which you want to add a new trading partner.
2. Click **New Trading Partner**  .

   The **New Trading Partner** dialog box appears (see Figure 167).
3. On the **General** tab of the **New Trading Partner** dialog box, enter the trading partner name, or select it from the drop-down list.

   For more information, see Table 83.

Note: *If the trading partner name is not on the drop-down list, no extended attributes have been set up for the trading partner. Extended attributes are not required at the trading partner level; this is an extra facility that is provided so that you can track additional information—for example, number of employees. If you do want to track extended attributes at the trading partner level, ask the administrator to add the company in* ***Partner Manager Envelope Setup****. If not, just enter the trading partner name.*

4. If desired, set values for alternate ID and status.

   For more information, see Table 83.
5. If categories have been set up by your administrator, you can specify which categories apply to this trading partner. Do the following:
   - Click **Add**.
   - Select the appropriate category in the **Category List** box.
   - Click **Apply**.
   - If additional categories apply to this trading partner, repeat as needed.
6. Continue to **"(Optional) Entering Trading Partner Extended Attributes" on page 314**.

Figure 167 New Trading Partner, General Tab

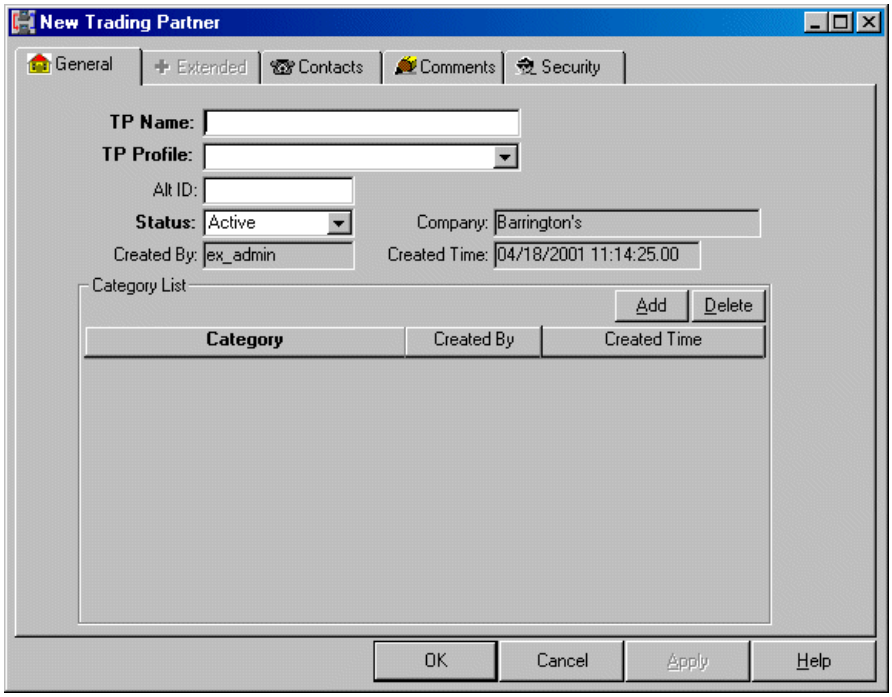


Table 83 General Trading Partner Fields

Name	Description
TP Name	The name of the trading partner.
TP Profile	If you have set up profiles at the trading partner level in **Partner Manager Envelope Setup**, you can choose a profile from the list. Using profiles helps streamline data entry since you can specify default values.
Alt ID	An alternate identification number for this trading partner (Not currently used).
Status	The status of the trading partner: **Active** or **Inactive**. The e*Xchange e*Gate Schema will not process messages for trading partners with a status of Inactive. Inactive trading partners are not displayed in the left pane of e*Xchange Client for Windows if the administrator has selected the **Show Only Active TP** check box in **System Defaults**.
Company	The name of the company associated with the trading partner is displayed.
Created By	The user ID of the person who created or updated the trading partner information is displayed.
Created Time	The date and time the trading partner information was saved or updated are automatically displayed when the record is saved.
Category	One or more categories applicable to the trading partner. If used, trading partner categories (for example, Wholesale, Manufacturing, and Retail) are defined and maintained by the administrator, and can be used for reporting purposes.

16.4.2 (Optional) Entering Trading Partner Extended Attributes

If you want to store additional information about trading partners, you can add this information to e*Xchange Client for Windows as trading partner extended attributes. You must first set up a profile at the Trading Partner level in **Partner Manager Envelope Setup** (see **"Partner Manager Envelope Setup" on page 255**).

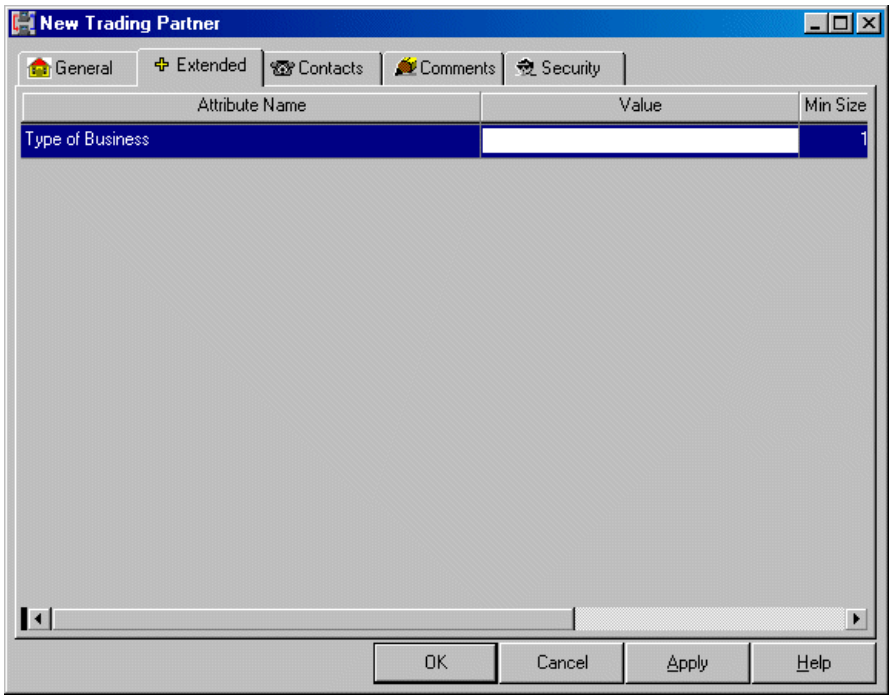
When you select the profile on the **General** tab of the **New Trading Partner** dialog box, the **Extended** tab becomes available.

Note: *e*Xchange Client for Windows does not include any default profiles or extended attributes at the Trading Partner level.*

To set extended attribute values at the trading partner level

1 On the **New Trading Partner** dialog box, click the **Extended** tab.

Figure 168 New Trading Partner, Extended Tab (example)



2 Enter the appropriate attribute values, as required by your business.

For more information, see **Table 82 on page 310**.

16.4.3 Defining Contacts, Notes, Action Items, and User Security

As part of setting up each component, you have the option to set up the following additional information:

- On the **Contacts** tab—contact information
- On the **Comments** tab—notes and action items

- On the **Security** tab—user access (already inherited from the parent component level, but can be customized for the current outer envelope).

None of this setup is required to save the new trading partner or to process messages to and from the trading partner. However, each of these tabs provides you with additional capabilities.

Detailed instructions on using each of these tabs is provided in additional chapters, as follows:

Contacts tab—**Storing Contact Data in e*Xchange Client for Windows** on page 278

Comments tab—**Tracking Notes and Action Items in e*Xchange Client for Windows** on page 284

Security tab—**Access Control in e*Xchange Client for Windows** on page 293

For information on using these tabs, refer to the appropriate chapter or to the online Help system.

16.5 Streamlining Your Setup: Copying Components

There are two copy features in e*Xchange Client for Windows. Both features allow you to copy components and edit as needed, to streamline setup. Both features apply to all component levels (Company, Trading Partner, Outer Envelope, and Inner Envelope. However, there are key differences between the two features.

The available copy features are:

- Drag-and-Drop copying of components (copies a component to a different branch of the "tree"—for example, copies an outer envelope from one trading partner to another trading partner.
- Copying via the Copy button—this clones a component at the same level; for example, creates a new outer envelope, for a different version and/or direction, based on an existing one.

16.5.1 Drag-and-Drop Copying of Components

Once you have some components set up, you can save time by copying these components across companies or trading partners. For example, if two of your trading partners use the same protocol and version, you can set up the outer envelopes once, for the first trading partner, and then copy them from the first to the second.

You can copy any component below the level of Company. The hierarchy of components (company, trading partner, outer envelope, and then inner envelope) must be maintained; for example, you cannot copy an inner envelope and place it directly beneath a trading partner. An inner envelope must be placed beneath an outer envelope, an outer envelope beneath a trading partner, and a trading partner beneath a company.

When copying, you have the option to include or exclude contact information for the component, and to include or exclude sub-components and their contact information.

To copy a component across a level

1 Highlight the component to be copied.

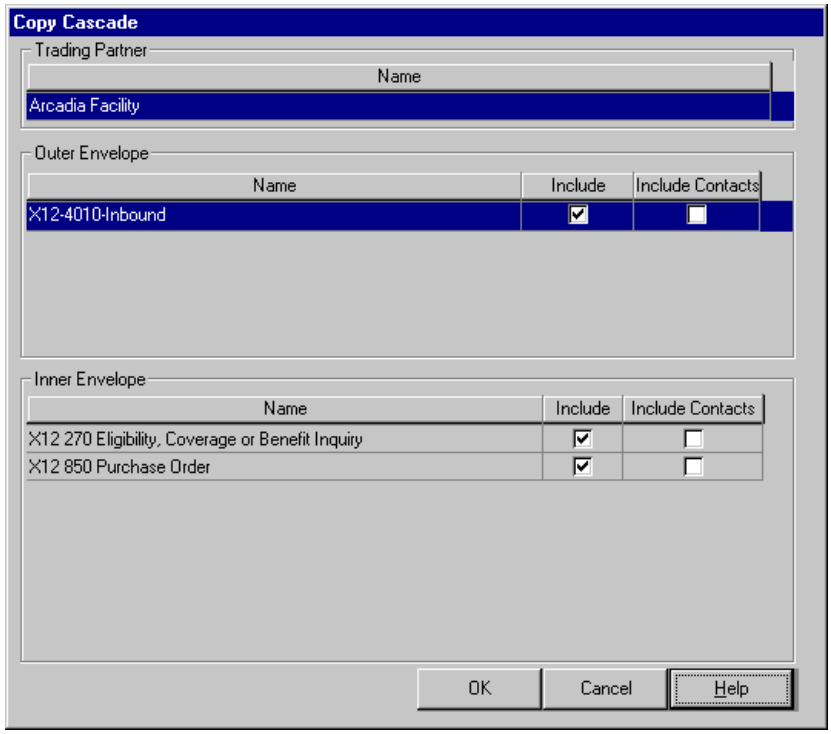
2 Copy the component to the new position, using drag-and-drop (click on the component with the left mouse button, hold down the button as you copy the component to the new location, and then release the mouse button).

A prompt appears, asking if you are sure you want to copy the component from the first location to the second.

3 Check both locations listed in the prompt; ensure that the source and destination locations are correct. Click **Yes**.

The **Copy Cascade** dialog box appears, as shown in Figure 169.

Figure 169 Copy Cascade



4 All sub-components are selected by default. If there is a component that you do *not* want to copy, clear the **Include** check box for that component.

5 Optional: To copy the contact information as well as the rest of the component information, check the **Include Contacts** check box for each component.

6 Click **OK**.

The component is copied to the new location, together with any selected sub-components.

16.5.2 Copying Trading Partner Profile Components

To save time, you can use one trading partner profile component as the basis for another. You can then modify the information to match the new component.

This copy feature is available for the following component levels:

- Trading Partner
- Outer Envelope
- Inner Envelope

Copying a Trading Partner

You can copy an existing trading partner to quickly create a new trading partner. Once copied, you can modify the new profile information as needed.

To copy a trading partner

1. In the left pane of the Partner Manager window, highlight the trading partner you want to copy.
2. Click **Copy Trading Partner**  .

   The **Copy Trading Partner** dialog box appears (see Figure 170).
3. Enter the name of the new trading partner.

   If the trading partner is a subdivision of a larger firm, enter the name of the subdivision (the firm name is the company). If the trading partner is a small firm with no subdivisions, enter the name of the firm.
4. Optional: if you want to copy contact information, check the **Copy Contacts** check box.
5. Click **OK**.

   The new trading partner appears in the left pane.
6. Modify the copied trading partner information as needed.

Figure 170 Copy Trading Partner

Copying Outer Envelope Characteristics

You can copy an existing outer envelope to create a new one. Once copied, you can modify the outer envelope as needed.

To copy an outer envelope

1. In the left pane of the Partner Manager window, select the outer envelope definition that you want to copy.
2. Click **Copy Outer Envelope**  .

   The **Copy Outer Envelope** dialog box appears (see Figure 171).
3. Enter the protocol version and direction for the new outer envelope.

   For more information, see Table 84.
4. Optional: if you want to copy contact information, check the **Copy Contacts** check box.
5. Click **OK**.

   The **Copy Outer Envelope** detail dialog box appears (see **Figure 172 on page 320**). This shows all the attributes already set up for the outer envelope that you are copying, and allows you to change these attributes for the new outer envelope.
6. Review the attribute values, and change as needed.

   To change an attribute value, enter the new value.
7. Conditional: If you are using RosettaNet, click the **Secure Data Transport** tab.

Note: *This tab is only applicable if you are using RosettaNet. If you are not using RosettaNet, skip this step.*

   Any security values relating to the new outer envelope are displayed. For an example, see **Figure 173 on page 320**.
8. Add security information.

   Since security settings are specific to each outer envelope, you must add the settings for the new outer envelope.
9. Click **OK**.

   The new outer envelope appears in the left pane.

Figure 171 Copy Outer Envelope

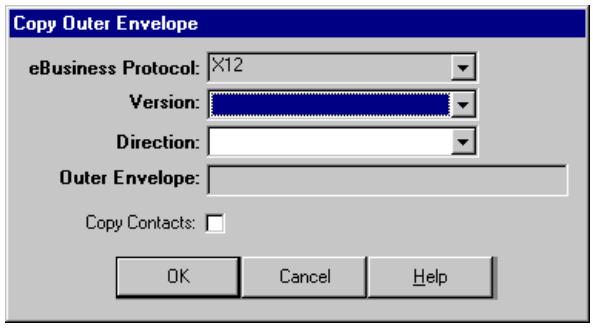


Table 84 Copy Outer Envelope Fields

Name	Description
eBusiness Protocol	The name of the eBusiness protocol is displayed. When creating a new outer envelope based on an existing one, you cannot change the standard.
Version	The version number of the electronic inner envelope standard being used. For example, version 4010 is an ANSI X12 EDI standard version for outer envelopes.
Direction	The direction for the new outer envelope (**Inbound** or **Outbound**).
Outer Envelope	The name of the new outer envelope is displayed. The outer envelope name is a combination of the eBusiness protocol, version, and direction you previously specified. You can modify this name on the **Properties** dialog box for the outer envelope.
Copy Contacts	If you want to copy contact information, check the **Copy Contacts** check box.

Figure 172 Copy Outer Envelope Detail, Extended Tab

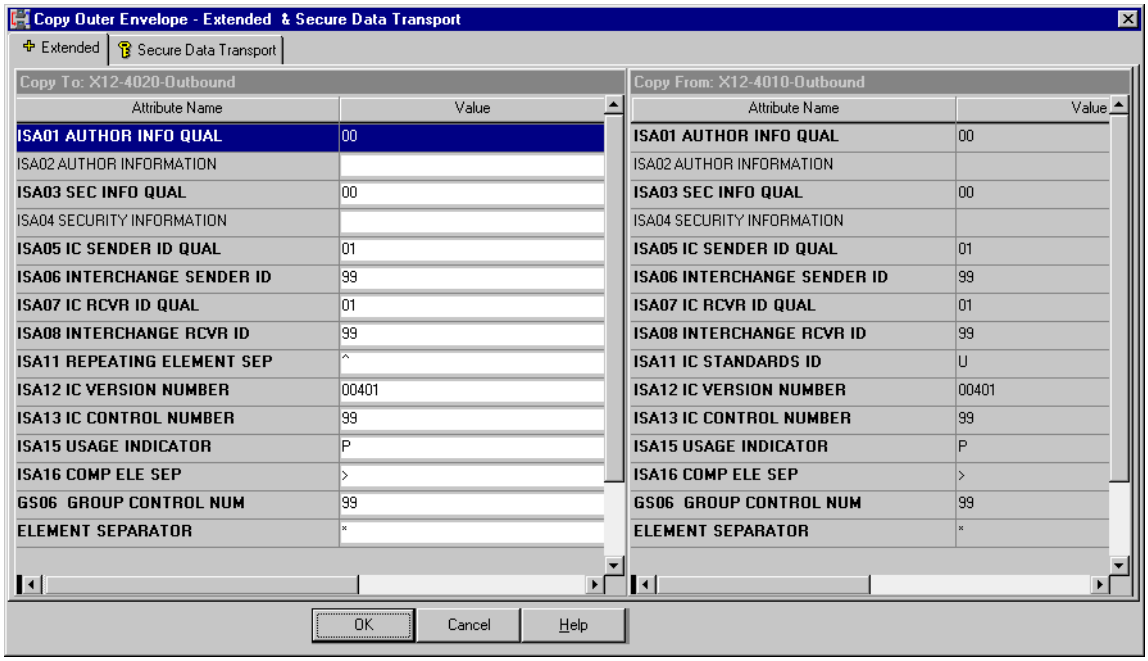
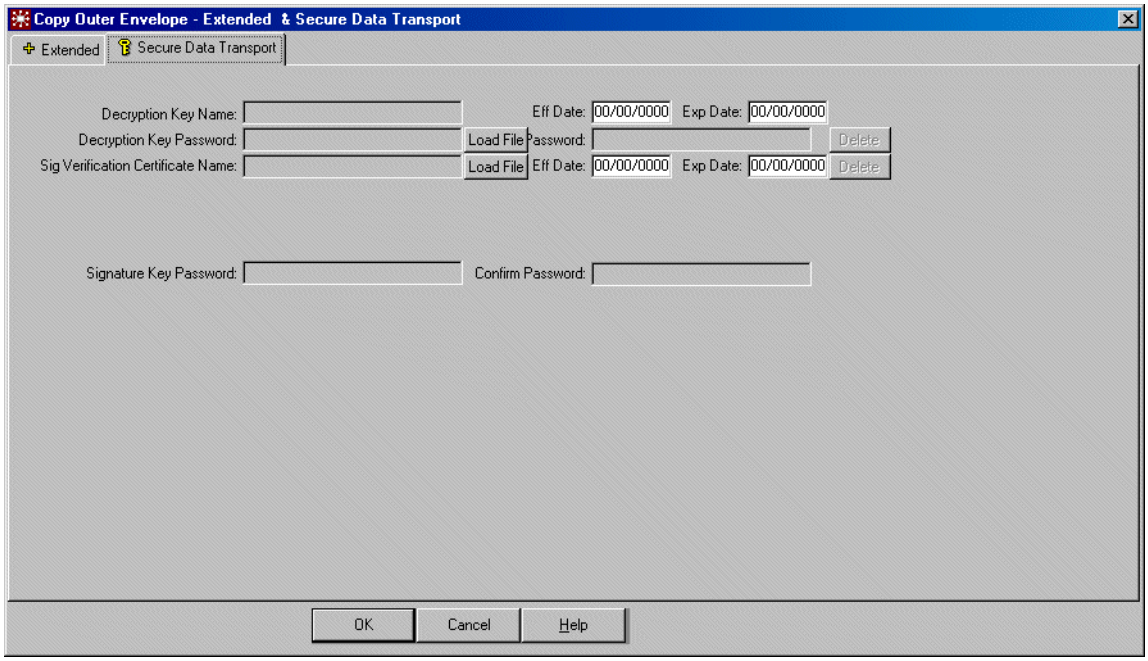


Figure 173 Copy Outer Envelope Detail, Secure Data Transport Tab



Copying Inner Envelope Characteristics

You can copy an existing inner envelope to create a new one. Once copied, you can modify the new inner envelope as needed.

To copy an inner envelope

1. In the right pane of e*Xchange Client for Windows, select the inner envelope you want to copy.
2. Click **Copy Inner Envelope**  .

   The **Copy Inner Envelope** dialog box appears (see Figure 174).
3. Enter the version and transfer mode for the new inner envelope.

   For more information, see Table 85.
4. Optional: if you want to copy contact information, check the **Copy Contacts** check box.
5. Click **OK**.

   The **Copy Inner Envelope - Extended** dialog box appears (see **Figure 175 on page 322**). This shows all the attributes already set up for the inner envelope that you are copying, and allows you to change these attributes for the new inner envelope.
6. Review the attribute values, and change as needed.

   To change an attribute value, enter the new value.
7. Click **OK**. The new inner envelope appears in the left pane.

Figure 174 Copy Inner Envelope

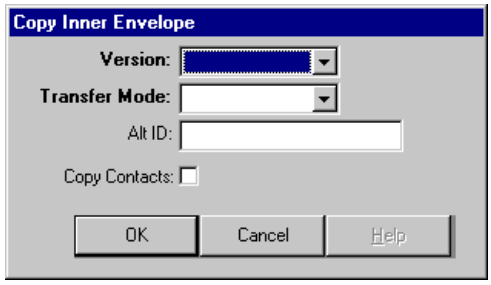


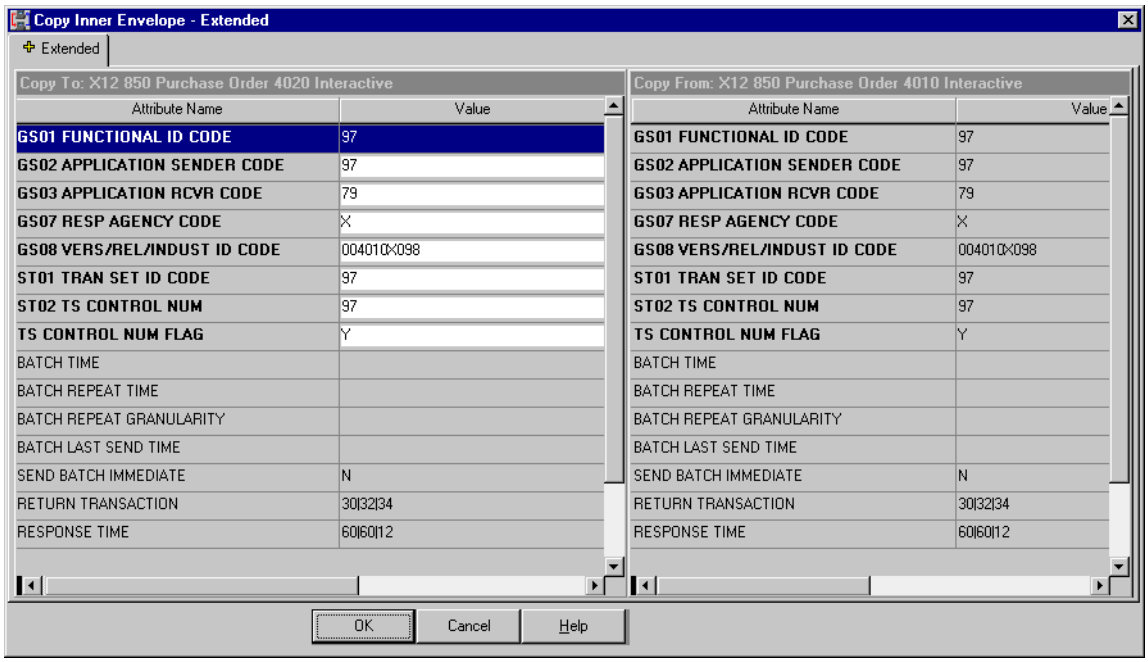
Table 85 Copy Inner Envelope Fields

Name	Description
Version	The version number for the eBusiness protocol is displayed.
Transfer Mode	This indicates whether outgoing messages of this type will be transmitted by **Batch** (inner envelopes are accumulated and sent to the trading partner as a group at a preset time), by **Fast Batch** (inner envelopes of a certain type are accumulated and sent to the trading partner as a group of messages, all of the same message type, at a preset point), or in real time (**Interactive**).

Table 85 Copy Inner Envelope Fields (Continued)

Name	Description
Alt ID	The alternate identification number for the new inner envelope (not currently used).
Copy Contacts	If you want to copy contact information, check the **Copy Contacts** check box.

Figure 175 Copy Inner Envelope - Extended



16.6 Deleting Components

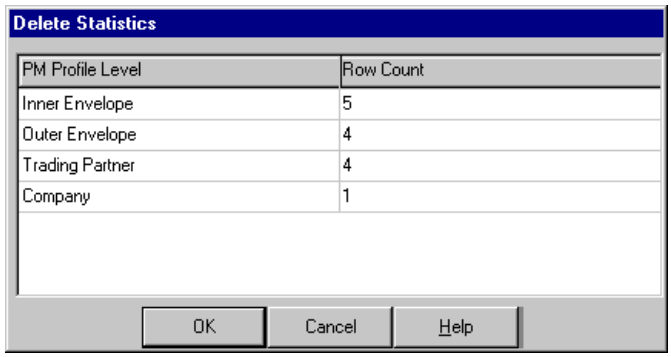
e*Xchange Client for Windows allows you to delete components that are no longer used; for example, if your company ceases to do business with a specific company or trading partner, or if an existing trading partner changes to a different eBusiness protocol, or to a newer protocol version.

When you delete a component, anything set up at a level below it is also deleted. For example, if you delete a trading partner, all outer envelopes and inner envelopes set up for that trading partner are also deleted.

If there are any messages existing in the database for the component being deleted, the messages are deleted too. All messages should be processed before deleting a component.

When you attempt to delete a component, e*Xchange Client for Windows displays a list of any subsidiary components that will also be deleted (see Figure 176).

Figure 176 Delete Statistics



To delete a component

1. In the left pane of the Partner Manager window, highlight the company, trading partner, outer envelope, or inner envelope to be deleted.
2. Click **Delete**  .

   The **Delete Statistics** dialog box appears (see Figure 176), showing all elements (including messages, if any) currently existing in the database for the selected component.
3. To delete the component, click **OK**.

Chapter 17

Setting Up X12 Outer and Inner Envelopes in e*Xchange Client for Windows

This chapter provides information on setting up, in e*Xchange Client for Windows, the specific values necessary to successfully send and receive X12 transactions to and from a trading partner. It includes information on the following:

- Setting the values for:
  - Interchange envelope (ISA and IEA segments)
  - Functional group (GS and GE segments)
  - Transaction set (ST and SE segments)
- Specifying the messaging protocol used to relay the messages
- Using the special files provided for HIPAA transactions
- Handling errors

Note: *If you are using X12, you must install the X12 templates provided by SeeBeyond. They are available during e*Gate installation via the "Add-Ons" option. For installation instructions, refer to the* ***ASC X12 ETD Library User's Guide****.*

To support all versions of X12, the e*Xchange Client for Windows provides the following components:

- Default extended attributes for message envelopes
- Message tracking extended attributes
- Validation Rules Builder tool

You must create the following components as needed for your business:

- Validation Collaborations (created by means of the Validation Rules Builder tool).
- Trading partner profiles (created as part of setting up e*Xchange Client for Windows).
- Transaction definitions (created after the trading partners have been defined, as part of setting up e*Xchange Client for Windows).

Note: *The* ***Secure Data Transport*** *tab in the Outer Envelope of the trading partner profile is not used by the e*Xchange X12 implementation. This tab is provided as an interface for secure X12 messaging that might be required in the back-end Monk*

scripts for a custom implementation. If secure X12 messaging is required, the back-end Monk scripts must be significantly customized. Refer to the ***e*Xchange Partner Manager Implementation Guide*** *for information on the Monk APIs that would be used to retrieve the keys and certificates from the database.*

For general information on X12 and the e*Gate X12 ETD library, refer to the **ASC X12 ETD Library User's Guide**.

17.1 X12 Header and Trailer Segment Values

You must enter values for the X12 header and trailer segments so that e*Xchange can successfully interpret and route messages to and from a trading partner.

Most of the header and trailer segment values are set up as extended attributes on the **Extended** tab at the outer and inner envelope layers. Some other values are counted or tracked automatically by e*Xchange, or are provided by e*Gate.

Generally speaking, X12 envelope layers are set up in e*Xchange Client for Windows as follows:

- Outer Envelope—used to set up values specific to the trading partner but general to all messages to and from the trading partner. This includes interchange segment values, delimiters, INCLUDE IC/FG ENVELOPE, and some functional group segments.
- Inner Envelope—used to set up values specific to an individual X12 transaction. This includes some functional group segments, all the transaction set segments, and batch settings.

Table 86 shows the values required by the interchange header and footer segments for X12 version 4010, and shows how the information is recorded in e*Xchange Client for Windows. It either lists the extended attribute name, or otherwise shows how the information is tracked. Other versions might have slightly different segments or values.

Table 86 Interchange Header and Footer Values (X12 Version 4010)

Segment	Name	Layer	Extended Attribute Name
ISA Interchange Header			
ISA01	Author Info Qualifier	Outer	ISA01 AUTHOR INFO QUAL
ISA02	Author Information	Outer	ISA02 AUTHOR INFORMATION
ISA03	Security Info Qual	Outer	ISA03 SEC INFO QUAL
ISA04	Security Information	Outer	ISA04 SECURITY INFORMATION
ISA05	Interchange ID Qual	Outer	ISA05 IC SENDER ID QUAL
ISA06	Interchange Sender ID	Outer	ISA06 INTERCHANGE SENDER ID
ISA07	Interchange ID Qual	Outer	ISA07 IC RCVR ID QUAL
ISA08	Interchange Receiver ID	Outer	ISA08 INTERCHANGE RCVR ID

Table 86 Interchange Header and Footer Values (X12 Version 4010) (Continued)

Segment	Name	Layer	Extended Attribute Name
ISA09	Interchange Date	Outer	Taken automatically from the e*Gate time stamp.
ISA10	Interchange Time	Outer	Taken automatically from the e*Gate time stamp.
ISA11	Inter Ctrl Stand Ident	Outer	ISA11 IC STANDARDS ID
ISA12	Inter Ctrl Version Num	Outer	ISA12 IC VERSION NUMBER
ISA13	Inter Ctrl Number	Outer	ISA13 IC CONTROL NUMBER
ISA14	Ack Requested	Outer	Taken from **Positive TA1 Acknowledgment** on the **General** tab, Outer Envelope layer: ▪ If user selects Yes, value is set to 1 ▪ If user selects No, value is set to 0
ISA15	Usage Indicator	Outer	ISA15 USAGE INDICATOR
ISA16	Component Elem Sepera	Outer	ISA16 COMP ELE SEP
IEA Interchange Trailer (Footer)			
IEA01	Number of Incl Funct Group	Outer	Counted automatically by e*Xchange.
IEA02	Inter Ctrl Number	Outer	Same as ISA13

Table 87 shows the values required by the functional group header and footer segments, and shows how the information is recorded in e*Xchange Client for Windows. It either lists the extended attribute name, or otherwise shows how the information is tracked.

Table 87 Functional Group Header and Footer Values

Segment	Name	Layer	Extended Attribute Name
GS Functional Group Header			
GS01	Functional ID Code	Inner	GS01 FUNCTIONAL ID CODE
GS02	Application Sender's Code	Inner	GS02 APPLICATION SENDER CODE
GS03	Application Receiver's Code	Inner	GS03 APPLICATION RCVR CODE
GS04	Date		Taken automatically from the e*Gate time stamp.
GS05	Time		Taken automatically from the e*Gate time stamp.
GS06	Group Control Number	Outer	GS06 GROUP CONTROL NUM
GS07	Responsible Agency Code	Inner	GS07 RESP AGENCY CODE
GS08	Ver/Release ID Code	Inner	GS08 VERS/REL/INDUST ID CODE
GE Functional Group Trailer (Footer)			
GE01	Number of Transaction Sets Included		Counted automatically by e*Xchange.

Table 87 Functional Group Header and Footer Values (Continued)

Segment	Name	Layer	Extended Attribute Name
GE02	Group Control Number		Same as GS06

Table 88 shows the values required by the transaction set header and footer segments, and shows how the information is recorded in e*Xchange Client for Windows. It either lists the extended attribute name, or otherwise shows how the information is tracked.

Table 88 Transaction Set Header And Footer Values

Segment	Name	Layer	Extended Attribute Name
ST Transaction Set Header			
ST01	TS ID Code	Inner	ST01 TRAN SET ID CODE
ST02	TS Control Number	Inner	ST02 TS CONTROL NUM
SE Transaction Set Trailer (Footer)			
SR01	Number of Inc Segs		Counted automatically by e*Xchange.
SE02	TS Control Number		Same as ST02

17.2 X12 Delimiters

For X12, delimiters are set up at the outer envelope level, on the **Extended** tab.

It is important to note the specific use of delimiters in the extended attributes and how it affects default use of delimiters in messages processed by e*Xchange.

For inbound messages, e*Xchange uses the delimiters specified in the message. Even if other values are specified in the Extended Attributes, these are ignored.

For an outbound message, e*Xchange replaces the delimiters used by the internal application with those specified in the Extended Attributes before forwarding the message to the trading partner.

If the message received from the internal application does not include all the envelope layers, including ISA, GS, GE, and IEA segments, e*Xchange requires the default delimiters:

- Tilde (~) as the segment delimiter
- Asterisk (*) as the element delimiter
- Colon (:) as the composite element delimiter

If the internal application includes the full ISA IEA envelope structure, the message can use the delimiters specified in the ISA segment. e*Xchange uses these delimiters to parse the message. e*Xchange then replaces these delimiters with those specified in the Extended Attributes of the trading partner profile.

17.3 Transfer Modes in X12

X12 offers three alternatives in terms of how frequently messages are sent:

- **Interactive** (single-item batching in real time)—messages are sent as soon as they are generated or received. Typically, messages that are used in a real time mode are those that require an immediate response. The sender sends a request message to the receiver and remains connected while the receiver processes the request message and returns a response message.
- **Batch**—messages of all types are sent in groups called batches. In batch mode, the frequency of batch transmission is normally determined by a user-specified time setting.
- **Fast Batch**—inner envelopes of a certain type are accumulated and sent to the trading partner as a group of messages, all of the same transaction type, at a preset point. Fast batch has one interchange, one functional group, and a preset number of transactions. The point at which a fast batch is sent is determined by the setting in the Standard Event Structure for the inner envelope.

17.3.1 Fast Batch Settings

If you are using Fast Batch, you must set the following values in the **eX_Standard_Event.ssc** file:

- Set the string value "FB_UNIQUE_ID" (Fast Batch unique ID) in the Name node of the first NameValuePair in the TPAttribute node.

  The Fast Batch unique ID is unique for each fast batch, but the same for each message within the fast batch.
- Set the fast batch unique value in the Value node of the first NameValuePair in the TPAttribute node.

  The actual value for the fast batch unique ID is user-defined.
- Set the string value "FB_COUNT" (Number of messages to be included in the batch) in the Name node of the Second NameValuePair in the TPAttribute node.
- Set the total fast batch record count in the Value node of the second NameValuePair in the TPAttribute node.

  The actual value for the fast batch record count is user-defined.

For an example, refer to the *e*Xchange Schema Component* chapter of the *e*Xchange Implementation Guide*.

17.4 Communications Protocols for X12

The communications protocols supported by e*Xchange for X12 are:

- FTP (Batch)

  The FTP (Batch) setting at the outer envelope level indicates use of FTP (file transfer protocol) for transmission of messages. Within e*Gate, this uses the ePM Batch e*Way to transfer files. Files can also be stored on the local machine.

Note: *In e*Xchange it is important to distinguish between the two uses of the word* ***Batch****—the FTP (Batch) protocol, and the Batch transfer mode for batching of messages.*

- HTTP

  This setting indicates use of the HTTP protocol.

- SMTP

  This setting indicates use of the Simple Mail Transfer Protocol.

17.5 Entering Envelope Properties

Once you have set up a trading partner, the next step is to enter the specific technical information required to successfully send messages to the trading partner and receive messages from the trading partner. This includes the following steps:

Defining outer envelopes—two for each eBusiness protocol; one for outbound messages, one for inbound messages. This includes the following:

- Defining general information for the outer envelope
- Defining extended attributes for the outer envelope
- Defining messaging information on the Transport Component tab
- If applicable, defining contacts, notes and action items, and security for the outer envelope

Defining inner envelopes—one for each type of transaction to be sent to the trading partner, under the "Outbound" outer envelope; one for each type of transaction to be received from the trading partner, under the "Inbound" outer envelope. For each inner envelope, this includes the following:

- Defining general information for the inner envelope
- Defining extended attributes for the inner envelope
- Defining the return inner envelope, if the transaction would normally expect a response transaction
- If applicable, defining contacts, notes and action items, and security for the inner envelope

17.6 Extended Envelope Attributes for X12

For ASC X12, extended attributes are values required by e*Xchange to build interchange, functional group, and transaction envelopes as needed for your business.

e*Xchange provides extended attribute templates for all X12 versions. However, you must provide the values yourself. You can specify default values via the **Functions** menu, **System Administration**, **Partner Manager Envelope Setup**. When setting up the envelopes for each trading partner, you can change the default values if needed.

Before setting up the extended attributes, or any other aspect of the trading partner setup, it is important to have the trading partner agreement for each of your trading partners, and ideally the name, address, and telephone number of the eBusiness integration contact for each trading partner. Having this information immediately available will help ensure smooth and accurate setup.

17.7 Entering Outer Envelope Properties

For each trading partner, you must set up separate outer envelopes for inbound and outbound messages.

If the trading partner uses more than one eBusiness protocol version, create additional inbound/outbound sets of outer envelopes as needed to accommodate each additional version.

The following steps include all the activities needed to add a new outer envelope to e*Xchange Client for Windows.

To add an X12 outer envelope

1. Enter general outer envelope characteristics: see **"Entering General Outer Envelope Characteristics" on page 331**.
2. Enter outer envelope characteristics that are specific to the message standard (extended attributes): see **"Entering Outer Envelope Extended Attributes" on page 333**.
3. Enter information specific to the transport component of the outer envelope: see **"Entering Transport Component Information" on page 336**.
4. Optional: define contacts, notes and action items, and security for the outer envelope see **"Defining Contacts, Notes, Action Items, and User Security" on page 339**.

To finish adding a trading partner profile, you must also define an inner envelope for each type of message you will be sending to the trading partner, and one for each type of message you will be receiving from the trading partner. This is explained in **"Entering Inner Envelope Properties" on page 339**.

17.7.1 Entering General Outer Envelope Characteristics

Use the **General** tab for entering general information that identifies the structure and content of the outer envelope, such as the eBusiness protocol used, message direction, and protocol version.

To enter general outer envelope characteristics

1. In the left pane of the Partner Manager window, select the name of the trading partner for which you want to create an outer envelope definition.
2. Click **New Outer Envelope**  .

   The **New Outer Envelope** dialog box appears (see Figure 177).
3. Record the outer envelope information on the **General** tab of the **New Outer Envelope** dialog box. For more information, see Table 89.
4. Continue to **"Entering Outer Envelope Extended Attributes" on page 333**.

Figure 177 New Outer Envelope, General Tab (X12)

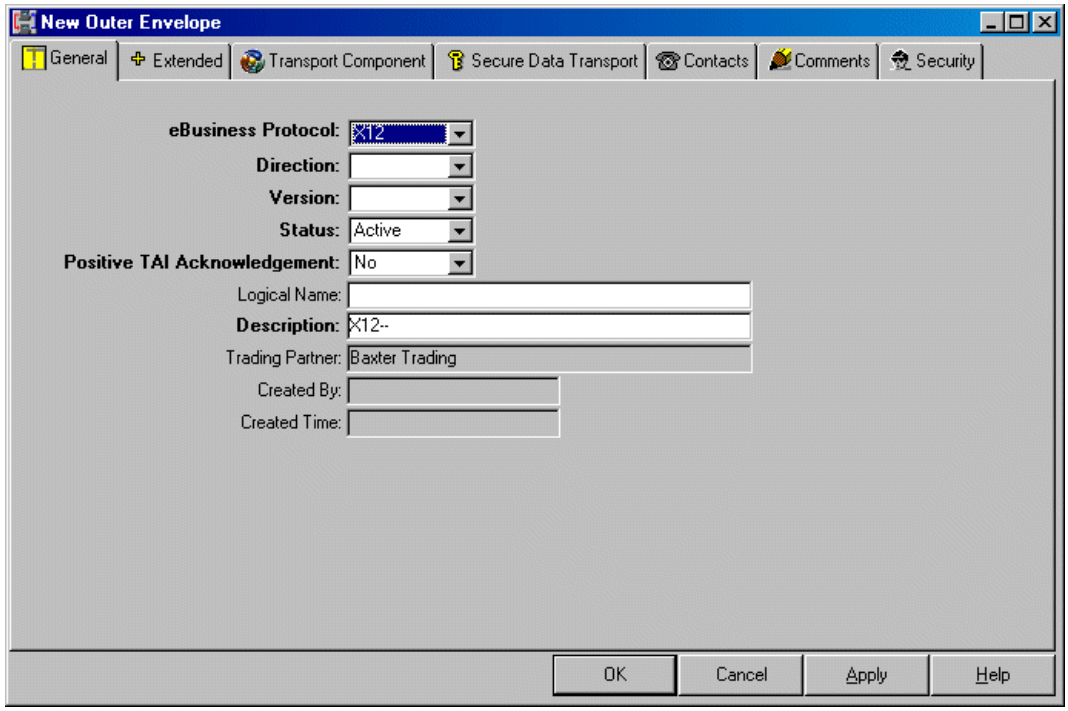


Table 89 General Outer Envelope Characteristics (X12)

Name	Description
eBusiness Protocol	The name of the eBusiness protocol that is used to format the messages and related transmission information that you send to or receive from the trading partner; X12, UN/EDIFACT, RosettaNet, or CIDX. Select **X12**. After you save the new outer envelope, you cannot change the protocol.

Table 89 General Outer Envelope Characteristics (X12) (Continued)

Name	Description
Direction	You must define separate outer envelopes for inbound and outbound messages. This box indicates the direction for the current envelope: **Inbound**—For messages coming in from a trading partner. **Outbound**—For messages going out to a trading partner.
Version	The version number of the eBusiness protocol in use. For example, version 4010 is an ANSI X12 EDI standard for outer envelopes. All protocol versions that have been set up in **Partner Manager Envelope Setup** are available on the drop-down selection list. **Note**: After you save the new outer envelope, you cannot change the protocol version.
Status	The status of the outer envelope. Only one inbound and one outbound outer envelope can be active for each combination of trading partner, inner envelope type, direction, and version. **Note**: The e*Xchange e*Gate Schema only processes messages for active profiles. Inactive outer envelopes are not displayed in the left pane of the Partner Manager window if the administrator has selected the **Show Only Active TP** check box in **System Defaults**. Choose one of the following values. **Active**—The outer envelope is currently active, and can be used. **Inactive**—The outer envelope is not active, and cannot be used. Default: **Active**. **Note**: If the status is **Inactive** and you cannot change it, this means that the setting has been made at the Trading Partner level.
Positive TA1 Acknowledgment	(X12 inbound messages only) This box indicates whether a positive TA1 is to be transmitted to the trading partner.
Logical Name	A unique value that you specify for the trading partner. There are several important conditions for the logical name: ▪ For X12, UN/EDIFACT, and CIDX, the Logical Name, Version, Sender ID, and Receiver ID for the outbound outer envelope must match the Logical Name, Version, Receiver ID, and Sender ID for the inbound outer envelope. For example, if you are using X12 version 4020, use the same logical name value for the inbound and outbound envelopes for that version. ▪ It must be unique for each inbound/outbound envelope set. For example, if you are using X12 versions 4020 and 4030, use one value for the 4020 inbound and outbound envelope set, and another for the 4030 inbound and outbound envelopes. If you have only one outer envelope set per company, you can use the company name. You could also use a numerical value, or any other value as long as it is unique to the inbound/outbound envelope set. ▪ For outbound messages, the logical name is the primary value used when e*Xchange receives a message from an internal system to identify the trading partner to which the message is routed. The value in this field must be identical, including case, to the value set in the **eX_Standard_Event** structure's Partner Name node. For more information, refer to the *e*Xchange Partner Manager Implementation Guide*.

Table 89 General Outer Envelope Characteristics (X12) (Continued)

Name	Description
Description	The description of the outer envelope. Default: The eBusiness protocol name, version, and direction, separated by hyphens.
Trading Partner	The name of the trading partner associated with this outer envelope is displayed.
Created By	The user ID of the person who saved or updated this outer envelope is displayed.
Created Time	The date and time this outer envelope definition was saved or updated are automatically displayed when the record is saved.

17.7.2 Entering Outer Envelope Extended Attributes

You must set up certain X12 enveloping values as extended attributes at the outer envelope level.

Predefined extended attributes are preloaded during installation, but can be changed if needed.

To enter outer envelope extended attribute values

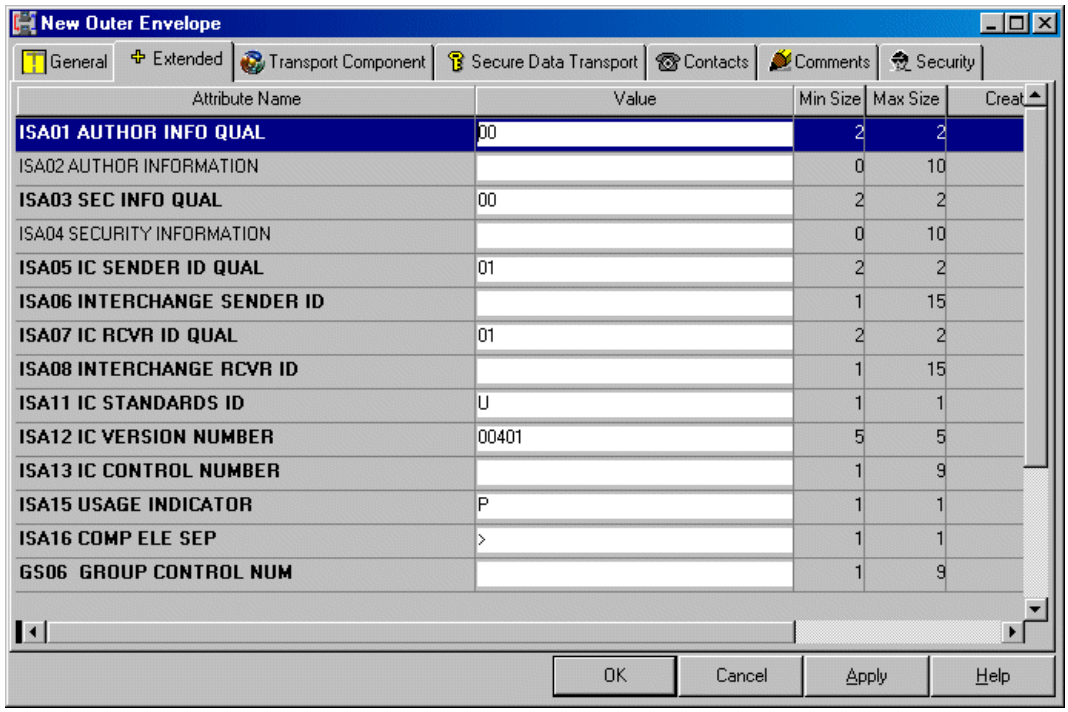
Before you begin, complete **"Entering General Outer Envelope Characteristics" on page 331**.

Note: *For information on specific extended attributes provided with e*Xchange Client for Windows, see* **"X12 Extended Attributes—Outer Envelope" on page 334**.

1 On the **New Outer Envelope** dialog box, click the **Extended** tab.

The **Extended** tab appears, as shown in Figure 178.

Figure 178 New Outer Envelope, Extended Tab (X12)



2 Enter the appropriate values for the attributes. If defaults have been set, these are displayed; however, they can be changed.

For more information on the individual attributes, refer to Table 90.

3 Continue to **"Entering Transport Component Information" on page 336**.

17.7.3 X12 Extended Attributes—Outer Envelope

The sample attributes listed in Table 90 are those provided for the Interchange Control Header (ISA) for X12 Version 4010. They are set up as Extended Attributes at the outer envelope level.

Note: *The extended attributes for batch processing are also applicable to X12.*

Table 90 Extended Attributes Stored at the Outer Envelope Level (X12 4010)

Name	Description
ISA01 AUTHOR INFO QUAL	The Authorization Information Qualifier; a code to identify the type of information in the Authorization Information (ISA02).
ISA02 AUTHOR INFORMATION	The Authorization Information; information used for additional identification or authorization of the interchange sender or the data in the interchange. The type of information is set by the Authorization Information Qualifier (ISA01).
ISA03 SEC INFO QUAL	Security Information Qualifier: The code that identifies the type of information in the Security Information (ISA04).

Table 90 Extended Attributes Stored at the Outer Envelope Level (X12 4010) (Continued)

Name	Description
ISA04 SECURITY INFORMATION	Used for identifying the security information about the interchange sender or the data in the interchange. The type of information is set by the Security Information Qualifier (ISA03).
ISA05 IC SENDER ID QUAL	Interchange ID qualifier: The code that designates the system/method of code structure used to designate the sender or receiver ID element being qualified (ISA06).
ISA06 INTERCHANGE SENDER ID	The identification code published by the sender for other parties to use as the receiver ID to route data to them. The sender always codes this value in the Sender ID element.
ISA07 IC RCVR ID QUAL	Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified.
ISA08 INTERCHANGE RCVR ID	Identification code published by the receiver of the data. When sending, it is used by the sender as the sending ID. Other parties sending to them will use this as a receiving ID to route data to them.
ISA11 IC STANDARDS ID	A code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer.
ISA12 IC VERSION NUMBER	The version number for the interchange control segments.
ISA13 IC CONTROL NUMBER	Interchange control number: a control number assigned by the sender. This setting in the partner profile affects outbound messages only. e*Xchange does the following: Checks the number stored in the database, increments by one (which ensures that the value is always unique), uses that value, stores the value in the IC segment of the message, and updates the database. **Note**: Since the interchange control number must be unique for each interchange, it is important that this value is *not* set to a negative number. The initial value must be 0 or greater.
ISA15 USAGE INDICATOR	A code to indicate whether the data enclosed in the interchange envelope is test, production, or information.
ISA16 COMP ELE SEP	Component element separator: The delimiter used to separate component data elements within a composite data structure (must be different from the data element separator and the segment terminator). **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.

Table 90 Extended Attributes Stored at the Outer Envelope Level (X12 4010) (Continued)

Name	Description
GS06 GROUP CONTROL NUM	Functional group control number: a control number assigned by the message sender. The group control number must be unique within the interchange. This setting in the partner profile affects outbound messages only. **Note**: Make sure the initial value is 0 or greater. e*Xchange does the following: Checks the number stored in the database, increments by one, uses that value, and updates the database. **Note**: The Functional Group control number GS06 in the header must be identical to the same data element in the associated Functional Group trailer, GE02.
ELEMENT SEPARATOR	The separator symbol used to separate data elements. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.
SEGMENT TERMINATOR	The symbol used to indicate the end of the segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.
INCLUDE IC/FG ENVELOPE	If your internal system expects the ISA...IEA and GS...GE segments on incoming transactions, you must set this value to **Y**. If your internal system does not use these segments, set to **N**. If set to **N**, e*Xchange relays only the ST/SE header and footer with the message. **Note**: For inbound messages, if your internal system expects the ISA/IEA and GS/GE segments on incoming messages, this flag must be set correctly for the messages to be read successfully.

17.7.4 Entering Transport Component Information

You must specify the communications protocol by which messages will be sent, and provide information required by the protocol.

To add transport component information

1. On the **New Outer Envelope** dialog box, click the **Transport Component** tab.
2. The **Transport Component** tab appears: see Figure 179.
3. Select the communications protocol.

   The rest of the values change according to your selection.
4. Fill in the appropriate values. For more information, see Table 91.
5. Click **Apply**.

   If you entered a password, the **Confirm Password** dialog box appears.
6. Confirm the password.

   Type the password exactly as you typed it in the **Password** box, and then press **Enter**. The password is case-sensitive; make sure you use the correct capitalization.

Note: *Password confirmation is only to avoid errors, not for security purposes. Anyone with access to this dialog box can change the password at any time. You do not need to know the old password to change to a new one.*

7 If applicable, continue to **"Defining Contacts, Notes, Action Items, and User Security" on page 339**.

Note: *The Secure Data Transport tab is not currently applicable to X12.*

Figure 179 New Outer Envelope, Transport Component Tab

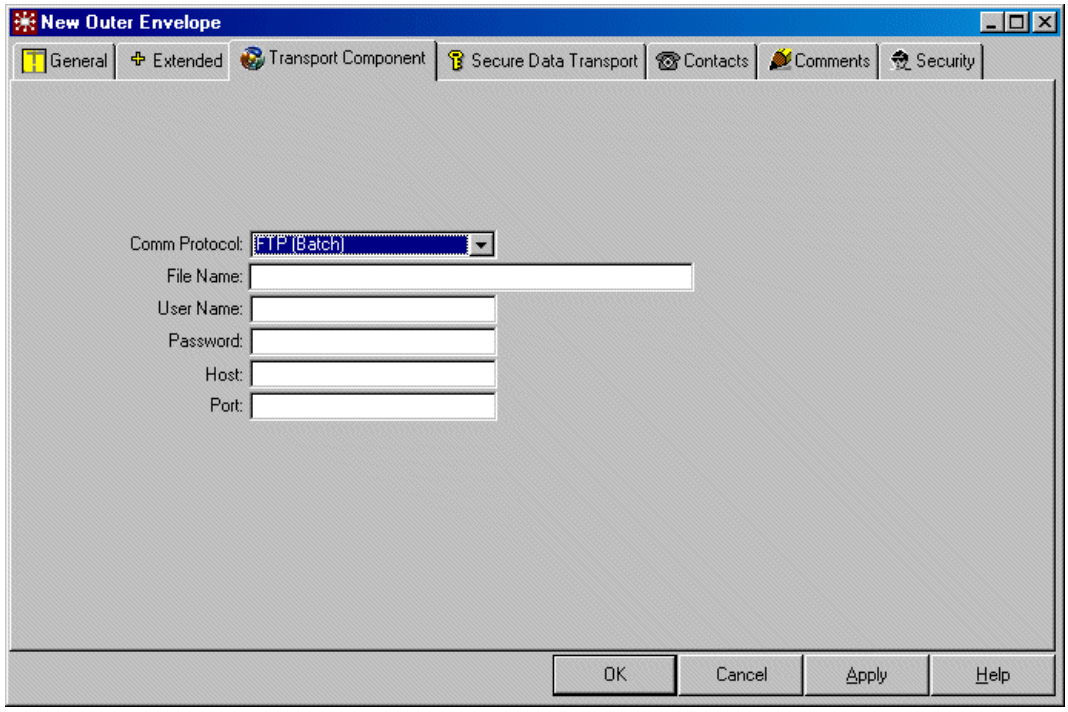


Table 91 Outer Envelope Transport Component Fields

Name	Description
Comm Protocol	The communications protocol used for this outer envelope. For X12, only FTP (Batch), HTTP, and SMTP are valid choices for e*Xchange Client for Windows. If you are using the Web interface, HTTPS is also available. **FTP (Batch)**—Messages are transmitted using the FTP protocol. **Note**: If you want the files to be stored on the local machine, supply the **File Name** but leave the **User Name**, **Password**, **Host**, and **Port** boxes empty. **HTTP**—Messages are transmitted with HTTP. **HTTPS**—Messages are transmitted using HTTP with SSL (available only via the Web interface). **SMTP**—Messages are transmitted using the Simple Mail Transfer Protocol.

Table 91 Outer Envelope Transport Component Fields (Continued)

Name	Description
File Name (FTP)	For inbound—type the complete file name, including path and extension, of the file from which inbound outer envelopes based on this profile are read, or to which outbound outer envelopes are written. You can use wild cards in the filename or at the beginning of the extension but not at the end; for example, use ***.dat** or ***.*at** but not ***.da***. For outbound—type the complete file name, including path and extension, using variables as needed. %d adds a two-digit day (for example, 05 for the fifth day of the month) to the file name, and %# adds a sequential number (for example, 01, 02, and so forth); for example, **TP01%d_%#.dat**. **Windows**: If the FTP server is set up on a Windows machine, the path must be relative to the FTP server default directory. For example, if the FTP server default directory is **c:\eGate** and your full path for inbound messages is **c:\eGate\X12\input*.in**, type only **\X12\input.*in**. **UNIX**: If the FTP server is set up on a UNIX machine, use forward slashes. For example, your full path for outbound messages might be **/home/eGate/EFT/output/1400_EDF48_%d_%#.dat**.
URL (HTTP)	If the communication protocol is HTTP, enter the full URL, including prefix. For example: ▪ http://www.WebAddress.com
User Name (FTP, HTTP)	The user name to be used to access the host on which messages are stored. If the comm protocol is FTP (Batch), the user name and password are required for successful transfer of files to and from the FTP server. **Note**: To store the files on the local machine, leave this field empty.
Password (FTP, HTTP)	The password to be used to access the host used for storage and retrieval of messages. If the comm protocol is FTP (Batch), the user name and password are required for successful transfer of files to and from the FTP server. **Note**: To store the files on the local machine, leave this field empty. When you have entered all the information, click **Apply** or **OK** to save the data. A **Confirm Password** dialog box appears. The password you enter in this dialog box must match the one entered in the **Password** box before the data is accepted. This helps prevent errors in entering a password.
Host (FTP)	The name of the host on which messages are stored. For inbound messages, this is the source of the messages; for outbound messages, it is the destination. If the communication protocol is FTP (Batch)— this is required for successful transfer of files to or from the host. If files are stored locally, leave empty.
Port (FTP)	You have the option to specify the port to be used to access the host. Leave blank to use the default port.
Sender Email Address (SMTP)	The e-mail address of the message sender.
Receiver Email (SMTP)	The e-mail address of the message recipient.
(Outbound only) MailHost/IP Address (SMTP)	The host name of the mail server.

Table 91 Outer Envelope Transport Component Fields (Continued)

Name	Description
(Outbound only) MailHost Port (SMTP)	The port for the mail server.

Note: *The Secure Data Transport tab is not currently applicable to X12.*

17.7.5 Defining Contacts, Notes, Action Items, and User Security

As part of setting up each component, you have the option to set up the following additional information:

- On the **Contacts** tab—contact information
- On the **Comments** tab—notes and action items
- On the **Security** tab—user access (already inherited from the parent component level, but can be customized for the current outer envelope).

None of this setup is required to save the new outer envelope or to process messages to and from the trading partner. However, each of these tabs provides you with additional capabilities.

Detailed instructions on using each of these tabs is provided in additional chapters, as follows:

Contacts tab—**Storing Contact Data in e*Xchange Client for Windows** on page 278

Comments tab—**Tracking Notes and Action Items in e*Xchange Client for Windows** on page 284

Security tab—**Access Control in e*Xchange Client for Windows** on page 293

For information on using these tabs, refer to the appropriate chapter or to the online Help system.

17.8 Entering Inner Envelope Properties

Once you have set up outer envelopes, you can define the specific messages that you will be sending and receiving. These are set up at the inner envelope level.

You must set up a separate inner envelope for each type of message that will be sent to the trading partner and each type of message that will be received from the trading partner.

Note: *If you want to set up more than one inner envelope for the same transaction, you must include the functional group segments (GS and GE) in the message from the internal application. Since the Sender ID, Receiver ID, and Functional Group Version are part of the functional group, including the functional group segments*

*in the message will allow e*Xchange to correctly identify and route the inner envelope.*

The following steps include all the activities needed to add a new inner envelope. You can perform these steps only if you have the appropriate access rights.

1. Enter general inner envelope characteristics: see **"Entering General Inner Envelope Characteristics" on page 340**
2. Enter extended attributes that are unique to the eBusiness protocol: see **"Entering Inner Envelope Attribute Values" on page 344**
3. Optional: define contacts, notes and action items, and security for the inner envelope see **"Defining Contacts, Notes, Action Items, and User Security" on page 347**
4. When you have set up all inner envelopes, go back and enter information about the return inner envelopes that will be expected in response to each inner envelope: see **"Entering Return Inner Envelope Information" on page 348**. It is important to set up all envelopes before completing this step; if you do not, the return envelopes will not be available for selection.

When you have finished setting up the inner envelopes, trading partner setup is complete.

17.8.1 Entering General Inner Envelope Characteristics

To identify the structure and content of the inner envelope so that it can be correctly processed by e*Xchange, you must enter general information such as the protocol version and transfer mode.

Note: *First, set up all the eBusiness messages that you will be using for this trading partner, both inbound and outbound, without setting up return messages. When you have done this, go back to each inner envelope and select the appropriate messages that would be expected responses.*

To enter general inner envelope characteristics

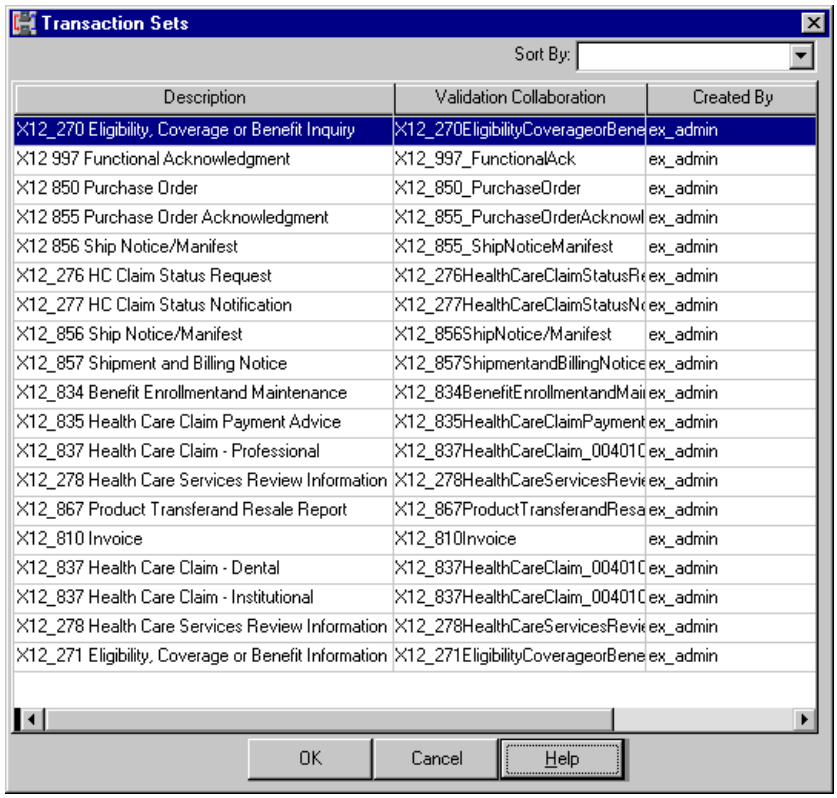
1. In the left pane of the Partner Manager window, select the appropriate outer envelope (inbound or outbound).
2. Click **New Inner Envelope**  .

   The **New Inner Envelope** dialog box appears (see Figure 181).
3. In the **Version** box, choose the eBusiness protocol that the trading partner is using.

   One of two things occurs, according to whether you have inner envelope definitions set up for this version in the **Inner Envelope Definition Setup** dialog box:

   - If you have transactions set up, the **Transaction Sets** dialog box appears (see Figure 180). Choose an inner envelope definition, and then click **OK** to return to the **General** tab of the **New Inner Envelope** dialog box. The **Description** and **Validation Collaboration** boxes are filled in based on your selection.

Figure 180 Transaction Sets (X12)



- If you do not have definitions set up, enter the values for **Validation Collaboration and Description**. For more information, refer to Table 92.

4 Enter the **Transfer Mode**: Batch, Fast Batch, or Interactive. For more information, refer to Table 92.

5 Continue to **"Entering Inner Envelope Attribute Values" on page 344**.

Figure 181 New Inner Envelope, General Tab

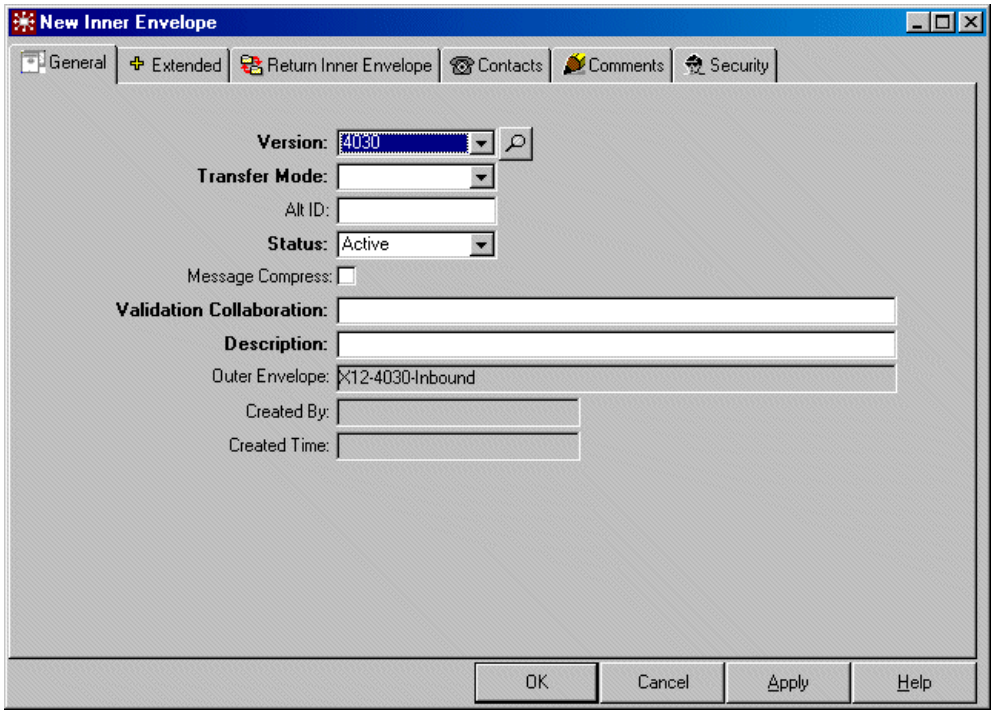


Table 92 General Inner Envelope Characteristics

Name	Description
Version	The version number of the eBusiness protocol in use. For example, version 4010 is an ANSI X12 EDI standard for inner envelopes. After you save the inner envelope, you cannot modify this value. Once you select from the **Transaction Sets** dialog box, the **Version**, **Status**, **Validation Collaboration**, **Description**, and **Outer Envelope** values are filled in for you. An icon next to the **Version** box allows you to reselect from the **Transaction Sets** dialog box if needed.

Table 92 General Inner Envelope Characteristics (Continued)

Name	Description
Transfer Mode	The way in which the eBusiness messages are transmitted to, or received from, the trading partner. The following choices are valid for X12: **Batch**—Inner envelopes of all types are accumulated and sent to the trading partner as a group at a preset time or at preset intervals. A batch includes multiple transactions, accumulated up to the preset send time, and can have multiple functional groups. Messages of different types can be batched in the same functional group if they have the same functional group ID code, sender ID code, receiver ID code, and functional group version number. **Fast Batch**—Inner envelopes of a certain type are accumulated and sent to the trading partner as a group of messages, all of the same transaction type, at a preset point. Messages can be batched in the same functional group if they have the same functional group ID code, sender ID code, receiver ID code, and functional group version number. The point at which a fast batch is sent is determined by the setting in the Standard Event Structure for the inner envelope. For more information, refer to**"Fast Batch Settings" on page 328**. Transactions grouped within the fast batch must have the same functional ID code, sender ID code, receiver ID code, and functional group version number, and also the same interchange ID. **Interactive**—Inner envelopes are created and sent to the trading partner individually in real time. This mode facilitates "question and answer" types of inner envelopes.
ALT ID	An alternate identification number for this kind of inner envelope (not currently used).
Status	The status of the inner envelope: **Active** or **Inactive**. The e*Xchange e*Gate Schema will not process messages that are inactive. Inactive inner envelopes are not displayed in the left pane of the Partner Manager window if the administrator has selected the **Show Only Active TP** check box in **System Defaults**. **Note**: If the status is **Inactive** and you cannot change it, this means that the setting has been made at the Trading Partner or Outer Envelope level.
Message Compress	Indicates whether the messages should be compressed before they are stored in the database. Default: cleared (inner envelopes are not compressed). **Note**: If you select this option, the messages are not viewable in the Message Tracking window.

Table 92 General Inner Envelope Characteristics (Continued)

Name	Description
Validation Collaboration	The name of the Collaboration that verifies and translates inner envelopes of this type. When you select from the **Transaction Sets** dialog box (**Transfer Mode** box), the validation Collaboration is filled in, but you can modify or delete it. For inbound messages, validation is required. For outbound messages, you might choose not to run validation on the message if you are sure outgoing messages are correct. **Note**: e*Xchange includes a custom validation Collaboration for inbound 997 transactions. Enter **ex_997_text**.
Description	The identification number and name of the inner envelope you are defining. If you defined inner envelopes as part of setup, the description is filled in for you when you select from the **Transaction Sets** dialog box (**Transfer Mode** box). If you did not create any inner envelope definitions, type a description.
Outer Envelope	The name of the outer envelope associated with this inner envelope is displayed.
Created By	The user ID of the person who created or updated this outer envelope is displayed.
Created Time	The date and time this outer envelope definition was saved or updated are automatically displayed when the record is saved.

17.8.2 Entering Inner Envelope Attribute Values

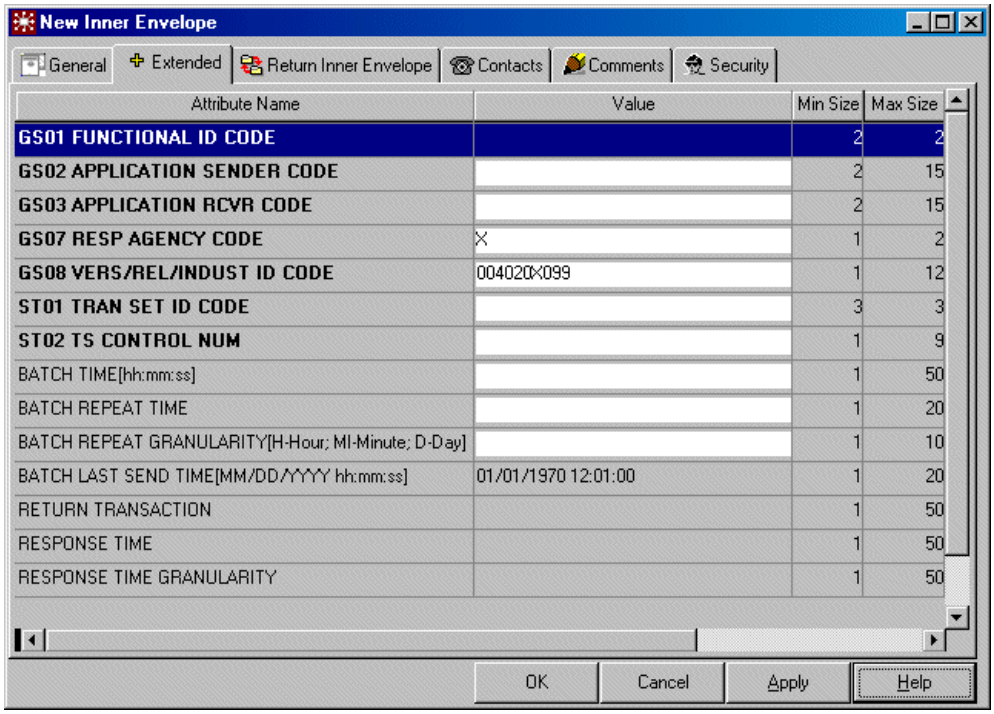
To record inner envelope characteristics specific to the message standard being used, you must add this information to e*Xchange Client for Windows as a set of extended attributes.

To enter inner envelope extended attribute values

Note: *For information on specific extended attributes, see* **"Extended Envelope Attributes for X12" on page 330**.

1 On the **New Inner Envelope** dialog box, click the **Extended** tab.

Figure 182 New Inner Envelope, Extended Tab (X12)



2 Enter the appropriate attribute values, as required by your business.

For information on specific attributes, refer to Table 93.

3 Continue to **"Entering Return Inner Envelope Information" on page 348**.

17.8.3 X12 Extended Attributes—Inner Envelope

The sample attributes listed in Table 93 are for X12 Version 4010. They are set up as Extended Attributes at the inner envelope level.

Table 93 Extended Attributes Stored at the Inner Envelope Level (X12 4010)

Name	Description
GS01 FUNCTIONAL ID CODE	Functional identifier code: The two-letter code that identifies a specific transaction within the transaction set. For example, for a 997, Functional Acknowledgment, the functional ID code is FA.
GS02 APPLICATION SENDER CODE	The code that identifies the sender of the transmission. The codes are agreed-upon by trading partners.
GS03 APPLICATION RCVR CODE	The code that identifies the receiver of the transmission. The codes are agreed-upon by trading partners.
GS07 RESP AGENCY CODE	Responsible Agency Code: The code used in conjunction with GS08.

Table 93 Extended Attributes Stored at the Inner Envelope Level (X12 4010) (Continued)

Name	Description
GS08 VERS/REL/INDUST ID CODE	This code indicates the version, release, subrelease, and industry identifier of the EDI standard being used, including the GS and GE segments. This segment will have the following values, according to the values in GS07: GS07 code X—positions 1–3 are the version number, positions 4–6 are the release and subrelease level of the version, and positions 7–12 are the industry or trade association identifiers (optionally assigned by the user). GS07 code T—other formats are allowed.
ST01 TRAN SET ID CODE	The unique ID code assigned to the transaction set; for example, 850 for a Purchase Order or 837 for a Health Care Claim.
ST02 TS CONTROL NUM	Transaction set control number: a control number assigned by the sender. This setting in the partner profile affects outbound messages only. **Note**: The control number in ST02 must be identical with that in SE02, and must be unique within a Functional Group (GS-GE). The number also aids in error resolution research. For example, start with the number 0001 and increment from there. The ST02 works a little differently depending on the Transfer Mode, as follows: **For Batch or Fast Batch messages, e*Xchange does the following:** Regardless of the value set in this field, e*Xchange always sets the Transaction Set control number to 1 within each Functional Group. This is due to conflicts in control numbers if more than one transaction set type is included in a single Functional Group. **For Interactive messages, e*Xchange does the following:** Transaction Set Control Number 0 or greater—e*Xchange increments from the initial value. Transaction Set Control Number less than 0—Control number always starts at 1, within each Functional Group.

0.0.1 Additional Extended Attributes for Batch Processing

The extended attributes shown in Table 94 are available if you choose **Batch** in the **Transfer Mode** box on the **General** tab of the inner envelope.

There are two choices in terms of how you determine when batches are sent out:

- Batch Time—sets a specific time or times when batches are sent.
- Repeat Time/Repeat Granularity—sets a specific time interval; for example, 8 hours.

If you set values for Batch Repeat Time/Batch Repeat Granularity and also Batch Time, e*Xchange uses the value in the **Batch Time** field to determine when batches are sent out.

Table 94 Additional Extended Attributes for Batch Processing (Inner Envelope)

Name	Description
BATCH TIME[hh:mm:ss]	To send batches at a preset daily time, enter the time in the format hh:mm:ss (military time); for example, 09:00:00 for 9am or 15:30:00 for 3pm. If the batch is being set at a preset daily time, you do not need to set any other attributes. You can also set multiple batch times, using the pipe symbol as the delimiter (up to 50 characters). For example, 09:00:00|17:30:00|24:00:00 sends out batches at 9am, 5:30pm, and midnight. The values must be in ordered sequence, from the earliest time to the latest. **Note**: If you set values for Batch Repeat Time/Batch Repeat Granularity and also Batch Time, the Batch Time setting takes precedence.
BATCH REPEAT TIME/ BATCH REPEAT GRANULARITY	To send batches at regular intervals, use these two attributes. BATCH REPEAT TIME sets the numerical value, and BATCH REPEAT GRANULARITY sets the time period: H for hours, MI for minutes, and D for days. For example, BATCH REPEAT TIME of 4 and BATCH REPEAT GRANULARITY of H means that batches will be sent out every four hours; values of 30 and MI mean that batches will be sent out every 30 minutes. To send batches at a preset daily time, enter the time in the format hh:mm:ss (military time); for example, 09:00:00 for 9am or 15:30:00 for 3:30pm. If the batch is being set at a preset daily time, you do not need to set any other attributes. **Note**: If you use these fields to control batching, you can have a maximum of ten Batch e*Ways running. This is because the display-only Repeat Batch Last Check Time field has a maximum of 255 characters.

17.8.4 Defining Contacts, Notes, Action Items, and User Security

As part of setting up each component, you have the option to set up the following additional information:

- On the **Contacts** tab—contact information
- On the **Comments** tab—notes and action items
- On the **Security** tab—user access (already inherited from the parent component level, but can be customized for the current outer envelope).

None of this setup is required to save the new outer envelope or to process messages to and from the trading partner. However, each of these tabs provides you with additional capabilities.

Detailed instructions on using each of these tabs is provided in additional chapters, as follows:

Contacts tab—**"Storing Contact Data in e*Xchange Client for Windows" on page 278**

Comments tab—**"Tracking Notes and Action Items in e*Xchange Client for Windows" on page 284**

Security tab—**"Access Control in e*Xchange Client for Windows" on page 293**

For information on using these tabs, refer to the appropriate chapter or to the online Help system.

When you have set up everything except Return Inner Envelope information for all your inner envelopes, continue to **"Entering Return Inner Envelope Information" on page 348**.

17.9 Return Inner Envelopes

Once you have set up inner envelopes for all your inbound and outbound transactions, you are ready to specify which transactions will be expected in response.

17.9.1 About Return Inner Envelopes

e*Xchange Client for Windows allows you to specify one or more return inner envelopes that will be valid for a specific incoming or outgoing inner envelope. However, some setup is required before the correct selections are available on the **Return Inner Envelope** tab. You must create all inner envelopes for the trading partner, both inbound and outbound, so that the correct selections will be available to you.

For example, suppose you are using X12 and have a trading partner, ABC Company. You will receive only transaction 850, Purchase Order, from this trading partner. In response you might send 855, Purchase Order Acknowledgment, 856, Ship Notice/Manifest, or 997, Functional Acknowledgment. This scenario is illustrated in **"New Inner Envelope, Return Inner Envelope Tab" on page 349**.

To set this up you must do the following:

- In **Inner Envelope Definition Setup**, for the specific protocol version, define each of these three transactions (See **"Creating Inner Envelope Definitions" on page 258**).
- Define outbound inner envelopes for transactions 997, 855, and 856 (See **"To enter return inner envelope information" on page 349**).
- Define the inbound inner envelope for transaction 850. Because you defined the outbound envelopes first, 997, 855, and 856 are all available for selection on the **Return Inner Envelope** tab.

17.9.2 Entering Return Inner Envelope Information

You must specify the inner envelope or envelopes that will be expected in response to the current inner envelope. You can select more than one return inner envelope.

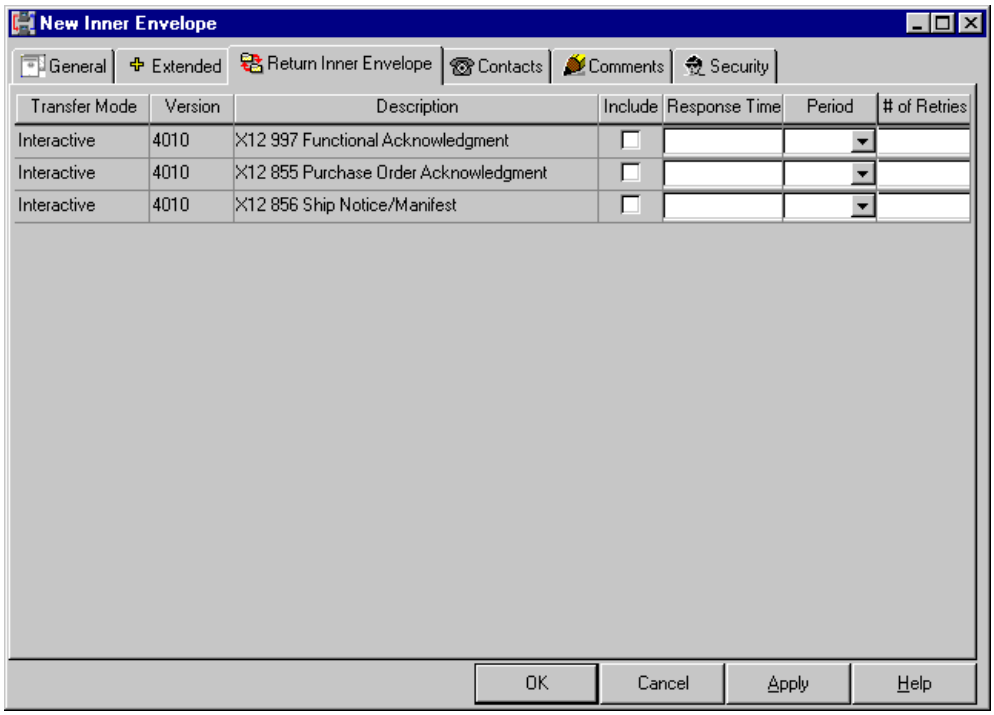
Note: *If the appropriate return inner envelopes are not available for selection, some additional setup is required. Refer to* **"About Return Inner Envelopes" on page 348**.

To enter return inner envelope information

Before you begin, complete **"Entering Inner Envelope Attribute Values" on page 344**.

1 On the **Inner Envelope** dialog box, click the **Return Inner Envelope** tab.

Figure 183 New Inner Envelope, Return Inner Envelope Tab



All eBusiness messages that have already been defined for this trading partner, for the opposite direction, are listed. It is up to you to know which eBusiness messages are the correct responses for the current eBusiness implementation. This should be defined in the trading partner agreement.

2 For each listed message type that might be returned by the trading partner (for outbound messages), or for each message type that you might return to the trading partner (for inbound messages), do the following:

- Check the **Include** check box.

Note: *Even though Negative Ack eBusiness messages must be defined in each direction for each trading partner, do not select these as an expected response. Only select response eBusiness messages that occur in the Go path of an eBusiness message exchange. For example, for X12, if a 997 is only expected for an error condition, do not select it in this tab.*

- Set the response time and period that will be acceptable for receiving the return envelope; for example, a response time of 24 and period of hours means that a response should be received within 24 hours. If the response is not received within the preset time period, the message is resent for the preset number of times (as set in **# of Retries**).

Note: *For outbound messages, the Response Time is the time used by the e*Gate Ack Monitor in monitoring message response and resending messages if an acknowledgment is not received.*

- Set the number of times the inner envelope should be resent if a response is not received before the envelope is recorded as a failed message. For example, if the message should be sent once and then retried once if the return inner envelope is not received, the retry setting would be 1.

3 Continue to **"Defining Contacts, Notes, Action Items, and User Security" on page 339**.

17.10 HIPAA Transactions

e*Xchange includes Collaboration Rules (**.tsc**) and Event Type Definition (**.ssc**) files for many of the standard HIPAA (Health Insurance Portability and Accountability Act) transactions. There are HIPAA transaction files for the following HIPAA Implementation Guide releases:

- May 1999
- May 2000

The files that match the HIPAA standard have "hipaa" appended to the file name. Examples are shown below.

- Collaboration Rules file for an X12 270, Eligibility Coverage Inquiry, May 1999 release: **X12_270EligibilityCoverageorBenefitInquiry_004010X092_hipaa.tsc**.
- Collaboration Rules file for an X12 270, Eligibility Coverage Inquiry, May 2000 release: **X12_270EligibilityCoverageorBenefitInquiry_004010X092_00_hipaa.tsc**.

In some cases, there are different versions of the HIPAA files. For example, for the May 1999 release, there are three versions for 837, as follows:

- X12_837HealthCareClaim004010X096_hipaa_q1 (professional)
- X12_837HealthCareClaim004010X096_hipaa_q2 (dental)
- X12_837HealthCareClaim004010X096_hipaa_q3 (institutional)

HIPAA files are automatically installed in the following location:

- **\eGate\server\registry\repository\default\monk_scripts\common**

Note: *For HIPAA compliance, you must use the e*Xchange Web Interface to track access to data viewed through the Message Tracking facility, and limit e*Xchange Client for Windows access to Administrators only. e*Xchange Client for Windows does not audit data access.*

17.10.1 Standard e*Xchange Format HIPAA ETD Files

The standard HIPAA Collaboration Rules (**.tsc**) and Event Type Definition (**.ssc**) files are in a format suitable for use with e*Xchange; they include only the transaction portion of the message, without the GS/GE and ISA/IEA enveloping.

May 1999 Files

The May 1999 HIPAA transactions included with e*Xchange version 4.5 are listed in Table 95.

Table 95 HIPAA Transactions (May 1999) Provided with e*Xchange

File Name	Transaction
X12_270EligibilityCoverageorBenefitInquiry_004010X092_hipaa	270 (Eligibility Coverage or Benefit Inquiry)
X12_271EligibilityCoverageorBenefitInformation_004010X092_hipaa	271 (Eligibility Coverage or Benefit Information)
X12_276HealthCareClaimStatusRequest_004010X093_hipaa	276 (Health Care Claim Status Request)
X12_277HealthCareClaimStatusNotification_004010X093_hipaa	277 (Health Care Claim Status Notification)
X12_278HealthCareServicesReviewInformation_004010X094_hipaa_a1	278 (Health Care Services Review Information: Request for Review)
X12_278HealthCareServicesReviewInformation_004010X094_hipaa_a3	278 (Health Care Services Review Information: Response to Request)
X12_820PaymentOrderRemittanceAdvice_004010X061_hipaa	820 (Payment Order Remittance Advice)
X12_834BenefitEnrollmentandMaintenance_004010X095_hipaa	834 (Benefit Enrollment and Maintenance)
X12_835HealthCareClaimPaymentAdvice_004010X091_hipaa	835 (Health Care Claim Payment Advice)
X12_837HealthCareClaim_004010X098_hipaa_q1	837 (Health Care Claim: Professional)
X12_837HealthCareClaim_004010X097_hipaa_q2	837 (Health Care Claim: Dental)
X12_837HealthCareClaim_004010X096_hipaa_q3	837 (Health Care Claim: Institutional)

May 2000 Files

The May 2000 HIPAA transactions included with e*Xchange version 4.5 are listed in Table 96.

Table 96 HIPAA Transactions (May 2000) Provided with e*Xchange

File Name	Transaction
X12_270EligibCoverageBenefitInquiry_004010X092_00_hipaa	270 (Eligibility Coverage or Benefit Inquiry)
X12_271EligibCoverageBenefitInfo_004010X092_00_hipaa	271 (Eligibility Coverage or Benefit Information)
X12_276HealthCareClaimStatusRequest_004010X093_00_hipaa	276 (Health Care Claim Status Request)
X12_277HealthCareClaimStatusNotification_004010X093_00_hipaa	277 (Health Care Claim Status Notification)
X12_278HealthCareServicesReviewInfo_004010X094_00_hipaa_a1	278 (Health Care Services Review Information: Request for Review)
X12_278HealthCareServicesReviewInfo_004010X094_00_hipaa_a3	278 (Health Care Services Review Information: Response to Request)
X12_820PaymentOrderRemittanceAdvice_004010X061_00_hipaa	820 (Payment Order Remittance Advice)
X12_834BenefitEnrollmentandMaintenance_004010X095_00_hipaa	834 (Benefit Enrollment and Maintenance)
X12_835HealthCareClaimPaymentAdvice_004010X091_00_hipaa	835 (Health Care Claim Payment Advice)
X12_837HealthCareClaim_004010X096_00_hipaa_q3	837 (Health Care Claim: Professional)
X12_837HealthCareClaim_004010X097_00_hipaa_q2	837 (Health Care Claim: Dental)
X12_837HealthCareClaim_004010X098_00_hipaa_q1	837 (Health Care Claim: Institutional)

17.10.2 Complete HIPAA Transaction ETDs

In addition to the standard e*Xchange format files, installation also includes a version of the HIPAA ETD files which include the GS/GE and ISA/IEA enveloping. These are suitable for use outside e*Xchange when a complete Event structure is required; for example, when translating from X12 to a business application's proprietary data format.

These files are stored in the same location as the standard e*Xchange format HIPAA files. The file names have "_xlate" (for May 1999 files) or "_xlat" (for May 2000 files) appended to the file name to indicate that these are the translation files and include the interchange control and functional group header and footer.

Note: *These files use dynamic delimiters, and can only be used in translating from X12 to a proprietary format.*

May 1999 Files

For the May 1999 HIPAA implementation, the file names are as follows:

- X12_270EligibCoverageBenefitInquiry_004010X092_hipaa_xlate.ssc
- X12_271EligibCoverageBenefitInfo_004010X092_hipaa_xlate.ssc
- X12_276HealthCareClaimStatusRequest_004010X093_hipaa_xlate.ssc
- X12_277HCClaimStatusNotification_004010X093_hipaa_xlate.ssc
- X12_278HCServicesReviewInfo_004010X094_hipaa_a1_xlate.ssc
- X12_278HCServicesReviewInfo_004010X094_hipaa_a3_xlate.ssc
- X12_820PaymentOrderRemittanceAdvice_004010X061_hipaa_xlate.ssc
- X12_834BenefitEnrollmentandMaint_004010X095_hipaa_xlate.ssc
- X12_835HealthCareClaimPaymentAdvice_004010X091_hipaa_xlate.ssc
- X12_837HealthCareClaim_004010X098_hipaa_q1_xlate.ssc
- X12_837HealthCareClaim_004010X097_hipaa_q2_xlate.ssc
- X12_837HealthCareClaim_004010X096_hipaa_q3_xlate.ssc

May 2000 Files

For the May 2000 HIPAA implementation, the file names are as follows:

- X12_270EligibCoverageBenefitInquiry_4010X092_00_hipaa_xlat.ssc
- X12_271EligibCoverageBenefitInfo_4010X092_00_hipaa_xlat.ssc
- X12_276HealthCareClaimStatusRequest_4010X093_00_hipaa_xlat.ssc
- X12_277HCClaimStatusNotification_4010X093_00_hipaa_xlat.ssc
- X12_278HCServicesReviewInfo_4010X094_00_hipaa_a1_xlat.ssc
- X12_278HCServicesReviewInfo_4010X094_00_hipaa_a3_xlat.ssc
- X12_820PaymentOrderRemittanceAdvice_4010X061_00_hipaa_xlat.ssc
- X12_834BenefitEnrollmentandMaint_4010X095_00_hipaa_xlat.ssc
- X12_835HealthCareClaimPaymentAdvice_4010X091_00_hipaa_xlat.ssc
- X12_837HealthCareClaim_4010X098_00_hipaa_q1_xlat.ssc
- X12_837HealthCareClaim_4010X097_00_hipaa_q2_xlat.ssc
- X12_837HealthCareClaim_4010X096_00_hipaa_q3_xlat.ssc

17.10.3 Translating from a Proprietary Format to HIPAA

The files listed above work for translation from X12 to a proprietary format. However, if you want to translate messages from a proprietary format to X12, you must manually set the delimiters so that they can be read by e*Xchange.

There are two ways to do this:

- Create another version of the ETD file for the appropriate transaction, and then edit the default delimiters. Be sure to save the .**ssc** file under a new file name.
- Change the dynamic delimiters to static delimiters in the .**tsc** file. To do this, follow the steps given below.

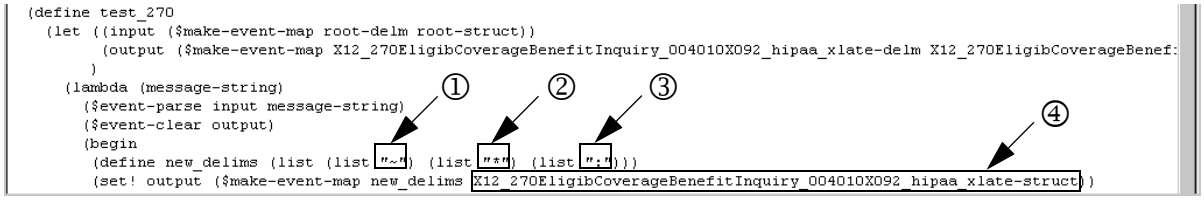
To redefine the delimiters in the .tsc file

1. Open up the .**tsc** file in the e*Gate Collaboration Rules Editor.
2. Edit the delimiters in the Function line of the Collaboration.
3. Change the output structure using the new delimiters.

   The translation structure name must match the name of the translation structure used in the .**ssc** file referenced by this .**tsc** file. An example of an .**ssc** file is shown in Figure 185 (this example matches the .**tsc** file shown in Figure 184).
4. Do the mapping.

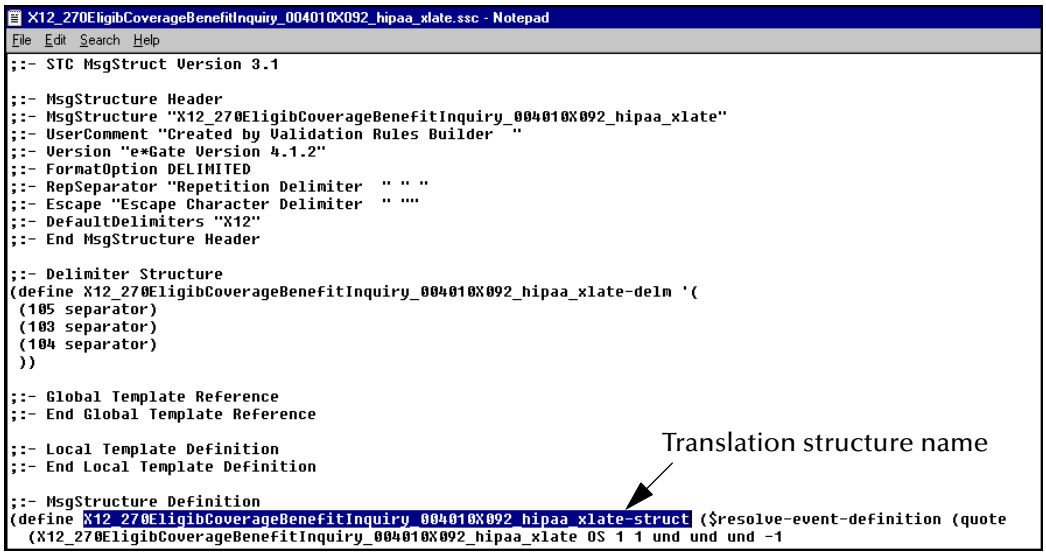
You can check the results of your changes by opening up the .**tsc** file in a text editor. The part of the file in which you defined the new delimiters should look similar to the code shown in Figure 184; your edits add the last two lines to your .**tsc** file.

Figure 184 HIPAA Transactions tsc File Shown in Text Editor



① Segment delimiter
② Data element separator
③ Component separator
④ Translation structure name

Figure 185 Translation Structure Name in .ssc File



5 When done, save your changes and close the text editor.

17.10.4 Tracking Responses to 276 HIPAA Transactions

e*Xchange can only relate a specific 276 claim with its 277 response message if the claims in the ST/SE segment of the 277 Health Care Claim Status Notification response message are in the same sequence as the claims in the ST-SE segment of the original 276 Health Care Claim Status Request.

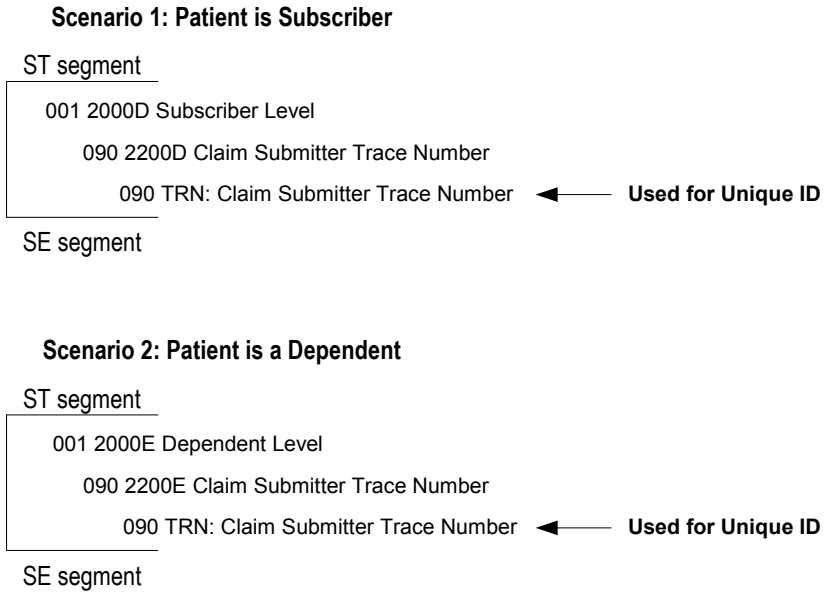
If the response claims will *not* be in the same position in the ST-SE segment as the original 276 claims, do not specify 277 as the expected return transaction. e*Xchange will correctly process the response 277 and forward it; however, the Ack Monitor will continue polling for the response even after it has arrived; and it will eventually error out, since it cannot associate the response with the original message. Instead, do not specify a return message.

17.10.5 Modifying the Unique ID for 276 and 277 Transactions

In the 276 and 277 HIPAA files provided with e*Xchange, the unique ID is based on either the first TRN_02 value for the first subscriber (if the patient is also the subscriber) or the first TRN_02 value from the first dependent (if the patient is not the subscriber).

The segments used for the unique ID are illustrated in Figure 186.

Figure 186 Segments Used for Unique ID in HIPAA 276 and 277 Transactions



If you want to use a different unique ID, you must modify the code in the **.tsc** file.

The code that is currently used for the 276 (line 12465) is as follows:

```
(if (node-has-data?
~input%X12_276HealthCareClaimStatusRequest_004010X093_00_hipaa.Loop_2
000A_10[0].Loop_2000B_25[0].Loop_2000C_40[0].Loop_2000D_55[0].Loop_22
00D_63[0].TRN_63_Trace.TRN_2_ReferenceIdentification)
 (begin
  (vector-set! uid_vec 0 (get
~input%X12_276HealthCareClaimStatusRequest_004010X093_00_hipaa.Loop_2
000A_10[0].Loop_2000B_25[0].Loop_2000C_40[0].Loop_2000D_55[0].Loop_22
00D_63[0].TRN_63_Trace.TRN_2_ReferenceIdentification))
 )
 (begin
  (vector-set! uid_vec 0 (get
~input%X12_276HealthCareClaimStatusRequest_004010X093_00_hipaa.Loop_2
000A_10[0].Loop_2000B_25[0].Loop_2000C_40[0].Loop_2000D_55[0].Loop_20
00E_72[0].Loop_2200E_80[0].TRN_80_Trace.TRN_2_ReferenceIdentification
))
 )
)
```

The code that is currently used for the 277 (line 17551) is as follows:

```
(if (node-has-data?
~input%X12_277HealCareClaiStatNoti_004010X093_00_hipaa.Loop_2000A_10[
0].Loop_2000B_36[0].Loop_2000C_64[0].Loop_2000D_90[0].Loop_2200D_98[0
].TRN_98_Trac.TRN_2_RefeIden)
 (begin
  (vector-set! uid_vec 0 (get
~input%X12_277HealCareClaiStatNoti_004010X093_00_hipaa.Loop_2000A_10[
0].Loop_2000B_36[0].Loop_2000C_64[0].Loop_2000D_90[0].Loop_2200D_98[0
].TRN_98_Trac.TRN_2_RefeIden))
 )
 (begin
```

```
  (vector-set! uid_vec 0 (get
~input%X12_277HealCareClaiStatNoti_004010X093_00_hipaa.Loop_2000A_10[
0].Loop_2000B_36[0].Loop_2000C_64[0].Loop_2000D_90[0].Loop_2000E_119[
0].Loop_2200E_127[0].TRN_127_Trac.TRN_2_RefeIden))
 )
)
```

17.11 Error Handling in X12

If e*Xchange is unable to successfully process an X12 message, the error is handled in one of a number of ways, according to the circumstances.

The various error scenarios and their treatment are shown in Table 97.

Table 97 Error Handling for X12 Messages

Error Scenario	Error Handling
Cannot parse message from external system based on delimiters.	Sends negative TA1, stores the message with only the ISA/IEA segments.
Invalid information in ISA or IEA; missing IEA; extra IEA.	Sends TA1.
Functional error, invalid nodes in ST or SE segments.	Sends negative 997, stores message (ST–SE)
Message fails to map data to the validation structure.	Sends negative 997, stores message (ST–SE)
Message maps to the structure, but validation detects invalid data in the message.	Sends 997 with appropriate information, stores message.
Cannot retrieve the trading partner profile based on the sender ID, receiver ID, version, and functional ID code values in the functional group.	Sends negative TA1, stores the message with only the ISA/IEA segments.

Note: *e*Xchange can be set up to routinely send a 997 or other acknowledgment in response to an incoming message (on the Return Inner Envelope tab). However, negative messages are automatically generated where errors are encountered whether or not the Return Inner Envelope tab has been set up. Additionally, if 997 has been selected as the normal, expected response to an incoming message on the Return Inner Envelope tab, e*Xchange still only sends out one negative 997 if the message contains errors.*

Chapter 18

Setting Up RosettaNet Outer and Inner Envelopes in e*Xchange Client for Windows

This chapter provides information on setting up, in e*Xchange Client for Windows, the specific values necessary to successfully send and receive RosettaNet messages to and from a trading partner. It includes information on the following:

- Setting the values for the various headers of a RosettaNet message:
  - For RNIF 1.1: Preamble, Service Header
  - for RNIF 2.0: Preamble, Delivery Header, Service Header
- Specifying the communication protocol used to relay the messages.
- Handling errors.

Preamble, Service Header, and Delivery Header values are set up on the **Extended** tab.

Note: *If you are using RosettaNet, you must install the RosettaNet templates provided by SeeBeyond. They are available during e*Gate installation via the "Add-Ons" option. For installation instructions and general information on RosettaNet, refer to the* ***RosettaNet ETD Library User's Guide****.*

18.1 Communications Protocols for RosettaNet

The communications protocols supported by e*Xchange for RNIF 1.1 are:

- HTTP
- HTTPS

The communications protocols supported by e*Xchange for RNIF 2.0 are:

- HTTP
- HTTPS

- SMTP

18.1.1 HTTP and HTTPS

The e*Xchange RosettaNet implementation supports the HTTP transfer protocol, both with and without SSL, if you are using the Web interface. If you are using e*Xchange Client for Windows, you can only use HTTP.

To use HTTP with SSL (HTTPS), complete the following setup step in the Web interface:

- At the B2B Protocol level, in the **Message Security** section, enter the signature key information.
- At the B2B Protocol level for both inbound and outbound, in the **Transport Component** section:
  - Select **HTTPS** as the communications protocol.
  - In the **URL** box, set the URL to begin with **https://**.

To use HTTP without SSL, complete the following setup steps in e*Xchange Client for Windows:

- At the B2B Protocol level for both inbound and outbound, in the **Transport Component** section:
  - Select **HTTP** as the communications protocol.
  - Enter the URL to which the message will be posted, beginning with **http://**.

18.1.2 SMTP

To use SMTP, complete the following setup steps in e*Xchange Client for Windows:

- Inbound and Outbound outer envelope, **Transport Component** tab:
  - Select **SMTP** as the communications protocol.
  - Enter the sender and receiver e-mail addresses and the mailhost IP address and port.

18.2 Security in RosettaNet

e*Xchange provides several security features for use with RosettaNet.

18.2.1 Non-Repudiation

If non-repudiation of origin is required, set the NON-REPUDIATION attribute to **Y** in the **Extended** tab for each inner envelope. If non-repudiation is not required, set this flag to **N**.

18.2.2 Digital Signatures (RNIF 1.1 and 2.0)

RNIF 1.1 and 2.0 both use S/MIME for signing RosettaNet business messages.

The RosettaNet PIP indicates whether or not a digital signature is required for a specific message. However, the trading partner agreement can specify that digital signatures are *not* to be used. If there is a conflict between the PIP and the trading partner agreement regarding the use of digital signatures, the trading partner agreement takes precedence.

If digital signatures are to be used, complete the following setup steps:

- Outbound outer envelope: on the **Secure Data Transport** tab, load the Signature Key and enter the Signature Algorithm to be used.
- Inbound outer envelope: on the **Secure Data Transport** tab, load the Signature Verification Certificate.

If digital signatures are *not* to be used, complete the following steps:

- Make sure there are no values set on the **Secure Data Transport** tab for the inbound and outbound outer envelopes.
- Make sure the NON-REPUDIATION attribute in the **Extended** tab for all related inner envelopes is set to **N**.

18.2.3 Encryption (RNIF 2.0 Only)

Encryption is a new feature offered with RNIF 2.0. In e*Xchange, the level of encryption is set as an extended attribute in the inner envelope, on the **Extended** tab, ENCRYPTION TYPE attribute.

There are three choices:

- 0—No encryption
- 1—encryption of Service Content and any attachments
- 2—encryption of Service Header, Service Content, and any attachments

The preamble and delivery header are never encrypted, since they contain information necessary to the correct routing of the message.

Encryption of Inbound Messages

For an inbound message, e*Xchange uses the encryption setting from the partner profile to determine which parts of the inbound message have been encrypted. If the message does not have the correct portions encrypted, e*Xchange goes into the error handling process.

For more information on how e*Xchange handles errors with RosettaNet messages, refer to **"RosettaNet Error Handling" on page 390**.

Encryption of Outbound Messages

For an outbound message, e*Xchange encrypts the message according to the encryption setting specified in the partner profile.

18.3 Entering Envelope Properties

Once you have set up basic information at the Company and Trading Partner levels, the next step is to enter the specific technical information required to successfully send messages to the trading partner and receive messages from the trading partner. For each outer envelope, this includes the following steps:

Defining outer envelopes—two for each eBusiness protocol; one for outbound messages, one for inbound messages. This includes the following:

- Defining general information for the outer envelope
- Defining attributes for the specific eBusiness protocol, for the outer envelope, in the **Extended** tab
- Defining messaging information on the **Transport Component** tab
- If applicable, defining contacts, notes and action items, and security for the outer envelope

Defining inner envelopes—one for each type of business or action message to be sent to the trading partner, under the "Outbound" outer envelope; one for each type of message to be received from the trading partner, under the "Inbound" outer envelope. For each inner envelope, this includes the following:

- Defining general information for the inner envelope
- Defining extended attributes for the inner envelope
- Defining the return inner envelope, if the message would normally trigger a response message
- If applicable, defining contacts, notes and action items, and security for the inner envelope

18.3.1 Extended Envelope Attributes for RosettaNet

Extended attributes contain the specific attributes that are required by e*Xchange to build RosettaNet messages as needed for your business. e*Xchange provides extended attribute templates for RosettaNet Implementation Framework (RNIF) versions 1.1 and 2.0. However, you must provide the values yourself.

For RosettaNet, attributes such as the Global Process Code and Global Business Identifier are set up as extended attributes.

Attribute definitions are loaded as part of installation. You can specify default values via the **Functions** menu, **System Administration**, **Partner Manager Envelope Setup**.

When setting up the attributes for each trading partner, you can change the default values if needed.

Before setting up the attributes, or any other aspect of the trading partner setup, it is important to have the trading partner agreement for each of your trading partners, and ideally the name, address, and telephone number of the eBusiness integration contact for each trading partner. Having this information immediately available will help ensure smooth and accurate setup.

18.3.2 Defining Envelopes for All Conditions

When you are setting up RosettaNet outer and inner envelopes, it is very important that you define *all* the action messages that might be possible, under any circumstances including error conditions, for both inbound and outbound. These envelope definitions are required for any positive action messages received or generated by e*Xchange. The exception action messages are also required for error handling conditions at various levels (for outbound) or for receiving exception action messages (for inbound).

Each version, 1.1 and 2.0, has a different set of action messages. Be sure you define all possible outcomes for the version you are using, as follows:

- RNIF 1.1:
  - Receipt Acknowledgement
  - Receipt Acknowledgement Exception
  - Acceptance Acknowledgement
  - Acceptance Acknowledgement Exception
  - General Exception
  - Failure Notification
- RNIF 2.0:
  - Receipt Acknowledgement
  - Receipt Acknowledgement Exception
  - Failure Notification

18.4 Entering Outer Envelope Properties

For each trading partner, you must set up separate outer envelopes for inbound and outbound messages.

If the trading partner uses more than one eBusiness protocol version, set up additional outer envelopes as needed to accommodate each additional version.

The following steps include all the activities needed to add a new outer envelope to e*Xchange Client for Windows.

To add a RosettaNet outer envelope

1. Enter general outer envelope characteristics: see **"Entering General Outer Envelope Characteristics" on page 363**.
2. Enter outer envelope characteristics that are specific to the message standard (extended attributes): see **"Entering Outer Envelope Extended Attributes" on page 365**.
3. Enter information specific to the transport component of the outer envelope: see **"Entering Transport Component Information" on page 368**.
4. Optional: define contacts, notes and action items, and security for the outer envelope see **"Defining Contacts, Notes, Action Items, and User Security" on page 373**.

To finish adding a trading partner profile, you must also define an inner envelope for each type of message you will be sending to the trading partner, and one for each type of message you will be receiving from the trading partner. This is explained in **"Entering Inner Envelope Properties" on page 374**.

18.4.1 Entering General Outer Envelope Characteristics

Use the **General** tab for entering general information that will identify the structure and content of the outer envelope, such as the eBusiness protocol used, message direction, and protocol version.

To enter general outer envelope characteristics

1. In the left pane of the Partner Manager window, select the name of the trading partner for which you want to create an outer envelope definition.
2. Click **New Outer Envelope**  .

   The **New Outer Envelope** dialog box appears (see Figure 187).
3. Record the outer envelope information on the **General** tab of the **New Outer Envelope** dialog box. For more information, see Table 98.
4. Continue to **"Entering Outer Envelope Extended Attributes" on page 365**.

Figure 187 New Outer Envelope, General Tab (RosettaNet)

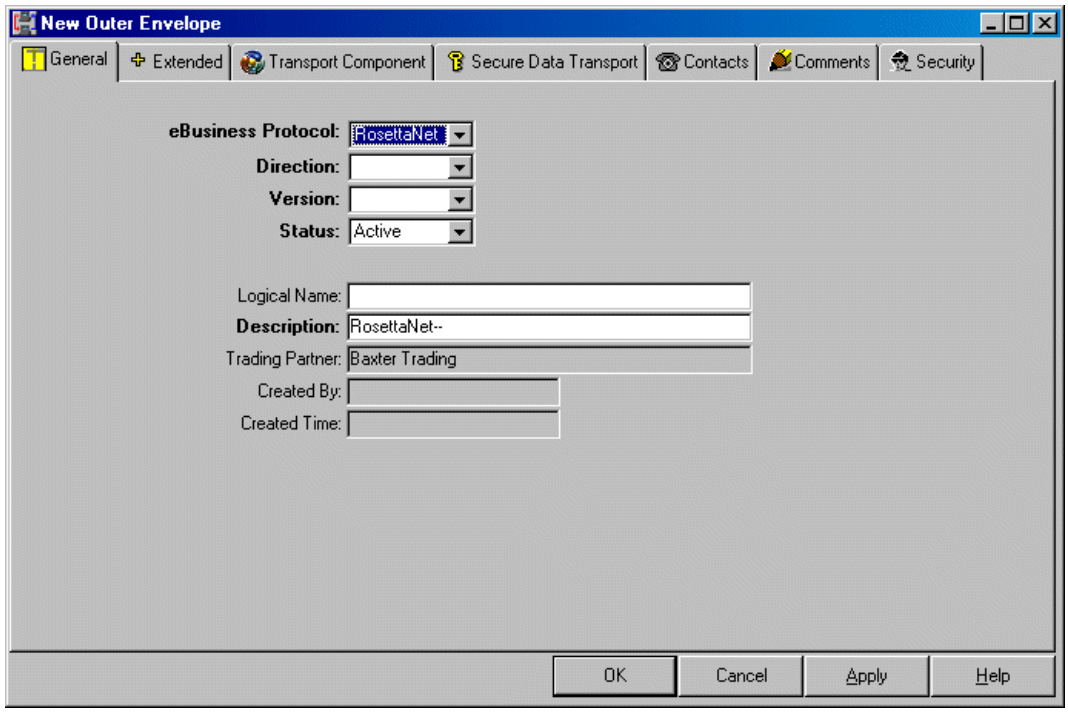


Table 98 General Outer Envelope Characteristics

Name	Description
eBusiness Protocol	The name of the eBusiness protocol that is used to format the messages and related transmission information that you send to or receive from the trading partner; X12, UN/EDIFACT, RosettaNet, or CIDX. Select **RosettaNet**. After you save the new outer envelope, you cannot change the protocol.
Direction	You must define separate outer envelopes for inbound and outbound messages. This box indicates the direction for the current envelope: **Inbound**—For messages coming in from a trading partner. **Outbound**—For messages going out to a trading partner.
Version	The version number of the eBusiness protocol in use. For RosettaNet, the choices are 1.1 or 2.0. All protocol versions that have been set up in **Partner Manager Envelope Setup** are available on the drop-down selection list. **Note**: After you save the new outer envelope, you cannot change the protocol version.

Table 98 General Outer Envelope Characteristics (Continued)

Name	Description
Status	The status of the outer envelope. Only one inbound and one outbound outer envelope can be active for each combination of trading partner, eBusiness protocol, direction, and version. **Note**: The e*Xchange e*Gate Schema only processes messages for active profiles. Inactive outer envelopes are not displayed in the left pane of the Partner Manager window if the administrator has selected the **Show Only Active TP** check box in **System Defaults**. Choose one of the following values. **Active**—The outer envelope is currently active, and can be used. **Inactive**—The outer envelope is not active, and cannot be used. Default: **Active**. **Note**: If the status is **Inactive** and you cannot change it, this means that the setting has been made at the Trading Partner level.
Logical Name	A unique value that you specify for the trading partner. There are two important conditions for the logical name: ▪ It must be unique for each outer envelope. If you have only one outer envelope per company, you can use the company name. You could also use a numerical value, or any other value as long as it is unique. ▪ For outbound messages, the logical name is the primary value used when e*Xchange receives a message from an internal system to identify the trading partner to which the message is routed. The value in this field must be identical, including case, to the value set in the **eX_Standard_Event** structure's Partner Name node. For more information, refer to the *e*Xchange Partner Manager Implementation Guide*.
Description	The description of the outer envelope. Default: The eBusiness protocol name, version, and direction, separated by hyphens.
Trading Partner	The name of the trading partner associated with this outer envelope is displayed.
Created By	The user ID of the person who saved or updated this outer envelope is displayed.
Created Time	The date and time this outer envelope definition was saved or updated are automatically displayed when the record is saved.

18.4.2 Entering Outer Envelope Extended Attributes

You must set up certain RosettaNet header values as extended attributes at the outer envelope level.

Predefined extended attributes are preloaded during installation, but can be changed if needed.

To enter default outer envelope extended attribute values

Before you begin, complete **"Entering General Outer Envelope Characteristics" on page 363**.

Note: *For information on specific extended attributes provided with e*Xchange Client for Windows, see* **"RosettaNet Attributes—Outer Envelope" on page 367***.*

1 On the **New Outer Envelope** dialog box, click the **Extended** tab.

The **Extended** tab appears, as shown in Figure 188 (for RNIF 1.1) and Figure 189 (for RNIF 2.0).

Figure 188 New Outer Envelope, Extended Tab (RNIF 1.1)

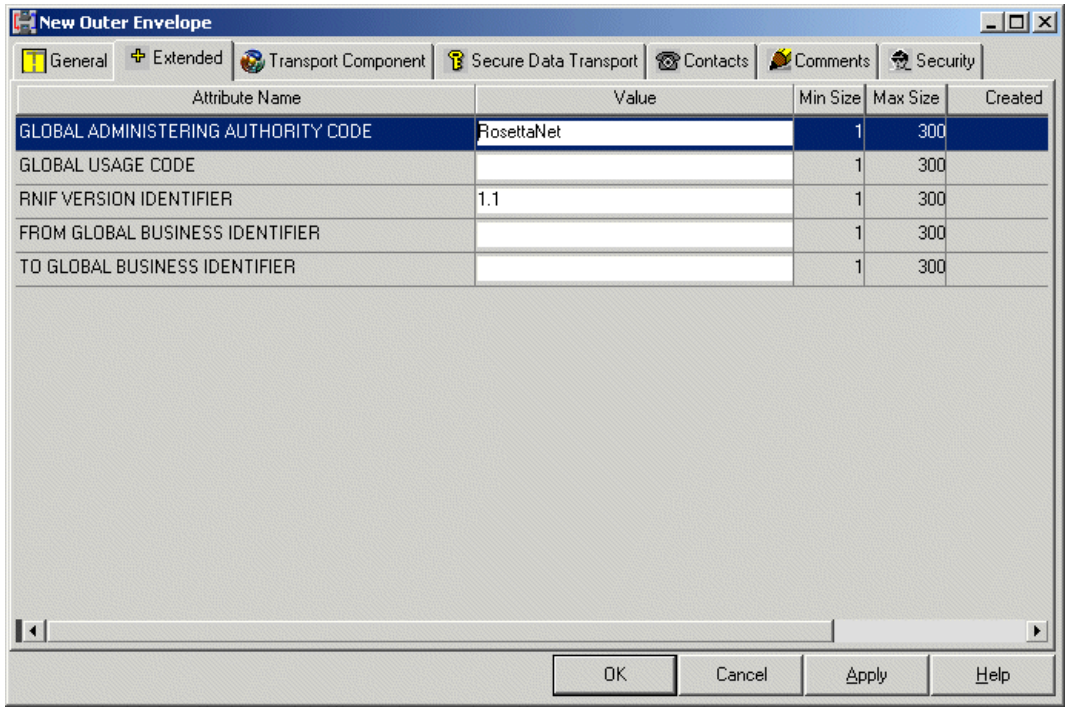
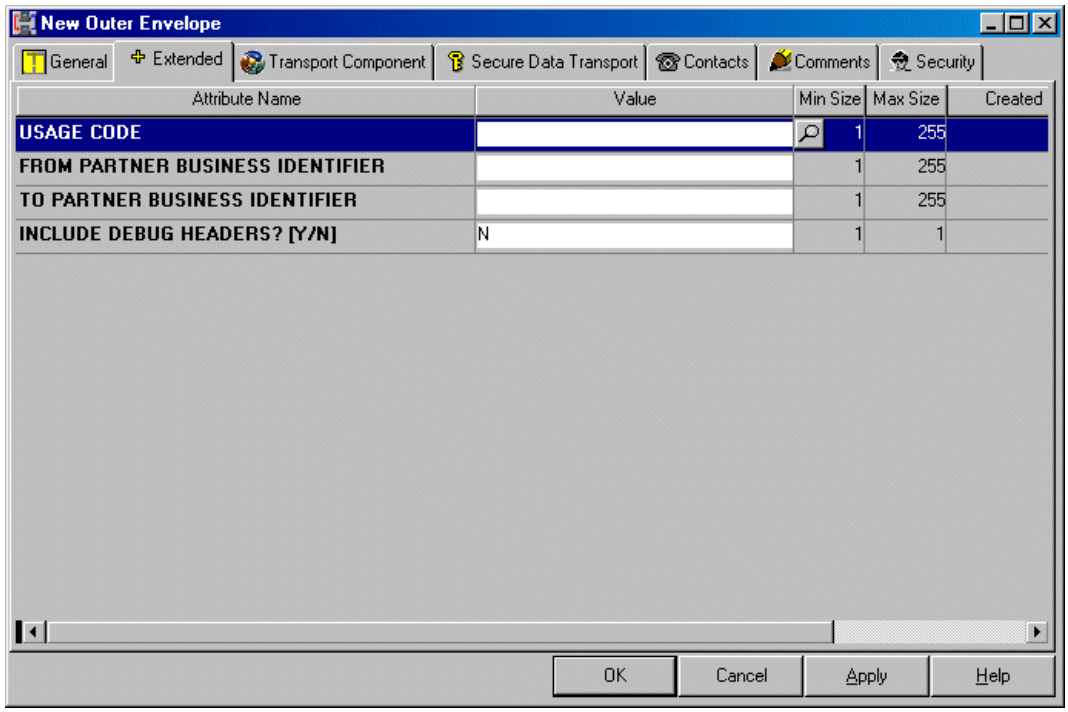


Figure 189 New Outer Envelope, Extended Tab (RNIF 2.0)



2 Enter the appropriate values for the attributes defined by your administrator. If defaults have been set, these are displayed; however, they can be changed.

For more information on the individual attributes, refer to Table 99.

3 Continue to **"Entering Transport Component Information" on page 368**.

18.4.3 RosettaNet Attributes—Outer Envelope

The tables below show RosettaNet attributes that are set up at the Outer Envelope level:

- RNIF 1.1—Table 99
- RNIF 2.0—Table 100

Table 99 Default RNIF 1.1 Extended Attributes (Outer Envelope Layer)

Attribute Description	Additional Information
GLOBAL ADMINISTERING AUTHORITY CODE	(Required) The Global Administering Authority Code is RosettaNet.
GLOBAL USAGE CODE	(Required) There are two acceptable values for the Global Usage Code: **Test** or **Production**.
RNIF VERSION IDENTIFIER	(Required) The RNIF version number: 1.1 or 2.0

Table 99 Default RNIF 1.1 Extended Attributes (Outer Envelope Layer)

Attribute Description	Additional Information
FROM GLOBAL BUSINESS IDENTIFIER	(Required) The sender's unique business identifier. RosettaNet identifies this as the DUNS number; e*Xchange does not enforce the use of a DUNS number.
TO GLOBAL BUSINESS IDENTIFIER	(Required) The receiver's unique business identifier. RosettaNet identifies this as the DUNS number; e*Xchange does not enforce the use of a DUNS number.

Table 100 Default RNIF 2.0 Extended Attributes (Outer Envelope Layer)

Attribute Description	Additional Information
USAGE CODE	(Required) The Global Usage Code. There are two acceptable vales: **Test** or **Production**.
FROM PARTNER BUSINESS IDENTIFIER	The sender's unique business identifier. RosettaNet identifies this as the DUNS number; e*Xchange does not enforce the use of a DUNS number.
TO PARTNER BUSINESS IDENTIFIER	The receiver's unique business identifier. RosettaNet identifies this as the DUNS number; e*Xchange does not enforce the use of a DUNS number.
INCLUDE DEBUG HEADERS?	A Yes/No setting that determines whether debug headers are included with the message when it is sent via the HTTP, HTTPS, or SMTP protocols.

18.4.4 Entering Transport Component Information

You must specify the communications protocol by which RosettaNet messages will be sent, and provide information required by the protocol.

To add transport component information

1. On the **New Outer Envelope** dialog box, click the **Transport Component** tab.
2. The **Transport Component** tab appears (see Figure 190).
3. Select the communications protocol.

   The list of values required for the communications protocol changes according to your selection.
4. Fill in the appropriate values. For more information, see Table 101.
5. Click **Apply**.

   If you entered a password, the **Confirm Password** dialog box appears.

6 Confirm the password.

Type the password exactly as you typed it in the **Password** box, and then press **Enter**. The password field is case-sensitive, even if your database is not; make sure you use the correct capitalization.

Note: *Password confirmation is only to avoid errors, not for security purposes. Anyone with access to this dialog box can change the password at any time. You do not need to know the old password to change to a new one.*

7 Continue to **"Entering Secure Data Transport Information" on page 370**.

Figure 190 New Outer Envelope, Transport Component Tab

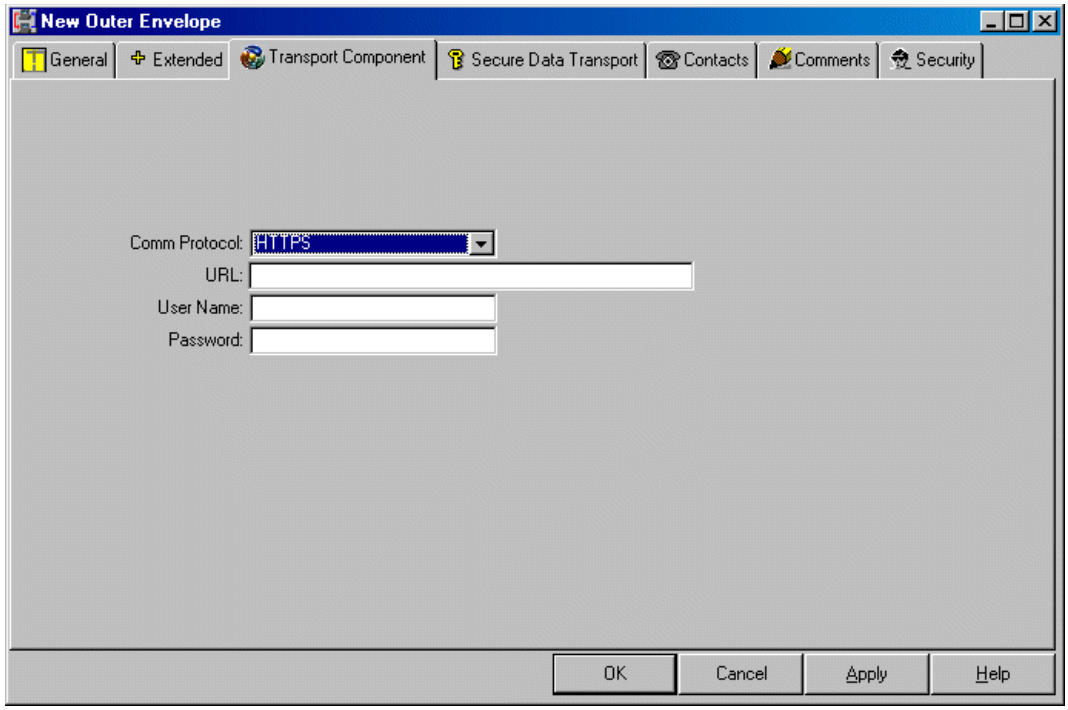


Table 101 Outer Envelope Transport Component Fields

Field Name	Description
Comm Protocol	The communications protocol used for this outer envelope. For RNIF 1.0, only HTTP is a valid choice. For version 2.0, HTTP and SMTP are valid choices for e*Xchange Client for Windows. If you are using the Web interface, HTTPS is also available. **HTTP**—Messages are transmitted with HTTP. **HTTPS**—Messages are transmitted using HTTP with SSL (available only via the Web interface). **SMTP**—Messages are transmitted using the Simple Mail Transfer Protocol.
URL (HTTP or HTTPS)	If the communication protocol is HTTP or HTTPS, enter the full URL, including prefix. For example: ▪ http://www.WebAddress.com ▪ https://www.SecureWebAddress.com

Table 101 Outer Envelope Transport Component Fields (Continued)

Field Name	Description
(Outbound only) User Name (HTTP, HTTPS)	The user name to be used to access the host on which messages are stored.
(Outbound only) Password (HTTP, HTTPS)	The password to be used to access the host used for storage and retrieval of messages.
Sender Email Address (SMTP)	The e-mail address of the message sender.
Receiver Email (SMTP)	The e-mail address of the message recipient.
(Outbound only) MailHost/IP Address (SMTP)	The host name of the mail server.
(Outbound only) MailHost Port (SMTP)	The port for the mail server.

18.4.5 Entering Secure Data Transport Information

The eSecurity Manager does not have its own GUI. Instead, its features are coordinated within e*Xchange through the use of values entered on the **Secure Data Transport** tab of the outer envelope.

If you are using the eSecurity Manager, you must add information about the encryption and signature keys and algorithms being used for outbound messages and the decryption and signature verification keys and certificates being used for inbound messages.

For RNIF 1.1, you can add the values for the signature key, password, and algorithm (outbound) and signature verification (inbound) on this tab.

For RNIF 2.0, you can also add the encryption (outbound) and decryption (inbound) information on this tab.

If the eSecurity Manager component is not loaded, the **Secure Data Transport** tab is still present but some of the fields are not available.

To set secure data transport values

Before you begin, complete **"Entering Transport Component Information" on page 368**.

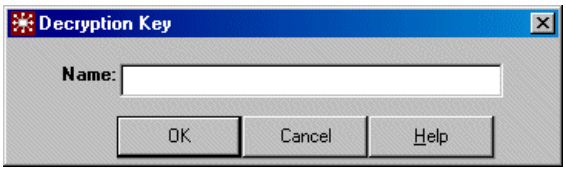
1 Enter the value for any required or available keys or certificates.

For more information, see Table 102 (for outbound) or Table 103 (for inbound).

If a file is required, click the **Load File** button.

When entering a key or certificate, a dialog box appears, for entry of the key or certificate name. An example is shown in Figure 191.

Figure 191 Decryption Key



Type the display name of the key or certificate's owner, and then click **OK**. The **Open** dialog box appears.

2 At the **Open** dialog box, select the certificate or keypair file.

3 Repeat steps 1 and 2 for subsequent keys or certificates.

4 (Outbound only) Select the signature—and encryption algorithms if you are using RNIF 2.0—from the drop-down lists.

5 Click **Apply** to save.

6 If applicable, continue to **"Defining Contacts, Notes, Action Items, and User Security" on page 373**.

Figure 192 New Outer Envelope, Secure Data Transport Tab (Outbound)

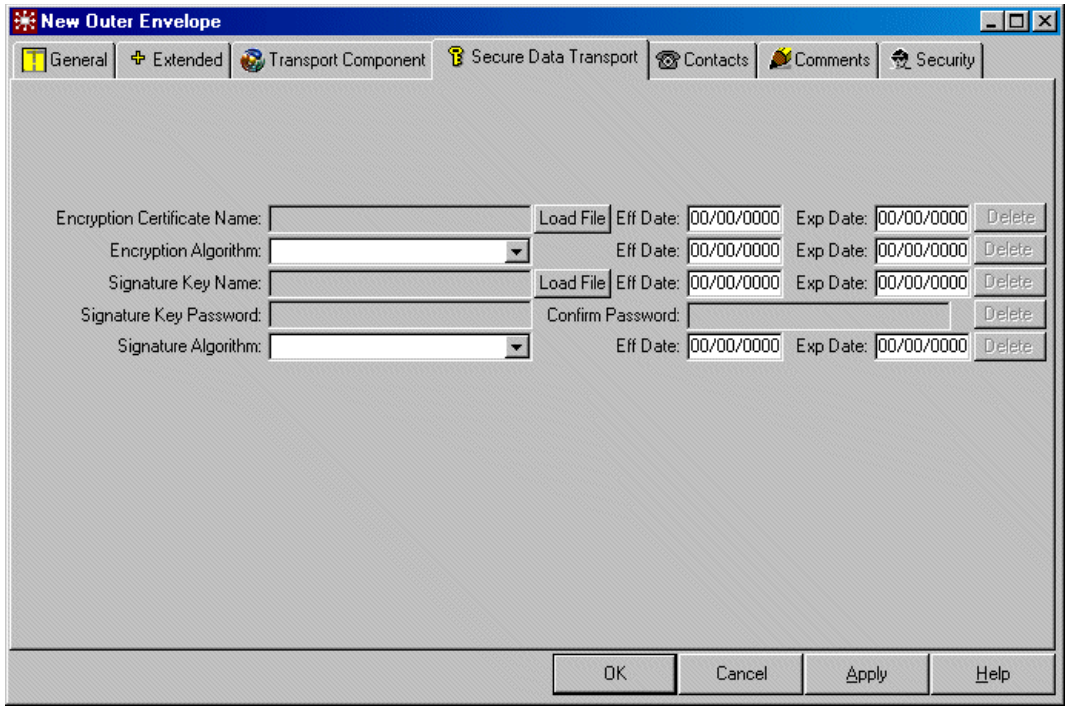


Table 102 Outer Envelope Secure Data Transport (Outbound) Fields

Attribute	Description
Encryption Certificate Name (RosettaNet 2.0 only)	The name of the trading partner's PKCS#7 digital certificate with which the outbound Event will be encrypted. The value recorded in this field must be the exact X.509 "Display Name" field of the certificate file that is being imported. Click the **Load File** button to access the **Encryption Certificate** dialog box. Type the name of the certificate, and then click **OK**. At the **Open** dialog box, choose the file that contains the certificate. e*Xchange reads the information from the file and stores it with the trading partner profile in the e*Xchange database (the ES_SECURITY_KEY table) as a BLOB (Binary Large OBject). Only the certificate name is displayed; not the file name. Once the information has been stored in the database, the file is no longer needed by e*Xchange for message processing, although it might be stored in a secure location independent of e*Xchange. Set the effective date and expiration date for the encryption certificate.
Encryption Algorithm (RosettaNet 2.0 only)	The block encryption algorithm used to secure the body of Events. Select one of the following values from the drop-down list: ▪ **DES, 56-Bit KeyCBC** (DES_CBC 56-bit encryption) ▪ **RC2, 128-Bit Key** (RC2_128 128-bit encryption) ▪ **RC2, 40-Bit Key** (RC2_40 40-bit encryption) ▪ **Triple-DES, 168-Bit Key** (DES_EDE3_CBC 168-bit encryption) Set the effective date and expiration date for the encryption algorithm.
Signature Key Name	The name of your PKCS#12 public and private key pair with which the outbound Event will be digitally signed. The value recorded in this field must be the exact X.509 "Display Name" field of the keypair file that is being imported. Click the **Load File** button to access the **Signature Key** dialog box. Type the name of the key and click **OK**. At the **Open** dialog box, choose the file that contains the key. e*Xchange reads the information from the file and stores it with the trading partner profile in the e*Xchange database (the ES_SECURITY_KEY table) as a BLOB (Binary Large OBject). Only the key name is displayed; not the file name. Once the information has been stored in the database, the file is no longer needed by e*Xchange for message processing, although it might be stored in a secure location independent of e*Xchange. Set the effective date and expiration date for the signature key.
Signature Key Password	Type the password for the signature key, if it has one.
Confirm Password	Type the signature key password again, to confirm it.
Signature Algorithm	The digital signature algorithm used to authenticate the content of the Event. Select one of the following values from the drop-down list: ▪ **RSA MD5** (RSA signature with MD5 message digest) ▪ **RSA SHA1** (RSA signature with SHA-1 message digest) Set the effective date and expiration date for the signature algorithm.

Figure 193 New Outer Envelope, Secure Data Transport Tab (Inbound)

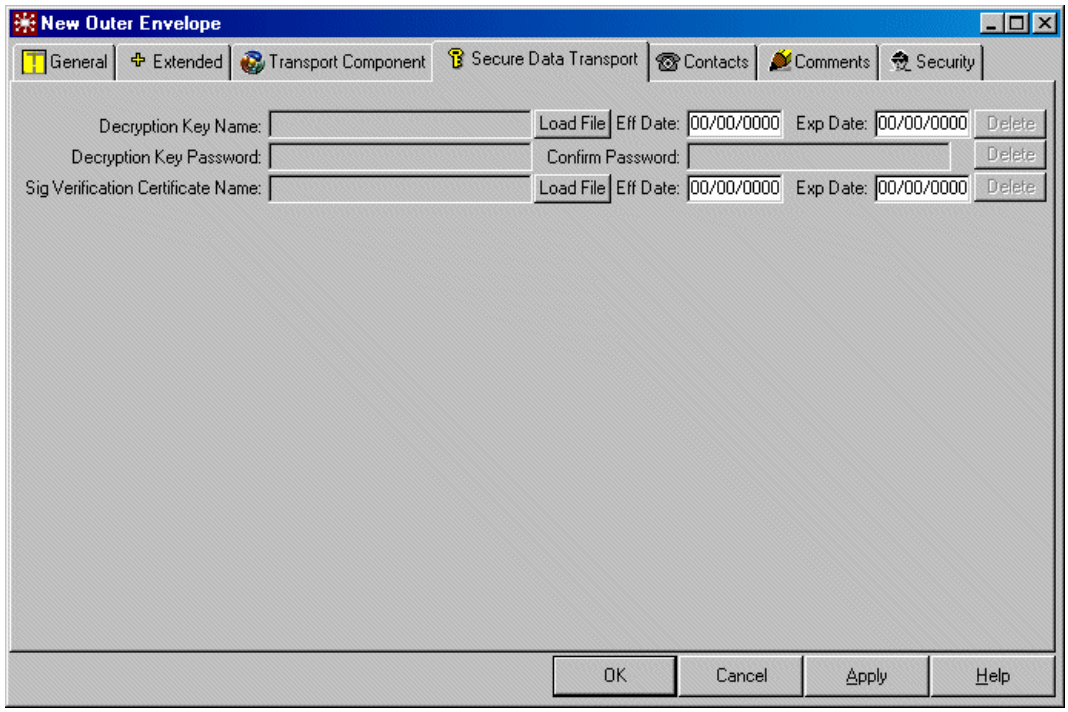


Table 103 Outer Envelope Secure Data Transport (Inbound) Fields

Attribute	Description
Decryption Key Name	Enter the name for the decryption key, click **Load File**, and then select the file containing the key. Set the effective date and expiration date.
Decryption Key Password	Enter the password for the decryption key, and then confirm the password.
Sig Verification Certificate Name	Enter the name for the signature verification certificate, click **Load File**, and then select the file containing the certificate. Set the effective date and expiration date.

18.4.6 Defining Contacts, Notes, Action Items, and User Security

As part of setting up each component, you have the option to set up the following additional information:

- On the **Contacts** tab—contact information
- On the **Comments** tab—notes and action items
- On the **Security** tab—user access (already inherited from the parent component level, but can be customized for the current outer envelope).

None of this setup is required to save the new outer envelope or to process messages to and from the trading partner. However, each of these tabs provides you with additional capabilities.

Detailed instructions on using each of these tabs is provided in additional chapters, as follows:

Contacts tab—**"Storing Contact Data in e*Xchange Client for Windows" on page 278**

Comments tab—**"Tracking Notes and Action Items in e*Xchange Client for Windows" on page 284**

Security tab—**"Access Control in e*Xchange Client for Windows" on page 293**

For information on using these tabs, refer to the appropriate chapter or to the online Help system.

18.5 Entering Inner Envelope Properties

Once you have set up outer envelopes, you can define the specific messages that you will be sending and receiving. These are set up at the inner envelope level.

You must set up a separate inner envelope for each message that will be sent to the trading partner and each message that will be received from the trading partner.

The following steps include all the activities needed to add a new inner envelope. You can perform these steps only if you have the appropriate access rights.

1. Enter general inner envelope characteristics: see **"Entering General Inner Envelope Characteristics" on page 374**
2. Enter inner envelope characteristics that are unique to the eBusiness protocol: see **"Entering Inner Envelope Attribute Values" on page 377**
3. Optional: define contacts, notes and action items, and security for the outer envelope see **"Defining Contacts, Notes, Action Items, and User Security" on page 385**.
4. When you have set up all inner envelopes, go back and enter information about the return inner envelopes that will be expected in response to each inner envelope: see **"Entering Return Inner Envelope Information" on page 383**. It is important to set up all envelopes before completing this step; if you do not, the return envelopes will not be available for selection.

When you have completed setting up the inner envelopes, trading partner setup is complete.

Note: *It is very important that you define inner envelopes for all possible conditions that might occur during message processing. For more information, see* **"Defining Envelopes for All Conditions" on page 362**.

18.5.1 Entering General Inner Envelope Characteristics

To identify the structure and content of the inner envelope so that it can be correctly processed by e*Xchange Client for Windows, you must enter general information such as the protocol version.

To enter general inner envelope characteristics

1 In the left pane of the Partner Manager window, select the appropriate outer envelope (inbound or outbound).

2 Click **New Inner Envelope**  .

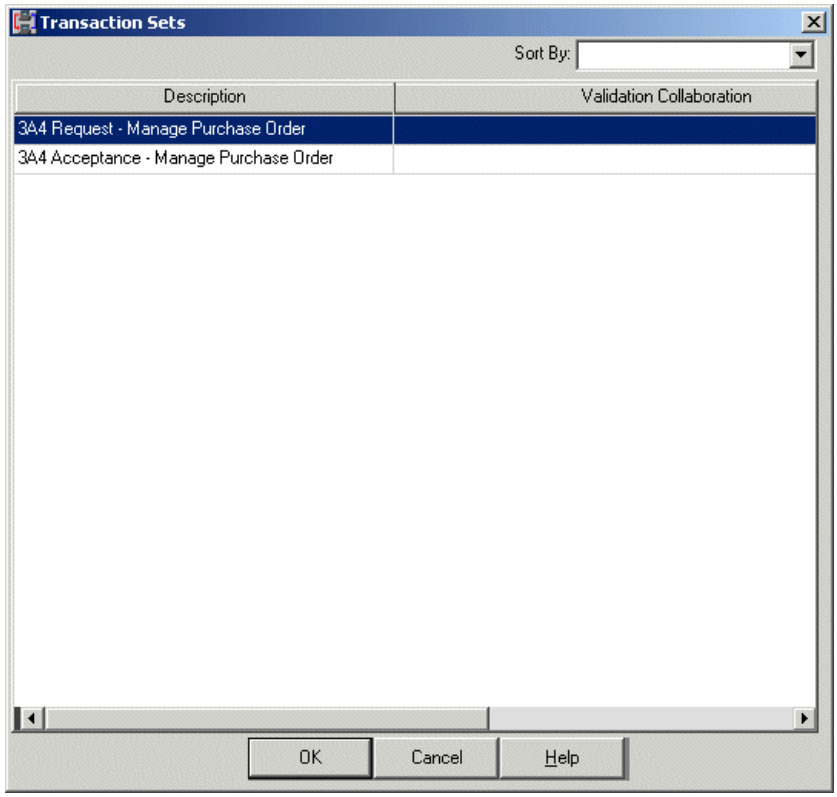
The **New Inner Envelope** dialog box appears (see Figure 195).

3 In the **Version** box, choose the eBusiness protocol that the trading partner is using.

One of two things occurs, according to whether you have inner envelope definitions set up for this RNIF version in the **Inner Envelope Definition Setup** dialog box:

- If you have messages set up, the **Transaction Sets** dialog box appears (see Figure 194). Choose an inner envelope definition, and then click **OK** to return to the **General** tab of the **New Inner Envelope** dialog box. The **Description** and **Validation Collaboration** fields are filled in based on your selection.

Figure 194 Transaction Sets (RosettaNet)



- If you do not have definitions set up, enter the values for **Validation Collaboration and Description**. For more information, refer to Table 104.

4 Enter the **Transfer Mode**. For RosettaNet, transfer mode is always Interactive. For more information, refer to Table 104.

5 Continue to **"Entering Inner Envelope Attribute Values" on page 377**.

Figure 195 New Inner Envelope, General Tab (RosettaNet)

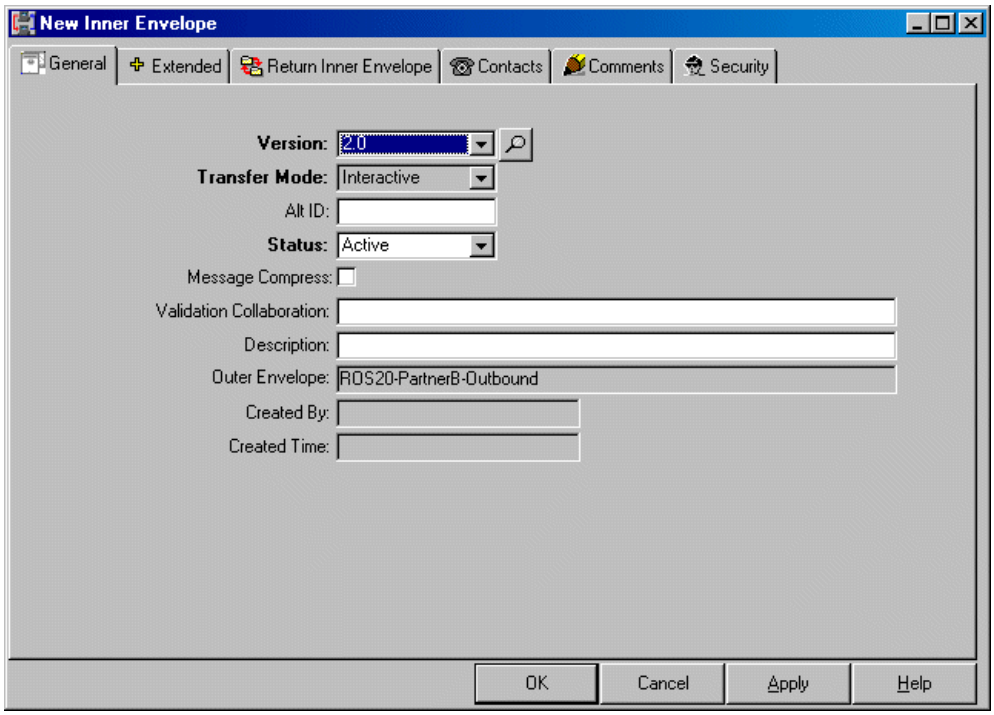


Table 104 General Inner Envelope Characteristics

Field Name	Description
Version	The version number of the eBusiness protocol in use; for example, RNIF 1.1 or 2.0 for RosettaNet. After you save the inner envelope, you cannot modify this value. Once you select from the **Transaction Sets** dialog box, the **Version**, **Status**, **Validation Collaboration**, **Description**, and **Outer Envelope** fields are filled in for you. An icon next to the **Version** field allows you to reselect from the **Transaction Sets** dialog box if needed.
Transfer Mode	The way in which the eBusiness messages are transmitted to, or received from, the trading partner. For RosettaNet, this is always **Interactive**. This means that inner envelopes are created and sent to the trading partner individually in real time.
ALT ID	An alternate identification number for this kind of inner envelope (not currently used).
Status	The status of the inner envelope: **Active** or **Inactive**. The e*Xchange e*Gate Schema will not process messages that are inactive. Inactive inner envelopes are not displayed in the left pane of the Partner Manager window if the administrator has selected the **Show Only Active TP** check box in **System Defaults**. **Note**: If the status is **Inactive** and you cannot change it, this means that the setting has been made at the Trading Partner or Outer Envelope level.

Table 104 General Inner Envelope Characteristics (Continued)

Field Name	Description
Message Compress	Indicates whether the messages should be compressed before they are stored in the database. Default: cleared (inner envelopes are not compressed). **Note**: If you select this option, the messages are not viewable in the **Message Tracking** window.
Validation Collaboration	The filename, including path, of the Collaboration that verifies and translates inner envelopes of this type. If you have messages defined in **Inner Envelope Definition Setup**, the validation Collaboration (if any) is filled in when you select from the **Transaction Sets** dialog box (**Transfer Mode** field); but you can modify or delete it. If you do not have messages defined, type the name of the validation Collaboration if applicable. For outbound messages, you might choose not to run validation on the message if you are sure outgoing messages are correct.
Description	The identification number and name of the inner envelope you are defining. If you have messages defined in **Inner Envelope Definition Setup**, the description is filled in when you select from the **Transaction Sets** dialog box (**Transfer Mode** field). If you do not have messages defined, type the description name.
Outer Envelope	The name of the outer envelope associated with this inner envelope is displayed.
Created By	The user ID of the person who created or updated this outer envelope is displayed.
Created Time	The date and time this outer envelope definition was saved or updated are automatically displayed when the record is saved.

18.5.2 Entering Inner Envelope Attribute Values

To record inner envelope characteristics specific to the message standard being used, you must add this information to e*Xchange Client for Windows as a set of extended attributes.

To enter inner envelope extended attribute values

Note: *For information on specific extended attributes, see* **"RosettaNet Extended Attributes—Inner Envelope" on page 379**.

1 On the **New Inner Envelope** dialog box, click the **Extended** tab.

Figure 196 New Inner Envelope, Extended Tab (RNIF 1.1)

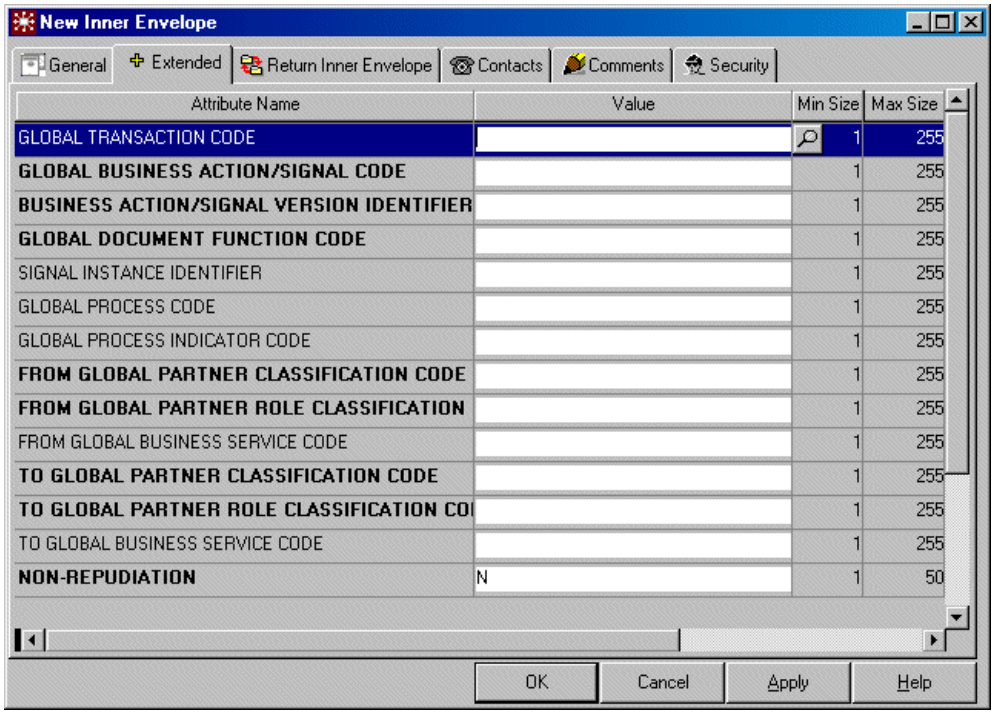
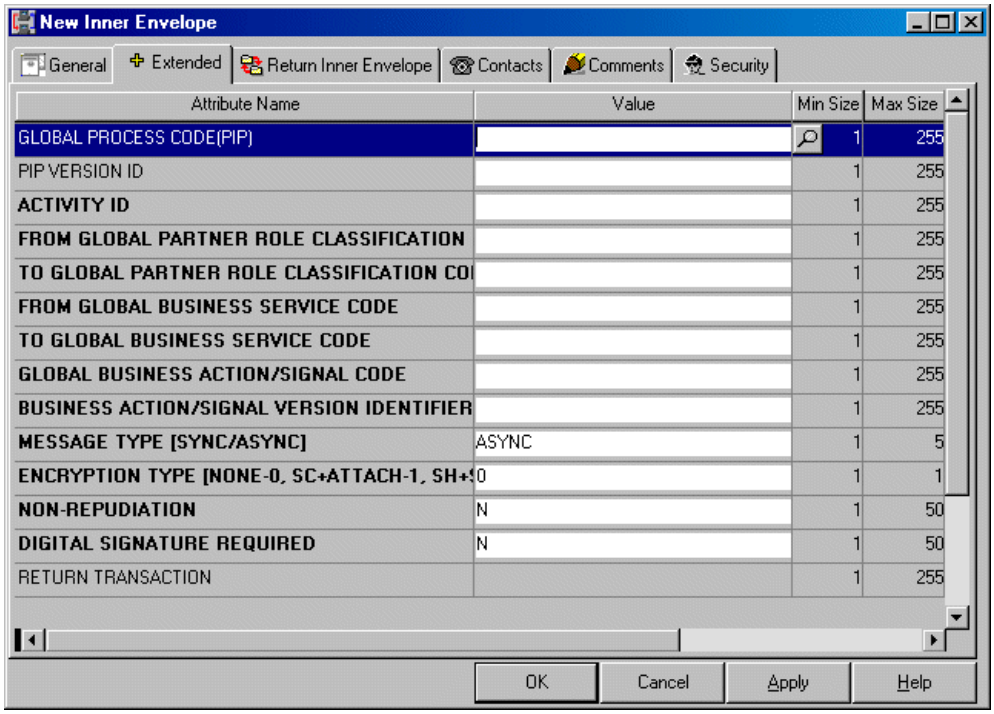


Figure 197 New Inner Envelope, Extended Tab (RNIF 2.0)



2 Enter the appropriate attribute values, as required by your business.

For information on specific attributes, refer to Table 105 (RNIF 1.1) and Table 106 (RNIF 2.0).

3 Continue to **"Entering Return Inner Envelope Information" on page 383**.

18.5.3 RosettaNet Extended Attributes—Inner Envelope

The tables below show RosettaNet attributes that are set up at the Inner Envelope level:

- RNIF 1.1—Table 105
- RNIF 2.0—Table 106

Table 105 Default RNIF 1.1 Extended Attributes (Inner Envelope Layer)

Attribute Description	Additional Information
GLOBAL TRANSACTION CODE	The RosettaNet Global Transaction Code. Examples: Process Return Product Request, Confirm Financing, Create Remittance Advice. Click on the magnifying glass icon to select from a list of valid values.
GLOBAL BUSINESS ACTION/SIGNAL CODE	(Required) If the message is a business action: the Global Business Action Code. Possible values: Return Product Request Action, Financing Request Action, Remittance Advice Notification Action. If the message is a signal: the Global Business Signal Code. Possible values: ReceiptAcknowledge. Click on the magnifying glass icon to select from a list of valid values.
BUSINESS ACTION/SIGNAL VERSION IDENTIFIER	(Required) The version number of the message guideline for the business action or signal (RosettaNet version).
GLOBAL DOCUMENT FUNCTION CODE	(Required) The code that indicates the type of document: either Request or Response. For example, for an OA1, Failure Notification, it should be set to Request. Click on the magnifying glass icon to select from a list of valid values.
SIGNAL INSTANCE IDENTIFIER	Not used.
GLOBAL PROCESS CODE	The plain language name for the RosettaNet code assigned to the process; for example, Distribute New Product Information, Query Price and Availability. Click on the magnifying glass icon to select from a list of valid values.
GLOBAL PROCESS INDICATOR CODE	The RosettaNet code assigned to the process; for example, 2A1, 3A2. Click on the magnifying glass icon to select from a list of valid values.

Table 105 Default RNIF 1.1 Extended Attributes (Inner Envelope Layer)

Attribute Description	Additional Information
FROM GLOBAL PARTNER CLASSIFICATION CODE	(Required) The RosettaNet classification code identifying the sender's function in the supply chain: for example, Carrier, Distributor, Manufacturer, or Retailer. Click on the magnifying glass icon to select from a list of valid values.
FROM GLOBAL PARTNER ROLE CLASSIFICATION CODE	(Required) The sender's partner role classification code. This is the code for the partner role that uses product information to create or update enterprise systems and online promotion systems such as electronic catalog systems. Examples of valid codes are Buyer, Seller, Customer Manager, Supplier, Shipment Information User. Click on the magnifying glass icon to select from a list of valid values.
FROM GLOBAL BUSINESS SERVICE CODE	The sender's Global Business Service Code, which is the RosettaNet code for the business service: for example, Product Information Distributor Service, Seller Service, Product Supplier Service, or Buyer Service. Click on the magnifying glass icon to select from a list of valid values.
TO GLOBAL PARTNER CLASSIFICATION CODE	(Required) The RosettaNet classification code identifying the receiver's function in the supply chain: for example, Carrier, Distributor, Manufacturer, or Retailer. Click on the magnifying glass icon to select from a list of valid values.
TO GLOBAL PARTNER ROLE CLASSIFICATION CODE	(Required) The receiver's partner role classification code. This is the code for the partner role that uses product information to create or update enterprise systems and online promotion systems such as electronic catalog systems. Examples of valid codes are Buyer, Seller, Customer Manager, Supplier, Shipment Information User. Click on the magnifying glass icon to select from a list of valid values.
TO GLOBAL BUSINESS SERVICE CODE	The receiver's Global Business Service Code, which is the RosettaNet code for the business service: for example, Product Information Distributor Service, Seller Service, Product Supplier Service, or Buyer Service. Click on the magnifying glass icon to select from a list of valid values.

Table 105 Default RNIF 1.1 Extended Attributes (Inner Envelope Layer)

Attribute Description	Additional Information
NON-REPUDIATION	Indicates whether non-repudiation is required for the message: **Y** or **N**.
RETURN TRANSACTION	(Display-only)
FAILURE TRANSACTION	Not currently used.
RESPONSE TIME	(Display-only) The time allowed for a response to be received, as entered on the **Return Inner Envelope tab**.
RESPONSE TIME GRANULARITY	(Display-only) The time period used for the response time setting, as entered on the **Return Inner Envelope tab**.
NUMBER OF RETRIES	(Display-only) The number of times the message should be resent, if a response is not received, before the message fails. For example, if the message should be sent once and then retried once, the retry setting is 1. This value is set on the **Return Inner Envelope** tab.

Table 106 Default RNIF 2.0 Extended Attributes (Inner Envelope Layer)

Attribute Description	Additional Information
GLOBAL PROCESS CODE (PIP)	The plain language name for the RosettaNet code assigned to the process; for example, Distribute New Product Information, Query Price and Availability. Click on the magnifying glass icon to select from a list of valid values.
PIP VERSION ID	The version identifier for the PIP.
ACTIVITY ID	The RosettaNet Activity identifier; this field is not currently used in RNIF version 2.0.
FROM GLOBAL PARTNER ROLE CLASSIFICATION CODE	(Required) The sender's partner role classification code. This is the code for the partner role that uses product information to create or update enterprise systems and online promotion systems such as electronic catalog systems. Examples of valid codes are Buyer, Seller, Customer Manager, Supplier, Shipment Information User. Click on the magnifying glass icon to select from a list of valid values.

Table 106 Default RNIF 2.0 Extended Attributes (Inner Envelope Layer)

Attribute Description	Additional Information
TO GLOBAL PARTNER ROLE CLASSIFICATION CODE	(Required) The receiver's partner role classification code. This is the code for the partner role that uses product information to create or update enterprise systems and online promotion systems such as electronic catalog systems. Examples of valid codes are Buyer, Seller, Customer Manager, Supplier, Shipment Information User. Click on the magnifying glass icon to select from a list of valid values.
FROM GLOBAL BUSINESS SERVICE CODE	The sender's Global Business Service Code, which is the RosettaNet code for the business service: for example, Product Information Distributor Service, Seller Service, Product Supplier Service, or Buyer Service. Click on the magnifying glass icon to select from a list of valid values.
TO GLOBAL BUSINESS SERVICE CODE	The receiver's Global Business Service Code, which is the RosettaNet code for the business service: for example, Product Information Distributor Service, Seller Service, Product Supplier Service, or Buyer Service. Click on the magnifying glass icon to select from a list of valid values.
GLOBAL BUSINESS ACTION/SIGNAL CODE	(Required) If the message is a business action: the Global Business Action Code. Possible values: Return Product Request Action, Financing Request Action, Remittance Advice Notification Action. If the message is a signal: the Global Business Signal Code. Possible values: ReceiptAcknowledge. Click on the magnifying glass icon to select from a list of valid values.
BUSINESS ACTION/SIGNAL VERSION IDENTIFIER	(Required) The version number of the message guideline for the business action or signal (RosettaNet version).

Table 106 Default RNIF 2.0 Extended Attributes (Inner Envelope Layer)

Attribute Description	Additional Information
MESSAGE TYPE [SYNC/ASYNC]	(HTTP/HTTPS only) **Inbound**—Indicates whether the incoming message is synchronous or asynchronous. **Outbound**—Indicates whether the message should be sent out as synchronous or asynchronous. **Note**: When setting up a broadcast message that is not expecting any response, either receipt acknowledgment or business message (for example, a catalog update), if you are using HTTP, make sure you select asynchronous. If you select a synchronous transfer mode, the trading partner returns an empty string, which causes errors.
ENCRYPTION TYPE	The type of encryption to be used in the message. Enter one of the following values: ▪ 0—no encryption ▪ 1—encryption of Service Content and any attachments ▪ 2—encryption of Service Header, Service Content, and any attachments The preamble and delivery header are never encrypted.
NON-REPUDIATION	Indicates whether non-repudiation is required for the message: **Y** or **N**.
DIGITAL SIGNATURE REQUIRED	Indicates whether a digital signature is required: **Y** or **N**.
RETURN TRANSACTION	(Display-only)
RESPONSE TIME	(Display-only) The time allowed for a response to be received, as entered on the **Return Inner Envelope tab**.
RESPONSE TIME GRANULARITY	(Display-only) The time period used for the response time setting, as entered on the **Return Inner Envelope tab**.
NUMBER OF RETRIES	(Display-only) The number of times the inner envelope should be resent, if a response is not received, before the message fails. For example, if the message should be sent once and then retried once, the retry setting is 1. This value is set on the **Return Inner Envelope** tab.

18.5.4 Entering Return Inner Envelope Information

You must specify the inner envelope or envelopes that will be expected in response to the current inner envelope. You can select more than one return inner envelope.

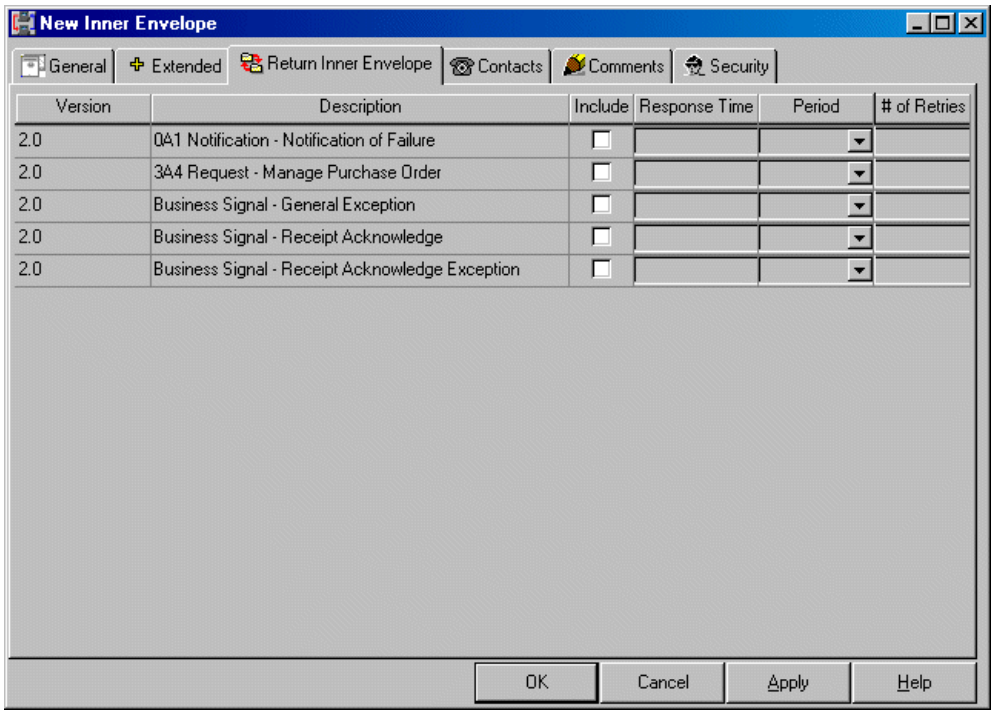
Note: *If the appropriate return inner envelopes are not available for selection, some additional setup is required. Refer to* **"About Return Inner Envelopes" on page 385***.*

To enter return inner envelope information

Before you begin, complete **"Entering Inner Envelope Attribute Values" on page 377**.

1 On the **New Inner Envelope** dialog box, click the **Return Inner Envelope** tab.

Figure 198 New Inner Envelope, Return Inner Envelope Tab



All eBusiness messages that have already been defined for this trading partner, for the opposite direction, are listed.

2 For each listed message type that might be returned by the trading partner (for outbound messages), or for each message type that you might return to the trading partner (for inbound messages), do the following:

- Check the **Include** check box.

Note: *Even though Negative Ack eBusiness messages must be defined in each direction for each trading partner, do not select these as an expected response. Only select response eBusiness messages that occur in the Go path of an eBusiness message exchange. For RosettaNet, you should never select a RosettaNet Receipt Ack Exception as the expected return inner envelope.*

- Set the response time and period that will be acceptable for receiving the return envelope; for example, a response time of 24 and period of hours means that a return inner envelope should be received within 24 hours. If the return

envelope is not received within the preset time period, the message is resent for the preset number of times (as set in the **# of Retries** field).

- Set the number of times the inner envelope should be resent if a response is not received before the envelope is recorded as a failed message. For example, if the message should be sent once and then retried once if the return inner envelope is not received, the retry setting would be 1.

Note: *For RosettaNet 1.1, if the inbound Action Message requires an Acceptance Acknowledgment, you must set up the internal system so that it responds properly. e*Xchange does not generate an Acceptance Acknowledgment or Acceptance Acknowledgment Exception automatically. It generates only the Receipt Acknowledgment and Receipt Acknowledgment Exception business signals and the Failure Notification action message.*

*Since the business content must be validated before an Acceptance Acknowledgment is generated, it must be originated by an internal application and sent to e*Xchange to be forwarded to the trading partner.*

18.5.5 About Return Inner Envelopes

e*Xchange Client for Windows allows you to specify one or more return inner envelopes that will be valid for a specific incoming or outgoing inner envelope. However, some setup is required before the correct selections are available on the **Return Inner Envelope** tab. You must create all inner envelopes for the trading partner, both inbound and outbound, so that the correct selections will be available to you.

For example, suppose you are using RNIF 1.1 and have a trading partner, ABC Company. You will receive only a 3A2, Price and Availability Query, from this trading partner. In response you send a 3A2 Price and Availability Response. Receipt Acknowledgment signals are sent out upon receipt of message in either direction. This scenario is illustrated in **"RosettaNet Scenario" on page 461**.

To set this up, do the following:

- In **Inner Envelope Definition Setup**, for the RNIF version, define each of these three messages.
- Define outbound inner envelopes for 3A2 Price and Availability Response and Acknowledgment Signal.
- Define inbound inner envelopes for 3A2 Price and Availability Query Action and Acknowledgment Signal. Because you defined the outbound envelope first, the 3A2 Price and Availability Response and the Acknowledgment Signal are available for selection on the **Return Inner Envelope** tab.
- Go back to the outbound inner envelope for 3A2 Price and Availability Response. You will now be able to select Acknowledgment Signal as the expected response.

18.5.6 Defining Contacts, Notes, Action Items, and User Security

As part of setting up each component, you have the option to set up the following additional information:

- On the **Contacts** tab—contact information
- On the **Comments** tab—notes and action items
- On the **Security** tab—user access (already inherited from the parent component level, but can be customized for the current outer envelope).

None of this setup is required to save the new outer envelope or to process messages to and from the trading partner. However, each of these tabs provides you with additional capabilities.

Detailed instructions on using each of these tabs is provided in additional chapters, as follows:

Contacts tab—**"Storing Contact Data in e*Xchange Client for Windows" on page 278**

Comments tab—**"Tracking Notes and Action Items in e*Xchange Client for Windows" on page 284**

Security tab—**"Access Control in e*Xchange Client for Windows" on page 293**

For information on using these tabs, refer to the appropriate chapter or to the online Help system.

18.6 RosettaNet Message Processing

This section outlines the sequence of events that occurs when a RosettaNet message is processed by e*Xchange. It is broken down as follows:

- RNIF 1.1: Inbound and Outbound
- RNIF 2.0: Inbound and Outbound

18.6.1 RNIF 1.1

Inbound RNIF 1.1 Message Processing

e*Xchange follows the following sequence of actions in processing an inbound RNIF 1.1 message:

1. Identifies the trading partner profile.
2. If non-repudiation is required for the message, attempts to verify the signature using the trading partner's public key.
3. Validates the Preamble.
4. Validates the Service Header.
5. Conditional: If a validation Collaboration (**tsc** file) is specified in the partner profile, validates the Service Content.
6. Stores the message in the database.
7. Establishes message tracking in the database.

8 Conditional: If a Receipt Acknowledgement to the message is required, sends the Receipt Acknowledgement.

9 If the message is an action message, forwards it to the internal application.

If there is an error with any of the above steps, e*Xchange generates an error and invokes the error handling routine. For more information on error handling, refer to **"Inbound RNIF 1.1 Error Handling" on page 390**.

Outbound RNIF 1.1 Message Processing

e*Xchange follows the following sequence of actions in processing an outbound RNIF 1.1 message:

1 Identifies the trading partner for the message.

2 Validates the message content if a validation Collaboration is specified.

3 Sets the header information based on partner profile.

4 Saves the message in the database.

5 Establishes message tracking in the database.

6 Adds a signature to the message if necessary.

7 Forwards the message to the trading partner.

18.6.2 RNIF 2.0

Inbound RNIF 2.0 Message Processing

e*Xchange follows the following sequence of actions in processing an inbound RNIF 2.0 message:

1 Parses the message and outputs a populated RosettaNet event message.

2 Loads the inner envelope.

3 If the trading partner profile indicates that a signature is required, checks that the signature is there.

4 For a response message, loads the message tracking attributes of the associated request message.

5 Validates the Preamble.

6 Validates the Delivery Header.

7 Validates the Service Header.

8 Validates the Service Content.

9 If there are no errors in any of the prior steps, sends the receipt acknowledgment if one is expected.

10 Checks for message duplication.

11 Stores the message in the database.

12 Establishes message tracking in the database.

13 For a response message, associates it with the request message.

14 Forwards the message to the internal application.

If there is an error with any of the above steps, e*Xchange generates an error and invokes the error handling routine. For more information on error handling, refer to **"Inbound RNIF 2.0 Error Handling" on page 391**.

Outbound RNIF 2.0 Message Processing

e*Xchange follows the following sequence of actions in processing an outbound RNIF 2.0 message:

1 Validates the outbound header to ensure all the information needed to identify the envelope is present. At this level, e*Xchange just checks that the fields are populated; it does not look at the actual values.

2 Checks for duplicates and creates an error if found.

3 Loads the inner envelope.

4 For a response message, loads the message tracking attributes of the associated request message.

5 Populates the Preamble with attributes from the database.

6 Populates the Delivery Header with attributes from the database.

7 Populates the Service Header with attributes from the database.

8 Validates the service content if a validation Collaboration is specified.

9 Packs the message into a RosettaNet Business Message string.

10 Optional: Encrypts the message if encryption is specified in the trading partner profile.

11 Optional: Adds a digital signature if digital signatures are specified in the trading partner profile.

12 Stores the business message in the database.

13 Creates appropriate rows in the Message Tracking tables and in the database for the ack monitor.

14 Associates the response message with the request message.

15 Sets the standard event attributes and forwards the message to the trading partner.

If there is an error with any of the above steps, e*Xchange generates an error and invokes the error handling routine. For more information on error handling, refer to **"Outbound RNIF 2.0 Error Handling" on page 392**.

18.7 Acknowledgment Monitoring

This section outlines the steps e*Xchange takes to monitor the sending and receiving of message acknowledgments. It is broken down as follows:

- RNIF 1.1
- RNIF 2.0

Important: *It is a common error to change the status of a trading partner profile to Inactive while there are still messages associated with it that are waiting to be processed. If you change the status to Inactive, the Ack Monitor cannot find the active trading partner profile and therefore cannot process the message correctly. Before changing the status of a profile to Inactive, be sure that all messages associated with the profile have been processed.*

18.7.1 RNIF 1.1

An outbound message might require multiple responses; for example, a Receipt Acknowledgement and an action response. The expected responses are specified in the **Properties** dialog box for the inner envelope, on the **Return Inner Envelope** tab. They can be also specified in the data. The expected responses to an outbound message are flagged in the database and monitored by the Ack Monitor.

The Ack Monitor monitors the database for any overdue responses. When it detects that a response is overdue, it checks the maximum retry count for the message, and then takes one of the following actions:

- If the maximum retry count has not been reached, the Ack Monitor retrieves the original message, increments the Attempt Count in the message, and resends it to the trading partner through e*Xchange.
- If the maximum retry count has been reached, the Ack Monitor sends a RosettaNet Failure Notification to the trading partner and a failure Event to the internal application. A “response overdue” error is assigned to the original message in the database and all its expected responses are canceled.

18.7.2 RNIF 2.0

With RNIF 2.0, the processing logic for the Ack Monitor is similar to that of RNIF 1.1. However, in 2.0 there is no need to change the attempt count field and pack the message again before resending the message.

The Ack Monitor consults the database and creates a list of messages with overdue responses. It then processes each message in turn. For a RosettaNet message, it calls the RosettaNet 2.0 Ack Monitor, eX-ROS20-Ack-Mon, which does the following:

1. Retrieves the original message.
2. Loads the inner envelope for the original message.
3. Loads the message tracking attributes for the original message.

4 If the maximum number of retries for the message has already been reached:
   - Logs an error in Message Tracking
   - Creates a 0A1 Failure Notification
   - Packs the 0A1 Notification into a RosettaNet Business Message.
   - Sends the 0A1 message to the trading partner
   - Sends a failure message to the internal system
5 If the maximum number of retries has *not* been reached:
   - Resends the message to the trading partner
   - Updates the Last Send Time and Send Count in the database, and sets a value for the next send time

If there is an error with any of the above steps, e*Xchange generates an error and invokes the error handling routine. For more information on error handling, refer to **"RosettaNet Error Handling" on page 390**.

18.8 RosettaNet Error Handling

This section outlines the sequence of events that occurs when a e*Xchange encounters a problem with a RosettaNet message. It is broken down as follows:

- RNIF 1.1: Inbound and Outbound
- RNIF 2.0: Inbound and Outbound

In any error situation, e*Xchange always does the following:

- Journals the message
- Sends the message to the error queue, where it can be picked up for further handling
- Sends an Alert message to the e*Gate Monitor

18.8.1 RNIF 1.1

If e*Xchange is unable to successfully map a message to the RosettaNet structure, it generates an error which is recorded in the journal file (the specific file name and location is as specified in the ePM e*Way configuration). e*Xchange also sends an alert notification to the e*Gate Monitor. You can view the journal file from within e*Gate.

Inbound RNIF 1.1 Error Handling

If an inbound message fails content validation, the message is logged in the database at the message level with the error flag set. A Receipt Acknowledgement Exception (or General Exception if the message is not expecting a Receipt Acknowledgement) is sent out to the trading partner.

After the data passes validation, any processing failure causes e*Xchange to send a General Exception to the trading partner if the message expects an action response (for example, a 3A2 query message), or a Failure Notification if the message does not expect an action response (for example, a 3A2 response message).

Outbound RNIF 1.1 Error Handling

If e*Xchange fails on an outbound message, a failure Event is sent to the internal application.

18.8.2 RNIF 2.0

Inbound RNIF 2.0 Error Handling

For an inbound RNIF 2.0 message, e*Xchange generates errors if any of the following conditions occurs:

- The service header cannot be parsed
- A duplicate message is received
- An unexpected message is received

If the error occurs when e*Xchange has not yet sent out an acknowledgment message, a Receipt Acknowledgment Exception is sent to the trading partner.

If the error occurs when e*Xchange has already sent out an acknowledgment message, a generic exception is sent to the trading partner.

Under any of the above conditions, if a receipt acknowledgment has not already been sent, e*Xchange sends a negative acknowledgment instead of a receipt acknowledgment.

If the data has not yet been stored in the database, e*Xchange saves the data with the associated error. If it has already been stored in the database, e*Xchange associates the error with the saved message.

Note: *For a RosettaNet inbound message, once the Service Header has been successfully parsed, that means all other values within the message have also been successfully loaded.*

Outbound RNIF 2.0 Error Handling

If e*Xchange encounters errors in processing outbound RNIF 2.0 messages, the original RNIF 2.0 generic message received from the internal system is journaled.

According to the type of error, e*Xchange takes the steps outlined in Table 107.

Table 107 RNIF 2.0 Outbound Error Handling

e*Xchange checks for the following conditions…	and takes the following steps…
The data has not been saved.	Saves the data with the associated error.
The data has been saved.	Associates the error with the already saved message.
The message has been sent on to the trading partner.	▪ Sends a 0A1 to the trading partner. ▪ Sends a cancel message to the internal system.
The message has not yet been sent on to the trading partner.	Sends a failure message to the internal system. The next step is then up to the internal system: resend the message, or, if it is a response message, send a General Exception.

Chapter 19

Setting Up UN/EDIFACT Outer and Inner Envelopes in e*Xchange Client for Windows

This chapter provides information on setting up, in e*Xchange Client for Windows, the specific values necessary to successfully send and receive UN/EDIFACT transactions to and from a trading partner. It includes information on the following:

- Setting the values for:
  - Interchange envelope (UNB and UNZ segments)
  - group (UNG and UNE segments)
  - Message (UNH and UNT segments)
- Specifying the messaging protocol used to relay the messages
- Handling errors

Note: *If you are using UN/EDIFACT, you must install the UN/EDIFACT templates provided by SeeBeyond. They are available during e*Gate installation via the "Add-Ons" option. For installation instructions, refer to the* ***UN/EDIFACT ETD Library User's Guide****.*

Note: *The* ***Secure Data Transport*** *tab in the Outer Envelope of the trading partner profile is not used by the e*Xchange UN/EDIFACT implementation. This tab is provided as an interface for secure UN/EDIFACT messaging that might be required in the back-end Monk scripts for a custom implementation. If secure UN/EDIFACT messaging is required, the back-end Monk scripts must be significantly customized. Refer to the* ***e*Xchange Partner Manager Implementation Guide*** *for information on the Monk APIs that would be used to retrieve the keys and certificates from the database.*

19.1 UN/EDIFACT Enveloping Segment Values

You must enter various parameters required by the UN/EDIFACT enveloping segments so that e*Xchange can successfully interpret and route messages to and from the trading partner.

Most of the header and trailer segment values are set up as extended attributes on the **Extended** tab at the outer and inner envelope layers. Some other values are counted or tracked automatically by e*Xchange, or are provided by e*Gate.

Generally speaking, envelope layers are broken down as follows:

- **Outer Envelope**—used to set up values specific to the trading partner, but general to all messages to and from the trading partner, such as interchange segment values and delimiters.
- **Inner Envelope**—used to set up values specific to an individual message; functional segments, message segments, and batch settings.

Table 108 shows the values required by the interchange header and footer segments, and shows how the information is recorded in e*Xchange Client for Windows. It either lists the extended attribute name, or otherwise shows how the information is tracked.

Table 108 UN/EDIFACT Interchange Header and Footer Values

POS/TAG	Name	Layer	Extended Attribute Name
UNB Interchange Header			
010/0001	Syntax identifier	Outer	SYNTAX IDENTIFIER
010/0002	Syntax version number	Outer	SYNTAX VERSION
010/0080	Service code list directory version number	Outer	SERVICE CODE LIST DIRECTORY VERSION NUMBER
010/0133	Character encoding, coded	Outer	CHARACTER ENCODING
020/0004	Interchange sender identification	Outer	INTERCHANGE SENDER ID
020/0007	Identification code qualifier	Outer	SENDER ID CODE QUALIFIER
020/0008	Interchange sender internal identification	Outer	INTERCHANGE SENDER INTERNAL ID
020/0042	Interchange sender internal sub-identification	Outer	INTERCHANGE SENDER INTERNAL SUB-ID
030/0010	Interchange recipient identification	Outer	INTERCHANGE RECIPIENT ID
030/0007	Identification code qualifier	Outer	RECIPIENT ID CODE QUALIFIER
030/0014	Interchange recipient internal identification	Outer	INTERCHANGE RECIPIENT INTERNAL ID
030/0046	Interchange recipient internal sub-identification	Outer	INTERCHANGE RECIPIENT INTERNAL SUB-ID
040/0017	Date		The date (this comes from e*Gate)
040/0019	Time		The time (this comes from e*Gate)

Table 108 UN/EDIFACT Interchange Header and Footer Values (Continued)

POS/TAG	Name	Layer	Extended Attribute Name
050/0020	INTERCHANGE CONTROL REFERENCE		A 14-character value constructed from the e*Gate time stamp. The time stamp is YYYYMMDDHHMMSS0XXX. Interchange, group, and message control references in header and footer segments are all constructed in the same way. The reference number excludes the first two and last two characters, so the value is: **YYMMDDHHMMSS0X**.
060/0022	Recipient reference/ password	Outer	RECIPIENT REFERENCE PASSWORD
060/0025	Recipient reference/ password qualifier	Outer	RECIPIENT REFERENCE QUAL
070/0026	APPLICATION REFERENCE	Outer	APPLICATION REFERENCE
080/0029	PROCESSING PRIORITY CODE	Outer	PROCESSING PRIORITY CODE
090/0031	ACKNOWLEDGMENT REQUEST	Outer	ACKNOWLEDGMENT REQUEST
100/0032	INTERCHANGE AGREEMENT IDENTIFIER	Outer	INTERCHANGE AGREEMENT ID
110/0035	TEST INDICATOR	Outer	TEST INDICATOR
UNZ Interchange Trailer (Footer)			
010/0036	INTERCHANGE CONTROL COUNT		The total number of groups included in the interchange. This is counted automatically by e*Xchange. If there is no group in the message (no UNG/UNE segments), it is the number of messages.
020/0020	INTERCHANGE CONTROL REFERENCE		Same as 050/0020 Interchange Control Reference in UNB (see above).

Table 109 shows the values required by the group header and footer segments, and shows how the information is recorded in e*Xchange Client for Windows. It either lists the extended attribute name, or otherwise shows how the information is tracked.

Table 109 UN/EDIFACT Group Header and Footer Values

Segment	Name	Layer	Extended Attribute Name
UNG Group Header			
010/0038	MESSAGE GROUP IDENTIFICATION		For UN/EDIFACT version 3, e*Xchange uses the value from the MESSAGE TYPE IDENTIFIER extended attribute at the Inner Envelope level.

Table 109 UN/EDIFACT Group Header and Footer Values (Continued)

Segment	Name	Layer	Extended Attribute Name
020/0040	Application sender identification	Inner	APPLICATION SENDER ID CODE
020/0007	Identification code qualifier	Inner	APPLICATION SENDER QUAL
040/0017	Date		The date (this comes from e*Gate)
040/0019	Time		The time (this comes from e*Gate)
050/0048	GROUP REFERENCE NUMBER		A 14-character value constructed from the e*Gate time stamp. The time stamp is YYYYMMDDHHMMSS0XXX. Interchange, group, and message control references in header and footer segments are all constructed in the same way. The reference number excludes the first two and last two characters, so the value is: **YYMMDDHHMMSS0X**.
060/0051	CONTROLLING AGENCY, CODED		e*Xchange uses the value from the CONTROLLING AGENCY extended attribute (020/0051) at the inner envelope level.
070/0052	Message version number	Inner	MESSAGE TYPE VERSION (this attribute sets the value for Message Version Number in both UNG and UNH).
070/0054	Message release number	Inner	MESSAGE TYPE RELEASE NUMBER (this attribute sets the value for Message Release Number in both UNG and UNH).
070/0057	Association assigned code	Inner	ASSOCIATION ASSIGNED CODE (this attribute sets the value for Association Assigned Code in both UNG and UNH).
080/0058	APPLICATION PASSWORD	Inner	APPLICATION PASSWORD
UNE Group Trailer (Footer)			
010/0060	GROUP CONTROL COUNT		If the message includes the UNG and UNE segments, e*Xchange automatically sets this value to the message count.
020/0048	GROUP REFERENCE NUMBER		Same as 050/0048 Group Reference Number in UNG.

Table 110 shows the values required by the message header and footer segments, and shows how the information is recorded in e*Xchange Client for Windows. It either lists the extended attribute name, or otherwise shows how the information is tracked.

Table 110 UN/EDIFACT Message Header And Footer Values

Segment	Name	Layer	Extended Attribute Name
UNH Message Header			
010/0062	MESSAGE REFERENCE NUMBER		A 14-character value constructed from the e*Gate time stamp. The time stamp is YYYYMMDDHHMMSS0XXX. Interchange, group, and message control references in header and footer segments are all constructed in the same way. The reference number excludes the first two and last two characters, so the value is: **YYMMDDHHMMSS0X**.
020/0065	Message type	Inner	MESSAGE TYPE IDENTIFIER
020/0052	Message version number	Inner	MESSAGE TYPE VERSION (this attribute sets the value for Message Version Number in both UNG and UNH).
020/0054	Message release number	Inner	MESSAGE TYPE RELEASE NUMBER (this attribute sets the value for Message Release Number in both UNG and UNH).
020/0051	Controlling agency, coded	Inner	CONTROLLING AGENCY
020/0057	Association assigned code	Inner	ASSOCIATION ASSIGNED CODE (this attribute sets the value for Association Assigned Code in both UNG and UNH).
020/0110	Code list directory version number	Inner	CODE LIST DIRECTORY VERSION NUMBER
020/0113	Message type sub-function identification	Inner	MESSAGE TYPE SUB-FUNCTION IDENTIFICATION
030/0068	COMMON ACCESS REFERENCE	Inner	COMMON ACCESS REFERENCE
040/0070	Sequence of transfers	Inner	MESSAGE SEQUENCE NUMBER (in Version 3; this segment does not exist in Version 4)
040/0073	First and last transfer	Inner	MESSAGE TRANSFER INDICATOR
050/0115	Message subset identification	Inner	MESSAGE SUBSET IDENTIFICATION
050/0116	Message subset version number	Inner	MESSAGE SUBSET VERSION NUMBER
050/0118	Message subset release number	Inner	MESSAGE SUBSET RELEASE NUMBER
050/0051	Controlling agency, coded	Inner	MESSAGE SUBSET CONTROLLING AGENCY
060/0121	Message implementation guideline identification	Inner	MESSAGE IMPLEMENTATION GUIDELINE IDENTIFICATION

Table 110 UN/EDIFACT Message Header And Footer Values (Continued)

Segment	Name	Layer	Extended Attribute Name
060/0122	Message implementation guideline version number	Inner	MESSAGE IMPLEMENTATION GUIDELINE VERSION NUMBER
060/0124	Message implementation guideline release number	Inner	MESSAGE IMPLEMENTATION GUIDELINE RELEASE NUMBER
060/0051	Controlling agency, coded	Inner	MESSAGE IMPLEMENTATION GUIDELINE CONTROLLING AGENCY
070/0127	Scenario identification	Inner	SCENARIO IDENTIFICATION
070/0128	Scenario version number	Inner	SCENARIO VERSION NUMBER
070/0130	Scenario release number	Inner	SCENARIO RELEASE NUMBER
070/0051	Controlling agency, coded	Inner	SCENARIO CONTROLLING AGENCY
UNT Message Trailer (Footer)			
010/0074	NUMBER OF SEGMENTS IN A MESSAGE		Counted automatically by e*Xchange: The total number of segments (UNH/UNT) in the message.
020/0062	MESSAGE REFERENCE NUMBER		Same as 010/0062 Message Control Reference in UNH (see above).

19.2 UN/EDIFACT Delimiters

For UN/EDIFACT, delimiters are set up at the outer envelope level, on the **Extended** tab.

It is important to note the specific use of delimiters in the extended attributes and how it affects default use of delimiters in messages processed by e*Xchange Client for Windows.

Treatment of delimiters in the messages and in the partner profile for both inbound and outbound is explained below.

19.2.1 Inbound

For an inbound message, there are two possible scenarios:

- If the message includes a UNA segment—e*Xchange compares the delimiters defined in the UNA segment with those recorded in the partner profile. If they match, e*Xchange uses those delimiters for the message, and returns an error if they do not match.
- If the message does not include a UNA segment—e*Xchange uses the delimiters specified in the partner profile to parse the message, and returns an error if they do not match.

19.2.2 Outbound

For an outbound message, there are two possible scenarios:

- If the message coming from the internal application includes a UNA segment—e*Xchange uses the delimiters defined in the UNA segment to parse the message, replaces them with the delimiters defined in the partner profile, and sends the message on to the trading partner.
- If the message coming from the internal application does not contain a UNA segment—e*Xchange uses the default UN/EDIFACT delimiters (see Table 111) to parse the message, replaces them with the delimiters defined in the partner profile, and sends the message on to the trading partner.

19.2.3 Default UN/EDIFACT Delimiters

The default delimiters for UN/EDIFACT are shown in Table 111.

Table 111 UN/EDIFACT Default Delimiters

Delimiter Type	Name	Symbol
Segment terminator	Apostrophe	'
Element delimiter	Plus Sign	+
Component data element separator	Colon	:
Release character	Question mark	?
Repetition separator	Asterisk	*

19.3 Transfer Modes in UN/EDIFACT

UN/EDIFACT offers three alternatives in terms of how frequently messages are sent:

- **Interactive (single-item batching in real time)**—messages are sent as soon as they are generated or received. Typically, messages that are used in a real time mode are those that require an immediate response. The sender sends a request message to the receiver and remains connected while the receiver processes the request message and returns a response message.
- **Batch**—messages of different types are sent in groups, called batches. In batch mode, the frequency of batch transmission is normally determined by a user-specified time setting.

Note: *Do not confuse this term with the FTP (Batch) communications protocol (for more information, see* **"Communications Protocols for UN/EDIFACT" on page 400***).*

- **Fast Batch**—messages of a certain type are accumulated and sent to the trading partner as a group of messages, all of the same transaction type, at a preset point. Fast batch has one interchange, one group, and a preset number of messages. The point at which a fast batch is sent is determined by the settings in the Standard Event Structure for the inner envelope.

19.3.1 Fast Batch Settings

If you are using Fast Batch, you must set the following values in the **eX_Standard_Event.ssc** file:

- Set the string value "FB_UNIQUE_ID" (Fast Batch unique ID) in the Name node of the first NameValuePair in the TPAttribute node.

  The Fast Batch unique ID is unique for each fast batch, but the same for each message within the fast batch.

- Set the fast batch unique value in the Value node of the first NameValuePair in the TPAttribute node.

  The actual value for the fast batch unique ID is user-defined.

- Set the string value "FB_COUNT" (Number of messages to be included in the batch) in the Name node of the Second NameValuePair in the TPAttribute node.

- Set the total fast batch record count in the Value node of the second NameValuePair in the TPAttribute node.

  The actual value for the fast batch record count is user-defined.

For an example, refer to the *e*Xchange Schema Component* chapter of the *e*Xchange Implementation Guide*.

19.4 Communications Protocols for UN/EDIFACT

The communications protocols supported by e*Xchange for UN/EDIFACT are:

- FTP (Batch)

  The FTP (Batch) setting at the outer envelope level indicates use of File Transfer Protocol for transmission of messages. Within e*Gate, this uses the e*Xchange BATCH e*Way to transfer files. Files can also be stored on the local machine.

- HTTP

  This setting indicates use of the HTTP protocol.

- SMTP

  This setting indicates use of the Simple Mail Transfer Protocol.

19.5 Entering Envelope Properties

Once you have set up a trading partner, the next step is to enter the specific technical information required to successfully send messages to the trading partner and receive messages from the trading partner. This includes the following steps:

Defining outer envelopes—two for each eBusiness protocol; one for outbound messages, one for inbound messages. This includes the following:

- Defining general information for the outer envelope
- Defining extended attributes for the outer envelope
- Defining messaging information on the **Transport Component** tab
- If applicable, defining contacts, notes and action items, and security for the outer envelope

Defining inner envelopes—one for each type of transaction to be sent to the trading partner, under the "Outbound" outer envelope; one for each type of transaction to be received from the trading partner, under the "Inbound" outer envelope. For each inner envelope, this includes the following:

- Defining general information for the inner envelope
- Defining extended attributes for the inner envelope
- Defining the return inner envelope, if the transaction would normally trigger a response transaction
- If applicable, defining contacts, notes and action items, and security for the inner envelope

19.6 Entering Outer Envelope Properties

For each trading partner, you must set up separate outer envelopes for inbound and outbound messages.

If the trading partner uses more than one eBusiness protocol version, set up additional outer envelopes as needed to accommodate each additional version.

The following steps include all the activities needed to add a new outer envelope to e*Xchange Client for Windows.

To add a UN/EDIFACT outer envelope

1. Enter general outer envelope characteristics: see **"Entering General Outer Envelope Characteristics" on page 402**.
2. Enter outer envelope characteristics: see **"Entering Outer Envelope Extended Attributes" on page 404**.
3. Enter information specific to the transport component of the outer envelope: see **"Entering Transport Component Information" on page 408**.

4 Optional: define contacts, notes and action items, and security for the outer envelope see **"Defining Contacts, Notes, Action Items, and User Security" on page 411**.

To finish adding a trading partner profile, you must also define an inner envelope for each type of message you will be sending to the trading partner, and one for each type of message you will be receiving from the trading partner. This is explained in **"Entering Inner Envelope Properties" on page 411**.

19.6.1 Entering General Outer Envelope Characteristics

Use the **General** tab for entering general information that will identify the structure and content of the outer envelope, such as the eBusiness protocol used, message direction, and protocol version.

To enter general outer envelope characteristics

1 In the left pane of the Partner Manager window, select the name of the trading partner for which you want to create an outer envelope definition.

2 Click **New Outer Envelope**  .

The **New Outer Envelope** dialog box appears (see Figure 199).

3 Record the outer envelope information on the **General** tab of the **New Outer Envelope** dialog box. For more information, see Table 112.

4 Continue to **"Entering Outer Envelope Extended Attributes" on page 404**.

Figure 199 New Outer Envelope, General Tab (UN/EDIFACT)

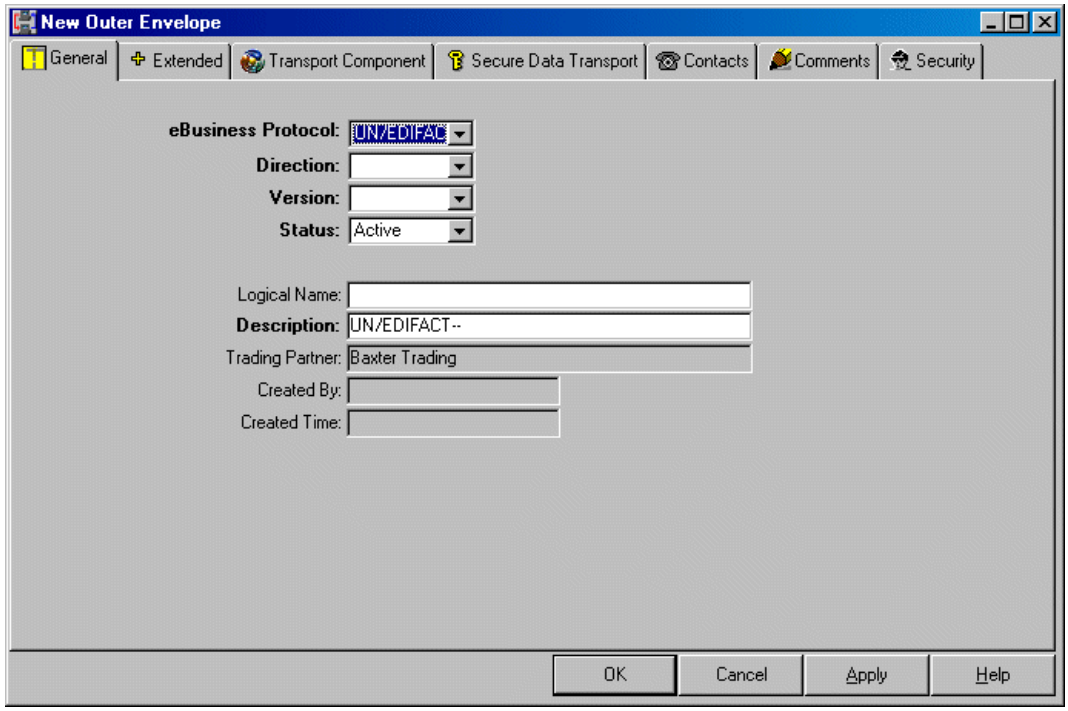


Table 112 General Outer Envelope Characteristics

Field Name	Description
eBusiness Protocol	The name of the eBusiness protocol that is used to format the messages and related transmission information that you send to or receive from the trading partner. Select **UN/EDIFACT**. After you save the new outer envelope, you cannot change the protocol.
Direction	You must define separate outer envelopes for inbound and outbound messages. This field indicates the direction for the current envelope: **Inbound**—For messages coming in from a trading partner. **Outbound**—For messages going out to a trading partner.
Version	The version number of the eBusiness protocol in use; for example, UN/EDIFACT version 3B (version 3, Batch) or 4I (version 4, Interactive). All protocol versions that have been set up in **Partner Manager Envelope Setup** are available on the drop-down selection list. **Note**: After you save the new outer envelope, you cannot change the protocol version.
Status	The status of the outer envelope. Only one inbound and one outbound outer envelope can be active for each combination of trading partner, inner envelope type, direction, and version. **Note**: The e*Xchange e*Gate Schema only processes messages for active profiles. Inactive outer envelopes are not displayed in the left pane of the Partner Manager window if the administrator has selected the **Show Only Active TP** check box in **System Defaults**. Choose one of the following values. **Active**—The outer envelope is currently active, and can be used. **Inactive**—The outer envelope is not active, and cannot be used. Default: **Active**. **Note**: If the status is **Inactive** and you cannot change it, this means that the setting has been made at the Trading Partner level.

Table 112 General Outer Envelope Characteristics (Continued)

Field Name	Description
Logical Name	A unique value that you specify for the trading partner. There are several important conditions for the logical name: ▪ For X12 and UN/EDIFACT, the Logical Name, Version, Sender ID, and Receiver ID for the outbound outer envelope must match the Logical Name, Version, Receiver ID, and Sender ID for the inbound outer envelope. For example, if you are using X12 version 4020, use the same logical name value for the inbound and outbound envelopes for that version. ▪ It must be unique for each inbound/outbound envelope set. For example, if you are using UN/EDIFACT versions 3B and 4B, use one value for the 3B inbound and outbound envelope set, and another for the 4B inbound and outbound envelopes. If you have only one outer envelope set per company, you can use the company name. You could also use a numerical value, or any other value as long as it is unique to the inbound/outbound envelope set. ▪ For outbound messages, the logical name is the primary value used when e*Xchange receives a message from an internal system to identify the trading partner to which the message is routed. The value in this field must be identical, including case, to the value set in the **eX_Standard_Event** structure's Partner Name node. For more information, refer to the *e*Xchange Partner Manager Implementation Guide*.
Description	The description of the outer envelope. Default: The eBusiness protocol name, version, and direction, separated by hyphens.
Trading Partner	The name of the trading partner associated with this outer envelope is displayed.
Created By	The user ID of the person who saved or updated this outer envelope is displayed.
Created Time	The date and time this outer envelope was saved or updated are automatically displayed when the record is saved.

19.6.2 Entering Outer Envelope Extended Attributes

You must set up certain UN/EDIFACT enveloping values as extended attributes at the outer envelope level.

Predefined extended attributes are preloaded during installation, but can be changed if needed.

To enter outer envelope extended attribute values

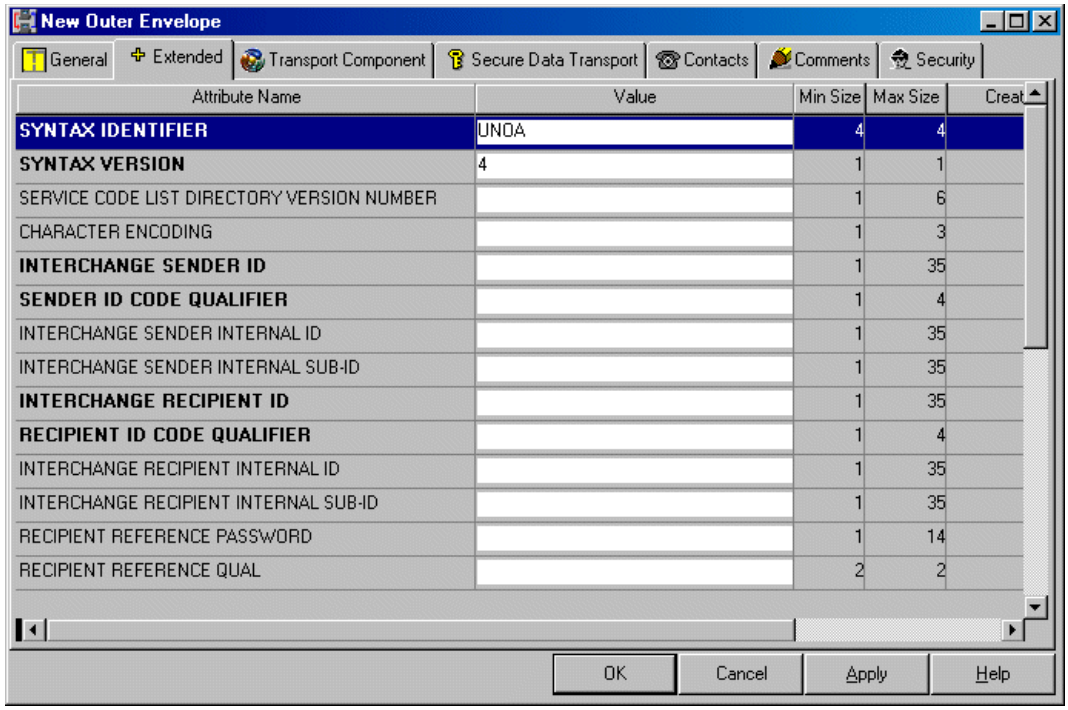
Before you begin, complete **"Entering General Outer Envelope Characteristics" on page 402**.

Note: *For information on specific extended attributes provided with e*Xchange Client for Windows, see* **"Extended Attributes" on page 464**.

1 On the **New Outer Envelope** dialog box, click the **Extended** tab.

The **Extended** tab appears, as shown in Figure 200.

Figure 200 New Outer Envelope, Extended Tab (UN/EDIFACT)



2 Enter the appropriate values for the attributes defined by your administrator. If defaults have been set, these are displayed; however, they can be changed.

For more information on specific attributes, refer to Table 113.

3 Continue to **"Entering Transport Component Information" on page 408**.

19.7 Extended Envelope Attributes for UN/EDIFACT

For UN/EDIFACT, extended attributes are values required by e*Xchange to build interchange, group, and message envelopes as needed for your business.

e*Xchange provides extended attribute templates for many UN/EDIFACT versions. However, you must provide the values yourself. You can specify default values via the **Functions** menu, **System Administration**, **Partner Manager Envelope Setup**. When setting up the envelopes for each trading partner, you can change the default values if needed.

Before setting up the extended attributes, or any other aspect of the trading partner setup, it is important to have the trading partner agreement for each of your trading partners, and ideally the name, address, and telephone number of the eBusiness integration contact for each trading partner. Having this information immediately available will help ensure smooth and accurate setup.

19.7.1 UN/EDIFACT Extended Attributes—Outer Envelope

The sample attributes listed in Table 113 are those set up as Extended Attributes at the outer envelope level for UN/EDIFACT version 4.

Table 113 Outer Envelope Extended Attributes (UN/EDIFACT Version 4)

Name	Description
SYNTAX IDENTIFIER	The syntax level used: ▪ UNOA for the basic level A ▪ UNOB for level B
SYNTAX VERSION	The EDIFACT version used. e*Xchange supports version 3 and 4. For the current version, ISO 9735-1, use 4. Use 3 for the 1988 version amended and reprinted in 1990 plus Amendment 1 of 1992
SERVICE CODE LIST DIRECTORY VERSION NUMBER	Optional: The version number of the service code list directory.
CHARACTER ENCODING	The identification for the character encoding used in the interchange, as specified in the trading agreement (alphanumeric, up to three characters). Optional. Acceptable values: any three-character code as defined in the trading agreement. If you do not specify a value, e*Xchange assumes the default encoding technique defined for the syntax version being used: 1—ASCII 7-bit code. 2—ASCII 8-bit code. 3—Code page 500 (EBCDIC Multinational No. 5) encoding schema for the repertoire as defined by the code page. 4—Code page 850 (IBM PC Multinational) encoding schema for the repertoire as defined by the code page.
INTERCHANGE SENDER ID	The sender's name or ID code, as specified in the Interchange Agreement.
SENDER ID CODE QUALIFIER	The qualifier for the Interchange Sender ID name or code. A qualifier code may refer to an organization identification, as in ISO 6523.
INTERCHANGE SENDER INTERNAL ID	An ID (it could be used to indicate a division, branch, or computer system/process) specified by the sender of the interchange. This ID can be used by the recipient in response interchanges, for the purposes of internal routing.
INTERCHANGE SENDER INTERNAL SUB-ID	An optional sub-level of the sender's internal ID (up to 35 characters).
INTERCHANGE RECIPIENT ID	The receiver's name or ID code, as specified in the Interchange Agreement.
RECIPIENT ID CODE QUALIFIER	An optional qualifier referring to the receiver's identification code. Up to four characters.
INTERCHANGE RECIPIENT INTERNAL ID	An optional additional internal identification (for example, a division, branch, or computer system or process), specified by the receiver to facilitate internal routing. Up to 35 characters.

Table 113 Outer Envelope Extended Attributes (UN/EDIFACT Version 4) (Continued)

Name	Description
INTERCHANGE RECIPIENT INTERNAL SUB-ID	An optional sub-level of the receiver's internal ID. Up to 35 characters.
RECIPIENT REFERENCE PASSWORD	The reference or password required for the sender to access the recipient's system. Up to 14 characters.
RECIPIENT REFERENCE QUAL	An optional qualifier for the recipient's reference or password. Up to four characters.
APPLICATION REFERENCE	An optional value identifying the application area assigned by the sender, to which the messages in the interchange relate; for example, the message type, if all the messages in the interchange are of the same type. Whether or not this field is used, and if so the exact nature of the data, is specified in the trading partner Interchange Agreement.
PROCESSING PRIORITY CODE	Optional: A single-character code determined by the sender requesting processing priority for the interchange. **Note**: The Interchange Agreement must state whether the field is to be used. If it is used, a list of codes and meanings must be provided.
ACKNOWLEDGMENT REQUEST	An optional code requesting acknowledgment for the interchange. One digit.
INTERCHANGE AGREEMENT ID	An optional name or code indicating the type of agreement under which the interchange takes place (1–35 characters).
TEST INDICATOR	An optional single-digit numeric code (1, 2, 3, or 4) indicating that this is a test.
SEGMENT TERMINATOR	The symbol used to indicate the end of a segment (delimiter). Default: apostrophe ('). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.
REPETITION SEPARATOR	The symbol used as a repetition separator (delimiter). Default: asterisk (*). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.
COMPONENT ELEMENT SEPARATOR	The symbol used as a component data element separator (delimiter). Default: colon (:). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.

Table 113 Outer Envelope Extended Attributes (UN/EDIFACT Version 4) (Continued)

Name	Description
ELEMENT SEPARATOR	The symbol used as a separator between data elements (delimiter). Default: plus sign (+). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment. **Note**: For hex delimiters, precede the delimiter with **0x**. For example, for a hex delimiter with the value 2F, type **0x2F**.
DECIMAL SYMBOL	Decimal mark: The symbol used to indicate a decimal point. Default: period (.). **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment.
RELEASE CHARACTER	The symbol used as a release character. Default: question mark (?). The release character, immediately preceding one of the other separators, restores its normal meaning. For example, 10?+10=20 means 10+10=20. The question mark is represented by ??. **Note**: If you specify a value other than the default, e*Xchange includes this information in the message as part of the UNA segment.
INTERCHANGE ENVELOPE CUSTOM VALIDATION	If you have a custom Validation for the interchange envelope layer, type the name.
FUNCTIONAL ENVELOPE CUSTOM VALIDATION	If you have a custom Validation for the functional envelope layer, type the name.
MESSAGE ENVELOPE CUSTOM VALIDATION	If you have a custom Validation for the message envelope (UNH) layer, type the name.

19.7.2 Entering Transport Component Information

You must specify the communications protocol by which outer envelopes will be sent, and provide information required by the protocol.

To add transport component information

1. On the **New Outer Envelope** dialog box, click the **Transport Component** tab.
2. The **Transport Component** tab appears (see Figure 201).
3. Select the communications protocol (for UN/EDIFACT, FTP (Batch), HTTP, and SMTP are valid choices).

   The rest of the fields change according to your selection.
4. Fill in the appropriate values. For more information, see Table 114.
5. Click **Apply**.

   If you entered a password, the **Confirm Password** dialog box appears.
6. Confirm the password.

   Type the password exactly as you typed it in the **Password** field, and then press **Enter**. The password field is case-sensitive; make sure you use the correct capitalization.

Note: *Password confirmation is only to avoid errors, not for security purposes. Anyone with access to this dialog box can change the password at any time. You do not need to know the old password to change to a new one.*

7 Continue to **"Defining Contacts, Notes, Action Items, and User Security" on page 411**.

Note: *The Secure Data Transport tab is not currently applicable to UN/EDIFACT.*

Figure 201 New Outer Envelope, Transport Component Tab

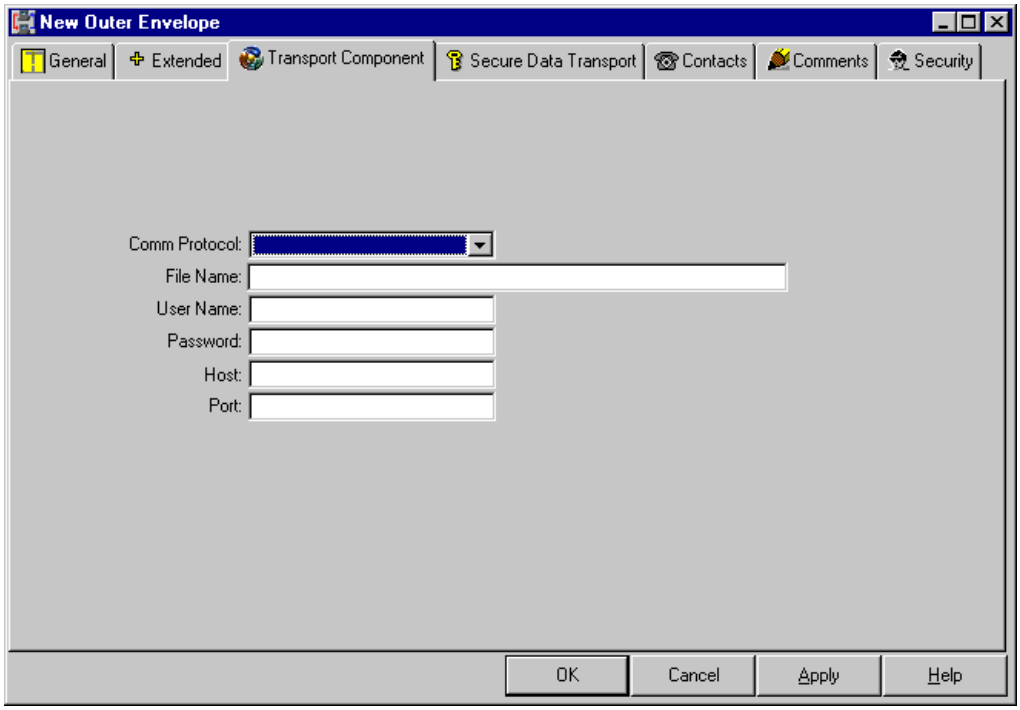


Table 114 Outer Envelope Transport Component Fields

Field Name	Description
Comm Protocol	The communications protocol used for this outer envelope. For UN/EDIFACT, only FTP (Batch), HTTP, or SMTP are valid choices for e*Xchange Client for Windows. If you are using the Web interface, HTTPS is also available. **FTP (Batch)**—Messages are transmitted using File Transfer Protocol. **Note**: If you want the files to be stored on the local machine, supply the **File Name** but leave the **User Name**, **Password**, **Host**, and **Port** fields empty. **HTTP**—Messages are transmitted with HTTP. **HTTPS**—Messages are transmitted using HTTP with SSL (available only via the Web interface). **SMTP**—Messages are transmitted using the Simple Mail Transfer Protocol.

Table 114 Outer Envelope Transport Component Fields (Continued)

Field Name	Description
File Name (FTP)	For inbound—type the complete file name, including path and extension, of the file from which inbound outer envelopes based on this profile are read, or to which outbound outer envelopes are written. You can use wild cards in the filename or at the beginning of the extension but not at the end; for example, use ***.dat** or ***.*at** but not ***.da***. For outbound—type the complete file name, including path and extension, using variables as needed. %d adds a two-digit day (for example, 05 for the fifth day of the month) to the file name, and %# adds a sequential number (for example, 01, 02, and so forth); for example, **TP01%d_%#.dat**. **Windows**: If the FTP server is set up on a Windows machine, the path must be relative to the FTP server default directory. For example, if the FTP server default directory is **c:\eGate** and your full path for inbound messages is **c:\eGate\EDF\input*.in**, type only **\EDF\input.*in**. **UNIX**: If the FTP server is set up on a UNIX machine, use forward slashes. For example, your full path for outbound messages might be **/home/eGate/EFT/output/1400_EDF48_%d_%#.dat**.
URL (HTTP)	If the communication protocol is HTTP, enter the full URL, including prefix. For example: ▪ http://www.WebAddress.com
(Outbound only) User Name (FTP, HTTP)	The user name to be used to access the host on which messages are stored. If the comm protocol is FTP (Batch), the user name and password are required for successful transfer of files to and from the FTP server. **Note**: To store the files on the local machine, leave this field empty.
(Outbound only) Password (FTP, HTTP)	The password to be used to access the host used for storage and retrieval of messages. If the comm protocol is FTP (Batch), the user name and password are required for successful transfer of files to and from the FTP server. **Note**: To store the files on the local machine, leave this field empty. When you have entered all the information, click **Apply** or **OK** to save the data. A **Confirm Password** dialog box appears. The password you enter in this dialog box must match the one entered in the Password field before the data is accepted. This helps prevent errors in entering a password.
Host (FTP)	The name of the host on which messages are stored. For inbound messages, this is the source of the messages; for outbound messages, it is the destination. If the communication protocol is FTP (Batch)—this field is required for successful transfer of files to or from the host. If files are stored locally, leave this field empty.
Port (FTP)	You have the option to specify the port to be used to access the host. Leave this field blank to use the default port.
Sender Email Address (SMTP)	The e-mail address of the message sender.
Receiver Email (SMTP)	The e-mail address of the message recipient.
(Outbound only) MailHost/IP Address (SMTP)	The host name of the mail server.

Table 114 Outer Envelope Transport Component Fields (Continued)

Field Name	Description
(Outbound only) MailHost Port (SMTP)	The port for the mail server.

Note: *The Secure Data Transport tab is not currently applicable to UN/EDIFACT.*

19.7.3 Defining Contacts, Notes, Action Items, and User Security

As part of setting up each component, you have the option to set up the following additional information:

- On the **Contacts** tab—contact information
- On the **Comments** tab—notes and action items
- On the **Security** tab—user access (already inherited from the parent component level, but can be customized for the current outer envelope).

None of this setup is required to save the new outer envelope or to process messages to and from the trading partner. However, each of these tabs provides you with additional capabilities.

Detailed instructions on using each of these tabs is provided in additional chapters, as follows:

Contacts tab—**"Storing Contact Data in e*Xchange Client for Windows" on page 278**

Comments tab—**"Tracking Notes and Action Items in e*Xchange Client for Windows" on page 284**

Security tab—**"Access Control in e*Xchange Client for Windows" on page 293**

For information on using these tabs, refer to the appropriate chapter or to the online Help system.

19.8 Entering Inner Envelope Properties

Once you have set up outer envelopes, you can define the specific messages that you will be sending and receiving. These are set up at the inner envelope level.

You must set up a separate inner envelope for each type of message that will be sent to the trading partner and each type of message that will be received from the trading partner.

The following steps include all the activities needed to add a new inner envelope. You can perform these steps only if you have the appropriate access rights.

1 Enter general inner envelope characteristics: see **"Entering General Inner Envelope Characteristics" on page 412**

2 Enter inner envelope characteristics that are unique to the eBusiness protocol: see **"Entering Inner Envelope Attribute Values" on page 416**

3 Optional: define contacts, notes and action items, and security for the inner envelope see **"Defining Contacts, Notes, Action Items, and User Security" on page 419**

4 When you have set up all inner envelopes, go back and enter information about the return inner envelopes that will be expected in response to each inner envelope: see **"Entering Return Inner Envelope Information" on page 421**. It is important to set up all envelopes before completing this step; if you do not, the return envelopes will not be available for selection.

When you have finished setting up the inner envelopes, trading partner setup is complete.

19.8.1 Obtaining Information About Each Inner Envelope

Before you begin to add a new inner envelope to e*Xchange Client for Windows, you need to obtain the following information about each inner envelope required:

- Inner envelope characteristics (general and extended attributes)
- Information about people you may need to contact regarding the inner envelope
- Supplemental information about each inner envelope
- Action items related to each inner envelope that you want to assign to yourself or to other e*Xchange Client for Windows users
- The names of users and user groups who should have access to this inner envelope and the type of access they require (view, edit, full control, or read-only).

19.8.2 Entering General Inner Envelope Characteristics

To identify the structure and content of the inner envelope so that it can be correctly processed by e*Xchange, you must enter general information such as the protocol version and transfer mode.

Note: *First, set up all the eBusiness messages that you will be using for this trading partner, both inbound and outbound, without setting up return messages. When you have done this, go back to each inner envelope and select the appropriate messages that would be expected responses.*

To enter general inner envelope characteristics

1 In the left pane of the Partner Manager window, select the appropriate outer envelope (inbound or outbound).

2 Click **New Inner Envelope**  .

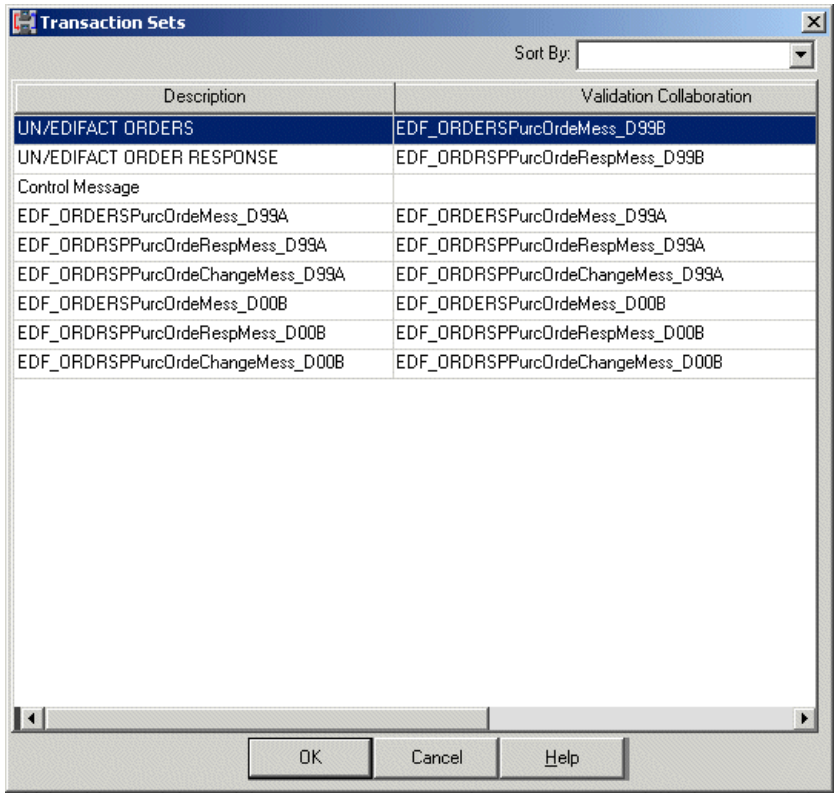
The **New Inner Envelope** dialog box appears (see Figure 203).

3 In the **Version** field, choose the eBusiness protocol that the trading partner is using.

One of two things occurs, according to whether you have inner envelope definitions set up for this version in the **Inner Envelope Definition Setup** dialog box:

- If you have transactions set up, the **Transaction Sets** dialog box appears (see Figure 202). Choose an inner envelope definition, and then click **OK** to return to the **General** tab of the **New Inner Envelope** dialog box. The **Description** and **Validation Collaboration** fields are filled in based on your selection.

Figure 202 Transaction Sets (UN/EDIFACT)



- If you do not have definitions set up, enter the values for **Validation Collaboration and Description**. For more information, refer to Table 115.

4 Enter the **Transfer Mode** for this message: Batch, Fast Batch, or Interactive. For more information, refer to Table 115.

5 Continue to **"Entering Inner Envelope Attribute Values" on page 416**.

Figure 203 New Inner Envelope, General Tab

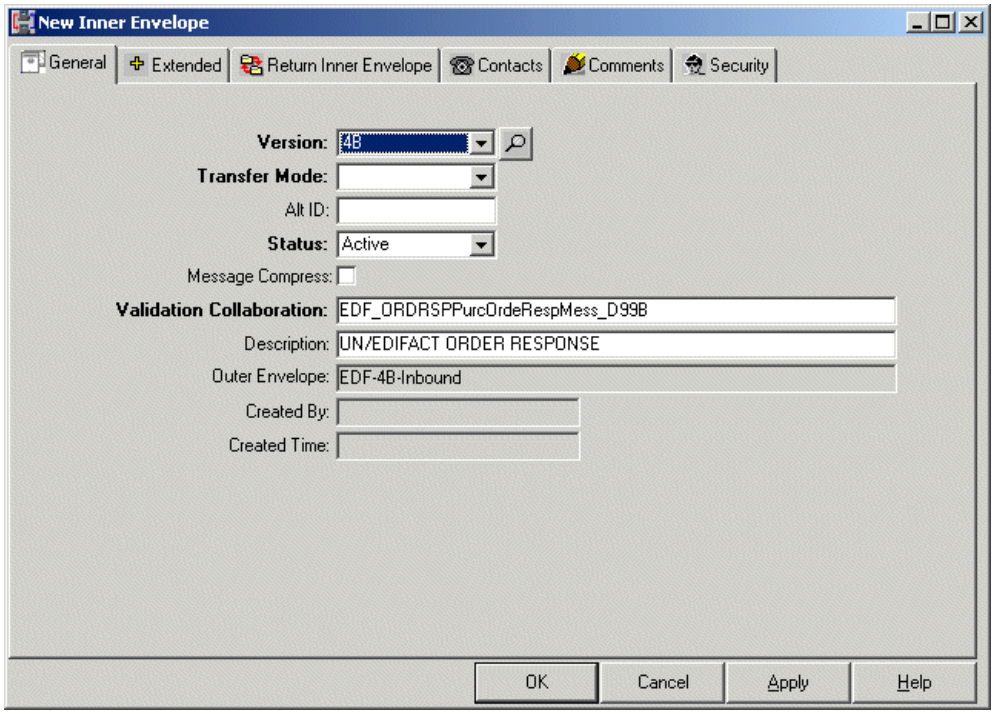


Table 115 General Inner Envelope Characteristics

Field Name	Description
Version	The version number of the eBusiness protocol in use; for example, UN/EDIFACT version 3B (version 3 for Batch messages) or 4I (version 4 for Interactive messages). Once you select from the **Transaction Sets** dialog box (if you have transactions already set up), the **Version**, **Status**, **Validation Collaboration**, **Description**, and **Outer Envelope** fields are filled in for you. An icon next to the **Version** field allows you to reselect from the **Transaction Sets** dialog box if needed.

Table 115 General Inner Envelope Characteristics (Continued)

Field Name	Description
Transfer Mode	The way in which the eBusiness messages are transmitted to, or received from, the trading partner. The following choices are valid for UN/EDIFACT: **Batch**—Inner envelopes of all types are accumulated and sent to the trading partner as a group at a preset time or at preset intervals. A batch includes multiple transactions, accumulated up to the preset send time, and can have multiple functional groups. Messages of different types can be batched in the same functional group if they have the same functional group ID code, sender ID code, receiver ID code, and functional group version number. **Fast Batch**—Inner envelopes of a certain type are accumulated and sent to the trading partner as a group of messages, all of the same transaction type, at a preset point. Messages can be batched in the same functional group if they have the same functional group ID code, sender ID code, receiver ID code, and functional group version number. The point at which a fast batch is sent is determined by the setting in the Standard Event Structure for the inner envelope. For more information, refer to**"Fast Batch Settings" on page 400**. Transactions grouped within the fast batch must have the same functional ID code, sender ID code, receiver ID code, and functional group version number, and also the same interchange ID. **Interactive**—Inner envelopes are created and sent to the trading partner individually in real time. This mode facilitates "question and answer" types of inner envelopes.
ALT ID	An alternate identification number for this kind of inner envelope (not currently used).
Status	The status of the inner envelope: Active or Inactive. The e*Xchange e*Gate Schema does not process messages that are inactive. Inactive inner envelopes are not displayed in the left pane of the Partner Manager window if the administrator has selected the **Show Only Active TP** check box in **System Defaults**. **Note**: If the status is **Inactive** and you cannot change it, this means that the setting has been made at the Trading Partner or Outer Envelope level.
Message Compress	Indicates whether the messages should be compressed before they are stored in the database. Default: cleared (inner envelopes are not compressed). **Note**: If you select this option, the messages are not viewable in the Message Tracking window.
Validation Collaboration	The name of the Collaboration that verifies and translates inner envelopes of this type. When you select from the **Transaction Sets** dialog box (Transfer Mode field), the validation Collaboration is filled in, but you can modify or delete it. For outbound messages, you might choose not to run validation on the message if you are sure outgoing messages are correct.

Table 115 General Inner Envelope Characteristics (Continued)

Field Name	Description
Description	The identification number and name of the inner envelope you are defining. When you select from the **Transaction Sets** dialog box (Transfer Mode field), the description is filled in for you.
Outer Envelope	The name of the outer envelope associated with this inner envelope is displayed.
Created By	The user ID of the person who created or updated this outer envelope is displayed.
Created Time	The date and time this outer envelope was saved or updated are automatically displayed when the record is saved.

19.8.3 Entering Inner Envelope Attribute Values

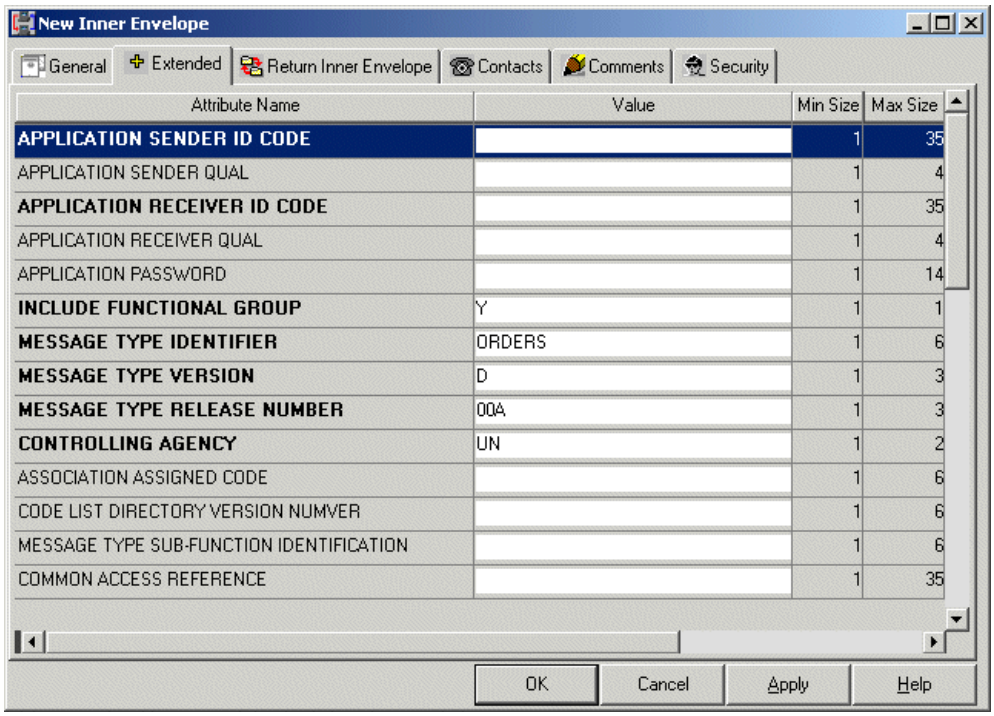
To record inner envelope characteristics specific to the message standard being used, you must add this information to e*Xchange Client for Windows as a set of extended attributes.

To enter inner envelope extended attribute values

Before you begin, complete **"Entering General Inner Envelope Characteristics" on page 412**.

1 On the **New Inner Envelope** dialog box, click the **Extended** tab.

Figure 204 New Inner Envelope, Extended Tab (UN/EDIFACT)



2 Enter the appropriate attribute values, as required by your business.

Note: *For information on specific extended attributes, see Table 116.*

3 Continue to **"Entering Return Inner Envelope Information" on page 421**.

19.8.4 UN/EDIFACT Extended Attributes—Inner Envelope

The sample attributes listed in Table 116 are those provided for UN/EDIFACT version 4B. They are set up as Extended Attributes at the inner envelope level.

There are two choices in terms of how you determine when batches are sent out:

- Batch Time—sets a specific time or times when batches are sent.
- Repeat Time/Repeat Granularity—sets a specific time interval; for example, 8 hours.

If you set values for Batch Repeat Time/Batch Repeat Granularity and also Batch Time, e*Xchange uses the value in the **Batch Time** field to determine when batches are sent out.

Table 116 Inner Envelope Extended Attributes (UN/EDIFACT, Version 4 Batch)

Name	Description
APPLICATION SENDER ID CODE	Required: An additional ID code (for example, of a division, branch, or computer system or process), specified by the sender to facilitate internal routing. Up to 35 characters.
APPLICATION SENDER QUAL	An optional qualifier to the sender's ID code (four characters).
APPLICATION RECEIVER ID CODE	Required: An additional ID code (for example, of a division, branch, or computer system or process), specified by the recipient to facilitate internal routing. Up to 35 characters.
APPLICATION RECEIVER QUAL	Optional: A qualifier to the recipient's ID code (four characters).
APPLICATION PASSWORD	Optional: The reference or password required for the sender to access the recipient's division, department or sectional application system/ process (additional to the recipient's reference password at the interchange level, which is required). Up to 14 characters.
INCLUDE FUNCTIONAL GROUP	Only applicable to outbound messages sent by Interactive transfer mode. This field indicates whether the trading partner requires functional group information (UNG/UNE segments) in the message.
MESSAGE TYPE IDENTIFIER	Required: Message Type: A code identifying a type of message and assigned by its controlling agency. Up to six characters.
MESSAGE TYPE VERSION	Required: The version number for the message type. Up to three characters.
MESSAGE TYPE RELEASE NUMBER	Required: The release number within the current message version number (up to three characters)

Table 116 Inner Envelope Extended Attributes (UN/EDIFACT, Version 4 Batch) (Continued)

Name	Description
CONTROLLING AGENCY	Required: The controlling agency. For UN/EDIFACT, this value is always UN.
ASSOCIATION ASSIGNED CODE	Optional: A code that further identifies the message. Assigned by the association responsible for the design and maintenance of the message type concerned. Up to six characters.
CODE LIST DIRECTORY VERSION NUMBER	Optional: The version number of the service code list directory. Up to six characters.
MESSAGE TYPE SUB-FUNCTION IDENTIFICATION	Optional: A Code identifying a sub-function of a message type. Up to six characters.
COMMON ACCESS REFERENCE	Optional: A reference serving as a key to relate all subsequent transfers of data to the same business case or file. Up to 35 characters.
MESSAGE TRANSFER INDICATOR	Optional: First and Last Transfer: An indication used for the first and last message in a sequence of messages related to the same topic. One character.
MESSAGE SUBSET IDENTIFICATION	Optional: A coded identification of a message subset, assigned by its controlling agency. Up to 14 characters.
MESSAGE SUBSET VERSION NUMBER	Optional: Version number of the message subset. Up to three characters.
MESSAGE SUBSET RELEASE NUMBER	Optional: The release number within the message subset version number. Up to three characters.
MESSAGE SUBSET CONTROLLING AGENCY	Optional: The controlling agency for the message subset. For UN/EDIFACT, this value is always UN. Up to three characters. Optional: The controlling agency.
MESSAGE IMPLEMENTATION GUIDELINE IDENTIFICATION	Optional: A code identifying the message implementation guideline, assigned by the controlling agency.
MESSAGE IMPLEMENTATION GUIDELINE VERSION NUMBER	Optional: The version number of the message implementation guideline.
MESSAGE IMPLEMENTATION GUIDELINE RELEASE NUMBER	Optional: The release number within the message implementation guideline version number.
MESSAGE IMPLEMENTATION GUIDELINE CONTROLLING AGENCY	Optional: The controlling agency for the implementation guideline. For UN/EDIFACT, this value is always UN.
SCENARIO IDENTIFICATION	Optional: Code identifying scenario. Up to 14 characters.
SCENARIO VERSION NUMBER	Optional: Version number of the scenario. Up to three characters.

Table 116 Inner Envelope Extended Attributes (UN/EDIFACT, Version 4 Batch) (Continued)

Name	Description
SCENARIO RELEASE NUMBER	Optional: The release number within the scenario version number. Up to three characters.
SCENARIO CONTROLLING AGENCY	Optional: The controlling agency for the scenario. For UN/EDIFACT, this value is always UN.
BATCH TIME[hh:mm:ss]	To send batches at a preset daily time, enter the time in the format hh:mm:ss (military time); for example, 09:00:00 for 9am or 15:30:00 for 3pm. If the batch is being set at a preset daily time, you do not need to set any other attributes. You can also set multiple batch times, using the pipe symbol as the delimiter (up to 50 characters). For example, 09:00:00|17:30:00|24:00:00 sends out batches at 9am, 5:30pm, and midnight. The values must be in ordered sequence, from the earliest time to the latest. **Note**: If you set values for Batch Repeat Time/Batch Repeat Granularity and also Batch Time, the Batch Time setting takes precedence.
BATCH REPEAT TIME/ BATCH REPEAT GRANULARITY	To send batches at regular intervals, use these two attributes. BATCH REPEAT TIME sets the numerical value, and BATCH REPEAT GRANULARITY sets the time period: H for hours, MI for minutes, and D for days. For example, BATCH REPEAT TIME of 4 and BATCH REPEAT GRANULARITY of H means that batches will be sent out every four hours; values of 30 and MI mean that batches will be sent out every 30 minutes. **Note**: If you want to send batches at a preset daily time, do not set values for these attributes. Use BATCH TIME. If you set a value in the BATCH TIME field, e*Xchange uses that value rather than Repeat Time/Repeat Granularity. **Note**: If you use these fields to control batching, you can have a maximum of 10 Batch e*Ways running. This is because the display-only Repeat Batch Last Check Time field has a maximum of 255 characters.
MESSAGE CLASSIFICATION TYPE	A flag to specify the message type for the message: **B** for batch, **I** for interactive. Certain types of UN/EDIFACT messages are not batched. **Note**: For Version 4B, do not change this value.

19.8.5 Defining Contacts, Notes, Action Items, and User Security

As part of setting up each component, you have the option to set up the following additional information:

- On the **Contacts** tab—contact information
- On the **Comments** tab—notes and action items
- On the **Security** tab—user access (already inherited from the parent component level, but can be customized for the current outer envelope).

4 None of this setup is required to save the new outer envelope or to process messages to and from the trading partner. However, each of these tabs provides you with additional capabilities.

Detailed instructions on using each of these tabs is provided in additional chapters, as follows:

Contacts tab—**"Storing Contact Data in e*Xchange Client for Windows" on page 278**

Comments tab—**"Tracking Notes and Action Items in e*Xchange Client for Windows" on page 284**

Security tab—**"Access Control in e*Xchange Client for Windows" on page 293**

For information on using these tabs, refer to the appropriate chapter or to the online Help system.

When you have set up everything except Return Inner Envelope information for all your inner envelopes, continue to **"Entering Return Inner Envelope Information" on page 421**.

19.9 Return Inner Envelopes

Once you have set up inner envelopes for all your inbound and outbound transactions, you are ready to specify which transactions will be expected in response.

19.9.1 About Return Inner Envelopes

e*Xchange Client for Windows allows you to specify one or more return inner envelopes that will be valid for a specific incoming or outgoing inner envelope. However, some setup is required before the correct selections are available on the **Return Inner Envelope** tab. You must create all inner envelopes for the trading partner, both inbound and outbound, so that the correct selections will be available to you.

For example, suppose you are using UN/EDIFACT and have a trading partner, ABC Company. You will send only transaction **ORDERS**, **Purchase Order Message**, to this trading partner. In response you might receive a control message, later receive a response to the purchase order message, and finally send an acknowledgment of the response. Return inner setup for the outbound part of this scenario is illustrated in **"New Inner Envelope, Return Inner Envelope Tab" on page 421**. For a diagram of the messaging scenario, refer to **"Purchase Order Message and Response: UN/EDIFACT" on page 462**.

To set this up you must do the following:

- In **Inner Envelope Definition Setup**, for the specific UN/EDIFACT version, define the following messages:
  - ORDERS, Purchase Order Message
  - ORDRSP, Purchase Order Response Message
  - CONTRL, Control Message.
- Define inbound inner envelopes for the Purchase Order Message and the Control Message.

- Define outbound inner envelopes for the Purchase Order Response Message and the Control Message.
- For the inbound Purchase Order Message, on the Return Inner Envelope tab, select both the Purchase Order Response Message and the Control Message.
- For the outbound Purchase Order Response Message, select the Control Message.

Because you defined all the envelopes first, the appropriate return messages are available for selection on the **Return Inner Envelope** tab.

19.9.2 Entering Return Inner Envelope Information

You must specify the inner envelope or envelopes that will be expected in response to the current inner envelope. You can select more than one return inner envelope.

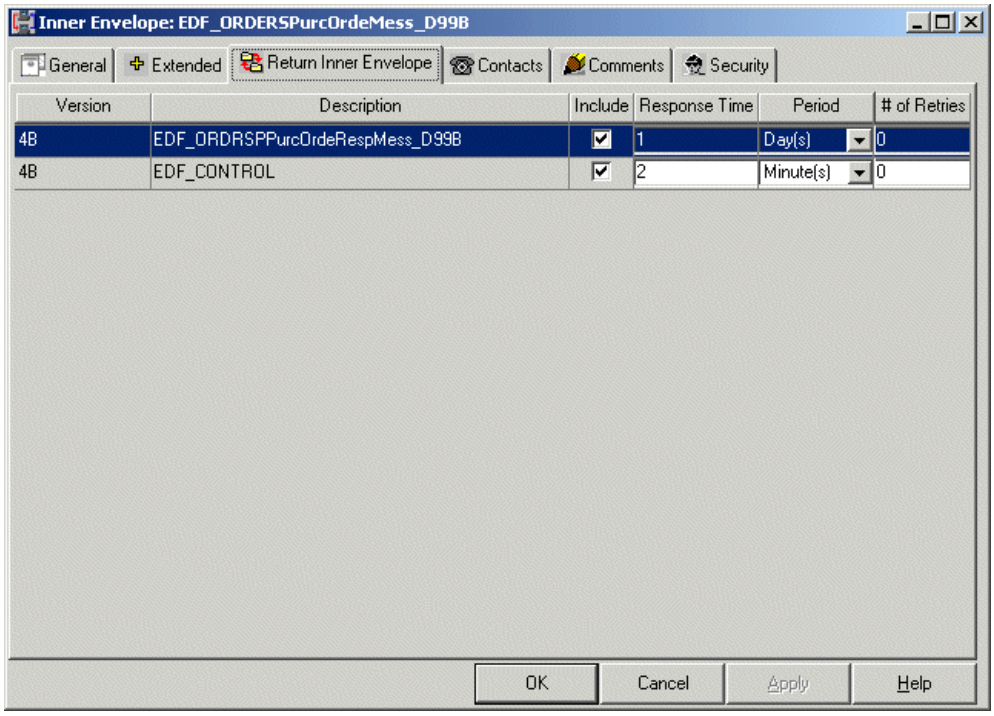
Note: *If the appropriate return inner envelopes are not available for selection, some additional setup is required. Refer to* **"About Return Inner Envelopes" on page 420**.

To enter return inner envelope information

Before you begin, complete **"Entering Inner Envelope Attribute Values" on page 416**.

1 On the **Inner Envelope** dialog box, click the **Return Inner Envelope** tab.

Figure 205 New Inner Envelope, Return Inner Envelope Tab



All eBusiness messages that have already been defined for this trading partner, for the opposite direction, are listed. It is up to you to know which eBusiness messages

are the correct responses for the current eBusiness implementation. This should be defined in the trading partner agreement.

2 For each listed message type that might be returned by the trading partner (for outbound messages), or for each message type that you might return to the trading partner (for inbound messages), do the following:

- Check the **Include** check box.
- Set the response time and period that will be acceptable for receiving the return envelope; for example, a response time of 24 and period of hours means that a return inner envelope should be received within 24 hours. If the return envelope is not received within the preset time period, the message is resent for the preset number of times (as set in the **# of Retries** field).
- Set the number of times the inner envelope should be resent if a response is not received before the envelope is recorded as a failed message. For example, if the message should be sent once and then retried once if the return inner envelope is not received, the retry setting would be 1.

3 Continue to **"Defining Contacts, Notes, Action Items, and User Security" on page 419**.

Chapter 20

Message Tracking in e*Xchange Client for Windows

e*Xchange Client for Windows includes a feature that allows you to view any messages that have been processed, including any errors that might be associated with a message. This useful tool enables you to pinpoint the source of an error so that it can be resolved.

You can use the various search fields to narrow down your search before viewing message details. For example, you might want to view all inbound messages from a specific trading partner during a certain date range, or all outbound messages for the day that used the X12 protocol.

For any message, you can view an error list, extended attributes, or the actual message text.

This tool is very useful for troubleshooting message errors and monitoring message flow.

Note: *For HIPAA compliance, you must use the e*Xchange Web Interface to track access to data viewed through the Message Tracking facility, and limit e*Xchange Client for Windows access to Administrators only. e*Xchange Client for Windows does not audit data access.*

Searching for messages is a three-step process:

1. On the **General** tab, enter general search criteria, and then click the **Search** tab to view a list of envelope profiles that meet the criteria.
2. On the **Search** tab, view the list, enter advanced search criteria if needed, highlight the desired envelope profiles, and then click the **Details** tab to view a list of messages that meet the criteria.
3. On the **Details** tab, view the message information as needed.

This section includes the following step-by-step instructions:

- Specifying a range of trading partner profiles: see **"To specify envelope profiles" on page 424**
- Viewing the list of envelope profiles: see **"To view the message list" on page 426**
- Viewing message details: see **"To view message details" on page 428**
- Specifying sort columns: see **"To specify sort columns" on page 431**

- Viewing message errors: see **"To view message errors" on page 436**

20.1 Searching for Messages

You can specify search criteria to define a range of envelope profiles; for example, inbound messages of a specific type for a specific trading partner. This creates a list of envelope profiles. You can then specify additional criteria, if needed, and create the message list.

To specify envelope profiles

1. On the **Functions** menu, click **Message Tracking**.

   The **Message Tracking** dialog box appears (see Figure 206).

2. On the **Search** tab, specify the appropriate search criteria. For more information on the search fields, see Table 117.

   If you make selections and then change your mind, click **Clear**  to start over (only the optional information is cleared).

3. Click the **List** tab. One of the following occurs:

   - If no envelope profiles match your search criteria, the system displays the following message: **No records found based on search criteria.** Click **OK,** enter different search criteria, and then click the **List** tab again.
   - If envelope profiles are found, the **List** tab appears, with the list of profiles (see **Figure 207 on page 427**).

4. Continue to **"To view the message list" on page 426**.

Figure 206 Message Tracking, Search Tab

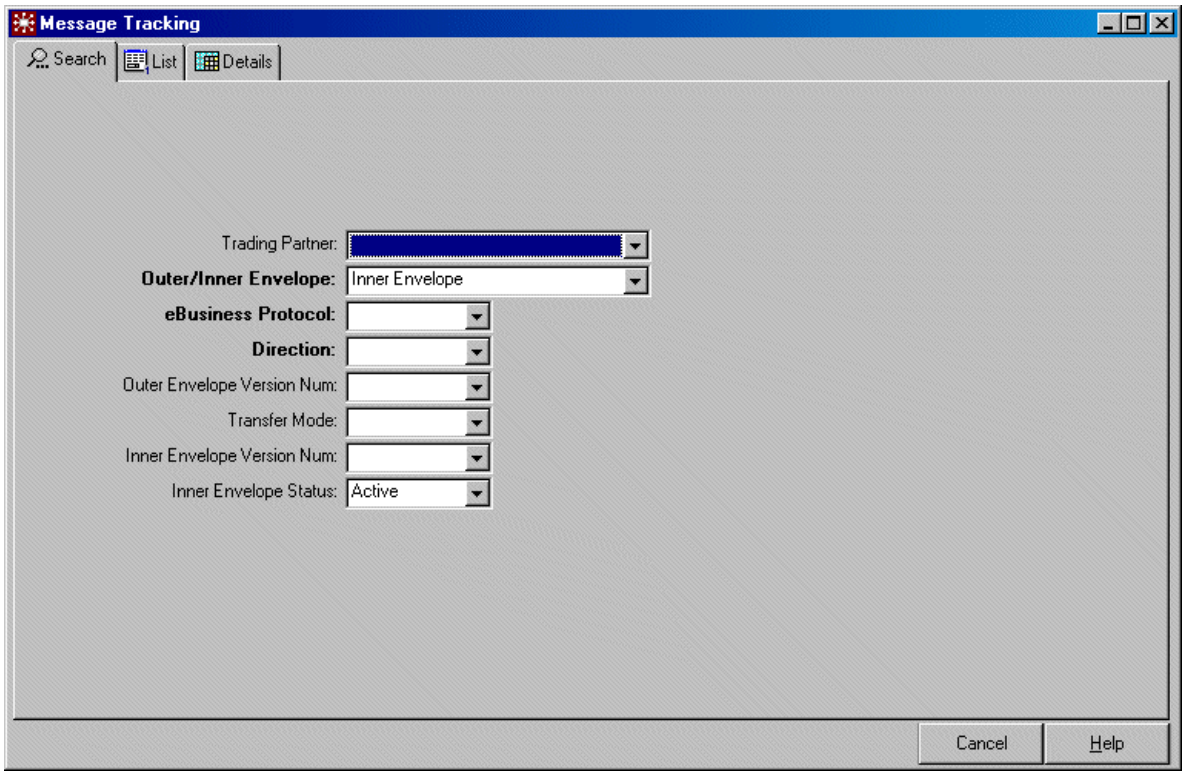


Table 117 Message Tracking Search Fields

Field Name	Description
Trading Partner	To limit the list to envelope profiles for a specific trading partner, select the trading partner from the drop-down list. If you leave this field empty, all envelope profiles that match the other search criteria are included in the list.
Outer/Inner Envelope	You must specify the type of envelope profile: **Outer Envelope** or **Inner Envelope**.
eBusiness Protocol	You must choose a message standard for the inner envelope: X12, UN/EDIFACT, RosettaNet, or CIDX. Only messages that use the specified standard are included in the list.
Direction	You must specify the direction of messages to be included in the list: **Inbound** or **Outbound**.
Outer Envelope Version Num	You can limit the list to messages using a specific version of the selected message standard for the outer envelope; for example, X12 version 4040, RosettaNet version 1.1, or UN/EDIFACT version 4B.
Transfer Mode	If you selected **Inner Envelope** in the **Outer/Inner Envelope** field, you can limit the list to messages using a specific transfer mode: either **Batch**, **Fast Batch**, or **Interactive**. If you selected **Outer Envelope**, this field is not available.

Table 117 Message Tracking Search Fields (Continued)

Field Name	Description
Inner Envelope Version Num	If you selected **Inner Envelope** in the **Outer/Inner Envelope** field, you can limit the list to messages using a specific version of the selected message standard for the inner envelope; for example, X12 version 4040, RosettaNet version 1.1, or UN/EDIFACT version 4B. If you selected **Outer Envelope**, this field is not available.
Inner Envelope Status/Outer Envelope Status	You can specify a status for envelopes to be included on the list: **Active** or **Inactive** (Active is the default).

20.2 Using the Message Tracking List

The Message Tracking List is a list of envelope profiles that match the criteria you specified on the **Search** tab, and is a good starting point for tracking down errors. You can use the advanced search criteria to tailor the information that is included in the list, and also the sequence in which the information is displayed. Click the **Details** tab to view the results.

To view the message list

Before you begin, complete **"To specify envelope profiles" on page 424**.

1. Select the **List** tab of the **Message Tracking** dialog box (see Figure 208).

   For information on the specific columns that comprise the **Message Tracking** list, refer to **"Message Tracking List Columns" on page 433**.

2. Change sort sequence.

   To sort the messages in a different sequence, click **Sort By**, and then specify a new sort field.

3. Set advanced search criteria.

   To further define your search before viewing message information in the **Details** tab, specify additional search criteria in the **Advanced Search** box. For more information on advanced search criteria, see **"Message Tracking List Fields: Advanced Search Criteria" on page 428**.

4. Create the message list.

   To view the actual messages, highlight an envelope profile or a range of envelope profiles, and then click the **Details** tab.

5. Conditional: amend search criteria if there are too many messages.

   If the list of messages exceeds the number preset in **System Defaults**, e*Xchange displays a message telling you how many messages there are and asking if you want to continue. If the message list is extremely large, change the search criteria to define a smaller message list.

6. Continue to **"To view message details" on page 428**.

Figure 207 Message Tracking, List Tab (Outbound)

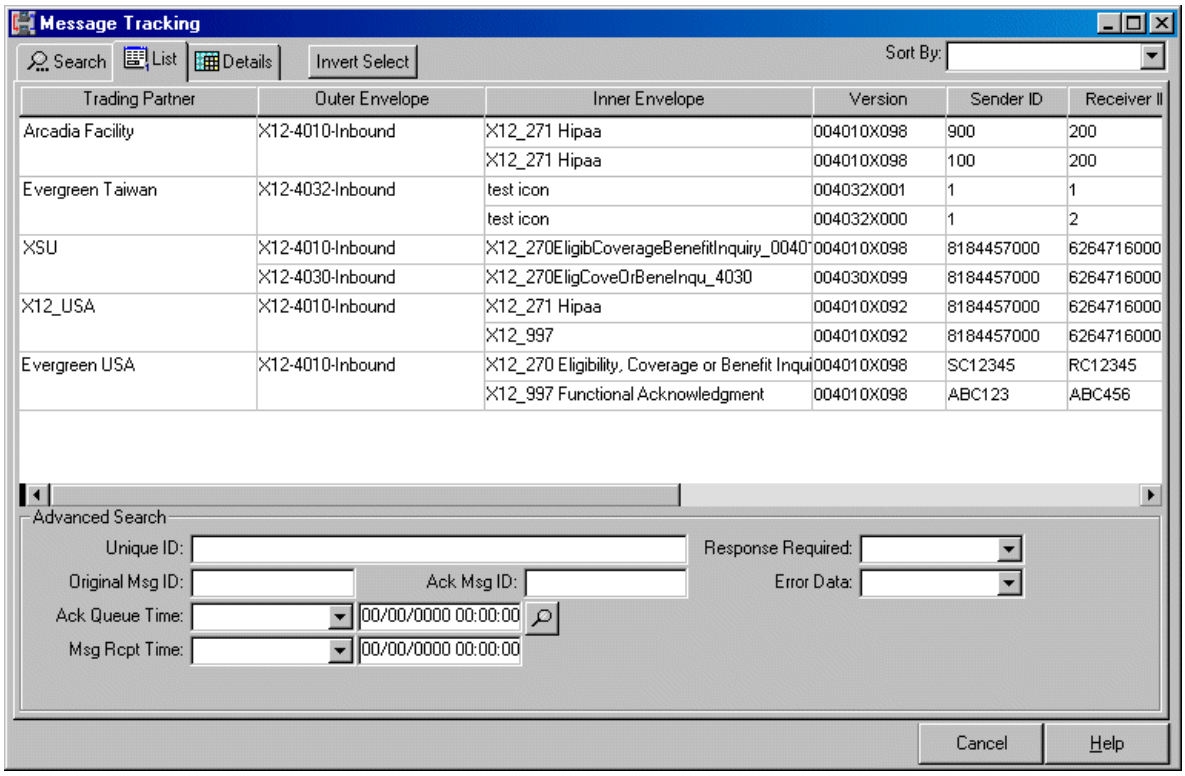


Table 118 Message Tracking List Fields

Field Name	Description
Invert Select button	Reverses any selections you have made in the list. If you have not selected any envelope profiles, it selects all. If you have selected two, it de-selects those two and selects the rest. This is useful for selecting a range of envelope profiles in the list for which you want to view messages. For example, if you want to view the messages for all but three envelope profiles, select those three, and then click the **Invert Select** button.
Sort By	Sorts the list in several ways. There are at least four sort options for all messages: ▪ Trading Partner ▪ Outer Envelope ▪ Inner Envelope There are several additional sort options for Inner Envelope messages: ▪ Version ▪ Sender ID ▪ Receiver ID ▪ Transfer Mode ▪ Status
List of envelope profiles	All envelope profiles that meet the specified search criteria are included in the list. For each envelope profile, many fields of information are included. If the visible fields do not offer the information you need, use the horizontal scroll bar.

Table 119 Message Tracking List Fields: Advanced Search Criteria

Field Name	Description
Advanced Search	The advanced search feature allows you to narrow the list to messages that meet more specific criteria, as shown below. When you have entered advanced search criteria, click the **Details** tab to view the messages that meet the criteria.
Unique ID (use * for wild card)	To search for a specific message, type the unique message ID. To include a range of unique IDs, you can use an asterisk as a wild card. For example, 100* includes 1000, 1001, 1002, 1003, and so forth.
Response Required	To search for a message for which a response is required, or for which a response is not required, choose **Yes** or **No** from the drop-down list.
Original Msg ID	To search for a specific original message ID code, type it in this field (only responses have an original message ID).
Ack Msg ID	To search for a specific acknowledgment message, type the ID code in this field (only messages for which an acknowledgment has already been sent have an ack message ID).
Error Data	To search for a message that has error data, or that does not have error data, choose **Yes** or **No** from the drop-down list.
Ack Time or **Ack Queue Time**	To limit the list to messages with a specific acknowledgment time (for outbound) or queue time (for inbound), select from the drop-down list and then add the time information in the columns to the right: for example, if you select **Between** you must specify beginning and ending times. Times are entered in the format MM/DD/YYYY HH:MM:SS.
Msg Send Time or **Msg Rcpt Time**	To limit the list to messages with a specific message send time (for outbound) or message receipt time (for inbound), select from the drop-down list and then add the time information in the columns to the right: for example, if you select Greater Than you must specify a starting time. Messages sent after that time are included in the list. Times are entered in the format MM/DD/YYYY HH:MM:SS.
Last Send Time (outbound only)	To limit the list to messages sent at a specific time, select from the drop-down list and then add the time information in the columns to the right: for example, if you select “Less than or equal” you must specify a time. Messages sent up to and including that time are included in the list. Times are entered in the format MM/DD/YYYY HH:MM:SS.

20.3 Viewing the Message Details

The Message Tracking Details tab provides a list of messages for the profiles you selected on the **List** tab, taking into account advanced search criteria if any were set.

To view message details

Before you begin, complete **“To view the message list” on page 426**.

1 View the information on the **Details** tab of the **Message Tracking** dialog box (see Figure 208). For more information, see Table 120.

For information on the specific columns that comprise the **Message Tracking Details** list, refer to **"Message Tracking Details Columns" on page 433**.

2 If the list includes current messages, set the refresh rate so that the list will update itself with new messages.

3 To sort the messages in a different sequence, click **Sort By**, and then select a new sort criterion.

4 If necessary, change the sort columns by clicking **Sort By** and then choosing **Specify Sort Columns** to access the **Specify Sort Columns** dialog box (see **"Specifying Sort Columns" on page 431**).

5 If necessary, adjust the viewing window. To split the window vertically, select the vertical black bar to the left of the horizontal scroll bar and move it to the right (see **"Splitting the Message Tracking Details Window" on page 431**).

6 Continue to **"Viewing Message Errors" on page 436**.

Figure 208 Message Tracking Dialog, Details Tab (Outbound)

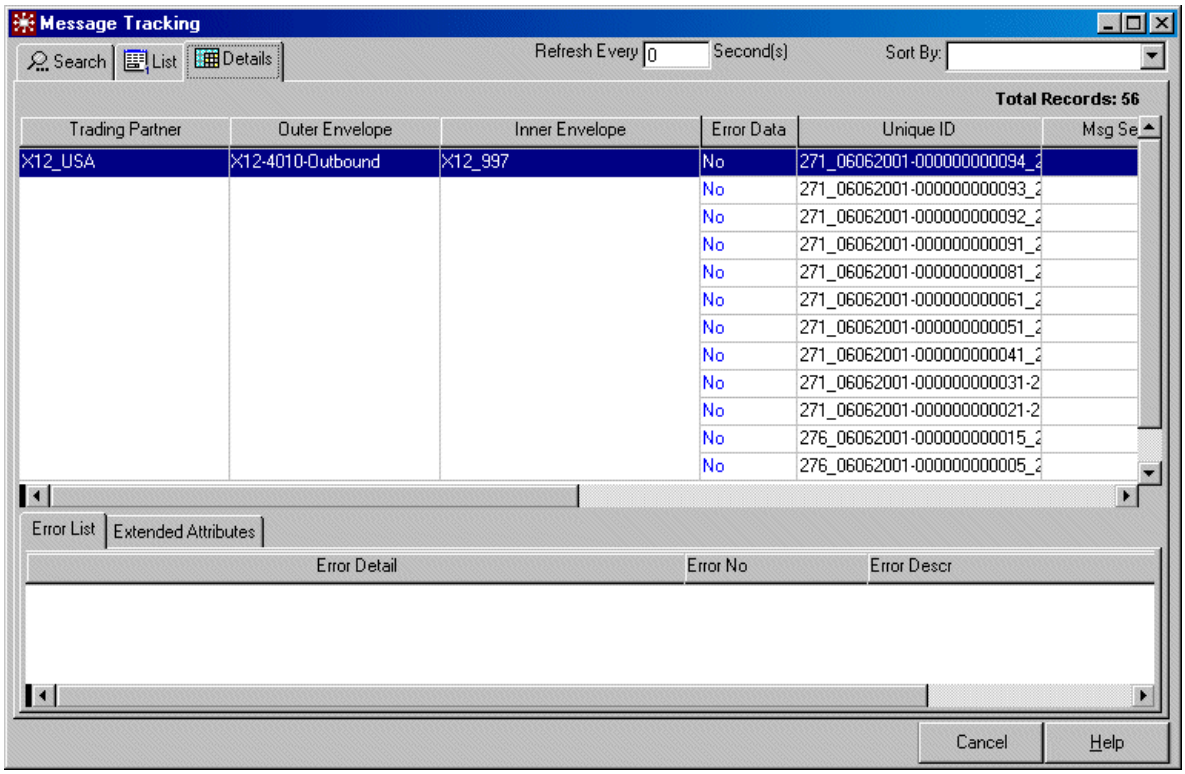


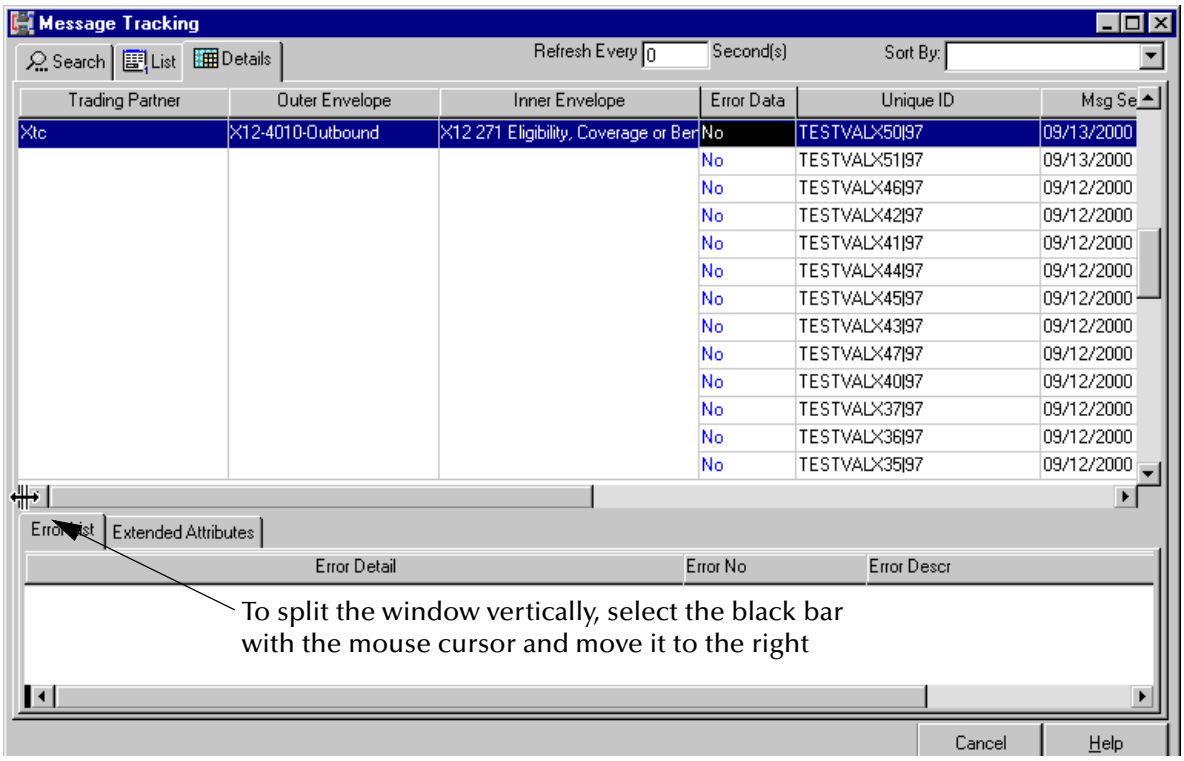
Table 120 Message Tracking Details Fields

Field Name	Description
Refresh Every	If you want to keep your view updated with the latest message traffic, set a refresh time on the window; for example, 30 seconds.

Table 120 Message Tracking Details Fields (Continued)

Field Name	Description
Sort By	This allows you to sort messages in any of several ways: ▪ (Outbound only) Msg Send Time ▪ (Inbound only) Msg Receipt Time ▪ Unique ID ▪ (Outbound only) Transfer Mode ▪ Original Message ID ▪ (Outbound only) Env Message ID ▪ (Inbound only) Ack Message ID ▪ Specify Sort Columns: This accesses the **Specify Sort Columns** dialog box (see **Figure 210 on page 432**). For instructions on using this feature, see **"Specifying Sort Columns" on page 431**.
Message Count	The number of messages on the list is displayed.
List of messages	All messages that meet the specified search criteria defined on the **List** tab are displayed. For each message, many fields of information are included. If the visible fields do not offer the information you need, use the horizontal scroll bar. You can also change the display by choosing the **Sort By** option and selecting **Specify Sort Columns**.
Error List Tab	If a message has errors (listed in the **Error Data** column in red) you can highlight the message to view detailed error information on the **Error List** (see **Figure 215 on page 436**). For each error message included in the list, message detail, error number, and description are provided.
Extended Attributes Tab	To view more information about the selected error or errors, click the **Extended Attributes** tab. Information about each attribute and its value is provided (see **Figure 216 on page 436**).

Figure 209 Splitting the Message Tracking Details Window



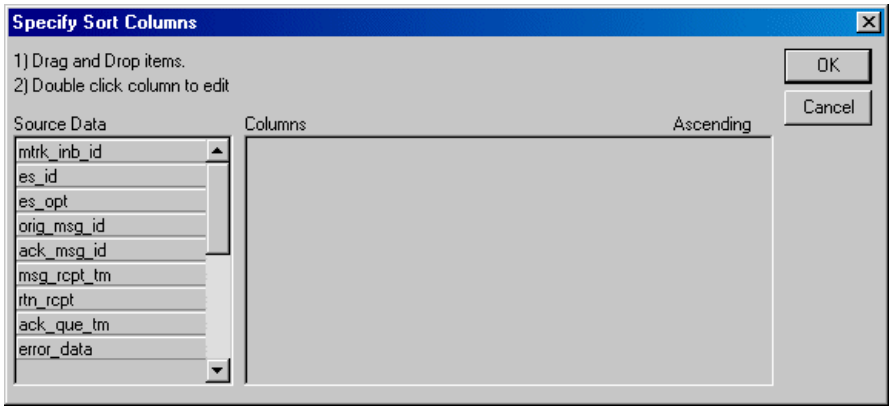
20.4 Specifying Sort Columns

You can tailor the display of information in the **Details** tab of the **Message Tracking** dialog box. You can specify the sequence in which the columns are displayed, and also change the sequence in which information is displayed in the columns.

To specify sort columns

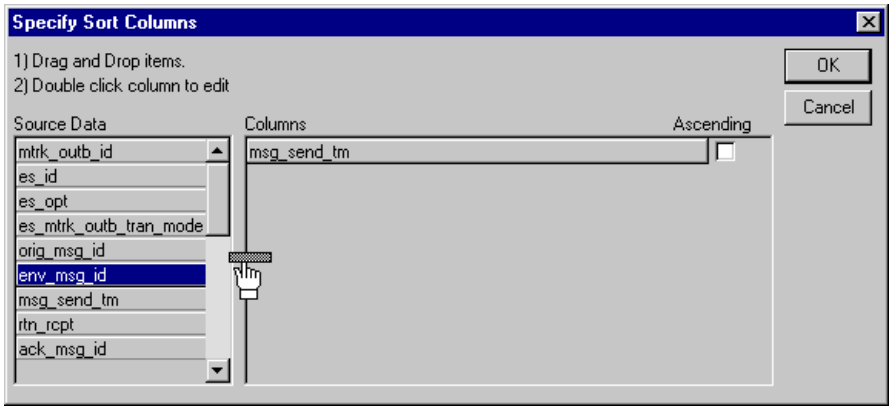
1. In the **Details** tab of the **Message Tracking** dialog box, click **Sort By**.
2. From the drop-down list, select **Specify Sort Columns**. The **Specify Sort Columns** dialog box appears, as shown in Figure 210, allowing you to choose more than one column by which the list can be sorted.
3. The items on the **Source Data** list are table columns from the Message Tracking tables. For more information on these columns, refer to **"ES_MTRK_INB" on page 490** (inbound messages) or **"ES_MTRK_OUTB" on page 492** (outbound messages).

Figure 210 Specify Sort Columns



4 Drag and drop fields from the **Source Data** List to the **Columns** list to specify column sequences, as shown in Figure 211. You can also specify **Ascending** sequence for a column, or clear the check box to display information in descending order.

Figure 211 Using the Specify Sort Columns Dialog Box



5 Click **OK** to save.

20.5 Understanding the Message Information

The Message Tracking **List** and **Details** tabs provide a lot of information about each envelope profile or message, listed in columns. There are more columns than are immediately viewable; use the scroll bar to see the additional columns.

The tables below provide information on the specific columns listed in the Message Tracking window.

Table 121 Message Tracking List Columns

Column Name	Description
Trading Partner	The name of the trading partner.
Outer Envelope	The name of the outer envelope.
Inner Envelope	The name of the inner envelope.
Version	The protocol version for the message.
Sender ID	The ID of the message sender.
Receiver ID	The ID of the message recipient.
Transfer Mode	The transfer mode for the message (**Batch**, **Fast Batch**, or **Interactive**).
Validation Collaboration	The validation Collaboration used for the message, if any.
Response Required	This field indicates whether the message expects a response (**Yes** or **No**).
Status	The current status of the inner envelope type used for the message (**Active** or **Inactive**).
Cnt Index/Total Cnt	Record count field (count index/total number of records).

Table 122 Message Tracking Details Columns

Column Name	Description
Trading Partner	The name of the trading partner.
Outer Envelope	The name of the outer envelope.
Inner Envelope	The name of the inner envelope.
Error Data	Indication of whether or not the message has errors: **No** (in blue) if there are no errors, **Yes** (in red) if there is error data.

Table 122 Message Tracking Details Columns (Continued)

Column Name	Description
Unique ID	The unique ID assigned to the message. **X12 or UN/EDIFACT Unique ID** For X12 and UN/EDIFACT, the structure of the unique ID is determined by your specifications, as follows: **Outbound**— if there is a validation Collaboration, the unique ID is defined in the Collaboration. If you used the Validation Rules Builder to create the Collaboration, the unique ID is determined by the settings in the UniqueId parameter in the **ValidationBuilder.Properties** file. If there is no validation Collaboration, you must define the unique ID in the message ID node of the **eX_Standard_Event.ssc** file. **Inbound**—since there is always a validation Collaboration for inbound transactions, the unique ID is always defined by the Collaboration. For examples, see Figure 212 (X12) and Figure 214 (UN/EDIFACT). **RosettaNet Unique ID** The unique ID is composed as follows: 1 **Global Business Identifier**—The sender's 9-digit Global Business Identifier, followed by the pipe symbol 2 The **Global Process Indicator Code** from the Process Header (for example, **2A1** or **3A2**) followed by the pipe symbol 3 The **Instance Identifier** from the Process Header, followed by the pipe symbol 4 The **Global Transaction Code** from the Transaction Header (for example, **Create Purchase Order**), followed by the pipe symbol 5 The **Instance Identifier** from the Transaction Header, followed by the pipe symbol 6 The **Global Business Action Code** for a business action or **Global Business Signal Code** for a business signal, from the Action Header (for example, **Process Transaction Request**), followed by the pipe symbol 7 The **Instance Identifier** for the business action or business signal, from the Action Header, followed by the pipe symbol. 8 A three-character code indicating the type of response message expected: **REC** for Receipt Acknowledgment, **PRF** for Action Response, or **ACC** for Acceptance Acknowledgment. If no response message is expected, this code is omitted from the unique ID. An example of a RosettaNet unique ID is shown in Figure 213.
Msg Send Time (Outbound)	The time at which the message was sent, in the format MM/DD/YYYY HH:MM:SS.
Response Required	This field indicates whether the message expects a response (Yes or No).
Ack Time (Outbound)	The time at which the acknowledgment message was received.
Send Cnt (Outbound)	The number of times that the message has been sent.
Msg Rcpt Time (Inbound)	The time at which the message was received, in the format MM/DD/YYYY HH:MM:SS.
Ack Queue Time (Inbound)	(for acknowledgments only) The time at which the acknowledgment was queued, in the format MM/DD/YYYY HH:MM:SS.

Table 122 Message Tracking Details Columns (Continued)

Column Name	Description
Original Msg ID	The pointer to the storage location, in the database, of the message. **Note**: The message is stored with its envelope information. However, for X12 batch or fast batch messages, this includes only the inner envelope (ST–SE). For interactive messages it includes all the enveloping, ISA–IEA.
Env Msg ID (Outbound)	The pointer to the storage location, in the database, of the message (same as Original Msg ID).
Ack Msg ID	For messages that have been acknowledged only: The pointer to the storage location, in the database, of the acknowledgment message.
Cnt index/Total Cnt	Record count field (count index/total number).

Figure 212 Example of an X12 Unique ID

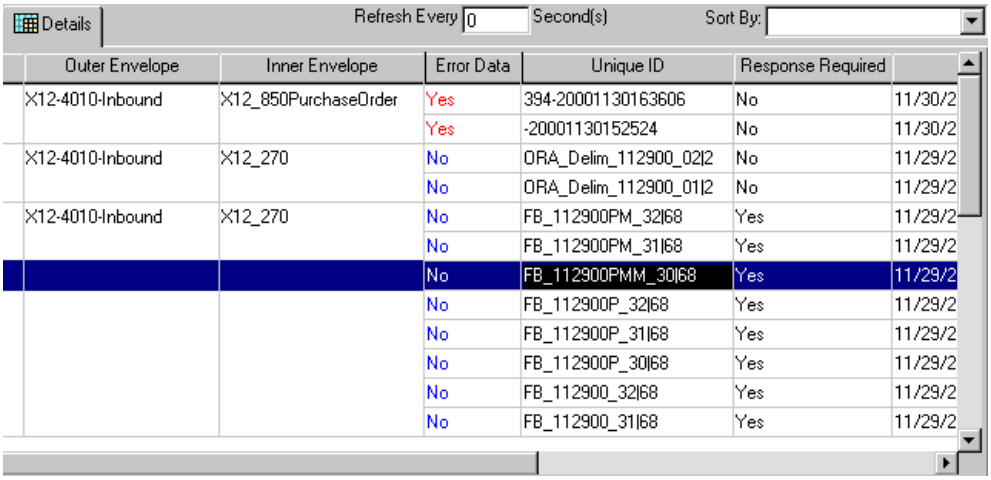


Figure 213 Example of a RosettaNet Unique ID

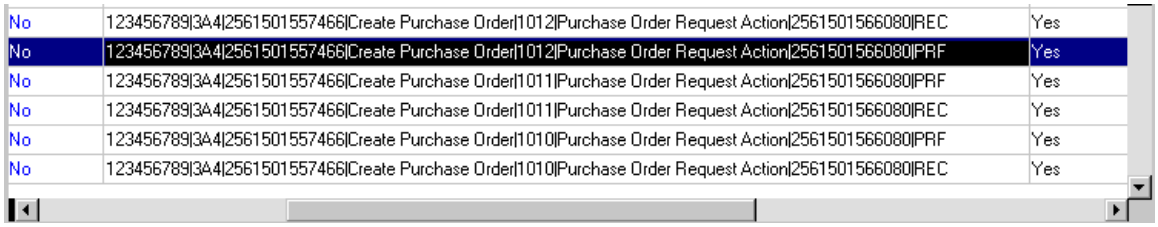
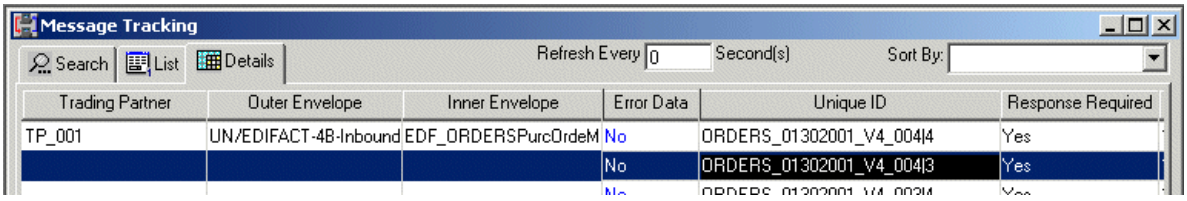


Figure 214 Example of a UN/EDIFACT Unique ID



20.6 Viewing Message Errors

This is the focal point of message error troubleshooting. Although you cannot repair the message in the **Message Tracking** dialog box, you can view the list of errors and then look at or print the actual message. Once you know what the problem is, you can correct it, in coordination with the trading partner if needed.

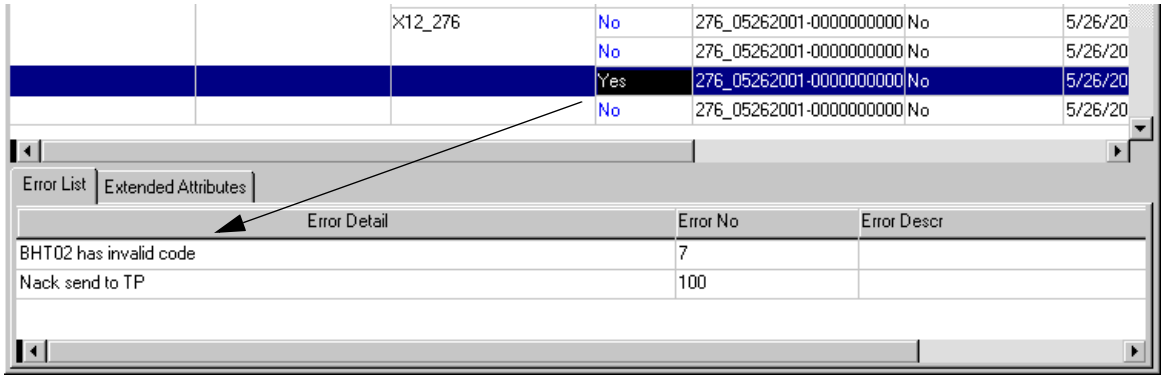
To view message errors

Before you begin, complete **"To view message details" on page 428**.

Note: *If a message has errors, the value* ***Yes*** *shows in red in the* ***Error Data*** *column.*

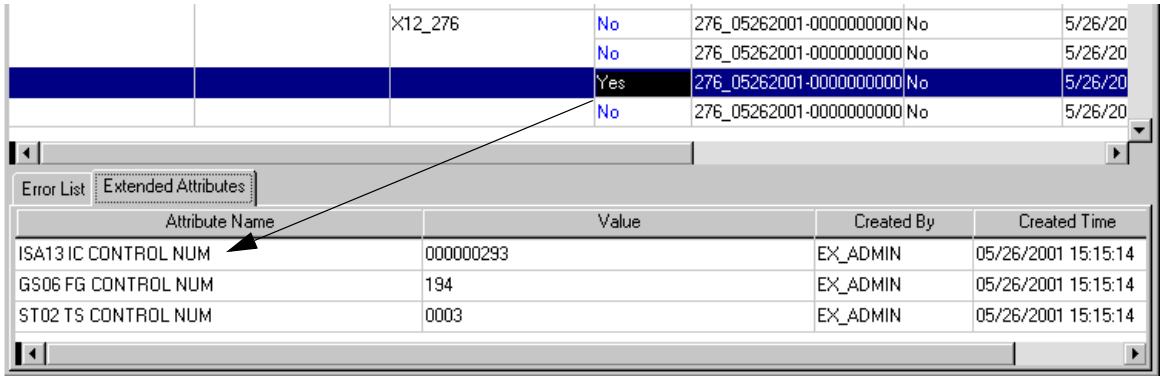
1. On the **Details** tab, highlight a message that has errors.
2. View the error information displayed on the **Error List** tab at the bottom of the **Details** tab, as shown in Figure 215. Error detail is listed, along with the error number and a description.

Figure 215 Message Tracking Details Error List



3. To view more information about the error or errors, click the **Extended Attributes** tab, as shown in Figure 216.

Figure 216 Message Tracking Details Extended Attributes List



4 Depending on the message, you might also be able to view additional information by using the tools on the Message Tracking function toolbar:

- If the selected message has a value in the **Original Msg ID** field, click **View Original Message** to view the message.
- If the selected message has a value in the **Env Msg ID** field, click **View Enveloped Message** to view the message.

Note: *If the message is an outbound batch message, you will see only the inner segments (ST-SE for X12, UNH-UNT for UN/EDIFACT). If the message is interactive, or is an inbound batch message, you will see all the envelope layers.*

- If the selected message has a value in the **Ack Msg ID** field, click **View Acknowledgment Message** to view the message.

In all cases, the actual message appears in a separate window, as shown in Figure 219. The message can be viewed or printed, but cannot be edited.

Note: *If the message was compressed when stored in the database, as specified in the inner envelope, the message cannot be viewed.*

Figure 217 Original Message View (RosettaNet)

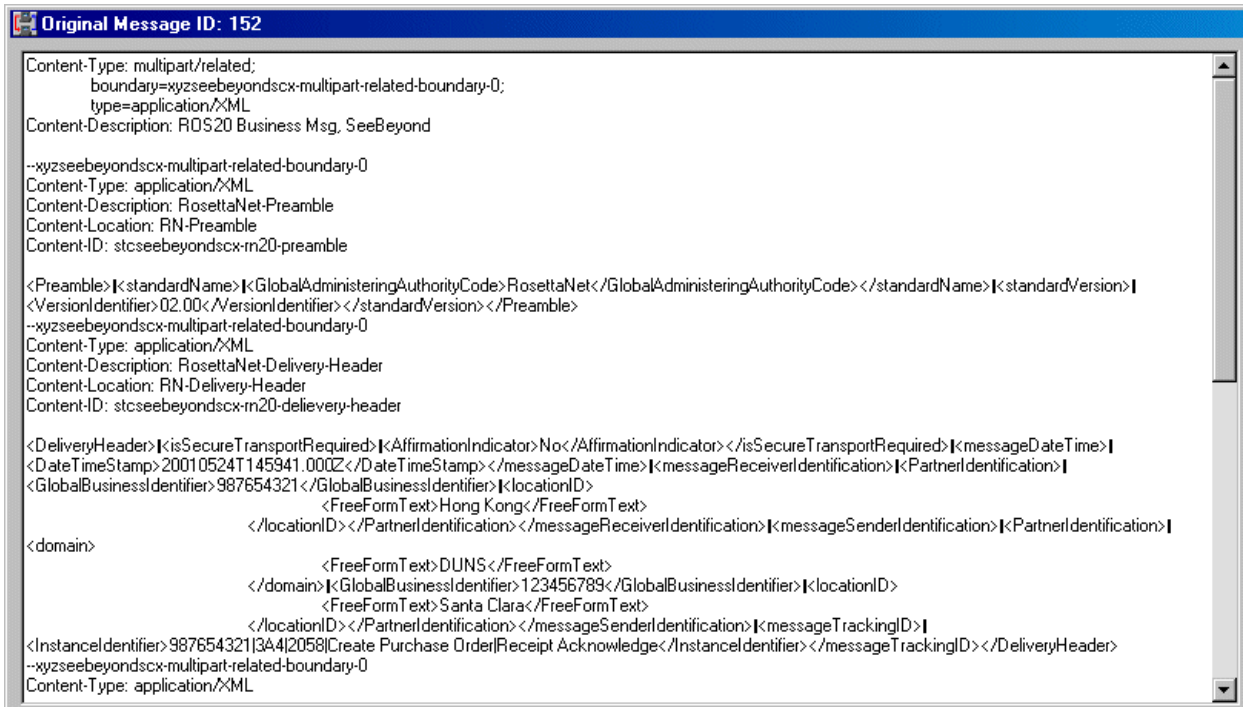


Figure 218 Original Message View (X12)

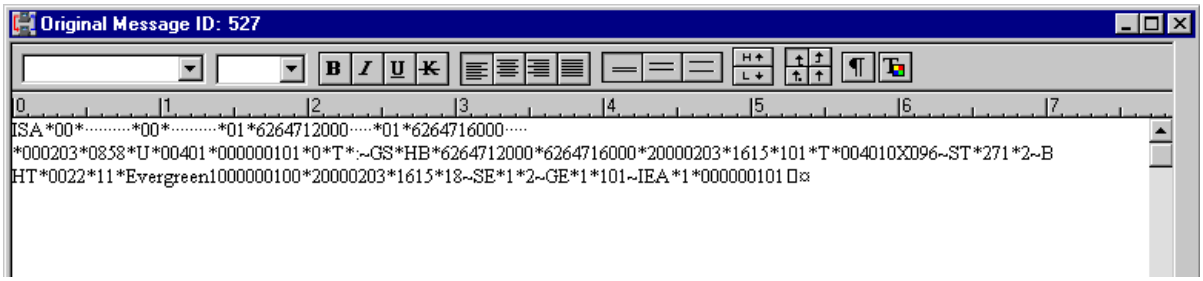


Figure 219 Original Message View (UN/EDIFACT)

5 When done, click **Close**  to close the **Message Tracking** dialog box.

Chapter 21

Maintaining/Using Reports in e*Xchange Client for Windows

e*Xchange Client for Windows comes with a selection of predefined reports. You can also view additional reports created with the Seagate Crystal Reports™ reporting tool from within e*Xchange Client for Windows; but you must first set them up in Report Maintenance.

The Report Maintenance tool provides features by which you can provide selection criteria and viewing options to users. These options can be used to meet a wide range of needs with just a few reports.

e*Xchange Client for Windows includes viewing options as part of the report definition; for example, scroll, zoom, and print options are available when the report is displayed. You determine which options are available on specific reports via Report Maintenance.

This chapter covers the following information on setting up and using reports:

Setting up reports—instructions for setting up and maintaining report parameters and options in e*Xchange Client for Windows. Refer to **"Report Maintenance" on page 439**.

Using reports—a list of standard default reports and information on viewing, printing and forwarding reports.

Note: *For more information on the predefined reports that come with e*Xchange Client for Windows, refer to* **"Using e*Xchange Client for Windows Reports" on page 451**.

21.1 Report Maintenance

To use the predefined reports that come with e*Xchange, no setup is required. You can also customize the reports via Report Maintenance as explained below.

To generate your own reports from e*Xchange, you must first create the reports in Crystal Reports. Follow the steps below.

1 Identify reporting needs. The following suggestions are provided to help you research and identify the reports that could help to support your business needs.

- **Previous Reports**
  Review reports that could be generated from your previous system to determine the types of reports to be added to e*Xchange Client for Windows.
- **User Requests**
  Note the reporting requests you receive from end users, or ask end users to submit suggestions for reports.
- **Enhancements**
  You can create new reports in response to new information made available by enhancements to your e*Xchange Client for Windows.
- **Government Reporting Requirements**
  You can add new reports to meet government reporting requirements.

2 Create the reports you need for your business (refer to your Crystal Reports documentation for instructions). Report names must be unique and must have the extension .**rpt**.

3 Copy the reports to the e*Xchange reports folder. The path to this folder is specified in the **Report Path** field, **System Defaults** dialog box. The default path can also be overridden for a specific user by the setting in the **User Preferences** dialog box. For more information, see **"Working With System Defaults" on page 266** and **"User Preferences" on page 239**.

Note: *If you store copies of reports on each e*Xchange Client for Windows user's local drive, make sure that any updates are distributed to the appropriate workstations.*

4 Continue to **"Entering General Report Information" on page 440**.

21.1.1 Entering General Report Information

The first step is to enter general information about the report, such as its title, the file name, and where the file is stored.

Note: *To access Report Maintenance, you must be a member of the eX Administrator group.*

To add or edit a report in e*Xchange Client for Windows

1 On the **Functions** menu, point to **System Administration**, and then click **Report Maintenance**.

The **Report Maintenance** dialog box appears (see Figure 220).

2 In the left pane, highlight the level for which you want to create a report: Company, Trading Partner, Outer Envelope, or Inner Envelope.

3 Do one of the following:

- To locate an existing report—double-click the level to show the reports that have been added at that level. Highlight a report to view the report information.
- To add a new report—on the toolbar, click **New**  .

4 On the **General** tab of the **Report Maintenance** dialog box, enter the required report identification information.

For information on specific fields, refer to Table 123.

5 Continue to **"Defining Report Window Controls" on page 442**.

Figure 220 Report Maintenance, General Page

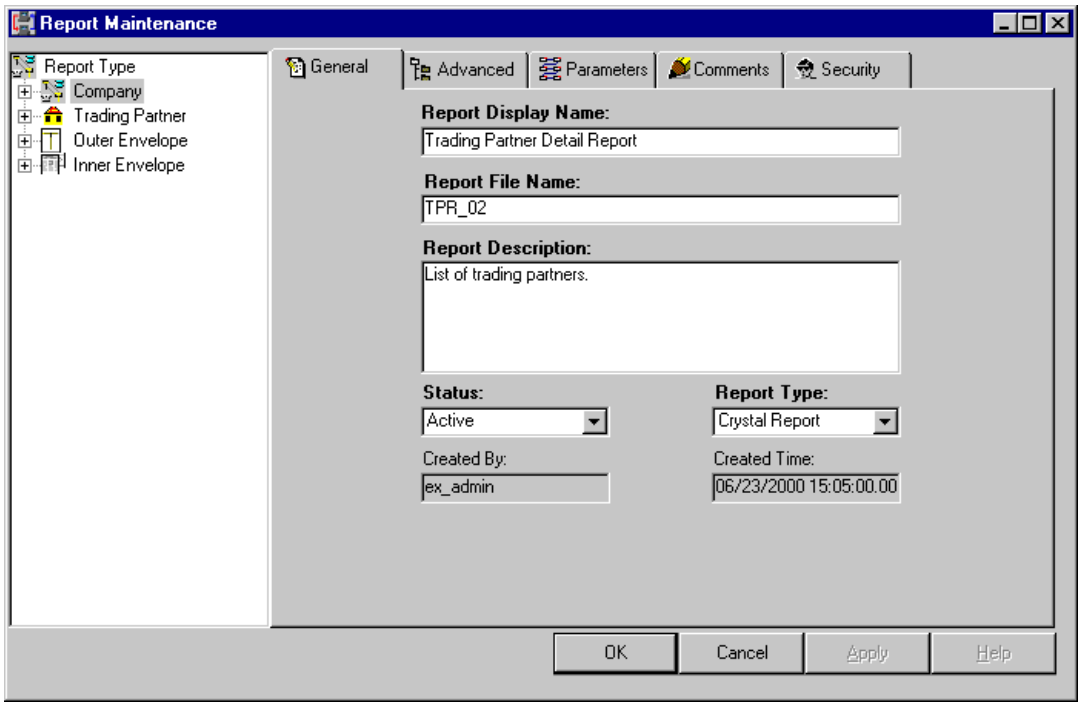


Table 123 Report Maintenance General Fields

Field Name	Description
Report Display Name	The name of the report, as you want it to appear on the Report List. For an example of how the report display name appears to the user when running the report, see **Figure 224 on page 447**.
Report File Name	The file name of the report, without extension. The system automatically appends the extension ".**rpt**" to the file name you type. For example, if the name of your report file is **TPR_01.rpt**, specify **TPR_01** in this field. **Note**: The system looks for the file in the folder specified in User Preferences. If a path is not specified in User Preferences, it uses the one specified in System Defaults.
Report Description	The report description allows you to provide more detailed information on the report. This additional information will be displayed on the Report List. For an example of the report description as the user sees it when running the report, see **Figure 224 on page 447**.
Status	The status of the report: Active—the report will appear on the user's report list. Disabled—the report is not available for user selection on the report list.

Table 123 Report Maintenance General Fields (Continued)

Field Name	Description
Report Type	The tool used to create the report. Select **Crystal Report** to indicate that the Seagate Crystal Reports tool was used to create the report. Currently, this is the only available option.
Created By	The user ID of the person who added or updated the report information.
Created Time	The date and time the report information was added or updated.

21.1.2 Defining Report Window Controls

You can adjust how the Report window will appear to users by specifying the buttons and other controls that will be available when the user views the report.

To define Report window controls

1 On the **Report Maintenance** dialog box, click the **Advanced** tab.

The **Advanced** tab appears (see Figure 221).

2 Select the check box next to each button or control that you want the user's report window to include. For more information, see Table 124.

The results of your selections, when the user runs the report, are shown in **Figure 222 on page 444**.

3 Continue to **"Defining Selection Criteria Parameters" on page 444**.

Figure 221 Report Maintenance Advanced Fields

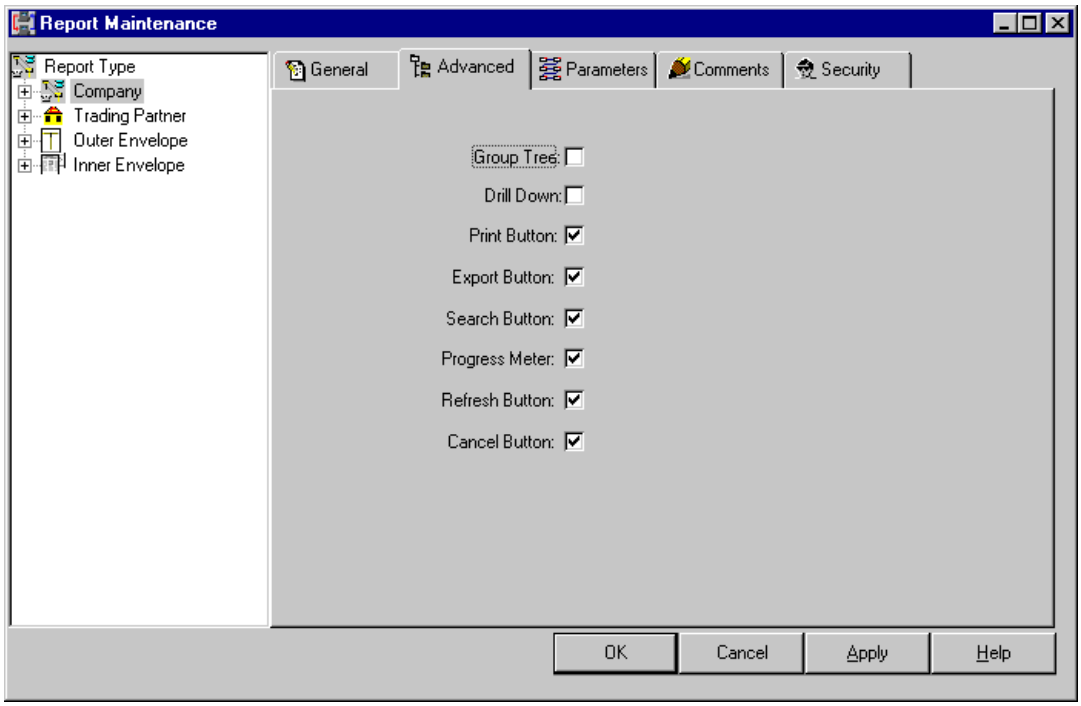


Table 124 Report Maintenance Advanced Fields

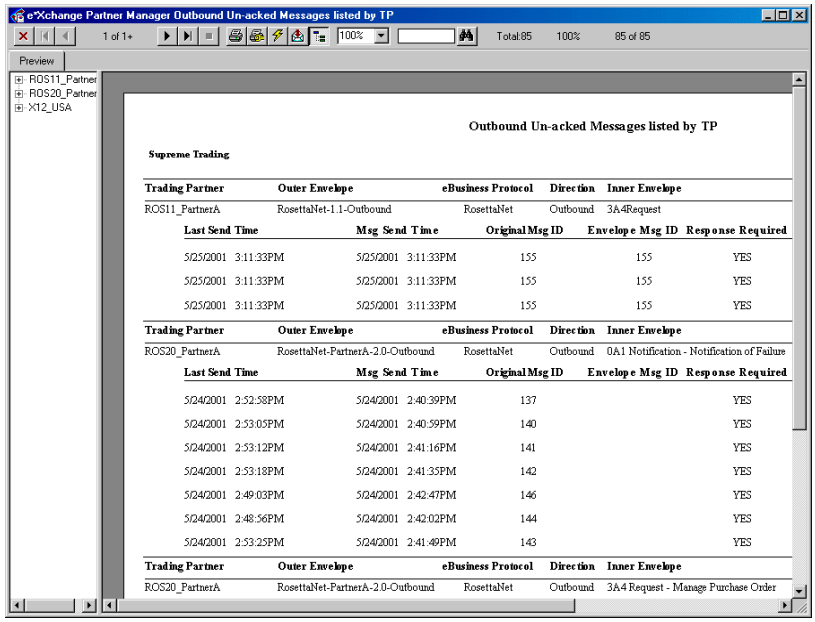
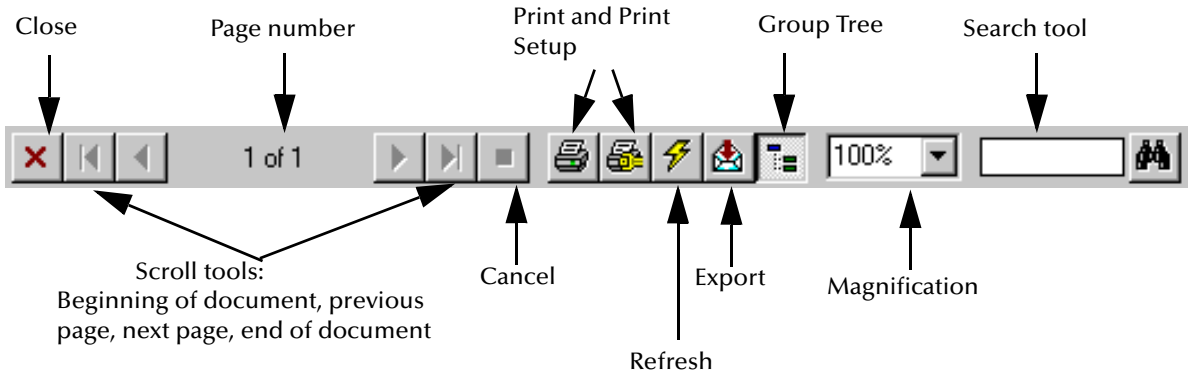
Field Name	Description
Group Tree	If Group Tree is selected, a Windows Explorer-like group tree is visible in the report window. The right pane shows the report, and the left pane shows the hierarchy of groups and subgroups. When you click a node in the left pane, the relevant information is displayed in the report. The Group Tree icon is displayed with the report controls, allowing you to toggle the group tree view on and off. An example of a report showing a group tree is shown below. 
Drill Down	If Drill Down is selected, the drill-down feature is available for the report. This means that when you double-click an item on the report, you can access more detailed information about that item, providing that the data is there. The drill-down cursor is displayed as a magnifying glass. For example, you could construct a report so that it included a list of trading partners, with drill-down capabilities to show more detailed information about each trading partner.
Print Button	If this is selected, a print button is available in the report window.
Export Button	If this is selected, an export button is available in the report window, allowing the user to export the report to an external file, e*Xchange Folder, Lotus Notes Database, or Microsoft Mail (MAPI) program.
Search Button	If this is selected, a search facility is available in the report window.
Progress Meter	If this is selected, a progress meter is displayed while the system is preparing the report for display.
Refresh Button	If this is selected, a refresh button is available in the report window, updating the report with the most recent information.
Cancel Button	If this is selected, a cancel button is available in the report window.

Figure 222 Report Window Tools



21.1.3 Defining Selection Criteria Parameters

You can define selection criteria so that users can limit the scope of data generated for the report. By setting parameters, you provide a set of search fields available to users when running a report, so that they can specify the range of data to be included on the report.

Use the fields on the **Parameters** tab of the **Report Maintenance** dialog box to define report selection parameters (see Figure 223). This dialog box allows you to specify the database columns that will be represented on the report. You can also restrict the report to values meeting certain criteria, provide default values, and offer selection lists to your users. You can define user lookup parameters either as lists or as SQL statements.

For examples of settings that result in specific reports, look at the setup for the default reports that come with e*Xchange Client for Windows. For more information, refer to **"Sample Report Settings" on page 449**.

Figure 223 Report Maintenance, Parameters Page

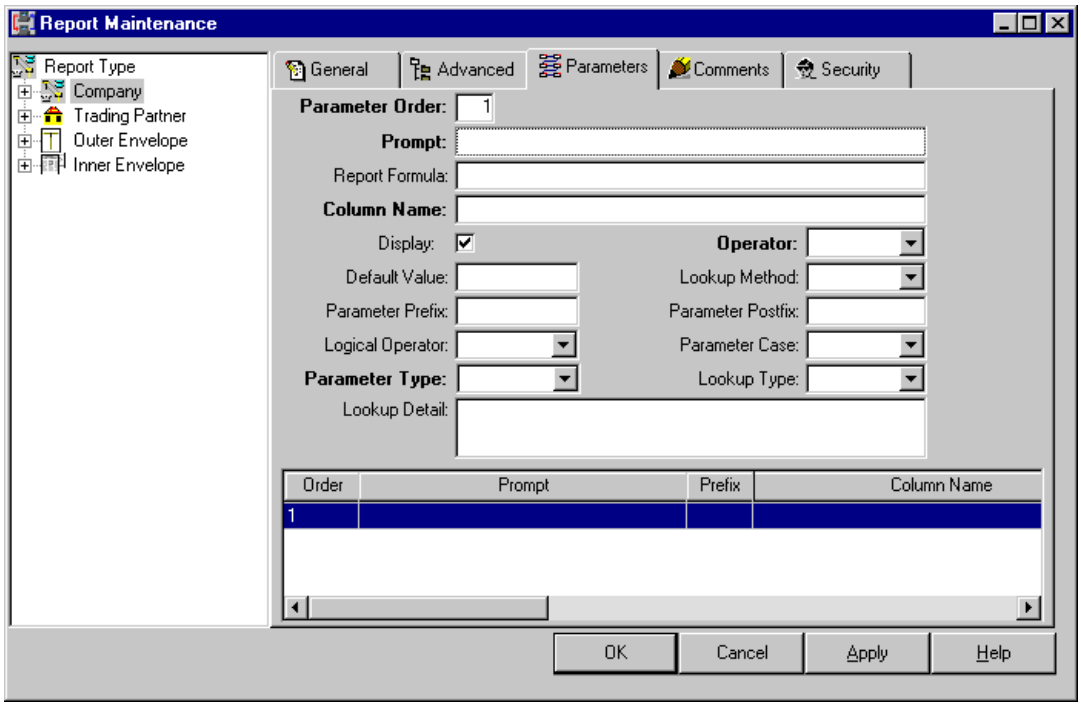


Table 125 Report Maintenance Parameters Fields

Field Name	Description
Parameter Order	A number that specifies the position of the current parameter on the **Report List**. Each parameter must be sequentially numbered, beginning with **1**. For example, if you are creating the first of three parameters, type **1**.
Prompt	The label that will appear to the left of the selection criterion field on the **Report List** when a user selects this report from the list. For example, if you want a user to enter the first date within a range, specify **Start Date** as the field label. For an example of how the prompt appears to the user when running the report, see Figure 224.
Report Formula	The name of the Crystal Reports report formula used on the report, if applicable. The report formula combined with the user's selection criteria result in the displayed report.
Column Name	The name of the report column to query with selection criteria specified by the user; for example, NAME is the name of the column in which the trading partner name is stored, in the ES_TPH table.
Display	If this check box is selected, report parameters are display-only; the user cannot enter parameters in the Value field. If this check box is cleared, the user can enter values.

Table 125 Report Maintenance Parameters Fields (Continued)

Field Name	Description
Operator	The mathematical operator used to determine the data to be used in the report. For example, if you specify a column name, select "=" as the operator, the report will show all values matching the parameters input by the user. For example, suppose the Column Name is "es_tph.status", you select operator "=", and you also define Lookup Type "list" and Lookup List "D" and "A". If the user select "A" for the prompt, the system interprets the statement as "where es_tph.status = 'A'".
Default Value	The initial value you want to appear on the report selection dialog box for this parameter, if any. For an example of how a default value appears to the user when running the report, see Figure 224.
Lookup Method	This determines the lookup method offered to the user on the **Reports** dialog box when the user clicks the lookup icon (). Choose one of the following: **Calendar**—if the user clicks the **Search** button, a calendar appears, for selection of a date. **None**—no lookup is provided; the user must enter the value. **Search Button**—if the user clicks the **Search** button, the **Lookup Screen** appears (see **Figure 225 on page 448**).
Parameter Prefix	If multiple expressions are used to create the report, specify the character to be used before a parameter or retrieval condition; for example, "(" (an open parenthesis).
Parameter Postfix	If multiple expressions are used to create the report, specify the character to be used after a parameter or retrieval condition; for example, ")" (a close parenthesis).
Logical Operator	If you enter more than one parameter for the report, you can specify a logical operator to connect the current parameter to the next one: ▪ **And**—the report will include records that meet both conditions. ▪ **None**—no logical operator is applied to the parameter. ▪ **Or**—The report will include records that meet the conditions specified in any one of the parameters.
Parameter Case	This field is provided in case the data in your database is case-sensitive and the program does not do any case conversion. Choose one of the following values: ▪ **Any**—leave the parameter as it is entered ▪ **Lower**—convert the parameter to lower case ▪ **Upper**—convert the parameter to upper case
Parameter Type	The parameter data type. For example, if the selection criterion is a date, the data type could be either **Date** or **Datetime**. If the selection criterion is a number, the data type would be **Integer**. For an example of how the parameter type appears to the user when running the report, see Figure 224.

Table 125 Report Maintenance Parameters Fields (Continued)

Field Name	Description
Lookup Type	This determines the type of list that will be available to the user in the **Lookup Screen**: ▪ **List**—list the fields to be included on the report, with no space between list items and a semicolon at the end of each item, including the last. ▪ **None**—no lookup is provided. ▪ **SQL**—define the report parameters by means of a SQL statement, using normal SQL syntax. No ending semicolon is required.
Lookup Detail	This defines the parameters that the user can choose when viewing the report. Figure 225 shows the results of the following lookup detail setting: **A;I;** If the lookup type is List, a trailing semicolon is needed, as shown above. If the lookup type is SQL, a trailing semicolon is not required.

Figure 224 Sample Report Selection

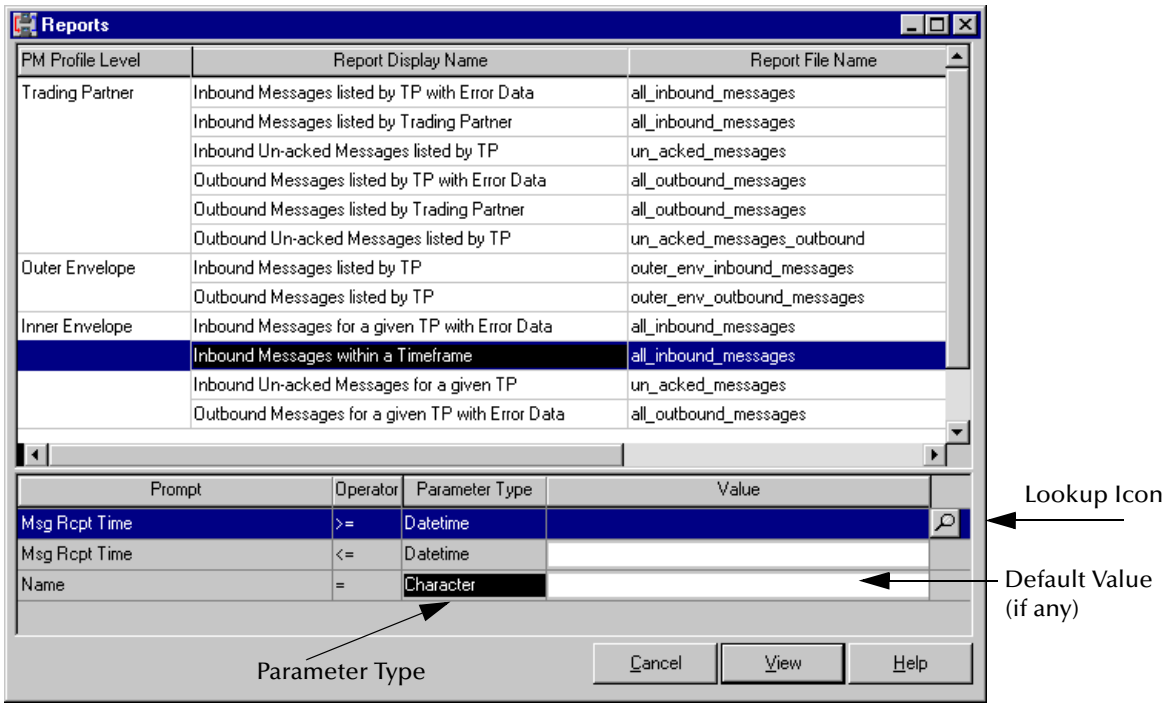
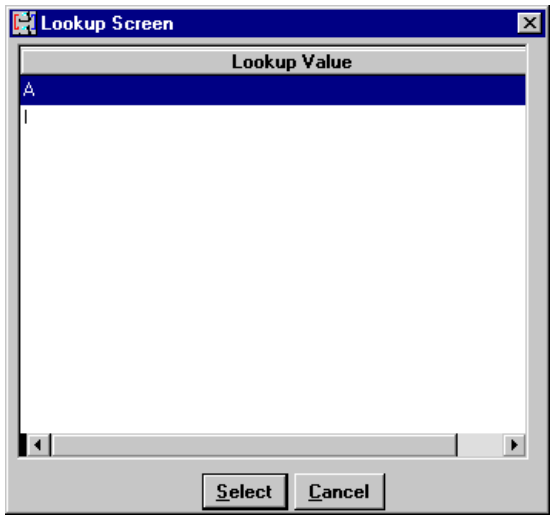


Figure 225 Lookup Screen



When the user viewing the report clicks the lookup icon (see Figure 224), the **Lookup Screen** appears, as shown in Figure 225. The values offered for selection are determined by values entered in the **Lookup Detail** field when defining the report. In this example, the user can view either items with a status of A (active) or those with a status of I (inactive).

To define selection criteria

The instructions below provide general information for defining report criteria.

Before you begin:

- Complete **"Defining Report Window Controls" on page 442**.
- Determine which columns of report information you want to provide to users when they generate the report.

1 On the **Report Maintenance** dialog box, click the **Parameters** tab.

The **Parameters** tab appears (see **Figure 223 on page 445**).

2 Enter the selection criteria for the first parameter in the open fields.

For more information, see **"Report Maintenance Parameters Fields" on page 445**.

Note: *Use the **Report Formula** field to include a list of the selection criteria specified by the user at the bottom of the report.*

3 Do either of the following:

- To add another parameter, click **New**  , and then repeat step 2 above.
- To delete a parameter, select the row of information you want to delete at the bottom of the page and click **Delete**  .

4 Continue to **"Defining Contacts, Notes, Action Items, and User Security" on page 450**.

Sample Report Settings

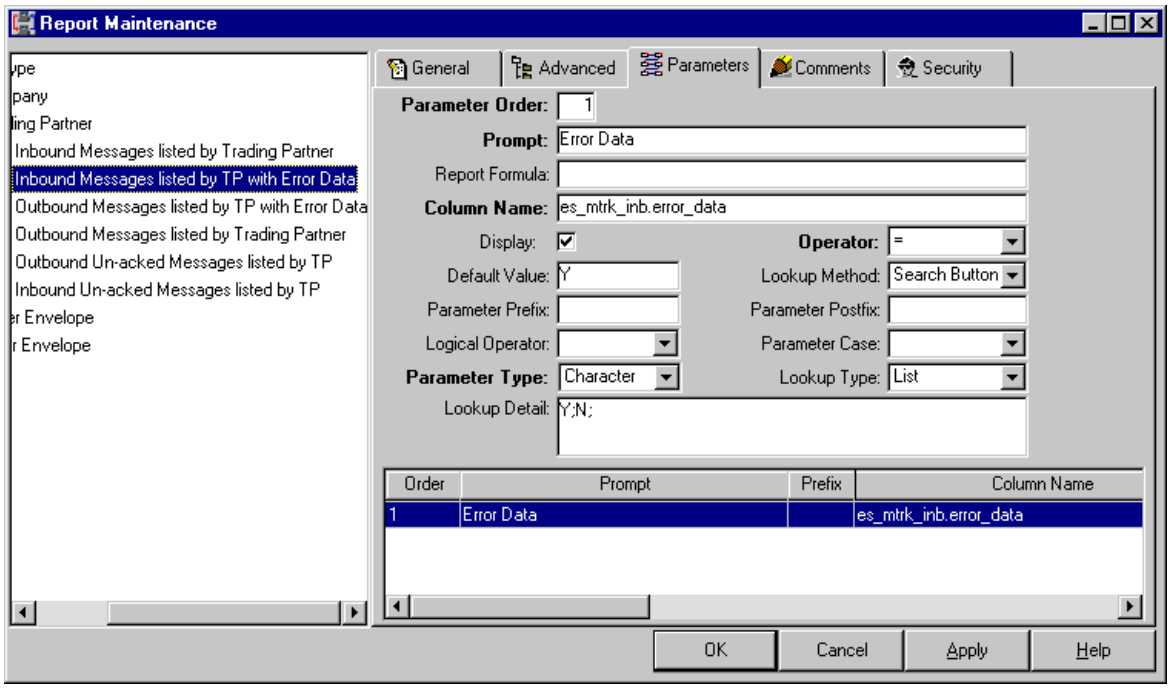
e*Xchange Client for Windows comes with a number of predefined reports.

You can review the settings for these reports to see how the settings for certain parameters result in a certain report format. Use this information to tailor your own reports to meet the needs of your specific implementation.

Figure 226 shows the parameter settings for one of the reports that comes with e*Xchange Client for Windows. It has the following features:

- References the error_data column in the es_mtrk_inb message tracking table
- Lookup method is a search button
- Lookup type is a list
- Choices are **Y** and **N**
- Default value is **Y**

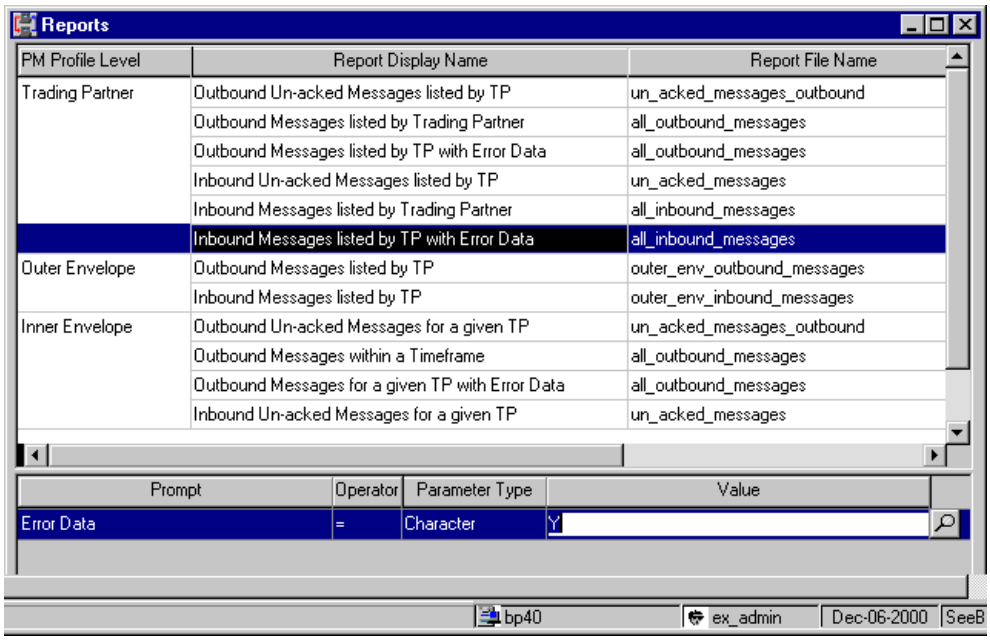
Figure 226 Sample Report Settings: Report Maintenance



When the user references this report, as shown in Figure 227, the parameters listed above have the following results:

- Message error information is shown in the report
- **Search** button is available
- Clicking the **Search** button accesses a selection list
- Choices available on the selection list are **Y** and **N**
- Default value is **Y**

Figure 227 Sample Report Setting: Results



For more examples of specific parameter settings and their results when viewing the report, examine the parameters for the various custom reports that are provided with e*Xchange Client for Windows.

21.1.4 Defining Contacts, Notes, Action Items, and User Security

As part of setting up each report, you have the option to set up the following additional information:

- On the **Contacts** tab—contact information
- On the **Comments** tab—notes and action items
- On the **Security** tab—user access (already inherited from the parent component level, but can be customized for the current outer envelope).

None of this setup is required to save the new report. However, each of these tabs provides you with additional capabilities.

Detailed instructions on using each of these tabs is provided in additional chapters, as follows:

Contacts tab—**Storing Contact Data in e*Xchange Client for Windows** on page 278

Comments tab—**Tracking Notes and Action Items in e*Xchange Client for Windows** on page 284

Security tab—**Access Control in e*Xchange Client for Windows** on page 293

For information on using these tabs, refer to the appropriate chapter or to the online Help system.

21.1.5 Saving the Report Information

To add the report to e*Xchange, you must save the information you have specified about the report.

To save a report

1. Click **Apply** to save changes.

   The report information and associated access permissions are saved.
2. Click **Close**. The **Report Maintenance** dialog box closes.
3. Continue to **"Testing a New Report" on page 451**.

21.1.6 Testing a New Report

After you have added a report to the Report List and optionally created criteria selection parameters, you should test the report to make sure it is accessible to users.

To test a new report

Before you begin:

- Make sure the new report file has been copied to the standard e*Xchange report folder
- Complete **"Saving the Report Information" on page 451**

1. On the **Options** menu, select the component type (Company, Trading Partner, Outer Envelope, or Inner Envelope), and then select **Reports**.

   The **Reports** dialog box appears.
2. Scroll through the report list until you find the name of the new report.
3. Click the name of the new report. If you defined report selection criteria, fields that correspond to each parameter should appear at the bottom of the Report List.
4. If required, type the appropriate selection criteria and click **Print**.

   The Report Window appears.
5. Make sure the report appears on the window, and click **Print** to make sure the report prints properly.
6. All Report window tools are functions of the Crystal Reports Runtime Engine. If any of the tools on this window do not work properly, make sure the appropriate version of the Crystal Reports Runtime Engine is properly installed on your workstation.

21.2 Using e*Xchange Client for Windows Reports

You can view or print any of the reports that have been defined in your system at any time.

Note: *You must be a member of the eX Administrator user group to view the reports. If you do not have access rights, the message "No Reports Defined" appears.*

21.2.1 Default Reports

e*Xchange Client for Windows includes a number of reports that have already been created and are ready to go. This includes trading partner, outer envelope, and inner envelope reports, as listed below. Some of the reports include selection parameters so that you can further narrow down the report content; for example, you can specify a date range or restrict the report to messages containing error data.

Note: *To view the reports, the user must either be a member of the ex_admin user group or have access rights to the specific report. To grant access if you are an Administrator: on the* ***Functions*** *menu, click* ***System Administrator****, and then click* ***Report Maintenance****. In the left pane, select the report. In the right pane, click the* ***Security*** *tab and add the user to the* ***Select Groups/Users*** *list.*

Trading Partner Reports

- Inbound Messages listed by TP with Error Data
- Inbound Messages listed by Trading Partner
- Inbound Un-acked Messages listed by TP
- Outbound Messages listed by TP with Error Data
- Outbound Messages listed by Trading Partner
- Outbound Un-acked Messages listed by TP

Outer Envelope Reports

- Inbound Messages listed by TP
- Outbound Messages listed by TP

Inner Envelope Reports

- Inbound Messages for a given TP with Error Data
- Inbound Messages within a Timeframe
- Inbound Un-acked Messages for a given TP
- Outbound Messages for a given TP with Error Data
- Outbound Messages within a Timeframe
- Outbound Un-acked Messages for a given TP

21.2.2 Viewing Reports

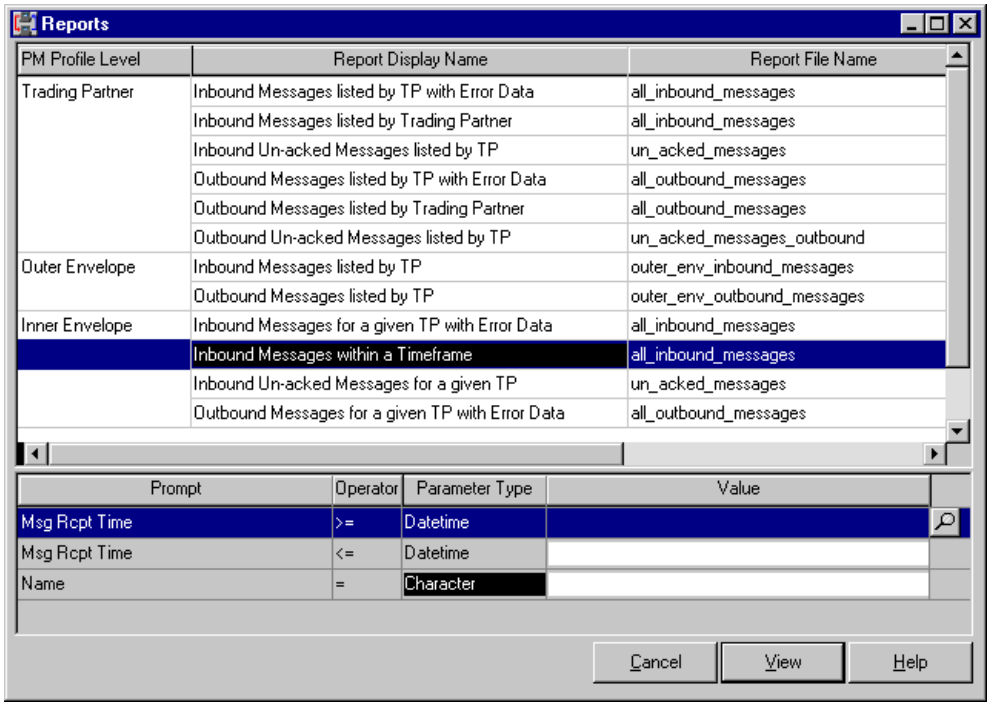
You can print any of the predefined reports for a trading partner, outer envelope, or inner envelope, at any time. For customized or additional reports, you can print them as soon as the actual report file is in place and the report definition has been added in **Report Maintenance**.

There are two ways to access report selections:

- Access reports for a specific component by highlighting the component and then clicking **Reports** on the Function toolbar (the lower toolbar).
- Select from a list of all reports available on the system by clicking **Reports** on the Primary toolbar (the upper toolbar).

  You can also access this list via the menu: on the **Functions** menu, select **Reports**.

Figure 228 Reports Dialog Box



To generate a report

1. On the Partner Manager primary toolbar, click **Reports**.

   The **Reports** dialog box appears (see Figure 228).
2. From the **Report Display Name** column, highlight the name of the report you want to generate.

Note: *You can also split the reports window into two panes. This makes it easier to compare different reports on the list. For more information, refer to* **"Splitting the Reports Window" on page 455***.*

3 If the selected report requires selection criteria, such as a date range or a range of identification numbers, enter the appropriate values into the entry fields that appear below the list of reports.

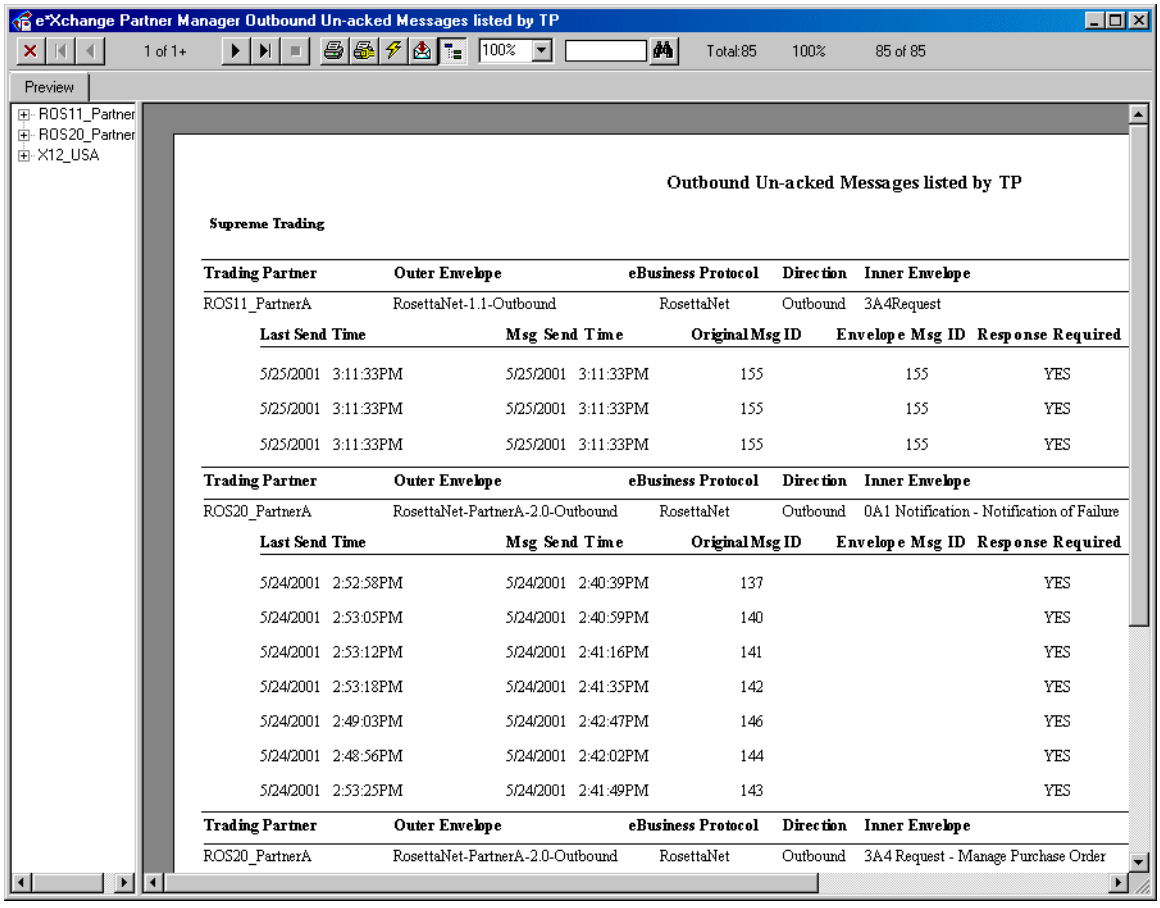
Note: *If more than three data selection criteria fields are associated with a report, use the scroll bar to the right of the list of fields to view all the available fields.*

4 On the **Reports** dialog box, click **View**.

Depending on the amount of data generated for the report, it might take several moments for the report to be displayed.

An example of a report generated in e*Xchange Client for Windows is shown in Figure 229.

Figure 229 Report Sample

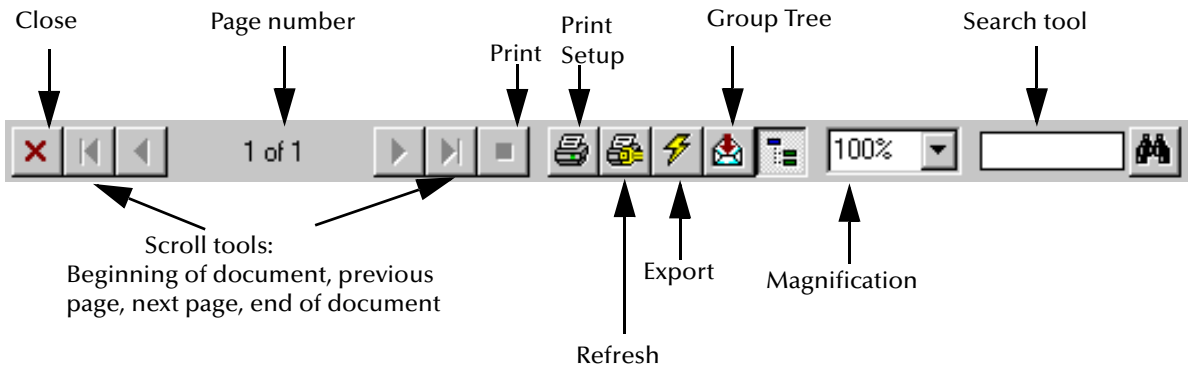


5 Do any of the following, as needed:

- To scroll through each page of the report, use the Scroll tools (see Figure 230).

- To magnify the report for easier viewing, use the magnification tool. This tool allows you to view the report as a percentage of the actual size. Click the down arrow to select a preset percentage.
- To print the report, use the instructions provided in **"Printing Reports" on page 456**.
- To save the data to a file, use the instructions provided in **"Saving Report Data" on page 456**.
- To send the report to another user via e-mail, use the instructions provided in **"Sending Reports Through E-Mail" on page 457**.

Figure 230 Report Window Tools



6 When you have finished viewing the report, click the **Close** button.

The **Reports** dialog box reappears.

Splitting the Reports Window

You have the option to split the reports window so that you can view and compare two different parts of the list at the same time.

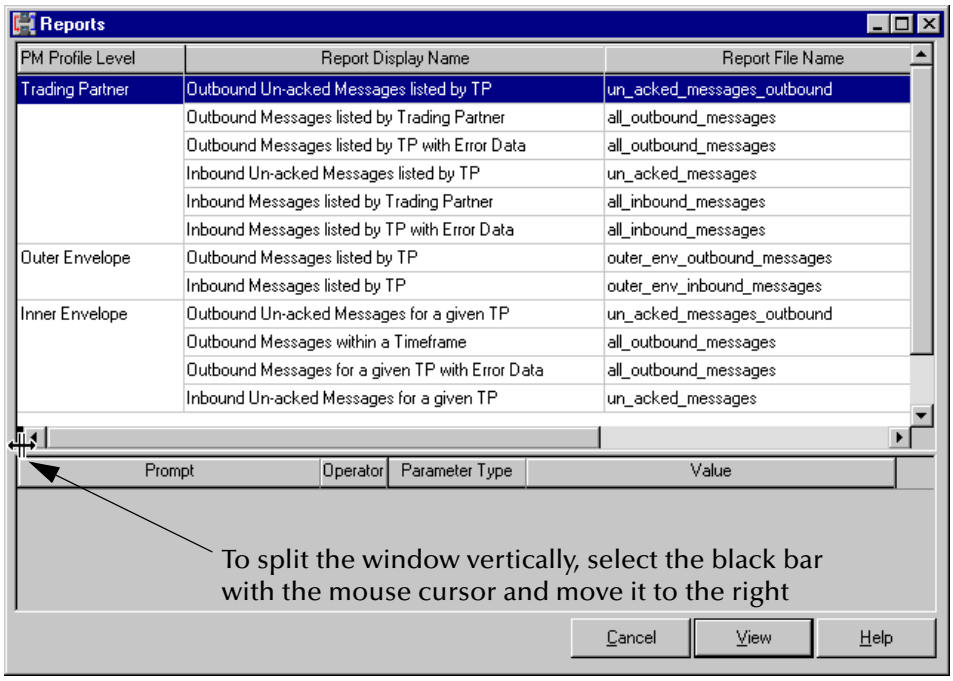
To split the reports window

1 Select the vertical black bar to the left of the horizontal scroll bar (see Figure 231).

2 Drag the bar to the right and then release when it is correctly positioned.

3 Adjust each pane as needed to view the reports lists.

Figure 231 Splitting the Display in the Reports Dialog Box



21.2.3 Printing Reports

Once you have selected a report for viewing, you can also print it.

To print a report

1. Select and display a report.
2. If necessary, click the **Print Setup** tool to select a printer or to verify printer settings.
3. From the **Reports** dialog box, click the **Print** tool.

   The **Print** dialog box appears.
4. Indicate whether you want to print the entire report or a range of pages within the report, and specify the number of copies.
5. On the **Print** dialog box, click **OK**.

   The report is printed according to your specifications.

21.2.4 Saving Report Data

When you save report data to a file, you must specify the file format and destination. You can then import the report file into another application, such as Microsoft Word or Excel.

To save report data to a file

1. Select and display a report.
2. On the **Reports** dialog box, click **Export**  .

The **Export** dialog box appears (see Figure 232).

3 In the **Format** field, select the output format you want for the data.

For more information, see Table 126.

4 In the **Destination** field, select **Disk file**.

5 Click **OK**.

The report information is exported appropriately according to your selections.

Figure 232 Export

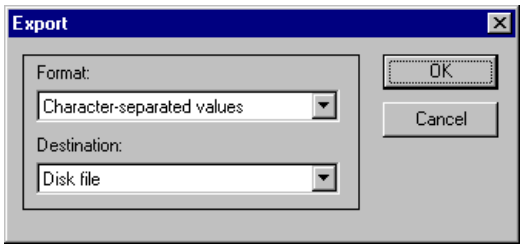


Table 126 Export Dialog Box (Report) Fields

Field Name	Description
Format	Specify the format for the data file that will be exported: for example, Excel 8.0, HTML 3.2, or Rich Text Format.
Destination	Specify the destination for the file: Application, Disk File, e*Xchange Folder, Lotus Notes Database, or Microsoft Mail (MAPI). The file is exported appropriately according to the selections made. For example, if the format is Rich Text Format, the following occurs according to the selection in the Destination field: ▪ **Application**: e*Xchange automatically exports the information to an RTF file, opens up Microsoft Word, and displays the file. ▪ **Disk File**: The **Choose Export File** dialog box appears. Choose or create a file name and click **Save**. ▪ **e*Xchange Folder**: The **Choose Profile** dialog box appears. Choose a profile or create a new one; set options if needed, and click **OK**. The **Select a Folder** dialog box appears. Select a folder and click **OK**. The information is exported to the selected folder. ▪ **Lotus Notes Database**: You must enter the appropriate values to access the Lotus Notes database. ▪ **Microsoft Mail (MAPI)**: The **Send Mail** dialog box appears. Enter address and subject information as needed, with a message if desired, and click **Send**. The report is sent as an attachment to an e-mail message.

21.2.5 Sending Reports Through E-Mail

You can use the **Export** and **Send Mail** dialog boxes to send reports as e-mail messages from e*Xchange Client for Windows. You must specify the formatting of the attachment.

Note: *To send e*Xchange Client for Windows reports through e-mail, you must have a MAPI-compatible e-mail system on your computer.*

To send a report through e-mail

1. Select and display a report.
2. On the report window, click the **Export** tool.

   The **Export** dialog box appears (see Figure 232).
3. In the **Format** field, select the output format you want for the data. For example, if you know that the recipient uses Microsoft Word, you can send the report as a Word document file attached to your e-mail message.
4. In the **Destination** field, select Microsoft Mail (MAPI).

   The **Send Mail** dialog box appears (see Figure 233).

Note: *If this option does not work in your environment, use the instructions presented in* **"Saving Report Data" on page 456** *to save the report data to a disk file, and then attach that file to a message using your e-mail application.*

5. Fill in the e-mail header fields (see Table 127).
6. Do any of the following, as needed:
   - To check names against your default address book, click **Check Names**.
   - To select an address from your default address book, click **Address**.
   - The Address Book window appears, from which you can select an address.
   - To send the message, click **Send**. The report is sent to the specified recipients as an attachment to the message.
   - To cancel sending the message, click **Cancel**.

Figure 233 Send Mail

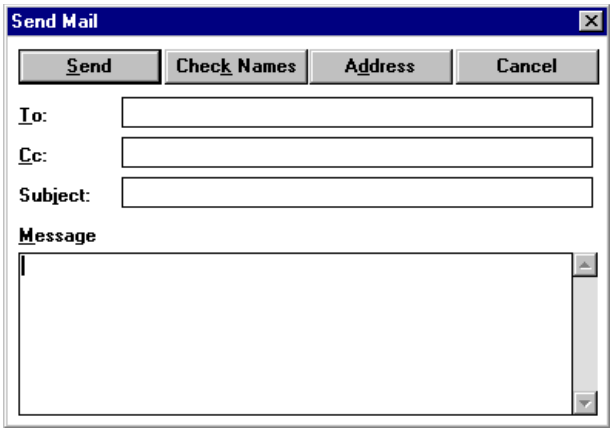


Table 127 E-mail Header Fields, Send Mail Dialog Box

Field Name	Description
To	The ID of the user to whom you want to send the report.
Cc	The ID of the user to whom you want to send a copy of the message and report.
Subject	A title that identifies the content of the message.
Message	The text of the message.

Appendix A

eBusiness Protocol Support

e*Xchange provides full support for the following eBusiness protocols:

- ASC X12 (all versions)
- UN/EDIFACT
- RosettaNet (versions 1.1 and 2.0)
- CIDX version 2.0.1

This means a number of things:

- The e*Xchange user interfaces are specifically designed to accommodate all the required attributes for sending and receiving messages in the selected eBusiness protocol.
- The logic to understand these protocols is already built into the system.
- Standard Collaborations are provided to work with these protocols, as needed.
- Additional functionality is provided, where necessary, to meet the requirements of a specific eBusiness protocol.

A.1 Sample Business Process

This section shows sample businesses process for X12, RosettaNet, and UN/EDIFACT.

A.1.1 X12

This example takes a customer order from the point where the customer orders via a Web site, through ordering, fulfillment, and payment.

In this example, messages are passed in the following sequence. Note that this is just an example; some sequences might vary, and there are alternative message types. The protocol used is X12 version 4010. The sequence and procedure would be similar for other protocols, although the message types would be different.

The sequence is as follows:

1. Customer places order on the Web (850).
2. Distributor sends acknowledgment to customer (855).
3. Distributor sends purchase order to vendor (850).

4 Vendor sends order acknowledgment to distributor (855).

5 Vendor ships merchandise directly to customer.

6 Vendor sends ship notice to distributor (856).

7 Vendor sends invoice to distributor (810).

8 Distributor sends invoice to customer (810).

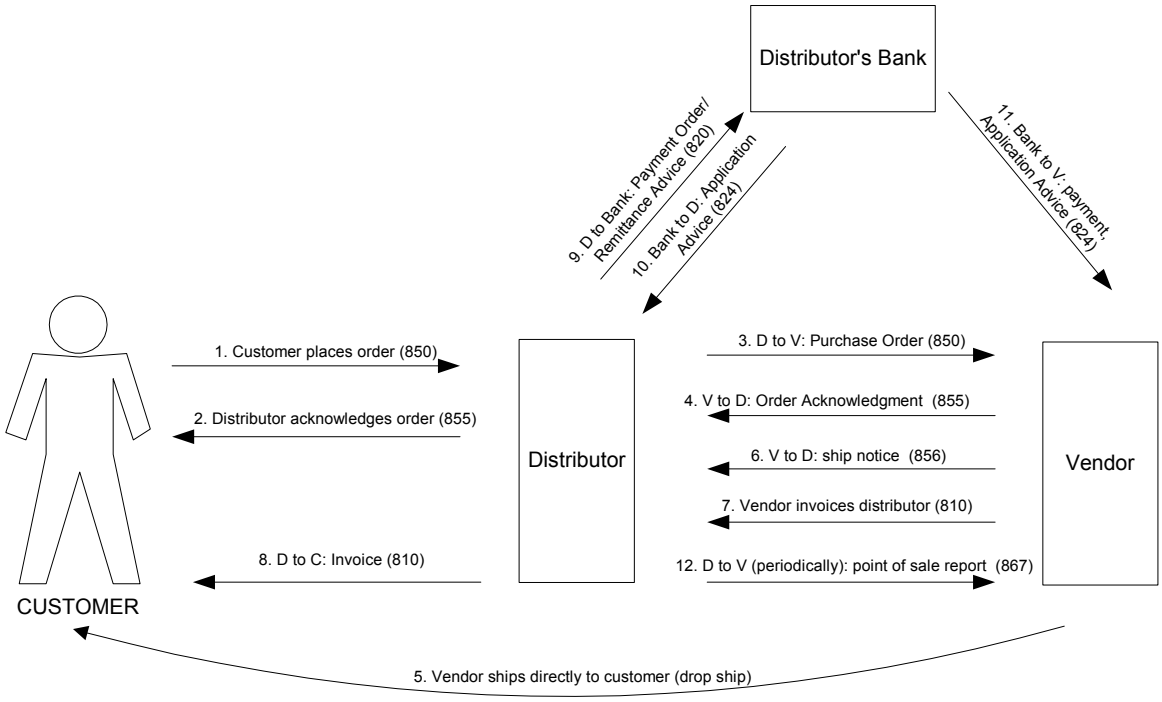
9 Distributor sends payment order to bank (820).

10 Bank sends application advice to distributor (824).

11 Bank sends application advice to vendor (824).

12 Periodically: distributor sends Product Transfer and Resale (point of sale) report to vendor (867).

Figure 234 Sample Order/Fulfillment Process: X12



A.1.2 RosettaNet Scenario

Another sample business process is shown in Figure 235. In this case, the eBusiness protocol used is RosettaNet.

The sequence is as follows:

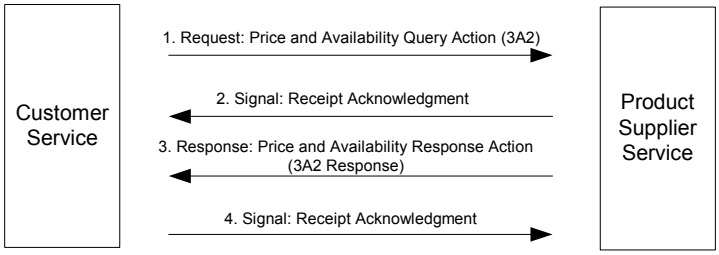
1 Customer Service sends out a pricing and availability query.

2 Product supplier acknowledges the message.

3 Product supplier sends the requested pricing and availability information.

4 Customer Service acknowledges the response.

Figure 235 Pricing/Availability Request & Response: RosettaNet



A.1.3 UN/EDIFACT

Another sample business process is shown in Figure 235. In this example, the eBusiness protocol used is UN/EDIFACT.

The sequence is as follows:

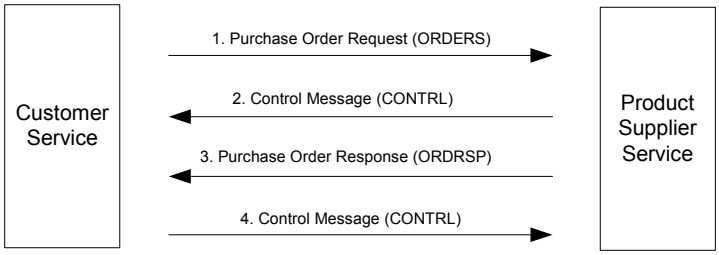
1 Customer Service sends out a Purchase Order Messages (ORDERS)

2 Upon receipt of the message, Product Supplier sends out a Control Message (CONTRL).

3 Upon processing of the Purchase Order Message, Product Supplier sends out a Purchase Order Response (ORDRSP).

4 Upon receipt of the response, Customer Service sends out a Control Message (CONTRL).

Figure 236 Purchase Order Message and Response: UN/EDIFACT



A.1.4 Sequence of Setup Actions

To set up your system to process messages in a scenario such as the X12 example given above you must complete the following steps:

1 Gather information from your trading partner.

You need information on the specific implementation of X12 used by your trading partner. The trading partner's eBusiness integration contact provides this information. Normally it is in the form of a set of guidelines which you can use to create a guidelines document within a third-party Implementation Guide editor.

For each trading partner, you must agree on the specific implementation of each transaction.

2 Create validation collaborations based on the agreed-upon standard, so that e*Xchange can correctly interpret the messages.

For X12, this is done in two stages. First, take the output file of the third-party Implementation Guide editor (a SEF file) and run it through the Validation Rules Builder. This produces two e*Gate files: an Event Type Definition (ETD) file (**.ssc** file) and a Collaboration Rules file (**.tsc** file).

3 Set up the trading partner, and the message and enveloping information, in the e*Xchange user interface (either e*Xchange Client for Windows or the Web interface).

Note: *More detailed information on completing the steps needed to run e*Xchange is provided in the* ***e*Xchange Partner Manager Implementation Guide****.*

A.1.5 Setting up e*Xchange Client for Windows

In the e*Xchange Client for Windows graphical user interface, you set up all the information required for the sending and receiving of eBusiness messages between your company and its trading partners. Company name and address, contact information, protocol name and version, and specific attributes for each trading partner are set up in e*Xchange.

Once all the information has been set up, messages are sent and received via e*Gate.

e*Xchange Client for Windows provides additional features to help ensure your company's data interchange goes smoothly. For example, the Message Tracking feature allows you to monitor the message flow and view any errors that are generated. The Action Items feature within the Partner Manager setup allows you to log action items relating to the trading partner, track progress, and mark them off when done.

A.1.6 Setting up e*Gate

Once all the information has been set up in e*Xchange Client for Windows, some setup is also needed in e*Gate before messages can be run. Full instructions on using e*Gate are provided in the user guides and online Help that come with e*Gate. Briefly, the following actions are required:

- Configure the e*Way that will relay messages to e*Xchange
- Configure the following e*Ways:
  - ePM e*Way
  - Ack Monitor e*Way
  - Transaction Polling e*Way
  - Batching e*Way (X12-Batch)

Configuring the ePM e*Way

For a step-by-step walk-through of creating a working scenario, see the *e*Xchange Partner Manager Implementation Guide*.

A.1.7 Running the Message

Once e*Xchange Client for Windows and e*Gate have been set up correctly, messages are processed by e*Gate. The e*Xchange Client for Windows user interface does not even have to be running when messages are processed. However, the message flow can be monitored in e*Xchange Client for Windows via the Message Tracking feature.

A.2 Extended Attributes

In e*Xchange Client for Windows, any special attributes that are not common to all protocols are recorded as extended attributes.

For more information on extended attributes for a specific eBusiness protocol, refer to the following:

- BizTalk: **"Extended Attributes for BizTalk" on page 464**
- RosettaNet:
  - Outer envelope—**"Entering Outer Envelope Extended Attributes" on page 365**
  - Inner envelope—**"RosettaNet Extended Attributes—Inner Envelope" on page 379**
- UN/EDIFACT:
  - Outer envelope—**"UN/EDIFACT Extended Attributes—Outer Envelope" on page 406**
  - Inner envelope—**"UN/EDIFACT Extended Attributes—Inner Envelope" on page 417**
- X12:
  - Outer envelope—**"X12 Extended Attributes—Outer Envelope" on page 334**
  - Inner envelope—**"X12 Extended Attributes—Inner Envelope" on page 345**

A.2.1 Extended Attributes for BizTalk

BizTalk version 0.81 is supported in e*Xchange Client for Windows but not in the Web interface.

Table 128 Default BizTalk Extended Attributes

Code	Name	Description
FROM_LOCATION_ID	FROM LOCATION ID	The unique ID of the sending location.
FROM_LOCATION_TYPE	FROM LOCATION TYPE	The type of ID provided in the FROM_LOCATION_ID attribute. Example: From locationID="123" locationType="DUNS"
TO_LOCATION_ID	TO LOCATION ID	The unique ID of the destination location.
TO_LOCATION_TYPE	TO LOCATION TYPE	The type of ID provided in the TO_LOCATION_ID attribute.
PROCESS	RECEIVING PROCESS	The Process attribute conveys the name of the business or technical process that needs to be invoked or notified when a message is delivered. There are no restrictions on content.

Appendix B

Troubleshooting

This chapter provides information on resolving problems that might occur when running the e*Xchange Web interface or e*Xchange Repository Manager graphical user interfaces.

B.1 Troubleshooting the e*Xchange Repository Manager

This section lists errors you might encounter when running the e*Xchange Repository Manager.

Problem

Error in log file:

```
COM.ibm.db2.jdbc.DB2Exception: [IBM][CLI Driver][DB2/NT] SQL4304N
Java stored procedure or user-defined function "EX451.DATETOUDB",
specific name "SQL010913174148368" could not load Java class
"udbtools", reason code "". SQLSTATE=42724
```

Reason/Resolution

The file **udbtools.class** must be present on the server in the directory defined by the %DEBTEMPDIR% function environment variable.

Copy this file from \eXchange\eRM\DB2 to the appropriate directory on the server.

B.2 Troubleshooting the e*Xchange Web Interface with DB2 UDB

This section lists errors you might encounter when running the e*Xchange Web interface with a DB2 UDB database.

Problem

Error when accessing certain fields in the Web interface:

COM.ibm.db2.jdbc.DB2Exception: [IBM][CLI Driver] CLI0150E Driver not capable. SQLSTATE=HYC00

Note: *This error occurs when accessing fields with a BLOB or CLOB data type.*

Reason/Resolution

You must run the e*Xchange e*Gate Schema and the Web interface on separate computers if you are using DB2 UDB. This is because the Web interface uses JDBC and the e*Xchange e*Gate Schema uses ODBC.

If you have already set them up on the same system, you can resolve the problem by editing the **%DB2TEMPDIR%/db2cli.ini** file. For more detailed information, refer to the *Creating the e*Xchange Database Schema - DB2 UDB* chapter of the *e*Xchange Installation Guide*.

Problem

Error 500 (java.lang.AbstractMethodError) when attempting to view message details in Message Tracking (see Figure 237).

Reason/Resolution

Go to the directory specified by the %DB2TEMPDIR%/java12 environment variable and make sure there is an **inuse** file in the directory. If not, double-click the file **usejdbc2.bat**.

Figure 237 Error 500 in Message Tracking

Error: 500

Location: /stcepmweb/controller.jsp

Internal Servlet Error:

```
javax.servlet.ServletException
        at org.apache.jasper.servlet.JspServlet.service(JspServlet.java:399)
        at javax.servlet.http.HttpServlet.service(HttpServlet.java:853)
        at org.apache.tomcat.core.ServletWrapper.doService(ServletWrapper.java:404)
        at org.apache.tomcat.core.Handler.service(Handler.java:286)
        at org.apache.tomcat.core.ServletWrapper.service(ServletWrapper.java:372)
        at org.apache.tomcat.core.ContextManager.internalService(ContextManager.java:797)
        at org.apache.tomcat.core.ContextManager.service(ContextManager.java:743)
        at org.apache.tomcat.service.connector.Ajp12ConnectionHandler.processConnection(Ajp12ConnectionHandler.java:166)
        at org.apache.tomcat.service.TcpWorkerThread.runIt(PoolTcpEndpoint.java:416)
        at org.apache.tomcat.util.ThreadPool$ControlRunnable.run(ThreadPool.java:498)
        at java.lang.Thread.run(Unknown Source)
```

Root cause:

```
java.lang.AbstractMethodError
        at com.stc.ePM.api.ePM_MessageTrackDetail.(ePM_MessageTrackDetail.java:91)
        at com.stc.ePM.webint.RhMsgDetails.handleRequest(RhMsgDetails.java:99)
        at com.stc.ePM.webint.RequestController.getNextPage(RequestController.java:143)
        at _0002fcontroller_0002ejspcontroller_jsp_5._jspService(_0002fcontroller_0002ejspcontroller_jsp_5.java:88)
        at org.apache.jasper.runtime.HttpJspBase.service(HttpJspBase.java:119)
        at javax.servlet.http.HttpServlet.service(HttpServlet.java:853)
        at org.apache.jasper.servlet.JspServlet$JspServletWrapper.service(JspServlet.java:177)
        at org.apache.jasper.servlet.JspServlet.serviceJspFile(JspServlet.java:318)
        at org.apache.jasper.servlet.JspServlet.service(JspServlet.java:391)
```

B.3 Troubleshooting the e*Xchange Web Interface with Oracle

This section lists errors you might encounter when running the e*Xchange Web interface with an Oracle database.

Problem:

Error on login:

Cannot connect to the database server (see Figure 238 for user interface error, Figure 239 for Tomcat error).

Reason/Resolution:

The **classes12.zip** file (normally in \eXchange\lib) is not in your classpath environment variable.

Copy **classes12.zip** from the Oracle JDBC path (for example, c:\Oracle\Ora8i\jdbc\lib) to \eXchange\lib, and then restart the e*Xchange Web interface.

Figure 238 Classes12.zip missing from classpath: Logon Error

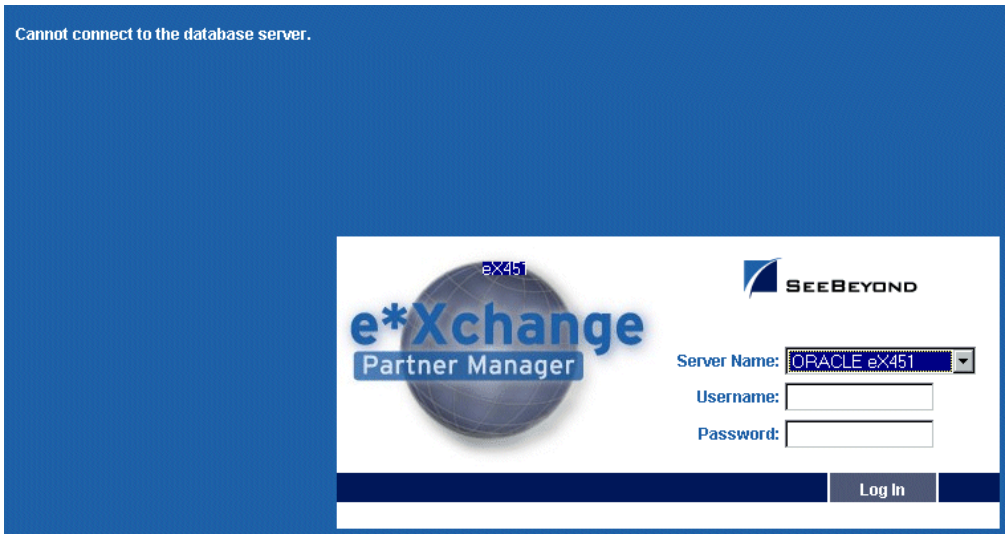
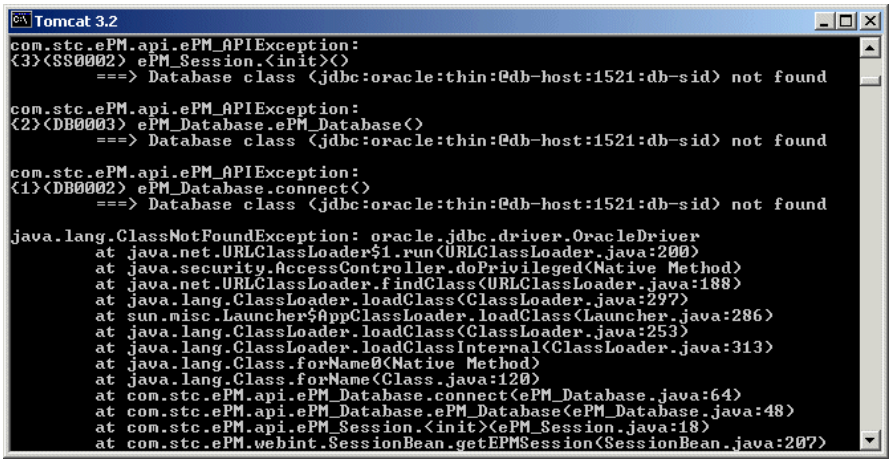


Figure 239 Classes12.zip missing from classpath: Tomcat Error



B.4 Troubleshooting Tips for All Database Types

This section lists additional errors you might encounter when running the e*Xchange Web interface with any type of database.

Problem:

Error on running any jsp page (see Figure 240).

Figure 240 Tools.jar Missing from classpath

Error: 500

Location: /stcepmweb/login_form.jsp

Internal Servlet Error:

```
javax.servlet.ServletException: sun/tools/javac/Main
        at org.apache.jasper.servlet.JspServlet.service(JspServlet.java:399)
        at javax.servlet.http.HttpServlet.service(HttpServlet.java:853)
        at org.apache.tomcat.core.ServletWrapper.doService(ServletWrapper.java:404)
        at org.apache.tomcat.core.Handler.service(Handler.java:286)
        at org.apache.tomcat.core.ServletWrapper.service(ServletWrapper.java:372)
        at org.apache.tomcat.core.ContextManager.internalService(ContextManager.java:797)
        at org.apache.tomcat.core.ContextManager.service(ContextManager.java:743)
        at org.apache.tomcat.service.connector.Ajp12ConnectionHandler.processConnection(Ajp12ConnectionHandler.java:166)
        at org.apache.tomcat.service.TcpWorkerThread.runIt(PoolTcpEndpoint.java:416)
        at org.apache.tomcat.util.ThreadPool$ControlRunnable.run(ThreadPool.java:498)
        at java.lang.Thread.run(Unknown Source)
```

Root cause:

```
java.lang.NoClassDefFoundError: sun/tools/javac/Main
        at org.apache.jasper.compiler.SunJavaCompiler.compile(SunJavaCompiler.java:128)
        at org.apache.jasper.compiler.Compiler.compile(Compiler.java:245)
        at org.apache.jasper.servlet.JspServlet.doLoadJSP(JspServlet.java:462)
        at org.apache.jasper.servlet.JasperLoader12.loadJSP(JasperLoader12.java:146)
        at org.apache.jasper.servlet.JspServlet.loadJSP(JspServlet.java:433)
        at org.apache.jasper.servlet.JspServlet$JspServletWrapper.loadIfNecessary(JspServlet.java:152)
        at org.apache.jasper.servlet.JspServlet$JspServletWrapper.service(JspServlet.java:164)
        at org.apache.jasper.servlet.JspServlet.serviceJspFile(JspServlet.java:318)
        at org.apache.jasper.servlet.JspServlet.service(JspServlet.java:391)
        at javax.servlet.http.HttpServlet.service(HttpServlet.java:853)
        at org.apache.tomcat.core.ServletWrapper.doService(ServletWrapper.java:404)
        at org.apache.tomcat.core.Handler.service(Handler.java:286)
        at org.apache.tomcat.core.ServletWrapper.service(ServletWrapper.java:372)
        at org.apache.tomcat.core.ContextManager.internalService(ContextManager.java:797)
```

Reason/Resolution:

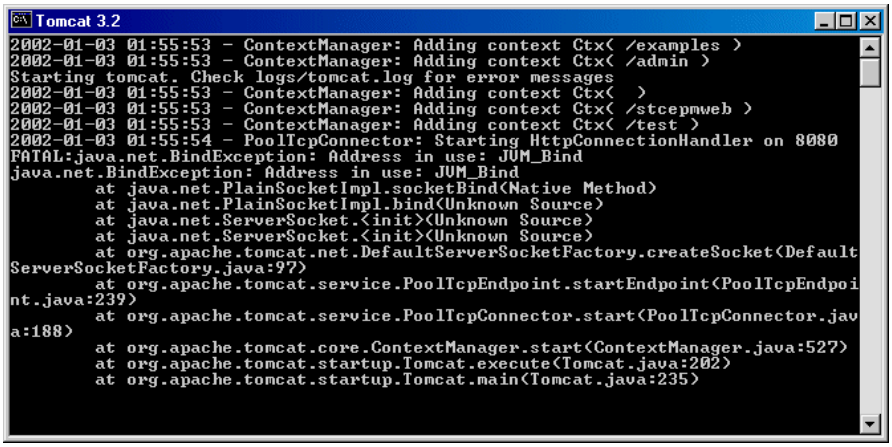
The **tools.jar** file is not in your classpath environment variable.

Resolution: Copy **tools.jar** from the JDBC path (for example, **c:\JDK1.3.1\lib\home**) to **\eXchange\lib**, and then restart the e*Xchange Web interface.

Problem:

Default port address is in use on your machine. The Tomcat window displays errors (see Figure 241). When trying to access the Web interface you get the message “Internal Server Error.”

Figure 241 Default Port Is In Use (Tomcat Window)



Reason/Resolution:

The default port number used by the e*Xchange Web interface, 8005, is in use on your machine.

Resolution: Change the default port number following the procedure below.

To change the default port number used by the e*Xchange Web interface

1. Open the file **\eXchange\Tomcat-3.2.1\conf\server.xml** in a text editor such as Notepad.
2. Search for the following text string:

   <Parameter name="port" value="8005"/>
3. Change the number 8005 to another port number not in use on your system.
4. Save and close the file.
5. Open the file **\eXchange\Tomcat-3.2.1\conf\workers.properties** in a text editor such as Notepad.
6. Search for the following text string:

   worker.ajp12.port=8005
7. Change the number 8005 to the new port number that you set in Step 3.
8. Save and close the file.
9. Restart the Apache service. For example, if you are using Windows 2000, go to the **Control Panel**, select **Administrative Tools**, select **Services**, find the entry for the Apache service, right-click, and select **Restart**.
10. Restart Tomcat by running the file **\eXchange\Tomcat-3.2.1\bin\startup.bat**.
11. Restart the e*Xchange Web interface.

Appendix C

Using the Validation Rules Builder

C.1 Overview

The Validation Rules Builder is a tool for converting X12 or UN/EDIFACT EDI implementation guide files into a format compatible for use with e*Xchange. This conversion tool accepts Standard Exchange Format (SEF) version 1.4 or 1.5 files and converts them into e*Gate Monk Event Type Definition (ETD) files (**.ssc** files) and Collaboration Rules files (**.tsc** files).

The Validation Rules Builder runs from a command line such as the UNIX command line or DOS.

Note: *A full range of standard .**ssc** files for X12 and UN/EDIFACT is provided in the respective ETD Library. Each file includes the protocol name, transaction number, transaction name, and protocol version. For example, the ETD file for an X12 270 version 4020 transaction is **X12_4020_270.ssc**; the ETD file for a UN/EDIFACT version 3 control message is **contrl.ssc**.*

C.2 Validation Rules Builder Files

Installation of the Validation Rules Builder includes the files listed in Table 129.

For complete installation instructions, refer to the *e*Xchange Partner Manager Installation Guide*.

Table 129 Validation Rules Builder Files

File Name	Description
ValidationBuilder.properties file	A text file containing several parameters that identify various processing options such as the locations of input and output files. Located in the ValidationRulesBuilder directory (normally **\eXchange\VRB**, but might be different depending upon your installation).

Table 129 Validation Rules Builder Files (Continued)

X12_set_nnnn_desc for X12, edf_set_nnx_vn_desc for UN/EDIFACT	A **set** file (for example, **X12_set_4010_desc** or **edf_set_99a_v4_desc**) is a text file, located in the ValidationRulesBuilder directory, that provides the number, description, and ID code (for X12) or code and name (for UN/EDIFACT) for each transaction within the given X12 or UN/EDIFACT version. The file **X12_set_4010_desc** for X12, and **set** files for a number of versions of UN/EDIFACT, are provided with the installation of the Validation Rules Builder. You can use your own description file in place of the default; however, use the format listed below: ▪ **For X12**: "NNN","Description"\n; For example, one line might read: **"104","Air Shipment Information","SA"** ▪ **For UN/EDIFACT**: Three characters, the code, a space, the description, the revision number, \n; For example, one line might read: *** APERAK Application error and acknowledgement message 1 2** The Validation Rules Builder determines the expected file type based on the setting in the **DefaultDelimiters** property in the **ValidationBuilder.properties** file. The standards version is used to create the root node path in the ETD as well as the output ETD file name. You can give a **set** file any name and place it in any directory, as long as you specify the pathname in the **ValidationBuilder.properties** file. if you choose not to use this file, or if the pathname pointing to the file is incorrect, the descriptions are not included in the node paths and output file names.
???_sec_????_desc	A **sec** file (for example, **X12_sec_4010_desc**) is a text file that provides ID and name for each segment and composite within the specified version of X12 or UN/EDIFACT. The file **X12_set_4010_desc** for X12, and **sec** files for a number of versions of UN/EDIFACT, are provided with the installation of the Validation Rules Builder. You can use your own file in place of the default; however, use the format listed below: ▪ **For X12**: "NNN","Description"; For example, one line might read: **"AAA","Request Validation"** ▪ **For UN/EDIFACT**, either of these: ♦ Four characters, the code, a space, description,\n ♦ Five characters, the code, two spaces, description, optional usage indicator, \n A sample of each format is shown below: ***# ARD Monetary amount function** **# 2000 Date value [I]** The standards version is used to create the root node path in the ETD as well as the output ETD file name. You can give this file any name and place it in any directory, as long as you specify the pathname in the **ValidationBuilder.properties** file. Also, if you do not want to use this file, or if the pathname pointing to the file is incorrect, the descriptions are not included in the node paths and output file names. Located in the ValidationRulesBuilder directory.

Table 129 Validation Rules Builder Files (Continued)

ValidationBuilder.jar	The file you execute to start the Validation Rules Builder tool. Normally located in the **\eGate\client\classes** directory.
PathtoVB.properties	A pointer that indicates where ValidationBuilder.properties is located. Stored in the user's home directory; for example, **c:\winnt\profiles\jdoe**. for Windows NT or **c:\Documents and Settings\jdoe** for Windows 2000.
ValidationBuilder.ctl	Commits the Monk files used by the VRB Collaboration files to the e*Gate registry.

C.3 Limitations

The Validation Rules Builder currently does not support certain features, as listed below.

SEMREFS (semantic rules) section

The Validation Rules Builder does not support the following SEMREFS types:

- APPVALUE
- USAGE
- Exit routine

Currently, only the LOCALCODE type is supported.

CODES (numeric list of each element with its dictionary code value) section

The Validation Rules Builder does not support the following:

- Exclusion of characters ('-' within [ ])
- Partitioned codes in [ ]
- No dictionary codes (no values before %)
- *{nnnn} combination within [ ], for example as shown below:

  1306=1,3,5%[(1)*{6,7,8}]+850/115///15

  The asterisk (*) means that all dictionary values are in the code set. A situation where the asterisk is used, indicating that all dictionary values are used, followed by curly brackets indicating extra code values that are not from the dictionary, is not supported.

TEXT section

The Validation Rules Builder does not support rules described in the TEXT section.

Since any information in the TEXT section is free-form text and does not follow any guidelines, the VRB cannot properly parse this section.

C.4 Prerequisites for Running the Validation Rules Builder

In addition to the Validation Rules Builder, make sure the following software is installed before you attempt to convert any SEF files.

- The Java 1.3 runtime environment must be installed on the computer from which the Validation Rules Builder program is invoked.
- e*Gate Integrator must be installed to verify the output ETD files (**.ssc** files) and Collaboration Rules files (**.tsc** files).

C.5 Third-Party Implementation Guide Editors

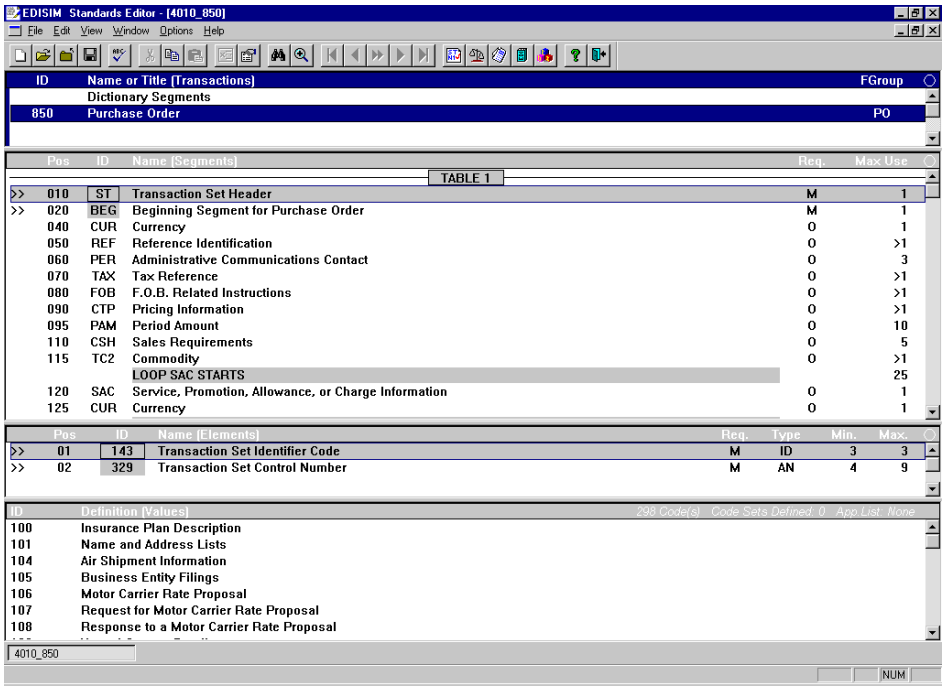
Third-party implementation guide editors are designed specifically for the purpose of editing and converting electronic implementation guides for various eBusiness protocols to the Standard Exchange Format (SEF). These editors help make it easy to develop, migrate, print, test, and distribute EDI implementation guidelines.

Examples of third-party implementation guides are:

- EDISIM, produced by Foresight
- SpecBuilder, produced by Edifecs Commerce

When you open a file in one of these implementation guides editors, you must specify the standard being used; for example, X12. You must also specify the version and the transaction set. The third-party tool then opens the implementation guide in a table format. For an example, see Figure 242.

Figure 242 Implementation Guide Open in Third-Party Tool



With the implementation guide open, you can customize it for your own implementation of the standard. You can perform any of the following editing actions:

- Add or remove segments
- Add or remove loops
- Change repetitions
- Change the pre-loaded lists of valid coded values
- Change the formats for data in a field (data element)
- Add conditional rules; for example, "If field A is valued, then field B is required."

Once any needed editing is done, you can save the file and export it in SEF format.

You can use the third-party editor to create SEF files for all transactions in all standards used by your own company and your trading partners.

Once you have the SEF files, you can use the Validation Rules Builder to convert them to a format that can be read by e*Xchange.

C.6 Using the Validation Rules Builder

The Validation Rules Builder accepts Standard Exchange Format (SEF) version 1.4 or 1.5 files and converts then into e*Gate Integrator Event Type Definition (ETD) files (**.ssc** files) and Collaboration Rules files (**.tsc** files).

To convert electronic implementation guides into e*Xchange-compatible event type definitions and Collaboration Rules, you must complete the following steps:

1. Create input SEF files using a third-party implementation guide editor
2. Verify the Validation Rules Builder processing properties
3. Start the Validation Rules Builder
4. Verify the output event type definition and Collaboration Rules files

C.6.1 Creating Input Data Files

You can reformat EDI implementation guides into SEF format using a third-party implementation guide editor such as Edifecs (an EDI software productivity tool that allows users to reference EDI standards such as X12 and UN/EDIFACT) or EDISIM (a pre-production accelerator tool). Follow these guidelines:

- Since the Validation Rules Builder expects input files without ISA/IEA and GS/GE segments, you must remove these segments from the .SETS portion of the input SEF file if they exist.

  SEF files produced with EDISIM do not include these segments, by default. However, SEF files produced with other implementation guide editors might include them, in which case you would have to remove them manually. To do this, open up the SEF file in the editor, go to the .SETS section of the file, and delete the ISA (Interchange control header), IEA (Interchange control trailer), GS (Functional Group header), and GE (Functional Group trailer) segments.
- You can include more than one transaction type in a single input SEF file. The Validation Rules Builder creates different ETD and Collaboration files for each transaction type.
- Copy or save the SEF files to a data directory of your choice.

C.6.2 Verifying Processing Properties

Before you start the Validation Rules Builder, you must verify the processing properties it will use to convert your input SEF files.

To verify the Validation Rules Builder properties file

1. Use a text editor to open the **ValidationBuilder.properties** file (see Figure 243).
2. Set or verify the file names, including paths (see **Table 130 on page 479**), for the following parameters:
   - inputFile

- setDescFile
- secDescFile
- OutputPath

3 Set or verify the parameters relating to the specific transaction or transactions for which you will be creating validation rules, as needed (see **Table 130 on page 479**), including the following:

- setDescFile and secDescFile—Verify that you are referencing the correct files for the X12 version you are using.
- UniqueId—Set the unique ID to a value appropriate for the transaction.
- Transactions—Set the value to the transaction or transactions for which you will be creating validation rules.
- Verify that the delimiters parameters are set appropriately for your installation.

4 Set or verify the host parameters (see **Table 130 on page 479**), including the following:

- RegistryHost
- RegistryPort
- UserName
- Password
- RegistrySchema

5 Save the properties file.

Note: *The name of the* ***ValidationBuilder.properties*** *file and the parameters you specify within it are case sensitive. Also, you must use forward slashes (/) for pathnames in the properties file regardless of whether you are running the Validation Rules Builder on Windows NT or UNIX.*

Figure 243 ValidationBuilder.properties Default File After Installation

Figure 244 Customized ValidationBuilder.properties File

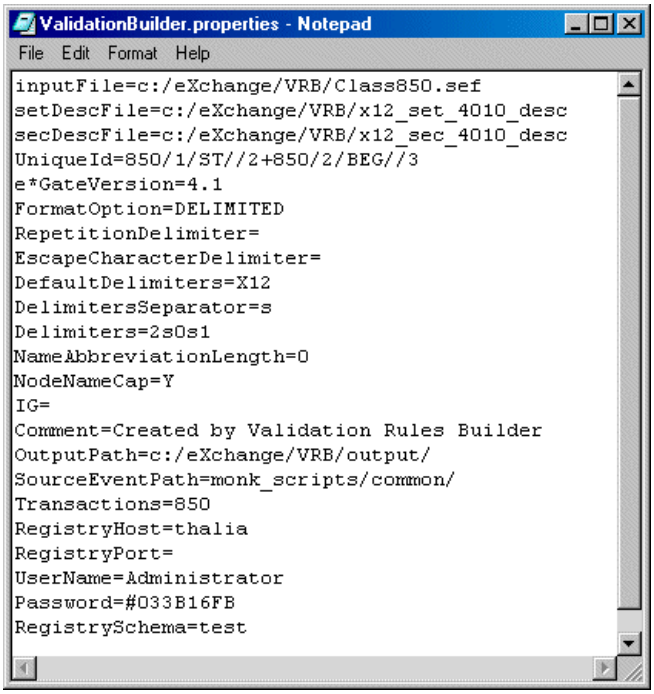


Table 130 ValidationBuilder.properties Parameters

Parameter Name	Description
inputFile	The name of the input SEF file that will be converted when you run the Validation Rules Builder. You can specify the input file in the following ways: ▪ A file name in the current directory (for example, **Class850.sef**) ▪ A path relative to the directory from which you start the Validation Rules Builder (for example, **../input/Class850.sef**) ▪ A full path and file name (for example, **d:/eGate/Client/ValidationRulesBuilder/Class850.sef**). Change the value provided, **class850.sef**, to an appropriate value for your operation; and make sure the corresponding input file is in the referenced directory. **Note**: If you provide only a file name, or a relative path, you will need to run the Validation Rules Builder from the directory in which the file is located, or from which the relative path is referenced.
setDescFile	The name of the file that associates descriptions with transaction set ID numbers. These descriptions are used to create the root node path in the ETD as well as the output ETD file name. You can enter a full path and file name, a file name in the directory from which you start the Validation Rules Builder, or a relative path starting at the Validation Rules Builder directory. The installation provides one of these files for X12 (**X12_set_4010_desc**, which could be used when converting 4010 files) and several for UN/EDIFACT; for example, **edf_set_99b_v3_desc**.
secDescFile	The name of the file that associates descriptions with segment codes, element/sub-element IDs, and composite IDs. The descriptions are used to create the node paths in the ETD, which are referenced from the Collaboration Rules. You can enter a full path and file name, a file name in the directory from which you start the Validation Rules Builder, or a relative path starting at the Validation Rules Builder directory. The installation provides one of these files for X12 (**X12_sec_4010_desc**, which could be used when converting 4010 files) and several for UN/EDIFACT; for example, **edf_sec_99b_v3_desc**.

Table 130 ValidationBuilder.properties Parameters (Continued)

Parameter Name	Description	
UniqueId	The fields that will be used as the unique identification code for each transaction generated using the output ETD. The unique ID is composed of a combination of the following, in sequence: ▪ transaction ID—the ID number, for example 850 for a Purchase Order. ▪ segment ordinal (optional)—the numerical position of the segment within the transaction. For example, within an 850 transaction, ST is the first segment, so the segment ordinal would be 1. The segment ordinal can be omitted, in which case e*Xchange will use the first occurrence of an ST segment. If there is more than one occurrence of a specific segment within a transaction, and you want to refer to any occurrence other than the first, the segment ordinal is required. ▪ segment ID—the alphabetic ID code for the segment. ▪ element ID (optional)—the ID code for the element within the segment. ▪ element position—the numerical position of the element within the segment. ▪ optional sub-element position—the numerical position of the sub-element. The following separators are used: ▪ Each identifier must be separated with a forward slash. ▪ Sets of identifiers for different transactions must be separated with a plus sign. ▪ Within the same transaction, the plus sign can be used to concatenate different values to create a multi-valued unique ID. ▪ A minus sign in the last field indicates element position-subelement position if a subelement is included in the unique ID. The default UniqueID is 850/1/ST//2+850//BEG//3. This means: For an 850 transaction, take the first element, ST, and use the second position (Transaction Set Control Number) for the first part of the unique ID. Take the BEG element, and use the third position (Purchase Order Number) for the second part of the unique ID. Concatenate these two values. When you install the Validation Rules Builder, the properties for an 850 transaction are already set up in the file. To run additional transactions, you must add the unique identifier for each transaction. For example, if you added a 270 transaction the line in **Figure 243 on page 478** might read: UniqueId=850/1/ST//2+850//BEG//3+270/BHT/3 Refer to the examples given below to see how the unique ID is built.	
	This specification …	**Indicates …**
	270/1/BHT//3	You want to use field 3 of the BHT segment (Reference Identification) as the unique identifier for 270 transactions.
	850/2/BEG//5-1	The unique identifier for 850 transactions will be the segment in the second position, BEG, element in the fifth position, sub-element 1. In this example, the unique ID would be a date. Note: You could also use 850//BEG//5-1.

Table 130 ValidationBuilder.properties Parameters (Continued)

Parameter Name	Description	
	271//BHT//3+850//ST//2	You want to a) use field 3 of the BHT segment (Reference Identification) as the unique identifier for 271 transactions, and b) use field 2 of the ST segment (Transaction Set Control Number) as the unique identifier for 850 transactions.
	850//ST//2+850//BEG//3	You want to concatenate field 2 of the ST segment and field 3 of the BEG segment into a unique identifier for 850 transactions.
e*Gate Version	The version of the e*Gate Enterprise Manager you will be using to work with the output Collaboration. This value is required.	
FormatOption	The data format of the transaction, which should be **DELIMITED**. This value is required.	
RepetitionDelimiter	The character to use as a repetition delimiter. This parameter is required for the e*Gate ETD header, but the value can be empty.	
EscapeCharacterDelimiter	The character to use as an escape delimiter. This parameter is required for the e*Gate ETD header, but the value can be empty.	
DefaultDelimiters	The types of delimiters; one of the following: ▪ **X12** For X12SEF files ▪ **EDF** For UN/EDIFACT SEF files This value is also used to begin the name of the output ETD and Collaboration files, and also the ETD rootnode name. For example, if this value is X12, and the input file is **Class850.sef** (see Figure 243 on page 478), the output files are: **X12_850PurchaseOrder.tsc** **X12_850PurchaseOrder.ssc**	
DelimitersSeparator	The character you want to use to separate the delimiters that you specify on the **Delimiters** parameter. This value is required.	
Delimiters	The delimiters to be used for the output ETD and Collaboration Rules files. The first delimiter separates segments, the second separates fields, and the third separates components or sub-elements. The value provided in the default file, **2s0s1**, uses "s" to dynamically point to a position in the file. This indicates that the character in the third position in the message is the segment delimiter, the character in the first position is the field delimiter (the first position is the zero position), and the character in the second position is the component or sub-element delimiter. Delimiters can also be hard-coded; for example, **~s*s:** indicates that you want to use a tilde for the first delimiter, an asterisk for the second delimiter, and a colon for the third delimiter. The character you specify for the **DelimitersSeparator** parameter separates the delimiter characters. To specify a Hex delimiter, code **\\xNN**, where **N** is a digit (0–9) or a letter (A–F). To specify an Octal delimiter, code **\\oMNN**, where **M** is a digit (0–3) and **N** is a digit (0–7). For example, a Hex parameter would look like this: **Delimiters=\\x21s\\x2As\\x1F**. **Note**: The delimiters value **2s0s1** is the recommended value because it is flexible. You can change these values to characters but be sure that the characters match the delimiters used.	

Table 130 ValidationBuilder.properties Parameters (Continued)

Parameter Name	Description
NameAbbreviationLength	This value determines how the name of each node is abbreviated in the output files and file names. For example, if it is set to 4, the Validation Rules Builder takes the first four letters of each word in the segment, transaction set, or data element name when creating nodes in the **.ssc** and **.tsc** files, and in the file names themselves. For example, if this parameter is set to 4, Beginning of Hierarchical Transaction is abbreviated to BegiOfHierTran. It is important that the node names are not too long since e*Gate allows a maximum of 63 characters in the node name. **Note**: The recommended value for this parameter is **4**. If you do not want the words to be abbreviated, set this value to 0.
NodeNameCap	This value (**Y** or **N**) determines whether the Validation Rules Builder uses initial cap on each word in the names of the **.ssc** and **.tsc** files and in the node names within the files. If set to **Y**, the first letter of each word is capitalized in the node names and in the file names; for example, BegiOfHierTran. If set to **N**, it would be begiofhiertran.
IG	If you are not using HIPAA, leave this parameter empty. If you are using HIPAA, set the value of this parameter to HIPAA. This sets the Validation Rules Builder to apply an extra rule when building the ETD; if the value in the segment NM102 is 1, it checks that there is a value in element NM104.
Comment	The main comment you want to include in the output ETD and Collaboration Rules. This parameter is required but it can be empty.
OutputPath	The path and directory where the Validation Rules Builder will place the output ETD and Collaboration files. Another copy of the files is also registered in the e*Gate Registry. You can specify the output path in two ways: ▪ Use a path relative to the directory from which you start the Validation Rules Builder (for example, **../output**). ▪ Use a full path (for example, **d:/eGate/Client/ValidationRulesBuilder/output**). The Validation Rules Builder does not create the directory. If you want to set a path that does not currently exist, you must create it. **Note**: If you provide only a file name, or a relative path, you will need to run the Validation Rules Builder from the directory in which the file is located, or from which the relative path is referenced.
SourceEventPath	The pathname that you want to appear in the source comments at the beginning of the Collaboration header. The default value is taken from the setting in OutputPath. The recommended value is **monk_scripts\common** since that is where e*Gate normally stores the ETD and Collaboration files.

Table 130 ValidationBuilder.properties Parameters (Continued)

Parameter Name	Description
Transactions	The identification numbers of all transaction sets you want to convert. Each identification number must be separated by a comma. When you install the Validation Rules Builder, the 850 transaction is already listed. To run additional transactions, you must add unique identifiers for the transaction. For example, if you added a 270 transaction to the file in **Figure 244 on page 478**, the Transactions line in the above file would read: Transactions=850,270 If a transaction set number is not listed, ETD and Collaboration Rules files are not generated for that transaction type.
RegistryHost	The name of the e*Gate registry host containing the e*Xchange schema.
RegistryPort	If needed, specify the port to be used to access the host. To use the default port, leave blank.
UserName	The user name, as defined in the e*Xchange registry schema.
Password	The password that will be required for access to the e*Gate registry. The password is associated with the UserName.
RegistrySchema	The name of the e*Xchange registry schema.

C.6.3 Starting the Validation Rules Builder

After you have verified that the properties are specified properly for the SEF file you want to convert, you can start the Validation Rules Builder.

To run the Validation Rules Builder

1 From a command line, run the following command:

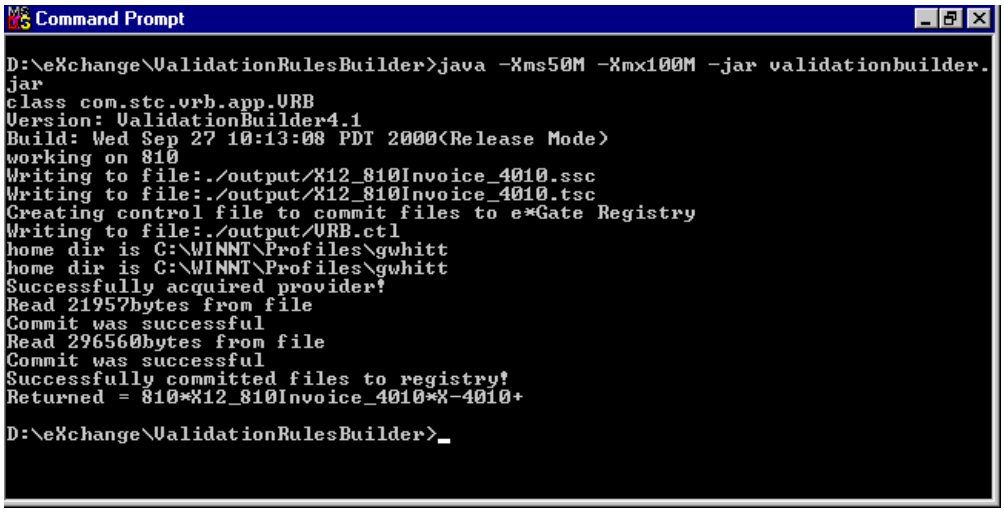
```
java -jar ValidationBuilder.jar
```

Note: *If the **ValidationBuilder.jar** file is not in the current directory and is not in your path, you must precede the file name with the path so that your system can run the file (see Figure 245).*

The Validation Rules Builder reads the SEF file specified on the **inputFile** parameter in the properties file and uses it to create ETD and Collaboration Rules files.

2 If the conversion is successful, the Validation Rules Builder saves the appropriate ETD and Collaboration Rules files in your output directory and displays a message on your monitor (see Figure 245).

Figure 245 Running the Validation Rules Builder



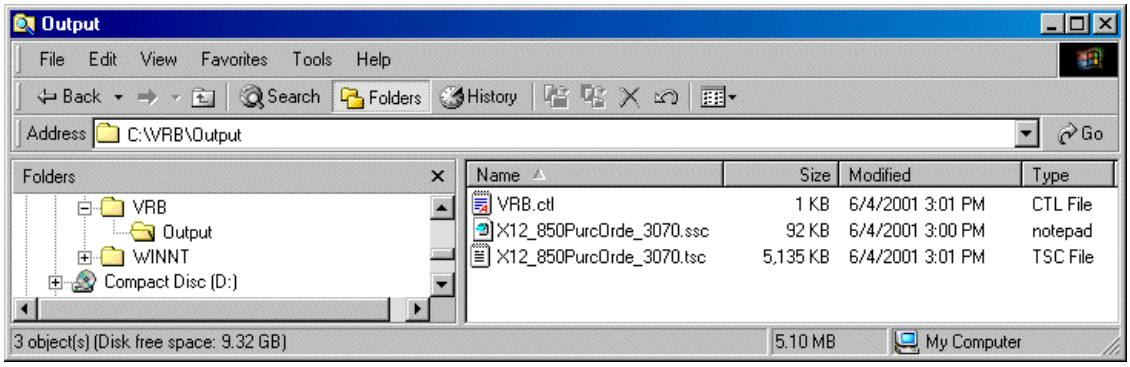
If the conversion is *not* successful, an error message appears. For information on error messages and actions to take, see Table 131.

Two sets of output files are produced:

- One set is placed in the output directory specified in the OutputPath parameter of the ValidationBuilder.properties file.
- The second set of files is automatically committed to the e*Gate Registry. The files are available the next time you run e*Gate.

The output files produced in the output directory as a result of running the Validation Rules Builder in Figure 245 are shown in Figure 246.

Figure 246 Sample Output Files



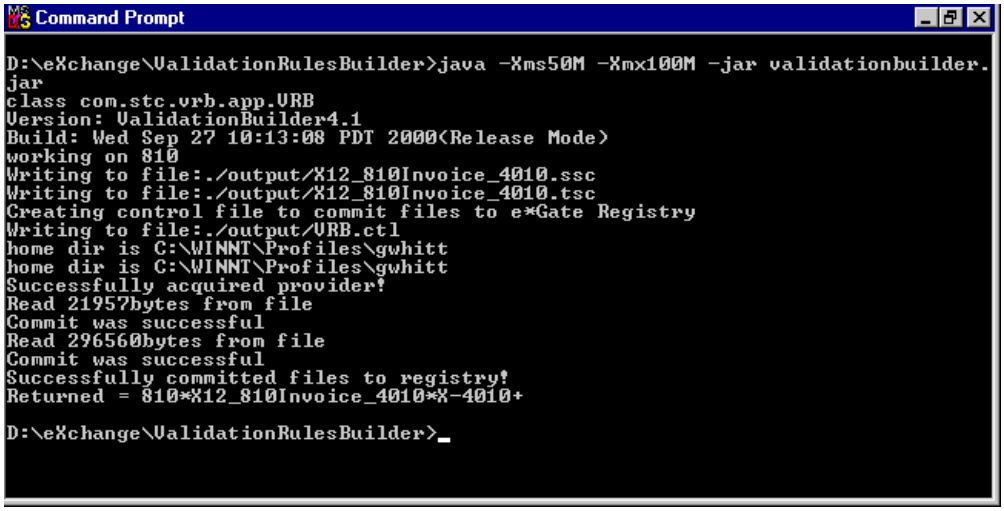
Memory Errors

If you have any problems with insufficient memory when running the Validation Rules Builder, you can add parameters that will increase the memory allocation, as shown below.

```
java -Xms50M -Xmx100M -jar ValidationBuilder.jar
```

An example of the Validation Rules Builder running with the additional parameters is shown in Figure 247.

Figure 247 Using the Validation Rules Builder Additional Memory Parameters



Using the Debug Flag

If you want to see debug information, you can run the Validation Rules Builder with a debug flag. The debug information is displayed on the screen.

To run the Validation Rules Builder in debug mode, add the flag **-DDebug=true** to the command. For example:

```
java -DDebug=true -jar ValidationBuilder.jar
```

C.6.4 Verifying ETD and Collaboration Rules Files

To verify the output ETD and Collaboration Rules files, open the files in e*Gate.

To verify ETD and Collaboration Rules files

1. Open the file.
   - To open the Event Type Definition (**ssc**) file, use the ETD Editor.
   - To open the Collaboration Rules (**tsc**) file, use the Collaboration Rules Editor.
2. Navigate to the directory in which the Validation Rule Builder put the output files.
3. Using test data, process messages through the e*Gate Editor and the pertinent e*Way.

Note: *There is a size limitation (approximately 6,500 lines) on files that can be opened in the e*Gate Collaboration Rules Editor. If you attempt to open a file that is larger than this, the Collaboration Rules Editor generates an error and the file does not open. If this happens, you must edit the file in another application that can open*

larger files and also accommodate long lines, such as the emacs text editor for UNIX, or Microsoft Word for PCs.

C.7 Troubleshooting Tips

This section includes information on the error messages generated by the Validation Rules Builder and what to do if you encounter an error.

C.7.1 General Validation Rules Builder Error Messages

You might encounter one of the error messages described in Table 131 while you are running the Validation Rules Builder.

Table 131 Validation Rules Builder Error Messages

Error Message	Reason for Error	Action
Empty INI line	The .INI section of the input SEF file does not contain any details.	Use your Edifecs or EDISIM tool to add details to the .INI section of the SEF file, and then restart the Validation Rules Builder.
Error parsing	There is an invalid entry in either the .CODES or .SEMREFS section of the input SEF file.	Use your Edifecs or EDISIM tool to add details to the .CODES or .SEMREFS sections of the SEF file, and then restart the Validation Rules Builder.
Error parsing location	There is an invalid location specified in the .CODES, .SEMREFS, .VALREFS, or .OBJVARS section of the input SEF file.	Use your Edifecs or EDISIM tool to correct the location path according to SEF specifications.
Error parsing *n* Invalid modifier	A line in the .VALLISTS section of the input SEF file does not begin with an ampersand (&) or quote (') character. *n* represents the invalid leading character found. Example: *Error parsing % Invalid modifier*	Use your Edifecs or EDISIM tool to correct the .VALLISTS line according to SEF specifications.
Error parsing SemanticRule	There is an invalid semantic rule in the .SEMREFS section of the input SEF file.	Use your Edifecs or EDISIM tool to correct the .SEMREFS semantic rule according to SEF specifications.
Error parsing transaction	One of the following is formatted incorrectly in the input SEF file: ▪ a segment in the .SETS section ▪ an element in the .SEGS section ▪ a sub-element in the .COMS section.	Use your Edifecs or EDISIM tool to correct the invalid format according to SEF specifications.

Table 131 Validation Rules Builder Error Messages (Continued)

Error Message	Reason for Error	Action
Exception in thread "main" java.lang.NoClassDefFoundError: com/stc/common/registry/RegistryControlFile	The **eGate.jar** file is not in the appropriate location.	Copy the eGate.jar file to the \lib\ext folder for Java version 1.3; for example, \JRE\1.3.1\lib\ext.
Failed to load Main-Class manifest attribute from ValidationBuilder.jar	The Validation Rules Builder failed to load.	Check that the Validation Rules Builder is installed and that the directory containing the **ValidationBuilder.jar** file is referenced on the command line (see **Figure 245 on page 484**).
Header not found in SEF specs	A section header in the input SEF file is not recognized. For example, the .COMS header might be mistakenly specified as .CONS.	Use your Edifecs or EDISIM tool to either remove the invalid section or change the name of the section header to a name that complies with SEF specifications.
No such file or directory	The pathname that appears next to this error message is specified incorrectly in the **ValidationBuilder.properties** file.	Correct the pathname in the **ValidationBuilder.properties** file, and then restart the Validation Rules Builder.
SEF file invalid - missing *xxx* where ***xxx*** is either **.SETS**, **.SEGS**, **.ELMS**, or **.CODES**	The specified section of your input SEF file is missing.	Use your Edifecs or EDISIM tool to correct the SEF file, and then restart the Validation Rules Builder.
Transaction(s) <*nnn*> in properties file are not defined in sef file	The **ValidationBuilder.properties** file is missing the transaction code for transactions in the SEF file.	Add the transaction number to the Transactions parameter in the **ValidationBuilder.properties** file, and then restart the Validation Rules Builder.
UniqueID property <*path*> is invalid! Wrong number of path components.	The UniqueID parameter in the **ValidationBuilder.properties** file is not specified correctly; there are too few or too many elements in the parameter list.	Correct the UniqueID parameter in your **ValidationBuilder.properties** file, and then restart the Validation Rules Builder.
UniqueId property <*uidPath*> is invalid! Does not include path for transaction *nnn*	The Unique ID parameter in the **ValidationBuilder.properties** file does not contain a specification that corresponds to a transaction in the input SEF file.	Add the appropriate specification to the UniqueID parameter in your **ValidationBuilder.properties** file, and then restart the Validation Rules Builder.

Table 131 Validation Rules Builder Error Messages (Continued)

Error Message	Reason for Error	Action
UniqueId property is invalid! Cannot include unused segment <*segCode*>	A segment that is marked as unused in the input SEF file is referenced on the UniqueID parameter in the **ValidationBuilder.properties** file. Thus, the path for this segment is invalid and the segment is not included in the output ETD.	Change the UniqueID parameter in your **ValidationBuilder.properties** file to include only those segments that are "used" in the input SEF file.
UniqueId property <*nnn*.xxx.n> is invalid! Does not include path for transaction <nnn> Unable to complete collaboration	A unique ID sequence is not specified for the transaction in the **ValidationBuilder.properties** file	Add the appropriate specification to the UniqueID parameter in your **ValidationBuilder.properties** file, and then restart the Validation Rules Builder.
Version not specified	The .VER section of the input SEF file does not contain a version number.	Use your Edifecs or EDISIM tool to include a version number in the .VER section of the input SEF file.
Unable to complete processing your file. Out of memory! Please rerun tool with -Xms50M -Xmx100M flags following java command. These flags give the tool more memory to process your file.	The java virtual machine has run out of memory and cannot convert the SEF file.	Restart the Validation Rules Builder, but this time, add the -Xms50M -Xmx100M flags to the end of the command sequence.

C.7.2 Validation Rules Builder Error Messages for UN/EDIFACT

If there are multiple errors, each error is separated by a tilde (~).

If there are errors, they are stored in the global error_data string buffer, and the global variable error is set to **#t**.

An example of an error data string is shown below.

```
"39^DTM^3^1^2^1~37^UNT^9^1^^1
```

This example includes two separate errors, with the following meanings:

Table 132 Sample UN/EDIFACT VRB Error String

String	Meaning
39^DTM^3^1^2^1	The first occurrence of the second sub-element of the first element in the third segment (DTM) has a value that is too long.

Table 132 Sample UN/EDIFACT VRB Error String

String	Meaning
37^UNT^9^1^^1	The first occurrence of the first element in the ninth segment (UNT) has an invalid type (expects all numeric).

If you are using both UN/EDIFACT and X12, make sure the following properties in the **ValidationBuilder.properties** file are correct before running the VRB:

- DefaultDelimiters (set to X12 or EDF)
- setDescFile (set_4010_desc for X12 4010 or edf_set_00b_desc for EDF 00b)
- secDescFile (sec_4010_desc for X12 4010 or edf_sec_00b_desc for EDF 00b)
- inputFile

The error messages specific to UN/EDIFACT are listed in Table 133.

Table 133 Validation Rules Builder Error Messages for UN/EDIFACT

Error Message	Reason for Error	Action
12 = INVALID_VALUE	Invalid date or time.	Put date/time in the correct format as shown below: Date: **YYYYMMDD** or **YYMMDD** Time: **HHMM**, **HHMMSS**, **HHMMSSD**, or **HHMMSSDD**
13 = MISSING	Mandatory or conditionally required elements are not present.	Put in the required element.
21 = INVALID_CHAR	Invalid codes.	Use a code from the code list.
37 = INVALID_TYPE	Invalid elements that are not supposed to be date or time formats.	Change the element so that it matches the specified type.
39 = TOO_LONG	Length of element exceeds specified limit.	Shorten the element.
40 = TOO_SHORT	Length of element does not meet specified minimum length.	Increase the length of the element.

Appendix D

e*Xchange Database Tables

This appendix contains detailed information on the e*Xchange database tables that might be referenced in creating reports.

General information is provided for each table, plus an explanation of the meaning of each column within the table.

Information is provided for each of the following tables:

"ES_MTRK_INB" on page 490

"ES_MTRK_OUTB" on page 492

"ES_WAITING_ACK" on page 494

"ES_MTRK_ERROR" on page 495

D.1 e*Xchange Tables

D.1.1 ES_MTRK_INB

The ES_MTRK_INB table stores information about all inbound messages from trading partners, whether they are requests, responses, or positive or negative functional acknowledgments. The database stores compressed messages in ES_MSG_BINARY and uncompressed messages in ES_MSG_ASCII. The ES_MTRK_INB references these messages, stored in other tables, via the MSG_STORAGE_ID table.

Primary Key: MTRK_INB_ID

Foreign Keys:

- ORIG_MSG_ID (correlates to MSG_STORAGE_ID in ES_MSG_STORAGE)
- ACK_MSG_ID (correlates to MSG_STORAGE_ID in ES_MSG_STORAGE)
- RAW_MSG_ID (correlates to MSG_STORAGE_ID in ES_MSG_STORAGE)

Table 134 ES_MTRK_INB

Parameter	Name/Definition	Data Type	Required?	Length
MTRK_INB_ID	The primary key of the record inserted into the table.	Numeric	Y	10,0

Table 134 ES_MTRK_INB (Continued)

Parameter	Name/Definition	Data Type	Required?	Length
ES_ID	The ID of the trading partner profile record with which this record is associated, in either the ES_TPIC (for an outer envelope) or ES_TPTS (for an inner envelope) table.	Numeric	Y	10,0
ES_OPT	This indicates the trading partner profile table referenced by the value in the ES_ID column. If ES_OPT is TS then ES_ID points to a record in ES_TPTS. If ES_OPT is IC then ES_ID points to a record in the ES_TPIC table.	Varchar	Y	2
UNIQUE_ID	The unique identifier of the specific message. This unique identifier could come from either the body of the message or a value from the message envelope.	Varchar	Y	50
ORIG_MSG_ID (foreign key)	This column points to the record in the ES_MSG_STORAGE table that identifies where the complete inbound message is stored.	Numeric	Y	10,0
MSG_RCPT_TM	The date and time at which the message was received.	Datetime	Y	
RTN_RCPT	This field stores Y or N to indicate whether the trading partner expects a return receipt when the message is received.	Char	Y	1
ACK_QUE_TM	If the value in RTN_RCPT is Y, this field indicates the date and time at which the acknowledgment was stored in the ES_OUT_QUEUE message queue.	Datetime	N	
ACK_MSG_ID (foreign key)	If the value in RTN_RCPT is Y, this field indicates the ID of the record in the ES_MSG_STORAGE table that identifies where the acknowledgment message is stored.	Numeric	N	10,0
RAW_MSG_ID (foreign key)	This column points to the record in the ES_MSG_STORAGE table that is in raw format; that is, the internal format of the message before it is translated to an eBusiness protocol format.	Numeric	N	10,0

Table 134 ES_MTRK_INB (Continued)

Parameter	Name/Definition	Data Type	Required?	Length
ERROR_DATA	This field stores Y or N to indicate whether there are errors associated with the message. If there are errors, the information is stored in ES_MTRK_ERROR; the DIRECTION column indicates that the message is inbound, and the MTRK_MSG_ID references this record in ES_MTRK_INB.	Char	Y	1
CREATED_BY	User ID of creator.	Varchar	Y	15
CREATED_TIME	Creation date and time (YYYYMMDDHHMMSS).	Varchar	Y	22

D.1.2 ES_MTRK_OUTB

The ES_MTRK_OUTB table stores information about outbound messages. Any message, whether it is an original outbound message being sent to a trading partner or an outbound response to an inbound message, is added to this table.

Primary Key: MTRK_OUTB_ID

Foreign Keys:

- ORIG_MSG_ID (correlates to MSG_STORAGE_ID in ES_MSG_STORAGE)
- ACK_MSG_ID (correlates to MSG_STORAGE_ID in ES_MSG_STORAGE)
- ENV_MSG_ID (correlates to MSG_STORAGE_ID in ES_MSG_STORAGE)
- RAW_MSG_ID (correlates to MSG_STORAGE_ID in ES_MSG_STORAGE)

Table 135 ES_MTRK_OUTB

Parameter	Name/Definition	Data Type	Required?	Length
MTRK_OUTB_ID	The primary key of the table.	Numeric	Y	10,0
ES_ID	The ID of the trading partner profile record with which this record is associated, in either the ES_TPIC (for an outer envelope) or ES_TPTS (for an inner envelope) table.	Numeric	Y	10,0
ES_OPT	This indicates the trading partner profile table with which the record is associated. Identifies which table the ES_ID column value points to. If ES_OPT is TS then ES_ID points to a record in ES_TPTS. If ES_OPT is IC then ES_ID points to a record in the ES_TPIC table.	Varchar	Y	2

Table 135 ES_MTRK_OUTB (Continued)

Parameter	Name/Definition	Data Type	Required?	Length
UNIQUE_ID	The unique identifier of the specific message. This unique identifier could come from either the body of the message or a value from the message envelope.	Varchar	Y	50
TRAN_TYPE	The eBusiness protocol used for the message: X12, UN/EDIFACT, RosettaNet, or CIDX.	Varchar	Y	15
TRAN_MODE	The transaction mode (B for Batch or I for Interactive).	Char	Y	1
ORIG_MSG_ID (foreign key)	This column points to the record in the ES_MSG_STORAGE table that identifies where the message (as received by e*Xchange) is stored.	Numeric	Y	10,0
ENV_MSG_ID	This column points to the record in ES_MSG_STORAGE that identifies where the message (enveloped and ready to be sent to the trading partner) is stored.	Numeric	N	10,0
RAW_MSG_ID (foreign key)	This column points to the record in the ES_MSG_STORAGE table that is in raw format; that is, the internal format of the message before it is translated to an eBusiness protocol format.	Numeric	N	10,0
MSG_SEND_TM	The date and time at which the message was sent the first time.	Datetime	N	
RTN_RCPT	This field stores Y or N to indicate whether a return receipt is expected when this message is sent.	Char	Y	1
ACK_TM	The date and time at which the acknowledgment message was received.	Datetime	N	
ACK_MSG_ID (foreign key)	The ID of the reciprocating inbound acknowledgment message for this outbound message (if an acknowledgment has been received), identified by ENV_MSG_ID.	Numeric	N	10,0
SEND_CNT	The number of times this message has been sent.	Numeric	Y	5,0

Table 135 ES_MTRK_OUTB (Continued)

Parameter	Name/Definition	Data Type	Required?	Length
LAST_SEND_TM	The date and time the last resend occurred. If the message has only been sent once, this has the same value as MSG_SEND_TM; however, when a message is resent, LAST_SEND_TM is updated.	Datetime	N	
ERROR_DATA	This field stores Y or N to indicate whether there are errors associated with the message. The error messages are stored in ES_MTRK_ERROR and will point to this record in ES_MTRK_INB.	Char	Y	1
CREATED_BY	User ID of creator	Varchar	Y	15
CREATED_TIME	Creation date and time (YYYYMMDDHHMMSS)	Varchar	Y	22

D.1.3 ES_WAITING_ACK

The ES_WAITING_ACK table stores information about messages that have been sent and are waiting for an acknowledgment to be received from the trading partner. For each message, this table stores message information as well as data about the number of retries and retry period preset for this message, and how many times the message has already been sent.

When the acknowledgment is successfully received, the record in this table is deleted.

If the maximum number of retries occurs without an acknowledgment being received, the information is removed from this table. An error record is created in ES_MTRK_ERROR, and an error is recorded in the ES_MTRK_OUTB table (ERROR_DATA column).

Primary Key: WAITING_ACK_ID

Foreign Key: MTRK_OUTB_ID (correlates to MTRK_OUTB_ID in ES_MTRK_OUTB)

Table 136 ES_WAITING_ACK

Parameter	Name/Definition	Data Type	Required?	Length
WAITING_ACK_ID	The primary key of the table.	Serial	Y	
MTRK_OUTB_ID	The record ID of the associated ES_MTRK_OUTB record.	Numeric	Y	10,0
NEXT_SEND_TM	The date and time at which the message will be sent out for the next retry if an acknowledgment is not received.	Datetime	Y	

Table 136 ES_WAITING_ACK (Continued)

Parameter	Name/Definition	Data Type	Required?	Length
ACK_RSP_TM_S	The timeout period, expressed in seconds. For example, if the user interface is set to resend every 5 minutes, the ACK_RSP_TM_S is 300.	Numeric	Y	10,0
SEND_CNT	The number of times that the message has been sent.	Numeric	Y	5,0
ACK_RSP_RETRY_MAX	The number of times the message will be sent before an error is logged.	Number	Y	5,0
CREATED_BY	User ID of creator	Varchar	Y	15
CREATED_TIME	Creation date and time (YYYYMMDDHHMMSS)	Varchar	Y	22

D.1.4 ES_MTRK_ERROR

The ES_MTRK_ERROR table stores information about errors that have been generated relating to messages; for example, a message did not receive an expected acknowledgment or failed validation.

Primary Key: MTRK_OUTB_ID

Foreign Keys: None

Table 137 ES_MTRK_ERROR

Parameter	Name/Definition	Data Type	Required?	Length
MTRK_ERROR_ID	The primary key of the table.	Numeric	Y	10,0
MTRK_MSG_ID	The ID of the record containing the error; MTRK_INB_ID in ES_MTRK_INB for an inbound message or MTRK_OUTB_ID in ES_MTRK_OUTB for an outbound message.	Numeric	Y	10,0
DIRECTION	The direction of the message: I for inbound or O for outbound. This indicates whether MTRK_MSG_ID is pointing to a record in ES_MTRK_INB (for inbound) or ES_MTRK_OUTB (for outbound).	Char	Y	1
ERROR_NO	The standard error number. This correlates to an error number set up in the ERROR_NO column of the ES_MSG_ERROR table.	Numeric	Y	10,0
ERROR_DETAIL	Information generated by the system about the error.	Varchar	Y	100
CREATED_BY	User ID of creator	Varchar	Y	15

Table 137 ES_MTRK_ERROR (Continued)

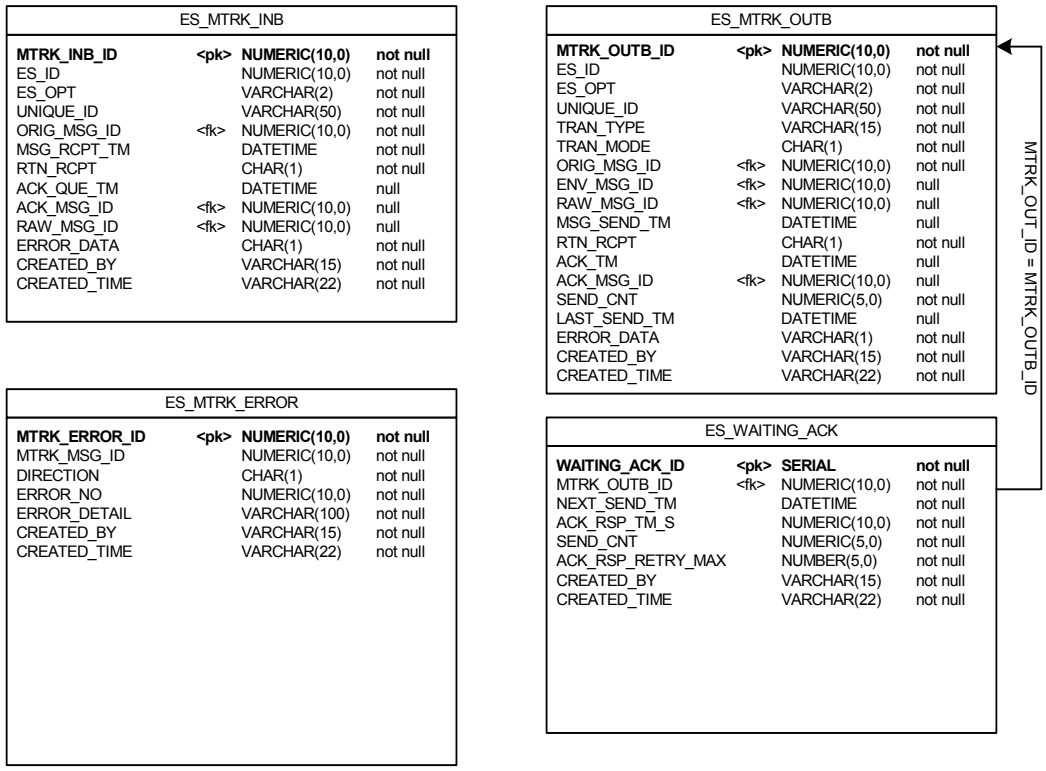
Parameter	Name/Definition	Data Type	Required?	Length
CREATED_TIME	Creation date and time (YYYYMMDDHHMMSS)	Varchar	Y	22

An example of a report created by referencing the es_mtrk_inb message tracking table is shown in **"Sample Report Settings" on page 449**.

D.2 Diagram of Message Tracking Tables

The message tracking tables displayed below are part of the e*Xchange database structure. Foreign keys that connect these tables are indicated by an arrow connecting the related tables and a label indicating the foreign key. Primary keys in each table are shown in boldface.

Figure 248 e*Xchange Database Structure



Glossary

access control list
A list of information associated with a trading partner profile component (company, trading partner, outer envelope, or inner envelope) that specifies which users and user groups have permission to access the components and what specific access rights they have (add, edit, full control, or read).

action item
A task request that you can save in e*Xchange Client for Windows for subsequent retrieval by you or another user. You can track the status of action items and use them to create electronic reminder lists for yourself.

API
An acronym for Application Program Interface, which is a set of protocols, routines, and tools for building software applications. The e*Xchange API consists of a set of Monk functions that can be called from custom validation Collaborations to interface with the database.

authentication
A process that guarantees that an electronic message came from a particular trading partner based on the electronic signature sent with the message.

B2B protocol level
In the e*Xchange Web interface, a B2B protocol is the trading partner profile component that you use to enter technical information about the exchange of messages between you and your trading partner. The type of eBusiness protocol you agree to use, such as X12, UN/EDIFACT, RosettaNet, or CIDX, is an example of a B2B protocol characteristic.

CIDX
CIDX (Chemical Industry Data eXchange) is an organization whose members have worked together to develop commercial solutions for the chemical industry. As well as other standards, conventions, and processes, CIDX members have developed a set of electronic transactions specifically designed for the buying, selling, and delivery of chemicals, called Chem eStandards.

code tables
The mechanism used to customize values that appear in e*Xchange drop-down lists.

Collaboration
A component of an e*Way or BOB that receives and processes Events and forwards the output to other e*Gate components. Collaborations perform three functions: They

subscribe to Events of a known type, they apply business rules to Event data, and they publish output Events to a specified recipient. Collaborations use Monk translation script files with the extension **.tsc** or Java translation script files with the extension **.xts** to do the actual data manipulation.

Company
An organization with which you conduct electronic business (eBusiness). A company can consist of one or more trading partners. See also *Trading partner*.

decryption key
The key used to decrypt an incoming encrypted message. See also *key*.

digital certificate
A digital certificate is an electronic certificate, issued by a certification authority, that establishes your credentials when exchanging eBusiness messages on the Web. Your digital certificate contains your name, a serial number, expiration dates, a copy of your public key (used for encrypting messages and validating digital signatures), and the digital signature of the certificate-issuing authority so that a recipient can verify that the certificate is real. Digital certificates can be kept in registries so that authenticated users can look up the public keys of other users.

DMZ
DMZ is an acronym for a "demilitarized zone" on the Internet. A DMZ is an area that is common to, or shared between, two different networks—for example, between a VAN (value added network) and the Internet.

A DMZ is sometimes used as a location for secure servers. Putting these in a DMZ allows access by outside entities (with appropriate permission) so that certain types of information can be shared; for example, inventory information. At the same time, it keeps them outside the private network. This has security advantages for the private network, since the information is shared outside of the VAN, it is not necessary to allow access to the VAN itself.

The DMZ is a more secure location than the Internet.

eBusiness protocol
An eBusiness protocol is a generally accepted standard for formatting and exchanging electronic messages between trading partners. X12, UN/EDIFACT, RosettaNet, and CIDX are examples of eBusiness protocols.

EDI
EDI (Electronic Data Interchange) is a standard format for controlling the exchange of business data. The standard, X12, was developed by the Data Interchange Standards Association (DISA). X12 is used in the United States; a closely related EDI standard, UN/EDIFACT, is used internationally.

An EDI message contains a string of data elements, each representing one piece of information such as a price, product model number, or customer name. Logical groups of elements form segments; for example, several address elements might form an address segment. Elements and segments are separated by delimiters. A logical

grouping of elements and segments forming one or more messages is enveloped within header and trailer segments. EDI messages can be encrypted.

e*Xchange Partner Manager (e*Xchange)
An application within the SeeBeyond eBusiness Integration Suite that you use to set up and maintain trading partner profiles and view processed messages. e*Xchange also processes inbound and outbound messages according to certain eBusiness protocols and your validation Collaborations.

Error Table
The mechanism used to define error messages that you can use with custom validation Collaborations.

eSecurity Manager (eSM)
An add-on to e*Xchange that secures transmission of business-to-business exchanges over public domains such as the Internet.

Event (Message)
Data to be exchanged, either within e*Xchange or between e*Xchange and external systems, which has a defined data structure; for example, a known number of fields, with known characteristics and delimiters. Events are classified by type using Event Type Definitions.

Event Type Definition
An Event Type template, defining Event fields, field sequences, and delimiters. Event Type Definitions enable e*Xchange systems to identify and transform Event Types. An Event Type Definition is a Monk script file with an extension of **.ssc** or a Java script file with an extension of .**xsc**, indicating a message structure script file.

extended attributes
Information you can store at the company, trading partner, outer envelope, and inner envelope levels, as needed for your business. For companies and trading partners, you can create extended attributes to store specific information about the company or trading partner. For outer and inner envelopes, the extended attributes are specific to a particular eBusiness protocol. Characteristics of ANSI X12 Interchange, Functional Group, and Transaction Set envelopes are examples of extended attributes you need to enter if you exchange X12 messages with a trading partner. Contrast with *General attributes*.

general attributes
Basic information that identifies companies and trading partners. For inner and outer envelopes, this includes the information you enter for a trading partner profile that is necessary for the exchange of messages but is not specific to a particular eBusiness protocol. The direction of a transmission or the password needed to send messages to an FTP site are examples of general attributes. Contrast with *Extended attributes*.

hash
Hashing is the transformation of a string of characters into a usually shorter, fixed-length value that represents the original string. The hash is a mathematical summary of the original message and is created by a hash function.

A cryptographically strong hash function has a number of requirements: It is easy to compute, one-way, and collision-free. This means that it is computationally infeasible to find a message that corresponds to a known hash, or to compose two messages whose hash values are the same.

The fixed-length hash value makes message authentication through the use of digital signatures possible, since only a small number of bytes must be used in a computationally expensive public key operation, rather than the entire message.

The most common cryptographic hash functions in use today are SHA-1 (the Secure Hash Algorithm Standard) and MD5 (Message Digest #5).

HIPAA

An acronymn for the Health Insurance Portability and Accountability Act of 1996. HIPAA transactions conform to the rules mandated by this Act.

implementation guide

A document, published for a particular electronic message standard by an industry subcommittee, that describes the structure and content of a specific message type. You can use the Validation Rules Builder to convert electronic versions of ANSI X12 implementation guides to validation Collaborations used by e*Xchange.

inner envelope

In e*Xchange Client for Windows, an inner envelope definition is a set of parameters and other information you enter about each electronic inner envelope you process with e*Xchange Client for Windows. This definition associates the validation Collaborations that are needed to validate each kind of message.

The version number of the eBusiness protocol that applies to the message and whether the message will be transmitted interactively or in batch are examples of inner envelope characteristics.

inner envelope definition

A set of parameters and other information you enter about each electronic message you process with e*Xchange. This definition also associates the validation Collaborations that are needed to validate each kind of message.

key

In cryptography, a key is a variable value that is applied using an algorithm to a string or block of unencrypted text to produce encrypted text. The length of the key generally determines how difficult it would be for an eavesdropper to “crack” or decrypt the message without knowing the key.

A public-key cryptography system (see PKCS) uses a public and private key pair. The public key is made generally available and is used to encrypt messages being sent to the owner of the key pair. The owner then uses the private key to decrypt the messages.

message log

A record of inbound and outbound electronic messages processed by e*Xchange. This is implemented as the message tracking facility in e*Xchange.

message profile
In the e*Xchange Web interface, a message profile is a set of parameters and other information you enter about each individual type of transaction that you process with e*Xchange. This definition associates the validation Collaborations that are needed to validate each kind of message.

message tracking attributes
A set of attributes you can define to identify messages stored in the e*Xchange database. Special message tracking extended attributes can be set up and associated with a specific message type (protocol, version, and direction). Examples of attributes that are set up at the message tracking attribute level are Process Instance ID and Activity Instance ID for RosettaNet and FG and TS control numbers for X12.

message standard
The kind of eBusiness protocol you agree to use to exchange data and information with a particular trading partner. For example, ANSI X12 and RosettaNet are two different message standard.

non-repudiation
The inability of a sender to refute a message—that is, to claim at a later date that the sender was not the originator of the message. This is implemented through the use of a digital signature attached to the message. The signature can be used by the recipient to prove that the sender positively wrote the message, and that its contents were not tampered with after it was signed.

The sender of a message can also obtain irrefutable proof of receipt of the original message. Non-repudiation of receipt is implemented using an acknowledgment to the sender. This acknowledgment contains the digital signature of the message, and is also digitally signed by the receiver of the original message.

outer envelope
In e*Xchange Client for Windows, an outer envelope is the trading partner profile component that you use to enter technical information about the exchange of messages between you and your trading partner. The type of eBusiness protocol you agree to use, such as X12, UN/EDIFACT, RosettaNet, or CIDX, is an example of an outer envelope characteristic.

Partner Manager Envelope Profile
A partner manager envelope profile is a set of default extended attribute values that you define for a trading partner profile component (company, trading partner, outer envelope, or inner envelope).

PKCS
An acronymn for Public-Key Cryptography System. PKCS is a set of informal intervendor standard protocols developed by RSA Security, the licensers of the RSA public key cryptosystem, for making secure information exchange on the Internet possible. The standards include RSA encryption, password-based encryption, extended certificate syntax, and cryptographic message syntax for S/MIME, RSA's proposed standard for secure e-mail.

PKI

A PKI (public key infrastructure) enables users of a basically unsecure public network such as the Internet to securely and privately exchange data and money through the use of a public and a private cryptographic key pair that is obtained and shared through a trusted authority.

It is a networked system of certification authorities (CAs), registration authorities (RAs), certificate management systems (CMSs), and X.500 directories (specialized distributed databases). It enables two parties unknown to each other to exchange sensitive information and money over an unsecure network.

public key encryption

Encryption using PKCS. See *PKCS*.

raw data format

In e*Xchange, any format other than that of a supported eBusiness protocol. If an eBusiness message is received into e*Xchange in raw data format, e*Xchange must translate the information into the appropriate eBusiness protocol format using a translation Collaboration specified in the trading partner profile.

Report List

A list of reports that can be generated by an e*Xchange Client for Windows user.

RNIF

RosettaNet Implementation Framework. There are two versions: 1.1 and 2.0.

SEF

See *Standard Exchange Format (SEF)*.

signature key

The key used to encode a message signature. The signature key might be the same as the encryption key; but when two different keys are used for different purposes, this is known as a dual-key system. See also *key*.

S/MIME

An acronym for Secure/Multipurpose Internet Mail Extensions; it is an Internet e-mail security standard that makes use of public key encryption.

.ssc file

A Monk Event Type Definition file. *See* Event Type Definition (ETD).

Standard Exchange Format (SEF)

The Standard Exchange Format (SEF) is a flat file representation of an EDI implementation guideline. It is a standard that defines how data segments and data elements should be structured so that the message can be understood between trading partners. It also includes validation rules, for example what are the valid values for a data element, or conditions such as if Field A is present then Field B is required.

The purpose of SEF is to put the EDI implementation guidelines in a file in machine readable format so that translators can directly import the file and use the

implementation guidelines to translate or map the EDI file. The file can also be used as a means to exchange the implementation guidelines between trading partners, and can be posted on a public bulletin board or on the company's Web site in the Internet to convey to the public the implementation guidelines used by the company.

The SEF format was developed by Foresight Corporation and is now in the public domain. Programs that can directly import SEF files can save users considerable time in developing new translations or maps.

trading partner component
The trading partner profile component that you use to enter business information about your trading partner. The name of the trading partner, which could be a subdivision of a company, and the people you want to contact are examples of information you enter for a trading partner component.

transaction set
In X12, each business grouping of data is called a transaction set. For example, a group of benefit enrollments sent from a sponsor to a payer is considered a transaction set. Each transaction set contains groups of logically related data in units called segments. For example, the N4 segment conveys the city, state, ZIP code, and other geographic information.

A transaction set contains multiple segments, so the addresses of the different parties, for example, can be conveyed from one computer to the other. An analogy would be that the transaction set is like a freight train; the segments are like the train's cars, and each segment can contain several data elements in the same way that a train car can hold multiple crates.

Specifically, in X12, the transaction set is comprised of segments ST through SE.

.tsc file
A Monk Collaboration Rules file.

UN/EDIFACT
UN/EDIFACT stands for United Nations/Electronic Data Interchange for Administration, Commerce and Transport. It is a standard, developed for the electronic exchange of machine-readable information between businesses.

user group
User groups allow you to grant access permissions to a set of users with similar processing needs without having to specify individual privileges for each user. For example, the User Administrator can set up a group for users who need full access to a specific trading partner profile, but who should not be able to view information about any other profile. The User Administrator assigns each user that meets this criterion to a particular user group. Then, your eX Administrator (or another user who has been granted appropriate privileges) grants access privileges to this user group so that all members of the group can view and modify the desired information.

validation Collaboration
A Collaboration that you create to define the syntax and validate the content of electronic business-to-business (B2B) messages. One validation Collaboration is required for each type of electronic message to be processed by e*Xchange. You can use the Validation Rules Builder to automatically generate a validation Collaboration for a specific kind of X12 transaction, according to specific implementation guidelines.

Validation Rules Builder
An e*Xchange command-line utility for converting electronic EDI implementation guides into files that are compatible for use with e*Xchange. This conversion tool accepts Standard Exchange Format (SEF) version 1.4 or 1.5 files and converts then into e*Gate Integrator Event Type Definition (ETD) and Collaboration Rules files.

value added network (VAN)
A private network provider that offers secure electronic data interchange (EDI) services to companies. VANs often offer EDI translation, encryption, secure e-mail, management reporting, and other extra services for their customers.

XML
Extensible Markup Language. RosettaNet PIPs are written in XML. XML is different from String in that XML messages can contain both content and information about the content.

.xsc file
A Java Event Type Definition file. *See* Event Type Definition (ETD).

.xts file
A Java Collaboration Rules file.

Index

A

Access Control List dialog box **295**, **300**
access control permissions **293**
action items, deleting **282**, **290**
Actions menu **226**
adding
  company **306**
  inner envelope **339**, **374**, **411**
  outer envelope **329**, **330**, **361**, **401**
  trading partner **310**
administration of e*Xchange Client for Windows **241–274**
archive
  in e*Xchange Client for Windows **243**
  in the Repository Manager **211**
Attribute Value Maintenance **274**
Attribute Value Maintenance dialog box **276**

B

BizTalk
  extended attributes **464**
business process
  RosettaNet **461**, **462**
  X12 **460**

C

Cascade Changes to Access Rights dialog box **301**
changing notes and action items **282**, **289**
Code Tables dialog box **265**
company
  adding **306**
  entering general information **307**, **309**
Company dialog box
  Comments tab (action items) **237**
  Comments tab (notes) **236**, **285**
  Contacts tab **235**, **280**
  Extended tab **234**, **309**
  General tab **233**, **308**
  Security tab **238**, **296**
Compaq Tru64 Version 4.0.F **24**
compatible systems **24**
  Compaq Tru64 Version 4.0.F **24**
  UNIX **24**
  Windows NT/2000 **24**
conventions, writing in document **27**
converting notes and action items **289**
Copy Cascade dialog box **316**
Copy Inner Envelope - Extended dialog box **322**
Copy Inner Envelope dialog box **321**
Copy Outer Envelope detail dialog box
  Extended tab **320**
  Secure Data Transport tab **320**
Copy Outer Envelope dialog box **319**
Copy Trading Partner dialog box **317**
copying
  drag-and-drop **315**
  inner envelope characteristics **321**
  outer envelope characteristics **318**
  trading partner **317**
  trading partner profile components **317**
customizing error messages **269**

D

database tables **490–497**
de-archive
  in e*Xchange Client for Windows **243**
  in the Repository Manager **211**
debug mode (illustration) **240**
Decryption Key dialog box **371**
Delete Statistics dialog box **323**
deleting
  components **322**
  notes and action items **282**, **290**
delimiters
  UN/EDIFACT **399**
drag-and-drop copying of components **315**

E

e*Xchange Client for Windows
  administration **241–274**
  archive **243**
  de-archive **243**
  export **250**
  function toolbar **229**
  import **250**
  login window **220**
  navigation section **231**
  primary toolbar **228**
  Properties Editor **232**
  working with properties windows **233**
  workspace **221**
  workspace (graphic) **221**
e*Xchange Client for Windows left pane, using **231**
e*Xchange Client for Windows menus **222**

e*Xchange Client for Windows toolbars, using **227**
e*Xchange database structure diagram **497**
e*Xchange Repository Manager **206–218**
eBusiness protocol support **460–465**
Edit menu **223**
entering
  company information **309**
  general information about the company **307**
  general information about the trading partner **312**
  general inner envelope characteristics **340**, **374**, **412**
  inner envelope extended attributes **344**, **377**, **416**
  inner envelope properties **339**, **374**, **411**
  outer envelope extended attributes **333**, **365**, **404**
  outer envelope properties **329**, **330**, **361**, **401**
  return inner envelope information **348**, **383**, **421**
  trading partner extended attributes **314**
error codes **270–274**
  RosettaNet **273**
  X12 **272**
error handling in RosettaNet **357**, **390**
error messages, customizing **269**
Error Table dialog box **270**
ES_MTRK_ERROR table **495**
ES_MTRK_INB table **490**
ES_MTRK_OUTB table **492**
ES_WAITING_ACK table **494**
eSecurity Manager **33–40**
  introduction to **33**
export
  in e*Xchange Client for Windows **250**
  in the Repository Manager **207**
Export dialog box **457**
extended attributes **464–465**
  company, entering **309**
  for BizTalk **464**
  for X12 **330**, **361**, **405**
  inner envelope, entering **344**, **377**, **416**
  outer envelope, entering **333**, **365**, **404**
  trading partner, entering **314**

F

field lists, working with **264**
File menu (e*Xchange Client for Windows) **222**
function toolbar
  in e*Xchange Client for Windows **229**
Functions menu **226**

G

getting started with e*Xchange Client for Windows **219–240**
Glossary **498**

H

Help menu **227**
HIPAA Transactions **350**

I

implementation guide open in third-party tool **475**
import
  in e*Xchange Client for Windows **250**
  in the Repository Manager **207**
inner envelope
  adding **339**, **374**, **411**
  copying **321**
  definitions, working with **257**
  entering extended attributes **344**, **377**, **416**
  entering general characteristics **340**, **374**, **412**
  entering properties **339**, **374**, **411**
  entering return inner envelope **348**, **383**, **421**
Inner Envelope Definition Setup, General tab **260**
Inner Envelope dialog box
  Extended tab (RosettaNet) **378**
  Extended tab (UN/EDIFACT) **416**
  Extended tab (X12) **345**
  General tab **342**, **376**, **414**
  Return Inner Envelope tab **349**, **384**, **421**
introducing eSecurity Manager **33**

L

left pane of e*Xchange Client for Windows **231**
limitations, of the Validation Rules Builder **473**
login window
  e*Xchange Client for Windows **220**

M

Menus
  Actions menu **226**
  Edit menu **223**
  File menu (e*Xchange Client for Windows) **222**
  Functions menu **226**
  Help menu **227**
  Options menu **223**
  using **222**
  Window menu **227**
message search criteria **424**
message tracking
  in the Web interface **190**
  resending a message in the Web interface **198**
Message Tracking Attributes Setup dialog box **263**

Message Tracking dialog box
details error list **436**
details extended attributes list **436**
Details tab **429**
Details tab (split) **431**
List tab **427**
Search tab **425**
specifying sort columns **431**
viewing errors **436**
Message Tracking List, using **426**
My Action Items dialog box **292**

N

navigation section of e*Xchange Client for Windows **231**
notes and action items
changing **282**, **289**
converting **289**
deleting **282**, **290**
notes, adding
outer envelope **310**, **314**, **339**, **347**, **373**, **385**, **411**, **419**, **450**

O

Options menu **223**
Original Message dialog box
RosettaNet **437**
UN/EDIFACT **438**
X12 **438**
outer envelope
adding **329**, **330**, **361**, **401**
adding notes **310**, **314**, **339**, **347**, **373**, **385**, **411**, **419**, **450**
copying **318**
entering extended attributes **333**, **365**, **404**
entering properties **329**, **330**, **361**, **401**
specifying general characteristics **331**, **363**, **402**
Transport Component tab **336**, **368**, **408**
Outer Envelope dialog box
Extended tab (RosettaNet) **366**, **367**
Extended tab (UN/EDIFACT) **405**
Extended tab (X12) **334**
General tab **331**, **364**, **402**
Secure Data Transport tab **371**, **373**
Transport Component tab **337**, **369**, **409**

P

Partner Manager Envelope Setup **255**
Partner Manager Envelope Setup dialog box (changing default attributes) **256**
primary toolbar
in e*Xchange Client for Windows **228**
printing reports **456**
Properties Editor section of e*Xchange Client for Windows **232**
Properties Editor, using **232**
properties windows in e*Xchange Client for Windows **233**

R

Report Maintenance **439–451**
Advanced page **442**
General page **441**
Parameters page **445**
report sample **454**
report selection dialog box **447**
report window tools **444**, **455**
reports
adding or editing in e*Xchange **440**
defining report window controls **442**
defining selection criteria parameters **444**
dialog box **453**
entering general report information **440**
printing **456**
saving data **456**
sending through e-mail **457**
viewing **453**
Repository Manager **206–218**
archive **211**
de-archive **211**
export **207**
import **207**
responding to action items **290**
RosettaNet **159–176**, **177–189**, **358–389**
error codes **273**
error handling **357**, **390**
Inner Envelope dialog box, Extended tab **378**
Outer Envelope Extended tab **366**, **367**
sample business process **461**, **462**
security **359**
Transaction Sets dialog box **375**

S

S/MIME **33**
sample business process
RosettaNet **461**
UN/EDIFACT **462**
X12 **460**
sample order/fulfillment process **461**, **462**
saving report data **456**
searching for messages **424**
secure data transport

fields **372**, **373**
security
in the Web interface **77–79**
Security in RosettaNet **359**
SeeBeyond eBusiness Integration Suite **29–32**
Send Mail dialog box **458**
sending reports through e-mail **457**
setting up
e*Gate **463**
e*Xchange Client for Windows **462**, **463**
Setup (in Web interface) **113–128**, **129–158**, **159–176**, **177–189**
Specify Sort Columns dialog box **432**
specifying sort columns **431**
status bar **238**
System Administration menu
Code Tables **264**
Error Table **269**
Inner Envelope Definition Setup **257**
System Defaults **266**
System Defaults dialog box **267**

T

tables (database) **490–497**
ES_MTRK_ERROR **495**
ES_MTRK_INB **490**
ES_MTRK_OUTB **492**
ES_WAITING_ACK **494**
physical data diagram **497**
toolbars
function, in e*Xchange Client for Windows **229**
primary, in e*Xchange Client for Windows **228**
tracking messages **423–438**
trading partner
copying **317**
entering extended attributes **314**
entering general information **312**
Trading Partner dialog box
Comments tab (action items) **287**
Contacts tab (adding a contact) **281**
Contacts tab (changing notes & action items) **288**
Contacts tab (copy contacts prompt) **283**
Extended tab **314**
General tab **313**
trading partner profile components **303**
information structure **305**
trading partner, adding **310**
Transaction Sets dialog box
(RosettaNet) **375**
(UN/EDIFACT) **413**
(X12) **341**
Transport Component tab (outer envelope)
entering information **336**, **368**, **408**
troubleshooting
the Repository Manager **466**
Validation Rules Builder **486–489**
Web interface **466–470**
Web interface with all database types **469**
Web interface with DB2 UDB **466**
Web interface with Oracle **467**
with the Message Tracking feature **190**
troubleshooting the Validation Rules Builder **486**

U

UN/EDIFACT **129–158**, **393–422**
delimiters **399**
Inner Envelope dialog box, Extended tab **416**
Outer Envelope Extended tab **405**
sample business process **462**
Transaction Sets dialog box **413**
understanding the status bar **238**
UNIX **24**
User Preferences dialog box **239**

V

validation Collaborations, what are they? **241**
Validation Rules Builder **471–489**
installation requirements **474**
limitations **473**
running from a command line **483**
running from command line (graphic) **484**
troubleshooting **486**
using **471–489**
viewing message errors in Message Tracking **436**

W

Web interface
B2B protocol, setting up **96**
changing a password **72**
company, setting up **82**
logging in **43**
message profile, setting up **112**, **113**, **129**, **159**, **177**
Message Tracking **190–205**
message tracking features **190**
message tracking, sending a message **198**
Overview and Administration **41–76**
Profile Management **80–112**
security **77–79**
supported browsers **42**
system administration **48**
trading partner, setting up **88**
troubleshooting **466–470**
user administration **63**

Window menu **227**
Windows NT/2000 **24**
workspace
    e*Xchange Client for Windows (graphic) **221**
workspace, e*Xchange Client for Windows **221**

X

X12 **113–128**, **324–357**
    error codes **272**
    extended attributes **330**, **361**, **405**
    Inner Envelope dialog box, Extended tab **345**
    Outer Envelope Extended tab **334**
    sample business process **460**
    Transaction Sets dialog box **341**