



EmailXtender[®]

Release 4.7

Microsoft[®] Windows[®] Version

Administrator's Guide

Copyright © by EMC Corporation. All rights reserved. This software (including documentation) is subject to the terms and conditions set forth in the end user license agreement or other applicable agreement, and you may use this software only if you accept all the terms and conditions of the license agreement. This software comprises proprietary and confidential information of EMC. Unauthorized use, disclosure, and distribution are strictly prohibited. Use, duplication, or disclosure of the software and documentation by the U.S. Government are subject to restrictions set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 or subparagraphs (c)(1) and (2) of the Commercial Computer Software - Restricted Rights at 48 CFR 52.227-19, as applicable. Manufacturer is LEGATO Software, a division of EMC, 2350 West El Camino Real, Mountain View, CA 94040.

EmailXtender Administrator's Guide

February 2005

01-1400-4.7

LEGATO and the LEGATO logo are registered trademarks, and LEGATO NetWorker, NetWorker, AAM, Co-StandbyServer, RepliStor, SnapShotServer, QuikStartz, AlphaStor, ClientPak, Xtender, XtenderSolutions, DiskXtender, ApplicationXtender, ArchiveXtender, EmailXtender, and EmailXaminer are trademarks or registered trademarks of LEGATO Software, a division of EMC. This is a nonexhaustive list of LEGATO trademarks, and other trademarks may be the property of their respective owners.

The following may be trademarks or registered trademarks of the companies identified next to them, and may be used in this document for identification purposes only.

Acrobat, Adobe / **Adobe Systems, Inc.**
Apple, Macintosh / **Apple Computer, Inc.**
Caldera Systems, SCO, SCO OpenServer, UnixWare / **Caldera, Inc.**
TELEform / **Cardiff**
Check Point, FireWall-1 / **Check Point Software Technologies, Ltd.**
Unicenter / **Computer Associates International, Inc.**
Access Logix, Celerra, Centera, CLARiiON, EMC, EMC², MirrorView, Navisphere, SnapView, SRDF, Symmetrix, Symmetrix DMX, TimeFinder / **EMC Corporation**
Fujitsu / **Fujitsu, Ltd.**
Hewlett-Packard, HP, HP-UX, HP Tru64, HP TruCluster, OpenVMS, ProLiant / **Hewlett-Packard Company**
AIX, DB2, DB2 Universal Database, Domino, DYNIX, DYNIXptx, IBM, Informix, Lotus, Lotus Notes, OS/2, PTX, ptx/ADMIN, Raid Plus, ServeRAID, Sequent, Symmetry, Tivoli, / **IBM Corporation**
InstallShield / **InstallShield Software Corporation**
Intel, Itanium / **Intel Corporation**
Linux / **Linus Torvalds**
Active Directory, Microsoft, MS-DOS, Outlook, SQL Server, Windows, Windows NT / **Microsoft Corporation**
Netscape, Netscape Navigator / **Netscape Communications Corporation**
Data ONTAP, NetApp, NetCache, Network Appliance, SnapMirror, SnapRestore / **Network Appliance, Inc.**
IntraNetWare, NetWare, Novell / **Novell, Inc.**
Oracle, Oracle8i, Oracle9i / **Oracle Corporation**
NetFORCE / **Procom Technology, Inc.**
DLTtape / **Quantum Corporation**
Red Hat / **Red Hat, Inc.**
R/3, SAP / **SAP AG**
IRIX, OpenVault, SGI / **Silicon Graphics, Inc.**
SPARC / **SPARC International, Inc.**^a
ACSLs, REELbackup, StorageTek / **Storage Technology Corporation**
Solaris, Solstice Backup, Sun, SunOS, Sun StorEdge, Ultra / **Sun Microsystems, Inc.**
SuSE / **SuSE, Inc.**
Sybase / **Sybase, Inc.**
Turbolinux / **Turbolinux, Inc.**
Unicode / **Unicode, Inc.**
VERITAS, VERITAS File System/ **VERITAS Software Corporation**
WumpusWare / **WumpusWare, LLC**
UNIX / **X/Open Company Ltd**^b

Notes:

- a. Products bearing SPARC trademarks are based on an architecture developed by Sun Microsystems, Inc.
- b. UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company, Ltd.

All other brand or product names may be trademarks or registered trademarks of their respective owners.

LEGATO Software

A Division of EMC Corporation

End-User License Agreement

THIS PRODUCT CONTAINS CERTAIN COMPUTER PROGRAMS AND OTHER PROPRIETARY MATERIAL, THE USE OF WHICH IS SUBJECT TO THIS END-USER LICENSE AGREEMENT (THE "EULA"). DO NOT PROCEED WITH THE INSTALLATION OF THIS PRODUCT UNTIL YOU (LATER DEFINED AS LICENSEE) HAVE READ THIS EULA AND AGREE TO BE BOUND BY AND BECOME A PARTY TO THIS EULA. BY PROCEEDING WITH THE INSTALLATION OF THIS PRODUCT (OR AUTHORIZING ANY OTHER PERSON TO DO SO), YOU AND YOUR COMPANY ACCEPT THIS EULA AND YOU REPRESENT THAT YOU ARE AUTHORIZED TO DO SO. IF YOU ARE ACCESSING THE PRODUCT ELECTRONICALLY INDICATE YOUR ACCEPTANCE OF THESE TERMS BY SELECTING THE "ACCEPT" BUTTON AT THE END OF THE EULA. IF YOU DO NOT AGREE TO THE TERMS OF THIS EULA, YOU MAY RETURN THIS PRODUCT, ALL MEDIA AND DOCUMENTATION, AND PROOF OF PAYMENT, TO THE PLACE YOU OBTAINED THEM FOR A FULL REFUND WITHIN THIRTY (30) DAYS OF FIRST ACQUIRING THIS PRODUCT OR, IF THE PRODUCT IS ACCESSED ELECTRONICALLY, SELECT THE "DECLINE" BUTTON AT THE END OF THIS EULA AND RETURN PROOF OF PAYMENT IN ACCORDANCE WITH THE ABOVE REFERENCED RETURN/REFUND PROCESS. WRITTEN APPROVAL IS NOT A PREREQUISITE TO THE VALIDITY OR ENFORCEABILITY OF THIS EULA AND NO SOLICITATION OF ANY SUCH WRITTEN APPROVAL BY OR ON BEHALF OF LEGATO SHALL BE CONSTRUED AS AN INFERENCE TO THE CONTRARY. IF YOU HAVE ORDERED THIS PRODUCT, LEGATO'S ACCEPTANCE IS EXPRESSLY CONDITIONAL ON YOUR ASSENT TO THESE TERMS TO THE EXCLUSION OF ALL OTHER TERMS; IF THESE TERMS ARE CONSIDERED AN OFFER BY LEGATO, ACCEPTANCE IS EXPRESSLY LIMITED TO THESE TERMS.

1. DEFINITIONS

1.1 Authorization Code: means the unique code provided to Licensee by LEGATO for permanent activation of the Software. The Authorization Code is provided to Licensee once the Enabler Code is registered with LEGATO. The Authorization Code may be tied to a unique machine ID code supplied by Licensee.

1.2 Documentation: Documentation: means the user reference materials on any media, provided by LEGATO for use with the Software.

1.3 Enabler Code: means the code provided by LEGATO for activation of the Software.

1.4 Licensee: means the person or entity acquiring this License or for whom this License was acquired.

1.5 Software: means the object code copy of the software program provided to You in association with this EULA, together with the associated original media and all accompanying Documentation, and together with all Updates that may be provided by LEGATO to You from time to time.

2. OWNERSHIP AND ADMINISTRATION OF SOFTWARE

2.1 Ownership and Title. As between the parties, LEGATO, and its licensors, own and shall retain all right, title, and interest in and to: (i) the Software including all intellectual property rights embodied therein; (ii) all of the service marks, trademarks, trade names, or any other designations associated with the Software; and (iii) all copyrights, patent rights, trade secret rights, and other proprietary rights relating to the Software.

2.2 Software Activation. LEGATO employs Enabler Codes and Authorization Codes that enable the use of the Software. The Software is shipped in a "Media Kit" which consists of object code software on CD-ROM and an Enabler Code for initial activation of the Software or the Software and Enabler Code may be delivered electronically. Once LEGATO receives confirmation from Licensee that the Software is installed with the correct Enabler Code, and is provided with the host ID information, LEGATO will provide the Authorization Code to Licensee. LEGATO administers the generation and distribution of Enabler and Authorization Codes, which administration may be modified by LEGATO from time to time.

2.3 Administration of Software. LEGATO may include on the media with the Software additional computer programs which are not currently licensed for use by Licensee and to which the Enabler Code or Authorization code will not permit access. Inclusion of such additional computer programs in no way implies a license from LEGATO and access or use of such programs is strictly prohibited unless Licensee procures the right to use any such program and the applicable Enabler Code is provided thereto.

3. LICENSE GRANT

3.1 Grant. LEGATO grants to Licensee a non-exclusive, nontransferable, non-sublicensable, perpetual (unless terminated in accordance with the provisions of this EULA), license (the "License") to (i) use the Software installed in accordance with the Documentation and only on the licensed computer(s) solely for its own internal operations; and (ii) move the Software temporarily in case of computer system malfunction. The Software may be licensed: (a) on a per copy or per seat basis, on a physical or virtual machine, (b) based upon the number of mailboxes or the number of non-concurrent users for which it may be used, or (c) based upon data

volumes it supports. The License granted under this EULA does not constitute a sale of the Software or any portion or copy of it. Licensee may not use the Software on more than one computer system unless otherwise specifically authorized by an explicit Software product, or additional licenses for additional computers are purchased. Rights not expressly granted are reserved by LEGATO.

3.2 Copies. Licensee may make copies of the Software provided that any such copy is: (i) created as an essential step in utilization of the Software as licensed and is used in no other manner; or (ii) used for archival purposes. All trademark and copyright notices must be reproduced and included on such copies. Licensee may not make any other copies of the Software.

3.3 Restrictions on use. Licensee shall not, and shall not aid, abet, or permit any third party to: (i) decompile, disassemble, or otherwise reverse engineer or attempt to reconstruct or discover any source code or underlying ideas or algorithms of the Software by any means whatsoever; (ii) remove any identification, copyright, or other notices from the Software; (iii) provide, lease, lend, use for timesharing or service bureau purposes; (iv) create a derivative work of any part of the Software; or (v) develop methods to enable unauthorized parties to use the Software. If EC law is applicable, the restrictions in Section 3.3 (i) are limited so that they prohibit such activity only to the maximum extent such activity may be prohibited without violating the EC Directive on the legal protection of computer programs. Notwithstanding the foregoing, prior to decompiling, disassembling, or otherwise reverse engineering any of the Software, Licensee shall request LEGATO in writing, to provide Licensee with such information or assistance and Licensee shall refrain from decompiling, disassembling, or otherwise reverse engineering any of the Software unless LEGATO cannot or has not complied with such request in a commercially reasonable amount of time.

3.4 Purchase Orders. Nothing contained in any purchase order, acknowledgment, or invoice shall in any way modify the terms or add any additional terms or conditions to this EULA.

3.5 Updates. This section applies if the Software acquired is an update to the original Software (the "Update"). An Update does not constitute a legally licensed copy of the Software unless purchased as an Update to a previously licensed version of the same Software. The Update may only be used in accordance with the provisions of this EULA. The Update, together with the original Software, constitutes one (1) legally licensed copy of the Software.

3.6 Evaluation License. This Section applies if the Software is being used for an initial thirty (30) day evaluation period. The license is valid only for a period of thirty (30) days from the delivery of the Software, and is designed to allow Licensee the right to evaluate the Software during such period. In the event that Licensee desires to continue to license the Software, Licensee must purchase a license to the Software. Upon such purchase, Licensee will be provided with an Enabler Code in accordance with Section 2.2 above. In the event Licensee determines not to purchase a license for the Software at the end of such thirty (30) day evaluation period, then Licensee's rights under this EULA shall terminate automatically and Licensee shall promptly return to LEGATO or destroy all copies of the Software and so certify to LEGATO.

3.7 General Public License ("GPL"). The Software may include one or more components which are derived from software subject to a General Public License. Any such components are licensed exclusively under the applicable GPL and not under this EULA.

4. MAINTENANCE AND SUPPORT

4.1 LEGATO has no obligation to provide support, maintenance, upgrades, modifications, or new releases under this EULA. LEGATO may provide such services under separate EULA.

5. LIMITED WARRANTY

5.1 **Media and Documentation.** LEGATO warrants that if the media or documentation are damaged or physically defective at the time of delivery of the first copy of the Software to Licensee and if defective or damaged product is returned to LEGATO (postage prepaid) within thirty (30) days thereafter, then LEGATO will provide Licensee with replacements at no cost.

5.2 **Limited Software Warranty.** Subject to the conditions and limitations of liability stated herein, LEGATO warrants for a period of thirty (30) days from the delivery of the first copy of the Software to Licensee that the Software, as delivered, will materially conform to LEGATO's then current published Documentation for the Software. This warranty covers only problems reported to LEGATO during the warranty period. For customers outside of the United States, this Limited Software Warranty shall be construed to limit the warranty to the minimum warranty required by law.

5.3 **Remedies.** The remedies available to Licensee hereunder for any such Software which does not perform as set out herein shall be either repair or replacement, or, if such remedy is not practicable in LEGATO's opinion, refund of the license fees paid by Licensee upon a return of all copies of the Software to LEGATO. In the event of a refund this EULA shall terminate immediately without notice with respect to such Software.

6. WARRANTY DISCLAIMER

6.1 **Warranty Disclaimer.** EXCEPT FOR THE LIMITED WARRANTY PROVIDED IN SECTION 5 ABOVE, ALL SOFTWARE IS PROVIDED "AS IS". LEGATO AND ITS LICENSORS MAKE NO WARRANTIES WITH RESPECT TO ANY SOFTWARE AND DISCLAIMS ALL STATUTORY OR IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING OR USAGE OF TRADE AND ANY WARRANTIES OF NONINFRINGEMENT. LEGATO DOES NOT WARRANT THAT THE SOFTWARE WILL MEET ANY REQUIREMENTS OR THAT THE OPERATION OF SOFTWARE WILL BE UNINTERRUPTED OR ERROR FREE. ANY LIABILITY OF LEGATO WITH RESPECT TO THE SOFTWARE OR THE PERFORMANCE THEREOF UNDER ANY WARRANTY, NEGLIGENCE, STRICT LIABILITY OR OTHER THEORY WILL BE LIMITED EXCLUSIVELY TO THE REMEDIES SPECIFIED IN SECTION 5.3 ABOVE. Some jurisdictions do not allow the exclusion of implied warranties or limitations on how long an implied warranty may last, so the above limitations may not be applicable.

7. LIMITATION OF LIABILITY

7.1 **Limitation of Liability.** EXCEPT FOR BODILY INJURY, LEGATO (AND ITS LICENSORS) WILL NOT BE LIABLE OR RESPONSIBLE WITH RESPECT TO THE SUBJECT MATTER OF THIS EULA UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER LEGAL OR EQUITABLE THEORY FOR: (I) ANY INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, HOWEVER CAUSED AND WHETHER OR NOT ADVISED IN ADVANCE OF THE POSSIBILITY OF SUCH DAMAGES; OR (II) DAMAGES FOR LOST PROFITS OR LOST DATA; OR (III) COST OF PROCUREMENT OF SUBSTITUTE GOODS, TECHNOLOGY, SERVICES, OR RIGHTS; OR (IV) FOR AMOUNTS IN EXCESS OF THOSE RECEIVED BY LEGATO FOR THE PARTICULAR LEGATO SOFTWARE THAT CAUSED THE LIABILITY. Because some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, LEGATO's liability in such jurisdictions shall be limited to the extent permitted by law.

8. TERM AND TERMINATION

8.1 **Term.** The term of this EULA is perpetual unless terminated in accordance with its provisions.

8.2 **Termination.** LEGATO may terminate this EULA, without notice, upon Licensee's breach of any of the provisions hereof.

8.3 **Effect of Termination.** Upon termination of this EULA, Licensee agrees to cease all use of the Software and to return to LEGATO or destroy the Software and all Documentation and related materials in Licensee's possession, and so certify to LEGATO. Except for the License granted herein and as expressly provided herein, the terms of this EULA shall survive termination.

9. MISCELLANEOUS

9.1 **Governing Law.** This EULA shall be governed by the laws of the Commonwealth of Massachusetts, without regard to the principles of conflict of laws or the United Nations Convention on Contracts for the International Sale of Goods.

9.2 **Government Restricted Rights.** Any Software which is acquired directly or indirectly for or on behalf of the United States of America, its agencies and/or instrumentalities ("U.S. Government"), is provided with Restricted Rights. Use, duplication, or disclosure by the U.S. Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 or subparagraphs (c)(1) and (2) of the Commercial Computer Software - Restricted Rights at 48 CFR 52.227-19, as applicable. Manufacturer is LEGATO Software, a division of EMC Corporation, 2350 W. El Camino Real, Mountain View, CA 94040. The Software is a commercial software product, licensed on the open market at market prices, and was developed entirely at private expense and without the use of any government funds.

9.3 **Export and Import Controls.** Regardless of any disclosure made by Licensee to LEGATO of an ultimate destination of the Products, Licensee may not directly or indirectly export or transfer any portion of the Software, or any system containing a portion of the Software, to anyone outside the United States (including further export if Licensee took delivery outside the U.S.) without first complying with any export or import controls that may be imposed on the Software by the U.S. Government or any country or organization of nations within whose jurisdiction Licensee operates or does business. Licensee shall at all times strictly comply with all such laws, regulations, and orders, and agrees to commit no act which, directly or indirectly, would violate any such law, regulation or order.

9.4 **Assignment.** This EULA may not be assigned or transferred by Licensee without the prior written consent of LEGATO, which shall not be unreasonably withheld. LEGATO may assign or otherwise transfer any or all of its rights and obligations under this EULA upon notice to Licensee.

9.5 **Sole Remedy and Allocation of Risk.** Licensee's sole and exclusive remedies are set forth in this EULA. This EULA defines a mutually agreed-upon allocation of risk, and the License price reflects such allocation of risk.

9.6 **Equitable Relief.** The parties agree that a breach of this EULA adversely affecting LEGATO's intellectual property rights in the Software may cause irreparable injury to LEGATO for which monetary damages may not be an adequate remedy and LEGATO shall be entitled to equitable relief in addition to any remedies it may have hereunder or at law.

9.7 **No Waiver.** Failure by either party to enforce any provision of this EULA will not be deemed a waiver of future enforcement of that or any other provision, nor will any single or partial exercise of any right or power hereunder preclude further exercise of any other right hereunder.

9.8 **Severability.** If for any reason a court of competent jurisdiction finds any provision of this EULA, or portion thereof, to be unenforceable, that provision of the EULA will be enforced to the maximum extent permissible so as to effect the intent of the parties, and the remainder of this EULA will continue in full force and effect.

10. ENTIRE EULA

10.1 This EULA sets forth the entire understanding and EULA between the parties and may be amended only in a writing signed by authorized representatives of both parties. No vendor, distributor, reseller, dealer, retailer, sales person, or other person is authorized by LEGATO to modify this EULA or to make any warranty, representation, or promise which is different than, or in addition to, the warranties, representations, or promises made in this EULA. No pre-printed purchase order terms shall in any way modify, replace or supersede the terms of this EULA.

Contents

Preface	17
Audience.....	17
Product Documentation	17
Conventions.....	18
Information and Services.....	19
General Information	19
Technical Support	19
Licensing and Registration.....	20
Customer Feedback	20
Chapter 1: Introduction.....	21
EmailXtender System Architecture.....	22
Message Center Architecture	25
Server.....	27
Vault.....	27
Cabinet.....	28
Folder	29
Volume	29
Collecting Messages	30
Rules	32
Full-text Indexing.....	32
Full-text Indexing of Other Languages	34
Encryption and Compression.....	35
Retention Periods.....	35
Archiving Messages	35
Managing Volumes	36
Archiving Messages to Hard Disk	36

Archiving Messages Through DiskXtender	37
Searching Messages.....	37
User Searches	38
Supervisor Searches	39
Administrator Searches	39
Directed Searches	40
Auditing Searches	40
Managing the EmailXtender System.....	41
Remote Administration	41
Maintenance and Troubleshooting	42
Auditing Administrator Activity	42
Managing the Message Store with EmailXtract	43
Archiving Messages with EmailXtender Archive Edition	43
Configuration Overview.....	45
Chapter 2: Using the EmailXtender Administrator	49
Starting the Administrator.....	50
Connecting to Another EmailXtender Server	51
Exploring the Administrator Interface	52
The Tree View	54
The Message Center List View.....	54
The Description View.....	55
Menu Bar	56
Toolbar	56
Status Bar.....	57
Automatically Sizing Columns.....	57
Refreshing the Administrator Window.....	57
Activating Changes	58
Chapter 3: Configuring Message Collection	59
Planning Message Center Configuration	60

Choosing Which Mail to Collect	61
Example: Collecting Only Mail To and From a Certain Domain	61
Example: Excluding Mail From a Certain Domain From Collection	61
Example: Archiving and Retaining Mail Differently Due To Regulatory Requirements	62
Retention Periods.....	63
Retention Considerations for DiskXtender and EMC Centera.....	64
Polling Frequency	64
Encryption and Compression	65
Vault Management	66
The General Tab	67
The Rules Tab.....	69
The Email Connection Mailboxes Tab	69
Adding an Exchange Mailbox Connector	71
Adding a Notes Mailbox Connector	73
Deleting a Mailbox Connector	74
The Encryption/Compression Tab.....	75
Cabinets	78
Adding a Cabinet.....	78
Configuring a Cabinet	79
The General Tab	81
The Rules Tab	82
The Directed Search Access Rights Tab.....	82
Copying a Cabinet.....	83
Deleting a Cabinet.....	83
Folders.....	84
Adding a Folder.....	84
Configuring a Folder.....	85
The General Tab	86
The Rules Tab	88
The Directed Search Access Rights Tab.....	88

Copying a Folder	89
Deleting a Folder	89
Disabling Message Collection	90
Chapter 4: Rules	91
Creating a Rule	92
Collection and Exclusion Rules	93
Domain Rules.....	93
Specific Address Rules	95
Keyword Rules	97
Keyword Bang Rule Guidelines	98
Keyword Bang Rule Examples	101
Unmatched Messages Collection Rules	102
Considering Distribution Lists.....	104
Auto-Forward Action Rules.....	105
Editing a Rule.....	106
Deleting a Rule.....	107
External Message Rules	107
LDAP/ADS Filters.....	108
Adding an LDAP or ADS Server.....	109
Adding an LDAP Filter	112
EmailXtender LDAP Search Syntax.....	112
Example: LDAP Search Syntax for Finding Users Based on Common Names	113
Example: LDAP Search Syntax for Finding Users Based on Organization	113
Testing an LDAP Filter Before Creating a Rule	114
Adding LDAP Rules to Cabinets and Folders	115
Chapter 5: Configuring Message Archival	117
Managing Volumes	118
Managing Individual Volumes.....	118

Checking the Status of a Volume	119
Closing a Volume	120
Restoring a Volume	120
Upgrading a Volume	122
Deleting a Volume	123
Example: Deleting Volumes from February 2002	124
Managing Volumes by Month.....	124
Re-indexing Data.....	125
Removing Monthly Indexes	126
Disposing of Monthly Data.....	127
Ejecting Volumes.....	128
Configuring Volume Storage	128
Using DiskXtender.....	130
Configuring DiskXtender	131
Configuring EmailXtender for Use With DiskXtender.....	133
Automatic File Migration Activities	134
Chapter 6: Maintenance.....	137
How EmailXtender Processes Messages.....	139
Daily Maintenance Tasks	140
Check the Event Logs.....	141
Check the Message Queues.....	141
Check the Number of Messages on the Mail Server.....	144
Many Messages on the Mail Server and in the Message Queues	144
Many Messages on the Mail Server and Few or None in the Message Queues.....	145
Check that the Indexer Is Indexing Data	146
Check for Large Numbers of Open Volumes	147
Check that the Policy Engine (ExAddrRule.exe) Initialized.....	147
Check that EmailXtender Processes Receive Adequate Processing Time	148
Check for Excess Files in the Message Center Directory	150

Many .access, .ref, or Attachment Files	150
Many Files With No Extension	150
Check for Unprocessed Messages in BadDir Directories.....	151
Check Dates on the .dlc and .xrc Files	152
Check for and Repair Corrupt Indexes	152
Check Search, Retrieval, and Export Capabilities	153
Periodically Clearing the EmailXtender Server of Files.....	153
Preparing the EmailXtender Server for Cleanup	154
Clearing the EmailVault Drop Directory	155
Clearing the Message Center BadDir Directory	155
Clearing the Message Center Directory	156
Backing Up an EmailXtender Server.....	157
Viewing EmailXtender Events	157
Editing Account Information	159
Maintenance Utilities	161
HealthCheck	161
Starting the HealthCheck Utility	162
Exploring the HealthCheck Utility Interface.....	163
Refreshing the HealthCheck Utility	164
Connecting to Another EmailXtender Server.....	164
Selecting Data for Another Month	165
Verifying Indexes.....	165
Verifying Message Identifiers	166
Generating a Report of All Documents	166
Example: HealthCheck Utility Document Report	167
Rebuilding Indexes.....	168
Deleting Message Identifiers from the Database	168
ExMailStatus.....	169
ExMailStatus Options.....	169
ExMailStatus Examples	171
ExBadDirProcessor	171

Non-Interactive	172
Interactive	172
Processing Messages Associated with Volumes	172
ExSuspend.....	173
ExSuspend Options.....	174
Interactive	175
Non-interactive	176
Managexvlt.....	176
Managexvlt Options.....	176
Managexvlt Examples	177
UnpackContainer	178
UnpackContainer Options	178
UnpackContainer Examples	179
ReadMSMQ	179
ReadMSMQ Options	179
ReadMSMQ Example.....	180
Chapter 7: Troubleshooting	181
Troubleshooting Message Collection	181
Troubleshooting Volumes.....	184
Troubleshooting Shortcuts.....	185
Troubleshooting Searches.....	187
Troubleshooting the EmailXtender Server.....	188
Miscellaneous Troubleshooting and Errors	189
Getting Help.....	189
Chapter 8: Controlling Searches	191
Supervisor Groups.....	192
Creating a Supervisor Group	193
Editing a Supervisor Group	196
Deleting a Supervisor Group.....	199

Administrator Searches.....	199
Directed Searches.....	200
Chapter 9: EmailXtender Audit	203
Standard Reports	205
Deleted Messages Report	206
Deleted Volumes Report	208
Users Accessing a Message Report	210
Messages Accessed by a User Report	212
User Accessed by Other Users Report	214
Custom Reports	217
Viewing, Printing, and Exporting Reports.....	218
Exporting an Audit Report	219
Exporting to an Application	222
Exporting to Disk.....	223
Exporting to an Exchange Folder.....	224
Exporting to a Lotus Domino Database	226
Emailing a Report as an Attachment.....	227
Chapter 10: Archiving Bloomberg Mail.....	229
Bloomberg Mail Concepts	230
Bloomberg Input Files.....	231
Message Input File.....	231
Bear Log Format.....	232
Bull Log Format	234
Observed User Address Formats	236
Attachment Input File	237
Configuration File	238
Command Line Parameters.....	238
Parser Output	238
Messages and Attachments.....	239

Log File.....	240
Inventory Report.....	241
Installing the Parser.....	242
Editing the Parser Configuration File.....	242
Editing the Bloomberg Section.....	244
Editing the Bear Section.....	245
Editing the Bull Section.....	246
Example: Bloomberg Mail Parser Configuration File with Default Values.....	247
Adding Legacy Email Addresses.....	248
Running the Parser.....	249
Interpreting Log File Messages.....	251
Chapter 11: EmailXtract.....	255
Using the EmailXtract Administrator.....	256
Starting the Administrator.....	256
Exploring the Administrator Interface.....	258
Menu Bar.....	259
Toolbar.....	259
Status Bar.....	260
Automatically Sizing Columns.....	260
Configuring EmailXtract Options.....	260
Default Task Settings.....	261
Runtime Priorities.....	262
Profile.....	264
Directories.....	265
Understanding Tasks.....	266
Archive Task.....	268
EmailXtract Support for Archival of Modified Lotus Notes Data.....	274
Shortcut Task.....	275
Delete Task.....	282
Search Task.....	288

Analysis Task	292
Configuring Tasks	298
Global Task Settings	301
Message Content	301
Subject Field Processing	305
Special Characters	306
Boolean Queries	307
Date Settings.....	308
Scheduling	310
Logging	312
Task Settings for Microsoft Exchange	314
Item Types	314
Folder Settings	317
Profile	318
Mailbox.....	320
Public Folders	322
PST Selection	323
PST Migration Best Practices	325
Migration Considerations	325
Migration Planning Recommendations	326
Testing PST Migration.....	326
Selecting PST Files	327
Auto-Finding PSTs	327
Browsing for PSTs	329
Refining the List of PST Files to Process	329
Configuring PST Post-Processing Options.....	330
Verifying PST Migration	331
Task Settings for Lotus Domino	331
Item Types	331
Folder Settings	334
Mailbox Selection	336

NSF Selection.....	337
Task-Specific Settings.....	338
Shortcut	339
Deletion	342
Analysis Settings	344
Managing Scheduled Tasks	345
Managing Task Results	347
Exporting Task Results to a .csv File	349
Purging Search Task Results from the Mail Server	349
Viewing Search Task Results	350
Removing Items from Search Task Results	350
Viewing Task Results as a Chart	350
Task Result Chart View Options.....	353
Printing a Chart	355
Saving a Chart as an Image File.....	356
Viewing an Attachment Chart.....	358
Appendix A: Expression Operators.....	361
AND	361
OR	362
NOT	362
Wildcards.....	362
Proximity-based Operators.....	363
Paragraph Proximity.....	363
Word Proximity.....	364
Word Order	364
Tense Conflation	364
Parentheses	365
Significant Characters	366
Insignificant Characters	366
Punctuation Characters	367

Glossary.....	369
Index.....	375

Preface

This guide provides information on how to configure and manage the EmailXtender[®] software.

Install the EmailXtender (EX) software on the appropriate server and clients before using the information presented in this guide. Refer to the *EmailXtender Installation Guide* for installation instructions.

Post-release information is contained in the Release Supplement for this product.

Audience

The information in this guide is intended for system administrators who are responsible for installing software and maintaining the servers and clients on a network.

Product Documentation

For a complete list of documentation related to this product, see the EmailXtender product installation CD-ROM. Most of the documents are Adobe Acrobat PDFs, and can be viewed by downloading and installing the Adobe Acrobat Reader. The Reader is available on the product installation CD-ROM, or directly from Adobe. To install and use the Reader on the preferred platform, refer to the instructions in the CD-ROM or at the Adobe web site.

Conventions

This document uses the following typographic conventions and symbols to make information easier to access and understand.

Convention	Indicates	Example
boldface	Names of line commands, daemons, options, programs, or scripts	The nsradmin command starts the command line version of the NetWorker Administrator program.
<i>italic in text</i>	Pathnames, filenames, computer names, new terms defined in the Glossary or within the chapter, or emphasized words	Displayed messages are also written to <i>/nsr/logs/daemon.log</i> . The specifications are created, one for each swap file, in <i>c:\pagefile.sys</i> .
<i>italic in command line</i>	A variable that must be provided in the command line	nwadmin -s server_name
fixed-width	Examples and information displayed on the screen	media waiting: recover waiting for 8mm 5GB tape volume name
fixed-width, boldface	Commands and options that must be entered exactly as shown	nsr_shutdown -a
Menu_Name> Command	A path or an order to follow for making selections in the user interface	Volume>Change Mode>Appendable
Important:	Information that must be read and followed to ensure successful backup and recovery of data	 <hr/> Important: Use the no_verify option with extreme caution.

Information and Services

LEGATO offers a variety of methods (including e-mail, telephone, and fax support) to obtain company, product, and technical information.

General Information

The LEGATO web site provides most of the information that customers might need, including technical bulletins and binary patches from its FTP site. For specific sales or training needs, e-mail or call LEGATO.

Service or Resource	Technical Bulletins	Binary Patches	Company and Product Information	Training
www.legato.com	Yes	Yes	Yes	Yes
ftp.legato.com (log in as <i>anonymous</i>)	Yes	Yes		
LEGATO Sales (650) 210-7000 (option 1) sales@legato.com			Yes	
LEGATO Education Services (650) 842-9357 training@legato.com				Yes

Technical Support

The LEGATO web site provides contact information, software patches, technical documentation, and information about available support programs.

- Customers with an active support agreement have access to the LEGATO integrated product knowledge base. Help with software issues is also available through Technical Support.
- Customers *without* an active support agreement can contact Support Sales and Renewal to purchase annual software update subscriptions, or technical support services for per-update/per-incident assistance.

Note: LEGATO Software technical support and update subscription services apply only to (i) LEGATO price-listed software that LEGATO supplies to its customers; and (ii) customers that have entered into an authorized LEGATO technical support agreement.

Licensing and Registration

To license and register products, go to the licensing web site at www.legato.com. To change contact information, transfer licenses, or ask questions about licensing, contact LEGATO by using one of the following methods.

Licensing and Registration	Contact
Telephone number	(650) 812 6000 (option 3, option 2) ^a +31 23 554 8881 ^b
Fax number	(650) 745-1477 ^a +31 23 554 8808 ^b
E-mail	<i>licensing@legato.com</i> ^a <i>licensingemea@legato.com</i> ^b

a. Contact information for the Americas, Asia, and the Pacific.

b. Contact information for Europe, the Middle East, and Africa.

Customer Feedback

LEGATO welcomes comments and suggestions about software features, the installation procedure, and its documentation.

- To comment on a particular guide, complete the Comments form at www.legato.com. Navigate to the documentation page and click the Comments link beside the name of the guide. All comments are reviewed and acted upon, usually within one business day.
- To help improve our documentation in general, complete a brief survey at www.legato.com. Navigate to the documentation page and click the link to the survey.
- To provide other suggestions and comments, send e-mail to feedback@legato.com. Although LEGATO cannot respond personally to every request, all comments and suggestions are considered during product design.

Chapter 1: Introduction

LEGATO EmailXtender® (EX) is a comprehensive, policy-based system that automatically collects, organizes, retains, and retrieves email messages and attachments. EmailXtender automatically copies email and attachments into an enterprise Message Center and generates a full-text index of the messages and attachments. EmailXtender provides fast access to archived emails, enables quick email restoration after virus attacks, and helps reduce server backup time.

EmailXtender then archives the data to low-cost and high-capacity storage devices, reducing email server stress and bottlenecks by minimizing the size of message stores. Administrators can also reduce the size of Microsoft Exchange or Lotus Domino message stores by periodically deleting messages using the EmailXtract® component.

EmailXtender also helps you save on email storage space by allowing you to capture only a single copy of each message sent or received. For example, if a message is sent to a distribution list, EmailXtender archives only a single copy of the message instead of a copy for each recipient on the list.

Using EmailXtender for email recordkeeping also helps you to maintain compliance with United States federal regulations. For example, as part of U.S. Securities and Exchange Commission (SEC) compliance, regulated financial organizations should keep records of all email communications between their members/employees and customers, as required by the U.S. Code of Federal Regulations. EmailXtender rules and retention periods allow you to collect, track, and retain specific messages or types of messages.

Administrators, supervisors, and users can conduct intelligent search and retrieval of messages. Users have access to their own historical email from a central archive, and authenticated administrators or supervisors can quickly and easily retrieve messages from an hour ago or years ago to ensure

compliance with an existing email policy or to help reduce the cost of discovering email during litigation, audit, investigation, or any other discovery event.

Note: EmailXaminer™, an add-on component to EmailXtender, offers additional advanced surveillance capabilities designed specifically for compliance with email regulations and policies, including message sampling, customizable automated procedures, intelligent cross-mailbox searching, purging, and more. For more information, refer to the EmailXaminer documentation.

Before you configure the EmailXtender system, you should be comfortable with EmailXtender terminology and concepts. Take the time to read all sections, as this will help you attain the best performance, functionality, and organization for your email management and archival system.

This chapter identifies key terminology and concepts. For more information, see the following sections:

- ["EmailXtender System Architecture" on page 22](#)
- ["Message Center Architecture" on page 25](#)
- ["Collecting Messages" on page 30](#)
- ["Archiving Messages" on page 35](#)
- ["Searching Messages" on page 37](#)
- ["Managing the EmailXtender System" on page 41](#)
- ["Managing the Message Store with EmailXtract" on page 43](#)
- ["Archiving Messages with EmailXtender Archive Edition" on page 43](#)
- ["Configuration Overview" on page 45](#)

Note: This Administrator's Guide assumes that you have already installed EmailXtender. For instructions on planning for and installing the product, refer to the *EmailXtender Installation Guide*.

EmailXtender System Architecture

The EmailXtender system minimally consists of a mail server, an EmailXtender server, and a client workstation. (If you are using EmailXtender Archive Edition, see ["Archiving Messages with EmailXtender Archive Edition" on page 43](#) instead.)

If you are using Microsoft Exchange 5.5 or Lotus Domino, the EmailXtender *journaling utility* is installed on the mail server. The journaling utility copies each message received by the mail server to the *mailbox connector* monitored by EmailXtender.

If you are using Microsoft Exchange 2000 or 2003, you configure Exchange to copy messages to the mailbox connector.

EmailXtender then pulls the messages in the mailbox connector into the EmailXtender Message Center on the EmailXtender server and begins archiving them based on the Message Center hierarchy and rules.

Note: If you are using sendmail, the MilVault milter and archiver filter the mail and move it to the EmailXtender Message Center using transport threads.

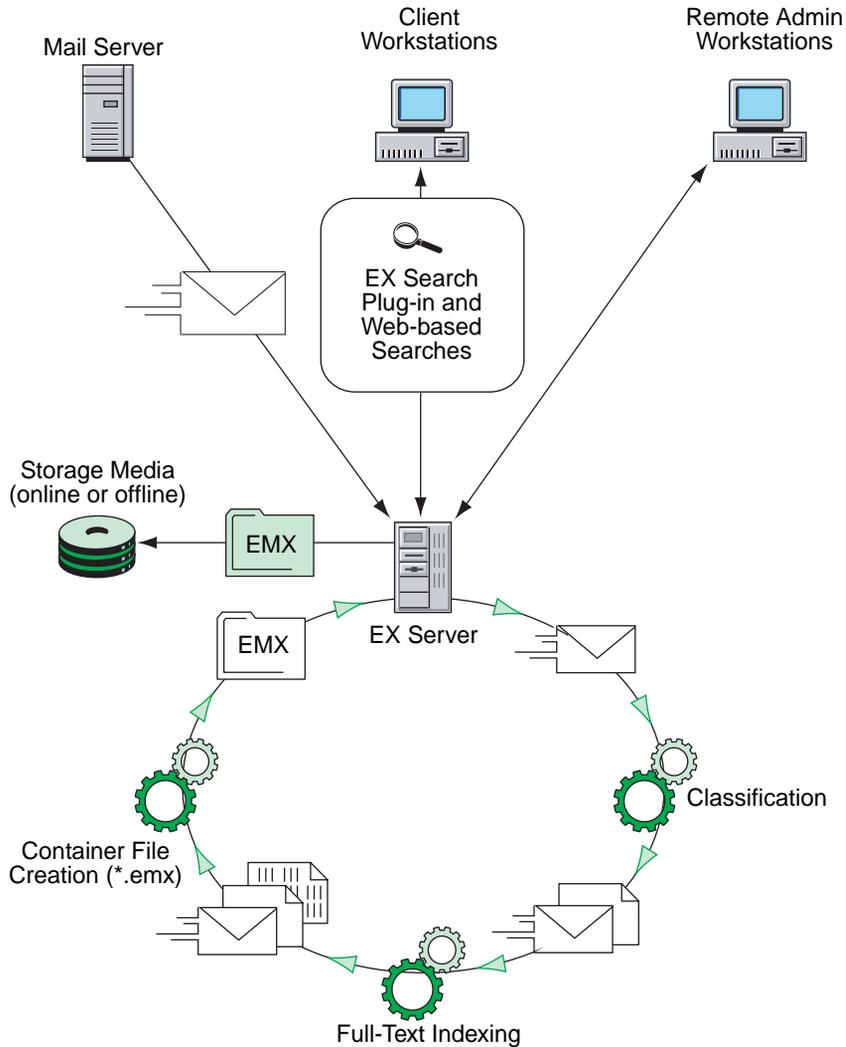
EmailXtender also creates full-text indexes of messages and attachments. Messages are organized by month and stored in flat, portable files of a configurable size (*volumes*, which are also called *container files*). If you are archiving messages in multiple languages, EmailXtender creates a separate volume for each language it archives. (For more information on language support in EmailXtender, refer to the *Planning the Installation* chapter of the *EmailXtender Installation Guide*.)

Volumes close after they reach the allotted capacity or are idle for five days. EmailXtender then copies them to the storage drive on the EmailXtender server as *.emx* files. Once they are copied to the storage drive, they can be written out to other media, such as media supported through LEGATO DiskXtender®. DiskXtender supports a variety of media types, including EMC Centera devices, DVD-R, tape, or magneto-optical.

When you install EmailXtender on the EmailXtender server, the software publishes a website (located at <http://localhost/EmailXtender>, where *localhost* is the IP address or server name of the EmailXtender server). Administrators, supervisors, and users can access this website to search the EmailXtender archive at any time.

In addition, you can install the EmailXtender Search Plug-in on any computer with a Microsoft Outlook or Lotus Notes client installed. The Search Plug-in offers EmailXtender search functionality from within these programs.

Figure 1. EmailXtender System Basic Network Diagram



Depending on your system needs, there are several optional add-in components and products that can enhance the EmailXtender system.

- **Audit Utility** - The EmailXtender Audit Utility is installed on the EmailXtender server. It records EmailXtender activity, including administrator searches, supervisor searches, directed searches, and deletion of any messages or volumes from the EmailXtender mail archive. You can then generate audit reports to view statistics or specific

information about the searches, retrieved messages, and deleted messages or volumes. For more information, see ["EmailXtender Audit" on page 205](#).

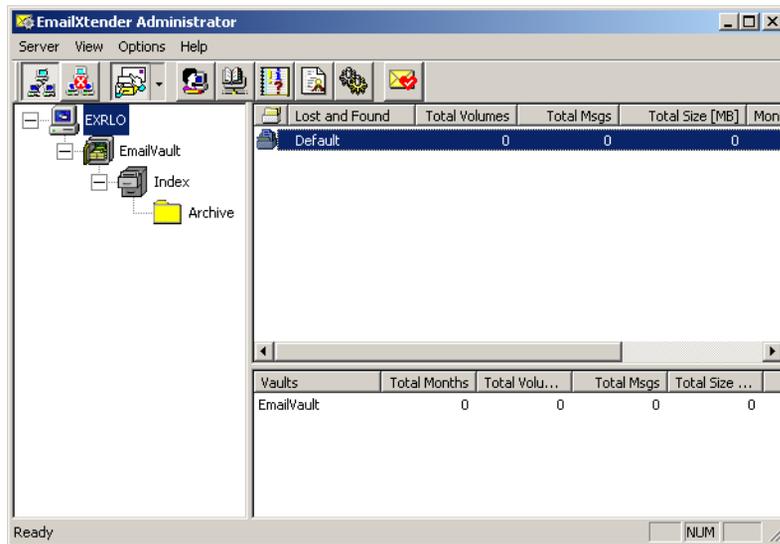
- **EmailXtract** - You can install EmailXtract on either the mail server or the EmailXtender server. When you install EmailXtract on the mail server, you can search for and analyze messages in the message store. When you install EmailXtract on the EmailXtender server, you can archive legacy messages or other item types (such as meetings, appointments, contacts, and reports) in the mail server's message store to an EmailXtender server, remove messages from the mail server and replace them with pointers (*shortcuts*) to copies of the archived messages, and delete messages from the mail server message store, in addition to searching for and analyzing messages in the message store. For more information, see ["EmailXtract" on page 257](#).
- **Bloomberg Mail Parser** - The Bloomberg Mail Parser, which is installed on the EmailXtender server, processes aggregated text files containing Bloomberg mail and separates them into individual emails that conform to the RFC 822 email standard. The parser then writes the mail files to a specified directory, and you can direct EmailXtender to full-text index and archive the email. For more information, see ["Archiving Bloomberg Mail" on page 231](#).
- **LEGATO DiskXtender** - If you want to "extend" the capacity of the EmailXtender storage drive by writing the *.emx* files to other storage media, you can install DiskXtender on the EmailXtender server. When you install DiskXtender, you should configure the EmailXtender storage drive as the DiskXtender *extended drive*. DiskXtender allows you to configure automatic file migration to other storage media, such as an EMC Centera device, DVD-R, tape, or magneto-optical. For more information, see ["Using DiskXtender" on page 130](#).

Message Center Architecture

The EmailXtender Message Center contains all email information collected by the EmailXtender server.

Within the Message Center, data is organized in the following hierarchy: server, vault, cabinet, folder, and volume. Each server can contain only one vault. By default, EmailXtender also creates a single cabinet and folder when you install the product. EmailXtender automatically creates volumes as it collects messages received by the Message Center. Volumes are organized by the month in which they are created.

Figure 2. EmailXtender Administrator – Message Center



If you have a relatively simple mail collection and archival strategy - for example, you want to collect all mail that passes through the mail server - you may only need the default cabinet and folder.

If you have a more complex collection and archival strategy - for example, you want to collect and archive certain users' email separately from all other users' email - you may need to create additional cabinets and/or folders, and then configure rules and retention periods to organize the email archive.

The hierarchy you create in the Message Center, and the rules and retention periods you assign to the hierarchy, allow you to classify, organize, and archive data in the manner most appropriate for your system. For more information on planning the Message Center hierarchy, see ["Planning Message Center Configuration" on page 60](#).

Note: If you are using EmailXtender Archive Edition, you are allowed only the default cabinet and folder, and use of rules and retention periods is prohibited. You must upgrade to a full EmailXtender license to create additional cabinets and folders, and gain access to rules and retention period capabilities.

For more information about each element in the EmailXtender Message Center hierarchy, see the following sections:

- ["Server" on page 27](#)
- ["Vault" on page 27](#)

- ["Cabinet" on page 28](#)
- ["Folder" on page 29](#)
- ["Volume" on page 29](#)

Server

The server is the top-level component of the EmailXtender Message Center, and it represents the EmailXtender server.

Figure 3. Server Level



In the EmailXtender Administrator interface, it is labeled with the Microsoft Windows name of the EmailXtender server. The server appears automatically when you install EmailXtender and open the Administrator.

Although the EmailXtender system may include more than one EmailXtender server, the Administrator allows you to connect to and configure only one server at a time.

The only configuration you need to perform at the server level is related to the storage of EmailXtender volumes; you can specify the path, maximum size, and type of media to which they should be written. For more information, see ["Configuring Volume Storage" on page 128](#).

Vault

The vault is the second-level component of the EmailXtender Message Center, located beneath the server object. Automatically named "EmailVault", the vault collects all email data to be processed by EmailXtender.

Figure 4. Vaults



You can configure the frequency with which EmailXtender polls the mailbox connector and transfers messages into the Message Center at the vault level. You can also configure additional mailbox connectors, as well as encryption and compression for volumes.

If necessary, you can apply collection, exclusion, and action rules at the vault level to collect, exclude, or forward mail that matches specified message attributes, although you should configure rules at the cabinet or folder level for more efficient organization.

For more information on configuring the vault, see ["Vault Management" on page 66](#).

Cabinet

Located within the vault, the cabinet is the third-level component of the EmailXtender Message Center. By default, EmailXtender creates a single cabinet named "Index".

Figure 5. Cabinets



Depending on your mail collection and archival needs, you may want to create additional cabinets. For more information on planning the Message Center hierarchy, see ["Planning Message Center Configuration" on page 60](#).

You can apply collection, exclusion, and action rules at the cabinet level to collect, exclude, or forward mail that matches specified message attributes. If you apply rules to a cabinet, you may also want to configure directed searches for the cabinet, which allow certain users to search for and view all messages collected by the cabinet (in addition to searching their own mail).

Note: If you are using EmailXtender Archive Edition, you are allowed only the default cabinet, and use of rules is prohibited. You must upgrade to a full EmailXtender license to create additional cabinets and gain access to rules and retention period capabilities.

For more information on creating and configuring a cabinet, see ["Cabinets" on page 78](#).

Folder

Located within a cabinet, the folder object is the fourth-level component of the EmailXtender Message Center. By default, EmailXtender creates a single folder named "Archive".

Figure 6. Folders



Depending on your mail collection and archival needs, you may want to create additional folders. For more information on planning the Message Center hierarchy, see ["Planning Message Center Configuration" on page 60](#).

You can apply collection, exclusion, and action rules at the folder level to collect, exclude, or forward mail that matches specified message attributes. If you apply rules to a folder, you may also want to configure directed searches for the folder, which allow certain users to search for and view all messages collected by the folder (in addition to searching their own mail).

You can also set retention periods at the folder level so that volumes created within the folder are retained for a certain period of time. After the retention period has passed, you can manually remove the volumes.

If necessary, you can disable mail collection for a folder.

Note: If you are using EmailXtender Archive Edition, you are allowed only the default folder, and use of rules and retention periods is prohibited. You must upgrade to a full EmailXtender license to create additional folders and gain access to rules and retention period capabilities.

For more information on creating and configuring a folder, see ["Folders" on page 84](#).

Volume

EmailXtender collects messages received by the Message Center into volumes (also called container files), which it then organizes by the month of creation. (This is the original creation date for the message, and not the date when EmailXtender processes them and places them into a message volume.)

If you are archiving messages in multiple languages, EmailXtender creates a separate volume for each language it archives. (For more information on language support in EmailXtender, refer to the *Planning the Installation* chapter of the *EmailXtender Installation Guide*.)

This organization allows for quick indexing and speeds search times when locating archived messages through the Search Plug-in or Web Search Client.

Volumes contain email data and classification information, such as classification rules, properties used to create the file, and vault, cabinet, folder, and month names.

Volumes close after they reach the allotted capacity, which you configure at the server level, or are idle for five days. EmailXtender then copies them to the storage drive as *.emx* files. Once they are copied to the storage drive, they can be written out to other media, such as media supported through DiskXtender.

Because volumes are stored as *.emx* files, you can add volumes to any EmailXtender Message Center with no loss of data or need to convert files, and they can be used to restore an entire Message Center.

In addition, if volumes were created with earlier versions of EmailXtender, you can upgrade the volumes to take full advantage of new features available in the latest release.

For more information on managing volumes, see ["Managing Volumes" on page 118](#).

Collecting Messages

If you are using Microsoft Exchange or Lotus Domino, EmailXtender pulls email messages from the mailbox connector on the mail server into the EmailXtender Message Center and begins archiving them based on rules and configuration. If you are using sendmail, the MilVault milter and archiver filter the mail and move it to the EmailXtender Message Center using transport threads.

EmailXtender only archives items that would naturally travel through the mailbox connector, such as messages and read receipts, but there are a number of other ways to archive information through EmailXtender:

- If you use EmailXtract, you can also archive item types such as calendar items, contacts, tasks, and reports. For more information on using EmailXtract, see ["EmailXtract" on page 257](#).
- If you use EmailXtract in a Microsoft Exchange environment, you can also archive items from public folders and *.pst* files.

- If you use EmailXtract in a Lotus Domino environment, you can archive items in private *.nsf* mail databases.
- If you receive Bloomberg Mail from the Bloomberg Professional Service, you can use the EmailXtender Bloomberg Mail Parser to process Bloomberg aggregated text files and separate them into individual emails. The parser then writes the mail files to a specified directory, and you can direct EmailXtender to full-text index and archive the email. For more information on archiving Bloomberg Mail, see "[Archiving Bloomberg Mail](#)" on page 231.
- If you use third-party instant message proxy server software to capture instant messages, you can archive the captured instant messages to EmailXtender. The proxy server software captures instant message conversations and converts them into SMTP messages that are then sent to EmailXtender to be archived and full-text indexed as any other SMTP message. You can use proxy servers from Akonix Systems, FaceTime™ Communications (using XML and not Text Version formats), or IMlogic with EmailXtender. For information on configuring these proxy servers with EmailXtender, refer to the proxy server documentation.

Once the EmailXtender server receives email, it uses message classification rules to identify which messages to archive.

EmailXtender also full-text indexes messages and attachments so that you can maximize searches of the email archive.

You can configure encryption to add security to archived items as they are bundled into volumes, or compression to save on the disk space required to store message information.

You can also apply retention periods to a folder to define how long EmailXtender retains message volumes in that folder before you can delete them.

Note: If you are using EmailXtender Archive Edition, you can only collect mail and other items using the Archive task in EmailXtract and the MilVault milter and archiver. In addition, use of rules and retention periods is prohibited. You must upgrade to a full EmailXtender license to have access to additional mail archival, rules, and retention period capabilities.

For more information, see the following sections:

- "[Rules](#)" on page 32
- "[Full-text Indexing](#)" on page 32
- "[Encryption and Compression](#)" on page 35
- "[Retention Periods](#)" on page 35

Rules

Mail rules allow you to efficiently organize email archives and media by controlling which messages EmailXtender archives. If you do not configure any rules, EmailXtender archives all messages.

You can configure rules at the vault, cabinet, and folder level. Although you can configure rules at the vault level, you should set rules at the cabinet or folder level for more efficient organization.

You can configure three different types of EmailXtender rules: collection, exclusion, and action rules. Collection rules allow you to specify which messages EmailXtender collects, exclusion rules allow you to specify which messages EmailXtender should *not* collect, and action rules allow you to perform an action on all messages collected by the vault, cabinet, or folder to which the rule applies. At this time, the only type of action you can perform on a message is to auto-forward it to the email address you specify.

If you are using a pure SMTP mail environment, EmailXtender can also accept the external classification rules you configure through the SMTP mail program. When configured with external classification, EmailXtender automatically creates folders and cabinets to match the rules set up through SMTP mail.

You can also create rules using data from a directory services provider such as Domino LDAP or Microsoft ADS.

Note: If you are using EmailXtender Archive Edition, use of rules is prohibited. You must upgrade to a full EmailXtender license to have access to this feature.

For more information on configuring rules, see "[Chapter 4: Rules](#)" on page 91.

Full-text Indexing

When EmailXtender collects a message for archiving, it full-text indexes the message subject and body, as well as any attachments, so that you can maximize searches of the email archive.

EmailXtender automatically performs full-text indexing on the following file types, as well as text embedded in an email:

- Adobe Acrobat PDF versions 2.x - 5.x, and 6.01 (including protected PDF)
- ANSI Text
- ASCII Source Code
- ASCII Text
- ASCII Transcript
- Compuserve E-mail
- DisplayWrite 4, 5
- Frame Work 3
- HTML data (not HTML tags)
- IBM DCA/RFT
- IBM FFT
- Lotus AmiPro
- Lotus Manuscript
- MASS-11PC
- Microsoft EML
- Microsoft Excel 2, 5, 95, 97, 2000, XP, and 2003
- Microsoft PowerPoint 4, 95, 97, 2000, XP, and 2003
- Microsoft Word for DOS
- Microsoft Word for Windows 1, 2, 6, 95, 97, 2000, XP and 2003
- Microsoft Works 1, 2, 3, and 4 (word processor only)
- Microsoft RTF (Rich Text Format)
- Multimate 3.0, 4.0, 5.0, Advantage
- Open Access II
- Oracle 8
- Other spreadsheets
- Professional Write
- Q & A Write
- SGML Text Only
- Uniplex
- Wang IWP
- Wang WP PLUS
- Windows Write 1.0, 2.0, 3.0
- WordPerfect 4.2, 5.0, 6.0, 7.0, 8.0, 10, and 2000
- Wordstar 3, 4, 5, 6, 2000
- XML
- XYWrite
- Uniplex

EmailXtender can also index *.zip* files as long as the file types included within the *.zip* file are supported and as long as the *.zip* file is not password-protected.

Full-text Indexing of Other Languages

If you are archiving messages that use multi-byte character sets (such as Japanese and Simplified Chinese), EmailXtender automatically performs full-text indexing on the body and subject of each message, as well as any attachments of the following file types:

- Text
- Microsoft PowerPoint 4, 95, 97, 2000, XP, and 2003
- Microsoft RTF (Rich Text Format)
- Adobe Acrobat PDF versions 3.x - 5.x and 6.01
- Microsoft Word for Windows 97, 2000, XP, and 2003
- HTML data
- Microsoft Excel 5, 95, 97, 2000, XP, and 2003
- Microsoft Works 1, 2, 3, and 4 (word processor only)
- XML

EmailXtender can also index *.zip* files as long as the file types included within the *.zip* file are supported and as long as the *.zip* file is not password-protected.

EmailXtender currently does not support full-text indexing of attachment files that have been compressed by LZH applications. Applications used in Asia typically use LZH to compress files.

EmailXtender can index only one type of multi-byte language per message. EmailXtender cannot index a message that contains multiple non-western European languages. For example, if a Simplified Chinese GB2312 encoded message contains a Japanese language text attachment file, EmailXtender can only index the Chinese characters; the Japanese text file is not indexed. The language used to index the message is determined by the language code page property of the individual message and not by the language property of the attachment file. However, EmailXtender can index both English and multi-byte character words correctly if the message is sent by a Japanese or Simplified Chinese language version of Microsoft Outlook or if the message is encoded by a multi-byte character encoding system.

EmailXtender indexes Hankaku-Katakana (single-byte Katakana) Japanese characters as one word instead of as separate characters. You can search Hankaku-Katakana characters by entering a whole sentence (divided by space); however, you cannot search by a single character or characters. You should use wildcard (*) searches when searching for a Hankaku-Katakana word.

Encryption and Compression

You can configure encryption and compression for message volumes to add security and save on storage space.

Encryption, which is disabled by default in EmailXtender because it can cause a decrease in system performance, adds security to archived items as they are bundled into volumes. This ensures that volumes are unreadable outside the EmailXtender system, thereby increasing the security of the archived data.

When you enable compression, EmailXtender compresses all messages as they are processed by the Message Center. This can mean a considerable savings in terms of how much disk space is required for message information. Compression does not, however, affect index or database size.

For more information, see ["Encryption and Compression" on page 65](#).

Retention Periods

Retention periods, configured at the folder level, allow you to track how long volumes exist in the EmailXtender system. They are designed to help you to meet legal retention requirements by preventing you from deleting volumes before the specified amount of time has passed.

The EmailXtender Administrator interface lists the number of months left in the retention period, providing a visible reminder of when you can remove outdated volumes.

Note: If you are using EmailXtender Archive Edition, use of retention periods is prohibited. You must upgrade to a full EmailXtender license to have access to this feature.

For more information, see ["The General Tab" on page 86](#).

Archiving Messages

EmailXtender captures messages and organizes them by month in volumes. Volumes close after they reach the allotted capacity (that you configure) or are idle for five days. EmailXtender then copies them to the storage drive on the EmailXtender server as *.emx* files.

You can manually close volumes so that they are copied to the storage drive, and move them from one EmailXtender server to another.

You must regularly monitor the disk space that volumes and their indexes are using, and take action appropriately so that you do not run out of space.

You can save space by deleting volumes you no longer need, or removing indexes and disposing of data for all volumes in a given month. This allows users to search for certain messages, but they cannot view them until you restore the volumes in which the messages appear.

Alternatively, you can change the location in which you are saving *.emx* files to a drive with more space, or expand archive space by writing the *.emx* files out to other media, such as media supported through DiskXtender. DiskXtender supports a variety of media types, including EMC Centera devices, DVD-R, tape, and magneto-optical.

For more information, see the following sections:

- ["Managing Volumes" on page 36](#)
- ["Archiving Messages to Hard Disk" on page 36](#)
- ["Archiving Messages Through DiskXtender" on page 37](#)

Managing Volumes

EmailXtender allows you to manage individual volumes or manage all volumes for a given month.

You can manually close, delete, or monitor the status of individual volumes, as well as restore "Lost and Found" volumes to the system. In the event that you have upgraded from an earlier release of EmailXtender, you can also upgrade the volumes created while you were using the earlier release so that you can take advantage of the features available in the latest release.

The EmailXtender Administrator interface allows you to view all volumes for a month as a single entity so that you can perform functions on them at the same time, such as removing monthly indexes and disposing of all monthly data to save disk space. You can also re-index all volumes for a month in order to restore an index that you deleted to save space or to replace a corrupted index.

For more information on managing volumes, see ["Managing Volumes" on page 118](#).

Archiving Messages to Hard Disk

If you are not archiving a large quantity of email and you have a significant amount of disk space, you can leave the *.emx* files on the EmailXtender storage drive, which is a local drive or partition on the EmailXtender server. If you start to run out of disk space, you can delete volumes you no longer need, or

remove indexes and dispose of data for all volumes in a given month. Alternatively, you can change the location in which you are saving *.emx* files to a drive with more space.

This archival approach requires careful daily monitoring and is not recommended.

For more information on deleting volumes, removing indexes, and disposing of monthly data, see ["Managing Volumes" on page 118](#). For more information on configuring the volume location, see ["Configuring Volume Storage" on page 128](#).

Archiving Messages Through DiskXtender

DiskXtender allows you to extend the storage capabilities of NTFS volumes by using DiskXtender file migration services to move files from the NTFS volume to other, less-expensive storage media. You can use DiskXtender to "extend" the capacity of the EmailXtender storage drive by automatically writing the *.emx* files to other storage media.

DiskXtender supports a number of storage media types, including EMC Centera devices, tape, DVD-R, DVD-RAM, magneto-optical, Ultra-Density Optical (UDO), WORM, WORM-tape, and Network Attached Storage (NAS). (DiskXtender considers NAS media to be any media available through a connection to a share on a network. This could be a network share, like a RAID or a NAS device, or simply a shared folder on a server on the network. It could even be a shared media folder on another DiskXtender extended drive.)

When you install DiskXtender, you should configure the EmailXtender storage drive as the DiskXtender extended drive. You can then configure the media service, media folders, move groups, move rules, and purge rules to best meet your data migration needs.

For more information on using DiskXtender with EmailXtender, see ["Using DiskXtender" on page 130](#).

Searching Messages

When you install EmailXtender on the EmailXtender server, the software publishes a website (located at <http://localhost/EmailXtender>, where *localhost* is the IP address or server name of the EmailXtender server). Administrators, supervisors, and users can access this website to search the EmailXtender archive at any time.

In addition, you can install the EmailXtender Search Plug-in on any computer with a Microsoft Outlook or Lotus Notes client installed. The Search Plug-in offers EmailXtender search functionality from within these programs.

Users have access to their own historical email from a central archive, and authenticated administrators or supervisors can quickly and easily retrieve messages from an hour ago or years ago to ensure compliance with an existing email policy or to help reduce the cost of discovering email during litigation, audit, investigation, or any other discovery event.

Note: EmailXaminer, an add-on component to EmailXtender, offers additional advanced surveillance capabilities designed specifically for compliance with email regulations and policies, including message sampling, customizable automated procedures, intelligent cross-mailbox searching, purging, and more. For more information, refer to the EmailXaminer documentation.

The EmailXtender Audit component discourages unauthorized viewing of messages by tracking when supervisors and administrators view and access messages sent to other users.

Note: If you are using EmailXtender Archive Edition, you can only install the Search Plug-in on the EmailXtender server or use the Web Search Client for an administrator search. User searches, supervisor searches, and directed searches are prohibited. In addition, EmailXaminer and EmailXtender Audit functionality is not available. You must upgrade to a full EmailXtender license to have access to these features.

For more information, see the following sections:

- ["User Searches" on page 38](#)
- ["Supervisor Searches" on page 39](#)
- ["Administrator Searches" on page 39](#)
- ["Directed Searches" on page 40](#)
- ["Auditing Searches" on page 40](#)

User Searches

Once you begin archiving email through EmailXtender, all email users can search for their own messages with either the Search Plug-in or the Web Search Client.

Users can search for messages from a particular sender or to a particular recipient, as well as for messages that contain certain keywords in the Subject field, message body, or attachments. Users can also search for messages on a particular date, only those messages with attachments, or messages with a certain Importance or Sensitivity level.

Once a user performs a search, there are a number of ways to manipulate the search results for easier viewing. You can sort the results by any of the column headings, display the results in a grid, wrap column text, remove duplicate results, limit the number of results that are returned, and configure whether all names are displayed for each result. You can also export search results to a tab-delimited file, which you can then open in other programs like Microsoft Excel.

For more information on performing a search and working with search results, refer to the *EmailXtender Search User's Guide*.

Supervisor Searches

If you want to authorize certain users to search and view messages of other selected users, you can define supervisor groups in the EmailXtender Administrator interface. Typically, this is used to allow managers to review the messages of their subordinates.

When you create a supervisor group, you specify one or more supervisors, and also the users whose mail the supervisors can search for and view.

When users want to perform a supervisor search, they simply select the name of their supervisor group from the Search Type drop-down list in the Search window of either the Web Search Client or the Search Plug-in.

Supervisors can monitor messages that EmailXtender receives from and for the users *after* you create the supervisor group; messages that EmailXtender received before you created the group are not available for supervisor review unless you re-index the volumes containing the messages.

For more information on creating and managing supervisor groups, see ["Supervisor Groups" on page 194](#).

Administrator Searches

If you want to allow certain users to search for and view *all* messages in the EmailXtender mail archive, you can add them to the EmailXtender administrators group so that they can perform administrator searches. Administrators can also delete messages they retrieve through a search.

Administrator searches can be useful in reducing the cost of discovering email during litigation, audit, investigation, or any other discovery event.

Permissions for administrator searches are based on Windows authentication. To allow users to perform administrator searches, you must add them to the exAdmin group on the EmailXtender server.

When users want to perform an administrator search, they simply select Admin from the Search Type drop-down list in the Search window of either the Web Search Client or the Search Plug-in.

For more information on allowing administrator searches, see "[Administrator Searches](#)" on page 201.

Directed Searches

If you have configured the EmailXtender Message Center so that certain types of messages are filtered into specific cabinets or folders, you may want to allow a few select users to use the Web Search Client or Search Plug-in to search for and view all messages in a particular cabinet or folder. This type of search is called a directed search, and used in combination with supervisor and administrator searches, it allows you to be very exact about who has permission to view certain messages.

When you set up directed searches, you select the cabinet or folder that you want the users to be able to search, and then you select the users to whom you want to give directed search permissions.

When users want to perform a directed search, they simply select the name of the cabinet or folder from the Search Type drop-down list in the Search window of either the Web Search Client or the Search Plug-in.

For more information on configuring directed searches, see "[Directed Searches](#)" on page 202.

Auditing Searches

EmailXtender Audit allows you to discourage unauthorized viewing and deletion of messages by tracking when supervisors and administrators view and access messages sent to or from other users.

When you install EmailXtender Audit, information about each supervisor search, administrator search, or directed search is logged to the private message queue. Message information is then transferred into the Microsoft SQL Server database created by EmailXtender Audit.

Once the system begins populating the database with search information, you can generate a report to view the information.

Note: EmailXtender Audit can only produce reports for searches that were performed after its installation. As a result, Audit cannot work retroactively to produce a complete report if searches took place before you installed Audit.

For more information on installing EmailXtender Audit, refer to the *EmailXtender Installation Guide*. For more information on running audit reports, see ["EmailXtender Audit" on page 205](#).

Managing the EmailXtender System

To keep the EmailXtender system running at maximum performance levels, you should regularly monitor the system and resolve any issues that arise as quickly as possible.

You can administer an EmailXtender server both from the computer on which the EmailXtender server components are installed and from remote computers.

To discourage unauthorized viewing and deletion of messages and volumes, you can use EmailXtender Audit to monitor administrator activity.

For more information, see the following sections:

- ["Remote Administration" on page 41](#)
- ["Maintenance and Troubleshooting" on page 42](#)
- ["Auditing Administrator Activity" on page 42](#)

Remote Administration

You can administer an EmailXtender server both from the computer on which the EmailXtender server components are installed and from remote computers. To remotely administer an EmailXtender server, you must install the EmailXtender Administrator interface only (you do *not* need to install the EmailXtender server components).

When you open the Administrator - either on the EmailXtender server or on a computer with only the Administrator interface - EmailXtender prompts you to choose the EmailXtender server you want to administer. You can select either the local computer (if the EmailXtender server components are installed) or another EmailXtender server on the network.

Note: You can only configure one EmailXtender server at a time using the Administrator interface.

You can also remotely administer the EmailXtender Audit Utility, which is installed on the EmailXtender server, when you also install the Audit Utility on remote computers.

For more information on installing EmailXtender, including the Administrator interface and the Audit Utility, refer to the *EmailXtender Installation Guide*. For more information on connecting to another EmailXtender server, see ["Connecting to Another EmailXtender Server" on page 51](#).

Maintenance and Troubleshooting

There are several other steps you should take regularly, such as monitoring the message queues and clearing the EmailXtender server of unnecessary files, to maintain the EmailXtender system and avoid future problems. For more information, see ["Maintenance" on page 137](#).

When problems do occur, however, the information in ["Troubleshooting" on page 183](#) may assist you in resolving them.

Auditing Administrator Activity

You can use EmailXtender Audit to track when administrators view and access messages, or delete messages or volumes from the EmailXtender message store.

When you install EmailXtender Audit, information about each administrator search or deletion is logged and then transferred into the Microsoft SQL Server database created by EmailXtender Audit. Once the system begins populating the database, you can generate a report to view the information.

Note: EmailXtender Audit can only produce reports for searches and deletions that were performed after its installation. As a result, Audit cannot work retroactively to produce a complete report if searches and deletions took place before you installed Audit.

Note: If you are using EmailXtender Archive Edition, EmailXtender Audit functionality is not available. You must upgrade to a full EmailXtender license to have access to this feature.

For more information on installing EmailXtender Audit, refer to the *EmailXtender Installation Guide*. For more information on running audit reports, see ["EmailXtender Audit" on page 205](#).

Managing the Message Store with EmailXtract

EmailXtract, which is available with EmailXtender, allows you to manage messages in the message store on the mail server.

When you install EmailXtract on the mail server, you can search for, analyze, and delete messages in the message store.

When you install EmailXtract on the EmailXtender server, you can accomplish the following tasks in addition to searching for and analyzing messages in the mail server message store:

- Archive legacy messages in the mail server's message store to an EmailXtender server
- Archive other item types, such as calendar items, contacts, tasks, and meetings
- Archive items from public folders and *.pst* files in a Microsoft Exchange environment, and from *.nsf* files in a Lotus Domino environment
- Remove messages from the mail server and replace them with pointers (shortcuts) to copies of the archived messages
- Restore shortcuts after you create them
- Delete messages from the mail server message store (after archiving them, if you want to archive the messages)

You can manage the mail server message store through EmailXtract by setting up tasks. All tasks in EmailXtract are based on a set of default settings. There are some settings that are global for all tasks, some that are unique to a Microsoft Exchange environment, some that are unique to a Lotus Domino environment, and some that are unique to each type of task. You can change the default settings if necessary when you create a specific task.

EmailXtract allows you to run tasks immediately, schedule them to run later, or schedule them to run on a recurring basis.

For more information, see ["EmailXtract" on page 257](#).

Archiving Messages with EmailXtender Archive Edition

EmailXtender Archive Edition (EXAE) contains a subset of the full EmailXtender product functionality. Intended for the general messaging market instead of regulated industries, EXAE allows you to archive messages from Microsoft Exchange and Lotus Domino on a scheduled basis (rather than

in real time) in order to achieve storage savings. You can also archive messages from UNIX sendmail using the MilVault milter and archiver. EXAE is *not* designed for record retention or archiving.

All mail data is captured and archived to the same EXAE cabinet and folder. Rules and retention periods are not supported in EXAE.

If you are installing or plan to install and license EXAE, be advised that the license provided only allows for a subset of the full EmailXtender functionality. Under the License Agreement for EXAE, use of *only the following functions* is permitted:

- Archival of Microsoft Exchange and Lotus Domino mail using the Archive task in EmailXtract
- Archival of UNIX sendmail using the MilVault milter and archiver
- Archival of *.pst* and *.nsf* files, as well as items from Public Folders and other item types such as calendar items, meetings, and appointments, using the Archive task in EmailXtract
- Shortcut creation and management, search, analysis, and deletion using EmailXtract tasks
- Full-text indexing of both messages and attachments
- Administrator search using either the Search Plug-in or the Web Search Client

Use of the other functions of the EmailXtender product *is not* permitted under the license agreement for EXAE, and use of the functions violates that license agreement. Functions that are *not* available when using an EXAE license include:

- Real-time email capture (Journaling/Listener/mailbox connectors)
- Additional cabinets and folders
- Collection, exclusion, and action rules
- Retention periods
- User searches, supervisor searches, and directed searches using either the Search Plug-in or the Web Search Client
- EmailXtender Audit
- EmailXaminer
- Archival of Bloomberg Mail using the Bloomberg Mail Parser
- Instant message capture

If you have any questions regarding permitted and non-permitted functionality for EmailXtender Archive Edition, or if you wish to upgrade to a full EmailXtender license to have access to the additional functionality it allows, contact a LEGATO sales representative.

Configuration Overview

The following procedure lists the steps you need to take to configure EmailXtender to meet your system needs. You should perform these steps after you install EmailXtender and before you enable journaling on the mail server.

Note: If you are using EmailXtender Archive Edition, not all of these features are available. For a list of available features, see ["Archiving Messages with EmailXtender Archive Edition" on page 43](#). To have access to all product features, you must upgrade to a full EmailXtender license.

1. Determine the appropriate mail collection and archival strategy.

For example, you may want to collect all mail that passes through the mail server and use DiskXtender to move the volumes to only one type of media on a regular basis.

Or, you may want to collect and archive certain users' email separately from all other users' email, or use DiskXtender to move the resulting volumes to storage media.

For assistance, see ["Planning Message Center Configuration" on page 60](#).

2. Create additional cabinets and folders, as necessary. For instructions, see ["Cabinets" on page 78](#) and ["Folders" on page 84](#).
3. Create collection, exclusion, and auto forward action rules for the new cabinets and folders, as necessary. You can also create rules for collection and exclusion using an SMTP mail program, or rules that filter messages against an LDAP or ADS schema in addition to or in place of the mail system's address book. For instructions, see ["Rules" on page 91](#).
4. Decide how frequently you want EmailXtender to poll for messages to archive and index, and then configure polling frequency on the General tab of the Vault Properties dialog box. For instructions, see ["The General Tab" on page 67](#).
5. Decide whether you want to enable encryption to increase security or compression to save disk space. You can configure these options on the Encryption/Compression tab of the Vault Properties dialog box. (You may

have already configured compression when you installed EmailXtender server components.) For instructions, see ["The Encryption/Compression Tab" on page 75](#).

6. Decide whether you want to set retention for message volumes. To set retention, enter the number of months you want to retain volumes on the General tab of each folder's Properties dialog box. For instructions, see ["Vault Management" on page 66](#).
7. Decide where you want to archive volumes (.emx files) and the maximum size they should reach, and then configure those options in the Computer Properties dialog box. (You may have already configured these options when you installed EmailXtender server components.) For instructions, see ["Configuring Volume Storage" on page 128](#).
8. Decide whether you want to use DiskXtender to write volumes to another storage media type. To use DiskXtender, install and configure the product. For instructions, see ["Using DiskXtender" on page 130](#).
9. Decide whether you want to allow certain supervisors to search for and view certain users' email. To allow supervisor searches, configure supervisor groups. For instructions, see ["Supervisor Groups" on page 194](#).
10. Decide whether you want to allow certain users to search for and view all messages in the archive by performing administrator searches. For instructions, see ["Administrator Searches" on page 201](#).
11. Decide whether you want to allow certain users to search for and view all messages in a specific cabinet or folder. To allow directed searches, configure them on the Directed Search Access Rights tab of the Properties dialog box for the cabinet or folder. For instructions, see ["Directed Searches" on page 202](#).
12. If you receive Bloomberg Mail, decide whether you want to archive it using EmailXtender. To configure archival of Bloomberg Mail, see ["Archiving Bloomberg Mail" on page 231](#).
13. If you use third-party instant message proxy server software to capture instant messages, decide whether you want to archive instant messages using EmailXtender. To configure archival of instant messages, refer to the proxy server documentation.
14. Decide whether to archive legacy email in the mail server message store. To archive legacy email, set up an Archive task in EmailXtract. For instructions, see ["Archive Task" on page 270](#).

15. Decide whether to remove messages from the mail server and replace them with pointers (shortcuts) to copies of the archived messages. To create shortcuts, set up a Shortcut task in EmailXtract. For instructions, see ["Shortcut Task" on page 277](#).

Chapter 2: Using the EmailXtender Administrator

Because EmailXtender is a Microsoft Windows-based package, the same navigational standards apply to all of its components. The EmailXtender Administrator provides a user-friendly interface that allows you to easily view and manage the EmailXtender Message Center.

The Administrator has an intuitive tree view that displays the underlying structure of the EmailXtender system. Each object contains child objects in a hierarchy that provides easy organization of archived messages.

The Administrator can be run on the same computer where EmailXtender is installed or from a remote workstation using an Administrator-only installation. For more information on installing only the Administrator interface, refer to the *EmailXtender Installation Guide*. For more information on connecting to another EmailXtender server so you can administer it, see ["Connecting to Another EmailXtender Server" on page 51](#).

This chapter explains the basic layout of the Administrator, as well as its general functionality. For more information, see the following sections:

- ["Starting the Administrator" on page 50](#)
- ["Connecting to Another EmailXtender Server" on page 51](#)
- ["Exploring the Administrator Interface" on page 52](#)
- ["Automatically Sizing Columns" on page 57](#)
- ["Refreshing the Administrator Window" on page 57](#)
- ["Activating Changes" on page 58](#)

Starting the Administrator

The EmailXtender Administrator provides access to local or remote EmailXtender servers and their associated Message Centers. The Administrator can be used to organize archived mail, set rules and directed search access, and configure retention schedules, among other things.

Upon successful connection to an EmailXtender server, the Administrator displays the Message Center view with all EmailXtender objects appearing in a tree-like structure. The tree structure contains a server node with one secondary node, the email data vault. This vault can contain one or more cabinets that, in turn, contain folders that hold message volumes. This filing structure allows for a greater amount of control and granularity when organizing email archives.

Each time you start the EmailXtender Administrator, you are prompted to choose an EmailXtender server to connect to.

Note: The Administrator can only maintain one EmailXtender system administrator connection at a time. If one EmailXtender system administrator has the EmailXtender Administrator open and another attempts to access the same EmailXtender server, the second user receives a message stating that an error has occurred connecting to the admin service on the EmailXtender server.

To open the EmailXtender Administrator:

1. From the Windows Start menu, select Programs>LEGATO EmailXtender>EmailXtender Administrator. The Select EmailXtender Server dialog box appears.

Figure 7. Select EmailXtender Server Dialog Box



2. From the drop-down list, select the EmailXtender server you want to administer and click OK.

Note: To refresh the list of EmailXtender servers, click Discover Servers.

One of the following occurs:

- The Administrator opens.

- If this is the first time you are logging into the EmailXtender Administrator after installing the program for use in an Exchange environment, the Choose Profile dialog box appears.

Figure 8. Choose Profile Dialog Box



Note: You are only prompted to select a profile the first time you log into the EmailXtender Administrator. Any other time you wish to change the MAPI profile used with EmailXtender, select Options>Select MAPI Profile.

- From the drop-down list, select the Profile Name that you want to use. If the name does not appear in the list, click New and go through the Profile Wizard to add a new profile. The profile you use should be a member of the exAdmin group on the EmailXtender computer.
- Click OK. The Administrator opens.

Connecting to Another EmailXtender Server

You can administer an EmailXtender server both from the computer on which the EmailXtender server components are installed and from remote computers.

To remotely administer an EmailXtender server, you must install the EmailXtender Administrator interface only (you do *not* need to install the EmailXtender server components). For more information on installing the Administrator interface, refer to the *EmailXtender Installation Guide*.

When you open the Administrator - either on the EmailXtender server or on a computer with only the Administrator interface - EmailXtender prompts you to choose the EmailXtender server you want to administer. You can select either the local computer (if the EmailXtender server components are installed) or another EmailXtender server on the network.

Note: You can only configure one EmailXtender server at a time using the Administrator interface. If one EmailXtender system administrator has the EmailXtender Administrator open and another attempts to access the same EmailXtender server, the second person receives a message stating that an error has occurred connecting to the admin service on the EmailXtender server.

To connect to another EmailXtender server:

1. Disconnect from the current EmailXtender server. (From the Server menu, select Disconnect from Server, or click the Disconnect from Server toolbar icon.)

Figure 9. Disconnect from Server Icon



2. From the Server menu, select Connect to Server, or click the Connect to Server toolbar icon.

Figure 10. Connect to Server Icon



The Select EmailXtender Server dialog box appears.

Figure 11. Select EmailXtender Server Dialog Box



3. From the drop-down list, select the EmailXtender server you want to administer and click OK.

Note: To refresh the list of EmailXtender servers, click Discover Servers.

Exploring the Administrator Interface

The main portion of the Administrator window is for navigation and information display, and is split into three panes:

- The left pane of the window, or the Tree view, contains the tree-like structure from which most commands are performed. For more information, see ["The Tree View" on page 54](#).
- The top right pane, or the Message Center List view, displays the message volume or month data for the item currently selected in the tree. For more information, see ["The Message Center List View" on page 54](#).
- The bottom right pane, or the Description view, displays a description or detailed properties of the item selected. For more information, see ["The Description View" on page 55](#).

Split bars separate the panes of the Administrator window. These split bars can be moved to change the size of each pane.

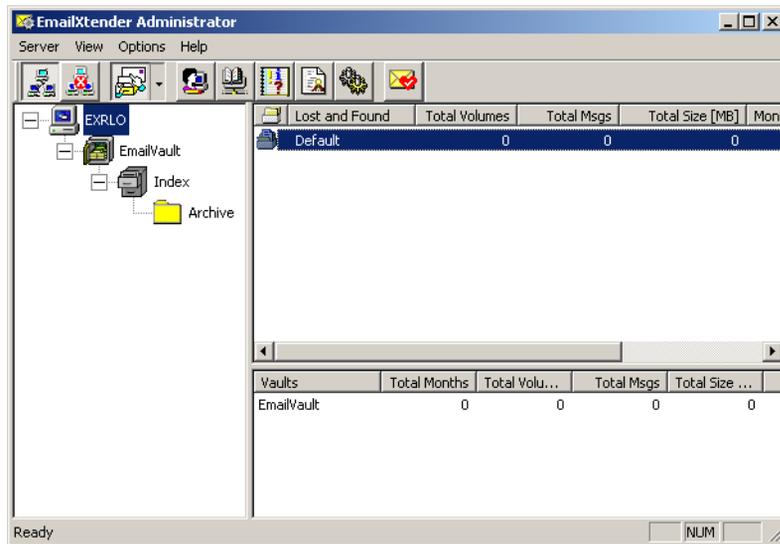
To move the split bar:

- Drag the bar to its new location.

The Administrator window also contains several additional components that allow you to navigate through and configure EmailXtender:

- The menu bar contains the menu commands and can be found at the top of the window. For more information, see ["Menu Bar" on page 56](#).
- The toolbar, containing toolbar icons that allow you to perform frequently used functions, can be found just below the menu bar. For more information, see ["Toolbar" on page 56](#).
- The status bar, which displays information about the selected command or toolbar icon, can be found at the bottom of the window. For more information, see ["Status Bar" on page 57](#).

Figure 12. EmailXtender Administrator



Note: In a Lotus Domino environment, certain actions performed through the Administrator require that the password be verified for the administrative user designated during installation. Be prepared to provide the correct password for this user.

The Tree View

The left pane of the Administrator window contains a tree showing all objects configured for the EmailXtender server's Message Center. Commands for managing EmailXtender functionality can be accessed from the tree. When you right-click a tree node, a shortcut menu containing commands for performing EmailXtender functions appears. The shortcut menu items vary, depending on what item you select in the tree view.

Each node in the tree indicates whether it is expandable; that is, whether it contains items beneath it. You can expand and collapse each expandable node by either double-clicking the node or clicking the plus (+) or minus (-) sign to the left of the node.

The Message Center List View

The top right pane of the Administrator window displays the contents of the node currently selected in the tree on the left.

There are two Message Center List view modes you can choose from:

- **Month**

When you set the Message Center List view to Month mode, EmailXtender groups all of the volumes for a given month so that you can perform functions on them at the same time, such as reindexing message data, removing monthly indexes, and disposing of all monthly data to save disk space. For more information, see ["Managing Volumes by Month" on page 124](#).

To change the Message Center List view to Month mode, open the View menu and then select Message Center>View by Month, or click the arrow on the Message Center View toolbar icon and select View by Month.

Figure 13. Message Center List View Icon



- **Volume**

When you set the Message Center List view to Volume mode, you can view all volumes for the node currently selected in the Tree view. You can manually close, upgrade, or delete individual volumes, as well as restore "Lost and Found" volumes to the system. For more information, see ["Managing Individual Volumes" on page 118](#).

To change the Message Center List view to Volume mode, open the View menu and then select Message Center>View by Volume, or click the arrow on the Message Center View toolbar icon and select View by Volume.

The Description View

The bottom right pane of the Administrator window contains details about the object currently selected in the tree on the left. For example, if the server item is selected, information about the vault is displayed in the Description view.

The Description view displays the following information: names of objects that are contained within the selected tree item, total number of months and volumes, total number of messages contained in the volumes, and total file size.

Menu Bar

The menu bar contains a list of options with commands for carrying out functions in the Administrator. You can connect or disconnect to an EmailXtender server, view information about the EmailXtender server, change EmailXtender server options, and access online help.

Note: The EmailXtender Administrator relies strongly on the use of shortcut menus invoked by a right-button mouse click. Many functions are only available using these shortcut menus.

Toolbar

The toolbar contains icons that provide quick access to many of the Administrator commands and features.

Table 1. The EmailXtender Administrator Toolbar

Icon	Function	For more information, see:
	Allows you to choose an EmailXtender server to connect to.	"Connecting to Another EmailXtender Server" on page 51
	Allows you to disconnect from the currently connected EmailXtender server.	"Connecting to Another EmailXtender Server" on page 51
	Changes the Message Center List view. The drop-down menu allows you to choose either the Month or Volume view.	"The Message Center List View" on page 54
	Displays the Event Information dialog box so that you can view a list of EmailXtender specific events.	"Viewing EmailXtender Events" on page 157
	Displays the LDAP Servers dialog box, which allows you to specify an LDAP server against which to run filters.	"LDAP/ADS Filters" on page 108
	Displays the License Information dialog box, which is used to change or update licensing.	<i>EmailXtender Installation Guide</i>

Table 1. The EmailXtender Administrator Toolbar

Icon	Function	For more information, see:
	Displays the Account Information dialog box so that you can specify administrator account information and define supervisor groups.	"Editing Account Information" on page 159 and "Supervisor Groups" on page 194
	Displays the Services Information dialog box, which allows you to view, stop, and start EmailXtender services.	"Check that EmailXtender Processes Receive Adequate Processing Time" on page 148
	Launches the Health Check utility, which allows you to check the "health", or status, of the EmailXtender system.	"HealthCheck" on page 161

Status Bar

The status bar is located at the bottom of the Administrator window and displays information about the selected command or toolbar icon.

To show or hide the status bar:

- From the View menu, select Status Bar. A check mark beside the command indicates that the status bar is displayed.

Automatically Sizing Columns

The AutoSize Columns option allows you to automatically size the columns in any of the visible panes of the Administrator so that they are only as wide as their longest entry.

To automatically adjust the size of columns in the Administrator:

- From the View menu, select AutoSize Columns.

Refreshing the Administrator Window

The Reload Configuration option refreshes and repaints the contents of the Administrator window to reflect recent changes.

Note: Reloading the configuration does not activate changes. If you make changes but do not activate them, EmailXtender does not reflect the changes when you refresh the Administrator window. For more information on activating changes, see "[Activating Changes](#)" on page 58.

To refresh the Administrator:

- In the Tree view of the Administrator, right-click the server node and select Reload Configuration from the shortcut menu. It may take a couple of seconds for the Administrator to accurately reflect changes.

Activating Changes

To save changes to the EmailXtender system, most actions require that you activate the changes. When making any changes in the EmailXtender Administrator, you should activate the changes to have them take effect immediately.

When you perform a task for the first time in a session with the Administrator, or for the first time since you last activated changes, a prompt appears to remind you to activate the change again. If you perform the same task again without activating the change, however, a prompt does not appear; you should manually activate the change.

If you do not need to immediately display the configuration changes you are making, EmailXtender automatically activates changes when you close the Administrator.

Note: If you make changes but do not activate them, choosing the Reload Configuration option does not reflect the changes.

To activate changes in a current EmailXtender Administrator session:

- From the Options menu, choose Activate Changes. Changes are activated.

Chapter 3: Configuring Message Collection

If you are using Microsoft Exchange or Lotus Domino, EmailXtender pulls email messages from the mailbox connector on the mail server into the EmailXtender Message Center and begins archiving them based on rules and configuration. If you are using sendmail, the MilVault filter and archiver filter the mail and move it to the EmailXtender Message Center using transport threads.

The EmailXtender Message Center contains all email information collected by the EmailXtender server. Within the Message Center, data is organized in the following hierarchy: server, vault, cabinet, folder, and volume. Each server can contain only one vault. By default, EmailXtender also creates a single cabinet and folder when you install the product. EmailXtender automatically creates volumes as it collects messages received by the Message Center. Volumes are organized by the month in which they are created. The hierarchy you create in the Message Center, and the rules and retention periods you assign to the hierarchy, allow you to classify, organize, and archive data in the manner most appropriate for your system.

EmailXtender also full-text indexes messages and attachments so that you can maximize searches of the email archive.

You can configure encryption to add security to archived items as they are bundled into volumes, or compression to save on the disk space required to store message information.

You can also apply retention periods to a folder to define how long EmailXtender retains message volumes in that folder before you can delete them.

For more information, see the following sections:

- ["Planning Message Center Configuration" on page 60](#)
- ["Vault Management" on page 66](#)

- ["Cabinets" on page 78](#)
- ["Folders" on page 84](#)
- ["Disabling Message Collection" on page 90](#)

Note: The different types of rules and how to configure them are discussed in ["Chapter 4: Rules" on page 91](#).

Planning Message Center Configuration

The EmailXtender Message Center contains all email information collected by the EmailXtender server.

Within the Message Center, data is organized in the following hierarchy: server, vault, cabinet, folder, and volume. Each server can contain only one vault. By default, EmailXtender also creates a single cabinet and folder when you install the product. EmailXtender automatically creates volumes as it collects messages received by the Message Center. Volumes are organized by the month in which they are created.

The hierarchy you create in the Message Center, and the rules and retention periods you assign to the hierarchy, allow you to classify, organize, and archive data in the manner most appropriate for your system.

Once you decide how many cabinets and folders to create, as well as how to create message collection and exclusion rules, there are a number of additional settings you must consider when configuring the EmailXtender Message Center.

Note: If you are using EmailXtender Archive Edition, you are allowed only the default cabinet and folder, and use of rules and retention periods is prohibited. You must upgrade to a full EmailXtender license to create additional cabinets and folders, and gain access to rules and retention period capabilities.

For more information, see the following sections:

- ["Choosing Which Mail to Collect" on page 61](#)
- ["Retention Periods" on page 63](#)
- ["Polling Frequency" on page 64](#)
- ["Encryption and Compression" on page 65](#)

Choosing Which Mail to Collect

By default, EmailXtender, creates a single cabinet and folder when you install the product. There are no rules assigned to the vault, cabinet, or folder, so EmailXtender collects all mail it receives and archives it together in volumes that are organized by the month in which they are created.

If you are using EmailXtender purely to archive mail, this simple mail collection and archival strategy may be appropriate for you.

You may have more specific mail collection and archival requirements, however. The flexibility of EmailXtender cabinets, folders, and rules allows you to satisfy virtually any mail collection and archival requirements you may have. Consider the following scenarios:

- ["Example: Collecting Only Mail To and From a Certain Domain" on page 61](#)
- ["Example: Excluding Mail From a Certain Domain From Collection" on page 61](#)
- ["Example: Archiving and Retaining Mail Differently Due To Regulatory Requirements" on page 62](#)



Example: Collecting Only Mail To and From a Certain Domain

You may want to collect a certain type of mail; for example, mail to and from a particular domain.

To collect only mail to and from a particular domain, you should configure EmailXtender as follows:

1. Leave the default cabinet and folder. (Do not configure additional cabinets and folders.)
2. At the cabinet level, create a collection rule that identifies the domain to or from which you want to collect mail. For detailed instructions, see ["Domain Rules" on page 93](#).



Example: Excluding Mail From a Certain Domain From Collection

You may receive some mail that you do not want to include in the archive (in other words, you want to exclude the mail from collection).

For example, to exclude mail to and from *spam.com* from collection, you should configure EmailXtender as follows:

1. Leave the default cabinet and folder. (Do not configure additional cabinets and folders.)
 2. At the cabinet level, create an exclusion rule that identifies the *spam.com* domain. For detailed instructions, see ["Domain Rules" on page 93](#).
 3. At the cabinet level, create an unmatched messages collection rule so that EmailXtender collects all mail that is not excluded by the exclusion rule. For detailed instructions, see ["Unmatched Messages Collection Rules" on page 102](#).
-

3



Example: Archiving and Retaining Mail Differently Due To Regulatory Requirements

The mail to and from certain users may be subject to different regulatory requirements than other users' mail, and it may require you to archive and retain the mail in a different place and for a longer time.

To archive and retain mail to and from certain users in a different place and for a longer time than mail from other users, you should configure EmailXtender as follows:

1. Leave the default cabinet. (Do not configure an additional cabinet.)
2. Create a new folder for collection of mail for the users who are subject to stricter regulatory requirements.
3. In the new folder, create a collection rule that names the users who are subject to stricter regulatory requirements. For detailed instructions, see ["Specific Address Rules" on page 95](#).
4. In the new folder, set the retention period to the appropriate number of months you need to retain the mail. For more information about retention periods, see ["Retention Periods" on page 63](#).
5. Use the default folder to collect mail for the remaining users.

6. In the default folder, create an unmatched messages collection rule so that EmailXtender collects all mail not collected by the other folder. For detailed instructions, see ["Unmatched Messages Collection Rules" on page 102](#).

Retention Periods

Retention periods, which you configure on the General tab of each folder's Properties dialog box, allow you to track how long volumes exist in the EmailXtender system so that you can meet legal retention requirements and delete the volumes after that time has passed.

The EmailXtender Administrator lists the number of months left that EmailXtender retains the volume, providing a visible reminder to remove outdated volumes. The number of months left in the retention period is displayed in the Months to Retain column of the Message Center List view when the view is set to Month mode.

The number that appears is the number you entered on the General tab in the Folder Properties dialog box plus one. This is because EmailXtender automatically adds an additional month to include the one during which retention was set.

If a cabinet contains multiple folders that have different retention periods, the Months to Retain column at the cabinet level reflects the largest value present. For example, if Folder1 in the Index cabinet is set to retain volumes for 12 months and Folder2 is set to 24 months, the cabinet shows 24 in the Months to Retain column. For easier monitoring of retention, it may be best to have consistent retention periods within a cabinet.

Once a retention period has passed, the Months to Retain column displays a zero, signalling that you can remove the volumes in that folder. You must remove both the monthly data and the individual message volumes. For more information, see ["Disposing of Monthly Data" on page 127](#) and ["Deleting a Volume" on page 123](#).

Note: You cannot configure retention periods for legacy volumes, which are volumes that are created with an earlier release of EmailXtender and that you have not yet upgraded. Legacy volumes are displayed in the Administrator with a Year/Month date of `Legacy`. You can set retention on legacy volumes after you upgrade them. For more information on upgrading legacy volumes, see ["Upgrading a Volume" on page 122](#).

If you plan to use retention periods, you should configure them before you configure journaling on the mail server.

Note: If you are using EmailXtender Archive Edition, use of retention periods is prohibited. You must upgrade to a full EmailXtender license to have access to this feature.

Retention Considerations for DiskXtender and EMC Centera

If you configure DiskXtender and an EMC Centera device to store EmailXtender volumes and a new volume is written to the EmailXtender storage drive, EmailXtender automatically creates the appropriate structure in DiskXtender and assigns the retention period that you configured in EmailXtender.

You can configure different retention periods for different folders in EmailXtender, and those differing retention periods are maintained when the files are moved to DiskXtender and the EMC Centera device. (Releases of DiskXtender prior to 5.5 supported only a single retention period for all files written to a single Centera device, meaning that all volumes written to that device had to be retained for the same amount of time.)

For more information about using EmailXtender with DiskXtender, see "[Using DiskXtender](#)" on page 130.

Polling Frequency

Polling frequency settings, which you configure on the General tab of the Vault Properties dialog box, allow you to change the frequency with which EmailXtender polls the mailbox connector and transfers messages into the Message Center.

You can set the following polling frequencies:

- **Data Source Poll Time** - This is the frequency (in seconds) with which EmailXtender checks the data source (EmailXtender mailbox) for new messages.
- **Archive Process Poll Time** - This is the frequency (in seconds) with which EmailXtender archives new messages.
- **Indexer Process Poll Time** - This is the frequency (in seconds) with which EmailXtender indexes new messages.
- **File Maturity Time** - This is the minimum number of seconds that must pass between the time that EmailXtender detects a message in the data source and the time it pulls the email into the Message Center for archival.

The default interval for all of the polling frequencies is 60 seconds. If you want to limit the number of messages that collect in the mailbox connector so that you can better manage space usage on the mail server, set the polling time to a low number.

Encryption and Compression

Encryption and compression, which you configure on the Encryption/Compression tab of the Vault Properties dialog box, are disabled by default in EmailXtender because they can cause a decrease in system performance. You may want to enable these options, however, if you want to add security or save archive space.

Encryption works to add security to archived items as they are bundled into volumes. This ensures that volumes are unreadable outside the EmailXtender system, thereby increasing the security of the archived data.

You can encrypt email data using one of three encryption types:

- **FAST**
Provides security based on 64-bit blocks of information.
- **ICE-Key (64-bit)**
Provides security based on 64-bit blocks of information, but security relies on the key being kept secure, unlike other encryption programs that rely on mathematical properties within the key. Once this key has been set, information is converted to cipher text and can only be converted back to its original state (plain text) when the key has been provided for decryption.
- **ICE-Key (128-bit)**
Alternatively called ICE-2, 128-bit ICE encryption is a variant of 64-bit ICE encryption. Longer keys ensure a higher level of security, as they are much harder to decrypt.

You must also provide an encryption key, which can later be used in the event that you need to perform data recovery. You should keep the encryption key confidential and in a safe place.

When you enable compression, EmailXtender compresses all messages as they are processed by the Message Center. This can mean a considerable savings in terms of how much disk space is required for message information. Compression does not, however, affect index or database size.

When you enable encryption or compression and there are open message volumes in the EmailXtender system, the volumes are automatically closed and a new encrypted or compressed volume is opened for subsequent

messages that EmailXtender receives. Similarly, if you later disable encryption or compression and there are open message volumes in the system, the volumes are automatically closed and a new unencrypted or uncompressed volume is opened.

Vault Management

The vault is the second-level component of the EmailXtender Message Center, located beneath the server object. Automatically named "EmailVault", the vault collects all email data to be processed by EmailXtender.

Figure 14. Vault



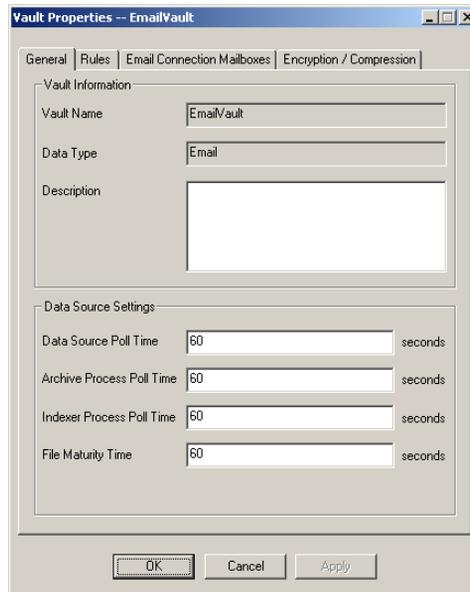
You can configure the frequency with which EmailXtender polls the mailbox connector and transfers messages into the Message Center at the vault level. You can also configure additional mailbox connectors, as well as encryption and compression for volumes.

If necessary, you can apply collection, exclusion, and action rules at the vault level to collect, exclude, or forward mail that matches specified message attributes, although you should configure rules at the cabinet or folder level for more efficient organization.

To configure the vault:

1. In the Tree view of the Administrator, right-click the EmailVault node and then select Properties from the shortcut menu. The Vault Properties dialog box appears, starting with the General tab.

Figure 15. Vault Properties Dialog Box – General Tab



2. Select each of the tabs and configure vault options as necessary. For more information, see the following sections:
 - ["The General Tab" on page 67](#)
 - ["The Rules Tab" on page 69](#)
 - ["The Email Connection Mailboxes Tab" on page 69](#)
 - ["The Encryption/Compression Tab" on page 75](#)
3. When you finish configuring the vault, click OK.
4. Activate the changes (Options>Activate Changes).

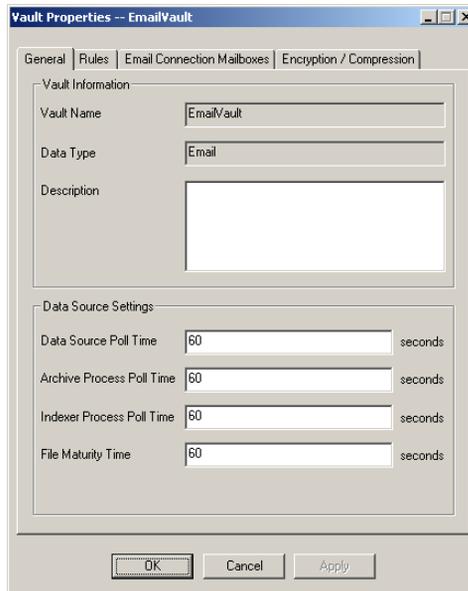
The General Tab

The General tab of the Vault Properties dialog box allows you to change the frequency with which EmailXtender polls the mailbox connector and transfers messages into the Message Center. If you want to limit the number of messages that collect in the mailbox connector so that you can better manage space usage on the mail server, set the polling time to a low number.

To configure the General tab of the Vault Properties dialog box:

1. In the Tree view of the Administrator, right-click the EmailVault node and then select Properties from the shortcut menu. The Vault Properties dialog box appears, starting with the General tab.

Figure 16. Vault Properties Dialog Box – General Tab



2. In the Description text box, enter a description for the vault.
3. In the Data Source Poll Time text box, enter the frequency (in seconds) with which EmailXtender checks the data source (mailbox connector) for new messages. The default interval is 60 seconds.
4. In the Archive Process Poll Time text box, enter the frequency (in seconds) with which EmailXtender archives new messages. The default interval is 60 seconds.
5. In the Indexer Process Poll Time text box, enter the frequency (in seconds) with which EmailXtender indexes new messages. The default interval is 60 seconds.
6. In the File Maturity Time text box, enter the minimum number of seconds that must pass between the time that EmailXtender detects a message in the data source and the time it pulls the message into the Message Center. The default interval is 60 seconds.

The Rules Tab

The Rules tab of the Vault Properties dialog box allows you to configure collection, exclusion, and action rules for the vault.

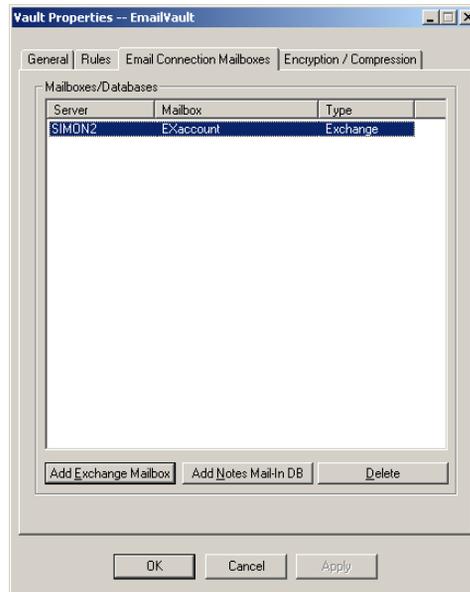
The process for adding rules is the same regardless of whether you are adding them at the vault, cabinet, or folder level. For more information, see ["Rules" on page 91](#).

Note: Although EmailXtender *allows* you to configure rules at the vault level, you should consider setting rules at the cabinet or folder level for more efficient organization. Remember that rules you configure at the vault level are applied to *all* messages that EmailXtender processes. By adding rules at the vault level, you run the risk of unintentionally excluding some messages from collection.

Note: In an SMTP mail environment, you can create rules for collection and exclusion using the SMTP mail program instead of using the EmailXtender Administrator. EmailXtender then inherits these rules and automatically creates folders to correctly organize and archive the messages. If you collect mail using external rules, you should not configure EmailXtender rules. For more information, see ["External Message Rules" on page 107](#).

The Email Connection Mailboxes Tab

The Email Connection Mailboxes tab of the Vault Properties dialog box allows you to configure additional mailbox connectors for use with EmailXtender. You should have already configured a mailbox connector when you installed EmailXtender.

Figure 17. Vault Properties Dialog Box - Email Connection Mailboxes Tab

3

A mailbox connector is a mailbox (in Exchange) or database (in Domino) that resides on a configured mail server and is designated to interact with EmailXtender journaling. Messages that are received and sent by mail servers are copied to the mailbox connectors, which are monitored by EmailXtender according to polling settings. At the configured time, messages are pulled from the mailbox connectors into the Message Center, and then bundled into message volumes.

In an Exchange environment, EmailXtender retrieves messages from the mailbox connectors using the Messaging Application Program Interface (MAPI). In a Domino environment, the EmailXtender Email Data Source service (*ExEmail.exe*) pulls messages from the mailbox connector.

At least one mailbox connector is necessary to expedite communication between the mail environment and the EmailXtender server. Mailbox connectors should only be used to temporarily store messages for transfer to the Message Center, and should not double as user accounts.

You can forward all received mail from configured mail servers to one mailbox connector. If you are using Exchange 2000 or 2003, you can set up a mailbox connector on each mail server or mailbox store instead.

If you are using EmailXtender with Exchange, you must add at least one mailbox connector to avoid receiving temporary profile error messages from the EmailXtender Exchange Manager service.

You can use the EmailXtender Administrator to configure mailbox connectors under the following circumstances:

- In an Exchange 5.5 environment, to add additional mailbox connectors on servers that have already been configured using the Journaling Utility, or to re-add previously configured connectors after an EmailXtender update.
- In an Exchange 2000 or 2003 environment, to add mailbox connectors that have already had message archiving configured through the Exchange Administrator, or to re-add previously configured connectors after an EmailXtender update.
- In a Domino environment, to add additional mailbox connectors on servers that have already been configured using the Journaling Utility, or to re-add previously configured connectors after an EmailXtender update.

Note: If you have been archiving messages that use multi-byte character sets (such as Japanese and Simplified Chinese) and you want to change the mailbox connector, you must first delete the language journaling profiles that EmailXtender creates automatically. Otherwise, EmailXtender will not archive multi-byte character set messages correctly in the future. To delete the profile, right-click the Microsoft Outlook icon on the desktop of the EmailXtender server, and then select Properties from the shortcut menu. On the Service tab, click Show Profiles. On the General tab of the Mail dialog box, select all of the *exJournal-language-codepage* profiles (where *language* is the name of the language and *codepage* is the codepage number), and then click Remove. You can then change the mailbox connector.

For more information about configuring mailbox connectors, see the following sections:

- ["Adding an Exchange Mailbox Connector" on page 71](#)
- ["Adding a Notes Mailbox Connector" on page 73](#)
- ["Deleting a Mailbox Connector" on page 74](#)

Adding an Exchange Mailbox Connector

If you are using Microsoft Exchange, you can add mailbox connectors on servers that have already been configured using either the Journaling Utility (Exchange 5.5) or the Exchange Administrator (Exchange 2000 or 2003).

You may also want to add previously configured mailbox connectors after you update to a newer release of EmailXtender, regardless of whether you are using Microsoft Exchange or Lotus Domino.

To add an Exchange mailbox connector:

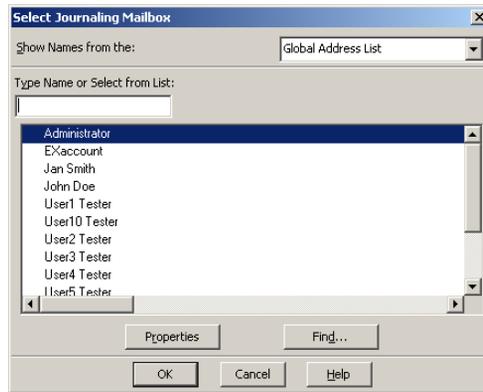
1. Create the mailbox in Microsoft Exchange.
2. In the Tree view of the EmailXtender Administrator, right-click the EmailVault node and select Properties from the shortcut menu. The Vault Properties dialog box appears.
3. Select the Email Connection Mailboxes tab.
4. Click Add Exchange Mailbox. The New Exchange Connector Mailbox dialog box appears.

Figure 18. New Exchange Connector Mailbox Dialog Box



5. Enter the name of the mailbox connector you want to add. You have the following choices:
 - Enter the name in the available text box.
 - Click Mailbox. The Select Journaling Mailbox dialog box appears.

Figure 19. Select Journaling Mailbox Dialog Box



- a. Select the mailbox name from the list. If the mailbox name does not appear on the list, click Find to search for it.
 - b. To view the properties of the selected mailbox connector, click Properties. When you finish viewing properties, click OK.
 - c. When you finish selecting a mailbox, click OK to return to the New Exchange Connector Mailbox dialog box.
6. Click OK again to add the selected mailbox connector and return to the Email Connection Mailboxes tab of the Vault Properties dialog box.
 7. Click OK.
 8. Activate the changes (Options>Activate Changes).

Adding a Notes Mailbox Connector

When you run the Domino Journaling Utility on a Lotus Domino server, it automatically sets up a mailbox (*mail.box* file) and a Notes database named *ExJournal.nsf* as the mailbox connector. If necessary, you can add another mailbox connector.

Note: If you configure additional mailbox connectors after you install the Journaling Utility, EmailXtender creates additional Notes databases and names them incrementally (such as *ExJournal1.nsf*, *ExJournal2.nsf*, etc.). There must be a one-to-one relationship between the *mail.box* files for the mailbox connectors and the Notes databases for each mailbox connector.

To add a Notes mailbox connector:

1. Create a new Notes database.

2. In the Tree view of the EmailXtender Administrator, right-click the EmailVault node and select Properties from the shortcut menu. The Vault Properties dialog box appears.
3. Select the Email Connection Mailboxes tab.
4. Click Add Notes Mail-In DB. The New Notes Connector DB dialog box appears.

Figure 20. New Notes Connector DB Dialog Box



5. In the Notes Server text box, enter the name of the Notes server as *servername/notesdomainname*, where *servername* is the name of the Notes server and *notesdomainname* is the name of the Notes domain. You can enter multiple names by separating each name with a semicolon.
6. In the Mail-In Database text box, enter the name of the Notes database you created to use as a mailbox connector.
7. Click OK.

Deleting a Mailbox Connector

If you no longer need a mailbox connector, you can delete it.

Note: At least one mailbox connector is necessary to expedite communication between the mail environment and the EmailXtender server.

Note: If you are using EmailXtender with Exchange, you must add at least one mailbox connector to avoid receiving temporary profile error messages from the EmailXtender Exchange Manager service.

To delete a mailbox connector:

1. In the Tree view of the EmailXtender Administrator, right-click the EmailVault node and select Properties from the shortcut menu. The Vault Properties dialog box appears.
2. Select the Email Connection Mailboxes tab.
3. Select the mailbox connector you want to delete and then click Delete.

The Encryption/Compression Tab

The Encryption/Compression tab of the Vault Properties dialog box allows you to configure encryption and compression for the EmailXtender system.

Encryption, which is disabled by default in EmailXtender because it can cause a decrease in system performance, works to add security to archived items as they are bundled into volumes. This ensures that volumes are unreadable outside the EmailXtender system, thereby increasing the security of the archived data.

You can encrypt email data using one of three encryption types:

- **FAST**
Provides security based on 64-bit blocks of information.
- **ICE-Key (64-bit)**
Provides security based on 64-bit blocks of information, but security relies on the key being kept secure, unlike other encryption programs that rely on mathematical properties within the key. Once this key has been set, information is converted to cipher text and can only be converted back to its original state (plain text) when the key has been provided for decryption.
- **ICE-Key (128-bit)**
Alternatively called ICE-2, 128-bit ICE encryption is a variant of 64-bit ICE encryption. Longer keys ensure a higher level of security, as they are much harder to decrypt.

You must also provide an encryption key, which can later be used in the event that you need to perform data recovery. You should keep the encryption key confidential and in a safe place.

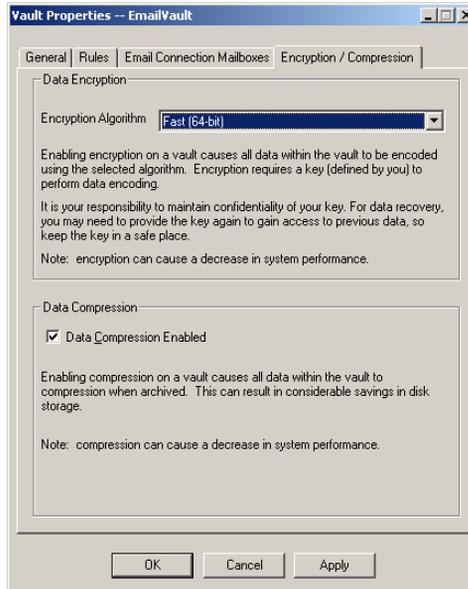
When you enable compression, EmailXtender compresses all messages as they are processed by the Message Center. This can mean a considerable savings in terms of how much disk space is required for message information. Compression does not, however, affect index or database size.

When you enable encryption or compression and there are open message volumes in the EmailXtender system, the volumes are automatically closed and a new encrypted or compressed volume is opened for subsequent messages that EmailXtender receives. Similarly, if you later disable encryption or compression and there are open message volumes in the system, the volumes are automatically closed and a new unencrypted or uncompressed volume is opened.

To configure encryption and compression:

1. In the Tree view of the Administrator, right-click the EmailVault node and select Properties from the shortcut menu. The Vault Properties dialog box appears.
2. Select the Encryption / Compression tab.

Figure 21. Vault Properties Dialog Box - Encryption / Compression Tab



3. From the Encryption Algorithm drop-down list, choose whether to encrypt email data.
 - To leave encryption disabled, select Data Encryption Disabled.
 - To use FAST encryption, select FAST (64-bit).
 - To use 64-bit ICE encryption, select ICE-Key (64-bit).
 - To use 128-bit ICE encryption, select ICE-Key (128-bit).

If you enabled encryption by selecting one of the FAST or ICE encryption types, the Encryption Key Definition Dialog box appears.

Figure 22. Encryption Key Definition Dialog Box

- a. In the Encryption Key text box, enter an encryption key. Keep the following guidelines in mind:
 - If you selected FAST encryption, the encryption key must be exactly eight characters.
 - If you selected 64-bit ICE encryption, the encryption key must be exactly eight characters. Once this key has been set, information is converted to cipher text and can only be converted back to its original state (plain text) when the key has been provided for decryption.
 - If you selected 128-bit ICE encryption, the encryption key must be exactly 16 characters. Like 64-bit ICE encryption, once this key has been set, information is converted to cipher text and can only be converted back to its original state (plain text) when the key has been provided for decryption.

Note: It is your responsibility to maintain the confidentiality of the encryption key. You may need to provide the key later to perform data recovery, so it is important to keep the encryption key in a safe place.

- b. In the Verify Encryption Key text box, re-enter the encryption key that you entered in the Encryption Key text box and then click OK to close the Encryption Key Definition dialog box.
4. Choose whether to enable compression.
 - To enable compression, select the Data Compression Enabled check box.
 - To leave compression disabled, clear the Data Compression Enabled check box.
 5. Click OK.
 6. Activate the changes (Options>Activate Changes).

If you enabled encryption or compression, all volumes that are currently open are closed and new ones are opened for subsequent messages received by the Message Center.

Cabinets

Located within the vault, the cabinet is the third-level component of the EmailXtender Message Center. By default, EmailXtender creates a single cabinet named "Index".

Figure 23. Cabinets



Depending on your mail collection and archival needs, you may want to create additional cabinets. For more information on planning the Message Center hierarchy, see ["Planning Message Center Configuration" on page 60](#).

Note: If you are using EmailXtender Archive Edition instead of a fully licensed version of EmailXtender, you are allowed only one cabinet and one folder.

You can apply collection, exclusion, and action rules at the cabinet level to collect, exclude, or forward mail that matches specified message attributes. If you apply rules to a cabinet, you may also want to configure directed searches for the cabinet, which allow certain users to search for and view all messages collected by the cabinet (in addition to searching their own mail).

For more information, see the following sections:

- ["Adding a Cabinet" on page 78](#)
- ["Configuring a Cabinet" on page 79](#)
- ["Copying a Cabinet" on page 83](#)
- ["Deleting a Cabinet" on page 83](#)

Adding a Cabinet

You can add cabinets to the EmailVault to customize the organization of incoming email.

When you create a cabinet, EmailXtender creates a directory in the EmailXtender installation directory for the new cabinet. The directory is named *EmailVault_Cabinet*, where *Cabinet* is the name of the cabinet. This directory contains volume information for the cabinet.

Before you add a cabinet, make sure that the drive where EmailXtender is installed has enough room to accommodate these new directories and the information that they will hold.

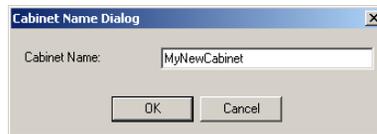
Note: If you are using EmailXtender Archive Edition instead of a fully licensed version of EmailXtender, you are allowed only one cabinet and one folder.

Note: If you are using external message rules to classify mail for collection or exclusion by EmailXtender, you can configure the rules so that EmailXtender automatically creates cabinets to correctly organize and archive the messages.

To add a cabinet:

1. In the Tree view of the Administrator, right-click the EmailVault node and select Add New Cabinet from the shortcut menu. The Cabinet Name dialog box appears.

Figure 24. Cabinet Name Dialog Box



2. In the Cabinet Name text box, enter a name for the new cabinet. Cabinet names can only use the following character set: A-Z, a-z, 0-9, space, and dash. Underscore characters are *not* supported.
3. Click OK.
4. Activate the changes (Options>Activate Changes).

After you create a cabinet, you should configure its settings and then, if necessary, add folders to it. For more information, see ["Configuring a Cabinet" on page 79](#) and ["Adding a Folder" on page 84](#).

Configuring a Cabinet

There are a number of settings you can configure at the cabinet level using the tabs on the Cabinet Properties dialog box.

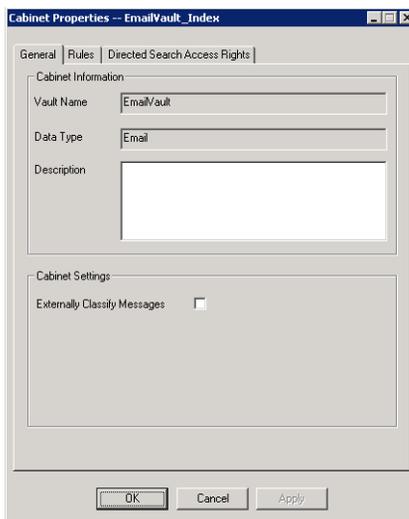
You can apply rules to collect, exclude, or forward mail that matches specified message attributes. If you apply rules to a cabinet, you may also want to configure directed searches for the cabinet, which allow certain users to search for and view all messages collected by the cabinet (in addition to searching their own mail). You can also enter a description for the cabinet.

If you use an SMTP mail program, you can configure EmailXtender to inherit external collection and exclusion rules from the SMTP mail program instead of using EmailXtender rules.

To configure a cabinet:

1. In the Tree view of the Administrator, right-click the cabinet you want to configure and then select Properties from the shortcut menu. The Cabinet Properties dialog box appears, starting with the General tab.

Figure 25. Cabinet Properties Dialog Box – General Tab



2. Select each of the tabs and configure cabinet options as necessary. For more information, see the following sections:
 - ["The General Tab" on page 81](#)
 - ["The Rules Tab" on page 82](#)
 - ["The Directed Search Access Rights Tab" on page 82](#)
3. When you finish configuring the cabinet, click OK.
4. Activate the changes (Options>Activate Changes).

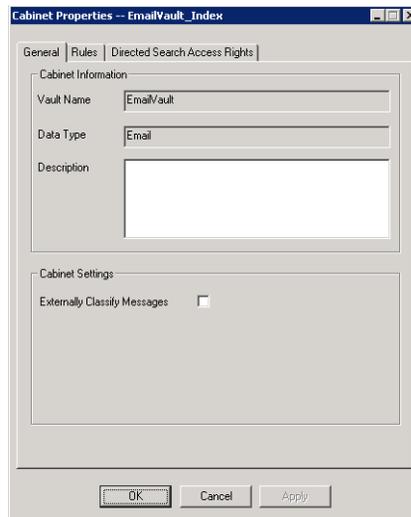
The General Tab

The General tab of the Cabinet Properties dialog box allows you to enter a description for the cabinet and to configure EmailXtender to inherit external collection and exclusion rules from an SMTP mail program instead of using EmailXtender rules. For more information on configuring external message rules, see ["External Message Rules" on page 107](#).

To configure the General tab of the Cabinet Properties dialog box:

1. In the Tree view of the Administrator, right-click the cabinet you want to configure and then select Properties from the shortcut menu. The Cabinet Properties dialog box appears, starting with the General tab.

Figure 26. Cabinet Properties Dialog Box – General Tab



2. In the Description text box, enter a description for the cabinet.
3. To configure EmailXtender to inherit external collection and exclusion rules from an SMTP mail program instead of using EmailXtender rules, select the Externally Classify Messages check box.

If you select the Externally Classify Messages check box, the Rules tab for the cabinet is dimmed, signaling that all message rules for the cabinet are now dependent on outside settings. If you previously configured rules for the Cabinet using the Rules tab, the rules are disabled.

The Rules Tab

The Rules tab of the Cabinet Properties dialog box allows you to configure collection, exclusion, and action rules for the cabinet.

The process for adding rules is the same regardless of whether you are adding them at the vault, cabinet, or folder level. For more information, see ["Rules" on page 91](#).

Note: In an SMTP mail environment, you can create rules for collection and exclusion using the SMTP mail program instead of using the EmailXtender Administrator. EmailXtender then inherits these rules and automatically creates folders to correctly organize and archive the messages. If you configure EmailXtender to use external message rules on the General tab of the Cabinet Properties dialog box, the Rules tab is dimmed. For more information, see ["External Message Rules" on page 107](#).

Note: If you are using EmailXtender Archive Edition, use of rules is prohibited. You must upgrade to a full EmailXtender license to access this feature.

The Directed Search Access Rights Tab

The Directed Search Access Rights tab of the Cabinet Properties dialog box allows you to configure directed searches for the cabinet.

When you configure a directed search, you specify a few select users who can use the Web Search or Search Plug-in to search for any messages in the selected cabinet.

Directed searches are most useful if you have configured the EmailXtender Message Center so that certain types of messages are filtered into specific cabinets or folders. Used in combination with supervisor and administrator searches, directed searches allow you to be very exact about who has permission to view certain messages.

Because you can configure directed searches at either the cabinet or folder level, the process for configuring them is the same. For more information, see ["Directed Searches" on page 202](#).

Note: If you are using EmailXtender Archive Edition, directed searches are prohibited. You must upgrade to a full EmailXtender license to access this feature.

Copying a Cabinet

You can copy a cabinet structure and its configured collection rules in order to create a new cabinet. This saves time in configuring rules and folder organization when you have a cabinet that is configured similarly to the way you want to configure another cabinet.

Note: Email volumes are *not* copied when you copy a cabinet. Only the cabinet itself, including folders and properties, is copied to the new cabinet.

Note: If you are using EmailXtender Archive Edition instead of a fully licensed version of EmailXtender, you are allowed only one cabinet and one folder.

To copy a cabinet:

1. In the Administrator, right-click the cabinet you want to copy and select Copy Cabinet from the shortcut menu. A copy of the cabinet appears, and the new cabinet has the same name as the copied cabinet, with an incremental number appended to it. For example, a cabinet named "Accounting" would be copied to "Accounting(1)".
2. Activate the changes (Options>Activate Changes).

For information about how to change rules set on the copied cabinet, see ["Rules" on page 91](#).

Deleting a Cabinet

If necessary, you can delete a cabinet. Volumes contained within a deleted cabinet are moved to Lost and Found storage and are not accessible until you restore them to the EmailXtender Message Center. For more information on restoring volumes, see ["Restoring a Volume" on page 120](#).



Important: If you delete all cabinets, EmailXtender is unable to collect mail.

To delete a cabinet:

1. Close any open volumes in the cabinet. For instructions, see ["Closing a Volume" on page 120](#).
2. In the Administrator, right-click the cabinet you want to delete and select Delete Cabinet from the shortcut menu. A confirmation message appears.
3. Click OK.
4. Activate the changes (Options>Activate Changes).

Folders

The folder object is the fourth-level component of the EmailXtender Message Center. Located within a cabinet, it contains volumes once you begin collecting mail. You can apply collection, exclusion, and action rules at the folder level to collect, exclude, or forward mail that matches specified message attributes. You can add, copy, or delete folders, as well as set a retention period for a folder so that volumes in the folder are retained for a specific amount of time. For more information, see the following sections:

- ["Adding a Folder" on page 84](#)
- ["Configuring a Folder" on page 85](#)
- ["Copying a Folder" on page 89](#)
- ["Deleting a Folder" on page 89](#)

3

Adding a Folder

You can add new folders within a cabinet to customize the organization of archived email.

Note: If you are using EmailXtender Archive Edition instead of a fully licensed version of EmailXtender, you are allowed only one cabinet and one folder.

Note: If you are using external message rules to classify mail for collection or exclusion by EmailXtender, you can configure the rules so that EmailXtender automatically creates folders to correctly organize and archive the messages.

When you create a folder in the Administrator, EmailXtender creates a directory for the folder in the EmailXtender installation directory. The directory is named *EmailVault_Cabinet_Folder*, where *Cabinet* and *Folder* represent the names of the cabinet and folder, respectively. EmailXtender stores the collected messages associated with the folder in this directory until it creates a message volume.

Before you add a folder, make sure that the drive where EmailXtender is installed has enough room to accommodate these new directories and the information that they will hold.

To add a folder:

1. In the Administrator, right-click the cabinet to which you want to add a folder and select Add New Folder from the shortcut menu. The Folder Name dialog box appears.

Figure 27. Folder Name Dialog Box

2. In the Folder Name text box, enter a name for the new folder. Folder names can only use the following character set: A-Z, a-z, 0-9, space, and dash. Underscore characters are *not* supported. In addition, if you are using DiskXtender 2000 with EmailXtender, the folder name should be unique and contain 16 or fewer characters.
3. Click OK.
4. Activate the changes (Options>Activate Changes).

After you add a folder, you may want to set up collection rules and retention periods to better manage archived messages collected in that folder. For more information, see "[Configuring a Folder](#)" on page 85.

Configuring a Folder

There are a number of settings you can configure at the folder level using the tabs on the Folder Properties dialog box.

You can apply rules at the folder level to collect, exclude, or forward mail that matches specified message attributes. If you apply rules to a folder, you may also want to configure directed searches for the folder, which allow certain users to search for and view all messages collected by the folder (in addition to searching their own mail).

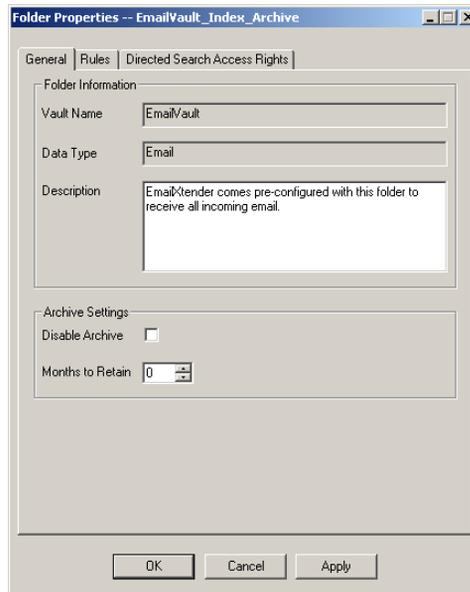
You can also set retention periods at the folder level so that volumes created within the folder are retained for a certain period of time. After the retention period has passed, you can manually remove the volumes.

If necessary, you can enter a description for the folder, and disable mail collection for a folder.

To configure a folder:

1. In the Tree view of the Administrator, right-click the folder you want to configure and then select Properties from the shortcut menu. The Folder Properties dialog box appears, starting with the General tab.

Figure 28. Folder Properties Dialog Box – General Tab



3

2. Select each of the tabs and configure folder options as necessary. For more information, see the following sections:
 - ["The General Tab" on page 86](#)
 - ["The Rules Tab" on page 88](#)
 - ["The Directed Search Access Rights Tab" on page 88](#)
3. When you finish configuring the folder, click OK.
4. Activate the changes (Options>Activate Changes).

The General Tab

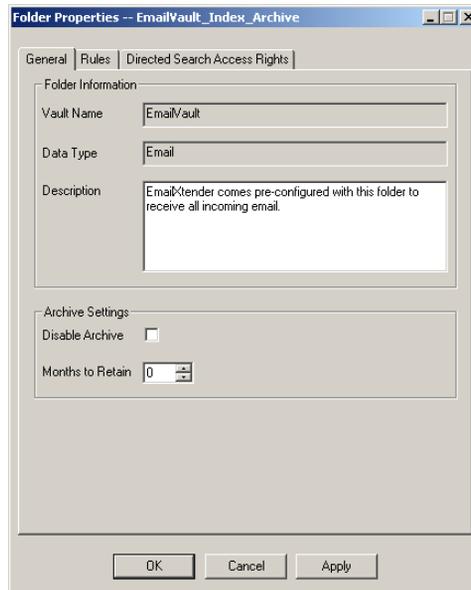
The General tab of the Folder Properties dialog box allows you to view general information about the folder you have selected. It also allows you to create or edit the folder's description, or disable archiving.

You can also set retention periods for the folder's volumes. For more information on setting retention periods, see ["Vault Management" on page 66](#).

To configure the General tab of the Folder Properties dialog box:

1. In the Tree view of the Administrator, right-click the folder for which you want to view or edit general properties and then select Properties from the shortcut menu. The Folder Properties dialog box appears, starting with the General tab.

Figure 29. Folder Properties Dialog Box – General Tab



The name of the vault containing the folder is listed in the Vault Name text box, and the type of data the folder contains is listed in the Data Type text box. These text boxes are dimmed; you cannot edit these values.

2. If desired, enter a description of the folder in the Description text box.
3. If you want to temporarily disable archival of messages to the selected folder, select the Disable Archive check box. (To re-enable message collection for the folder later, clear the check box.)



Important: If you have configured only one folder, then disabling archive for that one folder effectively means that *no* email is archived to the EmailXtender Message Center.

4. Set the Months to Retain value to match the number of months that volumes should be marked for retention. If you enter zero, EmailXtender keeps message volumes indefinitely. For more information on choosing retention periods, see ["Retention Periods" on page 63](#).

Note: If you are using EmailXtender Archive Edition, the retention period feature is not available. You must upgrade to a full EmailXtender license to access this feature.

The Rules Tab

The Rules tab of the Folder Properties dialog box allows you to configure collection, exclusion, and action rules for the folder.

The process for adding rules is the same regardless of whether you are adding them at the vault, cabinet, or folder level. For more information, see ["Rules" on page 91](#).

Note: If you are using EmailXtender Archive Edition, use of rules is prohibited. You must upgrade to a full EmailXtender license to access this feature.

The Directed Search Access Rights Tab

The Directed Search Access Rights tab of the Folder Properties dialog box allows you to configure directed searches for the folder.

When you configure a directed search, you specify a few select users who can use the Web Search or Search Plug-in to search for messages in the selected folder.

Directed searches are most useful if you have configured the EmailXtender Message Center so that certain types of messages are filtered into specific cabinets or folders. Used in combination with supervisor and administrator searches, directed searches allow you to be very exact about who has permission to view certain messages.

Because you can configure directed searches at either the cabinet or folder level, the process for configuring them is the same. For more information, see ["Directed Searches" on page 202](#).

Note: If you are using EmailXtender Archive Edition, directed searches are prohibited. You must upgrade to a full EmailXtender license to access this feature.

Copying a Folder

You can copy a folder to create a new folder. This saves time in configuring rules when you have a folder that is configured similarly to the way you want to configure another folder.

Note: Email volumes are *not* copied when you copy a folder. Only the folder itself, including properties and rules, is copied to the new folder.

Note: If you are using EmailXtender Archive Edition instead of a fully licensed version of EmailXtender, you are allowed only one cabinet and one folder.

To copy a folder:

1. In the Administrator, right-click the folder you want to copy and select Copy Folder from the shortcut menu. A copy of the folder appears, and the new folder has the same name as the copied folder, with an incremental number appended to it. For example, a folder named "Development" would be copied to "Development(1)".
2. Activate the changes (Options>Activate Changes).

For information about how to change rules set on the copied folder, see ["Editing a Rule" on page 106](#).

Deleting a Folder

If necessary, you can delete a folder. Volumes contained within a deleted folder are moved to Lost and Found storage and are not accessible until you restore them to the EmailXtender Message Center. For more information on restoring volumes, see ["Restoring a Volume" on page 120](#).



Important: If you delete all folders, EmailXtender is unable to collect mail.

To delete a folder:

1. Close any open volumes in the folder. For instructions, see ["Closing a Volume" on page 120](#).
2. In the Administrator, right-click the folder you want to delete and select Delete Folder from the shortcut menu. A confirmation message appears.
3. Click OK.
4. Activate the changes (Options>Activate Changes).

Disabling Message Collection

If you want to temporarily prevent EmailXtender from collecting messages, you can disable message collection on the General tab of the Folder Properties dialog box.

If there are multiple folders in the EmailXtender system, you can either disable message collection for a single folder or for the entire system. To disable message collection for the entire system, you must disable message collection on the General tab of the Folder Properties dialog box for *every* folder.

If you have a single folder, remember that disabling message collection for the folder prevents EmailXtender from collecting any mail.

For more information on using the General tab to disable message collection, see "[The General Tab](#)" on page 86.

Chapter 4: Rules

Mail rules allow you to efficiently organize email archives by controlling which messages EmailXtender archives. If you do not configure any rules, EmailXtender archives all messages.

You can configure rules at the vault, cabinet, and folder level. Although you *can* configure rules at the vault level, however, you should set rules at the cabinet or folder level for more efficient organization.

You can configure three different types of EmailXtender rules: collection, exclusion, and action rules. Collection rules allow you to specify which messages EmailXtender collects, exclusion rules allow you to specify which messages EmailXtender should *not* collect, and action rules allow you to perform an action on all messages collected by the vault, cabinet, or folder to which the rule applies. At this time, the only type of action you can perform on a message is to auto-forward it to the email address you specify.

If you are using a pure SMTP mail environment, EmailXtender can also accept the external classification rules you configure through the SMTP mail program. When configured with external classification, EmailXtender automatically creates folders and cabinets to match the rules set up through SMTP mail.

If you have an LDAP (Lightweight Directory Access Protocol) or Microsoft Active Directory Services (ADS) server, you can configure rules that filter messages against the directory services schema in addition to or in place of the mail system's address book. This approach may be faster or more effective than using a Microsoft Exchange or Lotus Domino address book.

If you plan to use rules, you should configure them before you configure journaling on the mail server.

Note: EmailXtender only archives items that would naturally travel through the mailbox connector, such as messages and read receipts, so these are the only types of items to which rules are applied. If you use EmailXtract in a Microsoft Exchange environment, you can also archive items such as public folders, calendar items, contacts, and tasks.

Note: If you are using EmailXtender Archive Edition, use of rules is prohibited. You must upgrade to a full EmailXtender license to access this feature.

For more information about rules, see the following sections:

- ["Creating a Rule" on page 92](#)
- ["Editing a Rule" on page 106](#)
- ["Deleting a Rule" on page 107](#)
- ["External Message Rules" on page 107](#)
- ["LDAP/ADS Filters" on page 108](#)

Creating a Rule

4

Rules allow you to control which messages EmailXtender archives. You can configure three different types of EmailXtender rules:

- **Collection**

Collection rules allow you to specify which messages EmailXtender collects. When a message matches the conditions of a collection rule, the vault, cabinet, or folder to which the rule applies collects the message and places it in a message volume. If the message does not match the rule criteria, EmailXtender does not collect the message.

Collection rules can collect mail based on domain names, specific email addresses, and keywords. You can also use the Unmatched Messages collection rule to collect messages that are not collected by any other collection rule in the associated EmailXtender container object.

- **Exclusion**

Exclusion rules allow you to specify which messages EmailXtender should *not* collect. Similar to collection rules, exclusion rules can exclude mail based on domain names, specific email addresses, and keywords.

- **Action**

Action rules allow you to perform an action on all messages collected by the vault, cabinet, or folder to which the rule applies. At this time, the only type of action you can perform on a message is auto-forward. An auto-forward action rule automatically forwards all messages in the vault, cabinet, or folder to the email address you specify.

Note: If you do not configure any rules, EmailXtender archives all messages.

You can configure rules at the vault, cabinet, and folder level. Although you can configure rules at the vault level, however, you should set rules at the cabinet or folder level for more efficient organization.

For more information, see the following sections:

- ["Collection and Exclusion Rules" on page 93](#)
- ["Auto-Forward Action Rules" on page 105](#)

Collection and Exclusion Rules

You can create collection and exclusion rules that collect or exclude mail based on whether the mail was sent to or from specific domain names or email addresses, as well as whether the message contains specific keywords.

You can also create a collection rule that collects messages that are not collected by any other rule in the associated cabinet or folder. This type of rule is called an *unmatched messages* rule.

If you archive messages both in real-time using an EmailXtender journaling utility and on a scheduled basis using EmailXtract, EmailXtender handles collection and exclusion differently when the message is sent to or from a distribution list.

For more information, see the following sections:

- ["Domain Rules" on page 93](#)
- ["Specific Address Rules" on page 95](#)
- ["Keyword Rules" on page 97](#)
- ["Unmatched Messages Collection Rules" on page 102](#)
- ["Considering Distribution Lists" on page 104](#)

Domain Rules

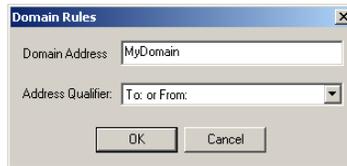
You can collect or exclude mail based on whether the mail was sent to or from a specific domain name.

To create a collection or exclusion rule based on a domain name:

1. In the Tree view of the Administrator, right-click the vault, cabinet, or folder for which you want to create the rule and select Properties from the shortcut menu. The Properties dialog box for the selected object appears.
2. Click the Rules tab.
3. Right-click in the Collection Rules or Exclusion Rules list box and select Create Rule>Domain Rule from the shortcut menu.

The Domain Rules dialog box appears.

Figure 30. Domain Rules Dialog Box



4. In the Domain Address text box, enter the name of the domain to or from which you want to collect or exclude messages. Use the following guidelines when entering the domain name:
 - Do not precede or end the rule with a forward slash. Forward slashes are used as terminators. Forward slashes within a domain rule, however, are supported.
 - The value you enter is case-insensitive. For example, mail to or from **domain.com** is still classified according to the set rules even if it is entered as **DOMAIN.COM**.
 - For more specific mail collection or exclusion, be sure to enter the domain suffix (such as *.com*, *.gov*, or *.net*). For example, if you enter only **domain** in the Domain Address text box, EmailXtender collects or excludes messages to or from *domain@company.com* in addition to *domain.com*, *domain.net*, and *user@server.domain.com*.
 - If you are planning to collect or exclude messages that use multi-byte characters (such as Japanese or Simplified Chinese), do not use multi-byte characters in the Domain Address text box. EmailXtender ignores rules containing multi-byte characters.
5. From the Address Qualifier drop-down list, choose whether to collect or exclude mail to, from, or *either* to or from the selected domain.
 - To collect or exclude mail that includes the specified domain in the recipient's SMTP address (all mail sent *to* that domain), select To.

- To collect or exclude mail that includes the specified domain in the sender's SMTP address (all mail sent *from* that domain), select From.
 - To collect or exclude mail that includes the specified domain in either sender's or receiver's SMTP address (all mail sent *to or from* that domain), select To or From.
6. Click OK to return to the Rules tab.
 7. You have the following choices:
 - If you want to configure additional rules for the selected vault, cabinet, or folder, click Apply to save the changes without leaving the Rules tab.
 - If you are finished configuring rules, click OK to save the new rule and close the Properties dialog box. Then activate the changes (Options>Activate Changes).

Specific Address Rules

You can collect or exclude mail based on whether the mail was sent to or from a specific email address.

Note: If you are using both Microsoft Exchange and Lotus Domino, you must configure separate address rules for each environment, even if the same address appears in both environments.

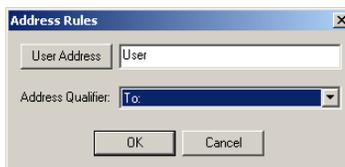
Note: The address rule is also sometimes used for LDAP/ADS-related queries. For more information, see "[LDAP/ADS Filters](#)" on page 108.

To create a collection or exclusion rule based on a specific address:

1. In the Tree view of the Administrator, right-click the vault, cabinet, or folder for which you want to create the rule and select Properties from the shortcut menu. The Properties dialog box for the selected object appears.
2. Click the Rules tab.
3. Right-click in the Collection Rules or Exclusion Rules list box and select Create Rule>Specific Address from the shortcut menu.

The Address Rules dialog box appears.

Figure 31. Address Rules Dialog Box



4. In the User Address text box, enter the SMTP address to or from which you want to collect or exclude messages. Use the following guidelines when entering the address:
 - To choose an address from the Microsoft Exchange or Lotus Domino Address List, click User Address.
 - If the address resides on the local mail server, you can enter the Friendly Name for the address.
 - The value you enter is case-insensitive. For example, mail to or from `user@domain.com` is still classified according to the set rules even if it is entered as `User@DOMAIN.COM`.
 - For more specific mail collection or exclusion, be sure to enter the domain name and suffix (such as `domain.com`, `domain.gov`, or `domain.net`). For examples, see the following table:

Table 2. Examples of Addresses EmailXtender Collects/Excludes

If you enter this in the User Address text box:	EmailXtender collects or excludes mail to or from these addresses:
User	user@domain.com user@emailxtender.org someone@user.org
user@domain	user@domain.com user@domain.net user@domain.org
user@domain.com	user@domain.com USER@DOMAIN.COM

5. From the Address Qualifier drop-down list, choose whether to collect or exclude mail to, from, or *either* to or from the selected address.
 - To collect or exclude mail sent *to* the specified address, select To.

- To collect or exclude mail sent *from* the specified address, select From.
 - To collect or exclude mail sent *to or from* the specified address, select To or From.
6. Click OK to return to the Rules tab.
 7. You have the following choices:
 - If you want to configure additional rules for the selected vault, cabinet, or folder, click Apply to save the changes without leaving the Rules tab.
 - If you are finished configuring rules, click OK to save the new rule and close the Properties dialog box. Then activate the changes (Options>Activate Changes).

Keyword Rules

You can collect or exclude mail based on whether certain keywords appear in the mail.

Note: System performance may suffer when you use keyword rules to collect or exclude messages because they require the full-text indexer to process every incoming message and its attachments. You can increase system performance by using a *bang rule*, which is a keyword rule with a value starting with an exclamation point (!). Bang rules do not use the full-text indexer and do not search within message attachments unless a special command is issued. For bang rule guidelines and examples, see "[Keyword Bang Rule Guidelines](#)" on page 98 and "[Keyword Bang Rule Examples](#)" on page 101.

To create a collection or exclusion rule based on keywords:

1. In the Tree view of the Administrator, right-click the vault, cabinet, or folder for which you want to create the rule and select Properties from the shortcut menu. The Properties dialog box for the selected object appears.
2. Click the Rules tab.
3. Right-click in the Collection Rules or Exclusion Rules list box and select Create Rule>Keyword(s) from the shortcut menu.

The Keyword(s) dialog box appears.

Figure 32. Keyword(s) Dialog Box



4. In the Keyword(s) text box, enter the keywords that should appear in the messages that EmailXtender collects or excludes. Use the following guidelines when entering the keywords:
 - The value you enter is case-insensitive. For example, if you enter **keyword**, EmailXtender collects or excludes messages containing *keyword*, *Keyword*, and *KEYWORD*, among others.
 - You may want to use keyword bang rules to save on system performance. For guidelines and examples, see ["Keyword Bang Rule Guidelines" on page 98](#) and ["Keyword Bang Rule Examples" on page 101](#).
 - If you are planning to collect or exclude messages that use multi-byte characters (such as Japanese or Simplified Chinese), do not use multi-byte characters in the Keyword(s) text box. EmailXtender ignores rules containing multi-byte characters.
5. Click OK to return to the Rules tab.
6. You have the following choices:
 - If you want to configure additional rules for the selected vault, cabinet, or folder, click Apply to save the changes without leaving the Rules tab.
 - If you are finished configuring rules, click OK to save the new rule and close the Properties dialog box. Then activate the changes (Options>Activate Changes).

Keyword Bang Rule Guidelines

System performance may suffer when you use keyword rules to collect or exclude messages because they require the full-text indexer to process every incoming message and its attachments. You can increase system performance by using a *bang rule*, which is a keyword rule with a value starting with an exclamation point (!). Bang rules do not use the full-text indexer and do not search within message attachments unless a special command is issued.

The following table contains guidelines for creating bang rules:

Table 3. Keyword Bang Rule Guidelines

Available Commands	Details
Expression operators	AND, OR, NOT, IN, (For more information on using expression operators, see "Expression Operators" on page 363 .
Wildcard characters	* matches any number of characters ? matches any single character
Quotation marks and special characters	Single and double quote characters are treated identically, and are required to search for strings containing spaces or any of the following special characters: \ : ; , . ! ?
Message field names	The following message fields can be used with the IN operator to apply a rule to a specific message field. The most useful fields are xvSubject and xvBody. <ul style="list-style-type: none"> • xvEntryID • xvDate • xvSubject • xvX-Priority • xvAttach • xvSize • xvSensitivity • xvBody • xvLanguage (applicable only in Microsoft Exchange environments)

If you are using a Microsoft Exchange environment and you want to collect or exclude messages that contain a certain language, you must use the *xvLanguage* variable in the keyword bang rule. The following values are used as language identifiers for keyword bang rules using the *xvLanguage* variable.

Table 4. Language Identifiers

Identifier	Language Identified
0	English, Spanish, Swedish, Danish, Finnish, Norwegian, French, German, Italian, Dutch, Portuguese, Greek, Hungarian, Russian
1	Japanese
2	Chinese
3	Korean
4	Arabic
5	Bulgarian
6	Catalan
7	Hebrew
8	Icelandic
9	Romanian
10	Croatian
11	Indonesian
12	Ukrainian
13	Vietnamese
14	Thai
15	Urdu

Keyword Bang Rule Examples

The following table contains examples of the types of strings you can enter for keyword bang rules

Table 5. Examples of Keyword Bang Rules

If you enter this in the Keyword(s) text box:	EmailXtender collects or excludes messages containing these words:
!problem	problem
!problem*	problem, problems, problematic, and so on
!problem OR issue	either problem or issue
!(problem OR issue) AND resolved	both resolved and either problem or issue
!invoice???	invoice followed by three characters, such as invoiceJan
!inv*	any word that begins with inv , such as invoice
!invoice AND purchase	both invoice and purchase
!'invoice AND purchase'	the exact string invoice and purchase
!'invoice' AND 'purchase order'	invoice and the exact string purchase order
!NOT (problem OR issue)	neither problem nor issue
!personal IN xvSubject	personal in the message subject field
!(personal OR private) IN xvSubject	personal or private in the message subject field
!('Read:' OR 'Not Read:') IN xvSubject	Read: or Not Read: in the message subject field (read receipts)
![*.jpg] IN xvAttach	attached .jpg files

Table 5. Examples of Keyword Bang Rules

If you enter this in the Keyword(s) text box:	EmailXtender collects or excludes messages containing these words:
![secret*] IN xvAttach	attached files whose names begin with secret , such as <i>secretinfo.doc</i>
!2 IN xvLanguage	text written in Chinese

Unmatched Messages Collection Rules

Unmatched messages collection rules allow you to collect and archive messages that are not collected by other rules. You can use unmatched messages rules to ensure that all messages are archived (including those rejected by some rules), or to verify that the other rules you have defined are collecting all the messages you intended.

Note: Using the unmatched messages rule may cause EmailXtender to process more messages and so may negatively impact system performance.

You can define unmatched messages rules at either the cabinet or folder level.

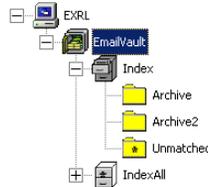
- If you have configured multiple cabinets or if you have configured other rules at the cabinet level, you may want to configure the unmatched messages rule at the cabinet level so that EmailXtender can collect all messages that do not match any of the rules associated with the other cabinet(s) or the folders within the cabinet(s).
- If you are using a single cabinet and have configured other rules at the folder level, you may want to configure the unmatched messages rule at the folder level so that EmailXtender can collect all messages that do not match any of the rules associated with the other folders.

Note: For a message to be placed in a folder using the unmatched messages rule, that message must be accepted by any rules defined on the cabinet that contains the folder.

You should create a new cabinet or folder for use with the unmatched messages rule; this should be a separate cabinet or folder from the other cabinets or folders with rules. Additionally, you can define the unmatched messages rule for only one cabinet. Similarly, you can define the unmatched messages rule for only one folder in a cabinet. You can only create multiple folders with the unmatched messages rule if those folders are located in different cabinets.

When you apply an unmatched messages rule to a folder or cabinet, the icon for that folder or cabinet changes in the EmailXtender Administrator so that it contains an asterisk character (*). For example, in the following figure from the Tree view of the Administrator, an unmatched messages rule has been applied to the Unmatched folder and IndexAll cabinet.

Figure 33. Unmatched Messages Cabinet and Folder Icons

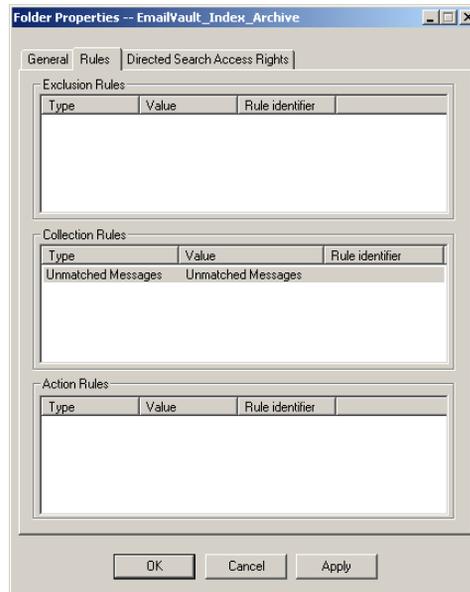


To create an unmatched messages rule:

1. Configure the other collection and exclusion rules.
2. Create the cabinet or folder to which you want to apply the unmatched messages. For instructions, see ["Adding a Cabinet" on page 78](#) and ["Adding a Folder" on page 84](#).
3. In the Tree view of the Administrator, right-click the cabinet or folder for which you want to create the rule and select Properties from the shortcut menu. The Properties dialog box for the selected object appears.
4. Click the Rules tab.
5. Right-click in the Collection Rules list box and select Create Rule>Unmatched from the shortcut menu.

The unmatched messages rule is applied to that cabinet or folder and appears as a collection rule with a type and value of Unmatched Messages as shown in the following figure.

Figure 34. Unmatched Messages Rule for a Folder



6. Click OK.
7. Activate the changes (Options>Activate Changes).

Considering Distribution Lists

If you archive messages both in real-time using an EmailXtender journaling utility and on a scheduled basis using EmailXtract, you must consider distribution lists when configuring collection and exclusion rules. (For more information on archiving messages using EmailXtract, see ["EmailXtract" on page 257.](#))

When you archive messages in real-time, EmailXtender expands distribution lists so that everyone in the distribution list is associated with the message. If a collection or exclusion rule specifies a user or domain that is part of the distribution list for the message, EmailXtender collects or excludes the message.

For example, assume that you are archiving messages in real-time using EmailXtender journaling and you have configured a collection rule that collects messages sent to *user@domain.com*. The *user@domain.com* address is part

of the *Everyone* distribution list. A message is sent to the *Everyone* distribution list. EmailXtender collects the message because *user@domain.com* is part of the *Everyone* distribution list.

Distribution lists are not expanded when you archive messages using EmailXtract. If a message to or from a distribution list is archived using EmailXtract and a collection or exclusion rule specifies a user or domain that is part of the distribution list for the message, EmailXtender *does not* collect or exclude the message.

For example, assume that you are archiving a message using the Archive task in EmailXtract and you still have the collection rule that collects messages sent to *user@domain.com*. The *user@domain.com* address is still part of the *Everyone* distribution list. The message you are archiving has been sent to the *Everyone* distribution list. EmailXtender *does not* collect the message because it only recognizes the *Everyone* distribution list.

If you are planning to collect or exclude messages that use multi-byte characters (such as Japanese or Simplified Chinese), do not use multi-byte characters when specifying a distribution list. EmailXtender ignores rules containing multi-byte characters.

Auto-Forward Action Rules

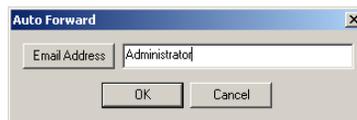
You can configure an action rule so that mail collected by the vault, cabinet, or folder is automatically forwarded to the specified email address.

To create an auto-forward action rule:

1. In the Tree view of the Administrator, right-click the vault, cabinet, or folder for which you want to create the rule and select Properties from the shortcut menu. The Properties dialog box for the selected object appears.
2. Click the Rules tab.
3. Right-click in the Action Rules list box and select Create Rule>Auto-Forward from the shortcut menu.

The Auto Forward dialog box appears.

Figure 35. Auto Forward Dialog Box



4. In the Email Address text box, enter the email address to which you want to forward all messages that the selected vault, cabinet, or folder collects. Both the friendly format and the SMTP format of the email address are supported.

Note: To use an address from the mail server's Address Book, click Email Address. If you have both Microsoft Outlook and Lotus Notes installed on the server, the Select Address Book dialog box appears. Select the address book you wish to use and then select a name from the address book.

5. Click OK to return to the Rules tab.
6. You have the following choices:
 - If you want to configure additional rules for the selected vault, cabinet, or folder, click Apply to save the changes without leaving the Rules tab.
 - If you are finished configuring rules, click OK to save the new rule and close the Properties dialog box. Then activate the changes (Options>Activate Changes).

4

Editing a Rule

After you create a collection, exclusion, keyword, or auto-forward action rule, you can edit it.

Note: You cannot edit an unmatched messages collection rule.

To edit a rule:

1. In the Tree view of the Administrator, right-click the vault, cabinet, or folder containing the rule you want to edit and select Properties from the shortcut menu. The Properties dialog box for the selected object appears.
2. Click the Rules tab.
3. Right-click the rule you want to edit and select Edit from the shortcut menu. The dialog box that appears is the same one that appeared when you created the rule. For more information, see the following sections:
 - ["Domain Rules" on page 93](#)
 - ["Specific Address Rules" on page 95](#)
 - ["Keyword Rules" on page 97](#)
 - ["Auto-Forward Action Rules" on page 105](#)
4. When you finish editing the rule, click OK to return to the Rules tab.

5. Click OK again to close the Properties dialog box.
6. Activate the changes (Options>Activate Changes).

Deleting a Rule

When you no longer need a rule, you can delete it.

To delete a rule:

1. In the Tree view of the Administrator, right-click the vault, cabinet, or folder containing the rule you want to delete and select Properties from the shortcut menu. The Properties dialog box for the selected object appears.
2. Click the Rules tab.
3. Right-click the rule you want to delete and select Delete from the shortcut menu.
4. Click OK.
5. Activate the changes (Options>Activate Changes).

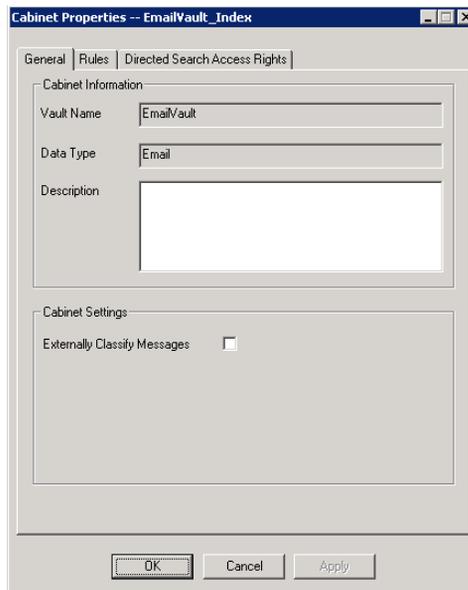
External Message Rules

In an SMTP mail environment, you can create rules for collection and exclusion using the SMTP mail program instead of using the EmailXtender Administrator. EmailXtender then inherits these rules and automatically creates folders to correctly organize and archive the messages. If you collect mail using external rules, you should not configure EmailXtender rules.

To create external rules:

1. In the SMTP mail program, create rules to determine how messages are organized and archived. The rules *must* reference existing cabinets in the EmailXtender system. You can also configure the rules to reference existing folders, or you can specify new folders and EmailXtender will create the folders when it receives messages matching the rules.
2. In the EmailXtender Administrator, right-click each cabinet that uses external rules and select Properties from the shortcut menu. The Cabinet Properties dialog box appears.

Figure 36. Cabinet Properties Dialog Box



4

3. On the General tab, select the Externally Classify Messages check box.

The Rules tab for the cabinet is dimmed, signaling that all message rules for the cabinet are now dependent on outside settings. If you previously configured rules for the cabinet using the Rules tab, the rules are disabled.

4. Click OK.
5. Activate the changes (Options>Activate Changes).

LDAP/ADS Filters

If you have an LDAP (Lightweight Directory Access Protocol) or Microsoft Active Directory Services (ADS) server, you can configure rules that filter messages against the directory services schema in addition to or in place of the mail system's address book. This approach may be faster or more effective than using an Exchange or Domino address book.

Note: EmailXtender does not support groups or distribution lists when performing LDAP or ADS-based filtering, unless the group or distribution list has a mail account or the RFC 822 mail account attribute assigned to it. For more information, see ["Adding an LDAP Filter" on page 112](#).

Two steps are required to set up LDAP or ADS filters:

1. Add the LDAP or ADS server record to EmailXtender. See ["Adding an LDAP or ADS Server" on page 109](#).
2. Add rules to cabinets or folders to capture or exclude messages based on LDAP or ADS properties. See ["Adding an LDAP Filter" on page 112](#).

Note: This feature should not be used without a thorough understanding of LDAP and/or ADS and how they work within your organization.

Adding an LDAP or ADS Server

Before you create filters for LDAP/ADS servers, you must first add the server to EmailXtender.

Note: You cannot create LDAP rules for mailboxes in an Active Directory subdomain when you configure the domain controller of the root Active Directory domain as the LDAP server in EmailXtender. You must add another LDAP server record to EmailXtender specifying the domain controller of the subdomain as the LDAP server.

To add an LDAP or ADS server:

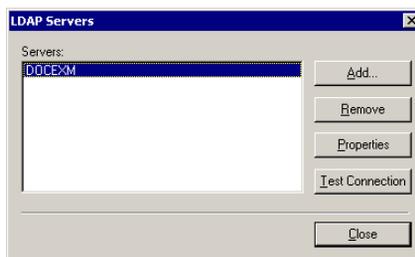
1. From the View menu in the Administrator, choose LDAP Servers, or click the LDAP toolbar icon.

Figure 37. LDAP Toolbar Icon



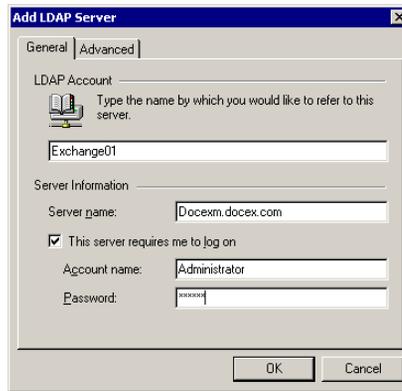
The LDAP Servers dialog box appears.

Figure 38. LDAP Servers Dialog Box



2. Click Add. The Add LDAP Server dialog box appears, starting with the General tab.

Figure 39. Add LDAP Server Dialog Box - General Tab



3. In the LDAP Account text box, enter the name by which you'd like to refer to the LDAP server. You use this name in your LDAP search syntax later on, so it should be short and easy to remember. It should not contain any spaces or special characters.
4. In the Server name box, enter the full server and domain name (such as `mailserver.legato.com`).
 - If you are using Windows 2000 Active Directory Services with Exchange 2000, this should be the primary domain controller (PDC) and *not* the Exchange 2000 server.
 - If you are using LDAP with Exchange 5.5 or Lotus Domino, enter the Exchange or Domino server name.
5. Choose whether to log on to the server.
 - If you are using Windows 2000 Active Directory Services, you *must* select the This server requires me to log on check box. Then enter the account name and password you use to log on in the Account name and Password text boxes, respectively. The account you enter must be a domain user account with access to the ADS schema. The format for the user name must be the Kerberos account, in the format `user@subdomain.domain.com`.
 - If you are using LDAP with Exchange 5.5 or Domino, you probably have anonymous LDAP access set up. You should clear the This server requires me to log on check box and leave the Account name and Password text boxes empty unless you specifically restricted access on your Domino or Exchange 5.5 LDAP servers.
6. Click the Advanced tab.

Figure 40. Add LDAP Server Dialog Box - Advanced Tab



7. In the Directory service (LDAP) box, leave the default port of 389 unless you specifically configured an alternate port for LDAP services on the ADS or LDAP server.
8. If the LDAP/ADS server requires a secure sockets connection (SSL), select the This server requires a secure connection (SSL) check box.
When you select the check box, the port changes to 636.
9. In the Search timeout text box, enter the number of seconds after which EmailXtender stops querying the LDAP/ADS server if it hasn't received a response.
10. In the Maximum number of matches to return text box, enter the maximum number of query matches that EmailXtender accepts before it stops the query.
11. If you are using Windows 2000 Active Directory Services, enter the domain information based on the ADS Primary Domain Controller (PDC) computer name in the Search base text box using the following format:
dc=subdomain,dc=domain,dc=com
For example, if the name of the PDC is *LegatoPDC.Legato.com*, you should enter the following:
dc=LegatoPDC,dc=legato,dc=com
12. Click OK to save the changes and return to the LDAP Servers dialog box.
13. Click Test Connection to test the connection between EmailXtender and the server you added.
14. Click Close to close the LDAP Servers dialog box.

15. Activate the changes (Options>Activate Changes).

After you add the LDAP or ADS server to EmailXtender, you should create address filters. For more information, see ["Adding an LDAP Filter" on page 112](#).

Adding an LDAP Filter

Once you add an LDAP server to EmailXtender, you can create search syntax and add it as a rule in EmailXtender. For more information, see the following sections:

- ["EmailXtender LDAP Search Syntax" on page 112](#)
- ["Testing an LDAP Filter Before Creating a Rule" on page 114](#)
- ["Adding LDAP Rules to Cabinets and Folders" on page 115](#)

EmailXtender LDAP Search Syntax

The syntax that you use to create LDAP filters is very specific and uses common LDAP query syntax combined with an EmailXtender-specific URL format. The EmailXtender-specific format is as follows:

EXLDAP://LDAPServerFriendlyName/MailSystem?LDAPFilter

where:

- *LDAPServerFriendlyName* is the name you defined when you added the server to EmailXtender. For more information, see ["Adding an LDAP or ADS Server" on page 109](#).
- *MailSystem* is the type of mail system you are using (either Domino or Exchange, depending on the LDAP server you're querying).
- *LDAPFilter* is the filter you want to use. The filter should use common LDAP query syntax. For examples, see ["LDAP Search Syntax for Finding Users Based on Common Names" on page 113](#) and ["LDAP Search Syntax for Finding Users Based on Organization" on page 113](#).

Note: EmailXtender does not support groups or distribution lists when performing LDAP or ADS-based filtering, unless the group or distribution list has a mail account or the RFC 822 mail account attribute assigned to it. In addition, while the objectclass **person** may be the one you use most often, you can also use other objectclasses as long as they are associated with a mail account.

You can find more information about LDAP search syntax on the Internet. A few good resources include:

- RFC 1650 and RFC 2252 specifications. This information appears in numerous places on the Internet, but a good comprehensive source of LDAP specifications is http://ldapman.org/ldap_rfc.html.
- Novell's overview of LDAP search filter syntax at http://developer.novell.com/ndk/doc/ldapover/index.html?page=/ndk/doc/ldapover/ldap_enu/data/a3saoeg.html.

After you create the search syntax, you can test it and then add it as a filter within EmailXtender. For more information, see "[Testing an LDAP Filter Before Creating a Rule](#)" on page 114 and "[Adding LDAP Rules to Cabinets and Folders](#)" on page 115.



Example: LDAP Search Syntax for Finding Users Based on Common Names

The following example allows you to find users on MyLDAPServer, which uses Lotus Notes, with common names that begin with "A":

```
EXLDAP://MyLDAPServer/Notes?(&(objectclass=person)(cn=a*))
```

On the same server, you could find users with common names beginning with any letter from "A" through "M" using the following syntax:

```
EXLDAP://MyLDAPServer/Notes?(&(objectclass=person)(cn=<m))
```



Example: LDAP Search Syntax for Finding Users Based on Organization

The following example allows you to find users on MyLDAPServer, which uses Microsoft Exchange, who are members of the Engineering organization:

```
EXLDAP://MyLDAPServer/Exchange?(&(objectclass=person)(o=Engineering))
```

On the same server, you could find users who are *not* members of either the Engineering or Accounting organizations using the following syntax:

```
EXLDAP://MyLDAPServer/Notes?(&(objectclass=person)(!(|(o=Engineering)(o=Accounting))))
```

Testing an LDAP Filter Before Creating a Rule

The LDAP Search Utility provided with EmailXtender allows you to quickly test an LDAP filter before you use it in an EmailXtender rule.

To test an LDAP filter:

1. From the Windows Start menu on the EmailXtender server, select Programs>Accessories>Command Prompt.
2. Use the `cd` command to change directories to the `\bin\utils` directory within the EmailXtender installation directory (typically `C:\Program Files\OTG\EmailXtender\bin\utils`).
3. At the command prompt, enter one of the following commands:
 - **LdapSearch** *LDAPServerFriendlyName LDAPFilter*
where *LDAPServerFriendlyName* is the name you defined when you added the server to EmailXtender (for more information, see ["Adding an LDAP or ADS Server" on page 109](#)) and *LDAPFilter* is the filter you want to use.
 - **LdapSearch** *ServerAddress Base Person*
where *ServerAddress* is the name of the LDAP server machine; *Base* is an LDAP distinguished name that is the base object entry relative to which the search is to be performed; and *Person* is the name of the person to find. You can use a wildcard, such as an asterisk (*), with the *Person* variable.
For example, `LdapSearch ns-mail "" tim*` searches from the top of the LDAP tree for all people whose names begin with "tim".
 - **LdapSearch** `LDAP://hostport/dn[?attributes[?scope[?filter]]]`
where *hostport* is the name of the LDAP server machine (with optional port number); *dn* is an LDAP distinguished name (the name of an entry in the directory) that specifies the base point for the search; *attributes* lists the fields to return about the object; *scope* is an optional string that indicates the scope of the search (it must be one of these three strings: base, one, or sub to represent a base-object search, a one-level search, or a subtree search); and *filter* is an optional LDAP search filter. For example, the following command tests searches from the top of the LDAP tree for all people whose names begin with "tim" and returns only the MAPI-Recipient fields:
`LdapSearch LDAP://ns-mail/?MAPI-Recipient?sub?cn=tim*`

Adding LDAP Rules to Cabinets and Folders

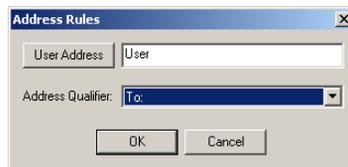
After you have determined the syntax you are going to use for the LDAP filter (as described in "[EmailXtender LDAP Search Syntax](#)" on page 112), you can add the filter to a specific cabinet or folder within EmailXtender as a collection or exclusion rule so that the rule can be used to filter messages into the cabinet or folder. Collection rules allow you to specify which messages EmailXtender collects, and exclusion rules allow you to specify which messages EmailXtender should not collect.

Note: You cannot create LDAP rules for mailboxes in an Active Directory subdomain when you configure the domain controller of the root Active Directory domain as the LDAP server in EmailXtender. You must add another LDAP server record to EmailXtender specifying the domain controller of the subdomain as the LDAP server, and then you can add the rules. For more information on adding another LDAP server record to EmailXtender, see "[Adding an LDAP or ADS Server](#)" on page 109.

To add LDAP rules to a cabinet or folder:

1. In the Tree view of the Administrator, right-click the cabinet or folder to which you want to add the filter and select Properties from the shortcut menu. The Cabinet or Folder Properties dialog box appears.
2. Select the Rules tab.
3. Right-click in the Collection Rules or Exclusion Rules list box and select Create Rule>Specific Address from the shortcut menu. The Address Rules dialog box appears.

Figure 41. Address Rules Dialog Box



4. In the User Address box, enter the search syntax. For more information on search syntax, see "[EmailXtender LDAP Search Syntax](#)" on page 112.
5. From the Address Qualifier drop-down list, choose whether to collect or exclude mail to, from, or *either* to or from the addresses specified by the filter.
 - To collect or exclude mail sent *to* the addresses, select To.
 - To collect or exclude mail sent *from* the addresses, select From.

- To collect or exclude mail sent to *or* from the addresses, select To or From.
6. Click OK to return to the Rules tab.
 7. You have the following choices:
 8. Click OK to save the new rule and close the Properties dialog box.
 9. Activate the changes (Options>Activate Changes).

Chapter 5: Configuring Message Archival

EmailXtender captures messages and organizes them by month in volumes. Volumes close after they reach the allotted capacity (that you configure) or are idle for five days. EmailXtender then copies them to the storage drive on the EmailXtender server as *.emx* files.

You can manually close volumes so that they are copied to the storage drive, and move them from one EmailXtender server to another.

You must regularly monitor the disk space that volumes and their indexes are using, and take action appropriately so that you do not run out of space.

You can save space by deleting volumes you no longer need, or removing indexes and disposing of data for all volumes in a given month. This allows users to search for certain messages, but they cannot view them until you restore the volumes in which the messages appear.

If you want to "extend" the capacity of the EmailXtender storage drive by writing the *.emx* files to other storage media, you can install DiskXtender on the EmailXtender server. When you install DiskXtender, you should configure the EmailXtender storage drive as the DiskXtender *extended drive*. DiskXtender allows you to configure automatic file migration to other storage media, such as an EMC Centera device, DVD-R, tape, or magneto-optical.

For more information, see the following sections:

- ["Managing Volumes" on page 118](#)
- ["Configuring Volume Storage" on page 128](#)
- ["Using DiskXtender" on page 130](#)

Managing Volumes

EmailXtender collects messages received by the Message Center into volumes (or *container files*), which it then organizes by the month of creation. (This is the original creation date for the message, and not the date when EmailXtender processes them and places them into a message volume.)

If you are archiving messages in multiple languages, EmailXtender creates a separate volume for each language it archives. (For more information on language support in EmailXtender, refer to the *Planning the Installation* chapter of the *EmailXtender Installation Guide*.)

This organization allows for quick indexing and speeds search times when locating archived messages through the Search Plug-in or Web Search Client.

Volumes contain email data and classification information (classification rules, properties used to create the file, and vault, cabinet, folder, and month names).

Volumes close after they reach the allotted capacity or are idle for five days. EmailXtender then copies them to the storage drive as *.emx* files. Once they are copied to the storage drive, they can be written out to other media, such those supported through DiskXtender.

Because volumes are stored as *.emx* files, you can add volumes to any EmailXtender Message Center with no loss of data or need to convert files, and they can be used to restore an entire Message Center.

In addition, if volumes were created with earlier versions of EmailXtender, you can upgrade the volumes to take full advantage of new features available in the latest release.

The EmailXtender Administrator allows you to manage individual volumes or to manage all volumes for a given month. For more information, see the following sections:

- ["Managing Individual Volumes" on page 118](#)
- ["Managing Volumes by Month" on page 124](#)

Managing Individual Volumes

The EmailXtender Administrator allows you to view all volumes for the node currently selected in the Tree view when you set the Message Center List view to Volume mode. You can then manually close, delete, or monitor the status of individual volumes, as well as restore "Lost and Found" volumes to the system. In the event that you have upgraded from an earlier release of

EmailXtender, you can also upgrade the volumes created while you were using the earlier release so that you can take advantage of the features available in the latest release. For more information, see the following sections:

- ["Checking the Status of a Volume" on page 119](#)
- ["Closing a Volume" on page 120](#)
- ["Restoring a Volume" on page 120](#)
- ["Upgrading a Volume" on page 122](#)
- ["Deleting a Volume" on page 123](#)

Checking the Status of a Volume

You can determine the status of a volume using the Message Center List view of the EmailXtender Administrator.

To check the status of a volume:

1. In the Tree view of the Administrator, select the folder or cabinet containing the volume for which you want to check status.
2. Set the Message Center List view of the Administrator to Volume mode. (Open the View menu and then select Message Center>View by Volume, or click the arrow on the Message Center View toolbar icon and select View by Volume.)

A list of volumes appears in the Message Center List view (top right pane) of the Administrator.

- A yellow folder icon in the left-most column of the Message Center List view indicates a volume is online or available.

Figure 42. Online Volume Icon



- A folder icon with a red X in the left-most column of the Message Center List view indicates a volume is offline or unavailable.

Figure 43. Offline/Unavailable Volume Icon



- The Status column of the Message Center List view indicates additional status information. If the volume is still receiving messages and hasn't reached capacity, the status is listed as Open. If a re-index request has been submitted for the volume, the status is listed as Re-index Pending.

Closing a Volume

Volumes close automatically after they reach the allotted capacity or are idle for five days. If necessary, however, you can manually close an open volume.

When you close a volume, EmailXtender copies the volume to the storage drive as an *.emx* file. Once it is copied to the storage drive, it can be written out to other media, such as the media supported through DiskXtender 2000.

Manually closing a volume before it reaches capacity forces EmailXtender to start a new volume when it receives new messages.

You cannot reopen volumes that you manually close.

To close an open volume:

1. In the Tree view of the Administrator, select the folder or cabinet containing the volume you want to close.
2. Set the Message Center List view of the Administrator to Volume mode. (Open the View menu and then select Message Center>View by Volume, or click the arrow on the Message Center View toolbar icon and select View by Volume.)
3. Right-click the volume you want to close and then select Close Volume from the shortcut menu that appears.

Restoring a Volume

When you dispose of monthly data for a set of volumes, you can no longer access the messages in the volumes, but they are not physically deleted; they are placed in Lost and Found storage and can be restored if necessary. For more information on disposing of monthly data, see ["Disposing of Monthly Data" on page 127](#).

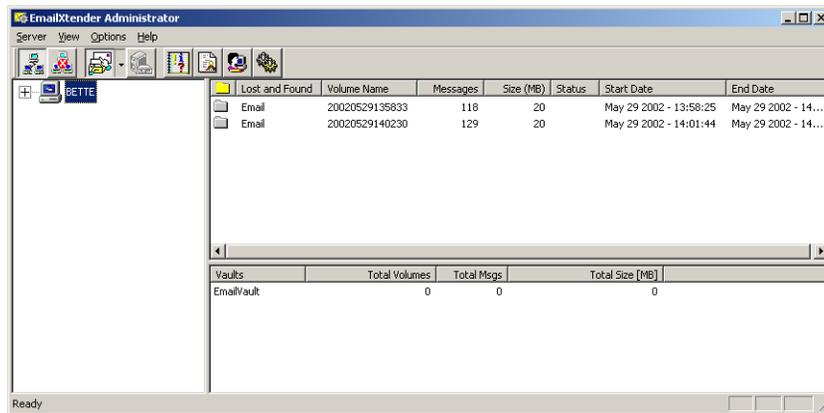
Volumes that are created on one EmailXtender server and then copied to another EmailXtender server are also considered Lost and Found volumes.

If you update EmailXtender from an earlier release to the current release, you must also restore all volumes created with the earlier release.

To restore a volume:

1. Set the Message Center List view of the Administrator to Volume mode. (Open the View menu and then select Message Center>View by Volume, or click the arrow on the Message Center View toolbar icon and select View by Volume.)
2. In the Tree view, select the Server node. All Lost and Found volumes appear in the Message Center List view.

Figure 44. Message Center List View with Lost and Found Volumes



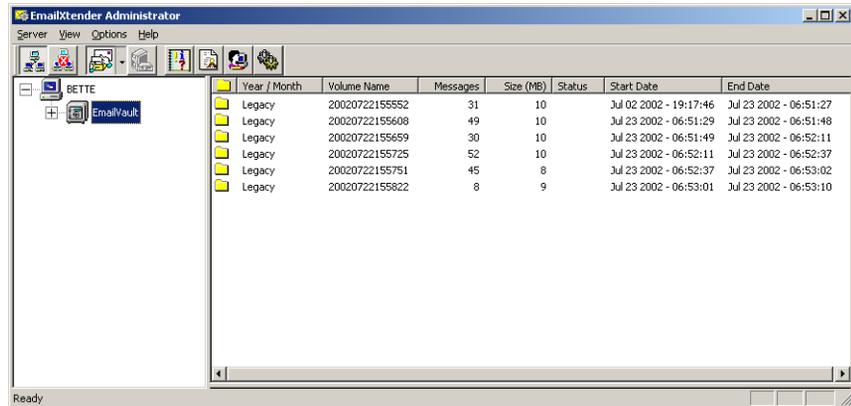
3. Right-click the volumes you want to restore and choose Add Volume from the shortcut menu.
4. Activate the changes (Options>Activate Changes). The selected volumes are moved to the appropriate folder and cabinet. If the folder or cabinet does not already exist, EmailXtender automatically creates them to match the previous configuration under which the volumes were archived. The Status column displays Re-Index Pending for all volumes that EmailXtender has yet to add. As volumes are restored, the indexes and database are updated to include their information.

Note: If you restored volumes because you updated EmailXtender to a newer release, you may also need to upgrade the volumes. For more information, see ["Upgrading a Volume" on page 122](#).

Upgrading a Volume

When you update EmailXtender from a release earlier than 4.3, the volumes created with the earlier release are displayed in the Administrator with a Year/Month date of `Legacy`. This makes it clear that these volumes were created with a previous release of EmailXtender.

Figure 45. EmailXtender Administrator with Legacy Volumes



In order to take full advantage of increased search speed and database improvements included in Release 4.3, you must upgrade the legacy volumes. Although this process can be lengthy, depending on how many legacy volumes exist, the simple improvements in performance and space savings make the upgrade worthwhile.

Note: When you upgrade volumes stored on write-once media, the old media becomes obsolete and new media must be used to store the re-processed volumes.

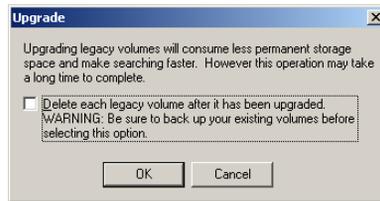
If you are using rewritable media, such as a hard disk or NAS device, you can choose whether to delete the legacy volumes after you upgrade them. Deleting the volumes allows you to save storage space on the media you're currently using with the EmailXtender system. If you are planning to delete the legacy volumes, however, you should back them up before you delete them.

To upgrade legacy volumes:

1. If you are using rewritable media and you plan to delete the legacy volumes, back up the legacy volumes.

2. Set the Message Center List view of the Administrator to Volume mode. (Open the View menu and then select Message Center>View by Volume, or click the arrow on the Message Center View toolbar icon and select View by Volume.)
3. Right-click the legacy volume you want to upgrade, and choose Upgrade from the shortcut menu. The Upgrade dialog box appears.

Figure 46. Upgrade Dialog Box



4. Choose whether to delete the legacy volume after you upgrade it.
 - To delete the volume after upgrade, select the check box.
 - To leave the legacy volume in addition to the upgraded volume, leave the check box clear.

Note: EmailXtender only deletes volumes that are on rewritable media.
5. Click OK. A confirmation message appears.
6. Click OK. The Status column displays `Upgrade Pending` until EmailXtender begins upgrading the volume. As the upgrade progresses, a new message volume is opened to hold the reprocessed messages. The Year/Month date for the new volume reflects the date the reprocessed messages were originally sent. The volume name, however, is based on the exact time when the messages were reprocessed.

Deleting a Volume

After you dispose of a volume's monthly data, you can delete the volume. (For more information on disposing of monthly data, see "[Disposing of Monthly Data](#)" on page 127.)

Note: You can only delete message volumes that are stored on rewritable media.

As a precaution, the EmailXtender Administrator does not provide a volume deletion feature. You must open Windows Explorer and navigate to the directory on the EmailXtender server in which the volumes (.emx files) are stored, and then delete the files and/or the directory in which the files are stored.



Example: Deleting Volumes from February 2002

In the following example, you delete the volumes in the default cabinet and folder with messages from February 2002.

1. Dispose of the monthly data for the volumes from February 2002. (Set the Message Center List view of the Administrator to Month mode by opening the View menu and then selecting Message Center>View by Volume. Then right-click the volume for February 2002, which is listed as 200202 in the Year/Month column, and select Dispose Monthly Data from the shortcut menu. Click Yes on the confirmation message that appears.)
 2. Open Windows Explorer and navigate to the *E* drive, which you have designated as the EmailXtender storage drive.
 3. Delete the folder containing the volumes for February 2002 (*E:\EmailVault_Index_Archive_200202*).
-

5

Managing Volumes by Month

When you set the Message Center List view of the EmailXtender Administrator to Month mode, EmailXtender groups all of the volumes for a given month so that you can perform functions on them at the same time, such as re-indexing message data, removing monthly indexes, and disposing of all monthly data to save disk space. For more information, see the following sections:

- ["Re-indexing Data" on page 125](#)
- ["Removing Monthly Indexes" on page 126](#)
- ["Disposing of Monthly Data" on page 127](#)
- ["Ejecting Volumes" on page 128](#)

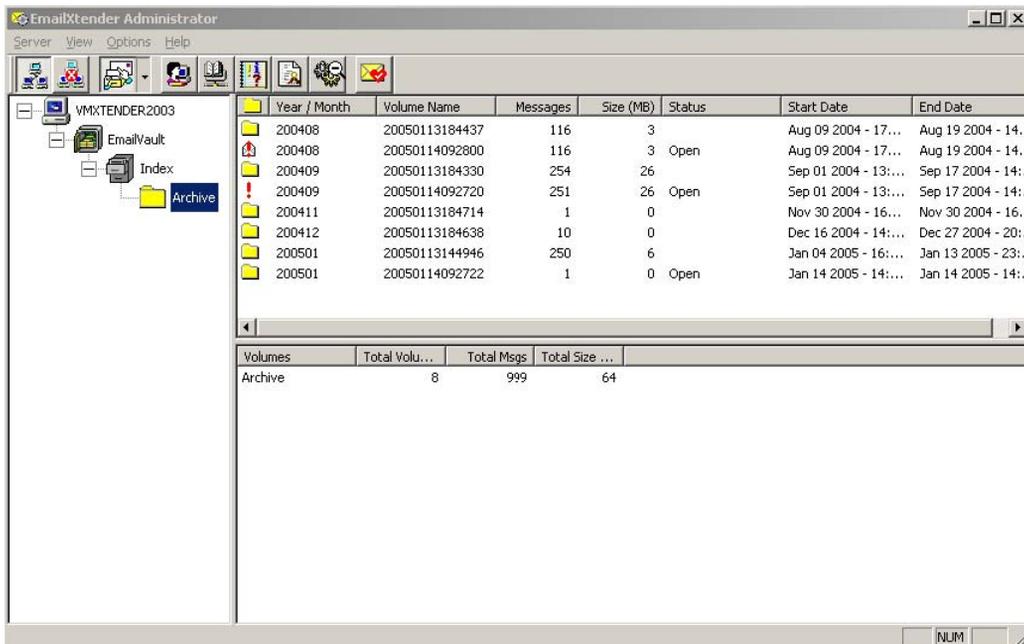
Re-indexing Data

You may need to re-index data in order to restore an index that you deleted to save space (for more information, see ["Removing Monthly Indexes" on page 126](#)), replace a corrupted index, or repair an index that is missing messages.

When EmailXtender detects a corrupted index, a message is written to the Event Log and the EmailXtender Administrator identifies the corrupt index using a red exclamation mark (!), as shown in [Figure 47 on page 125](#).

When an index is missing messages, the EmailXtender Administrator identifies the index using an envelope with a red exclamation point (✉), as shown in [Figure 47 on page 125](#).

Figure 47. Corrupt and Missing Message Identifiers



You may also discover that an index is corrupt when you attempt to search the index and EmailXtender notifies you that it is corrupt.

Note: Unlike corrupted indexes, indexes missing messages can be searched.

When an index is corrupt or missing messages, you should re-index the volume to which the index belongs. You can re-index only the corrupt index, the index missing messages, or all the data for a particular month.

Note: Re-indexing data can be time-consuming and should only be done when necessary.

To re-index data:

1. Set the Message Center List view of the Administrator to Month mode. (Open the View menu and then select Message Center>View by Month, or click the arrow on the Message Center View toolbar icon and select View by Month.)
2. You have the following choices:
 - To re-index a volume with a corrupt index, right-click the volume identified by the red exclamation mark (!) and then select Re-index Corrupt Indexes Only from the shortcut menu.
 - To re-index a volume with indexes missing messages, right click the volume identified by the envelope with a red exclamation mark(!) and then select Re-index All Monthly Data from the shortcut menu.
 - To re-index all data for a month, right-click the month and then select Re-index All Monthly Data from the shortcut menu.
3. Click Yes on the confirmation message that appears. The Volumes Reindexing column in the Message Center List view displays the status of the process.

Note: If you re-index the data and it does not result in a valid index, there is probably a problem with one of the messages in the index. Check the event log for an EmailXtender error message about the corrupt index. For more information, see ["Viewing EmailXtender Events" on page 157](#). If you cannot correct the problem, remove the problematic messages from the archive and then index the archive again to create a valid index.

Removing Monthly Indexes

Depending on the amount of message data that EmailXtender processes, indexes for individual months can become quite large and use a large amount of disk space.

You may want to back up indexes for past months and remove them from the local hard drive. Then, if a search needs access to these removed indexes, you can copy them back to the local drive.

You can also remove the indexes without backing them up, and then re-index the month later if necessary. For more information on reindexing, see ["Re-indexing Data" on page 125](#).

Note: Re-indexing data can be time-consuming and should only be done when necessary.

To remove indexes:

1. Set the Message Center List view of the Administrator to Month mode. (Open the View menu and then select Message Center>View by Month, or click the arrow on the Message Center View toolbar icon and select View by Month.)
2. Right-click the month object for which you want to remove the index and then select Remove Monthly Index from the shortcut menu. A confirmation message appears.
3. Click Yes. The index information is removed from the `\EmailVault_Cabinet\IndexDir\EmailVault_Cabinet_Folder` directory in the EmailXtender install directory where *Cabinet* is the name of the cabinet and *Folder* is the name of the folder for which the index was generated.

Disposing of Monthly Data

In order to save room in the database and index directories, you can dispose of the data in those directories for a specific month.

Disposing of monthly data does not remove the actual message volumes, however. They are placed in Lost and Found storage, and can be restored if necessary. For more information on restoring Lost and Found volumes, see ["Restoring a Volume" on page 120](#). For more information on permanently removing a volume, see ["Deleting a Volume" on page 123](#).

To dispose of monthly data:

1. If any of the volumes associated with the month for which you are disposing data are open, close them. The disposal of monthly data fails if there are any open volumes present in the month object. For instructions, see ["Closing a Volume" on page 120](#).
2. Set the Message Center List view of the Administrator to Month mode. (Open the View menu and then select Message Center>View by Month, or click the arrow on the Message Center View toolbar icon and select View by Month.)
3. Right-click the month containing the data you want to remove and then select Dispose Monthly Data from the shortcut menu. A confirmation message appears.

Note: If you chose to remove monthly data for multiple volumes, then a confirmation message appears for each volume.

4. Click Yes. The month data is removed from the database and index directories, and the volumes are moved to Lost and Found storage.

Ejecting Volumes

If you are using DiskXtender 2000 removable media as the storage location for EmailXtender volumes, you must use the MediaStor Administrator interface to eject media. For instructions, refer to the *DiskXtender 2000 MediaStor Administrator's Guide*.

Configuring Volume Storage

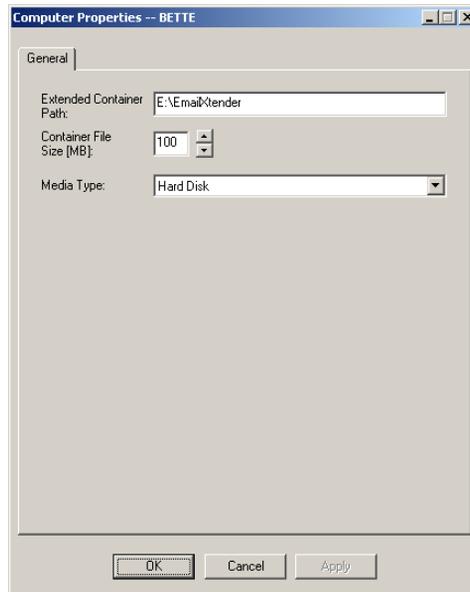
You can change the directory in which volumes (also called container files) are stored, and adjust the maximum capacity for message volumes. You may want to change the volume path, for example, if the storage drive that you are using reaches capacity.

You can also change the type of media you are using to store the volumes. If you are only writing the volumes to the EmailXtender storage drive, you should select the Hard Disk media type. If you want to write volumes to another media type through the use of DiskXtender, you should install and configure DiskXtender and then specify the media type in the EmailXtender Administrator.

To configure volume storage:

1. In the Tree view of the Administrator, right-click the EmailXtender server node and select Properties from the shortcut menu. The Computer Properties dialog box appears.

Figure 48. Computer Properties Dialog Box



2. To change the directory to which volumes are stored, enter a new path in the Extended Container Path text box.

Note: If you are using DiskXtender to extend the EmailXtender storage drive, you should specify the DiskXtender extended drive in the Extended Container Path.

3. To change the maximum size a volume may reach before a new volume is created, enter the maximum file size in MB in the Container File Size (MB) text box. The value should be between 10 MB and 650 MB.

When selecting the maximum file size, you should enter an amount that best uses the full capacity of the media. You can write more than one volume to a piece of media, so the maximum file size should be a number that, when multiplied, closely fills the capacity of the media.

If you are planning to use DiskXtender to write EmailXtender files to an EMC Centera device, you should set the volume size to 90 MB. There are known performance issues when retrieving volumes of 100 MB and greater from an EMC Centera device. Setting the volume size to 90 MB allows for slight overflow of the volumes before they are closed, while keeping the total volume file size to under 100 MB.

4. To configure the type of media on which EmailXtender stores volumes, select the new media type from the Media Type drop-down list.
 - **Hard Disk** - Select Hard Disk if you are planning to store volumes on a hard disk, or if you are planning to write volumes to storage media through DiskXtender using the Network Attached Storage (NAS) or Tivoli Storage Manager (TSM) media services.
 - **WORM Media** - Select WORM Media if you are planning to write volumes to WORM media using DiskXtender.
 - **MO Media** - Select MO Media if you are planning to write volumes to magneto-optical media using DiskXtender.
 - **Tape Media** - Select Tape Media if you are planning to write volumes to tape media using DiskXtender through either the MediaStor or StorageTek ACSLS media services.
 - **DVD RAM** - Select DVD RAM if you are planning to write volumes to DVD-RAM media using DiskXtender.
 - **Centera** - Select Centera if you are planning to write volumes to an EMC Centera device using DiskXtender.
5. Click OK.
6. Activate the changes (Options>Activate Changes).

Using DiskXtender

5

When EmailXtender volumes close, EmailXtender copies them to the storage drive on the EmailXtender server as *.emx* files. You can use LEGATO DiskXtender to "extend" the capacity of the EmailXtender storage drive by automatically writing *.emx* files to other storage media.

DiskXtender manages the movement of data from NTFS volumes, such as the EmailXtender storage drive, to a pool of storage media. Once a *media service* has provided access to media (for example, by mounting a piece of media in the drive of a storage device), DiskXtender communicates directly with the media to read and write data and perform media tasks.

DiskXtender supports a number of storage media types, including EMC Centera devices, tape, DVD-R, DVD-RAM, magneto-optical, Ultra-Density Optical (UDO), WORM, WORM-tape, and Network Attached Storage (NAS). (DiskXtender considers NAS media to be any media available through a connection to a share on a network. This could be a network share, like a RAID or a NAS device, or simply a shared folder on a server on the network. It could even be a shared media folder on another DiskXtender extended drive.)

Because DiskXtender "extends" the capacity of NTFS volumes by providing automatic file migration services, the NTFS volumes are called DiskXtender *extended drives*. DiskXtender extends the drives by moving files to media and fetching files from media. Frequently used files can be kept on the volume, while less active files can be moved to storage media and *purged* from the drive. To a client or application retrieving files from a drive extended by DiskXtender, all files, whether on the extended NTFS volume or on the storage media, appear to be present on the NTFS volume.

DiskXtender automates the migration of files to media using a rule-based system. Rather than just migrating all files to media without distinction between files, you can select which files should be moved to what types and pieces of media and when. DiskXtender tracks each file and each piece of media so that when a client or application requests file data that has been moved to media, DiskXtender can find the file and retrieve it.

For more information setting up DiskXtender and EmailXtender, see the following sections:

- ["Configuring DiskXtender" on page 131](#)
- ["Configuring EmailXtender for Use With DiskXtender" on page 133](#)
- ["Automatic File Migration Activities" on page 134](#)

Configuring DiskXtender

To configure DiskXtender for use with EmailXtender, perform the following steps in the DiskXtender Data Manager interface:

1. **Create a media service.** A media service simply provides access to the media so that Data Manager can work with it. For some media services, like LEGATO MediaStor, this means placing requested media into a drive. For other media services, like EMC Centera or Network Attached Storage (NAS), this means simply providing access to a place where the data is written.
2. **Create an extended drive.** When you are using DiskXtender with EmailXtender, you should select the EmailXtender storage drive as the extended drive.
3. **Prepare the media.** The way you prepare the media depends on the media service you are using.

- **EMC Centera** - If you are using the EMC Centera media service, there are no additional steps you must take to prepare the media. (You do *not* need to create the virtual media or allocate it to the extended drive; EmailXtender does this automatically for you when it begins closing volumes.)
- **MediaStor or StorageTek ACSLS** - If you are using the MediaStor or StorageTek ACSLS media services, allocate blank media from the media service to the extended drive. When you allocate media, DiskXtender claims the media for file migration from the specified extended drive.
- **NAS or Tivoli Storage Manager (TSM)** - If you are using the NAS or TSM media services, create the virtual media and allocate it to the extended drive.

4. Schedule drive scans and the movement of files to media.

- During a drive scan, DiskXtender inventories the files on the extended drive and identifies the files that qualify for movement to media, purge, or deletion. Files that qualify for movement to media are written to the move list, and the appropriate retention period is applied to each file (if retention periods are configured).
- The move list is processed (and the files are moved to media) when the Move files to media schedule is active. The Move files to media schedule allows you to tell DiskXtender exactly when to move file data out to storage media (allowing you to schedule the use of network resources for that activity).

5. For the remaining DiskXtender settings, you should leave the defaults unless instructed to change them by a LEGATO technical representative, with the exception of the Use special application filtering option on the Options tab of the Service Properties dialog box. This option allows you to specify whether an application can recall or directly read a purged file that resides on storage media. If you are using virus scanning software on the EmailXtender storage drive (the extended drive), you should add the executable file for the virus scanning software to the Special Application Filtering List and set the file to No recall.



Important: If you are using the EMC Centera, MediaStor, or StorageTek ACSLS media services, do *not* create media folders, move groups, move rules, or purge rules. These items are created automatically by EmailXtender. In addition, you should *not* label StorageTek ACSLS or MediaStor media. EmailXtender also does this automatically. For more information, see ["Automatic File Migration Activities" on page 134](#).

6. If you are using the NAS or TSM media services, create the media folders, move groups, move rules, and purge rules to enable file migration and purging. Automatic file migration is *not* available when you use these media services.

You may want to create media folders for each storage drive directory for EmailXtender folders or cabinets.

Configuring EmailXtender for Use With DiskXtender

Once you finish configuring DiskXtender, perform the following steps so that EmailXtender can interface properly with DiskXtender:

1. Configure EmailXtender to use the media type you set up in DiskXtender. You can select a media type either when you install EmailXtender or by opening the Computer Properties dialog box. For more information on selecting the media type on the Computer Properties dialog box, see ["Configuring Volume Storage" on page 128](#).
2. If you are planning to use DiskXtender to write EmailXtender files to an EMC Centera device, change the default volume size to 90 MB, instead of the default size of 100 MB. There are known performance issues when retrieving volumes of 100 MB and greater from an EMC Centera device. Setting the volume file size to 90 MB allows for slight overflow of the volumes before they are closed, while keeping the total volume file size to under 100 MB. For more information on changing volume file size, see ["Configuring Volume Storage" on page 128](#).
3. If you are planning to set retention periods, you should set them before you begin journaling mail and closing volumes. For more information on setting retention periods, see ["Configuring a Folder" on page 85](#).

Automatic File Migration Activities

Once you configure DiskXtender and EmailXtender, the system can begin automatically migrating volumes to media.



Important: If you are using the NAS or TSM media services, automatic file migration is *not* available. You must use the EMC Centera, MediaStor, or StorageTek ACSLS media services if you want to benefit from automatic file migration.

As EmailXtender closes volumes and copies them to the storage drive as *.emx* files, EmailXtender automatically creates the necessary media folders, move groups, and move rules in DiskXtender based on the Message Center folders, collection rules, and retention periods. (EmailXtender does not create purge rules, which define which files should be purged from the extended drive, since the Purge files after move option is selected for each move rule. This means that purge rules are unnecessary because all volumes are immediately purged from the extended drive once DiskXtender moves them to media.)

Media folders are folders on the extended drive, move groups are specific groupings of media assigned to a media folder, move rules define which files in a media folder are moved to each move group.

EmailXtender automatically configures DiskXtender as follows:

- **One media folder** - The first time a volume closes in EmailXtender, the system automatically creates a single media folder, called EmailXtender. It also labels blank StorageTek ACSLS and MediaStor media and adds the media to the media folder.
- **One move group per folder per month** - EmailXtender then creates one move group each month for each EmailXtender folder and adds media to the move group. If you configured a retention period for an EmailXtender folder, the retention period is configured for the move group.
- **One move rule per folder per month** - EmailXtender also creates one move rule each month for each EmailXtender folder, and sets the move rule to move only *.emx* files, to mark all files for direct read, and to purge files immediately after they are moved to media. (Direct read means that files are read directly from media rather than being copied back to the extended drive when requested.) If you configured a retention period for an EmailXtender folder, the retention period is configured for the move rule (in addition to being configured at the move group level).

Note: If you are using DVD-R media, files are not marked for direct read or purged until you finalize the media.

Note: If you are using DiskXtender to write volumes to removable media, such as DVD-R, tape, or magneto-optical, you may want to disable direct read to avoid too many competing read and write requests to the library containing the media. Consult with a LEGATO technical representative to determine if this strategy is appropriate for you.

You should leave the remaining defaults configured for the media folder, move groups, and move rules unless instructed to change them by a LEGATO technical representative, with the exception of the Maximum media simultaneously receiving files option on the Options tab of the Move Group Properties dialog box. If you are using the EMC Centera media service, you should set this option to 4.



Important: If volumes exist on the EmailXtender storage drive *before* you extend the storage drive using DiskXtender, EmailXtender does not automatically configure DiskXtender to move those volumes; only volumes that close *after* you extend the storage drive cause automatic configuration to occur. You must create the media folder, move group, and move rule, as well as perform the associated assignments, manually using the DiskXtender Data Manager Administrator interface. For instructions, refer to the DiskXtender documentation.

Once a drive scan occurs, volumes are added to the move list. They are then moved out to media when the Move files to media activity schedule is active. They are also automatically purged and marked for direct read.

Chapter 6: Maintenance

To ensure that all messages are being processed as you intend, you should regularly verify the health of the EmailXtender system. You can do this by performing daily maintenance tasks on the EmailXtender server and by periodically clearing the EmailXtender server of files. You should also perform regular backups of the EmailXtender server.

If necessary, you can change account information, such as the user mailbox where EmailXtender error messages are sent and the EmailXtender service account. The *Utilities* directory on the EmailXtender installation CD-ROM provides a number of utilities that can assist you in maintaining the EmailXtender system.

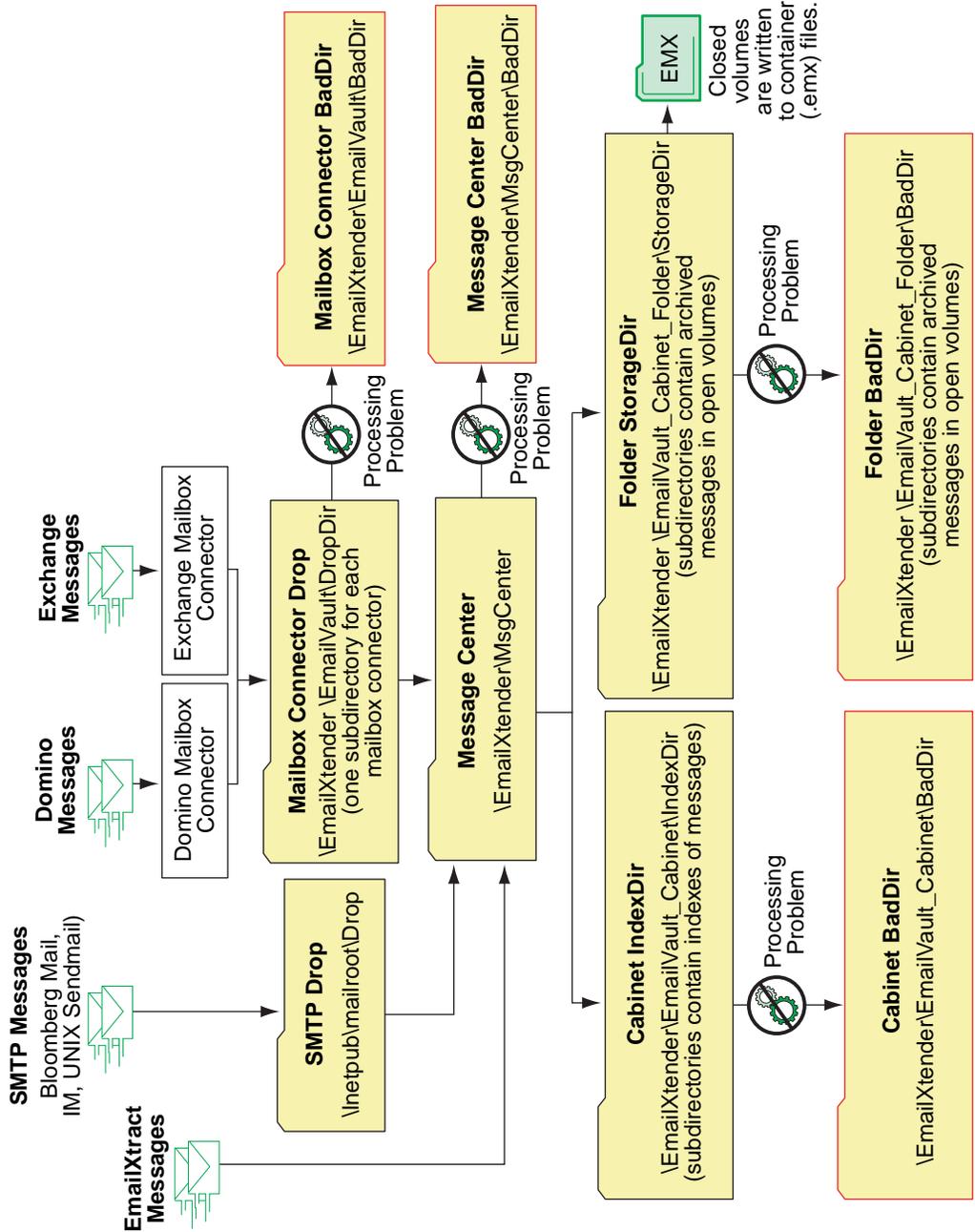
Before you begin regular maintenance tasks, however, it's important to understand the path that messages take through the EmailXtender system.

For more information, see the following sections:

- ["How EmailXtender Processes Messages" on page 139](#)
- ["Daily Maintenance Tasks" on page 140](#)
- ["Periodically Clearing the EmailXtender Server of Files" on page 153](#)
- ["Backing Up an EmailXtender Server" on page 157](#)
- ["Viewing EmailXtender Events" on page 157](#)
- ["Editing Account Information" on page 159](#)
- ["Maintenance Utilities" on page 161](#)

Note: This information assumes that you have installed EmailXtender in a supported configuration as described in the EmailXtender documentation and in the *Messaging Compatibility Guide* available on the LEGATO website. For maintenance information for previous releases, or if you have a non-standard configuration, contact LEGATO Technical Support.

Figure 49. Overview of Message Processing Flow



How EmailXtender Processes Messages

EmailXtender processes messages from a variety of sources. As EmailXtender archives and indexes these messages, they are moved through a series of directories. The previous diagram and following steps describe this processing.

1. EmailXtender acquires the message.
 - If the message is from a Lotus Domino or Microsoft Exchange mail server, that message is placed in a *.mailbox* subdirectory of the `\EmailXtender\EmailVault\DropDir` directory. There is one *.mailbox* directory for each mailbox connector you define for EmailXtender.
 - If the message is from UNIX sendmail, the EmailXtender Bloomberg Mail Parser, or a supported instant messaging (IM) product, the message is placed in the Internet Information Server (IIS) drop directory, `\Inetpub\mailroot\Drop`.

2. The message is then moved to the `\EmailXtender\MsgCenter` directory, where the message is processed further. If the message cannot be moved to this directory for some reason, the message is placed in the `\EmailXtender\EmailVault\BadDir` directory.

Note: If the message is acquired using EmailXtract, the message is placed directly in the `\EmailXtender\MsgCenter` directory.

3. The message is then prepared for indexing. The message is unpacked into the message components (message body, attachments, and so on) in a subdirectory of the Message Center directory.

If there is a problem unpacking the message, the message is placed in the `\EmailXtender\MsgCenter\BadDir` directory, and the original message (which had problems) remains in the `\MsgCenter` directory.

4. A pointer to the message is then archived in an open volume and in a subdirectory of the `\EmailXtender\EmailVault_Cabinet_Folder\StorageDir` directory (where *Cabinet* and *Folder* are the names of the cabinet and folder, respectively).
5. When the volume is closed, the message is written to a volume (*.emx* file, also called a container file) in the location you specified on the General tab of the Computer Properties dialog box using the EmailXtender Administrator interface.

If there is a problem in archiving the message, the message is placed in the `\EmailXtender\EmailVault_Cabinet_Folder\BadDir` directory.

6. When the message is indexed, the resulting index files are placed in a subdirectory of the `\EmailXtender\EmailVault_Cabinet\IndexDir` directory.

If there is a problem in indexing the message, the message is placed in the `\EmailXtender\EmailVault_Cabinet\BadDir` directory.

Daily Maintenance Tasks

There are a number of daily tasks that you should perform on the EmailXtender server to make sure that the system is operating well and that all messages are being processed appropriately.

Table 6. Daily EmailXtender Server Maintenance Tasks

✓	Task	For details, see:
	Check the event logs for unexplained or problematic events	page 141
	Check for large numbers of messages in the EmailXtender message queues	page 141
	Check the number of messages on the mail server	page 144
	Check that the EmailXtender indexer is indexing data	page 146
	Check for large numbers of open volumes	page 147
	Check that the policy engine (<i>ExAddrRule.exe</i>) initialized	page 147
	Check that EmailXtender processes are getting adequate processing time	page 148
	Check for excess files in the Message Center directory	page 150
	Check for unprocessed messages in <i>BadDir</i> directories	page 151
	Check dates on the <i>.dlc</i> and <i>.xrc</i> files	page 152

Table 6. Daily EmailXtender Server Maintenance Tasks

✓	Task	For details, see:
	Check for and repair corrupt indexes	page 152
	Check search, retrieval, and export capabilities	page 153

You can collect most of the EmailXtender system status information you need using the *ExMailStatus* tool, which is discussed in "[ExMailStatus](#)" on [page 169](#). Once you use this tool to generate a report, you can analyze the report and look for any potential problems.

Check the Event Logs

Events that can effect the EmailXtender system are reported in the OTG, Application, and System event logs. You should periodically review those logs to see if any unexplained or problematic events have occurred in EmailXtender, or any of the software EmailXtender uses, such as Microsoft Exchange, Lotus Domino, or the operating system.

To view these event logs using the Event Viewer, select Programs>Administrative Tools>Event Viewer from the Start menu. The Event Viewer opens to display the following event logs: Application Log, Security Log, System Log, and OTG. Double-click any of these event logs to see the events in that log. The OTG log is installed by EmailXtender. The other logs are installed as part of the operating system.

Alternatively, to view only the EmailXtender events in the OTG event log, select Programs>LEGATO EmailXtender>EmailXtender Administrator from the Start menu. The EmailXtender Administrator appears. To view EmailXtender events, select Events from the View menu. The Event Information dialog box appears. For more information on using the Event Information Dialog box, see "[Viewing EmailXtender Events](#)" on [page 157](#).

Check the Message Queues

You should check each of the message queues that EmailXtender uses to make sure that there is not a large number of messages in any of those queues. The number of messages that constitute a "large number" varies depending on the messaging environment, but for a large environment, a queue containing 5,000 or more messages typically indicates a problem.

You can view the current state of the message queues using the Computer Management MMC application in Microsoft Windows.

To view the current state of message queues:

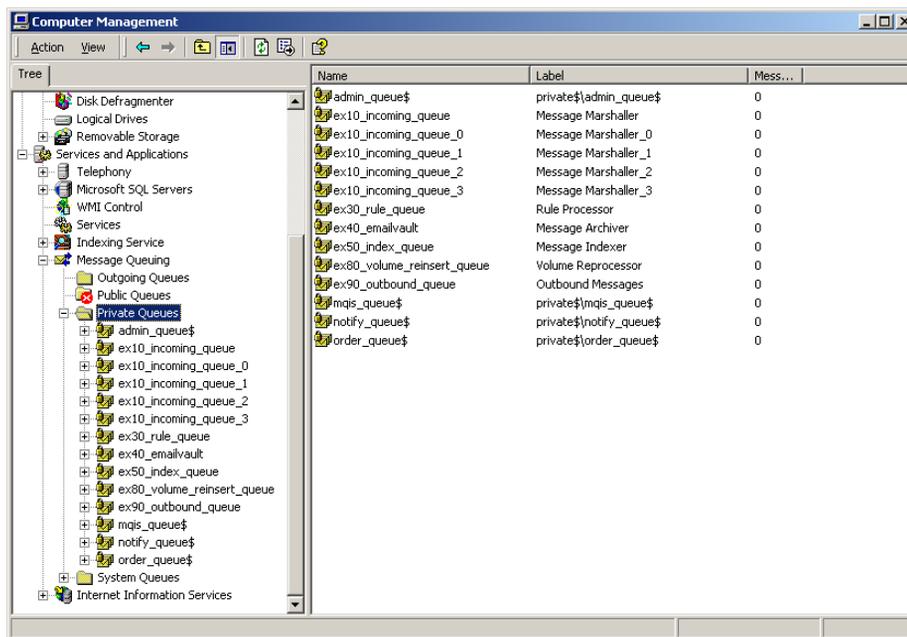
1. Open the Computer Management application. From the Windows Start menu on the EmailXtender server, select Programs>Administrative Tools>Computer Management.
2. On the Tree tab in the left pane, expand the nodes as follows:

Services and Applications>Message Queuing>Private Queues

The EmailXtender queues appear under the Private Queues node and are all named with the prefix *ex*.

The following figure from the Computer Management application in Windows 2000 displays these queues:

Figure 50. EmailXtender Message Queues



You should check the following queues for an excessive amount of messages.

Note: When you check a queue, you need to check the Queue messages queue for the actual messages. EmailXtender does not use the Journal messages queue, which appears at the same level as the Queue messages queue and is created by Microsoft Message Queuing (MSMQ).

- **ex10_incoming_queue**

The *ex10_incoming_queue* lists the messages stored in the *EmailXtender\EmailVault\DropDir*.mailbox* folders. Messages in this queue are distributed to the *ex10_incoming_queue_n* queues in round robin order. This queue interacts with the *ExEmail.exe* service.

- **ex_10_incoming_queue_0, ex_10_incoming_queue_1, ex_10_incoming_queue_2, and ex_10_incoming_queue_3**

The *ex_10_incoming_queue_n* queues contain messages that are to be processed by the unpacker. These messages are moved from the *.Mailbox* directories to the *EmailXtender\MsgCenter* directory, where they are unpacked.

If any of the queues have a large number of messages in proportion to the other *ex_10_incoming_queue_n* queues, then you may have a queue that is blocked by a message that cannot be processed.

To correct this problem, use the *ReadMSMQ.exe* tool to locate, obtain a copy of, and remove the lead message in the queue. Once this message has been removed, the queue should begin processing and the saved message can be sent to LEGATO Technical Support for analysis. For more information on using the *ReadMSMQ* utility, see ["ReadMSMQ" on page 180](#).

This queue interacts with the *ExEmail.exe* service.

- **ex30_rule_queue**

The *ex30_rule_queue* is where keyword and specific address collection and exclusion rules are processed, and where the decision is made as to which volumes the message belongs to, as well as whether the message can be discarded.

If you are using EmailXaminer, messages may accumulate in this queue if there are problems that prevent messages from being sent to EmailXaminer.

This queue interacts with the *ExEmail.exe* service.

- **ex40_emailvault**

The *ex40_emailvault* queue contains the data that the Archive service uses to create *message-id.xvlt* files. After rule processing completes, the *ExArchive.exe* service creates a *message-id.xvlt* file and places it in an existing volume folder, or it creates a new volume folder and places it in the new folder in the following directory:

`\EmailXtender\EmailVault_Index_Archive\StorageDir\YYYYMM\`

The associated message files already exist. Volumes are then built from the `.xvlt` files and folders.

This queue interacts with the `ExArchive.exe` service.

- **ex50_index_queue**

The `ex50_index_queue` contains messages to be added to the list of messages to be indexed. If this queue contains no messages, it does not mean that the indexer has indexed all messages.

Messages in this queue have references added to a `.xvlt` file in the `EmailXtender\EmailVault_Index\Dropdir` directory. The `ExIndex.exe` service processes messages that have left the `ex50_index_queue` at 10 minute intervals.

Check the Number of Messages on the Mail Server

You should check the number of messages on the mail server in addition to checking the number of messages in the message queues. If there are a large number of message in either the mail server or the message queues, you should investigate to determine if there is a problem. For more information, see the following sections:

- ["Many Messages on the Mail Server and in the Message Queues" on page 144](#)
- ["Many Messages on the Mail Server and Few or None in the Message Queues" on page 145](#)

Many Messages on the Mail Server and in the Message Queues

When there are a large number of messages on the mail server and a large number of messages in the message queues, it is possible the system has a problem that is preventing messages from being processed. Typically, this is caused by one or more of the following conditions:

- There are numerous large messages in the queues which are taking a significant amount of time to be unpacked.

Action: No action is needed. The large number of messages should be reduced automatically once the larger messages have been processed.

- The message queues are not functioning properly.
Action: Verify that there are no message queueing errors in the event log. For more information on viewing the event log, see "[Viewing EmailXtender Events](#)" on page 157. If there are, see the Microsoft Message Queueing (MSMQ) documentation for information on correcting the problem.
- EmailXtender cannot process one or more messages. Typically, this indicates that the EmailXtender unpacker component cannot process the message for an unknown reason, such as the message being badly formed.
Action: Remove the problematic messages from the system to free the queues. Retain and submit the problematic messages to LEGATO Technical Support for analysis.
Use the *ReadMSMQ.exe* tool to remove the problematic messages from the queue. For more information on using the *ReadMSMQ* utility, see "[ReadMSMQ](#)" on page 180.

Many Messages on the Mail Server and Few or None in the Message Queues

When there is a high volume of messages on the mail server and all of the message queues are empty, there may be a problem at the mail server or at the EmailXtender server that is preventing EmailXtender from establishing a connection to the mail server. This can be caused by one or more of the following conditions:

- Domino and Notes or Exchange and Outlook have stopped functioning properly. To verify that this is the case, open the appropriate mail client and connect to the associated journal mailboxes. If you cannot connect to the journal mailbox, the mail system has stopped functioning properly.
Action: See your mail system documentation for information on how to diagnose and correct the problem.
- The distribution list cache file (*EmailXtender.dlc*) is missing.
Action: Check for a recent *EmailXtender.dlc* file in the *\Program Files\OTG\EmailXtender* folder. If this file does not exist, it needs to be created by the Address Rule service, *ExAddrRule.exe*. Verify that this service is running. For more information on this file, see "[Check that the Policy Engine \(ExAddrRule.exe\) Initialized](#)" on page 147.

- The distribution list cache file (*EmailXtender.dlc*) is not being updated. The *EmailXtender.dlc* file should have been modified within the last day.
Action: If the *EmailXtender.dlc* file is older than a day, it is not being updated regularly by the Address Rule service, *ExAddrRule.exe*. Verify that this service is running. For more information on this file, see "[Check that the Policy Engine \(ExAddrRule.exe\) Initialized](#)" on page 147.

Check that the Indexer Is Indexing Data

The EmailXtender indexer (the *ExIndex.exe* service) creates a full-text index of messages found in the *\Program Files\OTG\EmailXtender\EmailVault_Index\DropDir* directory.

To verify that the indexer is functioning properly:

1. Verify that the *ExIndex.exe* service is running.
2. While reindexing is occurring, verify that the *trans.tbl* file exists in the *EmailXtender\EmailVault_Index\DropDir* directory and that it has a recent modification time and date.

This file should change frequently, so it should have a very recent modification date. If this file has not been modified in the last hour, it is likely that there is a problem with the indexer.

The *trans.tbl* file only exists when the indexer is actively reindexing messages. If the file does not exist, that does not necessarily indicate a problem; it could indicate that no indexing is occurring.

3. Check the size of the *\DropDir* directory to make sure that messages are being indexed regularly.

In a system where all of the messages have been indexed, this directory is empty. Typically, *.xvlt*s, and *.txvlt*s files exist in the directory.

The total number of messages waiting to be indexed can be roughly determined by dividing the total size of the directory in bytes by 862 bytes.

If this directory contains a large number of files, there may be a problem with the indexer.

4. Check the *\BadDir* directories for any *.xvlt*s or *.txvlt*s files.

The existence of the temporary *.xvlt*s or *.txvlt*s files indicates that an index may be corrupt.

When an index is corrupt, a *corrupt.idx* file is generated as the index file, and the current *.xvlt*s or *.txvlt*s file is copied into the appropriate *\BadDir* directory. A *\BadDir* directory exists for each EmailXtender cabinet and folder.

To repair a corrupt index, use the HealthCheck utility. Once the index is repaired, you can delete the associated *.xvlt*s or *.txvlt*s file from the `\BadDir` directory. For more information on using the HealthCheck utility, see ["HealthCheck" on page 161](#).

Action: If any of these tasks indicate a problem with the indexer, check the event log for any error messages from the indexer. For more information on viewing the event log, see ["Viewing EmailXtender Events" on page 157](#).

Check for Large Numbers of Open Volumes

Use the EmailXtender Administrator interface to see if there are a large number of open volumes. A large number of open volumes may indicate that the Archive service (*ExArchive.exe*) is having problems closing volumes. This may indicate that something is wrong with the storage drive (which is the extended drive, if you are using DiskXtender), or that the drive may be full.

Check that the Policy Engine (ExAddrRule.exe) Initialized

Check the event log to verify that the EmailXtender Address Rule service (*ExAddrRule.exe*) is running and initialized. For more information on viewing the event log, see ["Viewing EmailXtender Events" on page 157](#).

When the Address Rule service (also referred to as the policy engine) is initialized, the following message appears in the event log with a source of `EmailXtender` and a category of `AddrRule`:

```
Background policy engine initialized and swapped in for use
EmailXtender cannot pull messages from the mail server until the policy
engine has initialized.
```

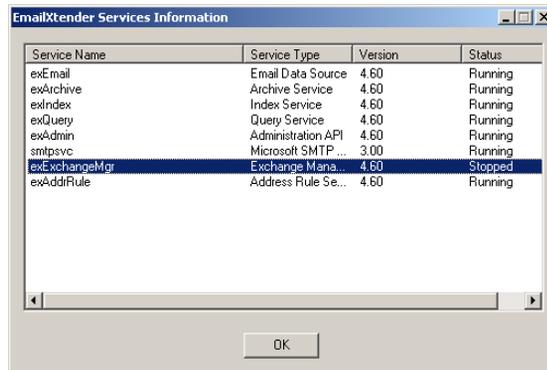
Action: If the policy engine has not initialized, verify that the *EmailXtender.dlc* file exists. This file must exist for the policy engine to initialize. If this file does not exist, the Address Rule service creates it. However, depending on how many distribution lists you have in the mail system, it may take a long time -- possibly several hours for a large number of distribution lists.

EmailXtender cannot create the *EmailXtender.dlc* file unless there is at least one mailbox connector for each mail server for which you installed EmailXtender support. This means that you would need at least one mailbox connector for an Exchange only installation, at least one mailbox connector for a Domino only installation, or one mailbox connector for Exchange and one mailbox connector for Domino if you installed EmailXtender support for both types of mail servers. For more information on adding mailbox connectors, see ["The Email Connection Mailboxes Tab" on page 69](#).

Check that EmailXtender Processes Receive Adequate Processing Time

You should verify that EmailXtender processes are running and are receiving adequate processing time. To open the EmailXtender Services Information dialog box, choose Service Info from the View menu in the Administrator, or click the Service Info toolbar icon.

Figure 51. EmailXtender Services Information Dialog Box



EmailXtender uses the following processes:

- **Email Data Source**

In a Microsoft Exchange environment, the Email Data Source service (*ExEmail.exe*) pulls messages from the mailboxes to which the mail server journals.

In a Lotus Domino environment, the Email Data Source service pulls messages from the mailbox connector to which the mail server sends them (*ExJournal.nsf*).

If EmailXtender has a problem processing any messages, this service deposits the messages in question in either the *EmailXtender\EmailVault\BadDir* or the *EmailXtender\MsgCenter\BadDir* folder, from which the administrator can review them.

The Email Data Source service also performs mail classification when mail is saved in the EmailXtender Message Center.

- **Archive**

The Archive service (*ExArchive.exe*) monitors message volumes. It creates volumes (.emx files, also called container files) of messages that have been classified for archival. When the volumes reach their allotted capacity or are idle for five days, they are written to hard disk or other specified media

supported with the use of DiskXtender. In addition, this service also communicates with the DiskXtender Software Developer's Kit (SDK), if it is being used with EmailXtender.

- **Index**

The Index service (*ExIndex.exe*) performs full-text indexing of email messages and attachments.

- **Administration API**

The Administration service (*ExAdmin.exe*) supports the EmailXtender Administrator program, a graphical user interface that allows you to easily view and manage the EmailXtender Message Center.

- **Query**

The Query service (*ExQuery.exe*) performs user authentication and search tasks. The EmailXtender Search Plug-in and Web Search client use this service. It also communicates with EmailXtract to verify that email has been archived before it is removed from the message store.

- **Exchange Manager**

The Exchange Manager service (*ExExchangeMgr.exe*) manages the EmailXtender interaction with Microsoft Exchange to allow shortcut resolution for messages extracted by EmailXtract. This service also interacts with Microsoft Outlook Web Access (OWA) shortcut support.

- **Notes Manager**

The Notes Manager service (*ExNotesMgr.exe*) manages the EmailXtender interaction with Lotus Domino to allow shortcut resolution for messages extracted by EmailXtract.

- **Address Rule**

The Address Rule service (*ExAddrRule.exe*) is a policy engine that manages interactions between EmailXtender and an LDAP or ADS server when they are configured within EmailXtender and used to apply message filters. It controls the caching of policy information on the EmailXtender server based on information and changes within the LDAP or ADS server.

Action: If the previously listed processes are not running, start them and review the event log to verify that no errors appeared when they started. To start an EmailXtender service, right-click the service in the EmailXtender Services Information dialog box and select Start from the shortcut menu.

Note: You cannot manage the ExAdmin service from the EmailXtender Services Information dialog box. You must stop and start the ExAdmin service using the Windows services management feature.

Action: If these processes are running but are not receiving sufficient resources, consider adding more resources to the EmailXtender installation.

Check for Excess Files in the Message Center Directory

Verify that there are not a large number of files generated by either the unpacker or by open volumes in the Message Center directory, *Program Files\OTG\EmailXtender\MsgCenter*.

If there are a large number of files, examine the file specifications to determine why these files are in the directory. For more information, see the following sections:

- ["Many .access, .ref, or Attachment Files" on page 150](#)
- ["Many Files With No Extension" on page 150](#)

Many .access, .ref, or Attachment Files

If there are a large number of *.access*, *.ref*, or attachment files in the *\MsgCenter* directory, this indicates that the indexer has a backlog of accumulated messages and has not yet processed these intermediate files. This backlog may indicate that there is a problem with the indexer.

To determine if the indexer is working properly, see ["Check that the Indexer Is Indexing Data" on page 146](#).

Once you correct the problem with the indexer, these files are removed from the *\MsgCenter* directory as the indexer processes them.

Many Files With No Extension

If there are a large number of files with no file extensions (buffered files) in the *\MsgCenter* directory, this indicates that either or both of the following conditions may be occurring:

- There are a large number of open EmailXtender volumes. Buffered files in this case indicate that data is not getting stored on permanent media because the volumes are not closing.

Action: For more information on the corrective action you need to take to close these volumes, see ["Check for Large Numbers of Open Volumes" on page 147](#). Once the volumes are closed, the buffered files are removed from the *\MsgCenter* directory.

- If you are using EmailXaminer, large numbers of buffered files may indicate that EmailXaminer reviewers have a significant backlog of messages to review. Buffered files are left in the *\MsgCenter* directory until after sample sets have been reviewed to provide quick access to that data.

Action: For more information on verifying that EmailXaminer is functioning properly, refer to the EmailXaminer documentation.

Check for Unprocessed Messages in BadDir Directories

Check for any unprocessed messages in the various *\BadDir* directories.

EmailXtender places messages it cannot process in one of several *\BadDir* directories. The *\BadDir* directory in which a message is placed indicates the problem with the message.

- *\EmailVault\BadDir*

EmailXtender places messages in the *\EmailVault\BadDir* directory when it is able to pull the message from the mail source (such as the Exchange mail server, the Domino mail server, or the *\Inetpub\mailroot* directory) but cannot process the message.

The message may not be processed because of a problem with the message or a problem with the network connection. For example, messages may not be processed if the network connection is lost between the EmailXtender server and the mail server during processing, or if the EmailXtender server fails in some way during processing because the operating system crashes or reboots.

- *\MsgCenter\BadDir*

EmailXtender places messages into the *\MsgCenter\BadDir* directory when a message cannot be processed by the unpacker.

- *\EmailVault_Cabinet\BadDir* or *\EmailVault_Cabinet_Folder\BadDir*

If a message is processed by the unpacker but then encounters other problems during archiving or indexing, it is placed in the *\BadDir* directory under the associated cabinet or folder. This may be the default cabinet (*\EmailVault_Index*), the default folder (*\EmailVault_Index_Archive*) or a user-defined cabinet or folder, such as *\EmailVault_MyCabinet_MyFolder*.

Action: If you find unprocessed messages, move the messages to the *\MsgCenter\BadDir* directory and then use the *ExBadDirProcessor.exe* utility to reprocess the messages. For more information, see ["ExBadDirProcessor" on page 171](#).

If the messages are not processed after using this utility, record any errors you find in the event log and contact LEGATO Technical Support for assistance.

Check Dates on the *.dlc* and *.xrc* Files

To ensure that EmailXtender is processing messages using the most up-to-date distribution lists and rules, verify that the following files on the EmailXtender install drive are up-to-date:

- *Program Files\OTG\EmailXtender\EmailXtender.dlc*
- *Program Files\OTG\EmailXtender\RuleCacheFiles*.xrc*

If these files are no more than a day old, they are probably up-to-date.

If these files are out-of-date, it is possible that modifications to distribution lists and rules are not being accurately reflected by the EmailXtender server.

The *EmailXtender.dlc* file is the Distribution List Cache file. If this file is not up-to-date, then EmailXtender may not accurately associate users with the distribution lists to which they belong.

The *.xrc* files are the EmailXtender Rules Cache files. If these files are not up-to-date, then collection and exclusion rules are applied but do not reflect any changes made to distribution group membership for users indicated in specific address rules. Additionally, any changes made to keyword rules after the last modified date on *.xrc* files are not applied until the rule files are rebuilt.

To make tracking of *.xrc* files easier, you can enable rule cache logging. At the root of the EmailXtender registry branch, *HKey_Local_Machine\Software\OTG\EmailXtender*, set the **RuleCacheLog** value to 1. Then stop and restart the EmailXtender Address Rule service. This creates a collection of readable *.log* files associated with the *.xrc* files in the *\EmailXtender\RuleCacheFiles* directory the next time the policy engine initializes.

Check for and Repair Corrupt Indexes

Use the HealthCheck utility to verify that all indexes are available and that no corrupt indexes exist.

Action: If a corrupt index exists, use the HealthCheck utility to re-index the data. If this does not result in a valid index, there is probably a problem with one of the messages in the index. Check the event log for an EmailXtender error message about the corrupt index. For more information on viewing the event log, see ["Viewing EmailXtender Events" on page 157](#).

If you cannot correct the problem, remove the problematic messages from the archive and then index the archive again to create a valid index. For more information on using the HealthCheck utility, see ["HealthCheck" on page 161](#).

Check Search, Retrieval, and Export Capabilities

Verify that the search, retrieval, and result list export capabilities are working properly. This is a test of the *ExQuery.exe* and *ExArchive.exe* services.

To verify that search, retrieval, and result list export capabilities are working properly:

1. Search for messages using various time and date ranges with the Before search option.
2. Open several of the messages you retrieve.
3. Use the Copy to Folder option to export some of these messages.

Action: If you have any problems performing the previous tasks, verify that the *ExQuery.exe* and the *ExArchive.exe* services are running. If the *ExQuery.exe* and the *ExArchive.exe* services are running, review the event log for any EmailXtender errors associated with those services. For more information on viewing the event log, see ["Viewing EmailXtender Events" on page 157](#).

Periodically Clearing the EmailXtender Server of Files

You should periodically clear the EmailXtender server of files that are no longer being processed. The files may be unnecessary files that can safely be deleted, or they may be messages that were incompletely processed.

You should also clear the EmailXtender server of unnecessary files before you update the release of EmailXtender you are running, since you must bring the server down for the update.

For more information, see the following sections:

- ["Preparing the EmailXtender Server for Cleanup" on page 154](#)
- ["Clearing the EmailVault Drop Directory" on page 155](#)
- ["Clearing the Message Center BadDir Directory" on page 155](#)
- ["Clearing the Message Center Directory" on page 156](#)

Preparing the EmailXtender Server for Cleanup

To prepare to clear the EmailXtender server of files:

1. Stop new messages from entering the system.
 - Remove all mailbox connectors from the EmailXtender server. This prevents any new Domino or Exchange messages from coming into the system.
 - Verify that the SMTP drop directory, `\Inetpub\mailroot\Drop`, is empty, and stop any processes that place mail into that directory. These processes depend on the environment and may include a sendmail process on a remote UNIX system or processes associated with instant messaging products that send messages to EmailXtender. This prevents messages from these sources from coming into the system.
2. Add a single mailbox connector to an empty mailbox for the Domino or Exchange mail system. Creating this mailbox connector allows EmailXtender to have address book access without allowing it to pull any new mail. If the EmailXtender server is configured to receive mail from both Domino and Exchange, you need one mailbox connector for each.
3. Verify that all EmailXtender message queues are empty of messages. For more information on checking the message queues, see ["Check the Message Queues" on page 141](#).

Note: All EmailXtender services need to be running to empty these queues.

4. Check the index drop directories to make sure all indexing has completed. An index drop directory is defined for each cabinet.

The default index drop directory is `\Program Files\OTG\EmailXtender\EmailVault_Index\DropDir`.

This directory includes the following files:

- `.xvlt`s files (index runs ready for processing)
- `.txvlt`s files (index runs not quite ready for processing)
- A `trans.tbl` file (a file that exists while indexing takes place)

If re-indexing is occurring, a buffered file, a directory created for each message during the volume re-index process, and some number of `.reindex` or `.redoindex` files also appear in the index drop directory.

The full-text indexing process is complete when no `.xvlt`s, `.txvlt`s, `.reindex`, `.redoindex`, or `trans.tbl` files are left in any of the index drop directories.

5. Once you complete these steps, the EmailXtender server is stopped and all messages have been completely processed. You should also close all open volumes using the EmailXtender Administrator interface. For more information on closing volumes, see ["Closing a Volume" on page 120](#).

Clearing the EmailVault Drop Directory

After a message has been pulled from a mail server into the vault drop directory, a message is placed on the EmailXtender incoming MSMQ queue, *ex10_incoming_queue*, for processing.

Messages can be left, unprocessed in the EmailXtender EmailVault drop directory, *\Program Files\OTG\EmailXtender\EmailVault\DropDir*, when message queues become corrupt or when the queues are manually purged.

To recover these messages:

1. Locate the messages to be moved.
2. Move the messages to the Message Center *\BadDir* directory.
3. Reprocess the messages in the Message Center *\BadDir* directory using the *ExBadDirProcessor.exe* utility. For more information, see ["ExBadDirProcessor" on page 171](#).



Important: These messages have already been entered into the Microsoft SQL Server database. Processing them again without using the *ExBadDirProcessor.exe* utility may result in the deletion of the message when it is considered a duplicate message.

These messages are in the *.mailbox* folders. Exchange messages have a *.msg* file extension, and Domino messages have a *.onm* file extension.

Clearing the Message Center BadDir Directory

When a message cannot be unpacked successfully, it is placed in the Message Center *BadDir* directory:

\Program Files\OTG\EmailXtender\MsgCenter\BadDir

To clear these messages from the Message Center *BadDir* directory, reprocess the files using the *ExBadDirProcessor.exe* utility. For more information, see ["ExBadDirProcessor" on page 171](#).

The reprocessing often succeeds because message unpacking has improved with newer releases of EmailXtender. Often, these improvements allow messages that could not be unpacked by a previous release of the software to be successfully unpacked with a more up-to-date version of the software.

Clearing the Message Center Directory

When no messages are being received and all open volumes are closed, the Message Center directory, `\Program Files\OTG\EmailXtender\MsgCenter`, should be empty. The Message Center should only be a temporary storage area for various types of processing.

To clear the Message Center directory:

1. Remove the directories created by the unpacking process.

When there is a problem creating an index, the directory into which a message was unpacked may remain in the Message Center directory. These directories have the same name as the message from which they are generated. For example, a `424733F15F05C3F5022504C6.dir` directory is created when `424733F15F05C3F5022504C6` is the name of the message.

If index drop directories for each of the cabinets are empty and there is nothing in the message queues, then there should be no `.dir` directories in the Message Center. If `.dir` directories exist, the cabinet drop directories are empty, and the message queues are empty, then you should remove these `.dir` directories.

2. If you had to remove any `.dir` directories from the Message Center directory, check to see if any indexes are corrupt. (The existence of orphaned `.dir` directories in the Message Center directory implies that corrupt indexes may have been created.) For more information on finding and fixing corrupt indexes, see ["Check for and Repair Corrupt Indexes" on page 152](#).
3. Handle any remaining messages in the Message Center.

Any message left in the Message Center after all open volumes have been closed and all message acquisition has stopped is potentially a lost message that should be either recovered or deleted.

To delete or reprocess these remaining messages, use the HealthCheck utility on the messages to determine what volume is associated with each message. For more information, see ["HealthCheck" on page 161](#).

You may want to spot check the messages in the Message Center by searching for the message identifier and attempting to retrieve the message. If the message has an existing, permanently archived volume

associated with it, then you can delete the message. If the message refers to a volume that has been lost, you can reprocess that message using the *ExBadDirProcessor.exe* utility with the **-nv** option. This option should only be used if a volume has been lost. For more information, see ["ExBadDirProcessor" on page 171](#).

Backing Up an EmailXtender Server

When the EmailXtender server is processing email, the server keeps a number of files open. These files include SQL tables, message queues, and full-text indexes. These files need to be closed to perform a backup of the EmailXtender server.

The *ExSuspend.exe* utility suspends and then resumes the EmailXtender services in the proper order. This causes all needed files to be closed without requiring that the EmailXtender server be shut down, and allows operations that only require the ability to read data, such as searches, to proceed while a backup is in process.

For more information on using *ExSuspend.exe*, see ["ExSuspend" on page 173](#).

Viewing EmailXtender Events

You can view EmailXtender events using the Event Information dialog box. You can also send selected events to a specified email account.

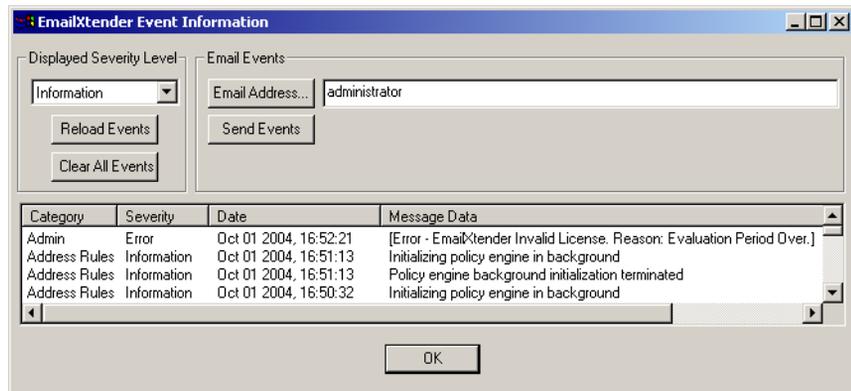
To view and send EmailXtender event information:

1. From the View menu in the Administrator, choose Events, or click the Events toolbar icon.

Figure 52. Events Toolbar Icon



The EmailXtender Event Information dialog box appears.

Figure 53. EmailXtender Event Information Dialog Box

2. From the Displayed Severity Level drop-down list, choose the type of event you want to view. You can view Information events, Warning events, or Error events.
3. Once you select the type of events you want to view, you have several view options:
 - To refresh the event list to reflect events that have occurred since you first opened the EmailXtender Event Information dialog box, click Reload Events.
 - To erase events from the event log so that you can begin viewing only the most recent events, click Clear All Events.
 - To sort the event list by category, severity, date, or message data, click the appropriate column heading.
 - To view an event in a format that you can copy and paste into another application, double-click the event. The Event Details dialog box appears.
4. To send event notices to a specific email address or distribution list, enter the email address or distribution list in the Email Address text box.
To select the address from the Microsoft Exchange or Lotus Domino Address Book, click Email Address.
5. In the EmailXtender Event Information dialog box, select the events you want to send, and then click Send Events.
6. Click OK to close the EmailXtender Event Information dialog box.

Editing Account Information

The Account Information dialog box allows you to edit the EmailXtender Administrator account, edit the EmailXtender service account, and define supervisor groups.

To view and edit EmailXtender account information:

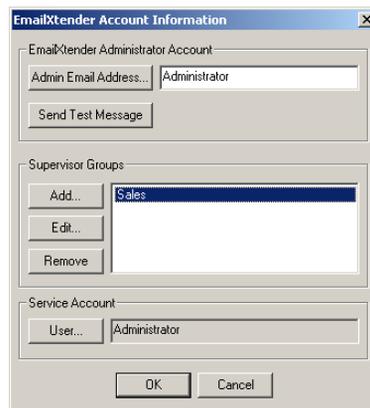
1. From the View menu in the Administrator, choose Account Info or click the Account Info toolbar icon.

Figure 54. Account Info Toolbar Icon



The EmailXtender Account Information dialog box appears.

Figure 55. EmailXtender Account Information Dialog Box



2. To change the user mailbox where EmailXtender error messages are sent, enter the friendly name or SMTP format of the new administrator email address in the Admin Email Address text box. To use an address book to select the account, click Admin Email Address.
3. To test name resolution for the administrator email address, click Send Test Message and then log into the administrator mailbox to verify that the test message was received.

4. If you want to allow a select group of users to search for and view messages sent from and to another select group of users, configure supervisor groups. For more information, see "[Supervisor Groups](#)" on page 194.
5. To change the EmailXtender service account, click User. The Edit Service Account dialog box appears.

Figure 56. Edit Service Account

6. In the Domain text box, enter the name of the Windows domain to which the service account belongs.

Note: The service account, which you configured when you installed EmailXtender, is an integral part of the authentication between EmailXtender and the email server. Erroneous changes to the service account can cause some EmailXtender services to terminate due to authentication problems. The service account should have at least local administrative rights.

7. In the User text box, enter the user name of the new service account.
8. In the Password text box, enter the password for the new service account.
9. Re-enter the password in the Confirm Password text box.
10. Click OK save the changes and return to the EmailXtender Account Information dialog box.
11. Click OK to save the changes and close the EmailXtender Account Information dialog box.
12. Activate the changes (Options>Activate Changes).

Maintenance Utilities

There are several utilities that can assist you in maintaining the EmailXtender system. These utilities can be installed from the EmailXtender kit or copied from the *Utilities* directory on the installation CD. For more information, see the following sections:

- ["HealthCheck" on page 161](#)
- ["ExMailStatus" on page 169](#)
- ["ExBadDirProcessor" on page 171](#)
- ["ExSuspend" on page 173](#)
- ["Managexvlt" on page 176](#)
- ["UnpackContainer" on page 178](#)
- ["ReadMSMQ" on page 180](#)

HealthCheck

The HealthCheck utility, which you install when you install EmailXtender server components, allows you to maintain the data on a local or remote EmailXtender server. Using the HealthCheck utility, you can perform the following maintenance tasks:

- Verify that all messages were archived for each month, index, and volume.
- Verify that messages are not missing from a volume.
- Rebuild a corrupt month or index.

For example, you may determine from the EmailXtender Administrator interface that a volume is missing a message because the status icon for the volume changes. To determine which message is missing, you should check the event log. (For more information on using the event log, see ["Viewing EmailXtender Events" on page 157.](#)) You can then use the HealthCheck utility to verify whether the message appears in the EmailXtender database, and then either re-index the volume or delete the identifier for the message from the database.

For more information, see the following sections:

- ["Starting the HealthCheck Utility" on page 162](#)
- ["Exploring the HealthCheck Utility Interface" on page 163](#)
- ["Verifying Indexes" on page 165](#)
- ["Verifying Message Identifiers" on page 166](#)

- "Generating a Report of All Documents" on page 166
- "Rebuilding Indexes" on page 168
- "Deleting Message Identifiers from the Database" on page 168

Starting the HealthCheck Utility

When you start the HealthCheck utility, you can either automatically load the data for a particular month or you can simply launch the utility and a prompt appears to assist you in selecting the month.

- To start the utility before selecting a month:
 1. You have the following choices:
 - From the Windows Start menu, select Programs>LEGATO EmailXtender>EmailXtender HealthCheck.
 - From the EmailXtender Administrator interface, open the View menu and then select Health Check Utility, or click the HealthCheck utility toolbar icon.

Figure 57. HealthCheck Utility Toolbar Icon



- Enter the following at the command line:
E:\Programs\OTG\EmailXtender\bin\HealthCheck.exe
 where *E*: is the drive on which you installed the utility.
- 2. In the Select Server and Month to Load dialog box, choose the EmailXtender server, month, and year, and then click OK.

Figure 58. Select Server and Month to Load Dialog Box



- To start the utility and automatically load the data for a particular month:
 You have the following choices:

- In the EmailXtender Administrator interface, select the month. Then open the View menu and select Health Check Utility. Alternatively, you can select the month and then click the HealthCheck utility toolbar icon. (If you select multiple months, one instance of the utility is launched for each month.)
- Use the `/m` and `/s` options followed by a colon and a value at the command line, as shown in the following example:

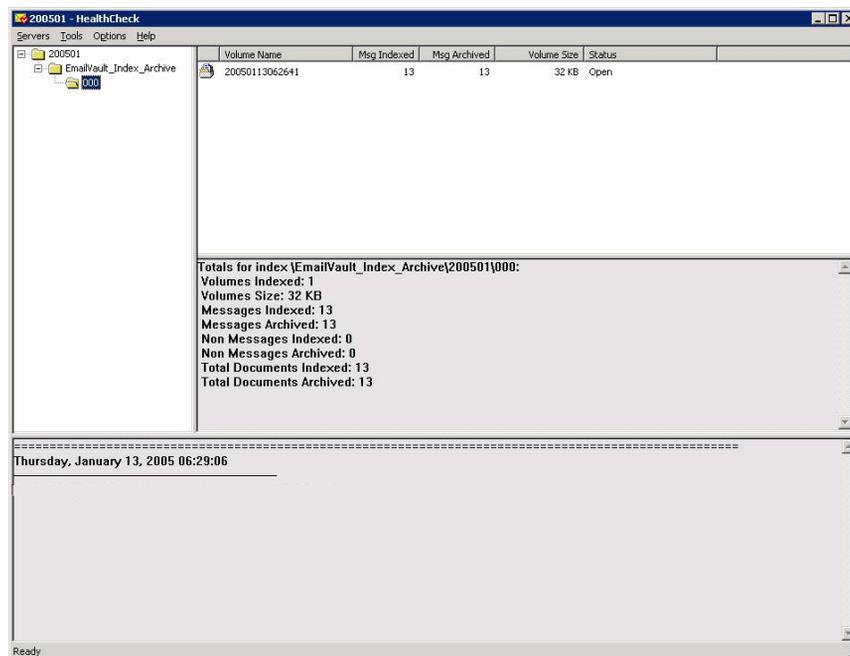
```
E:\Programs\OTG\EmailXtender\bin\HealthCheck.exe
/m:yyyymm /s:exserver
```

where *E* is the drive on which you installed the utility, *yyyymm* is the month (four-digit year and then two-digit month), and *exserver* is the name of the EmailXtender server you want to maintain.

Exploring the HealthCheck Utility Interface

The HealthCheck utility provides an easy-to-use graphical user interface so that you can view EmailXtender volume and index status information, and perform related maintenance tasks from a single location.

Figure 59. HealthCheck Utility



The HealthCheck utility interface consists of four panes:

- The Month pane on the left displays the data associated with the month you select when you start the HealthCheck utility. You can expand the month to view the cabinets and indexes that are part of the month.
- The List pane on the top right displays either the list of volumes or the list of indexes, depending on whether you select a cabinet or index in the Month pane. (If you select an index, the list of volumes appears. If you select a cabinet or month, the list of indexes appears.)
 - The volume list displays the status of the volume (an icon that indicates whether a volume is valid, missing a message, or corrupt), the name of the volume, the number of messages indexed and archived for the volume, the size of the volume, and the processing status of the volume (Open, Closed, Corrupt, Re-index Pending, or Re-indexing).
 - The index list displays the status of the index (an icon that indicates whether an index is valid, missing a message, or corrupt), the name of the index, the number of volumes indexed and archived for each index, the number of messages indexed and archived for each index, the size of the index, and the date the index was created and modified.
- The Totals pane displays totals for the information itemized in the List pane.
- The Log pane at the bottom of the window displays processing information from the HealthCheck utility. To save this information to a file, open the Options menu and then select Log File>Save As. To clear the contents of the Log pane, open the Options menu and then select Log File>Clear Log File.

Refreshing the HealthCheck Utility

To update the data listed in the HealthCheck utility interface or in the EmailXtender server list, open the Options menu and then select Refresh.

Connecting to Another EmailXtender Server

You can run the HealthCheck utility for a local EmailXtender server and for remote computers.

To connect to another EmailXtender server:

1. From the Server menu in the utility, select Open. The Select Server and Month to Load dialog box appears.

Figure 60. Select Server and Month to Load Dialog Box



2. Select the server from the drop-down list. If the server you want to use is not listed, you can attempt to discover the server on the network by clicking Discover Servers.
3. Select the month and year from the corresponding drop-down lists.
4. Click OK.

Selecting Data for Another Month

When you are finished using the HealthCheck utility to manage the data for one month, you can choose another month to manage without closing the utility.

To select data for another month from the utility:

1. From the Server menu, select Open. The Select Server and Month to Load dialog box appears.
2. Select the server, month, and year from the corresponding drop-down lists.
3. Click OK.

Verifying Indexes

You can verify a single index or all indexes in a month.

- To verify a single index, select the index in the Month pane of the utility and then open the Tools menu and choose Verify Index.
- To verify all the indexes for a month, open the Tools menu and then choose Verify All.

If any messages are found to be missing in the index, the message identifiers of those messages will be listed.

Verifying Message Identifiers

You can use the HealthCheck utility to verify that a message is listed in the EmailXtender database. This function is useful, for example, in cases where a volume is missing a message and the message identifier is listed in the event log.

To verify that the identifier of a selected message occurs in the EmailXtender database:

1. Determine the message identifier for the message you want to check. (The message identifier may appear in the event log or in the Log pane of the HealthCheck utility.)
2. Copy the message identifier to the Windows clipboard using a Copy command. To copy the value from the Log pane, select the value, right-click, and then select Copy from the shortcut menu.
3. Open the Tools menu and then select Message ID Check. The Enter Message ID dialog box appears.

Figure 61. Enter Message ID Dialog Box



4. Enter the message identifier and then click OK.

Generating a Report of All Documents

You can use the HealthCheck utility to generate a list of all the documents (such as attachments and messages) associated with an index or month.

To generate a report of all documents for an index or month:

1. Select the index or month in the Month pane of the utility interface.
2. From the Tools menu, select Document Report. The report appears in the Log pane.
3. You can save the output of the Log Pane by opening the Options menu and selecting Log File>Save As.



Example: HealthCheck Utility Document Report

The following example shows a sample document report.

```
=====  
Thursday, January 27, 2005 13:49:50  
-----
```

```
ChkIndx run on Thursday, January 27, 2005 at 01:49:49 PM
```

```
Indexes Look OK.
```

```
ChkVol run on Thursday, January 27, 2005 at 01:49:49 PM
```

```
Index          : \EmailVault_Index_Archive\200411\000
```

```
Number of email messages In Index : 65
```

```
Number Non Email Msgs In Index   : 48
```

```
Number Documents In Index        : 113
```

```
Number of Messages in Volume     : 65
```

```
Number of Deleted Msgs in Volume : 0
```

```
IdxDocList Check Volume run on Thursday, January 27, 2005 at 01:49:49 PM
```

```
Index          : \EmailVault_Index_Archive\200411\000
```

```
Number Matching Lines           : 113
```

```
Number Email Messages           : 65
```

```
Number Volume Messages          : 65
```

```
Number Non Email Msgs           : 48
```

```
Number Documents                 : 113  
=====
```

```
Thursday, January 27, 2005 14:56:28  
-----
```

Status	Volume	Message Id	Filename
OK	20050127133152	42cc481f7d49662e07a48c45	42cc481f7d49662e07a48c45.access
OK	20050127133152	42d6d6782fde02e65272e9d2	42d6d6782fde02e65272e9d2.access
OK	20050127133152	42d914764a7db96d9cd0ca74	42d914764a7db96d9cd0ca74.access

3. Open the Tools menu and then select Remove ID Check. The Enter Message ID dialog box appears.

Figure 62. Enter Message ID Dialog Box



4. Enter the message identifier and then click OK.

ExMailStatus

The *ExMailStatus.exe* utility generates a log file that summarizes the current state of the EmailXtender server. *ExMailStatus.exe* logs all or some of the following data:

- EmailXtender server information
- Status of the EmailXtender disk, services, volumes, and indexes
- List of running processes on the server
- Contents of the message queues
- List of non-processed messages
- SQL Server database information
- Status of the EmailXtender state file
- Top 20 error events from the event, application, and system logs

ExMailStatus.exe is controlled using command line options. You can use the Windows Task Scheduler to generate a log file using this utility at regular intervals, such as every 3 hours.

ExMailStatus Options

You control the *ExMailStatus.exe* utility using command line options, as shown in the following example:

```
D:\ExMailStatus.exe -a user@example.com -top 20 -age 30
```

The following table summarizes the command line options for the *ExMailStatus.exe* utility.

Table 7. Command Line Options for *ExMailStatus.exe*

Option	Specifies
-a <i>address[;address] . . .</i>	The one or more email addresses to which the status log should be sent. Multiple addresses should be separated with semi-colons.
-f <i>filename</i> -f [<i>path</i>] unique [<i>.ext</i>]	The status log should be written to a file. <ul style="list-style-type: none"> • If a file is specified, the log will be created in a file with that name in the same directory as the <i>ExMailStatus.exe</i> file. • If the unique keyword is used, the log file will be created with the name <i>ExMailStatusnnnnn</i>, where <i>nnnnn</i> is a random number. If the path portion of the name is specified, the file is placed in that directory. If the <i>ext</i> portion of the name is specified, the file will have that file extension. For example, specifying -f c:\temp\unique.dat would cause the file <i>ExMailStatus98976.dat</i> to be created in the <i>c:\temp</i> directory.
-i <i>number</i>	The number of times the status should be written, typically to a file. The amount of time between these iterations is specified using the -w option.
-w <i>number</i>	The amount of seconds to wait between iterations of generating the status log.
-s	That the status log be written to the screen.
-v	List the EmailXtender file versions in the status log.
-top <i>number</i>	The number of top error events to list in the status log.
-age <i>number</i>	The number of days to keep status log files that are named <i>ExMailStatus*.*</i> , where <i>*</i> is one or more alphanumeric characters. If you choose to name the log file differently, this option will have no effect.
-reg	List registry settings in the status log.

ExMailStatus Examples

The following are a series of sample *ExMailStatus.exe* command lines.

- To email the EmailXtender server status to *sfrank@company.com* and *alice@ibm.com*, enter the following:
`ExMailStatus -a sfrank@company.com;alice@ibm.com`
- To email the EmailXtender server status to a file 10 times at 60 second intervals, enter the following:
`ExMailStatus -i 10 -w 60 -f unique.txt`
- To create a file named *EXmslog.txt* that contains 10 iterations of the status log, 60 seconds apart, enter the following:
`ExMailStatus -i 10 -w 60 -f EXmslog.txt -top 10`
- To create a file named *EXmslog.txt* that contains the status log and deletes previous status files that are older than 30 days, enter the following:
`ExMailStatus -f EXmslog.txt -age 30`

ExBadDirProcessor

The *ExBadDirProcessor.exe* utility moves messages that do not have an assigned volume from the EmailXtender *BadDir* directory to the *Drop* directory for reprocessing. This utility can be run interactively or non-interactively. For more information, see the following sections:

- ["Non-Interactive" on page 172](#)
- ["Interactive" on page 172](#)
- ["Processing Messages Associated with Volumes" on page 172](#)

Non-Interactive

If you run *ExBadDirProcessor.exe* with the **-ni** option, it does not prompt you for any input. This form is best used when calling the utility from a script. The following is an example of the utility running with the **-ni** option.

```
> ExBadDirProcessor -ni
EmailXtender Bad Dir processor, Version 4.60
Copyright LEGATO Software
```

MsgId	File Time	In DB?	Volume
0000000080142E578C77F83E	04/25/2003 15:13:13:453	Yes	20030112160137
00000000805A2439E7A8CFA9	04/25/2003 15:14:29:375	No	
3B894A01803A8AC0D7B10510	04/25/2003 15:13:53:937	No	
3D0D97B7800B9FED14BE6239	04/25/2003 22:02:29:953	No	

Interactive

If you run *ExBadDirProcessor.exe* without the **-ni** option, it runs in interactive mode, and you are asked to confirm that each bad message should be moved. The following is an example of the utility running interactively.

```
> ExBadDirProcessor
EmailXtender Bad Dir processor, Version 4.50
Copyright LEGATO Software
Bad messages directory:  F:\Program Files\OTG\EmailXtender\MsgCenter\BadDir
Drop directory           :  C:\Inetpub\mailroot\Drop
Continue? (Y/N)
```

6

Processing Messages Associated with Volumes

Running *ExBadDirProcessor.exe* using the **-nv** option causes messages to be reprocessed even if they have volumes associated with them. This option should *only* be used when a volume is lost; it should never be used at any other time.

To use this option, move all the orphaned messages from the Message Center directory to the Message Center *\BadDir* directory, and then run this utility with the **-nv** option.

ExSuspend

The *ExSuspend.exe* utility suspends and then resumes the EmailXtender services in the proper order. This causes all needed files to be closed without requiring that the EmailXtender server be shut down, and allows operations that only require the ability to read data, such as searches, to proceed while a backup is in process.

Typically, you call *ExSuspend.exe* from a script as part of the regular backup of an EmailXtender system, although you can also run the utility interactively from the command line. The way you use the utility determines what command line options are available.

ExSuspend.exe is available in the *Utilities* directory of the EmailXtender installation CD. You should copy the utility to a directory on the EmailXtender server before you run it either interactively or from a script.

When you use *ExSuspend.exe* to suspend an EmailXtender server, the following occurs:

1. The *exEmail.exe* service stops requesting that mailbox connectors pull messages.
2. The *ExExchangeMB(ExExch~1)* processes (for Exchange) exit from the task list.
3. The *ExEmail.exe* service stops processing the unpacker queues, such as *ex10_incoming_queue_0* and *ex10_incoming_queue_1*.
4. The *ExEmail.exe* service stops processing messages in the *ex30_rule_queue* queue.
5. The *ExArchive.exe* service stops processing the *ex40_emailvault* queue.
6. The *ExArchive.exe* service finishes recording the current volume and suspends performing any further recording.
7. The *ExIndex.exe* service stops processing the *ex50_index_queue* queue.
8. The *ExIndex.exe* service finishes the current document it is indexing, stops the current index run, and suspends any further index runs.
9. If a volume is being re-indexed, the *ExIndex.exe* service finishes re-indexing the current volume and suspends any further volume re-indexing.

The *ExQuery.exe* service continues to operate and allow search requests to take place. Unless suspended, auditing also continues to monitor query requests and update the MSMQ queues and the database.

For more information, see the following sections:

- ["ExSuspend Options" on page 174](#)
- ["Interactive" on page 175](#)
- ["Non-interactive" on page 176](#)

ExSuspend Options

You control the *ExSuspend.exe* utility using command line options, as shown in the following example:

```
Exsuspend -suspend -timeout 1200
```

The following table summarizes the command line options for the *ExSuspend.exe* utility.

Table 8. ExSuspend Options

Option	Description
-suspend	Suspends processing of EmailXtender services, except for the Query service and the Audit service.
-resume	Resumes processing of EmailXtender services, except for the Query service and the Audit service.
-block	Waits for the suspend or resume operation to complete.
-timeout <i>seconds</i>	The number of seconds to wait for a resume or suspend operation to complete. When you specify the -timeout option, you can also use the -block option. If you do not specify the -block option after using the -timeout option, the -block option is set by default.
-auditsvc	Suspends or resumes the Audit service only.
-noshowtime	Prevents the elapsed time from appearing. Typically, this is used when <i>ExSuspend.exe</i> is used within a script. If you use this option, you must also enter the -timeout option.

Note: You can also check the status of *ExSuspend.exe* by running the executable at the command line with *no* options.

Interactive

You can run *ExSuspend.exe* interactively from the command line.

1. Run the *ExSuspend.exe* executable and use the **-suspend** and **-timeout** options, as shown in the following example, which suspends the services and terminates the utility after 1,200 seconds (20 minutes) if it is not successful.

```
Exsuspend -suspend -timeout 1200
```

While the services are suspended, the timeout seconds are counted as they elapse (unless you use the **-noshowtime** option), and the Current Server State is listed as "Suspended", as shown in the following example:

```
C:\exsuspend>exsuspend -suspend -timeout 1200
EmailXtender Suspend Operation, Version 1.2
Copyright Legato Systems Inc.
Warning: timeout used without block -- block assumed
Elapsed time: 56 sec
Current Server State: Suspended
C:\exsuspend>
```

2. If you are using the EmailXtender Audit Utility, run the *ExSuspend.exe* executable and use the **-suspend**, **-auditsvc**, and **-timeout** options, as shown in the following example, to suspend the Audit Utility service after you have suspended the other services. You suspend the Audit service last so that you have a complete audit record of all EmailXtender activity.

```
Exsuspend -suspend -auditsvc -timeout 1200
```

While the Audit Utility service is suspended, the timeout seconds are counted as they elapse (unless you use the **-noshowtime** option), and the Current Audit State is listed as "Suspended", as shown in the following example:

```
C:\exsuspend>exsuspend -suspend -auditsvc -timeout 1200
EmailXtender Suspend Operation, Version 1.2
Copyright Legato Systems Inc.
Warning: timeout used without block -- block assumed
Elapsed time: 56 sec
Current Audit State: Suspended
C:\exsuspend>
```

3. After the server backup is complete, use *ExSuspend.exe* to resume the Audit Utility service, as shown in the following example:

```
Exsuspend -auditsvc -resume -timeout 1200
```

4. Use *ExSuspend.exe* to resume the remaining EmailXtender services, as shown in the following example:

```
Exsuspend -resume -timeout 1200
```

Once the services are resumed, the Current Server State and Current Audit State are listed as "Running".

5. When *ExSuspend.exe* exits, one of the following values is returned:

Table 9. ExSuspend.exe Return Values

Return Value	Meaning
0	The operation was successful.
1	The operation failed.
2	The timeout value was exceeded before the requested operation could be completed.

Non-interactive

You can call *ExSuspend.exe* from a script as part of the regular backup process for an EmailXtender system. When using *ExSuspend* from a script, you should use the same sequence of commands that you use when you run the utility from the command line (suspend the EmailXtender services and then the Audit Utility service; after the backup is complete, resume the Audit Utility service and then the remaining EmailXtender services). For more information, see ["Interactive" on page 175](#). In addition, however, you should set the **-noshowtime** option so that the elapsed time does not appear in the output.

6

Managexvlt

You can use the Managexvlt utility to troubleshoot recording problems and to reconcile *.xvlt* pointer files with messages stored in the EmailXtender *MsgCenter* directory.

Managexvlt Options

You control the Managexvlt utility using command line options, as shown in the following example:

```
ManageXvlt -l -d
"D:\Programs\OTG\EmailXtender\EmailVault_Index_Archive\StorageDir\200310\20031014214401\3E750C2A2F2516E97A19CD18.xvlt"D:
\ExMailStatus.exe -a user@example.com -top 20 -age 30
```

The following table summarizes the command line options for the Managexvlt utility.

Table 10. Command Line Options for Managexvlt

Option	Description
-d <i>path</i>	The <i>.xvlt</i> file or the directory that contains the <i>.xvlt</i> files you want to process. An example of the directory is <i>D:\Program Files\OTG\EmailXtender\EmailVault_Index_Archive\StorageDir\yyyymm</i> . If the file or directory name contains spaces, enclose the name in quotation marks (").
-l	List all <i>.xvlt</i> contents (rather than listing only problems)
-v	Verify the existence of the associated file in the <i>MsgCenter</i> directory.
-s	Verify the message file size for each <i>.xvlt</i> file.
-adjsize	Update the <i>.xvlt</i> file with the actual message file size.
-b	Abbreviate filenames by not displaying the full path to the <i>MsgCenter</i> directory.

Managexvlt Examples

The following are a series of sample Managexvlt command lines.

- To display the contents of *3E750C2A2F2516E97A19CD18.xvlt*, enter the following:

```
ManageXvlt -l -d "D:\Program
Files\OTG\EmailXtender\EmailVault_Index_Archive\StorageDir\200310\20031014214401\3E750C2A2F2516E97A19CD18.xvlt"
```

- To verify the existence of the *MsgCenter* file associated with each *.xvlt* file in volume *20031014214401*, enter the following:

```
ManageXvlt -v -d "D:\Program
Files\OTG\EmailXtender\EmailVault_Index_Archive\StorageD
ir\200310\20031014214401"
```

- To verify the existence of the *MsgCenter* file associated with each *.xvlt* file and the file size for each entry in volume *20031014214401*, enter the following:

```
ManageXvlt -v -s -d "D:\Program
Files\OTG\EmailXtender\EmailVault_Index_Archive\StorageD
ir\200310\20031014214401"
```

UnpackContainer

The *UnpackContainer* utility extracts all messages from a container. Each message is extracted into a unique folder along with the associated access file and any attachments.

UnpackContainer Options

You control the *UnpackContainer* utility using command line options, as shown in the following example:

```
UnPackContainer -s D:\Containers\20030422101517.emx -d
F:\UnpackDir
```

The following table summarizes the command line options for the *UnpackContainer* utility.

Table 11. Command Line Options for UnpackContainer

Option	Description
-s <i>container_path</i>	The complete path to the container file.
-d <i>destination_path</i>	The path to the folder where you want the messages unpacked. Within the folder you specify, one subfolder is created for each message that is unpacked. Each of the subfolders contains the message and any related files.
-c	The utility should continue if an error is encountered. If you don't use this option, the utility stops if it encounters an error.

Table 11. Command Line Options for UnpackContainer

Option	Description
-u	The utility should unpack individual messages.
-e	The encryption key, which is required to access encrypted volumes.
-md5	The MD5 value for a message.
-dm	Marks a message as deleted. The MD5 value for the message must be specified.
-rm	Marks a message as restored. The MD5 value for the message must be specified. This option reverses the effect of the -dm option.
-blob	Only BLOB messages should be extracted.

UnpackContainer Examples

The following are a series of sample UnpackContainer command lines.

- To extract files from the *20030422101517.emx* container file and place them in the *F:\UnpackDir* directory, enter the following:

```
UnPackContainer -s D:\Containers\20030422101517.emx -d F:\UnpackDir
```
- To extract files that match the MD5 value 3E9AC23F907D26629C015F54 from the *20030422101517.emx* container file and place them in the *F:\UnpackDir* directory, enter the following:

```
UnPackContainer -s D:\Containers\20030422101517.emx -d F:\UnpackDir -md5 3E9AC23F907D26629C015F54
```
- To mark the message with the MD5 identifier 3E9AC23F907D26629C015F54 as deleted without removing the message from the container file, enter the following:

```
UnPackContainer -s D:\Containers\20030422101517.emx -dm 3E9AC23F907D26629C015F54
```
- To mark the message with the MD5 identifier 3E9AC23F907D26629C015F54 as *not* deleted without removing the message from the container file, enter the following (which reverses the effect of using the **-dm** option):

```
UnPackContainer -s D:\Containers\20030422101517.emx -rm
3E9AC23F907D26629C015F54
```

ReadMSMQ

The ReadMSMQ utility allows you to delete a message from a message queue, move a message from one queue to another, or copy the message from the queue to a file.

ReadMSMQ Options

You control the ReadMSMQ utility using command line options, as shown in the following example:

```
ReadMSMQ -s: queue1 -d: queue2 -rm
```

The following table summarizes the command line options for the ReadMSMQ utility.

Table 12. Command Line Options for ReadMSMQ

Option	Description
-s: <i>source_queue</i>	Queue from which messages are read.
-o: <i>output_file</i>	File into which messages are written.
-i: <i>source_file</i>	File from which messages are read before placing them in the <i>output_queue</i> queue.
-d: <i>output_queue</i>	Queue to which messages are sent.
-rm	Removes all messages from the source queue.
-p: <i>Number</i>	The number of messages processed. You can enter a value from 1 to 99999. If you do not enter a value, the utility uses the default value of 50. For every set number of messages processed, a period appears. For example, if 100 messages are processed and you enter 50 for this option, two periods appear.
-f: <i>Number</i>	Removes the specified number of messages from the top of queue. If you do not enter a value, the utility uses the default value of 1.

ReadMSMQ Example

To move all messages from the source queue, *queue1*, to a destination queue, *queue2*, enter the following:

```
ReadMSMQ -s: queue1 -d: queue2 -rm
```


Chapter 7: Troubleshooting

This chapter contains information on resolving common problems you may encounter with the EmailXtender system.

To minimize system difficulties, you should regularly perform the steps discussed in ["Chapter 6: Maintenance" on page 137](#).

For more information on troubleshooting, see the following sections:

- ["Troubleshooting Message Collection" on page 183](#)
- ["Troubleshooting Volumes" on page 185](#)
- ["Troubleshooting Shortcuts" on page 187](#)
- ["Troubleshooting Searches" on page 189](#)
- ["Troubleshooting the EmailXtender Server" on page 190](#)
- ["Miscellaneous Troubleshooting and Errors" on page 191](#)
- ["Getting Help" on page 191](#)

Troubleshooting Message Collection

You may encounter the following problems with collecting messages in EmailXtender.

- **Unprocessed messages (in `\BadDir` directories or the drop directory)**
When EmailXtender encounters a problem with a message, it moves the message into one of the `\BadDir` directories.
 - If there is a problem processing a message, the message is placed in the `\Program Files\OTG\EmailXtender\EmailVault\BadDir` directory.
 - If there is a problem archiving the message, the message is placed in the `\Program Files\OTG\EmailXtender\EmailVault_Cabinet_Folder\BadDir` directory.

- If there is a problem unpacking the message for indexing or if there is a problem archiving the message through an EmailXtract task, the message is placed in the `\Program Files\OTG\EmailXtender\MsgCenter\BadDir` directory.
- If there is a problem indexing the message, the message is placed in the `\Program Files\OTG\EmailXtender\EmailVault\Cabinet\BadDir` directory.

Messages can also be left unprocessed in the EmailXtender EmailVault drop directory, `\Program Files\OTG\EmailXtender\EmailVault\DropDir`, when message queues become corrupt or when the queues are manually purged.

If you find unprocessed messages in one of the `\BadDir` directories or the drop directory, move the messages to the `\MsgCenter\BadDir` directory and then use the `ExBadDirProcessor.exe` utility to reprocess the messages. For more information, see "[ExBadDirProcessor](#)" on page 171.



Important: These messages may have already been entered into the Microsoft SQL Server database. Processing them again without using the `ExBadDirProcessor.exe` utility may result in the deletion of the message when it is considered a duplicate message.

- **Blocked message queues/large numbers of messages in the message queues**

When there are a large number of messages on the mail server and a large number of messages in the message queues, it is possible the system has a problem that is preventing messages from being processed. For more information on resolving these problems, see "[Many Messages on the Mail Server and in the Message Queues](#)" on page 144.

If any of the queues have a large number of messages in proportion to the other `ex_10_incoming_queue_n` queues, then you may have a queue that is blocked by a message that cannot be processed.

To correct this problem, use the `readmsmq.exe` tool to locate, obtain a copy of, and remove the lead message in the queue. Once this message has been removed, the queue should begin processing and the saved message can be sent to LEGATO Technical Support for analysis.

If you are using EmailXaminer, messages may accumulate in the `ex30_rule_queue` if there are problems that prevent messages from being sent to EmailXaminer.

- **EmailXtender is not archiving mail**

There are a number of steps you can take to troubleshoot EmailXtender in the event that no mail is being archived.

1. Verify that there is at least one cabinet and one folder.
2. Verify that you did not disable mail collection on the General tab of the Folder Properties dialog box for each folder. For more information, see "[Configuring a Folder](#)" on page 85.
3. If you have configured rules, verify that none of the rules exclude all mail from collection.
4. Verify that there is a mailbox connector and that the mailbox connector is configured in the EmailXtender Administrator. For more information, see "[The Email Connection Mailboxes Tab](#)" on page 69.
5. Check whether there are a large number of messages on the mail server. When there is a high volume of messages on the mail server and all of the message queues are empty, there may be a problem at the mail server or at the EmailXtender server that is preventing EmailXtender from establishing a connection to the mail server. For more information, see "[Many Messages on the Mail Server and Few or None in the Message Queues](#)" on page 145.
6. Verify that the policy engine (*ExAddrRule.exe*) has initialized. EmailXtender cannot pull messages from the mail server until the policy engine has initialized. For more information, see "[Check that the Policy Engine \(ExAddrRule.exe\) Initialized](#)" on page 147.

If the policy engine has not initialized, verify that the *EmailXtender.dlc* file exists. This file must exist for the policy engine to initialize. If this file does not exist, the Address Rule service creates it. However, depending on how many distribution lists you have in the mail system, it may take a long time -- possibly several hours for a large number of distribution lists.

Note: EmailXtender cannot create the *EmailXtender.dlc* file unless there is at least one mailbox connector for each mail server for which you installed EmailXtender support.

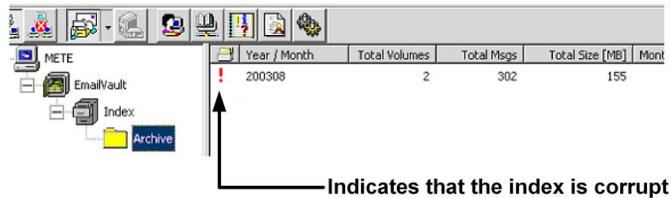
Troubleshooting Volumes

You may encounter the following problems with volumes when maintaining EmailXtender.

- **Corrupt volume indexes**

When EmailXtender detects a corrupted index, a message is written to the Event Log and the EmailXtender Administrator identifies the corrupt index using a red exclamation point (!), as shown in [Figure 63 on page 186](#).

Figure 63. Corrupt Index Identifier



You may also discover that an index is corrupt when you attempt to search the index and EmailXtender notifies you that it is corrupt.

When an index is corrupt, you should re-index the volume to which the index belongs. You can re-index only the corrupt index, or all the data for a particular month. For more information, see ["Re-indexing Data" on page 125](#).

Note: Re-indexing data can be time-consuming and should only be done when necessary.

If you re-index the data and it does not result in a valid index, there is probably a problem with one of the messages in the index. Check the event log for an EmailXtender error message about the corrupt index. (To open the EmailXtender Event Information dialog box, choose Events from the View menu in the Administrator, or click the Events toolbar icon.)

If you cannot correct the problem, remove the problematic messages from the archive and then index the archive again to create a valid index.

- **Lost and Found volumes**

To view all Lost and Found volumes, set the Message Center List view of the Administrator to Volume mode. (Open the View menu and then select Message Center>View by Volume, or click the arrow on the Message Center View toolbar icon and select View by Volume.) Then, in the Tree view, select the Server node.

Lost and Found volumes are generated when you dispose of monthly data for a set of volumes (you can no longer access the messages in the volumes, but they are not physically deleted), when you create volumes on one

EmailXtender server and then copy them to another EmailXtender server, and sometimes when you update EmailXtender from an earlier release to the current release.

To add Lost and Found volumes back into the EmailXtender system so you can search for and view messages in the volumes, you must restore the volumes. For instructions, see ["Restoring a Volume" on page 120](#).

- **Too many open volumes**

A large number of open volumes may indicate that the Archive service (*ExArchive.exe*) is having problems closing volumes. This may indicate that something is wrong with the storage drive (which is the extended drive, if you are using DiskXtender), or that the drive may be full. For more information, see ["Check for Large Numbers of Open Volumes" on page 147](#).

Troubleshooting Shortcuts

If you are using EmailXtract to create shortcuts of messages on the mail server, you may encounter the following problems:

- **Shortcuts are not created when you run the Shortcut task**

You should re-run the Shortcut task through EmailXtract and set the logging level on the Logging tab to Message Detail. The log file should give an indication of whether the messages are being shortcut and what actions EmailXtract is taking.

- **Client computers are having trouble downloading the Public Organizational Forms necessary to resolve shortcuts**

You should verify that that the Public Organizational Forms Library exists, that you configured the correct permissions for it, that replication of the Public Organizational Forms Library to additional Microsoft Exchange servers occurred properly, and that there are no communication issues between the EmailXtender server, the Microsoft Exchange server, and the client computer. You should also verify that the form is visible from client computers. For more information on configuring permissions and replication, refer to the *Installing EmailXtender* chapter of the *EmailXtender Installation Guide*.

- **The body of a message still appears in the Preview Pane, even though the message has been shortcut**

You should verify that the Public Organizational Forms Library and the EmailXtender shortcut forms are visible from the client computer. In addition, you should verify that the client computer has correct

permissions for the Public Organizational Forms Library and that the EmailXtender shortcut forms have been correctly downloaded from the Microsoft Exchange server.

- **You can see the shortcut icon through Microsoft Outlook, but you cannot open the shortcut message**

Check the EmailXtender server for errors. In some cases, this problem may be caused by permissions issues between the EmailXtender server, the Microsoft Exchange server, and the client computer. You should open Microsoft Internet Information Services (IIS) on the EmailXtender server and check the EXShortcut folder to verify that the Exchange server and the client computer can access the folder. You should also open the EmailXtender custom contact in the Exchange Address Book to verify that the EmailXtender server appears under the contact's custom properties.

If you have shortcut messages on multiple Exchange servers in different domains, open the Address Book in Outlook and verify that you can view the EmailXtender custom contact. If you have mailboxes in different domains and you can view the custom contact but you are still having trouble opening a shortcut message, verify that you can open the mailboxes from the EmailXtender server.

- **You are having difficulty seeing the shortcut icon for shortcuts you are viewing through Microsoft Outlook Web Access (OWA)**

You must install EmailXtender OWA shortcut support and then upgrade each shortcut by re-running the Shortcut task with the OWA Enabled option selected. For instructions on installing OWA shortcut support, refer to the *Installing EmailXtender* chapter of the *EmailXtender Installation Guide*. For instructions on the OWA Enabled option on the Shortcut tab of the Shortcut task, see "[Shortcut](#)" on page 341.

If you have already installed OWA shortcut support and you still cannot see the shortcut icon through OWA, you may be having issues with shortcut creation. You should re-run the Shortcut task through EmailXtract and set the logging level on the Logging tab to Message Detail. The log file should give an indication of whether the messages are being shortcut and what actions EmailXtract is taking.

- **Miscellaneous OWA difficulties**

Review the previous shortcut troubleshooting recommendations, since most of the same principles and techniques (insufficient permissions, event logs, etc.) apply. You should also check the installation log that was generated when you installed OWA shortcut support; most OWA shortcut issues result from errors during the install.

Troubleshooting Searches

You may encounter the following problems when performing searches in EmailXtender.

- **Difficulty searching for messages, opening messages, or using the Copy to Folder option (to export messages)**

If you are having difficulty finding, opening, or exporting messages using either the EmailXtender Search Plug-in or the Web Search Client, verify that the *ExQuery.exe* and the *ExArchive.exe* services are running. To open the EmailXtender Services Information dialog box, choose Service Info from the View menu in the Administrator, or click the Service Info toolbar icon.

If the *ExQuery.exe* and the *ExArchive.exe* services are running, review the event log for any EmailXtender errors associated with those services. To open the EmailXtender Event Information dialog box, choose Events from the View menu in the Administrator, or click the Events toolbar icon.

- **Supervisors are not finding expected messages sent to the users in their supervisor group**

If supervisors (designated in a supervisor group) are searching for messages belonging to the users in their group but are unable to find them, EmailXtender may have received the message *after* the group was created. To allow supervisors access to messages received before you created the supervisor group, you need to re-index volumes containing the messages. For more information, see ["Re-indexing Data" on page 125](#).

Note: Re-indexing data can be time-consuming and should only be done when necessary.

Note: If you are using EmailXtender Archive Edition, supervisor searches are not available. You must upgrade to a full EmailXtender license to access this feature.

- **Searches for distribution groups are not returning hits for the individual members of the group, or vice versa**

If the *EmailXtender.dlc* file is not up-to-date, then EmailXtender may not accurately associate users with the distribution lists to which they belong. The *.xrc* files are the EmailXtender Rules Cache files. If these files are not up-to-date, then collection and exclusion rules are applied but do not reflect any changes made to distribution group membership for users indicated in specific address rules. For more information, see ["Check Dates on the .dlc and .xrc Files" on page 152](#).

Troubleshooting the EmailXtender Server

If you find that you are starting to run out of disk space on the EmailXtender server, there are a number of steps you can take to resolve the problem.

1. Verify that EmailXtender is successfully archiving messages and that the messages are not being blocked in the message queues. For more information, see "[Check the Message Queues](#)" on page 141.
2. Check for any unprocessed messages in the various `\BadDir` directories. For more information, see "[Check for Unprocessed Messages in BadDir Directories](#)" on page 151. If you find unprocessed messages, move the messages to the `\MsgCenter\BadDir` directory and then use the `ExBadDirProcessor.exe` utility to reprocess the messages. For more information, see "[ExBadDirProcessor](#)" on page 171.
3. Verify that there are not a large number of files generated by either the unpacker or by open volumes in the Message Center directory, `Program Files\OTG\EmailXtender\MsgCenter\`. For more information, see "[Check for Excess Files in the Message Center Directory](#)" on page 150.
4. Consider backing up indexes for past months and removing them from the local hard drive. (Then, if a search needs access to these removed indexes, you can copy them back to the local drive.) Or, you can remove the indexes without backing them up and then re-index later, if necessary. For more information on removing indexes and then reindexing data, see "[Removing Monthly Indexes](#)" on page 126 and "[Re-indexing Data](#)" on page 125.
5. Consider saving room in the database and index directories by disposing of the data in those directories for a specific month. For more information, see "[Disposing of Monthly Data](#)" on page 127.

Note: Disposing of monthly data does not remove the actual message volumes, however. They are placed in Lost and Found storage, and can be restored if necessary. For more information on restoring Lost and Found volumes, see "[Restoring a Volume](#)" on page 120.

6. If you are writing `.emx` files to the local drive, consider changing the location to a drive with more space, or expand archive space by writing the `.emx` files out to other media, such as media supported through DiskXtender. DiskXtender supports a variety of media types, including EMC Centera devices, DVD-R, tape, and magneto-optical. For more information on using EmailXtender with DiskXtender, see "[Using DiskXtender](#)" on page 130.

Miscellaneous Troubleshooting and Errors

You may encounter the following miscellaneous problems and error messages while working with EmailXtender:

- **Error Message: Connecting to the EX Admin Service**

If an error message about connecting to the EX Admin service appears while you are starting the EmailXtender Administrator interface, another person on another computer may be configuring the EmailXtender server to which you are trying to connect.
- **Temporary Profile Error**

If the EmailXtender Exchange Manager service issues a Temporary Profile Error Message, it means that the EmailXtender server cannot access the mail server to collect mail.

Be sure that you have created at least one mailbox connector. For more information, see "[The Email Connection Mailboxes Tab](#)" on page 69.
- **Configuration changes are not appearing in the Administrator**

If you are using the Administrator interface to make changes to the Message Center architecture, rules, or other features in , and the changes do not appear, be sure that you have activated the changes (from the Options menu, choose Activate Changes).

Getting Help

The LEGATO web site provides contact information, software patches, technical documentation, and information about available technical support programs.

- Customers with an active support agreement have access to the LEGATO integrated product knowledge base. Help with software issues is also available through Technical Support.
- Customers *without* an active support agreement can contact Support Sales and Renewal to purchase annual software update subscriptions, or technical support services for per-update/per-incident assistance.

Note: LEGATO Software technical support and update subscription services apply only to (i) LEGATO price-listed software that LEGATO supplies to its customers; and (ii) customers that have entered into an authorized LEGATO technical support agreement.

Chapter 8: Controlling Searches

When you install EmailXtender on the EmailXtender server, the software publishes a website (located at <http://localhost/EmailXtender>, where *localhost* is the IP address or server name of the EmailXtender server). Administrators, supervisors, and users can access this website to search the EmailXtender archive at any time.

In addition, you can install the EmailXtender Search Plug-in on any computer with a Microsoft Outlook or Lotus Notes client installed. The Search Plug-in offers EmailXtender search functionality from within these programs.

EmailXtender automatically allows all users to search their own email for messages from a particular sender or to a particular recipient, as well as for messages that contain certain keywords in the Subject field, message body, or attachments. You do not need to perform additional configuration to allow user searches.

If you want to authorize certain users to search and view messages of other selected users, you can define supervisor groups. Typically, this is used to allow managers to review the messages of their subordinates.

You may also want to allow certain users to search for and view *all* messages in the EmailXtender mail archive. This type of search is called an administrator search. Administrators can also delete messages they retrieve through a search.

If you have configured the EmailXtender Message Center so that certain types of messages are filtered into specific cabinets or folders, you may want to allow a few select users to search for and view all messages in a particular cabinet or folder. This type of search is called a directed search, and used in combination with supervisor and administrator searches, it allows you to be very exact about who has permission to view certain messages.

Note: If you are using EmailXtender Archive Edition, you can only install the Search Plug-in on the EmailXtender server or use the Web Search Client for an administrator search. User searches, supervisor searches, and directed searches are prohibited. In addition, EmailXaminer and EmailXtender Audit functionality is not available. You must upgrade to a full EmailXtender license to have access to these features.

For more information on controlling searches, see the following sections:

- ["Supervisor Groups" on page 194](#)
- ["Administrator Searches" on page 201](#)
- ["Directed Searches" on page 202](#)

For more information on performing searches, refer to the *EmailXtender Search User's Guide*.

Supervisor Groups

You can define supervisor groups to authorize certain users to search and view messages of other selected users. Typically, this is used to allow managers to review the messages of their subordinates.

When users want to perform a supervisor search, they simply select the name of their supervisor group from the Search Type drop-down list in the Search window of either the Web Search Client or the Search Plug-in. For more information on performing searches, refer to the *EmailXtender Search User's Guide*.

You can then audit all supervisor searches and views using EmailXtender Audit. For more information on EmailXtender Audit, see ["EmailXtender Audit" on page 205](#).

Note: Audit cannot produce reports that include searches performed before you install EmailXtender Audit. If you intend to audit supervisor searches, you should install EmailXtender Audit as soon as you configure supervisor groups.

Note: If you are using EmailXtender Archive Edition, supervisor searches are not allowed. You must upgrade to a full EmailXtender license to access this feature.

For more information about working with supervisor groups, see the following sections:

- ["Creating a Supervisor Group" on page 195](#)
- ["Editing a Supervisor Group" on page 198](#)

- ["Deleting a Supervisor Group" on page 201](#)

Creating a Supervisor Group

When you create a supervisor group, you specify one or more supervisors and the users whose mail the supervisors can search for and view.

The supervisors can then monitor messages that EmailXtender receives from and for the users *after* you create the supervisor group; messages that EmailXtender received before you created the group are not available for supervisor review unless you re-index the volumes containing the messages. For more information on re-indexing volumes, which can be time-consuming if the volumes are large, see ["Re-indexing Data" on page 125](#). For this reason, you should ideally evaluate whether you want to configure supervisor groups *before* you begin journaling messages.

Note: If you are using both Microsoft Exchange and Lotus Domino, you must create separate supervisor groups for each environment, even if the email addresses you are adding to the group appear in both environments.

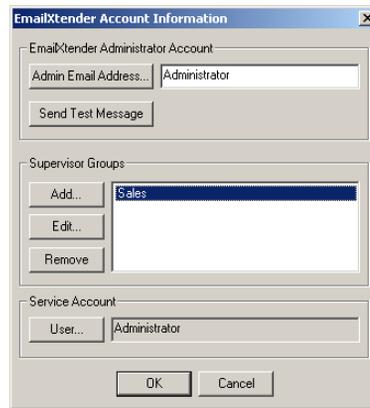
To create a supervisor group:

1. From the View menu in the Administrator, select Account Info, or click the Account Info toolbar icon.

Figure 64. Account Info Toolbar Icon



The EmailXtender Account Information dialog box appears.

Figure 65. EmailXtender Account Information Dialog Box

2. In the Supervisor Groups region, click Add. The Edit Group dialog box appears.

Figure 66. Edit Group Dialog Box

3. In the Group Name text box, enter a unique name for the supervisor group.
4. Choose the supervisors (users authorized to search and view the mailboxes of the users listed in the Users list box) for the group.
 - a. Click the Add button next to the Supervisors list box.

If you are using EmailXtender with in an Exchange environment, the Exchange Address Book appears.

If you are using EmailXtender in a Lotus Domino environment, the Notes Address Book appears.

- b. Select the address book containing the user you want to add as a supervisor.
 - c. Double-click the name of the user you want to add as a supervisor. You can select a distribution list or a specific user.
The selected user name appears in the right list box.
 - d. Click OK to save the changes and return to the Edit Group dialog box.
5. Choose the user mailboxes over which the selected supervisors have authority.
- a. Click the Add button next to the Users list box.
If you are using EmailXtender in an Exchange environment, the Exchange Address Book appears.
If you are using EmailXtender in a Lotus Domino environment, the Notes Address Book appears.
 - b. Select the address book containing the user you want to add.
 - c. Double-click the name of the user you want to add. You can select a distribution list or a specific user.
Note: If you select a distribution list, all messages sent to the distribution list are available for search, as well as messages sent to the individual members of the distribution list. The reverse is also true. If a user is a member of a distribution list, searching for messages to a user also returns messages sent to that user as part of the distribution list.
The selected user name appears in the right list box.
 - d. Click OK to save the changes and return to the Edit Group dialog box.
6. Click OK to save the changes and return to the Account Information dialog box.
7. Click OK again to close the EmailXtender Account Information dialog box.
8. Activate the changes (Options > Activate Changes).

Using either the Web Search or the Search Plug-in, the users you assigned as supervisors can begin monitoring the messages sent to and from the users you assigned to the group. For more information on searching for messages, refer to the *EmailXtender Search User's Guide*.



Important: If you want the supervisors to be able to search messages sent to or from the users before you created the supervisor group, you must re-index the volumes on which the messages are stored. For more information, see ["Re-indexing Data" on page 125](#).

Editing a Supervisor Group

If necessary, you can change the membership of a group to reflect corporation management and personnel changes. You can add and remove supervisors and users, as well as view the address book properties for a supervisor or user.

If you change the membership of the supervisors group, the new supervisors can monitor messages that EmailXtender receives from and for the users *after* you made the change; messages that EmailXtender received before you changed the group are not available for supervisor review unless you re-index the volumes containing the messages. Similarly, if you change the membership of the users group, the supervisors can monitor messages that EmailXtender receives from and for the new users *after* you change the user group. For more information on re-indexing volumes, which can be time-consuming if the volumes are large, see ["Re-indexing Data" on page 125](#).

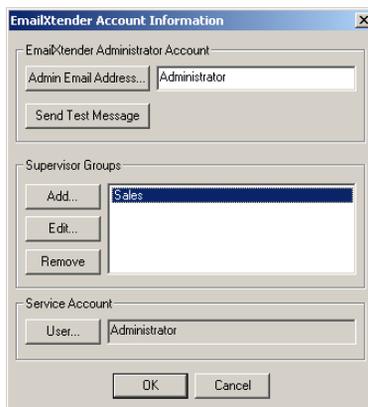
To edit a supervisor group:

1. From the View menu in the Administrator, select Account Info, or click the Account Info toolbar icon.

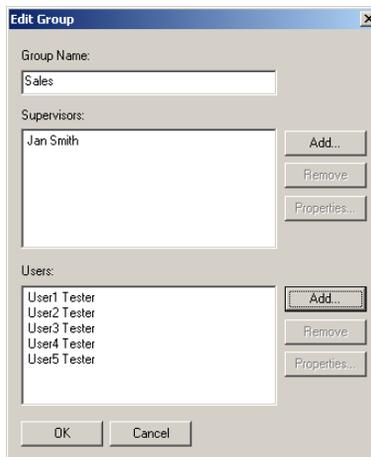
Figure 67. Account Info Toolbar Icon



The EmailXtender Account Information dialog box appears.

Figure 68. EmailXtender Account Information Dialog Box

- From the Supervisor Groups list, select the group that you want to change and click Edit. The Edit Group dialog box appears.

Figure 69. Edit Group Dialog Box

- Adjust the membership of the supervisors group as necessary. You have the following choices:
 - To add a supervisor, click the Add button to the right of the Supervisors list box. The Address Book appears. Select the user or distribution list you want to add as a supervisor and then click Add. Click OK to return to the Edit Group dialog box.

- To remove a supervisor, select the supervisor you want to remove from the Supervisors list and then click the Remove button to the right of the Supervisors list.
 - To view the properties of a supervisor account, select the supervisor from the Supervisors list and then click the Properties button to the right of the Supervisors list. When you finish, click OK to return to the Edit Group dialog box.
4. Adjust the membership of the users as necessary. You have the following choices:
 - To add a user, click the Add button to the right of the Users list box. The Address Book appears. Select the user or distribution list you want to add and then click Add. Click OK to return to the Edit Group dialog box.

Note: If you select a distribution list, all messages sent to the distribution list are available for search, as well as messages sent to the individual members of the distribution list. The reverse is also true. If a user is a member of a distribution list, searching for messages to a user also returns messages sent to that user as part of the distribution list.
 - To remove a user, select the user you want to remove from the Users list and then click the Remove button to the right of the Users list.
 - To view the properties of a user account, select the user from the Users list and then click the Properties button to the right of the Users list. When you finish, click OK to return to the Edit Group dialog box.
 5. Click OK to return to the EmailXtender Account Information dialog box.
 6. Click OK again to close the EmailXtender Account Information dialog box.
 7. Activate the changes (Options > Activate Changes).

Using either the Web Search or the Search Plug-in, the users you assigned as supervisors can begin monitoring the messages sent to and from the users you assigned to the group. For more information on searching for messages, refer to the *EmailXtender Search User's Guide*.



Important: If you want the supervisors to be able to search messages sent to or from the users before you changed the group, you must re-index the volumes on which the messages are stored. For more information, see ["Re-indexing Data" on page 125](#).

Deleting a Supervisor Group

If you no longer need a supervisor group, you can remove it.

To delete a supervisor group:

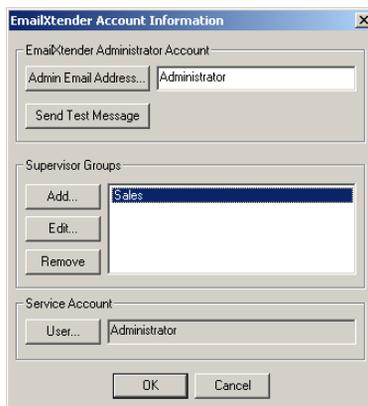
1. From the View menu in the Administrator, select Account Info, or click the Account Info toolbar icon.

Figure 70. Account Info Toolbar Icon



The EmailXtender Account Information dialog box appears.

Figure 71. EmailXtender Account Information Dialog Box



2. From the Supervisor Groups list, select the group you want to delete and then click Remove.
3. Click OK.
4. Activate the changes (Options > Activate Changes).

Administrator Searches

If you want to allow certain users to search for and view *all* messages in the EmailXtender mail archive, you can add them to the EmailXtender administrators group so that they can perform administrator searches. Administrators can also delete messages they retrieve through a search.

When users want to perform an administrator search, they simply select Admin from the Search Type drop-down list in the Search window of either the Web Search Client or the Search Plug-in. For more information on performing searches, refer to the *EmailXtender Search User's Guide*.

Administrator searches can be useful in reducing the cost of discovering email during litigation, audit, investigation, or any other discovery activity.

Permissions for administrator searches are based on Windows authentication. To allow users to perform administrator searches, you must add them to the exAdmin group on the EmailXtender server.

To give a user permission to perform an administrator search:

1. From the Start menu on the EmailXtender server, select Programs>Administrative Tools>Computer Management. The groups for the local computer are listed in the Groups list.
2. Double-click the exAdmin group, or select the exAdmin group in the list and choose Properties from the User menu. The Local Group Properties dialog box appears.
3. Click Add. The Add Users and Groups dialog box appears.
4. Select the appropriate domain from the drop-down list of domains.
5. From the Names list, select the user name of the user to whom you want to give permission to perform an administrator search.
6. Click Add. The user is added to the list at the bottom of the window.
7. When all users you want to add to the group are listed, click OK.

Directed Searches

If you have configured the EmailXtender Message Center so that certain types of messages are filtered into specific cabinets or folders, you may want to allow a few select administrators to use the Web Search or Search Plug-in to search for messages in a particular cabinet or folder. This type of search is called a directed search, and used in combination with supervisor and administrator searches, it allows you to be very exact about who has permission to view certain messages.

When users want to perform a directed search, they simply select the name of the cabinet or folder from the Search Type drop-down list in the Search window of either the Web Search Client or the Search Plug-in. For more information on performing searches, refer to the *EmailXtender Search User's Guide*.

You can audit all directed searches using EmailXtender Audit. For more information on EmailXtender Audit, see ["EmailXtender Audit" on page 205](#).

Note: Audit cannot produce reports that include searches performed before you install EmailXtender Audit. If you intend to audit directed searches, you should install EmailXtender Audit as soon as you configure directed searches.

Note: If you are using EmailXtender Archive Edition, directed searches are not allowed. You must upgrade to a full EmailXtender license to access this feature.

To set up directed searches:

1. In the Tree view of the Administrator, right-click the cabinet or folder for which you want to set directed search permissions and then select Properties from the shortcut menu. The Properties dialog box for the selected cabinet or folder appears.
2. Select the Directed Search Access Rights tab.

Figure 72. Cabinet Properties Dialog Box - Directed Search Access Rights Tab



3. Add the users whom you want to be able to search the selected cabinet or folder.
 - a. Right-click in the Folder Administrators list box and select Add from the shortcut menu. The Address Book appears.
 - b. Double-click the name of the user to whom you want to give directed search permissions. The user name appears in the right list box.
 - c. Click OK. The new user is listed in the Folder Administrators box of the Directed Search Access Rights tab.
4. Remove the users whom you want to prevent from searching the selected cabinet or folder. In the Folder Administrators list box, right-click the user you want to remove and then select Remove from the shortcut menu.
5. Click OK.
6. Activate the changes (Options > Activate Changes).

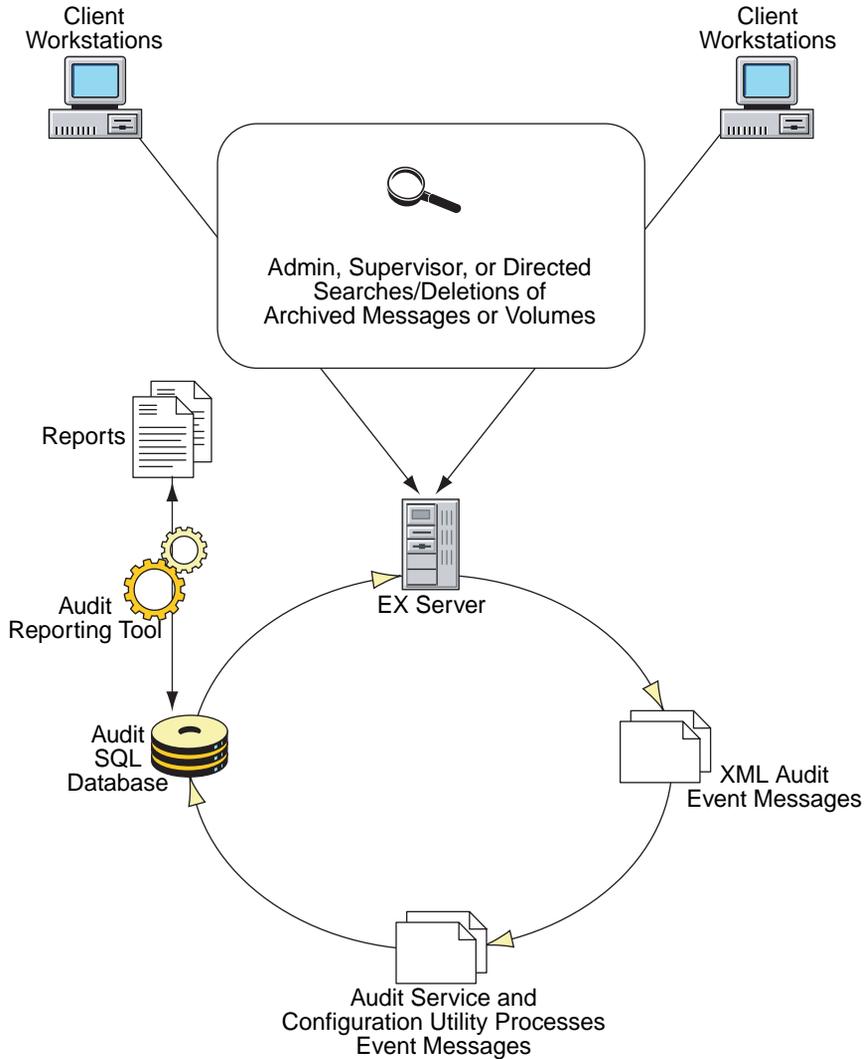
Chapter 9: EmailXtender Audit

EmailXtender Audit allows you to discourage unauthorized viewing and deletion of messages by tracking when administrators view and access messages sent to other users, and by tracking when messages and volumes have been deleted from the EmailXtender message store.

When you install EmailXtender Audit, information about each supervisor search, administrator search, or directed search is logged to the private message queue. (For more information on installing EmailXtender Audit, refer to the *EmailXtender Installation Guide*.) After a delay of approximately one minute, message information is transferred into the Microsoft SQL Server database created by EmailXtender Audit.

You can then generate a report to view the information in the database. There are five report templates included with EmailXtender Audit, but you can also create custom report templates through Crystal Reports to produce reports with additional information. The standard reports allow you to view information on deleted messages, deleted volumes, all users who viewed a certain message, all messages a certain user viewed, and all users who viewed the messages of a certain user.

Figure 73. Auditing Process



Note: EmailXtender Audit can only produce reports for searches and deletions that were performed after its installation. As a result, Audit cannot work retroactively to produce a complete report if searches and deletions took place before you installed Audit.

Once you generate a report, you can print the report or export it to a hard disk, an application, a Microsoft Exchange folder, or a Lotus Domino database. You can also send the report in an email to a specific address as an attachment.

If you want to generate and view audit reports from a remote computer, you can install the EmailXtender Audit Utility on the remote computer. For more information on installing the Audit Utility, refer to the *EmailXtender Installation Guide*.

Note: If you are using EmailXtender Archive Edition, the EmailXtender Audit Utility is not available. You must upgrade to a full EmailXtender license to access this feature.

For more information, see the following sections:

- ["Standard Reports" on page 207](#)
- ["Custom Reports" on page 219](#)
- ["Viewing, Printing, and Exporting Reports" on page 220](#)

Standard Reports

There are five report templates included with EmailXtender Audit:

- The **Deleted Messages report** allows you to view a list of messages that have been deleted from the EmailXtender archive by an administrator. For more information on running this report, see ["Deleted Messages Report" on page 208](#).
- The **Deleted Volumes report** allows you to view a list of volumes that have been deleted from the EmailXtender by an administrator. For more information on running this report, see ["Deleted Volumes Report" on page 210](#).
- The **Users Accessing a Message report** allows you to view a list of supervisors or administrators who have searched for or viewed a particular message. For more information on running this report, see ["Users Accessing a Message Report" on page 212](#).
- The **Messages Accessed by a User report** allows you to view a list of messages that were either viewed or returned as search hits for a specific supervisor or administrator. For more information on running this report, see ["Messages Accessed by a User Report" on page 214](#).
- The **User Accessed by Other Users report** allows you to view a list of supervisors or administrators who have searched for or viewed messages to or from a specific user. For more information on running this report, see ["User Accessed by Other Users Report" on page 216](#).

Deleted Messages Report

You can run a Deleted Messages audit report to view a list of messages that have been deleted from the EmailXtender archive by a supervisor or administrator.

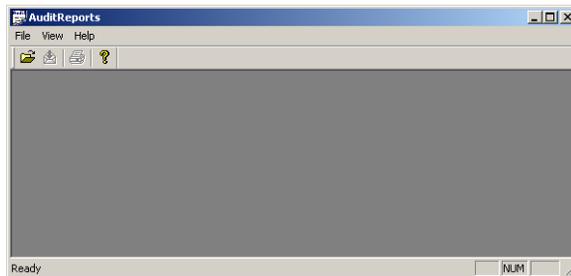
The report includes the following information:

- The date the message was deleted
- The administrator or supervisor who deleted the message
- Limited message header information (From, Received, and Subject)
- The name of the volume to which the message belonged

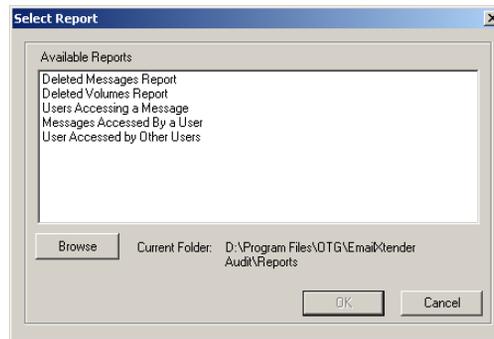
To create a Deleted Messages report:

1. Launch EmailXtender Audit. From the Windows Start menu, select Programs>LEGATO EmailXtender>Audit Reports. The Audit Administrator appears.

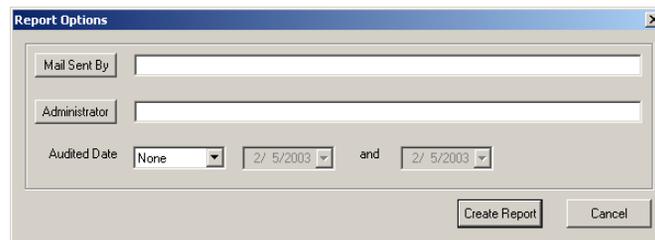
Figure 74. Audit Administrator Window



2. From the File menu, select Open, or click the Open toolbar icon. The Select Report dialog box appears.

Figure 75. Select Report Dialog Box

3. Select Deleted Messages Report and click OK. The Report Options dialog box appears.

Figure 76. Report Options Dialog Box for a Deleted Messages Report

4. Enter search criteria for the report. You have the following choices:
 - To search for deleted messages that were sent by a specific user, click Mail Sent By. The Outlook or Notes Address Book appears. Choose a name from the list and click OK.
 - To search for messages deleted by a specific administrator, click Administrator. The Outlook or Notes Address Book appears. Choose a name from the list and click OK.
 - To search for messages deleted within a specific timespan, select None, After, Before, or Between from the Audited Date drop-down list, and then select dates from the corresponding date drop-down lists as needed.
 - To search for all messages deleted by all administrators during any time period, leave all boxes empty.
5. Click Create Report. The report appears in the Report View window.

You can modify the way the report appears in the window, print the report, or export it to a number of formats and destinations. For more information, see "[Viewing, Printing, and Exporting Reports](#)" on page 220.

Deleted Volumes Report

You can run a Deleted Volumes audit report to view a list of volumes that have been deleted from EmailXtender by an administrator.

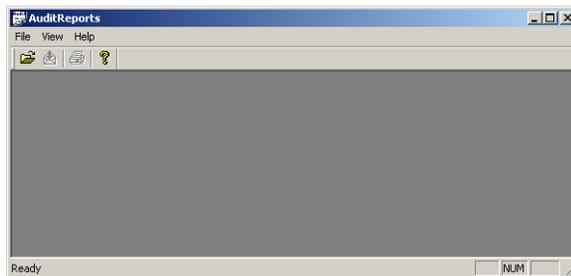
The report includes the following information:

- The date each volume was deleted
- The administrator who deleted the volume
- The volume start and end dates
- The recordset number
- The number of messages included in the volume
- The volume's folder path

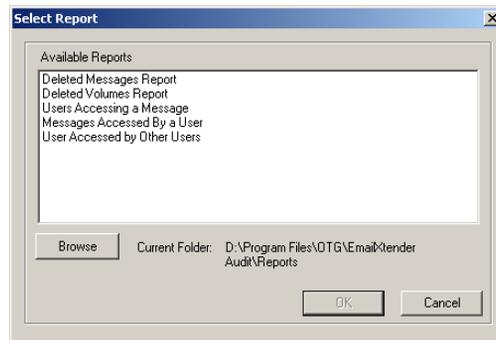
To create a Deleted Volumes report:

1. Launch EmailXtender Audit. From the Windows Start menu, select Programs>LEGATO EmailXtender>Audit Reports. The Audit Administrator appears.

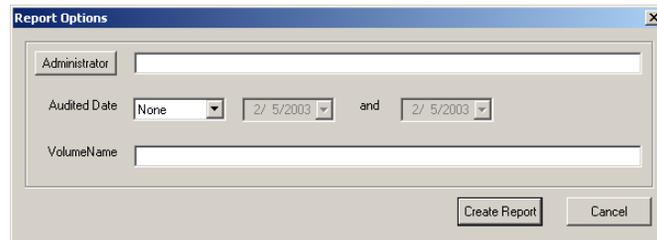
Figure 77. Audit Administrator Window



2. From the File menu, select Open, or click the Open toolbar icon. The Select Report dialog box appears.

Figure 78. Select Report Dialog Box

3. Select Deleted Volumes Report and click OK. The Report Options dialog box appears.

Figure 79. Report Options Dialog Box for a Deleted Volumes Report

4. Enter search criteria for the report. You have the following choices:
 - To search for volumes deleted by a specific administrator, click Administrator. The Outlook or Notes Address Book appears. Choose a name from the list and click OK.
 - To search for volumes deleted within a specific timespan, select None, After, Before, or Between from the Audited Date drop-down list, and then select dates from the corresponding date drop-down lists as needed.
 - To search for a specific volume, enter the name of the volume in the Volume Name text box.
 - To search for all volumes deleted by all administrators during any time period, leave all boxes empty.
5. Click Create Report. The report appears in the Report View window.

You can modify the way the report appears in the window, print the report, or export it to a number of formats and destinations. For more information, see "[Viewing, Printing, and Exporting Reports](#)" on page 220.

Users Accessing a Message Report

You can run a Users Accessing a Message audit report to view a list of supervisors or administrators who have searched for or viewed a specific message. To run the report, you must use the EmailXtender Search Plug-in to determine the ID number for the message.

The report includes the following information:

- The name of the person who originally sent the message
- The date the message was received at the mail server
- The subject line of the message
- The supervisors or administrators who have searched for or viewed the message
- The query used to search for the message

If the supervisor or administrator opened the message to view it (as opposed to simply receiving the message in a list of search results), a view icon appears next to the listing in the report.

Figure 80. View Icon

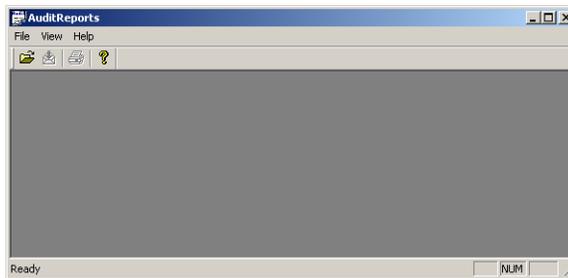


To create a Users Accessing a Message report:

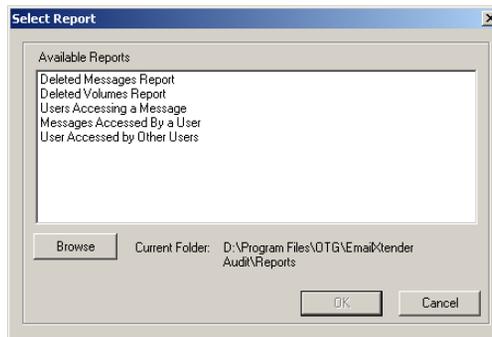
1. Using the EmailXtender Search Plug-in, determine the message ID for the message on which you want to report.
 - a. Perform a search for the message.
 - b. In the EmailXtender Search window, which contains the results, open the View menu and select Show Message IDs.
 - c. Copy down the message ID for the message on which you want to report.

For more information on using the Search Plug-in, refer to the *EmailXtender Search User's Guide*.

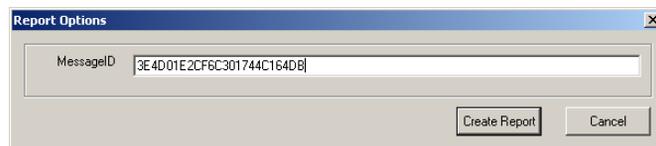
2. Launch EmailXtender Audit. From the Windows Start menu, select Programs>LEGATO EmailXtender>Audit Reports. The Audit Administrator appears.

Figure 81. Audit Administrator Window

3. From the File menu, select Open, or click the Open toolbar icon. The Select Report dialog box appears.

Figure 82. Select Report Dialog Box

4. Select Users Accessing a Message and click OK. The Report Options dialog box appears.

Figure 83. Report Options Dialog Box for a Users Accessing a Message Report

5. Enter the message ID, or, to generate a report of users accessing all messages, leave the text box blank.
6. Click Create Report. The report appears in the Report View window.

Figure 84. Sample Users Accessing a Message Report

AuditReports - [Messages Accessed by a User]

File View Window Help

100% 1 of 1

Messages Accessed By User_Name/Server_Name **LEGATO**

This report contains a list of messages accessed by a user. If the message was only searched, the column on the left is blank. If the message was viewed, it is marked with an icon in the left column.

Message ID	Message Originator	Received Date	Message Access Date	Query String
745B9HH7R46WKMO2XB9HH7R	Earth/Sun	01/12/2005 06:00:57AM	01/13/2005 03:16:31PM	*
789H8SS1T78QAZ89NFSKK73	j_smith/Miami	01/06/2005 11:37:10AM	01/13/2005 03:16:31PM	*
785J8CC3K45YUN34TH2PP23	Earth/Sun	01/07/2005 09:53:32AM	01/13/2005 03:16:31PM	*
785D5BB6Y79SNA75SW8MM90	w_farmer	01/07/2005 07:30:06AM	01/13/2005 03:16:31PM	*
785b4JJ3E23PLK6ZXX7V V54	r_cooper	01/04/2005 05:51:28AM	01/13/2005 03:16:31PM	*
785K1MM9K70DHJ25VN0AA12	d_baker	01/09/2005 04:03:20AM	01/13/2005 03:16:31PM	*
785K1MM9K70DHJ25VN0AA12	e_forrester/Seattle	01/07/2005 02:28:29AM	01/13/2005 03:16:31PM	*

Ready

You can modify the way the report appears in the window, print the report, or export it to a number of formats and destinations. For more information, see "[Viewing, Printing, and Exporting Reports](#)" on page 220.

Messages Accessed by a User Report

You can run a Messages Accessed by a User report to view a list of messages that were either viewed by or returned as search hits for a specific supervisor or administrator. This type of report can be especially helpful in monitoring the actions of specific administrators, to ensure that all searching and viewing is job-related.

The report includes the following information:

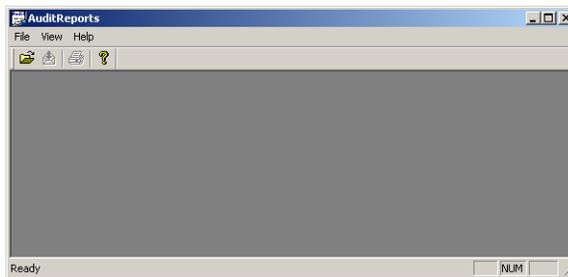
- The name of the person who originally sent the message
- The ID number for the message
- The date the message was received at the mail server
- The administrators who have searched for or viewed the message
- The date on which they searched for or viewed the message
- The query used to search for the message

If the supervisor or administrator opened the message to view it (as opposed to simply receiving the message in a list of search results), a view icon appears next to the listing in the report.

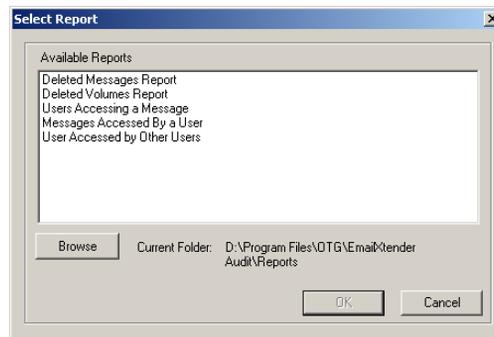
Figure 85. View Icon

To create a Messages Accessed by a User report:

1. Launch EmailXtender Audit. From the Windows Start menu, select Programs>LEGATO EmailXtender>Audit Reports. The Audit Administrator appears.

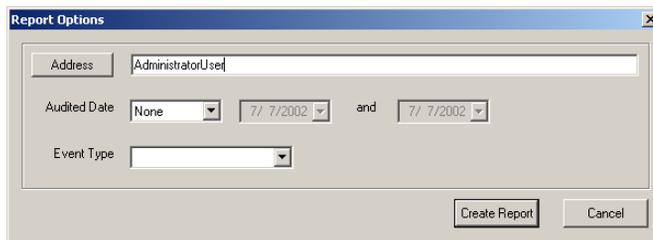
Figure 86. Audit Administrator Window

2. From the File menu, select Open, or click the Open toolbar icon. The Select Report dialog box appears.

Figure 87. Select Report Dialog Box

3. Select Messages Accessed By a User and click OK. The Report Options dialog box appears.

Figure 88. Report Options Dialog Box for a Messages Accessed by a User Report



4. Click Address to specify the administrator or supervisor whose searches you want to audit. The Outlook or Notes Address Book appears.
5. Choose a name from the list and click OK.
6. To monitor the administrator or supervisors searches within a specific timespan, select None, After, Before, or Between from the Audited Date drop-down list, and then select dates from the corresponding date drop-down lists as needed.
7. From the Event Type drop-down list, choose whether to view a list of only messages that have been returned as search results for the specified person, or both messages that have been returned as search results and messages that the person opened and viewed.
8. Click Create Report. The report appears in the Report View window.

You can modify the way the report appears in the window, print the report, or export it to a number of formats and destinations. For more information, see "[Viewing, Printing, and Exporting Reports](#)" on page 220.

User Accessed by Other Users Report

You can run a User Accessed by Other Users report to view a list of administrators or supervisors who performed searches to retrieve messages for a certain user.

The report includes a separate section for each message the supervisor or administrator accessed. For each message, the following information appears:

- The ID number for the message
- The date the message was received at the mail server
- The subject line for the message

- The names of the supervisors or administrators who have searched for or viewed the message
- The date on which they searched for or viewed the message
- The query used to search for the message

If the supervisor or administrator opened the message to view it (as opposed to simply receiving the message in a list of search results), a view icon appears next to the listing in the report.

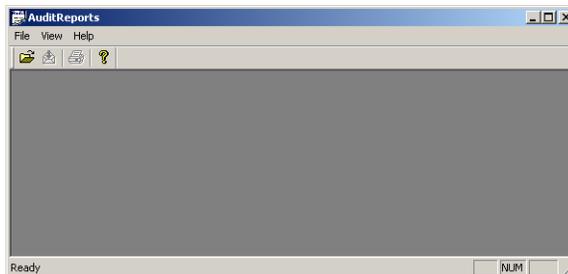
Figure 89. View Icon



To create a User Accessed by Other Users report:

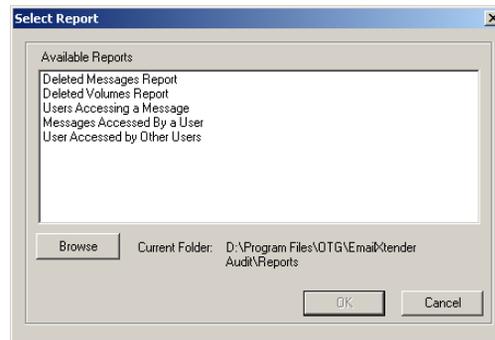
1. Launch EmailXtender Audit. From the Windows Start menu, select Programs>LEGATO EmailXtender>Audit Reports. The Audit Administrator appears.

Figure 90. Audit Administrator Window



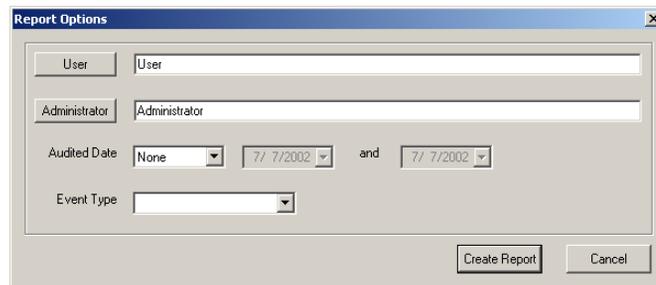
2. From the File menu, select Open, or click the Open toolbar icon. The Select Report dialog box appears.

Figure 91. Select Report Dialog Box



3. Select User Accessed by Other Users and click OK. The Report Options dialog box appears.

Figure 92. Report Options Dialog Box for a User Accessed by Other Users Report



4. Click User to specify the user whose messages the supervisors or administrators are accessing. The Outlook or Notes Address Book appears.
5. Choose a name from the list and click OK.
6. Click Administrator to specify the supervisors or administrators whose searches you want to audit. The Outlook or Notes Address Book appears.
7. Choose a name from the list and click OK.
8. To monitor the administrator or supervisors searches within a specific timespan, select None, After, Before, or Between from the Audited Date drop-down list, and then select dates from the corresponding date drop-down lists as needed.

9. From the Event Type drop-down list, choose whether to view a list of only messages that have been returned as search results for the specified person, or both messages that have been returned as search results and messages that the person opened and viewed.
10. Click Create Report. The report appears in the Report View window.
You can modify the way the report appears in the window, print the report, or export it to a number of formats and destinations. For more information, see ["Viewing, Printing, and Exporting Reports" on page 220](#).

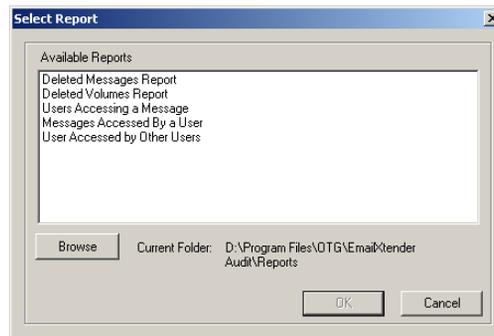
Custom Reports

You can use Crystal Reports to design additional EmailXtender audit reports using the data in the EmailXtender Audit SQL Server database. You can then run the reports from within EmailXtender Audit and display the information in the Report View window.

To run custom reports from EmailXtender Audit:

1. Install Crystal Reports and use it to create a report template to retrieve the information you need from the EmailXtender Audit database. For instructions on installing and using Crystal Reports, refer to the Crystal Reports documentation.
2. If it is not open already, launch EmailXtender Audit. From the Windows Start menu, select Programs>LEGATO EmailXtender>Audit Reports.
3. From the File menu, select Open, or click the Open toolbar icon. The Select Report dialog box appears.

Figure 93. Select Report Dialog Box



4. Click Browse, and then browse to the location to which you saved the Crystal Reports template.
5. Click OK in the Select Report dialog box to run the report. The report appears in the Report View window.

You can modify the way the report appears in the window, print the report, or export it to a number of formats and destinations. For more information, see ["Viewing, Printing, and Exporting Reports" on page 220](#).

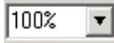
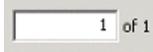
Viewing, Printing, and Exporting Reports

After you have generated a report, the report appears in the Report View window. In addition to merely previewing the report, you have access to the following functionality using the Report View toolbar.

Table 13. Audit Report View Options

Task	Icon	Instructions
Close the Report View window		Click the Close Current View toolbar icon.
Print the report		<ol style="list-style-type: none"> 1. From the File menu, select Print, or click the Print toolbar icon. The Print dialog box appears, with the default printer chosen. 2. In the Print dialog box, select which pages to print and how many copies to produce. 3. Select OK.
Export the report		Click the Export Report toolbar icon. For detailed instructions, see "Exporting an Audit Report" on page 221 .
Refresh the report data		Click the Refresh toolbar icon to refresh the report with any new data that has changed since you initially generated the report.

Table 13. Audit Report View Options

Task	Icon	Instructions
Zoom in or out on the report		From the Zoom drop-down list, select a zoom ratio with which to view the report.
Go to the first page of the report		Click the Go To First Page toolbar icon.
Go to the previous page of the report		Click the Go To Previous Page toolbar icon.
Go to the next page of the report		Click the Go To Next Page toolbar icon.
Go to the last page of the report		Click the Go To Last Page toolbar icon.
Go to a specific page of the report		In the text box, enter the page number you want to go to and then press [Enter].
Stop report data from loading		Click the Stop Loading toolbar icon.
Search for specific text strings within the report		<ol style="list-style-type: none"> 1. Click the Search Text toolbar icon. The Search dialog box appears. 2. Enter the text you are looking for and click Find Next. The text you search for is highlighted with a red box.

Exporting an Audit Report

You can export audit reports in a variety of file formats and to a variety of locations. For example, you can export a report to Microsoft Word format and view it in Word immediately, or you can export the report as a Portable Document Format (PDF) file and send it as an email attachment.

The following table contains a list of the file formats in which you can export a report.

Table 14. Export Format Types

Format	Description
Acrobat Format (PDF)	The report is exported as a PDF file. You can choose the range of pages you wish to export. Adobe Acrobat must be installed on the computer in order to export in PDF format.
Character-separated values	The report is exported as a text file with a <i>.chr</i> extension. Values are separated and delimited by the characters you choose. If you are using Crystal Reports, you can specify whether you want to use the same date and number formats that are used in the report.
Comma-separated values (CSV)	The report is exported as a text file with a <i>.csv</i> extension. Values are separated by commas and delimited by quotes. If you are using Crystal Reports, you can specify whether you want to use the same date and number formats that are used in the report.
Crystal Reports (RPT)	The report is exported as a Crystal Reports file. Crystal Reports must be installed on the computer where you are creating and exporting the report.
Data Interchange Format (DIF)	The report is exported as a Data Interchange Format file, with a <i>.dif</i> extension.
Excel 2.1 (XLS) Excel 3.0 (XLS) Excel 4.0 (XLS) Excel 5.0 (XLS) Excel 5.0 (XLS) (Extended) Excel 7.0 (XLS) Excel 7.0 (XLS) (Extended) Excel 8.0 (XLS) Excel 8.0 (XLS) (Extended)	The report is exported as a Microsoft Excel file of the version you specify. If you export as version 5.0 Extended or later, you can specify additional Excel output options, which include column heading usage, worksheet functions for populating subtitle fields, constant or object-based column width, and tabular or non-tabular format.

Table 14. Export Format Types

Format	Description
HTML 3.0 (Draft Standard) HTML 3.2 (Standard) HTML 3.2 (Extended)	The report is exported as an HTML file that conforms to the HTML standard specified in the format name. Before saving, you are prompted for the directory to which EmailXtender should save the file. If you are exporting the file to an application (see "Exporting to an Application" on page 224), the directory you specify is ignored, as the HTML is not saved to disk.
Lotus 1-2-3 (WK1) Lotus 1-2-3 (WK3) Lotus 1-2-3 (WKS)	The report is exported as a Lotus 1-2-3 file, with the extension (.wk1, .wk3, or .wks) specified in the format name.
ODBC - *	These report formats are not currently supported in EmailXtender.
Paginated Text	The report is exported as a text file, where each page is separated based on the number of lines per page you specify. When specifying an amount in the Lines Per Page dialog box that appears, remember that the lines you specify include all lines in the report page. For example, if a report contains 30 lines of data on page 1 and you specify 50 lines for page length, 20 empty lines then separate page 1 and page 2. You <i>must</i> specify at least one line greater than the maximum number of lines of data in a report page or the report will not be exported. If you do not want any pagination, use 0 in the Lines Per Page box.
Record style (columns of values)	The report is exported as a text file, with values listed in columns.
Report Definition	The report is exported as a Crystal Reports report definition file (with a .txt extension).
Rich Text (Exact) Format	The report is exported as a Rich Text Format (.rtf) file.
Tab-separated text	The report is exported as a text file (with a .ttx extension), with text separated by tabs and values delimited with quotes.

Table 14. Export Format Types

Format	Description
Tab-separated values	The report is exported as a text file (with a <i>.tsv</i> extension), with values separated by tabs and delimited with quotes.
Text	The report is exported as a text file (with a <i>.txt</i> extension).
Word for Windows	The report is exported as a Word for Windows 2.0 file.
XML	The report is exported as an XML file, using a Crystal Reports schema.

For more information on exporting the files to each type of location, see the following sections:

- ["Exporting to an Application" on page 224](#)
- ["Exporting to Disk" on page 225](#)
- ["Exporting to an Exchange Folder" on page 226](#)
- ["Exporting to a Lotus Domino Database" on page 228](#)
- ["Emailing a Report as an Attachment" on page 229](#)

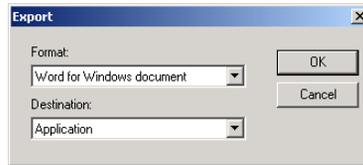
Exporting to an Application

You can export a report directly to an application from the Report View window.

If a file association is established on the EmailXtender Audit computer (for example, if files with *.doc* extensions are configured to open in Microsoft Word), the report opens in the associated application. If not, you are prompted to choose an application to use to open the report.

To export a report to an application:

1. From the Report View window, click the Export Report toolbar icon. The Export dialog box appears.

Figure 94. Export Dialog Box

2. From the Format list, select the file format in which you want the report exported. For more information about the formats you can use, see [Table 14 on page 222](#).
3. From the Destination drop-down list, select Application.
4. Click OK.

You may be prompted to specify additional format options, depending on the file format you selected.

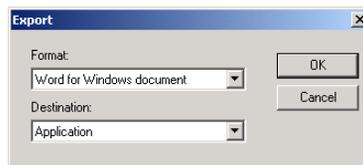
Otherwise, the report opens in its native application. (If the file format is not associated with an application, the Open with dialog box appears. Select an application in which to view the report and click OK.)

Exporting to Disk

You can export a report of any format to a file on the hard disk or on the network.

To export a report to disk:

1. From the Report View window, click the Export Report toolbar icon. The Export dialog box appears.

Figure 95. Export Dialog Box

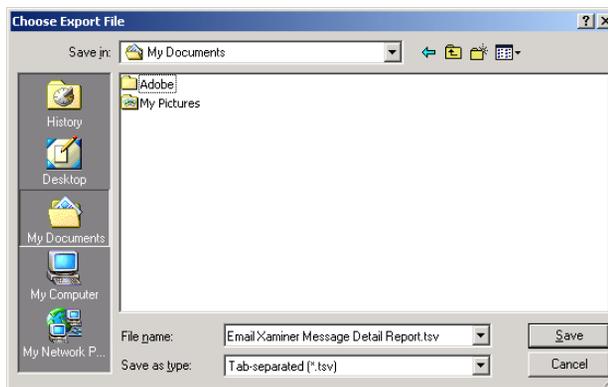
2. From the Format list, select the file format in which you want the report exported. For more information about the formats you can use, see [Table 14 on page 222](#).
3. From the Destination drop-down list, select Disk.

4. Click OK.

You may be prompted to specify additional format options, depending on the file format you selected.

Otherwise, the Choose Export File box appears.

Figure 96. Choose Export File Dialog Box



5. Navigate to the location where you want to save the file.

6. In the File name text box, enter a name for the file.

7. Click Save.

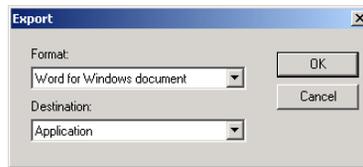
Exporting to an Exchange Folder

You can export a report to a Microsoft Exchange folder. For example, you could use this function to export a report to your Inbox, a specific personal folder, or a Public Folder.

Note: The MAPI profile that you use must have access rights to the folder to which you want to export the report.

To export a report to an Exchange folder:

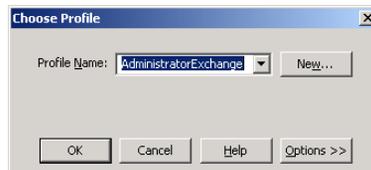
1. From the Report View window, click the Export Report toolbar icon. The Export dialog box appears.

Figure 97. Export Dialog Box

2. From the Format list, select the file format in which you want the report exported. For more information about the formats you can use, see [Table 14 on page 222](#).
3. From the Destination list, select Exchange Folder.
4. Click OK.

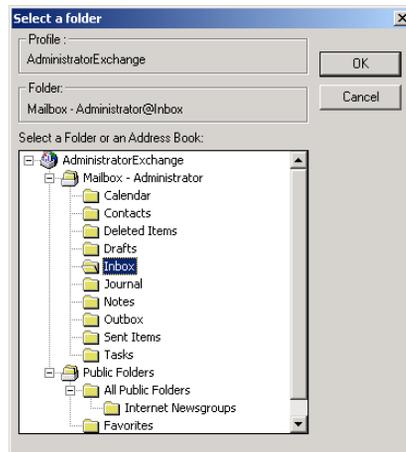
You may be prompted to specify additional format options, depending on the file format you selected.

Otherwise, the Choose Profile dialog box appears.

Figure 98. Choose Profile Dialog Box

5. Select your MAPI profile (or the profile that corresponds to the Exchange mailbox to which you want to export the report) and click OK. The Select a Folder dialog box appears.

Figure 99. Select a Folder Dialog Box



6. Select the folder where you want to save the report and then click OK. The report is exported to the specified Exchange folder.

Note: When you open the message in Outlook, it does not appear in the Preview pane, as it is not a conventional email message. You must double-click the report within Outlook to launch the application in which to view the report.

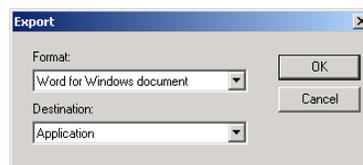
Exporting to a Lotus Domino Database

You can export a report to a Lotus Domino database. The account that you used to start Notes and launch EmailXtender must have access to a database in order to export a report to it.

To export a report to a Lotus Notes database:

1. From the Report View window, click the Export Report toolbar icon. The Export dialog box appears.

Figure 100. Export Dialog Box



2. From the Format list, select the file format in which you want the report exported. For more information about the formats you can use, see [Table 14 on page 222](#).
3. From the Destination list, select Lotus Domino.
4. Click OK. The Select Database dialog box appears.
5. From the Servers drop-down list, select a server.
6. Click OK. A message appears to prompt you for a password.
7. Enter the password and then click OK. The available Notes databases populate the Databases list box.
8. Select a database and click OK.

You may be prompted to specify additional format options, depending on the file format you selected.

Otherwise, the Comments dialog box appears.

9. If you have any comments, enter them and then click OK. A message appears to prompt you for a password.
10. Enter the password and then click OK. The report is exported to the Notes specified Notes database.

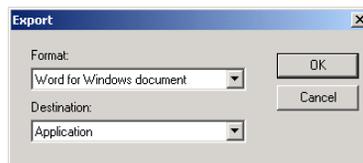
Emailing a Report as an Attachment

You can use MAPI to email a report as an attachment to a specific address.

To export a report using Microsoft Mail (MAPI):

1. From the Report View window, click the Export Report toolbar icon. The Export dialog box appears.

Figure 101. Export Dialog Box



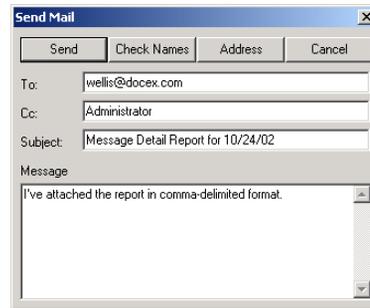
2. From the Format list, select the file format in which you want the report exported. For more information about the formats you can use, see [Table 14 on page 222](#).
3. From the Destination list, select Microsoft Mail (MAPI).

4. Click OK.

You may be prompted to specify additional format options, depending on the file format you selected.

Otherwise, the Send Mail dialog box appears.

Figure 102. Send Mail Dialog Box



5. In the To text box, enter the email address or MAPI friendly name to which you want to send the report, or click Address to select an email address from the address book.
6. If you want to copy the message to another email address, enter the email address or MAPI friendly name in the Cc text box, or click Address to select an email address from the address book.
7. In the Subject text box, enter a subject line for the email message.
8. In the Message text box, enter any accompanying information for the report.
9. Click Check Names to verify that the recipient email addresses are valid.
10. Click Send. The report is sent as an attachment to an email message.

Chapter 10: Archiving Bloomberg Mail

Bloomberg L.P. provides the Bloomberg Professional® Service, which is a subscription-based service used by brokerages and financial institutions to share information in a secure and confidential manner. Email traffic is routed through servers located at the Bloomberg centers and, as part of the subscription to this service, Bloomberg provides all email routed through its servers to clients in an aggregated text file. This text file contains all email that originated from or was directed to the client company and then routed through the Bloomberg mail servers.

The EmailXtender Bloomberg Mail Parser processes Bloomberg aggregated text files containing the mail and separates them into individual emails that conform to the RFC 822 email standard. The parser then writes the mail files to a directory you specify.

After you run the parser, you must manually copy files into the `c:\inetpub\mailroot\drop` directory so that EmailXtender can full-text index and store the email, allowing you to use EmailXaminer to sample and review the messages based on company compliance policies.

Note: If you are using EmailXtender Archive Edition, the Bloomberg Mail Parser is not available. You must upgrade to a full EmailXtender license to access this feature.

To configure and run the Bloomberg Mail Parser:

1. Review Bloomberg Mail concepts. For more information, see ["Bloomberg Mail Concepts" on page 232](#).
2. Install the parser. For more information, see ["Installing the Parser" on page 244](#).
3. Review a sample Bloomberg Mail message input file to determine if you need to modify the way the parser processes the message input file.

You can also test the parser by running it in test mode. For more information on running the parser in test mode, see ["Running the Parser" on page 251](#).

To troubleshoot the parser once you run it in test mode, review the log file. For more information, see ["Interpreting Log File Messages" on page 253](#).

4. If necessary, create a configuration file to modify the way the parser processes the message input file. For more information, see ["Editing the Parser Configuration File" on page 244](#).
5. Test the configuration file with the parser by running the parser in test mode. For more information on running the parser in test mode, see ["Running the Parser" on page 251](#).

To troubleshoot the parser once you run it in test mode, review the log file. For more information, see ["Interpreting Log File Messages" on page 253](#).

6. If necessary, assign each email address that will result from parsing of Bloomberg files as a legacy email address in the properties of the corresponding user on the mail server. For more information, see ["Adding Legacy Email Addresses" on page 250](#).

This is required because EmailXtender and EmailXaminer use the Lotus Domino or Microsoft Exchange address book to resolve Bloomberg email addresses.

To determine what email address formats result from parsing the Bloomberg files, you need to parse the files with the Bloomberg Mail Parser in test mode and look at the resulting log file. For more information, see ["Running the Parser" on page 251](#) and ["Interpreting Log File Messages" on page 253](#).

7. Once you resolve all parser issues, you can run the parser and output the resulting message files to an output directory, from which you can archive them to EmailXtender. You can either run the parser manually as a command line application, or you can schedule it using the Windows Task Scheduler. For more information on running the parser, see ["Running the Parser" on page 251](#).

Bloomberg Mail Concepts

Before you begin parsing Bloomberg Mail and archiving it through EmailXtender, you should be comfortable with terminology and concepts related to Bloomberg Mail and EmailXtender. For more information, see the following sections:

- ["Bloomberg Input Files" on page 233](#)
- ["Configuration File" on page 240](#)
- ["Command Line Parameters" on page 240](#)
- ["Parser Output" on page 240](#)

Bloomberg Input Files

Bloomberg sends two files daily:

- **Message input file** - An aggregated text file containing all email that originated from or was directed to the client company and then routed through the Bloomberg mail servers. For more information, see ["Message Input File" on page 233](#).
- **Attachment input file** - A compressed file containing any attachments for the emails. For more information, see ["Attachment Input File" on page 239](#).

Message Input File

Bloomberg provides the message input file in a variety of formats. Not all Bloomberg customers receive the same format; therefore, the parser must be able to recognize the log format and parse accordingly.

The Bloomberg Mail Parser identifies the two most commonly occurring Bloomberg email formats as the Bull format and the Bear format.

Both the Bull format and the Bear format identify each message, breaking out the header information and message body, but they differ in how they identify the message header attributes. The demarcation line between the end of one message and the start of the next is the primary difference between the two formats. The location and terminal information is not included in the Bull format, and the message number is not located in the same place.

Note: Although the address format appears to differ, the address format is not consistent among classic logs anyway and is not considered a significant difference.

You can request that Bloomberg deliver message input files in one of the two preconfigured formats, or you can customize one of the preconfigured formats to match the format delivered by Bloomberg.

For more information on the two preconfigured formats, see the following sections:

- ["Bear Log Format" on page 234](#)

- ["Bull Log Format" on page 236](#)

In addition, Bloomberg encodes a variety of user address formats. For more information on the user address formats that the Bloomberg Mail Parser supports, see ["Observed User Address Formats" on page 238](#).

Bear Log Format

The following is an example of Bear format message.

```

===== Count:      1
=====

      Message sent:  4/04/2003  at  15:30
>From: ALMA AARDVARK - ANGUS INVESTMENTS / JERSE
>Location:11TH FLOOR
>To: BILL TELL - ARROW FINANCIAL
>Location: SUITE 910
>To: WILL QUILL - ARROW FINANCIAL
>Location: 2550
>Sent from terminal:  881574 - 3
I put abs confirms on the web thx, alma

```

The Bear format can be summarized as:

Table 15. Bear Format

Message Start	=====	Message Count:	#
	=====		

Table 15. Bear Format

Message Header	<p>Message Sent: mm/dd/yyyy HH:MM:SS</p> <p>From: <sender></p> <p>To: <recipient></p> <p>This message has the attachment: <Attachment></p> <p>Note: THERE WERE MORE RECIPIENTS NOT BELONGING TO YOUR FIRM</p> <p>Blank line</p>
Message Body	Body of the Message

The message header consists of the following attributes:

Table 16. Bear Format Message Header Attributes

Seq.	Field	Frequency	Description
1	===== Message Count: # =====	Once	Indicates beginning of the message and identifies the message within the log file.
2	Message Sent:	Once	Time is in 24-hour format in New York time (EST).
3	From:	Once	
4	To:	1 or more	
5	This message has the attachment:	0 or more	(Optional) Identifies one file sent with the message.
6	Note: THERE WERE MORE RECIPIENTS NOT BELONGING TO YOUR FIRM	0 or 1	(Optional) Indicates that the message was 'Sent:' to one or more people external to the firm or customer account.
7	Blank Line	Once	Carriage return line feed. Denotes end of header; message body to follow.

Bull Log Format

The following is an example of a Bull format message:

====Begin Message====

Message#: 8

Message Sent: 02/24/2003 15:30:08

From: AAARDVARK@bloomberg.net | ALMA AARDVARK | ANGUS
INVESTMENTS | |

To: BTELL@bloomberg.net |BILL TELL ARROW FINANCIAL
|1234|98765

Subject: STOCK GAINS

15:22 *MAJOR INDEXES END ON UPNOTE, CNN SAYS

15:21 *STOCKS RISE AHEAD OF JOB DATA, CBS SAYS

====End Message====

The Bull format can be summarized as:

Table 17. Bull Format

Message Start	====Begin Message=====
Message Header	<p>Message#: number</p> <p>Message Sent: mm/dd/yyyy HH:MM:SS</p> <p>From: <sender></p> <p>To: <recipient></p> <p>Note: More Recipients</p> <p>Attachment: <attachment name></p> <p>Subject:</p> <p>Blank line</p>
Message Body	Body of the Message
Message End	====End Message=====

The message contains the following attributes:

Table 18. Bull Format Message Attributes

Seq	Field	Frequency	Description
1	====Begin Message=====	Once	Indicates the beginning of the message.
2	Message#:	Once	A number identifying the message in the file. The number is not padded with spaces.
3	Message Sent:	Once	Time is in 24-hour format in New York time (EST).
4	From:	Once	
5	To:	1 or more	

Table 18. Bull Format Message Attributes

Seq	Field	Frequency	Description
6	Note: More Recipients	0 or 1	(Optional) Indicates that the message was sent to one or more people external to the firm or customer account.
7	Attachment:	0 or more	(Optional) Identifies an attachment file that is included with the message. One line per attachment.
8	Subject:	Once	
9	Blank Line	Once	Carriage return line feed. Denotes end of header; message body to follow.
10	====End Message=====	Once	Indicates the end of the message.

Observed User Address Formats

Bloomberg encodes a variety of user address formats. The sender and recipient information forms listed in the following table were identified in email files supplied by Bloomberg to its customers. All are very similar; however, the way the user, company, and SMTP address are separated differs. The parser supports all of these address formats:

Table 19. Supported User Address Formats

Format #	Format
1	<Name> [Name] [Name] - <Account Name>
2	<User Name>bb<Account Name> (<SMTP Address>)
3	<User Name> (<SMTP Address>)
4	<User Name>bb<Account Name> (<User Name>bb<Account Name>)
5	<User Name>,bb<Account Name> (<User Name>bb<Account Name>)
6	<User Name>, <Account Name> (<User Name>, <Account Name>)

Table 19. Supported User Address Formats

Format #	Format
7	<SMTP Address> (<SMTP Address>)
8	<Name> (SMTP Address)
9	<Name>
10	<SMTP Address>
11	<SMTP Address> <User Name> <Account Name> [Firm Number] [Account Number]
Legend: <...> Required [...] Optional bb Two adjacent spaces	

A log file with type 1 messages will only contain messages of this type. Similarly a log with type 11 only contains type 11 messages. However, message types 2 through 10 can be intermixed within a log file.

Before using the Bloomberg Mail Parser, you must assign each email address that will result from parsing of Bloomberg files as a legacy email address in the properties of the corresponding user on the mail server. This is required because EmailXtender and EmailXaminer use the Lotus Domino or Microsoft Exchange address book to resolve Bloomberg email addresses. For more information, see "[Adding Legacy Email Addresses](#)" on page 250.

Attachment Input File

Bloomberg provides the attachments for its email in a compressed file. The compressed attachments file typically shares the same root name as the message input file. For example, if the message input file is named *acct2525.04232003*, then the compressed attachments file is named *acct2525.04232003.tar.gz*.

Before you use the parser, you should decompress the attachments file and reference its location through the **-A** command-line flag. The parser only needs to know the name of the directory from which the attachments file was decompressed. The parser searches the directory for the attachment and then adds it to the message.

You should not decompress multiple message input files to the same location. Although it appears likely that all messages are uniquely identified across time, there is no need to risk the chance that the message numbers may be reused, possibly resulting in the wrong attachment being found.

Configuration File

The Bloomberg Mail Parser uses a Microsoft Windows *.ini* configuration file. This file contains definitions of the various message fields so that the parser can parse Bloomberg files.

You can use the default settings in the configuration file; however, if the parser cannot successfully parse the Bloomberg file, you must modify the configuration file to tailor the parser to work with the specific Bloomberg format you are receiving.

For more information on editing the configuration file, see ["Editing the Parser Configuration File" on page 244](#).

Command Line Parameters

The Bloomberg Parser is a command line application named BBPARSER. The application uses several command flags to identify the Bloomberg source file and the destination directory. Additional flags control error reporting and customized parsing. For more information, see ["Running the Parser" on page 251](#).

Note: You can run the Bloomberg Mail Parser either manually from the command line or on a scheduled basis using the Windows Task Scheduler.

Parser Output

Once you run the parser, it outputs the messages and their attachments and a log file. Using command line options, you can also direct the parser to output an inventory file. For more information, see the following sections:

- ["Messages and Attachments" on page 241](#)
- ["Log File" on page 242](#)
- ["Inventory Report" on page 243](#)

Messages and Attachments

If you install the Bloomberg Mail Parser on the EmailXtender server, the parser filters messages using the address rules you configured through the EmailXtender Administrator interface. For more information on configuring rules, see "[Collection and Exclusion Rules](#)" on page 93.

Note: If you install the parser on a separate server, the parser archives all valid messages to EmailXtender, regardless of EmailXtender address rules.

The parser extracts From and To information from the message and queries EmailXtender to determine whether the message should be saved or discarded. The FilterAddresses parameter in the Bloomberg section of the parser configuration file controls whether message filtering should occur.

Messages that EmailXtender directs to be saved are written to the output directory specified on the command line. Messages that EmailXtender directs to be discarded are either discarded or saved to the discarded messages output directory, depending on the command line flags you enter. The output directories are created automatically if they do not already exist.

Inside the message output directory, one or more subdirectories are created as necessary to hold all of the messages. The subdirectories are used to circumvent file system restrictions that limit the number of files that a directory can contain.

Each message, or *.eml* file, is a MIME-formatted RFC 822 message and, as such, has a unique message ID. Bloomberg does not include a message identifier with each message. Instead, the *.eml* file is uniquely named to reflect the customer and the date the message file was created. The parser uses the source file name and the Bloomberg message number to generate a unique message ID. A typical filename might be *S100.16876020.eml*, where 100 is the message number and 16876020 is the message ID.

By using the source file and the message number, EmailXtender recognizes duplicate messages when they are added to the `\InetPub\mailroot\Drop` directory so that EmailXtender can process and archive them.

There is one message per parsed message body. The From, To, and Subject fields contain the following information:

Table 20. Bloomberg Mail Parser Output

Field	Description
From	Friendly name of the sender in the format available from the message; for example, first name and last name.
Date	The time stamp in the message body of when the mail message was sent. The Bloomberg file does not identify the time zone from which a message was sent. The parser was written with the assumption that the message time is Eastern Standard Time (EST). The parser takes the message time and converts it to a UTC (universal) time. When the message is viewed from an EmailXtender or EmailXaminer client, the message time should appear as a local time.
To	Friendly name of the recipients.
Subject	Either the actual message subject or the text string supplied in the configuration file. The subject is listed as Bloomberg if the message does not contain a subject.
Message Body	The message body contains the entire message starting from one delimiter to the next.

Log File

The parser reports to the *BBPARSER.ERRORS.TXT* file the number of emails processed, in three categories:

Table 21. Bloomberg Parser Log File Categories

Category	Description
Had errors	Number of messages that were not processed

Table 21. Bloomberg Parser Log File Categories

Category	Description
Archived	Number of <i>.eml</i> files created in the output directory specified on the command line
Discarded	Number of messages that were discarded by message filtering or the number of <i>.eml</i> files created in the discarded messages output directory specified on the command line

The total of these three tallies should equal the number of emails originally received from Bloomberg.

The log file also reports any errors that may have occurred during processing.

For more information on interpreting the messages in the parser log file, see ["Interpreting Log File Messages" on page 253](#).

Inventory Report

The parser can also generate an inventory file in *.csv* format that identifies all messages that were extracted from the Bloomberg source file. The parser writes one line of information for each *.eml* file created. The following fields appear in the inventory file and are separated, or delimited, by the caret character (^):

Table 22. Inventory Report Fields

Field	Contents
MsgNumber	1, 2, ... 500, ...
Date	When sent
To	Recipients
From	Sender
Subject	Subject line
Archived	<ul style="list-style-type: none"> • 1 if to be archived to the <code>-D</code> directory • 0 if not (and written to the <code>-U</code> directory if provided)
EML	Msg filename

You can save the inventory file as a *.txt* file and then load the file into a spreadsheet program like Microsoft Excel for easier viewing.

Installing the Parser

You can install the Bloomberg Mail Parser on the EmailXtender server at the same time that you install EmailXtender server components. If you want to install the parser on a computer other than the EmailXtender server, you can use the same setup wizard you used to install EmailXtender server components. For more information, refer to the *Installing EmailXtender* chapter of the *EmailXtender Installation Guide*.

Once you install the parser, you may need to create or modify a parser configuration file so that the parser works with the specific Bloomberg Mail format you are receiving. For more information, see ["Editing the Parser Configuration File" on page 244](#).

In addition, you must assign each email address that will result from parsing of Bloomberg files as a legacy email address in the properties of the corresponding user on the mail server. This is required because EmailXtender and EmailXaminer use the Lotus Domino or Microsoft Exchange address book to resolve Bloomberg email addresses. For more information, see ["Adding Legacy Email Addresses" on page 250](#).

Editing the Parser Configuration File

Once you install the Bloomberg Mail Parser, you may need to create or modify a parser configuration file so that the parser works with the specific Bloomberg Mail format you are receiving.

The configuration file is a Microsoft Windows *.ini* file containing definitions that help the parser to parse Bloomberg Mail files by identifying the various message fields.

If you do not specify a configuration file on the command line when you run the parser, a set of default values are used to parse the files. If the parser cannot successfully parse the Bloomberg file using the default values; however, you must create a configuration file to tailor the parser to work with the specific Bloomberg Mail format you are receiving.

You do not need to include all of the parameters in the configuration file. If you do not specify a parameter in the configuration file, the parser uses the corresponding default value. For this reason, when you are creating a configuration file, you only need to add the parameters you want to change from the defaults.

To create a configuration file:

1. Open a Bloomberg message input file with a text editor (such as WordPad) and make sure that the standard delimiter definitions match what you see in the Bloomberg file. Follow this step carefully because any mistakes in the delimiter definitions adversely affect the email file parsing process.
2. Using the text editor, create a new text file and name it *filename.ini*, where *filename* is an easily identifiable name that you will specify on the parser command line.
3. Start the new text file with a text string, such as [Bloomberg]. The text string should be the first text in the Bloomberg file's section header.
4. Enter each parameter you want to change on its own line, and separate the parameter from the value you are defining by using an equal (=) sign. You can use spaces or tabs on either side of the equal sign, but do not enclose string values using quotation marks.

To comment out an individual line, enter a semi-colon (;) as the first character on the line.

For more information on the parameters you can enter, see the following sections:

- ["Editing the Bloomberg Section" on page 246](#)
- ["Editing the Bear Section" on page 247](#)
- ["Editing the Bull Section" on page 248](#)

To see an example of a configuration file that uses all of the default values, see ["Bloomberg Mail Parser Configuration File with Default Values" on page 249](#)

5. Save and close the configuration file.
6. You can verify any edits by running the parser in test mode and specifying the configuration file on the command line. This parses the file and flags any errors, but does not create the actual mail message files. For more information on running the parser, see ["Running the Parser" on page 251](#).

Editing the Bloomberg Section

The following table lists the log file format and settings in the parser configuration file that are independent of the log file format.

Table 23. Configuration File Settings for Bloomberg Section

Setting	Description
LogFormat	Bear or Bull
MaxLineLength	Reasonable estimate as to the maximum line length in the log file. Defaults to 4,096 characters.
CompanyName	Whether the parser should attempt to extract the company name from the email address. <ul style="list-style-type: none"> • 0 - No • 1 - Yes (Default)
Domain	The email domain string to be used for all computed email addresses, if not included in the received message.
CleanUp	Whether the source log file(s) are to be deleted once the parsing is complete. <ul style="list-style-type: none"> • 0 - No (Default) • 1 - Yes
RecipientLog	Whether recipients log should be created every time the parser is run. Does not affect -Test operation. <ul style="list-style-type: none"> • 0 - No (Default) • 1 - Yes
FilterAddresses	Whether the the parser queries EmailXtender address rules to filter emails <ul style="list-style-type: none"> • 0 - No (Default) • 1 -- Yes

Table 23. Configuration File Settings for Bloomberg Section

Setting	Description
UseCommaSeperator	<p>Whether the leftmost comma denotes the boundary between the user name and the company name. This only applies to address format 6.</p> <ul style="list-style-type: none"> • 0 – No (Default) • 1 -- Yes <p>Note: Part of the parameter keyword must be misspelled.</p>
NameSeparator	<p>The character used to separate the various parts of the friendly name in the email address. Valid characters are:</p> <ul style="list-style-type: none"> • . (period, the default) • - (dash) • _ (underscore) • (nothing)

Editing the Bear Section

The Bear section of the parser configuration file allows the parser to be adapted to the specific text used in a message input file that generally uses the Bear format.

Table 24. Configuration File Settings for Bear Section

Setting	Description
Date	Message Sent:
From	>From:
Header	=====
Location	>Location:
Subject	Bloomberg Message (any string, applied to all messages)
Attachment	>This message has the attachment:

Table 24. Configuration File Settings for Bear Section

Terminal	>Sent from terminal
To	>To:

Editing the Bull Section

The Bull section of the parser configuration file allows the parser to be adapted to the specific text used in a message input file that generally uses the Bull format.

Table 25. Configuration File Settings for Bull Section

Setting	Description
MsgStart	=====Begin Message=====
MsgNumber	Message#:
Date	Message Sent:
From	From:
To	To:
Note	Note:
Attachment	Attachment:
Subject	Subject:
MsgEnd	=====End Message=====



Example: Bloomberg Mail Parser Configuration File with Default Values

The following example illustrates a parser configuration file. All of the values listed are the default values the parser uses.

```
[Bloomberg]
LogFormat = Bear
MaxLineLength = 4096
CompanyName = 1
Domain = BB
CleanUp = 0
RecipientLog = 0
FilterAddresses = 0
UseCommaSeperator = 0
NameSeparator = .

[Bear]
Date = Message Sent:
From = >From:
Header = ===== Message Count:
Location = >Location:
Subject = Bloomberg Message
Terminal = >Sent from terminal
To = >To:
Attachment = This message has the attachment:
```

```
[Bull]
MsgStart = =====Begin Message=====
MsgNumber = Message#:
Date = Message Sent:
From = From:
To = To:
Note = Note:
Attachment = Attachment:
Subject = Subject:
MsgEnd = =====End Message=====
```

Note: The UseCommaSeperator parameter is misspelled and should be spelled as it is listed in this example.

10

Adding Legacy Email Addresses

Before using the Bloomberg Mail Parser, you must assign each email address that will result from parsing of Bloomberg files as a legacy email address in the properties of the corresponding user on the mail server. This is required because EmailXtender and EmailXaminer use the Lotus Domino or Microsoft Exchange address book to resolve Bloomberg email addresses.

To determine what email address formats result from parsing the Bloomberg files, you need to parse the files with the Bloomberg Mail Parser in test mode and look at the resulting log file. For instructions on running the parser in test mode, see ["Running the Parser" on page 251](#).

For example, one email address format that might result from a parsed Bloomberg file is `FIRSTNAME . LASTNAME@BB`. For example, the recipient in the following line from a Bloomberg email text file:

```
>To: JOHN          SMITH          - LEGATO SYSTEMS
```

creates a recipient of `JOHN . SMITH@BB` by default.

The default domain of `@BB` can be changed to match another domain and the separator character between `FIRSTNAME` and `LASTNAME` can be changed, but the order of `FIRSTNAME` followed by `LASTNAME` name cannot be changed.

In other words, if recipients' email addresses are in the format `johnsmith@legato.com`, you can skip this step; however, if email addresses are in the format `jsmith@legato.com`, you must add `jsmith@legato.com` as a legacy email address.

Running the Parser

You can run the Bloomberg Mail Parser either manually from the command line or on a scheduled basis using the Windows Task Scheduler.

You can also automate operation with customized scripts written to satisfy your requirements and operation norms. LEGATO Professional Services staff is available to assist in these efforts.

When you execute the parser (BBPARSER) from the command line, you must specify the source file containing Bloomberg Mail messages and the output directory in which the `.eml` files are placed. You can also then enter any number of additional command line flags to further control error reporting and customize parsing, such as identifying a parser configuration file or running the parser in test mode so that no `.eml` files are extracted.

The output directory you enter at the command line should be a temporary directory, not the `\inetpub\mailroot\drop` directory on the EmailXtender server. Using a temporary directory enables you to review the parser output for completeness and errors. Should any problems occur, you can delete the temporary directory, resolve the problem, and rerun the parser.

Once you are satisfied that the parser successfully processed the message input file, you should copy the resulting `.eml` files to the `\InetPub\mailroot\Drop` directory on the EmailXtender server.

To run the Bloomberg Mail Parser:

1. Decompress the attachments file.
2. Enter the following at the command line:

```
BBPARSER -S SourceFileName -D DestinationDirectory Flags
```

where *SourceFileName* is the name of the message input file, *DestinationDirectory* is the directory in which you want the resulting *.eml* files placed, and *Flags* are the remaining parser flags you enter. The following table describes the available parser flags:

Table 26. Parser Command Line Flags

To do this:	Enter this flag:
Specify the location of the directory in which you want to place resulting message attachments	-A
Specify the configuration file with custom parsing information, should the default parameters require adjustment	-C
Specify the pathname to the message inventory file, which contains one line per message created	-I
Specify the mail domain, which is the recipient's member domain Note: You can also specify the domain in the configuration file. Should the domain be specified in both locations, the command line instance is used.	-M
Only process the first x number of messages This flag saves time and disk space when message input files are large.	-MsgLimit
To specify the name of the recipient's log file	-R
Run the parser in test mode. The source is parsed; however, no messages are created. Any parsing problems are logged to the <i>BBParser.Errors.Txt</i> file. This flag is used to validate the message input file.	-Test
Specify the directory where discarded messages are stored when message filtering (through EmailXtender address rules) is used	-U
Display command line help	-? or -H

For more information on the output the parser produces, see ["Parser Output" on page 240](#).

Interpreting Log File Messages

The parser reports to the *BBPARSER.ERRORS.TXT* file the configuration parameters used to process the message input file, as well as the number of emails processed, in three categories:

Table 27. Bloomberg Parser Log File Categories

Category	Description
Had errors	Number of messages that were not processed
Archived	Number of <i>.eml</i> files created in the output directory specified on the command line
Discarded	Number of messages that were discarded by message filtering or the number of <i>.eml</i> files created in the discarded messages output directory specified on the command line

The information is reported using the following format:

```
Processed %d messages:
```

```
%8d : Had Issues
```

```
%8d : Archived
```

```
%8d : Discarded
```

The total of these three tallies should equal the number of emails originally received from Bloomberg.

Any errors incurred during the parsing process are also logged to the *BBPARSER.ERRORS.TXT* file.

If you encounter errors in the log file, you should extract errant messages from the message input file and add them to a new file. You should then reprocess the original message input file, resolve the errors, and finally, process the new file with the problematic messages. The new filename should be based upon the original message log filename.

You may encounter the following errors in the parser log file:

- **%d - Missing attachment: %s**
The selected message should have an associated attachment, but the attachment cannot be found.
- **%d - Unacceptable recipient SMTP address: %s**
The SMTP address for the recipient for the selected message is invalid.
- **%d - Unacceptable sender SMTP address: %s**
The SMT address for the sender for the selected message is invalid.
- **%d - Unrecognized message format**
The format of the selected message is different than the parser expected.
- **ERROR: Either the archive directory does not exist or it is a file. The parser cannot continue.**
The value you entered for the output directory cannot be found or it was found, but it is a file. The parser does not create the path if it does not exist.
- **ERROR: The address filter was requested, however it is not available, the parser cannot continue.**
The email address rules filter (for EmailXtender collection and exclusion rules) is not available.
- **ERROR: The message inventory pathname is a directory, the parser cannot continue.**
The value you entered for the inventory file (using the `-I` flag) is a directory and not a filename.
- **ERROR: The unarchived directory is a file or cannot be created, the conversion cannot continue.**
The value you entered for the output directory for discarded emails cannot be found or it was found, but it is a file. The parser does not create the path if it does not exist
- **Insufficient number of parameters, app terminating.**
One or more of the required parameters are missing.
- **Parser terminated processing message #%d, the disk is full.**
The parser cannot continue parsing messages because the disk to which it is writing the `.eml` files is full.
- **Unable to create the temporary attachment directory:\n\t%s**
The scratch directory used to stage the attachment files cannot be created, thereby preventing the attachments from being added to the message.

- **Warning: Config file not found, using defaults.**
The configuration file specified cannot be found; the program default settings will be used instead.
- **WARNING: Unable to determine absolute path for config file:**
%s
Processing will continue with the defaults.
The configuration file specified cannot be found; the program default settings will be used instead.

In addition, you may encounter the following return code messages:

Table 28. Bloomberg Mail Parser Return Codes

Message	Error Condition
0=Successful	PARSER_ARCHIVE_DIR_DOES_NOT_EXIST
1	PARSER_BAD_FROM_SMTP
2	PARSER_BAD_TO_SMTP
3	PARSER_ATTACHMENT_NOT_FOUND
4	ERROR_BAD_ARGUMENTS
5	PARSER_ARCHIVE_DIR_DOES_NOT_EXIST
6	PARSER_BAD_FROM_SMTP
7	PARSER_BAD_TO_SMTP
8	PARSER_ATTACHMENT_NOT_FOUND
9	ERROR_BAD_ARGUMENTS
160=Missing required parameters	PARSER_ARCHIVE_DIR_DOES_NOT_EXIST

Chapter 11: EmailXtract

EmailXtract, which is an installable component of EmailXtender, allows you to manage messages in the message store on a Microsoft Exchange or Lotus Domino mail server. When you install EmailXtract on the mail server, you can search for, analyze, and delete messages in the message store.

When you install EmailXtract on the EmailXtender server, you can accomplish the following tasks in addition to searching for and analyzing messages in the mail server message store:

- Archive legacy messages in the mail server's message store to an EmailXtender server
- Archive other item types, such as contacts, notes, tasks, and meetings
- Archive items from public folders and *.pst* files in a Microsoft Exchange environment, and from *.nsf* files in a Lotus Domino environment
- Remove messages from the mail server and replace them with pointers (shortcuts) to copies of the archived messages
- Restore shortcuts after you create them
- Delete messages from the mail server message store (after archiving them, if you want to archive the messages)

You can manage the mail server message store through EmailXtract by setting up tasks. There are five EmailXtract tasks: Archive, Shortcut, Delete, Search, and Analysis.

All tasks in EmailXtract are based on a set of default settings. There are some settings that are global for all tasks, some that are unique to a Microsoft Exchange environment, some that are unique to a Lotus Domino environment, and some that are unique to each type of task. You can change the default settings if necessary when you create a specific task.

EmailXtract allows you to run tasks immediately, schedule them to run later, or schedule them to run on a recurring basis.

Once EmailXtract completes a task, you can view task results as a chart, export them, or print them.

For more information, see the following sections:

- ["Using the EmailXtract Administrator" on page 258](#)
- ["Configuring EmailXtract Options" on page 262](#)
- ["Understanding Tasks" on page 268](#)
- ["Configuring Tasks" on page 300](#)
- ["Managing Scheduled Tasks" on page 347](#)
- ["Managing Task Results" on page 349](#)

For more information on installing EmailXtract, refer to the *EmailXtender Installation Guide*.

Using the EmailXtract Administrator

Because EmailXtract is a Microsoft Windows-based package, the same navigational standards apply to all of its components. The EmailXtract Administrator provides a user-friendly interface that allows you to easily configure tasks and manage task results. For more information, see the following sections:

- ["Starting the Administrator" on page 258](#)
- ["Exploring the Administrator Interface" on page 260](#)
- ["Automatically Sizing Columns" on page 262](#)

Starting the Administrator

The first time you launch EmailXtract, you must access the program through the Windows Start menu.

Depending on your mail environment, select one of the following options when starting EmailXtract for the first time:

- Start>Programs>LEGATO EmailXtract>EmailXtract for Exchange
- Start>Programs>LEGATO EmailXtract>EmailXtract for Notes

Note: If you are using Microsoft Exchange, you also need to select a default mail (MAPI) profile.

In a mixed-mail environment (both Exchange and Domino), you can run one session each of EmailXtract for Exchange or EmailXtract for Notes at the same time.

After you have configured EmailXtract for use, and opened and closed EmailXtract during a session, you can access the program using either the Windows Start menu or an icon in the Windows task bar.

Figure 103. EmailXtract Taskbar Icon



To start the EmailXtract Administrator:

1. You have the following choices:
 - From the Start Menu, select Program >LEGATO EmailXtract> EmailXtract for Exchange or EmailXtract for Notes.
 - Right-click the EmailXtract icon in the status area of the task bar, and then select Open EmailXtract from the shortcut menu that appears.

The EmailXtract Administrator appears.
2. Click OK. One of the following occurs:
 - If you have installed EmailXtract on a server with a Microsoft Outlook client, the Choose Profile dialog box appears.

Figure 104. Choose Profile Dialog Box



Select the MAPI profile for the default administrator that will run the majority of the EmailXtract tasks, and then click OK.

Note: Administrative access rights to an Exchange server are based upon the privileges associated with the Windows user account in use and not with the MAPI profile in use. In general, the MAPI profile is used to provide access to address books and a listing of available Exchange servers.

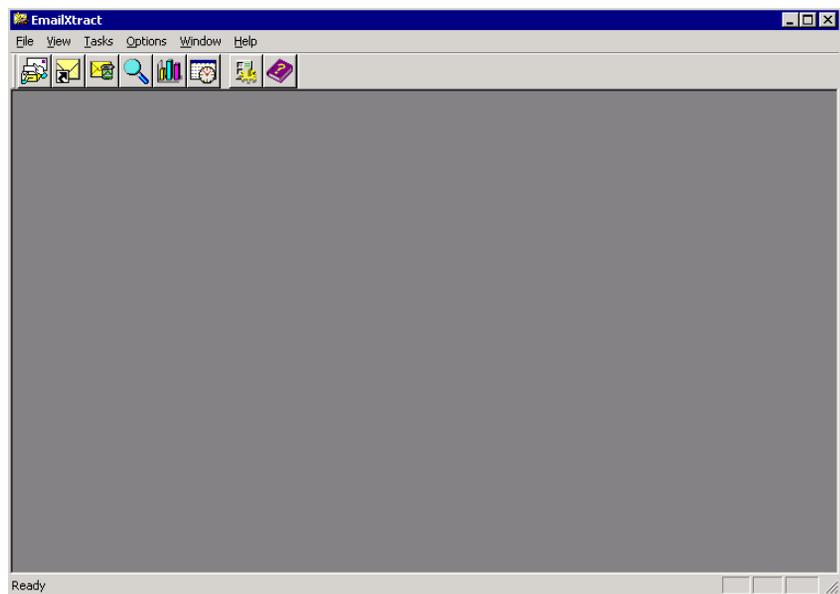
Note: You can change the MAPI profile used for individual tasks using the Profile tab when you configure a task. For more information, see "[Profile](#)" on page 320.

- If you have installed EmailXtract on server with a Lotus Notes client, you are prompted to enter the password for the installed Notes user. Enter the password and click Enter.
3. Configure EmailXtract options. For more information, see "[Configuring EmailXtract Options](#)" on page 262.

Exploring the Administrator Interface

The EmailXtract Administrator allows you to configure EmailXtract options, as well as to create and manage tasks.

Figure 105. EmailXtract Administrator



The Administrator window contains several components that allow you to navigate through and configure EmailXtract:

- The menu bar contains the menu commands and can be found at the top of the window. For more information, see "[Menu Bar](#)" on page 261.
- The toolbar, containing toolbar icons that allow you to perform frequently used functions, can be found just below the menu bar. For more information, see "[Toolbar](#)" on page 261.

- The status bar, which displays information about the selected command or toolbar icon, can be found at the bottom of the window. For more information, see ["Status Bar" on page 262](#).

Note: The EmailXtract Administrator interface cannot display multi-byte characters (such as Japanese or Simplified Chinese characters). These characters appear in the interface as question marks (?).

Menu Bar

The menu bar contains a list of options with commands for carrying out functions in the Administrator. You can configure EmailXtract options, create tasks, manage tasks, and access online help.

Toolbar

The toolbar contains icons that provide quick access to many of the Administrator commands and features.

Note: The icons for the Archive, Shortcut, and Delete tasks are dimmed (not available) when you install EmailXtract on a mail server.

Table 29. EmailXtract Administrator Toolbar

Icon	Function
	Launches the Archival Task dialog box, where you can configure an Archive task. For more information, see "Archive Task" on page 270 .
	Launches the Shortcut Task dialog box, where you can configure a Shortcut task. For more information, see "Shortcut Task" on page 277 .
	Launches the Deletion Task dialog box, where you can configure a Delete task. For more information, see "Delete Task" on page 284 .
	Launches the Search Task dialog box, where you can configure a Search task. For more information, see "Search Task" on page 290 .
	Launches the Analysis Task dialog box, where you can configure an Analysis task. For more information, see "Analysis Task" on page 294 .

Table 29. EmailXtract Administrator Toolbar

Icon	Function
	Launches the Scheduled Tasks dialog box, where you can manage tasks that have been scheduled (as opposed to being run immediately). For more information, see "Managing Scheduled Tasks" on page 347 .
	Launches the Configuration Options dialog box, where you can set default task settings, establish task priority, and set application directories. For more information, see "Configuring EmailXtract Options" on page 262 .
	Launches the EmailXtract Online Help.

Status Bar

The status bar is located at the bottom of the Administrator window and displays information about the selected command or toolbar icon.

To show or hide the status bar:

- From the View menu, select Status Bar. A check mark beside the command indicates that the status bar is displayed.

Automatically Sizing Columns

The AutoSize Columns option allows you to automatically size the columns in any of the visible panes of the Administrator so that they are only as wide as their longest entry.

To automatically adjust the size of columns in the Administrator:

- From the View menu, select AutoSize Columns.

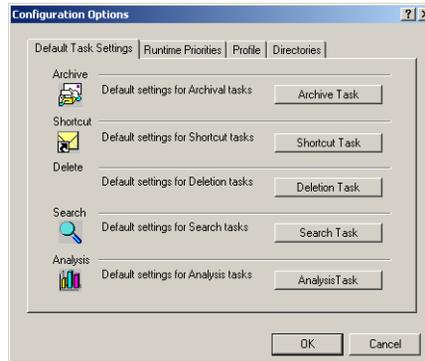
Configuring EmailXtract Options

You should configure EmailXtract options, which are used as the default information for the system, before you begin setting up tasks.

To configure EmailXtract options:

1. In the EmailXtract Administrator, select Options>Configuration Properties. The Configuration Options dialog box appears.

Figure 106. Configuration Options Dialog Box



2. Select and configure each of the tabs.
 - **Default Task Settings** - Allows you to configure task settings for use as the basis for all new tasks. For more information, see "[Default Task Settings](#)" on page 263.
 - **Runtime Priorities** - Allows you to maximize EmailXtract performance by establishing task priority in relationship to other actions within EmailXtract. For more information, see "[Runtime Priorities](#)" on page 264.
 - **Profile**- Allows you to change the default MAPI profile. For more information, see "[Profile](#)" on page 266.
 - **Directories** - Allows you to change the default paths for the log and chart files directories. For more information, see "[Directories](#)" on page 267.
3. When you finish configuring EmailXtract options, click OK.

Default Task Settings

The Default Task Settings tab of the Configuration Options dialog box allows you to configure task settings that can be used as the basis for all new tasks. EmailXtract saves the settings you configure as default settings, and automatically populates new tasks with the default values.

This can save time if you use the same task settings repeatedly. For example, if you want to run Archive tasks at the same time each day, you could set the default Archive task setting on the Scheduling tab to the desired time.

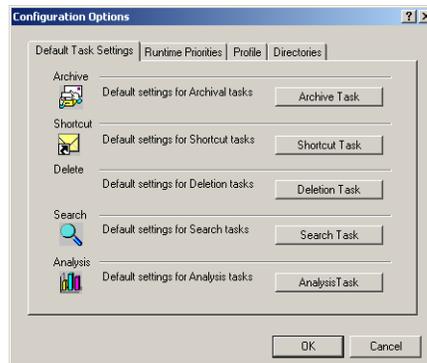
When you configure a task, you can change these settings for the individual task without affecting the default settings.

To configure default task settings:

- On the Default Task Settings tab, click the button that corresponds to the task for which you want to configure default task settings.

Note: The Archive Task, Shortcut Task, and Delete Task buttons appear only if you installed EmailXtract on the EmailXtender server.

Figure 107. Default Task Settings Tab



The dialog box that appears is identical to the dialog box that appears when you configure a specific task. For more information, see the following sections:

- ["Archive Task" on page 270](#)
- ["Shortcut Task" on page 277](#)
- ["Delete Task" on page 284](#)
- ["Search Task" on page 290](#)
- ["Analysis Task" on page 294](#)

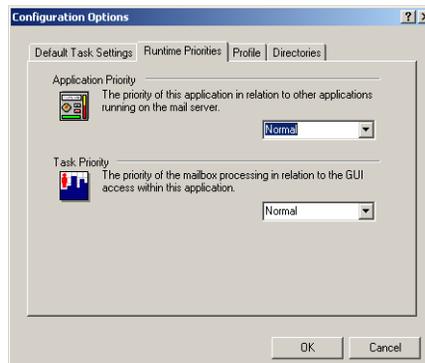
Runtime Priorities

The Runtime Priorities tab of the Configuration Options dialog box allows you to maximize EmailXtract performance by establishing task priority in relationship to other actions within EmailXtract. This helps you to balance the processing load on the server.

You can choose whether foreground or background tasks take priority within EmailXtract. For example, if you select the Highest priority for EmailXtract task processing, screen and mouse movement within the EmailXtract Administrator may be slow or hesitant.

If you are using Microsoft Exchange, you can also specify the level of importance that EmailXtract has in comparison to other applications that use the Exchange server.

Figure 108. Configuration Options Dialog Box - Runtime Priorities Tab



To configure runtime priorities:

1. From the Application Priority drop-down list, select the importance that EmailXtract has in comparison to other applications that use the Exchange server. Choose a higher priority level to place a greater priority on EmailXtract processing (rather than on other applications) on the Exchange server.

Note: The Application Priority drop-down list appears on the Runtime Priorities tab only when EmailXtract is used in a Microsoft Exchange environment

2. From the Task Priority drop-down list, choose whether foreground or background tasks take priority within EmailXtract. Choose a higher priority level to place a greater priority on background tasks (rather than on foreground tasks such as screen and mouse movements).

Profile

The Profile tab of the Configuration Options dialog box, which appears only if you are using EmailXtract with Microsoft Exchange, allows you to change the default MAPI profile that is used to communicate with the EmailXtender server. EmailXtract uses the default profile to process all EmailXtract tasks.

You specified the default MAPI profile the first time you opened the EmailXtract Administrator.

Note: Administrative access rights to an Exchange server are based upon the privileges associated with the Windows user account in use, and not with the MAPI profile in use. In general, the MAPI profile is used to provide access to address books and a listing of available Exchange servers.

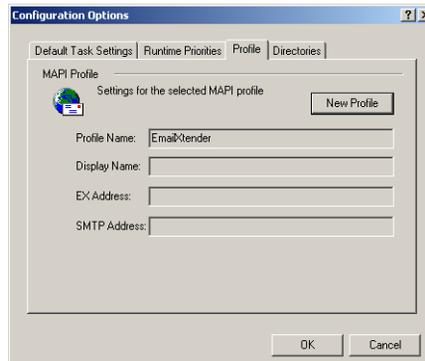
Note: You can change the MAPI profile used for individual tasks using the Profile tab when you configure a task. For more information, see ["Profile" on page 320](#).

Note: If you are applying EmailXtract tasks to messages that use multi-byte character sets (such as Japanese and Simplified Chinese) and you want to change the MAPI profile that EmailXtract uses, you must first delete the language journaling profiles that EmailXtract creates automatically. To delete the profile, right-click the Microsoft Outlook icon on the desktop of the EmailXtender server, and then select Properties from the shortcut menu. On the Service tab, click Show Profiles. On the General tab of the Mail dialog box, select all of the *exExtract-language-codepage* profiles (where *language* is the name of the language and *codepage* is the codepage number), and then click Remove. You can then change the profile.

To choose a different default MAPI profile:

1. On the Profile tab, click New Profile.

Figure 109. Configuration Options Dialog Box - Profile Tab



A list of MAPI profiles that have been set up locally appears.

2. Select the profile you want to use as the MAPI default and click OK.

Directories

The Directories tab of the Configuration Options dialog box allows you to change the default paths for both the log files and chart files directories. The default location for both is a subdirectory of the EmailXtract install directory (*\Program Files\OTG\EmailXtract*).

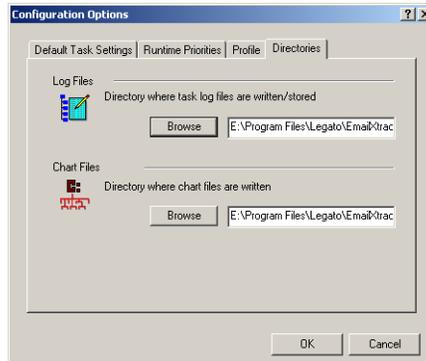
The log files contain information about actions taken in EmailXtract. EmailXtract names the log files *TaskName.log*, where *TaskName* is the name defined in the Task Name text box on the task's Scheduling tab. You can view log files using any text editor, such as Notepad.

You can view all task results (except for Search task results) as charts, and save these charts as image files. These chart files are written to the location you specify on the Directories tab.

To change the default directories:

1. In the Log Files text box on the Directories tab, enter the path to which you want log files written, or click Browse to browse to a location.

Figure 110. Configuration Options Dialog Box - Directories Tab



2. In the Chart Files text box, enter the path to which you want chart files written, or click Browse to browse to a location.

Understanding Tasks

EmailXtract tasks allow you to manage messages in the message store on a Microsoft Exchange or Lotus Domino mail server. There are five EmailXtract tasks: Archive, Shortcut, Delete, Search, and Analysis.

When you install EmailXtract on the EmailXtender server, you can run all of the tasks. When you install EmailXtract on the mail server, however, you can run only the Search and Analysis tasks.

The following table lists the types of activities you can accomplish using EmailXtract and the task you should use to accomplish them.

Table 30. EmailXtract Task Capabilities

Requirement	EmailXtract Task
Archive legacy messages (messages from before you installed EmailXtender) in the mail server's message store to an EmailXtender server	Archive
Archive messages from the mail server to an EmailXtender server on a scheduled basis rather than in real-time	Archive
Archive other item types, such as contacts, notes, tasks, and meetings	Archive
Archive items from public folders and <i>.pst</i> files in a Microsoft Exchange environment, and from <i>.nsf</i> files in a Lotus Domino environment, to an EmailXtender server	Archive
Archive messages when you are using EmailXtender Archive Edition	Archive
Remove messages from the mail server and replace them with pointers (shortcuts) to copies of the archived messages	Shortcut
Replace shortcuts with copies of archived messages (in other words, restore the messages to the mail server)	Shortcut
Delete messages from the mail server message store	Delete
Archive messages from the mail server message store to an EmailXtender server and then delete them from the mail server	Delete
Search for a specific message so that you can delete it from the mail server message store	Search
Determine the average message size, total message count, attachment type and size information, and aging of messages in the mail server message store	Analyze

For more information on each of the tasks, see the following sections:

- ["Archive Task" on page 270](#)
- ["Shortcut Task" on page 277](#)
- ["Delete Task" on page 284](#)
- ["Search Task" on page 290](#)
- ["Analysis Task" on page 294](#)

Archive Task

The Archive task, available when you install EmailXtract on an EmailXtender server, allows you to archive messages and other items in the mail server message store to an EmailXtender Message Center.

When you run an Archive task, EmailXtract examines the specified types of items in the specified locations. Those that match the criteria you set are examined to make sure they have not already been archived by EmailXtender. All messages and items that do not already exist in the EmailXtender Message Center are archived and then bundled into volumes on the EmailXtender server.

The Archive task is useful in the following types of situations:

- **To archive messages that were sent or received before you installed EmailXtender.** This allows you to not only attain the benefits of the EmailXtender system from the moment you install it, but also to take advantage of EmailXtender features with old messages residing on the email system.
- **To archive messages as a scheduled batch process rather than on a real-time basis.** For example, you can set up the Archive task to archive all email messages during non-working hours.

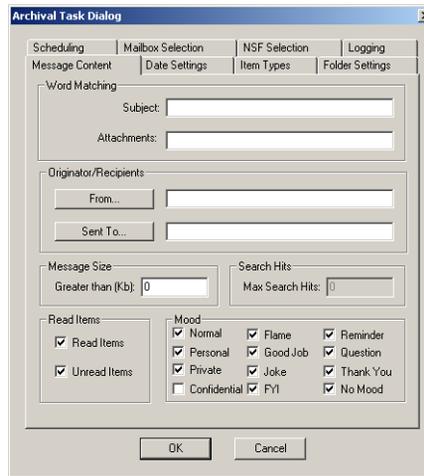
Note: If you archive message as a scheduled batch process, keep in mind that messages that are received and deleted by users between the scheduled batch processes cannot be archived to the EmailXtender Message Center.

- **To archive other item types like appointments, meetings, notes, and contacts.** If you want to archive these types of items, you *must* use an EmailXtract Archive task because EmailXtender can only archive email messages.
- **To archive messages in public folders or .pst files if you are using Microsoft Exchange, or to archive messages in .nsf files if you are using Lotus Domino.** If you want to archive these types of items, you *must* use an EmailXtract Archive task because EmailXtender cannot archive from public folders, .pst files, and .nsf files.

- **To archive messages when you are using EmailXtender Archive Edition.** You must use the Archive task to archive mail when you are using EmailXtender Archive Edition because real-time message capture is not available.

You configure Archive task settings using the tabs on the Archival Task dialog box, which is shown in the following example:

Figure 111. Archival Task Dialog Box



There are some tabs that are global for all tasks, some that are unique to a Microsoft Exchange environment, and some that are unique to a Lotus Domino environment. The following table lists the tabs that appear, depending on whether you are using Microsoft Exchange or Lotus Domino.

Table 31. Archive Task Dialog Box Tabs

If you are using Exchange, the following tabs appear:	If you are using Domino, the following tabs appear:
<ul style="list-style-type: none"> • Message Content • Date Settings • Item Types • Folder Settings • Scheduling • Profile • Mailbox • Public Folders • PST Selection • Logging 	<ul style="list-style-type: none"> • Message Content • Date Settings • Item Types • Folder Settings • Scheduling • Mailbox Selection • NSF Selection • Logging

Using the tabs in the Archival Task dialog box, you can customize the task so that you archive only the messages or items you want. For example, you could archive only items that are:

- Older than a certain date
- Located in certain folders or mailboxes
- Larger than a certain size
- From a certain sender
- To a certain recipient
- Of a certain type, such as an email message, calendar item, or contact
- Containing certain content (keywords)

The Archival Task dialog box also allows you to schedule the task to run at a certain time or even on a recurring basis. In addition, you can configure how EmailXtract writes task run information to a log file.

The following table contains information about each of the tabs in the Archive Task dialog box.

Table 32. Archive Task Settings

Tab Name	Description/Guidelines	For more information, see:
Date Settings	Allows you to specify which messages to archive based upon the date the messages were either received at the mail server or last modified. You can specify a date or date range.	"Date Settings" on page 310
Folder Settings	Allows you to specify the folders from which EmailXtract should archive items. This could include the Inbox, Outbox, Deleted Items, Calendar, Contacts, and Sent Items in Exchange, or the Inbox, Sent, and Trash in Domino, among others. Note: You may not want to archive items in the Deleted Items/Trash folders.	"Folder Settings" on page 319 (Exchange) or "Folder Settings" on page 336 (Domino)
Item Types	Allows you to specify the types of items to archive. This could include email messages, meetings, appointments, and reports, among others.	"Item Types" on page 316 (Exchange) or "Item Types" on page 333 (Domino)
Logging	Allows you to specify whether the run information for the task is written to a log file, and if so, whether the information overwrites or appends to the existing log file. You can also designate how much detail the log file should contain.	"Logging" on page 314
Mailbox (Exchange)/ Mailbox Selection (Domino)	Allows you to specify the mail servers and mailboxes containing the messages you want to archive.	"Mailbox" on page 322 or "Mailbox Selection" on page 338

Table 32. Archive Task Settings

Tab Name	Description/Guidelines	For more information, see:
Message Content	Allows you to specify which messages to archive based upon the content of those messages, such as the subject of the message, filenames of any message attachments, sender or recipient of the message, or size of the message.	"Message Content" on page 303
NSF Selection	Allows you to archive messages from <i>.nsf</i> mail databases not locked by a Lotus Domino server. These mail databases might include mail files from people who have left the organization or mail databases that users set up on their local computers.	"NSF Selection" on page 339
Profile	Allows you to use a different MAPI profile to access the messages or other items that you want to archive.	"Profile" on page 320
PST Selection	Allows you to archive messages from <i>.pst</i> files.	"PST Selection" on page 325

Table 32. Archive Task Settings

Tab Name	Description/Guidelines	For more information, see:
Public Folders	<p>Allows you to archive items in public folders. Items in both the root public folder and all subfolders of the public folder are included.</p> <p>Note: All items you archive from public folders still belong to their creators and can only be retrieved during a search by the creator or administrator.</p>	"Public Folders" on page 324
Scheduling	<p>Allows you to name the Archive task and choose whether to run the task immediately or to schedule it to run at a later time. You can also configure the task to run on a regularly scheduled basis, to run until it completes, or to stop at a certain time. Finally, you can configure the task to run as a service, which does not require you to be logged in when the task is processed.</p>	"Scheduling" on page 312

You can configure default settings for each of these tabs using the Default Task Settings tab of the Configuration Options dialog box. EmailXtract saves the settings you configure as default settings, and automatically populates new tasks with the default values. This can save time if you use the same task settings repeatedly. However, you can change the default settings if necessary when you create a specific task. For more information on default task settings, see ["Default Task Settings" on page 263](#).

When you finish configuring a task, you can view and manage tasks that are currently running or scheduled to run in the future. You can edit the task, delete the task if it is not currently in progress, suspend the task if it is scheduled to run in the future, force a scheduled task to run immediately, and stop a task that is currently in progress. For more information, see ["Managing Scheduled Tasks" on page 347](#).

Once an Archive task is complete, you can use the EmailXtender Search Plug-in or the Web Search Client to search for the messages and items you archived. For more information on running a search, refer to the *EmailXtender Search User's Guide*.

Note: After you run an Archive task against a *.pst* or *.nsf* file, there may be messages that you cannot retrieve through a search unless you are an administrator. EmailXtender determines what users have access to these messages based on the To and From fields. Because a *.pst* or *.nsf* file may contain outdated address information, some of the email addresses and distribution lists referenced in the messages may not be current in the Exchange or Domino environment. If this information is not available for EmailXtender to determine who should be able to access the messages in question, the messages are accessible only to EmailXtender administrators.

The results of the Archive task appear in a task results window in the EmailXtract Administrator. The task results window displays summary server information about the task; task results, such as mailbox information (for example, messages archived, total message size, total mailboxes, number of duplicate messages encountered, etc.); and the task log file.

You can view task results as a bar graph, stacked bar graph, or pie chart, all of which you can print or save as an image file for future reference. You can also organize chart data by message size in MB, the total number of messages, or the average size of messages. You can also export task results to a *.csv* file. For more information on managing task results, see ["Managing Task Results" on page 349](#).

EmailXtract Support for Archival of Modified Lotus Notes Data

Releases of EmailXtract prior to 4.7 did not support the archival of modified data, such as modified meetings. Beginning with EmailXtract 4.7, archiving of modified data by EmailXtract is supported for Lotus Notes.

Releases of EmailXtract prior to 4.7 did not support the archiving of modified documents because EmailXtract did not take into account the modification history of documents. In an environment where only real-time journaling and archival is taking place, this is not a problem because the message documents captured and archived are always the unmodified version of the document. However, in an environment where EmailXtract is used to archive non-messaging data, such as calendar entries, modified documents can be erroneously archived as the original documents.

EmailXtract support for archival of modified Lotus Notes data has the following effects:

- Support for archival of modified documents only extends to Notes documents that have not been archived. Documents archived by prior releases of EmailXtract are not archived again when they are modified, and behave in the same manner as they did in previous releases.

- EmailXtract no longer modifies documents when they are archived or shortcut and does not change unread marks during processing.
- Recipients of unmodified documents continue to be the owners of those documents. The owner of a modified document is the individual that made the modification.

Shortcut Task

The Shortcut task, available when you install EmailXtract on the EmailXtender server, removes messages from the mail server and replaces them with pointers to copies of the messages that are archived in EmailXtender. This allows you to save space on the mail server. For example, you may want to create shortcuts of messages that are older than 30 days or that have attachments.

Note: You can only shortcut email messages; you cannot configure shortcuts for other item types, such as contacts or calendar items.

If you are using Microsoft Exchange, you can shortcut messages on the mail server, in public folders, or in *.pst* files. You may not want to shortcut messages in *.pst* files if the *.pst* files are not accessible to the mail server, however. The *.pst* files must be accessible to the mail server so that you can restore the shortcuts, if necessary. Creating shortcuts of messages in a *.pst* file does not reduce the size of the file unless you compact the file after you create the shortcuts.

If you are using Lotus Domino, you can shortcut messages on the mail server or in *.nsf* files. If the *.nsf* files reside on the mail server, creating shortcuts allows you to save additional space on the server.

Note: EmailXtract does not create shortcuts of messages that have been either sent by East Asian language versions of Microsoft Outlook or encoded by East Asian encoding systems such as JIS-Shift, JIS, JIS Allow-1 byte Kana, GB2312, EUC, or HZ. EmailXtract skips these messages and logs the event.

If you use Microsoft Exchange and you allow users to access their email through Outlook Web Access (OWA), you can configure shortcuts so that they are accessible through OWA. There are a number of preliminary setup steps you must complete before creating shortcuts that are accessible through OWA. For more information, refer to the *EmailXtender Installation Guide*.

If you previously created shortcuts and did not enable them for OWA, you can use the Upgrade Shortcuts option to upgrade them so that users can access the shortcuts through OWA.

When you create shortcuts, you can control how they appear in the mail client. You can configure them to appear with the term "(Archived)" at the beginning of each message subject title. You can also set them up so that only the message header appears; the message body will not appear in the preview pane.

For Microsoft Exchange only, you can also use the Shortcut to Mailbox option (available on the PST Selection tab) to create a new folder in the owner's mail client (identified by the *.pst* file name) which preserves the *.pst* file's folder structure and shortcuts to each item.

If you are using Microsoft Exchange and a user opens a shortcut message, the message is copied from the EmailXtender archive to the mail server and then read from the mail server. If you are using Lotus Domino, the message is read directly from the EmailXtender archive.

Once you shortcut a message, a copy of the message remains in the EmailXtender archive. If necessary, you can use the Shortcut task to restore the message, which copies the message from the EmailXtender archive back to the mail server. Before you restore messages to the mail server, you should verify that you have sufficient space to accommodate the return of the messages and their attachments.

If you are using Microsoft Exchange, the message is restored to its original folder. If you are using Lotus Domino, you can restore the message either to its original folder or to another folder by selecting the new folder on the Folder Settings tab. For more information on the Folder Settings tab, see ["Folder Settings" on page 336](#).

If you are using Microsoft Exchange and you made shortcuts with previous releases of EmailXtract (4.2x and earlier), you can enable users to view those shortcuts by upgrading them. Before you upgrade shortcuts, you must upgrade the message volumes in EmailXtender. For more information, see ["Upgrading a Volume" on page 122](#).

Shortcuts with no associated message in the EmailXtender archive are known as unresolved shortcuts. You can verify whether shortcuts have an associated message stored in the archive. You can also choose to remove any unresolved shortcuts as part of the verification. Shortcuts can become unresolved due to any of the following reasons:

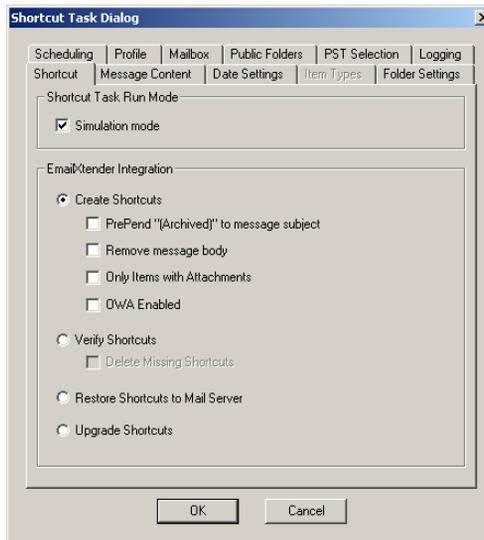
- Shortcuts were upgraded from version 4.2 of EmailXtender to a later version, and the resulting MD5 identifier was miscalculated.
- There are rules for a cabinet or a folder that exclude messages from being archived. This can also occur you configure an EmailXtract task that creates shortcuts to messages that were excluded from being archived.

- Archived messages were deleted from the archive and shortcuts in user mailboxes were associated with the deleted messages.

Before you run a Shortcut task to actually create, restore, or upgrade shortcuts, you can run the task in simulation mode to determine how much space you can save by creating the shortcuts or how much space you will use by restoring shortcuts.

You configure Shortcut task settings using the tabs on the Shortcut Task dialog box, which is shown in the following example:

Figure 112. Shortcut Task Dialog Box



There are some tabs that are global for all tasks, some that are unique to a Microsoft Exchange environment, some that are unique to a Lotus Domino environment, and one tab - the Shortcut tab - that only appears for the Shortcut task. The following table lists the tabs that appear, depending on whether you are using Microsoft Exchange or Lotus Domino.

Table 33. Shortcut Task Dialog Box Tabs

If you are using Exchange, the following tabs appear:	If you are using Domino, the following tabs appear:
<ul style="list-style-type: none"> • Shortcut • Message Content • Date Settings • Item Types • Folder Settings • Scheduling • Profile • Mailbox • Public Folders • PST Selection • Logging 	<ul style="list-style-type: none"> • Shortcut • Message Content • Date Settings • Item Types • Folder Settings • Scheduling • Mailbox Selection • NSF Selection • Logging

Using the tabs in the Shortcut Task dialog box, you can customize the task so that you shortcut only certain messages. For example, you could shortcut only messages that:

- Are older than a certain date
- Are larger than a certain size
- Contain attachments
- Reside in certain folders or mailboxes
- Are sent from a certain address
- Are received by a certain address
- Contain certain content (keywords)

The Shortcut Task dialog box also allows you to schedule the task to run at a certain time or even on a recurring basis. In addition, you can configure how EmailXtract writes task run information to a log file.

The following table contains information about each of the tabs in the Shortcut Task dialog box.

Table 34. Shortcut Task Settings

Tab Name	Description/Guidelines	For more information, see:
Date Settings	Allows you to specify which messages to shortcut based upon the date the messages were either received at the mail server or last modified. You can specify a date or date range.	"Date Settings" on page 310
Folder Settings	Allows you to specify the folders from which EmailXtract should shortcut messages. This could include the Inbox, Deleted Items in Exchange, Trash in Domino, or user-defined/custom folders, among others.	"Folder Settings" on page 319 (Exchange) or "Folder Settings" on page 336 (Domino)
Item Types	Not available for the Shortcut task, since you can only Shortcut email messages.	
Logging	Allows you to specify whether the run information for the task is written to a log file, and if so, whether the information overwrites or appends to the existing log file. You can also designate how much detail the log file should contain.	"Logging" on page 314
Mailbox (Exchange)/ Mailbox Selection (Domino)	Allows you to specify the mail servers and mailboxes containing the messages you want to shortcut.	"Mailbox" on page 322 or "Mailbox Selection" on page 338
Message Content	Allows you to specify which messages to shortcut based upon the content of those messages, such as the subject of the message, filenames of any message attachments, sender or recipient of the message, or size of the message.	"Message Content" on page 303

Table 34. Shortcut Task Settings

Tab Name	Description/Guidelines	For more information, see:
NSF Selection	Allows you to choose whether to shortcut messages in <i>.nsf</i> files. If the <i>.nsf</i> files reside on the mail server, creating shortcuts <i>does</i> allow you to save space on the mail server.	"NSF Selection" on page 339
Profile	Allows you to use a different MAPI profile to access the messages that you want to shortcut.	"Profile" on page 320
PST Selection	Allows you to choose whether to shortcut messages in <i>.pst</i> files. You may not want to shortcut messages in <i>.pst</i> files if the <i>.pst</i> files are not accessible to the mail server. The <i>.pst</i> files must be accessible to the mail server so that you can restore the shortcuts, if necessary. Note: Creating shortcuts of messages in a <i>.pst</i> file does not reduce the size of the file unless you compact the file after you create the shortcuts.	"PST Selection" on page 325
Public Folders	Allows you to shortcut messages in public folders. Messages in both the root public folder and all subfolders of the public folder are included. Note: All items you shortcut from public folders still belong to their creators and can only be retrieved during a search by the creator or administrator.	"Public Folders" on page 324

Table 34. Shortcut Task Settings

Tab Name	Description/Guidelines	For more information, see:
Scheduling	Allows you to name the Shortcut task and choose whether to run the task immediately or to schedule it to run at a later time. You can also configure the task to run on a regularly scheduled basis, to run until it completes, or to stop at a certain time. Finally, you can configure the task to run as a service, which does not require you to be logged in when the task is processed.	"Scheduling" on page 312
Shortcut	Allows you to choose whether you are creating, verifying, restoring, or upgrading shortcuts, as well as whether the task will run in simulation mode. If you are creating shortcuts, you can also choose whether the shortcuts should appear with the term "(Archived)" at the beginning of each message subject title, and whether to take the body of each message out of the preview pane and display only the message header. You can also create shortcuts only for messages that have attachments, and choose whether to allow users to access shortcuts through OWA.	"Shortcut" on page 341

You can configure default settings for each of these tabs using the Default Task Settings tab of the Configuration Options dialog box. EmailXtract saves the settings you configure as default settings, and automatically populates new tasks with the default values. This can save time if you use the same task settings repeatedly. However, you can change the default settings if necessary when you create a specific task. For more information on default task settings, see ["Default Task Settings" on page 263](#).

When you finish configuring a task, you can view and manage tasks that are currently running or scheduled to run in the future. You can edit the task, delete the task if it is not currently in progress, suspend the task if it is

scheduled to run in the future, force a scheduled task to run immediately, and stop a task that is currently in progress. For more information, see ["Managing Scheduled Tasks" on page 347](#).

Once a Shortcut task is complete, you can use the EmailXtender Search Plug-in or the Web Search Client to search for the messages and items you shortcut. For more information on running a search, refer to the *EmailXtender Search User's Guide*.

Depending on the settings you selected on the Shortcut tab, shortcut messages may appear with the term "(Archived)" at the beginning of each message subject title. In addition, only the message header may appear for shortcut messages; the message body may not appear in the preview pane.

The results of the Shortcut task appear in a task results window in the EmailXtract Administrator. The task results window displays summary server information about the task, task results, and the task log file.

Note: If you run the Shortcut task in simulation mode, the potential results appear in the task results window but no messages are actually shortcut.

You can view task results as a bar graph, stacked bar graph, or pie chart, all of which you can print or save as an image file for future reference. You can also organize chart data by message size in MB, the total number of messages, or the average size of messages. You can also export task results to a .csv file. For more information on managing task results, see ["Managing Task Results" on page 349](#).

If you encounter problems once you begin creating shortcuts, see ["Troubleshooting Shortcuts" on page 187](#) for more information.

Delete Task

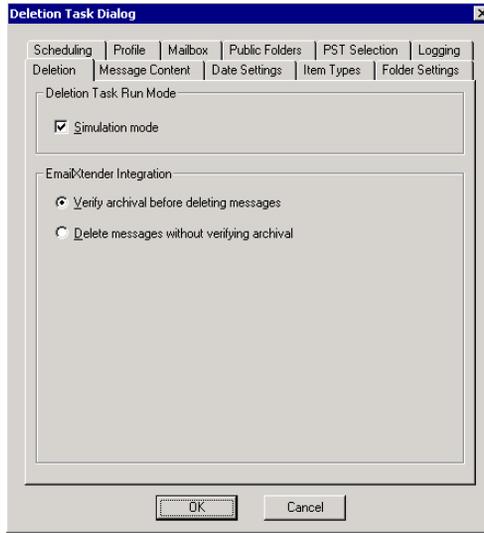
The Delete task, available when you install EmailXtract on an EmailXtender server, removes messages from the mail server message store and can archive them to EmailXtender if they do not already exist in the EmailXtender archive. The Delete task is designed to assist you in managing the size of the mail server information store.

If you are using Microsoft Exchange, you can archive and delete messages and items such as appointments, tasks, and notes from mailboxes, public folders, and .pst files. If you are using Lotus Domino, you can archive and delete messages and other items from mailboxes and private .nsf mail databases.

Before you run a Delete task to actually delete items, you can run the task in simulation mode to determine how many files will be deleted as a result of the task or how much space you can save by deleting the files.

You configure Delete task settings using the tabs on the Deletion Task dialog box, which is shown in the following example:

Figure 113. Deletion Task Dialog Box



There are some tabs that are global for all tasks, some that are unique to a Microsoft Exchange environment, some that are unique to a Lotus Domino environment, and one tab - the Deletion tab - that only appears for the Delete task. The following table lists the tabs that appear, depending on whether you are using Microsoft Exchange or Lotus Domino.

Table 35. Deletion Task Dialog Box Tabs

If you are using Exchange, the following tabs appear:	If you are using Domino, the following tabs appear:
<ul style="list-style-type: none"> • Deletion • Message Content • Date Settings • Item Types • Folder Settings • Scheduling • Profile • Mailbox • Public Folders • PST Selection • Logging 	<ul style="list-style-type: none"> • Deletion • Message Content • Date Settings • Item Types • Folder Settings • Scheduling • Mailbox Selection • NSF Selection • Logging

Using the tabs in the Deletion Task dialog box, you can customize the task so that you delete only the messages or items you want. For example, you could delete only items that are:

- Older than a certain date
- Located in certain folders or mailboxes
- Larger than a certain size
- From a certain sender
- To a certain recipient
- Of a certain type, such as an email message, calendar item, or contact
- Containing certain content (keywords)

The Deletion Task dialog box also allows you to schedule the task to run at a certain time or even on a recurring basis. In addition, you can configure how EmailXtract writes task run information to a log file.

The following table contains information about each of the tabs in the Deletion Task dialog box.

Table 36. Delete Task Settings

Tab Name	Description/Guidelines	For more information, see:
Date Settings	Allows you to specify which messages to delete based upon the date the messages were either received at the mail server or last modified. You can specify a date or date range.	"Date Settings" on page 310
Deletion	Allows you to choose whether to verify that a message has been archived to the EmailXtender Message Center before you delete the message, as well as whether the task will run in simulation mode. If you choose to verify archival and the Delete task encounters a message that has not been archived, the task archives the message before deleting it.	"Deletion" on page 344
Folder Settings	Allows you to specify the folders from which EmailXtract should delete items. This could include the Inbox, Outbox, Deleted Items, Calendar, Contacts, and Sent Items in Exchange, or the Inbox, Sent, and Trash in Domino, among others.	"Folder Settings" on page 319 (Exchange) or "Folder Settings" on page 336 (Domino)
Item Types	Allows you to specify the types of items to delete. This could include email messages, meetings, appointments, and reports, among others.	"Item Types" on page 316 (Exchange) or "Item Types" on page 333 (Domino)
Logging	Allows you to specify whether the run information for the task is written to a log file, and if so, whether the information overwrites or appends to the existing log file. You can also designate how much detail the log file should contain.	"Logging" on page 314

Table 36. Delete Task Settings

Tab Name	Description/Guidelines	For more information, see:
Mailbox (Exchange)/ Mailbox Selection (Domino)	Allows you to specify the mail servers and mailboxes containing the messages you want to delete.	"Mailbox" on page 322 or "Mailbox Selection" on page 338
Message Content	Allows you to specify which messages to delete based upon the content of those messages, such as the subject of the message, filenames of any message attachments, sender or recipient of the message, or size of the message.	"Message Content" on page 303
NSF Selection	Allows you to delete messages from <i>.nsf</i> mail databases not locked by a Lotus Domino server. These mail databases might include mail files from people who have left the organization or mail databases that users set up on their local computers.	"NSF Selection" on page 339
Profile	Allows you to use a different MAPI profile to access the messages or other items that you want to delete.	"Profile" on page 320
PST Selection	Allows you to delete messages from <i>.pst</i> files.	"PST Selection" on page 325

Table 36. Delete Task Settings

Tab Name	Description/Guidelines	For more information, see:
Public Folders	Allows you to delete items in public folders. Items in both the root public folder and all subfolders of the public folder are included.	"Public Folders" on page 324
Scheduling	Allows you to name the Delete task and choose whether to run the task immediately or to schedule it to run at a later time. You can also configure the task to run on a regularly scheduled basis, to run until it completes, or to stop at a certain time. Finally, you can configure the task to run as a service, which does not require you to be logged in when the task is processed.	"Scheduling" on page 312

You can configure default settings for each of these tabs using the Default Task Settings tab of the Configuration Options dialog box. EmailXtract saves the settings you configure as default settings, and automatically populates new tasks with the default values. This can save time if you use the same task settings repeatedly. However, you can change the default settings if necessary when you create a specific task. For more information on default task settings, see ["Default Task Settings" on page 263](#).

When you finish configuring a task, you can view and manage tasks that are currently running or scheduled to run in the future. You can edit the task, delete the task if it is not currently in progress, suspend the task if it is scheduled to run in the future, force a scheduled task to run immediately, and stop a task that is currently in progress. For more information, see ["Managing Scheduled Tasks" on page 347](#).

Once a Delete task is complete, the results of the task appear in a task results window in the EmailXtract Administrator. The task results window displays summary server information about the task; task results, such as mailbox information (for example, messages archived, total message size, total mailboxes, number of duplicate messages encountered, etc.); and the task log file.

Note: If you run the Delete task in simulation mode, the potential results appear in the task results window but no messages are actually deleted.

You can view task results as a bar graph, stacked bar graph, or pie chart, all of which you can print or save as an image file for future reference. You can also organize chart data by message size in MB, the total number of messages, or the average size of messages. You can also export task results to a .csv file. For more information on managing task results, see ["Managing Task Results" on page 349](#).

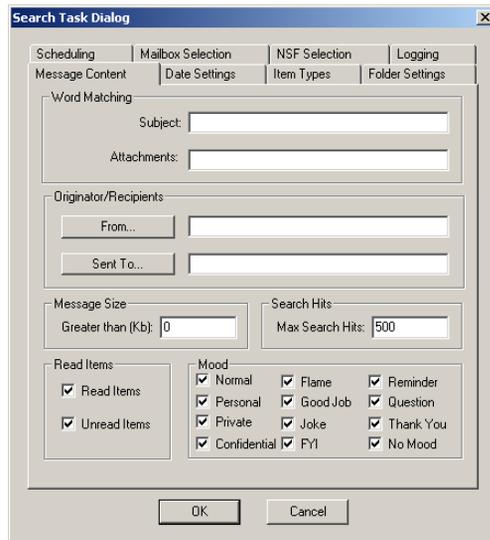
Search Task

The Search task, which is available when you install EmailXtract either on the mail server or on the EmailXtender server, allows you to search for messages or other item types, such as calendar items or contacts, on mail servers. You can then view the messages or delete (*purge*) them from the mail server's message store.

If you are using Microsoft Exchange, you can search for messages and items such as appointments, tasks, and notes from mailboxes, public folders, and .pst files. If you are using Lotus Domino, you can search for messages and items from mailboxes and private .nsf mail databases.

You configure Search task settings using the tabs on the Search Task dialog box, which is shown in the following example:

Figure 114. Search Task Dialog Box



There are some tabs that are global for all tasks, some that are unique to a Microsoft Exchange environment, and some that are unique to a Lotus Domino environment. The following table lists the tabs that appear, depending on whether you are using Microsoft Exchange or Lotus Domino.

Table 37. Search Task Dialog Box Tabs

If you are using Exchange, the following tabs appear:	If you are using Domino, the following tabs appear:
<ul style="list-style-type: none"> • Message Content • Date Settings • Item Types • Folder Settings • Scheduling • Profile • Mailbox • Public Folders • PST Selection • Logging 	<ul style="list-style-type: none"> • Message Content • Date Settings • Item Types • Folder Settings • Scheduling • Mailbox Selection • NSF Selection • Logging

Using the tabs in the Search Task dialog box, you can customize the task so that you can maximize search results. For example, you could search for items that are:

- Older than a certain date
- Located in certain folders or mailboxes
- Larger than a certain size
- From a certain sender
- To a certain recipient
- Of a certain type, such as an email message, calendar item, or contact
- Containing certain content (keywords)

The Search Task dialog box also allows you to schedule the task to run at a certain time or even on a recurring basis. In addition, you can configure how EmailXtract writes task run information to a log file.

The following table contains information about each of the tabs in the Search Task dialog box.

Table 38. Search Task Settings

Tab Name	Description/Guidelines	For more information, see:
Date Settings	Allows you to search for messages based upon the date the messages were either received at the mail server or last modified. You can specify a date or date range.	"Date Settings" on page 310
Folder Settings	Allows you to specify the folders in which EmailXtract should search for items. This could include the Inbox, Outbox, Deleted Items, Calendar, Contacts, and Sent Items in Exchange, or the Inbox, Sent, and Trash in Domino, among others.	"Folder Settings" on page 319 (Exchange) or "Folder Settings" on page 336 (Domino)
Item Types	Allows you to specify the types of items to search for. This could include email messages, meetings, appointments, and reports, among others.	"Item Types" on page 316 (Exchange) or "Item Types" on page 333 (Domino)
Logging	Allows you to specify whether the run information for the task is written to a log file, and if so, whether the information overwrites or appends to the existing log file. You can also designate how much detail the log file should contain.	"Logging" on page 314
Mailbox (Exchange)/ Mailbox Selection (Domino)	Allows you to specify the mail servers and mailboxes containing the messages you want to search for.	"Mailbox" on page 322 or "Mailbox Selection" on page 338

Table 38. Search Task Settings

Tab Name	Description/Guidelines	For more information, see:
Message Content	Allows you to specify which messages to search for based upon the content of those messages, such as the subject of the message, filenames of any message attachments, sender or recipient of the message, or size of the message. You can also set the maximum number of search results EmailXtract should return.	"Message Content" on page 303
NSF Selection	Allows you to search for messages in <i>.nsf</i> mail databases not locked by a Lotus Domino server. These mail databases might include mail files from people who have left the organization or mail databases that users set up on their local computers.	"NSF Selection" on page 339
Profile	Allows you to use a different MAPI profile to access the messages or other items that you want to search for.	"Profile" on page 320
PST Selection	Allows you to search for messages in <i>.pst</i> files.	"PST Selection" on page 325
Public Folders	Allows you to search for items in public folders. Items in both the root public folder and all subfolders of the public folder are included.	"Public Folders" on page 324
Scheduling	Allows you to name the Search task and choose whether to run the task immediately or to schedule it to run at a later time. You can also configure the task to run on a regularly scheduled basis, to run until it completes, or to stop at a certain time. Finally, you can configure the task to run as a service, which does not require you to be logged in when the task is processed.	"Scheduling" on page 312

You can configure default settings for each of these tabs using the Default Task Settings tab of the Configuration Options dialog box. EmailXtract saves the settings you configure as default settings, and automatically populates new tasks with the default values. This can save time if you use the same task settings repeatedly. However, you can change the default settings if necessary when you create a specific task. For more information on default task settings, see ["Default Task Settings" on page 263](#).

When you finish configuring a task, you can view and manage tasks that are currently running or scheduled to run in the future. You can edit the task, delete the task if it is not currently in progress, suspend the task if it is scheduled to run in the future, force a scheduled task to run immediately, and stop a task that is currently in progress. For more information, see ["Managing Scheduled Tasks" on page 347](#).

Once a Search task is complete, the results of the task appear in a task results window in the EmailXtract Administrator. You can purge items that appear in the results list from the mail server message store. You can also view those items or remove them from the search results for easier viewing. In addition, you can export task results to a .csv file. For more information on managing task results, see ["Managing Task Results" on page 349](#).

Analysis Task

The Analysis task, which is available when you install EmailXtract either on the mail server or on the EmailXtender server, allows you to evaluate the contents of mail servers to determine average message size, total message count, attachment information, and aging of messages. The data you collect using an Analysis task can help you decide how to manage the mail server message store. For example, you may determine that you have a large number of messages with attachments, so you might want to create shortcuts for those messages.

If you are using Microsoft Exchange, you can analyze data for messages and items such as appointments, tasks, and notes from mailboxes, public folders, and .pst files. If you are using Lotus Domino, you can analyze data for messages and items from mailboxes and private .nsf mail databases.

You can view either a summary or detailed analysis of information.

- The summary analysis contains approximate information about the current size of the mailbox and the number of messages it contains. EmailXtract does not open and enumerate individual folders and

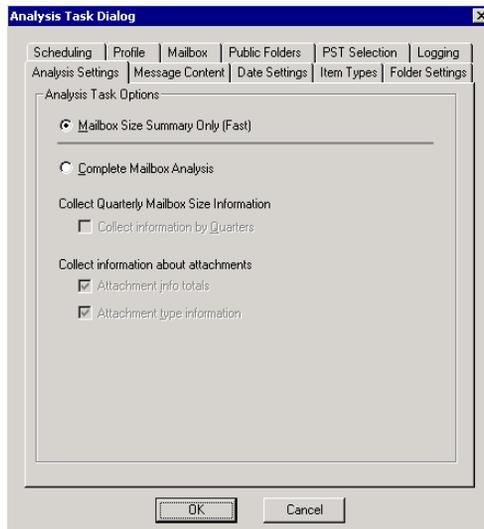
messages, and no filtering of the messages is performed as part of the analysis, regardless of what is specified on the other tabs of the Analysis task dialog box.

- A detailed analysis charts mailbox and server size information, and provides a thorough and accurate analysis of email age or attachment size and type. This analysis is based on the criteria configured on the other tabs of the Analysis task dialog box.

You can also choose whether to collect information about attachments, such as the number of attachments and their size, or the file types of the attachments.

You configure Analysis task settings using the tabs on the Analysis Task dialog box, which is shown in the following example:

Figure 115. Analysis Task Dialog Box



There are some tabs that are global for all tasks, some that are unique to a Microsoft Exchange environment, some that are unique to a Lotus Domino environment, and one tab - the Analysis Settings tab - that only appears for the Analysis task. The following table lists the tabs that appear, depending on whether you are using Microsoft Exchange or Lotus Domino.

Table 39. Analysis Task Dialog Box Tabs

If you are using Exchange, the following tabs appear:	If you are using Domino, the following tabs appear:
<ul style="list-style-type: none"> • Analysis Settings • Message Content • Date Settings • Item Types • Folder Settings • Scheduling • Profile • Mailbox • Public Folders • PST Selection • Logging 	<ul style="list-style-type: none"> • Analysis Settings • Message Content • Date Settings • Item Types • Folder Settings • Scheduling • Mailbox Selection • NSF Selection • Logging

Using the tabs in the Analysis Task dialog box, you can customize the task so that you analyze only the messages or items you want. For example, you could collect data for items that are:

- Older than a certain date
- Located in certain folders or mailboxes
- Larger than a certain size
- From a certain sender
- To a certain recipient
- Of a certain type, such as an email message, calendar item, or contact
- Containing certain content (keywords)

The Analysis Task dialog box also allows you to schedule the task to run at a certain time or even on a recurring basis. In addition, you can configure how EmailXtract writes task run information to a log file.

The following table contains information about each of the tabs in the Analysis Task dialog box.

Table 40. Analysis Task Settings

Tab Name	Description/Guidelines	For more information, see:
Analysis Settings	Allows you to choose whether you want to view a summary or detailed report, as well as whether you want to view information by each quarter of the year. You can also choose whether to view information about attachments, such as the number of attachments and their size, or the file types of the attachments.	"Analysis Settings" on page 346
Date Settings	Allows you to specify which messages to analyze based upon the date the messages were either received at the mail server or last modified. You can specify a date or date range.	"Date Settings" on page 310
Folder Settings	Allows you to specify the folders from which EmailXtract should analyze items. This could include the Inbox, Outbox, Deleted Items, Calendar, Contacts, and Sent Items in Exchange, or the Inbox, Sent, and Trash in Domino, among others.	"Folder Settings" on page 319 (Exchange) or "Folder Settings" on page 336 (Domino)
Item Types	Allows you to specify the types of items to analyze. This could include email messages, meetings, appointments, and reports, among others.	"Item Types" on page 316 (Exchange) or "Item Types" on page 333 (Domino)
Logging	Allows you to specify whether the run information for the task is written to a log file, and if so, whether the information overwrites or appends to the existing log file. You can also designate how much detail the log file should contain.	"Logging" on page 314

Table 40. Analysis Task Settings

Tab Name	Description/Guidelines	For more information, see:
Mailbox (Exchange)/ Mailbox Selection (Domino)	Allows you to specify the mail servers and mailboxes containing the messages you want to analyze.	"Mailbox" on page 322 or "Mailbox Selection" on page 338
Message Content	Allows you to specify which messages to analyze based upon the content of those messages, such as the subject of the message, filenames of any message attachments, sender or recipient of the message, or size of the message.	"Message Content" on page 303
NSF Selection	Allows you to analyze messages from .nsf mail databases not locked by a Lotus Domino server. These mail databases might include mail files from people who have left the organization or mail databases that users set up on their local computers.	"NSF Selection" on page 339
Profile	Allows you to use a different MAPI profile to access the messages or other items that you want to analyze.	"Profile" on page 320
PST Selection	Allows you to analyze messages from .pst files.	"PST Selection" on page 325

Table 40. Analysis Task Settings

Tab Name	Description/Guidelines	For more information, see:
Public Folders	<p>Allows you to analyze items in public folders. Items in both the root public folder and all subfolders of the public folder are included.</p> <p>Note: All items you analyze from public folders still belong to their creators and can only be retrieved during a search by the creator or administrator.</p>	"Public Folders" on page 324
Scheduling	<p>Allows you to name the Analysis task and choose whether to run the task immediately or to schedule it to run at a later time. You can also configure the task to run on a regularly scheduled basis, to run until it completes, or to stop at a certain time. Finally, you can configure the task to run as a service, which does not require you to be logged in when the task is processed.</p>	"Scheduling" on page 312

You can configure default settings for each of these tabs using the Default Task Settings tab of the Configuration Options dialog box. EmailXtract saves the settings you configure as default settings, and automatically populates new tasks with the default values. This can save time if you use the same task settings repeatedly. However, you can change the default settings if necessary when you create a specific task. For more information on default task settings, see ["Default Task Settings" on page 263](#).

When you finish configuring a task, you can view and manage tasks that are currently running or scheduled to run in the future. You can edit the task, delete the task if it is not currently in progress, suspend the task if it is scheduled to run in the future, force a scheduled task to run immediately, and stop a task that is currently in progress. For more information, see ["Managing Scheduled Tasks" on page 347](#).

Once an Analysis task is complete, the results of the task appear in a task results window in the EmailXtract Administrator. The task results window displays summary server information about the task; task results, such as

mailbox information (for example, messages analyzed, total message size, total mailboxes, number of duplicate messages encountered, etc.); and the task log file.

You can view task results as a bar graph, stacked bar graph, or pie chart, all of which you can print or save as an image file for future reference. You can also organize chart data by message size in MB, the total number of messages, or the average size of messages. If you choose the Complete Mailbox Analysis option as well as either the Attachment info totals or the Attachment type information option, you can display task results for the attachments in a separate chart. You can also export task results to a .csv file. For more information on managing task results, see ["Managing Task Results" on page 349](#).

11

Configuring Tasks

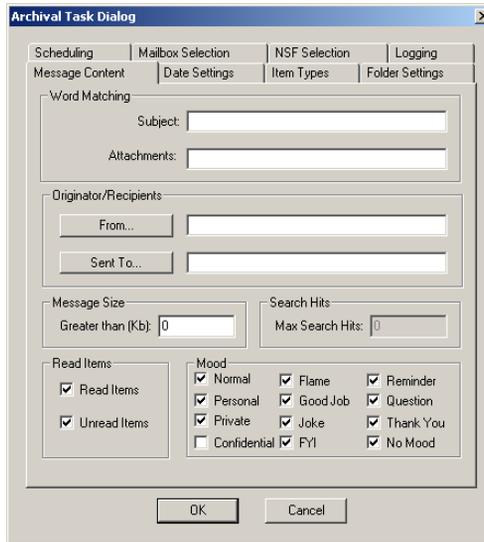
The way you manage the mail server message store in EmailXtract is by setting up tasks. There are five types of tasks: Archive, Shortcut, Delete, Search, and Analysis.

When you install EmailXtract on the EmailXtender server, you can run any of these tasks. When you install EmailXtract on the mail server, however, you can only run the Search and Analysis tasks.

All tasks are based on a set of default settings that you configure using the Default Task Settings tab of the Configuration Options dialog box. EmailXtract saves the settings you configure as default settings, and automatically populates new tasks with the default values. This can save time if you use the same task settings repeatedly. However, you can change the default settings if necessary when you create a specific task. For more information on default task settings, see ["Default Task Settings" on page 263](#).

You configure task settings using the tabs on each task's dialog box, as shown in the following example:

Figure 116. Sample Task Dialog Box



11

To open the task dialog box for each task:

Table 41. Task Configuration Options

To configure this task:	Select this toolbar icon:	Or use this menu combination:
Archive		Tasks>Archive Email
Shortcut		Tasks>Shortcut Email
Delete		Tasks>Delete Email

Table 41. Task Configuration Options

To configure this task:	Select this toolbar icon:	Or use this menu combination:
Search		Tasks>Search Email
Analysis		Tasks>Analyze Message Store

There are some settings/tabs that are global for all tasks, some that are unique to a Microsoft Exchange environment, some that are unique to a Lotus Domino environment, and some that are unique to the type of task.

The following table lists the tabs that appear for each task (global tabs appear for all tasks, regardless of the mail environment, Exchange-only tabs appear for all tasks in a Microsoft Exchange environment, Domino-only tabs appear for all tasks in a Lotus Domino environment, and task-specific tabs appear only for the related task).

Table 42. Task Setting Tabs

Global Tabs	Exchange-Only Tabs	Domino-Only Tabs	Task-Specific Tabs
<ul style="list-style-type: none"> • Message Content • Date Settings • Scheduling • Logging 	<ul style="list-style-type: none"> • Item Types* • Folder Settings* • Profile • Mailbox • Public Folders • PST Selection 	<ul style="list-style-type: none"> • Item Types* • Folder Settings* • Mailbox Selection • NSF Selection 	<ul style="list-style-type: none"> • Shortcut • Deletion • Analysis Settings

*The Folder Settings and Item Types tabs contain different options depending on the mail environment you are using.

For detailed information on the task settings you can configure on each of the tabs, see the following sections:

- ["Global Task Settings" on page 303](#)
- ["Task Settings for Microsoft Exchange" on page 316](#)
- ["Task Settings for Lotus Domino" on page 333](#)
- ["Task-Specific Settings" on page 340](#)

Global Task Settings

You must configure the same options on the Message Content, Date Settings, Item Types, Scheduling, and Logging tabs regardless of the task you want to run. For more information, see the following sections:

- ["Message Content" on page 303](#)
- ["Date Settings" on page 310](#)
- ["Scheduling" on page 312](#)
- ["Logging" on page 314](#)

Message Content

The Message Content tab allows you to specify which messages to process in an EmailXtract task based upon the content of those messages. You can select messages using the following content types:

- Subject of the message
- Filenames of any message attachments
- Sender or recipient of the message
- Size of the message
- Whether the message has been read
- Sensitivity (Exchange) or Mood (Domino) of the message

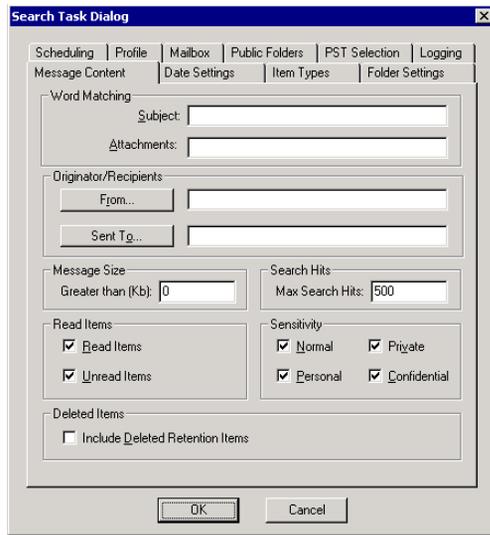
If you are using Microsoft Exchange, you can also apply the task to messages that are identified as Deleted Retention Items. Such messages exist only when the Exchange server is set to retain deleted items.



Important: When you specify these criteria, it is important to note that the task processes only those messages that match *all* specified criteria and not just some of those criteria.

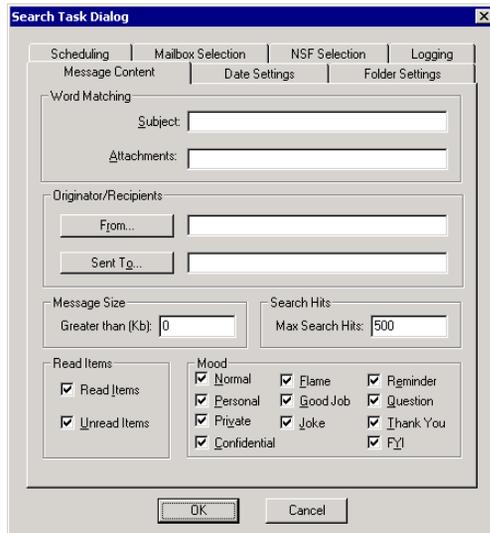
The Message Content tab appears slightly different in a Microsoft Exchange environment than it does in a Lotus Domino environment. In a Microsoft Exchange environment, you can choose the Sensitivity of a message, as well as whether to apply the task to Deleted Retention Items.

Figure 117. Message Content Tab for Microsoft Exchange



In Lotus Domino, you choose the Mood of a message instead.

Figure 118. Message Content Tab for Lotus Domino



To configure message content criteria for a task:

1. In the Subject text box, enter the subject line for the message. You can construct detailed Subject queries using wildcards and Boolean operators. For more information, see ["Special Characters" on page 308](#) and ["Boolean Queries" on page 309](#).

Before you create a Subject query, however, it is helpful to understand how EmailXtract processes the query. For more information, see ["Subject Field Processing" on page 307](#).

If you are applying the task to messages that use multi-byte languages (such as Japanese or Simplified Chinese), do not use multi-byte characters in the Subject text box. If you use multi-byte characters, EmailXtract will complete the task without errors, but the matching word requirements will be ignored.

2. In the Attachments text box, enter the name of the attachment.
 - **Wildcards** - You can use the asterisk (*) or question mark (?) characters as wildcards in the attachment filename. For more information on using wildcards, see ["Special Characters" on page 308](#).
 - **Boolean queries** - You *cannot* use logical operators such as AND, OR, NOT, and parentheses in a query in the From text box.
 - **Multiple entries** - To enter multiple attachments, separate the filenames with semicolons. The task processes messages containing any of the listed attachments.

If you are applying the task to messages that use multi-byte languages (such as Japanese or Simplified Chinese), do not use multi-byte characters in the Attachments text box. If you use multi-byte characters, EmailXtract will complete the task without errors, but the matching word requirements will be ignored.

3. In the From text box, enter the email address of the person or the name of the group or distribution list that sent the message. To select a name or address from an address book, click From.
 - **Groups/distribution lists** - If you enter the name of a group or distribution list, the task processes all messages that were sent from the group or distribution list as well as all messages that were sent from the individuals that belong to the group or distribution list.
 - **Wildcards** - You can use the asterisk (*) or question mark (?) characters as wildcards in the email address or group/distribution list name. For more information on using wildcards, see ["Special Characters" on page 308](#).

- **Boolean queries** - You *cannot* use logical operators such as AND, OR, NOT, and parentheses in a query in the From text box.
 - **Multiple entries** - To enter multiple senders, separate the email addresses, group names, or distribution list names with semicolons. You can also select multiple senders from the address book when you click From.
4. In the Sent to text box, enter the email address of the person or the name of the group or distribution list that received the message. To select a name or address from an address book, click Sent to.
 - **Groups/distribution lists** - If you enter the name of a group or distribution list, the task processes all messages that were received by the group or distribution list as well as all messages that were received by the individuals that belong to the group or distribution list.
 - **Wildcards** - You can use the asterisk (*) or question mark (?) characters as wildcards in the email address or group/distribution list name. For more information on using wildcards, see "[Special Characters](#)" on page 308.
 - **Boolean queries** - You *cannot* use logical operators such as AND, OR, NOT, and parentheses in a query in the Sent to text box.
 - **Multiple entries** - To enter multiple recipients, separate the email addresses, group names, or distribution list names with semicolons. You can also select multiple recipients from the address book when you click Sent to.
 5. In the Greater than text box, enter the message size in KB that a message must be greater than or equal to in order to be processed by the task. If you enter zero, the task processes messages of all sizes.
 6. If you are configuring a Search task, in the Max Search Hits text box, enter the maximum number of search results the task should return. To return all messages that match the search criteria, enter zero.
 7. Choose whether to include Read and Unread items in the task.
 - To include only items that have been read, select the Read check box and clear the Unread check box.
 - To include only items that have not yet been read, clear the Read check box and select the Unread check box.
 - To include *both* Read and Unread items (all messages), select both the Read and Unread check boxes.

Note: You should select at least one of the check boxes; otherwise, the task will not apply to any items.

8. Choose the Sensitivity or Mood selection that the message must match.

- If you are using Microsoft Exchange, choose the Sensitivity setting, such as Normal, Personal, Private, or Confidential.
- If you are using Lotus Domino, choose the Mood setting, such as Normal, Joke, Reminder, Question, or Thank You.
- To process messages regardless of their Sensitivity or Mood, select all check boxes.

Note: You should select at least one of the check boxes; otherwise, the task will not apply to any items.

9. If you are using Microsoft Exchange, choose whether to include deleted items that have been retained. Such messages exist only when the Exchange server is set to retain deleted items.

Note: This check box is not available for the Shortcut task.

Subject Field Processing

To understand how to construct a Subject field query, you need to understand how the query is processed.

1. The query is separated into terms. A term is one or more characters that is bounded by two delimiters.
2. The delimiters of the terms are discarded. Term delimiters include the following characters:
 - Space, tab, line feed, or return
 - Backslash (\)
 - Comma (,)
 - Colon (:)
 - Semicolon (;)
 - Quotation mark (")
 - Apostrophe (')
 - Period (.)
 - Exclamation point (!)
 - Question mark (?)

Note: Each of these delimiters may themselves be searched for as terms, if they are themselves delimited. For example, the exclamation point and semicolon characters would be the terms in the following query because the exclamation point is delimited by two commas and the semicolon is delimited by a comma and a space: `!,;`

For example, in the following query string:

Re: EmailXtender \temp directory

The colon (:), backslash (\), and spaces would be discarded, and the following terms would be processed:

- **Re**
- **EmailXtender**
- **temp**
- **directory**

3. The terms are used to match text in the appropriate field. All terms in the search query must be present in the results returned; however, they can be in any order and do not need to be adjacent.

Special Characters

There are several special characters that allow you to override the default processing of terms in a search query.

You can use question marks and asterisks as wildcards in the Subject, Attachments, From, and Sent to text boxes on the Message Content tab. You can also use a bounded string to search for a certain text string.

Table 43. Special Characters in an Advanced Search

Special Character	Description
Question mark (?)	<p>Matches any single character.</p> <p>Note: You cannot search for the question mark character itself because it is a wildcard character.</p> <p>Example: Enter the following in the Attachments text box to return messages with an attachment that has a filename of <i>trades.doc</i>, <i>trades.zip</i>, <i>trades.xls</i>, etc.: <code>trades.???</code></p>
Asterisk (*)	<p>Matches zero or more characters. When used alone in a query, it matches everything. When used in combination with other characters, it matches the terms that contain it.</p> <p>Example: Enter the following in the From text box to return messages that were sent by John Smith, John Smyth, John Smooth, etc.: <code>john.sm*th@domain.com</code></p>
Bounded String	<p>A collection of characters within either single or double quotes. Any text within the string is treated literally. The same type of quote must be used on both sides of the string.</p> <p>Example: Enter the following in the Subject text box to return messages with the phrase "cats and dogs" in the Subject line: <code>'cats and dogs'</code></p> <p>Note: In this example, the word "and" would be treated as a term to be searched for and not as a logical operator for a Boolean query.</p>

Boolean Queries

You can use the AND, OR, and NOT logical operators as well as parentheses to construct a Boolean query in the Subject text box on the Message Content tab.

Note: You cannot search for logical operators themselves.

The following table describes how to use these logical operators:

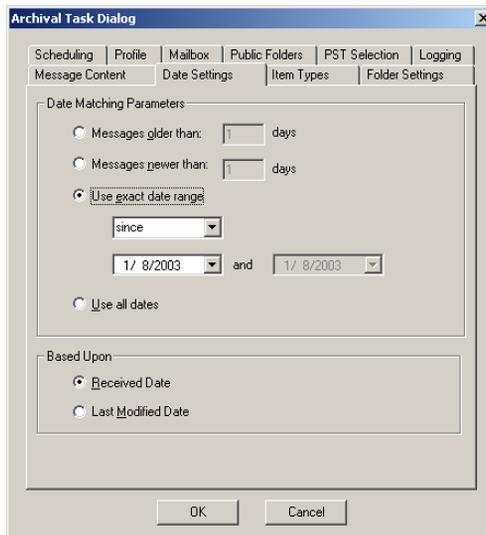
Table 44. Using Logical Operators in the Subject Field

Operator	Specifies that
AND	<p>Finds messages that include <i>all</i> terms separated by the operator.</p> <p>Example: Enter the following to return messages with a subject line that includes the word "Buy" and the word "Sell" but <i>not</i> messages that include only "Buy" or only "Sell": Buy AND Sell</p>
OR	<p>Finds messages that include either or both of the terms separated by the operator.</p> <p>Example: Enter the following to return messages with a subject line that includes the word "Buy", the word "Sell", or both "Buy" and "Sell": Buy OR Sell.</p>
NOT	<p>Finds messages that do <i>not</i> include the term that follows the operator.</p> <p>Example: Enter the following to return messages with a subject line that includes the word "Buy" but not the word "Sell": Buy NOT Sell.</p>
()	<p>Allows you to group portions of a search expression.</p> <p>Example: Enter the following to return messages with a subject line that includes the word "Buy" but not the word "Sell": Buy AND (NOT Sell)</p>

Date Settings

The Date Settings tab allows you to specify which messages to process based upon the date the messages were either received at the mail server or last modified. You can specify a date or date range.

Figure 119. Date Settings Tab



To configure date settings criteria for a task:

1. In the Based Upon region at the bottom of the tab, choose whether the date settings should consider the date the message was received at the mail server or the date the message was last modified. (A modified message is a new instance of a message.)

Note: To process both original and modified messages, you must run two tasks - one based on the received date and the other based on the modified date.

2. In the Date Matching Parameters region, choose the age or date range for the message.
 - **Messages older than** - To process messages that are older than a certain number of days, select Messages older than and then enter the number of days as a whole number in the text box.

Example: If today is December 20 and you enter 2 as the number of days, EmailXtract processes messages that were either received or modified before December 18.
 - **Messages newer than** - To process messages that are newer than a certain number of days, select Messages newer than and then enter the number of days as a whole number in the text box.

Example: If today is December 20 and you enter 2 as the number of days, EmailXtract processes messages that were either received or modified after December 18.

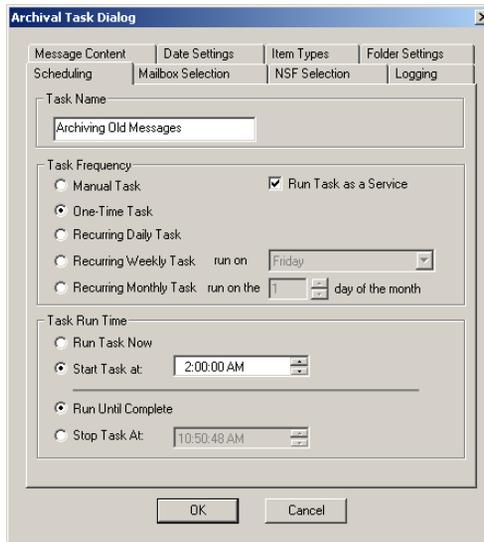
- **Use exact date range** - To process messages that fall within a certain date range, select Use exact date range, select an operator, and then enter the date(s).
 - **Since** - To process all messages that have been received or modified since a certain date, select Since and then enter a single date.
 - **Before** - To process all messages that were received or modified prior to a certain date, select Before and then enter a single date.
 - **Between** - To process all messages that were received or modified during a certain date range (including on the specified dates), select Between and then enter a start and end date.
- **Use all dates** - To process all messages regardless of the date they were received or modified, select Use all dates.

Scheduling

The Scheduling tab allows you to choose whether to run the task immediately or to schedule it to run at a later date. You can also configure the task to run on a regularly scheduled basis, to run until it completes, or to stop at a certain time. Finally, you can configure the task to run as a service, which does not require you to be logged in when the task is processed.

It can be useful to stop a task at a certain time if you do not want the task to impact other processes. For example, you may want to set up a regularly occurring Archive task to run overnight when system usage is at its lowest. If the task does not finish processing before most users arrive and begin using the system, however, you can configure the task to stop so that it does not provide a visible performance impact.

Figure 120. Scheduling Tab



To schedule a task:

1. In the Task Name text box, enter a unique name for the task. When you add a new task, EmailXtract automatically generates a task name such as Task9999, where 9999 is a generated incremental number. You can either use the automatically generated name or enter a descriptive name for the task.

Note: When you configure default task settings, the Task Name text box is dimmed.

2. In the Task Frequency region, choose the frequency with which you want the task to repeat.
 - **Manual Task** - Select Manual Task to run the task manually. To run a task manually, open the Scheduled Tasks dialog box (from the Option menu, select Scheduled Tasks), select the task, and then click Force Run.
 - **One-Time Task** - Select One-Time Task to run the task once, starting at the time you designate in the Task Run Time region.
 - **Recurring Daily Task** - Select Recurring Daily Task to run the task every day starting at the time you designate in the Task Run Time region.

- **Recurring Weekly Task** - Select Recurring Weekly Task to run the task every week. Then, from the drop-down list, choose the day of the week on which you want the task to run.
 - **Recurring Monthly Task** - Select Recurring Monthly Task to run the task every month. Then, in the text box, enter the day of the month on which you want the task to run.
3. In the Task Frequency region, choose whether to run the task as a service. Running a task as a service allows you to exit EmailXtract Administrator and log out of the system. The task will process unattended according to the configured settings.
 4. In the Task Run Time region, choose whether to start the task immediately or to start the task later.
 - To run the task immediately, select Run Task Now.
 - To run the task later, select Start Task At, and then enter the time in text box.
 5. Choose whether to allow the task to run until it is complete or to stop the task at a certain time.
 - To allow the task to run until it is complete, select Run Until Complete.
 - To stop the task at a certain time, select Stop Task At, and then enter the time in the text box.

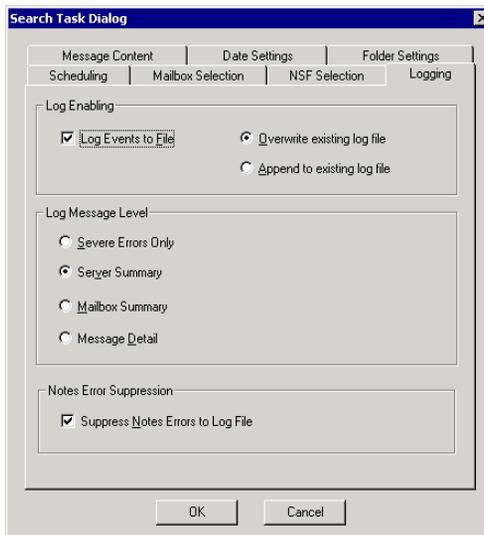
Logging

The Logging tab allows you to specify whether the run information for the task is written to a log file, and if so, whether the information overwrites or appends to the existing log file. You can also designate how much detail the log file should contain for the task.

If you are using Lotus Domino, you can choose whether to write all error messages to a log file instead of displaying the error messages and stopping the application.

Note: EmailXtract log files cannot display multi-byte characters (such as Japanese or Simplified Chinese characters). These characters appear in the log file as question marks (?).

Figure 121. Logging Tab



To configure logging for a task:

1. In the Log Enabling region, choose whether to write events to a log file.
 - To write events to a log file, select the Log Events to File check box.
 - To disable logging for the task, clear the Log Events to File check box. If you disable logging, all of the other options on the Logging tab are dimmed.
2. If you chose to write events to a log file, choose whether to overwrite the existing log file or to append the new events to the existing log file. This option is useful when configuring recurring tasks; one-time tasks always produce a new log file as long as the task name is unique.
 - To replace the previous log file with the current log file for recurring tasks, select Overwrite existing log file.
 - To add the current log events to the existing file when running a recurring task, select Append to existing log file.
3. In the Log Message Level region, choose the amount of information to include in the log file.
 - To write only serious server errors to the log file, select Severe Errors Only.

- To write server summary information to the log file, select Server Summary.
- To write mailbox summary information to the log file, select Mailbox Summary.

Note: Choosing a summary option decreases the size of log files and reduces the amount of time needed to process the task.

- To write a detailed log of the number of messages processed by the task, as well as a summary of totals for each mail server, select Message Detail. This option also logs severe server errors.
4. If you are using Lotus Domino, choose whether to write all error messages to a log file instead of displaying them and stopping the application, if applicable.
- To write error messages to a log file, select the Suppress Notes Errors to Log File check box.
 - To display error messages and stop the application, clear the Suppress Notes Errors to Log File check box.

Task Settings for Microsoft Exchange

If you are using Microsoft Exchange, you must configure the same options on the Folder Settings, Profile, Mailbox, Public Folders, and PST Selection tabs regardless of the task you want to run. For more information, see the following sections:

- ["Item Types" on page 316](#)
- ["Folder Settings" on page 319](#)
- ["Profile" on page 320](#)
- ["Mailbox" on page 322](#)
- ["Public Folders" on page 324](#)
- ["PST Selection" on page 325](#)

Item Types

The Item Types tab allows you to specify the types of items - such as email messages, meetings, appointments, and reports - to process in an EmailXtract task.

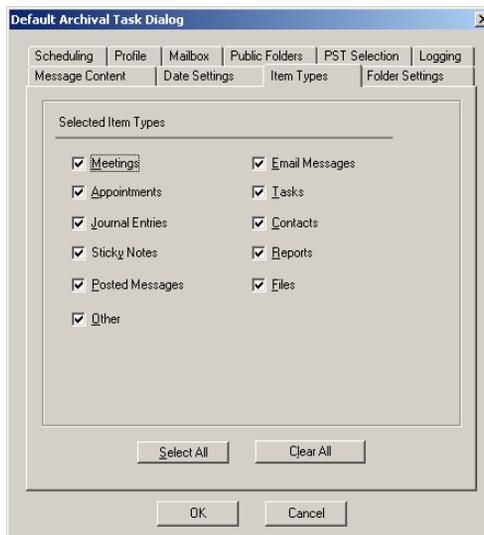
The Item Types tab is available for all tasks except the Shortcut task, since only email messages may contain shortcuts.

Note: If you are configuring a Delete task and you select the Create Shortcuts option on the Deletion tab, the Item Types tab is dimmed. For more information on the Deletion tab, see ["Deletion" on page 344](#).

You must coordinate the item types you select on the Item Types tab with the folders you select on the Folder Settings tab. For example, if you want to process appointments that reside in the Calendar folder, you must select the Appointments check box on the Item Types tab and the Calendar check box on the Folder Settings tab. For more information on selecting folder settings criteria, see ["Folder Settings" on page 336](#).

In addition, if you want to apply the task to item types in public folders or .pst files, you should specify folders or files using the Public Folders and PST Selection tabs, respectively. For more information, see ["Public Folders" on page 324](#) and ["PST Selection" on page 325](#).

Figure 122. Item Types Tab for Microsoft Exchange



The item types listed in the following table appear on the Item Types tab when you are using Microsoft Exchange. This table also lists the message class for each item type to allow you to better identify each item type.

Table 45. Microsoft Exchange Item Types

Item Type	Description	Message Class
Meetings	All meeting request messages	ipm.schedule
Appointments	All Calendar folder entries or meeting request messages	ipm.appointment
Journal Entries	All Journal folder entries	ipm.activity
Sticky Notes	All Notes folder entries	ipm.stickynote
Posted Messages	All messages posted to a public folder	ipm.post
Other	Any entry that is not one of the other standard types, or derived from one of the standard types; for example, a distribution list entry or a custom document type	Not applicable
Email Messages	All email messages	ipm.note
Tasks	All task entries	ipm.task
Contacts	All contact items	ipm.contact
Reports	All reports, such as read receipt and delivery reports	report.ipm.note
Files	All documents in a folder Note: Documents do not include attachments to a message; they are simply standalone documents	ipm.document

To configure item types criteria for a task:

- On the Item Types tab, choose the item types you want to include in the task.
 - To include an item type, select the check box for the item type.

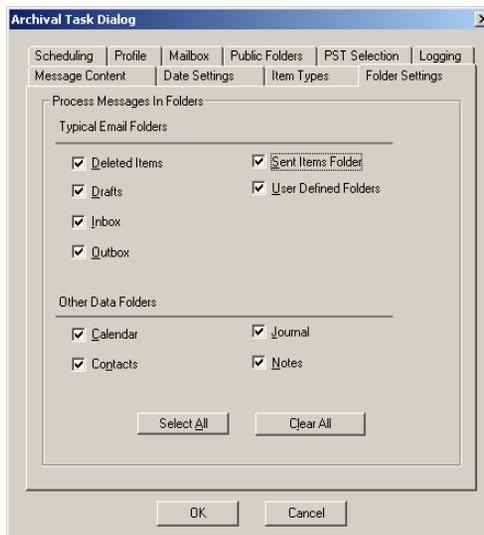
- To exclude an item type, clear the check box for the item type.
- To include all item types, click Select All.
- To clear all of the selected item types at once, click Clear All.

Note: You should select at least one of the check boxes; otherwise, the task will not apply to any items.

Folder Settings

The Folder Settings tab allows you to specify which folders - such as the Inbox, Outbox, Deleted Items, and Sent Items - EmailXtract should include in the task. You can also include the Calendar, Contacts, Journal, and Notes folders in the task.

Figure 123. Folder Settings Tab for Microsoft Exchange



Each of the folders that are listed, except for User Defined Folders, correspond to a folder in the Microsoft Outlook mail client.

You should consider the following guidelines when selecting folders:

- **Deleted Items** - If you are configuring an Archive task, you may want to clear the Deleted Items check box so that you do not archive deleted items.

- **User Defined Folders** - This option allows you to apply the task to user-created folders. If the user-created folders reside within other folders, such as the Inbox, you must select both the Inbox and User Defined Folders check boxes. If the user-created folders are located at the top level of the mailbox, similar to the Inbox or Sent Items folders, you only need to select the User Defined Folders check box.
- **Coordinating with item type selections** - You must coordinate the folders you select on the Folder Settings tab with the item types you select on the Item Types tab. For example, if you want to process appointments that reside in the Calendar folder, you must select the Appointments check box on the Item Types tab and the Calendar check box on the Folder Settings tab. For more information on selecting item types, see ["Item Types" on page 316](#).
- **Public folders and .pst files** - If you want to apply the task to public folders or .pst files, you should specify folders or files using the Public Folders and PST Selection tabs, respectively. For more information, see ["Public Folders" on page 324](#) and ["PST Selection" on page 325](#).

To configure folder settings criteria for a task:

- On the Folder Settings tab, choose the folders you want to include in the task.
 - To include a folder, select the check box for the folder.
 - To exclude a folder, clear the check box for the folder.
 - To include all folders, click Select All.
 - To clear all of the selected folders at once, click Clear All.

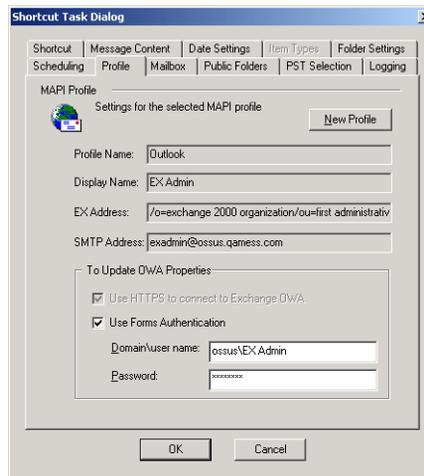
Note: If you are configuring a Shortcut task, the Calendar, Contacts, Journal, and Notes check boxes are dimmed. You cannot apply a Shortcut task to these folders.

Note: You should select at least one of the check boxes; otherwise, the task will not apply to any folders.

Profile

The Profile tab allows you to set a different MAPI profile for access to messages or other items that you want to process using the task and to enable the use of HTTPS or Forms Authentication to connect to Outlook Web Access (OWA).

Figure 124. Profile Tab



The Profile tab displays the default MAPI profile that you specified either when you opened the EmailXtract Administrator the first time or when you configured EmailXtract options on the Configuration Options dialog box. For more information, see ["Starting the Administrator" on page 258](#) and ["Profile" on page 266](#).

Note: Administrative access rights to an Exchange server are based upon the privileges associated with the Windows user account being used, and not with the MAPI profile being used. In general, the MAPI profile is used to provide access to address books and a listing of available Exchange servers.

Note: If you are applying EmailXtract tasks to messages that use multi-byte character sets (such as Japanese and Simplified Chinese) and you want to change the MAPI profile that EmailXtract uses, you must first delete the language journaling profiles that EmailXtract creates automatically. To delete the profile, right-click the Microsoft Outlook icon on the desktop of the EmailXtender server, and then select Properties from the shortcut menu. On the Service tab, click Show Profiles. On the General tab of the Mail dialog box, select all of the *exExtract-language-codepage* profiles (where *language* is the name of the language and *codepage* is the codepage number), and then click Remove. You can then change the profile.

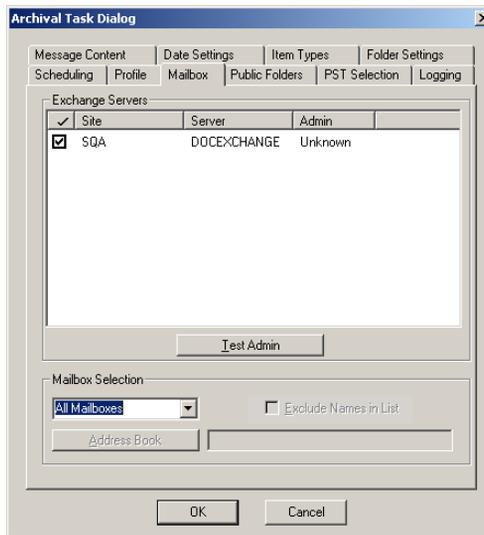
To configure the Profile tab:

1. Make sure that the selected profile has the proper privileges. If the profile is going to be used to archive, shortcut, or delete items from public folders, make sure it has sufficient permissions to access all selected folders.
 - a. To change the profile, click New Profile. A list of MAPI profiles that have been set up locally appears.
 - b. Select the profile you want to use as the MAPI default and click OK.
2. Choose whether to enable the use of the HTTPS (HTTP over SSL) protocol or forms-based authentication between EmailXtender, Exchange, and Outlook Web Access (OWA).
 - To use HTTPS, select the Use HTTPS to connect to Exchange OWA check box. Once this option is selected, you can only access Exchange servers that are using the SSL (Secure Socket Layer) to connect to OWA. If the option is not selected, only non-SSL servers can be used.
 - To enable the use of forms-based authentication, select the Use Forms Authentication option and then enter the user name (including domain) and password of the EmailXtender service account.
(When you select the Use Forms Authentication option, the Use HTTPS to connect to Exchange OWA option is automatically selected as well.)
3. Click OK.

Mailbox

The Mailbox tab allows you to specify the mail servers and mailboxes from which the task processes messages.

Figure 125. Mailbox Tab



To select mail servers and mailboxes for the task:

- In the Exchange Servers list box, choose the Exchange servers from which the task will process messages. You must select at least one server.
 - To process messages from a server, select the check box column for the server.
 - To exclude a server from the task, clear the check box column for the server.
- To confirm that the MAPI profile you selected on the Profile tab has the proper privileges on the selected servers, click Test Admin. For more information on selecting a profile, see ["Profile" on page 320](#).
- Choose the mailboxes on the selected servers that you want to include in the task.
 - To process all mailboxes on the selected mail servers, select All Mailboxes from the drop-down list.
 - To select email addresses or distribution lists from the address book, select User or Group Name from the drop-down list and then click Address Book to select the names.
 - To manually enter an email address or distribution list name, select Enter User or Group from the drop-down list and then enter the name in the text box.

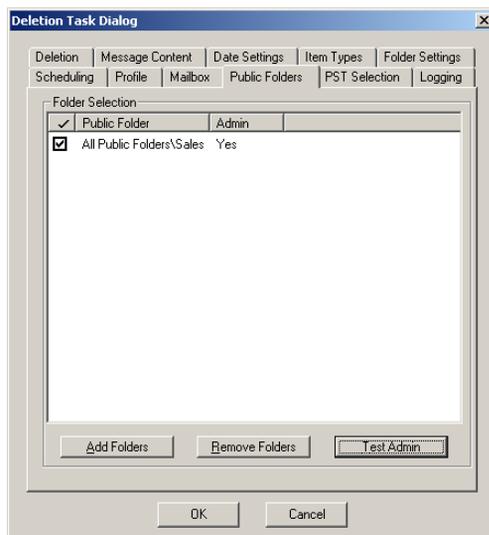
Note: When specifying a distribution list for a task, the distribution list name cannot include the equals sign (=). Specifying a distribution list name containing that character, such as =Benefits=, will result in the task not being performed.

4. If you selected the User or Group Name option from the drop-down list and you want to exclude a particular email address or distribution list from the task, select the Exclude Names in List check box and then enter the name in the text box.

Public Folders

The Public Folders tab allows you to include items in public folders in the task. Items in both the root public folder and all subfolders of the public folder are included.

Figure 126. Public Folders Tab



Note: The items in the public folder that are processed by the task depend on the item types selected on the Item Types tab. For more information, see ["Item Types" on page 316](#).

Note: If you are running an Archive or Shortcut task, keep in mind that all items in the public folders that are processed by the task still belong to their creators and can only be retrieved during a search by the creator or administrator.

Note: In order for public folders to work correctly with EmailXtract and EmailXtender, the EmailXtender service account must be set as an owner for those public folders that are accessed by the programs.

To include public folders in the task:

1. Add all public folders you want the task to process.
 - a. Click Add Folders. The existing public folders appear in the Choose Public Folder dialog box.
 - b. Select a folder and then click OK. The public folder is listed in the Folder Selection list box with a check mark in the leftmost column.

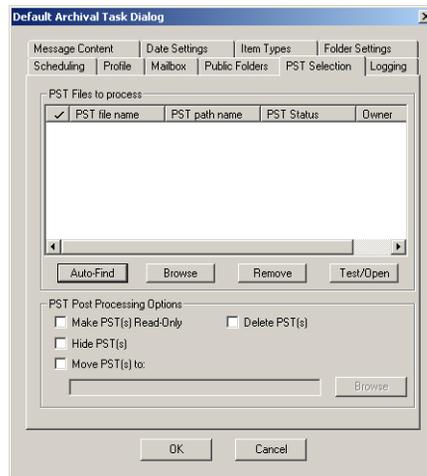
Note: If you are applying the task to messages that use multi-byte languages (such as Japanese or Simplified Chinese), do *not* select a public folder with a name that uses multi-byte characters. You can, however, select a public folder with a name that does not use multi-byte characters, and EmailXtract will apply the task to multi-byte language messages within that public folder.

2. Remove all public folders you do *not* want the task to process.
3. Click Test Admin to verify that the profile you specified on the Profile tab has access to the selected folders. If access is allowed, the Admin column displays a value of Yes for each folder. For more information on selecting a profile, see "[Profile](#)" on page 320.

PST Selection

PST files that exist on end user machines or in other locations can represent challenges for companies that want to be able to ensure that items associated with Outlook users are archived in EmailXtender. You can use EmailXtract to find and select .pst files across the network and archive them in EmailXtender. This renders existing messages that are migrated to the EmailXtender archive accessible to search, restore, and delete features included in EmailXtender.

Figure 127. PST Selection Tab



Using the PST Selection tab, you can perform the following actions:

- **Find and select .pst files** – You can auto-find or manually browse the network for .pst files. Once .pst files are discovered, you can select the ones you want to process.
- **Determine .pst ownership (automatically or manually)** – When you select one or more .pst files, EmailXtract attempts to automatically determine the owner of the .pst file using addressing information in the file. In cases where ownership cannot be automatically determined, you can manually associate an owner with the .pst file.
- **Create shortcuts to archived items in the end user's Outlook client interface** – Once the migration is completed, you can use the Shortcut to Mailbox option to create a new folder in the owner's mailbox on the Microsoft Exchange server (identified by the .pst file name) which preserves the .pst folder structure and shortcuts to each message. This allows the end user access to the messages while eliminating the need for a .pst file to exist on the end user's local machine.

Alternatively, you can create shortcuts to the messages in the .pst file on the end user's local machine.

Note: Replacing messages in .pst files with shortcuts on the end user's local machine does not reduce their size unless you compact the .pst files after you create the shortcuts. To compact a file, you must instruct the end user to open the Properties dialog box for the file in Microsoft Outlook, select the Advanced tab, and then choose Compact Now.

- **Delete, move, hide or make .pst files read-only after they have been archived** – You can then perform post-processing actions on the .pst files which include deleting, hiding, moving or marking them as read-only. This enables you to eliminate the need for .pst files to exist on an end user's local machine.

PST Migration Best Practices

The following sections describe best practice recommendations for migrating .pst files:

- ["Migration Considerations" on page 327](#)
- ["Migration Planning Recommendations" on page 328](#)
- ["Testing PST Migration" on page 328](#)

Migration Considerations

Understand the following considerations:

- Before beginning the migration process, verify that the .pst files you want to include in the task are not open or being used by a user. See ["Migration Planning Recommendations" on page 328](#) for more information.
- The EmailXtender administrator or service that is running this task must have administrator rights on all machines selected for the migration.
- EmailXtract cannot archive password-protected .pst files. Work with the file owner to remove password protection before archiving the .pst file.
- The .pst migration process utilizes additional resources on the EmailXtender server. You should schedule tasks during times when normal EmailXtender processing is low.
- Outlook client versions on the EmailXtender server must match or exceed the Outlook client version on the computers on which .pst files are being migrated. For example:
 - If you have Outlook 2000 on the EmailXtender server, you can only migrate Outlook 2000 or XP .pst files, but not Outlook 2003 .pst files.
 - If client machines in your environment include a mixture of Outlook 2000 and Outlook 2003, then the EmailXtender server must have Outlook 2003 installed.
- You should enable logging to file and set the Log Message Level to Message Detail. See ["Logging" on page 314](#) for more information.

- Post-processing tasks are predicated on the successful processing of each *.pst* file. If migration fails for one or more *.pst* files, any post-processing options configured in the task will not take place for the files which could not be migrated. Post-processing options for *.pst* files which were successfully migrated will be applied.

Migration Planning Recommendations

Consider the following planning recommendations:

- Determine how many *.pst* files you can realistically process in a given time period. See "[Testing PST Migration](#)" on page 328 for details.
- Determine the best time to perform migrations. In most cases, overnight or weekend processing is recommended to minimize impact to both users and EmailXtender resources.
- Decide how you want to group your users. In an environment with many small domains, you may want to process *.pst* files on all computers in each domain. In an environment with large domains, you may want to group computers alphabetically or sequentially. Or, you may want to group computers according to functional area or department
- Develop email communication to notify users of upcoming processing
 - Describe the goals of the processing and benefits to the organization and the user.
 - Describe when users can expect the processing to take place.
 - Describe the users's responsibilities to support processing (e.g., close Outlook, logout, ensure folders in which *.pst* files are located are not read-only).
 - Describe what users can expect to see in their Outlook mail client after processing is complete. If you select the Shortcut to Mailbox post-processing option, *.pst* files (including the intact folder structure) will be represented in the user's Outlook mail client. If you do not select the Shortcut to Mailbox option, users can search for items that were in the archived *.pst* files using the Search Plug-in or Web Search.
 - Describe any actions users may need to take to complete processing (e.g., delete any folders where a *.pst* file was previously stored to remove Outlook file not found error messages).
 - Provide contact information for questions or issues.

Testing PST Migration

Before conducting PST migration, you should conduct tests to determine the following:

- How long does it take to process a given number of *.pst* files? For example, if you plan on processing *.pst* files overnight and it takes 24 hours to process 100 *.pst* files, you may want to process a much smaller number of *.pst* files in each overnight task.
- Identify and resolve any common issues.

Selecting PST Files

You can select *.pst* files to be processed by the task using the Auto-Find button or by manually browsing. For more information, see the following sections:

- ["Auto-Finding PSTs" on page 329](#)
- ["Browsing for PSTs" on page 331](#)

Auto-Finding PSTs

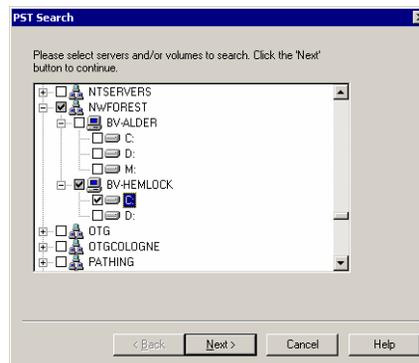


Important: Before beginning this procedure, verify that the *.pst* files you want to include in the task are not open or being used by a user.

To search for *.pst* files to include in the task:

1. Click Auto-Find. The PST Search wizard displays a list of available domains.

Figure 128. PST Search Wizard



Do one of the following:

- Select an entire domain.

- Expand one or more domains to view the list of computers in that domain.
- Expand one or more servers to view the list of volumes.

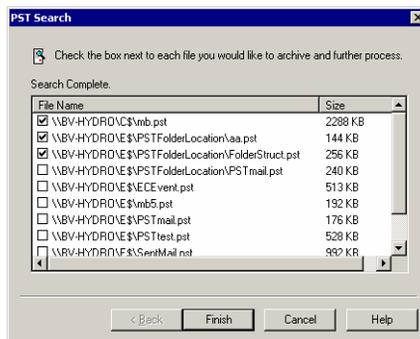
Note: You must have appropriate administrative privileges to select *.pst* files. For example, to select all *.pst* files within a domain, you must have domain administrator privileges for that domain or local administrator privileges for each computer in the domain.

2. Click Next.

The PST Search wizard displays the search progress, including the path that is currently being searched.

After the search is completed, the PST Search wizard displays the results.

Figure 129. PST Search Wizard Results



3. Select the check box next to each *.pst* file you want to add to the PST Selection tab or click the Select All check box and click Finish.

EmailXtract attempts to determine the owner for each *.pst* file selected.

Note: If an owner cannot be determined automatically, you can associate one manually. See ["Refining the List of PST Files to Process" on page 331](#) for more information.

Note: If you are applying the task to messages that use multi-byte languages (such as Japanese or Simplified Chinese), do *not* select a *.pst* file with a name that uses multi-byte characters. You can, however, select a *.pst* file with a name that does not use multi-byte characters, and EmailXtract will apply the task to multi-byte language messages within that file.

Once processing is complete, the *.pst* files display in the PST Files to process list on the PST Selection tab.

Browsing for PSTs

Note: Before beginning this procedure, verify that the *.pst* files you want to include in the task are not open or being used by a user.

To manually browse for *.pst* files to include in the task:

1. Click Browse and then browse to the *.pst* file you want to include in the task.

Note: If you are applying the task to messages that use multi-byte languages (such as Japanese or Simplified Chinese), do *not* select a *.pst* file with a name that uses multi-byte characters. You can, however, select a *.pst* file with a name that does not use multi-byte characters, and EmailXtract will apply the task to multi-byte language messages within that file.

2. Click OK.

EmailXtract attempts to determine the owner for each *.pst* file selected.

Note: If an owner cannot be determined automatically, you can associate one manually. See ["Refining the List of PST Files to Process" on page 331](#) for more information.

Once processing is complete, the *.pst* files display in the PST Files to process list on the PST Selection tab.

Refining the List of PST Files to Process

To refine the list of *.pst* files you want to process when the task is performed:

1. Review the PST Files to process list. The list displays:
 - Selection status - a check mark indicates whether the *.pst* file will be included in the task
 - PST file name - name of the *.pst* file
 - PST path name - network path of the *.pst* file
 - PST status - status of the *.pst* file.
 - Owner - owner of the *.pst* file.
2. Remove *.pst* files you do not want the task to process by highlighting one or more *.pst* files and clicking Remove.
3. If the Owner field is blank for one or more *.pst* files, you can assign the owner from the Exchange address book or manually enter an Exchange or SMTP display name and address.

Note: In most cases, it is preferable to use the Modify Owner With Address Book option.

Select one or more *.pst* files, right click and select one of the following:

- **Modify Owner With Address Book** - You can select the owner from the Exchange Address Book
 - **Modify Owner Manually** - You can manually enter the owner's full legacy distinguished name for Exchange (for example, /o=Organization/ou=OrganizationalUnit/cn=recipients/cn=UserName) or the SMTP display name and address
4. Select one or more *.pst* files and click Test/Open to verify that the profile you specified on the Profile tab has access to the selected files. For more information on selecting a profile, see "[Profile](#)" on page 320.
 5. Configure any PST post-processing options. See "[Configuring PST Post-Processing Options](#)" on page 332.

Configuring PST Post-Processing Options

Depending on the type of task you are configuring (Archive or Shortcut), you can selectively perform the following post-processing options on *.pst* files after the task is run.

Note: You must have appropriate administrative privileges to execute these options.

- **Make PST(s) Read-Only** - Archive and Shortcut tasks only. Select this option to make the *.pst* file read-only. This prevents the end user from adding any more messages to the *.pst* file.
- **Hide PST(s)** - Archive and Shortcut tasks only. Select this option to hide the *.pst* file.
- **Move PST(s) to** - Archive and Shortcut tasks only. Select this option to move the *.pst* file to a specified location. Use the Browse button to define the folder location to which the *.pst* file is moved.
- **Delete PST(s)** - Archive task only. Select this option to delete the *.pst* file. Selecting this check box disables all other post-processing options.
- **Shortcut to Mailbox** - Shortcut task only. Select this option to create a new folder in the owner's mailbox on the Microsoft Exchange server (identified by the *.pst* file name) which preserves the *.pst* file's folder structure and shortcuts to each message.



Important: PST post-processing options you select are applied to all *.pst* files selected (indicated by a check mark in the leftmost column) in the PST files to process list.

Verifying PST Migration

Check the log file to verify the successful processing of each *.pst* file, as well as any post-processing options that were selected in the task.

To resolve failures:

- Identify the *.pst* files that failed
- Identify and resolve the reasons for the failure
- Edit the archive task you ran and unselect the *.pst* files that were processed successfully and leave ones that need to be tried again.
- Rerun the task.

Task Settings for Lotus Domino

If you are using Lotus Domino, you must configure the same options on the Folder Settings, Mailbox Selection, and NSF Selection tabs regardless of the task you want to run. For more information, see the following sections:

- ["Item Types" on page 333](#)
- ["Folder Settings" on page 336](#)
- ["Mailbox Selection" on page 338](#)
- ["NSF Selection" on page 339](#)

Item Types

The Item Types tab allows you to specify the types of items - such as email messages, meetings, appointments, and reports - to process in an EmailXtract task.

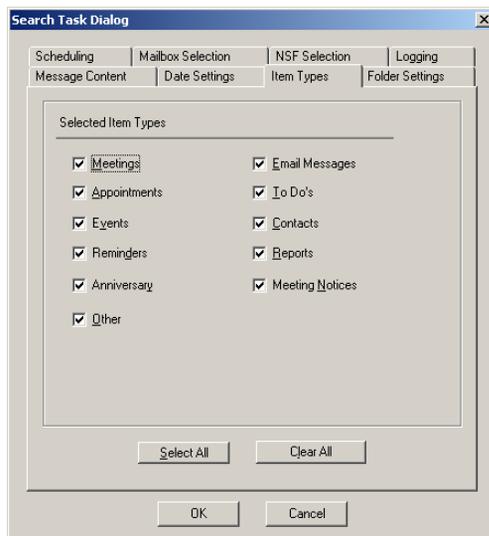
The Item Types tab is available for all tasks except the Shortcut task, since only email messages may contain shortcuts.

Note: If you are configuring a Shortcut task, the Item Types tab is dimmed. For more information on the Deletion tab, see ["Deletion" on page 344](#).

You must coordinate the item types you select on the Item Types tab with the folders you select on the Folder Settings tab. For example, if you want to process appointments that reside in the Calendar view, you must select the Appointments check box on the Item Types tab and the Calendar check box on the Folder Settings tab. For more information on selecting folder settings criteria, see ["Folder Settings" on page 336](#).

In addition, if you want to apply the task to item types in *.nsf* files, you should specify folders or files using the NSF Selection tab. For more information, see ["NSF Selection" on page 339](#).

Figure 130. Item Types Tab for Lotus Domino



The following item types appear on the Item Types tab when you are using Lotus Domino:

Table 46. Lotus Domino Item Types

Item Type	Description
Anniversary	All Appointment forms that have a document property of AppointmentType with a value of Anniversary.
Appointments	All Appointment forms that have a document property of AppointmentType with a value of Appointment.

Table 46. Lotus Domino Item Types

Item Type	Description
Contacts	All Contact forms, which contain contact information for a person or business. Note: This item type is only valid when you are using IBM Lotus Domino Web Access (iNotes).
Email Messages	All Memo, Reply, or Reply with History forms.
Event	All Appointment forms that have a document property of AppointmentType with a value of Event.
Meetings	All Appointment forms that have a document property of AppointmentType with a value of Meetings.
Meeting Notices	All Notice forms.
Other	All other forms that are not listed in this table. Specifically, any form that is not an Anniversary, Appointment, Contact, Memo, Reply, Reply with History, Event, Meeting, Notice, Reminder, Delivery Report, Non Delivery Report, Return Receipt, Read Receipt, or To Do form.
Reminder	All Appointment forms that have a document property of AppointmentType with a value of Reminder.
Reports	All Delivery Report, Non Delivery Report, Return Receipt, or Read Receipt forms.
To Do's	All Task forms, which contain items on a To Do list.

To configure item types criteria for a task:

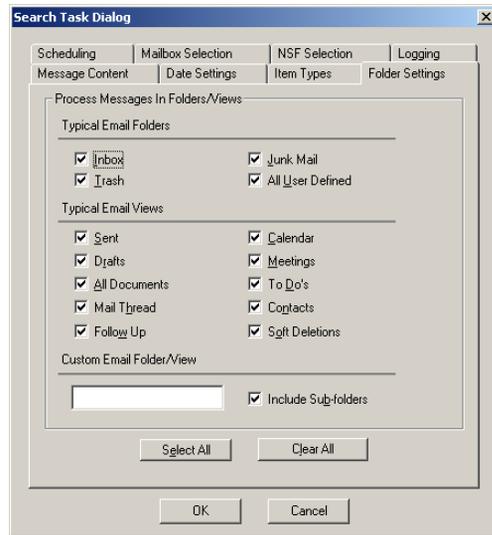
- On the Item Types tab, choose the item types you want to include in the task.
 - To include an item type, select the check box for the item type.
 - To exclude an item type, clear the check box for the item type.
 - To include all item types, click Select All.
 - To clear all of the selected item types at once, click Clear All.

Note: You should select at least one of the check boxes; otherwise, the task will not apply to any items.

Folder Settings

The Folder Settings tab allows you to specify which folders - such as the Inbox, Sent, and Trash - EmailXtract should include in the task. You can select folders, views, or a combination of both folders and views.

Figure 131. Folder Settings Tab for Lotus Domino



When EmailXtender processes a task, it processes folders first. It then processes the views.

You should consider the following guidelines when selecting folders and views:

- **Trash** - If you are configuring an Archive task, you may want to clear the Trash check box so that you do not archive deleted items.
- **All User Defined and Custom Email Folder/View**- The All User Defined option allows you to apply the task to user-created folders and views. If you want to apply the task to only a single user-created folder or view, enter the name of the folder or view in the Custom Email Folder/View text box. If you want to apply the task to more than one user-created folder or view (but not all), you must create multiple tasks and enter each folder or view in the Custom Email Folder/View text box.
- **All Documents** - When you select the All Documents view with other views or folders, it can cause duplicate processing for some tasks, such as the Search and Analysis tasks.

- **Soft Deletions** - The Soft Deletions view acts as another Trash folder in Notes R6, so users can process Soft Deletions as they would any other view/folder. The Soft Deletions view is not available when using the Archive, Shortcut, or Delete tasks.
- **Coordinating with item type selections** - You must coordinate the folders you select on the Folder Settings tab with the item types you select on the Item Types tab. For example, if you want to process appointments that reside in the Calendar folder, you must select the Appointments check box on the Item Types tab and the Calendar check box on the Folder Settings tab. For more information on selecting item types, see ["Item Types" on page 333](#).
- **.nsf files** - If you want to apply the task to .nsf files, you should specify folders or files using the NSF Selection tab. For more information, see ["NSF Selection" on page 339](#).



Important: When you delete a document from a view in Notes, that document is also deleted from any folders in which it occurs. When you delete a document from a folder in Notes or Outlook, that document remains in any other folders in which it occurs.

To configure folder settings criteria for a task:

1. On the Folder Settings tab, choose the folders and views you want to include in the task.
 - To include a folder or view, select the check box for the folder or view.
 - To exclude a folder or view, clear the check box for the folder or view.
 - To include all folders and views, click Select All.
 - To clear all of the selected folders and views at once, click Clear All.

Note: You should select at least one of the check boxes; otherwise, the task will not apply to any folders.

Note: If you are running a Shortcut task, you cannot select the Calendar, Meetings, To Do's and Contacts views because shortcuts are not supported for those views.

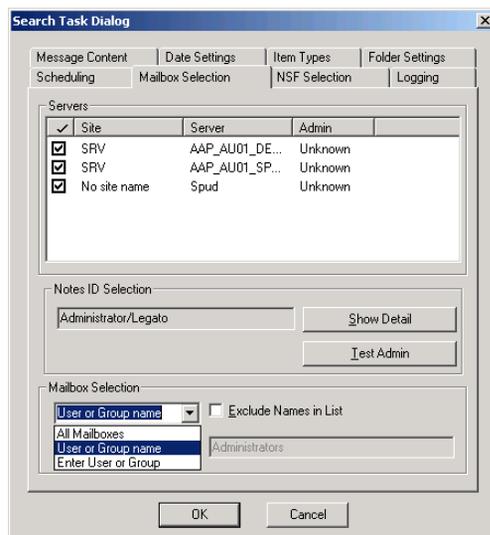
2. To include a custom folder or view created through the mail program, enter the name of the folder or view as it appears in the Notes Designer (for example, Inbox/Sales), or the alias, if one was created.
3. Choose whether to include any subfolders or subviews of the selected custom folder or view.

- To include subfolders or subviews, select the Include Sub-folders check box.
- To include only items in the root folder or view - and not any items in subfolders or subviews - clear the Include Sub-folders check box.

Mailbox Selection

The Mailbox Selection tab allows you to specify the mail servers and mailboxes from which the task processes messages.

Figure 132. Mailbox Selection Tab



Note: If you specify mail filenames in the Person documents for users on the Domino system, the mail filename entries in the Person documents should not include *.nsf* as part of the value. If the Lotus Notes configuration does not use the proper mail file naming convention or have administrative rights, EmailXtract may not find all mailboxes on the Domino server that you select on the Mailbox Selection tab.

To select mail servers and mailboxes for the task:

1. In the Servers list box, choose the Domino servers from which the task will process messages. You must select at least one server.
 - To process messages from a server, select the check box for the server.

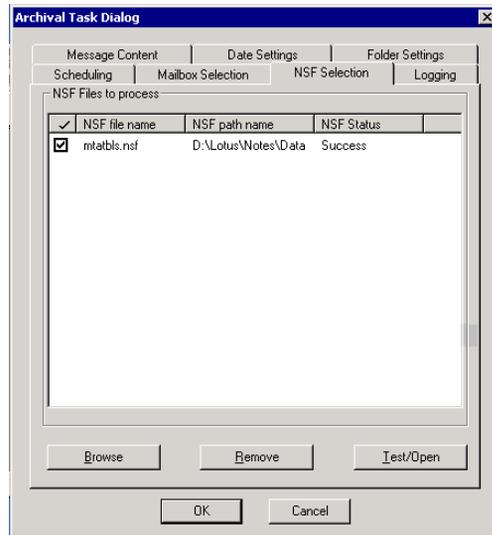
- To exclude a server from the task, clear the check box column for the server.
2. To view the Notes ID addressing information, click Show Detail.
 3. To verify that the selected Notes ID has the proper privileges on the selected mail servers and mailboxes, click Test Admin. The ID that appears is the one used by the Lotus Notes client installed on the local server and can only be modified through the Notes client interface. The ID must be an administrative ID with Manager level access to all mailboxes on the mail server, and it must have the ability to delete.
 4. Choose the mailboxes on the selected servers that you want to include in the task.
 - To process all mailboxes on the selected mail servers, select All Mailboxes from the drop-down list.
 - To select email addresses or distribution lists from the address book, select User or Group Name from the drop-down list and then click Address Book to select the names.
 - To manually enter an email address or distribution list name, select Enter User or Group from the drop-down list and then enter the name in the text box.

Note: When specifying a distribution list for a task, the distribution list name cannot include the equals sign (=). Specifying a distribution list name containing that character, such as =Benefits=, will result in the task not being performed.
 5. If you selected the User or Group Name option from the drop-down list and you want to exclude a particular email address or distribution list from the task, select the Exclude Names in List check box and then enter the name in the text box.

NSF Selection

The NSF Selection tab allows you to include messages from *.nsf* mail databases not locked by a Lotus Domino server in the task. These mail databases might include mail files from people who have left the organization or mail databases that users set up on their local computers.

Figure 133. NSF Selection Tab



To include *.nsf* files in the task:

1. Add all *.nsf* files you want the task to process.
 - a. Verify that the *.nsf* files you want to include in the task are not open or being used by a user.
 - b. Click Browse and then browse to the *.nsf* file you want to include in the task.
 - c. Click OK. The *.nsf* file appears in the list box on the NSF Selection tab with a check mark in the leftmost column.
2. Remove all *.nsf* files you do *not* want the task to process by selecting the file and then clicking Remove.
3. Click Test/Open to verify that the configured Notes user has access to the selected files.

Task-Specific Settings

The Shortcut, Deletion, and Analysis Settings tabs appear only for their respective tasks. For more information, see the following sections:

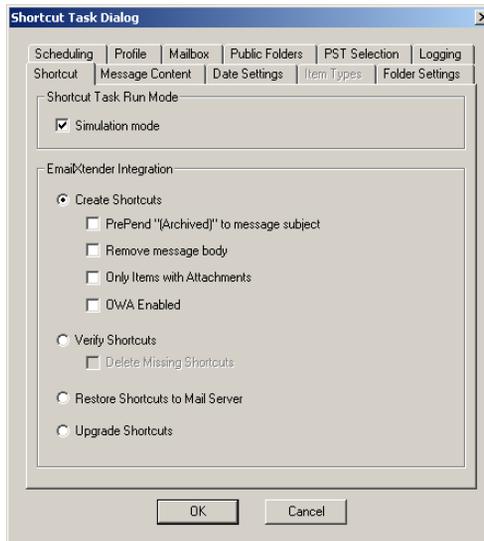
- ["Shortcut" on page 341](#)
- ["Deletion" on page 344](#)

- ["Analysis Settings" on page 346](#)

Shortcut

The Shortcut tab allows you to configure shortcuts so that email messages are removed and replaced with pointers to copies of the messages in the EmailXtender archive. This allows you to save space on the mail server.

Figure 134. Shortcut Tab



Note: EmailXtract does not create shortcuts of messages that have been either sent by East Asian language versions of Microsoft Outlook or encoded by East Asian encoding systems such as JIS-Shift, JIS, JIS Allow-1 byte Kana, GB2312, EUC, or HZ. EmailXtract skips these messages and logs the event.

When you create shortcuts, you can control how they appear in the mail client. You can configure them so that only the message header appears; the message body will not appear in the preview pane. If you use Microsoft Exchange, you can also set them up to appear with the term "(Archived)" at the beginning of each message subject title.

If you *do* want users to be able to view the message body of a shortcut message using the Preview Pane in Microsoft Outlook, an additional COM Add-in must be installed on each client computer. This COM Add-in is installed automatically when you install the Search Plug-in or when you install shortcut form support on the Exchange server and the forms are replicated to client computers. For more information, refer to the *EmailXtender Installation Guide*.

If you use Microsoft Exchange and you allow users to access their email through Outlook Web Access (OWA), you can configure shortcuts so they are accessible through OWA. There are a number of preliminary setup steps you must complete before creating shortcuts that are accessible through OWA. For more information, refer to the *Installing EmailXtender* chapter of the *EmailXtender Installation Guide*.

Note: You cannot view shortcut messages through OWA if you have enabled forms-based authentication in the Microsoft Exchange environment.

If you previously created shortcuts and did not enable them for OWA, you can use the Upgrade Shortcuts option to upgrade them so that users can access the shortcuts through OWA.

Once you shortcut a message, a copy of the message remains in the EmailXtender archive. If necessary, you can use the Shortcut task to restore the message from the EmailXtender archive back to the mail server. If you are using Microsoft Exchange, the message is restored to its original folder. If you are using Lotus Domino, you can restore the message either to its original folder or to another folder by selecting the new folder on the Folder Settings tab. For more information on the Folder Settings tab, see ["Folder Settings" on page 336](#).

Before you restore messages to the mail server, however, you should verify that you have sufficient space to accommodate the return of the messages and their attachment.

If you are using Microsoft Exchange and you created shortcuts with previous releases of EmailXtract (4.2x and earlier), you can enable users to view those shortcuts by upgrading them. Before you upgrade shortcuts, you must upgrade the message volumes in EmailXtender. For more information, see ["Upgrading a Volume" on page 122](#).

Shortcuts with no associated message in the EmailXtender archive are known as unresolved shortcuts. You can verify whether shortcuts have an associated message stored in the archive. You can also choose to remove any unresolved shortcuts as part of the verification. For information about how shortcuts can become unresolved, see ["Shortcut Task" on page 277](#).

Before you run a Shortcut task to actually create, verify, restore, or upgrade shortcuts, you can run the task in simulation mode to determine how much space you can save by creating the shortcuts or how much space you will use by restoring shortcuts.

To configure Shortcut task settings:

1. Choose whether to run the Shortcut task in simulation mode.
 - To run the task in simulation mode, select the Simulation mode check box.
 - To run the task and actually create, restore, or upgrade shortcuts, clear the Simulation mode check box.
2. Choose whether to create, verify, restore, or upgrade shortcuts.
 - To remove messages and replace them with pointers to messages in the EmailXtender archive, select Create Shortcuts.
 - To verify shortcuts have an associated message in EmailXtender, select Verify Shortcuts. To delete unresolved shortcuts, select the Delete Missing Shortcuts check box.
 - To restore shortcut messages to the mail server, select Restore Shortcuts to Mail Server.

Note: Before you restore messages to the mail server, verify that you have sufficient space to accommodate the return of the messages and their attachments.
 - If you are using Microsoft Exchange and you want to upgrade shortcuts, select Upgrade Shortcuts.
3. If you are creating shortcuts, choose whether to take the body of each message out of the preview pane and display only the message header.
 - To display only the message header, select the Remove message body check box.
 - To display the message body in the preview pane, clear the Remove message body check box.
4. If you are creating shortcuts, choose whether to only shortcut messages that have attachments.
 - To only shortcut messages with attachments, select the Only Items with Attachments check box.
 - To shortcut all messages, regardless of whether they have attachments, clear the Only Items with Attachments check box.
5. If you are creating shortcuts and you are using Microsoft Exchange, choose whether the shortcuts should appear with the term "(Archived)" at the beginning of each message subject title.
 - To add the designation to each shortcut, select the PrePend "(Archived)" to message subject check box.

- To leave the message subject title as is, clear the PrePend "(Archived)" to message subject check box
6. If you are creating shortcuts and you are using Microsoft Exchange, choose whether to allow users to access shortcuts through OWA.
- To allow access to shortcuts through OWA, select the OWA Enabled check box.
 - To prevent access to shortcuts through OWA, clear the OWA Enabled check box.

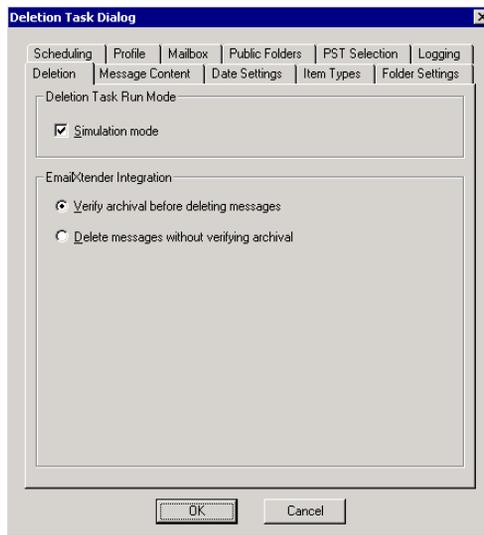
Note: There are a number of preliminary setup steps you must complete before creating shortcuts that are accessible through OWA. For more information, refer to the *EmailXtender Installation Guide*.

Note: You should select the OWA Enabled check box if you are creating shortcuts that you want to be accessible through OWA or if you have shortcuts that you created previously without enabling OWA access. If you are upgrading existing shortcuts, you should select the Upgrade Shortcuts option and then select the OWA Enabled check box.

Deletion

The Deletion tab allows you to choose whether to verify that a message has been archived to the EmailXtender Message Center before you delete the message. (If you are using Microsoft Exchange, you can also delete other types of items such as appointments, tasks, and notes. For more information on selecting item types, see ["Item Types" on page 316.](#))

Figure 135. Deletion Tab



If you choose to verify archival and the Delete task encounters a message that has not been archived to EmailXtender, the task archives the message before deleting it.

If it does not matter whether the message has been saved to the EmailXtender archive, you can delete the message without verifying archival.

Before you run a Delete task to actually delete messages, you can run the task in simulation mode.

To configure Delete task settings:

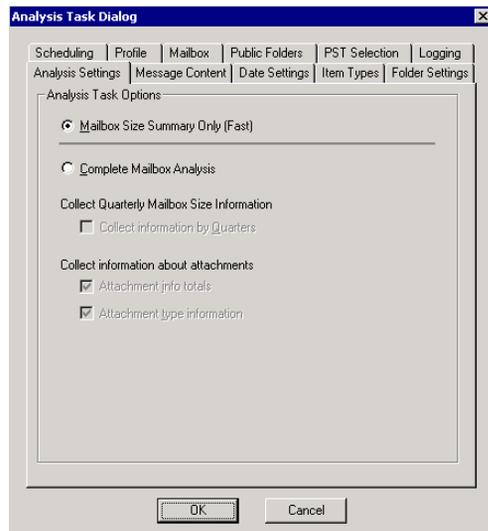
1. Choose whether to run the Delete task in simulation mode.
 - To run the task in simulation mode, select the Simulation mode check box.
 - To run the task and actually delete messages, clear the Simulation mode check box.
2. Choose whether to verify that all messages you are deleting have been archived to the EmailXtender Message Center.
 - To verify archival, select Verify archival before deleting messages. If EmailXtract encounters messages or items that do not already exist in the EmailXtender archive, it archives them.

- To delete messages without verifying whether they have been archived, select Delete messages without verifying archival.

Analysis Settings

The Analysis Settings tab allows you to evaluate the contents of mail servers to determine average message size, total message count, attachment information, and aging of messages.

Figure 136. Analysis Settings Tab



You can view either a summary or detailed analysis of information.

- The summary analysis contains approximate information about the current size of the mailbox and the number of messages it contains. EmailXtract does not open and enumerate individual folders and messages, and no filtering of the messages is performed as part of the analysis, regardless of what is specified on the other tabs of the Analysis task dialog box.
- A detailed analysis charts mailbox and server size information, and provides a thorough and accurate analysis of email age or attachment size and type. This analysis is based on the criteria configured on the other tabs of the Analysis task dialog box.

You can display the results of the Analysis task in a chart for easier viewing and analysis. This chart can be divided up into the four quarters of the year, matching common business practices, so that you can regularly monitor the growth of the message store. For more information on viewing and managing task results, see "[Managing Task Results](#)" on page 349.

To configure Analysis task settings:

1. Choose whether to perform a quick, approximate analysis of the message store, or a detailed but more lengthy analysis of the message store.
 - To perform an approximate analysis of a message store, select Mailbox Size Summary Only (Fast).
 - To perform a detailed analysis of a message store, select Complete Mailbox Analysis.
2. If you are performing a detailed analysis, choose whether to display information by quarter.
 - To collect information and display it by quarter, select the Collect information by Quarters check box.
 - To display all information as a single group, clear the Collect information by Quarters check box.
3. If you are performing a detailed analysis, choose whether to collect basic information about the number of attachments and their sizes.
 - To collect basic information about attachments, select the Attachment info totals check box.
 - To exclude basic attachment information from the analysis, clear the Attachment info totals check box.
4. If you are performing a detailed analysis, choose whether to collect information about the types of attachments in the message store.
 - To collect information about the types of attachments in the message store, select the Attachment type information check box.
 - To exclude information about the types of attachments in the message store, clear the Attachment type information check box.

Managing Scheduled Tasks

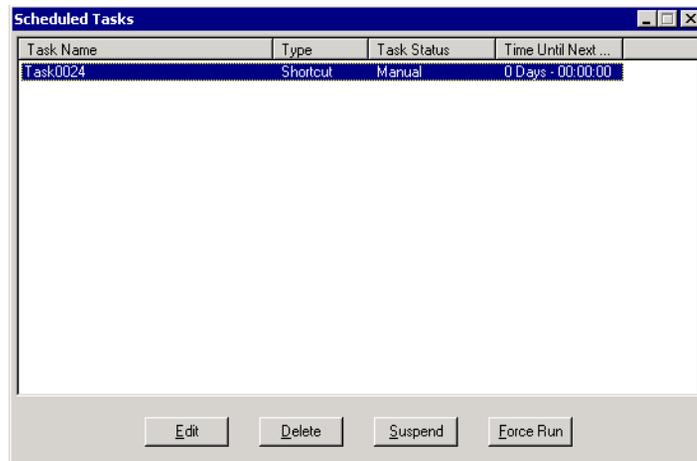
When you configure a task to run, the task is added to a queue in the Scheduled Tasks dialog box. From the Scheduled Tasks dialog box, you can view and manage tasks that are currently running or scheduled to run in the future. You can manage the tasks as follows:

- Edit a task
- Delete tasks that are not currently in progress
- Suspend a task that is scheduled to run in the future
- Resume a task that you suspended
- Force a task that is scheduled to run in the future to run immediately
- Stop a task that is currently in progress

To manage scheduled tasks:

1. From the Options menu, select Scheduled Tasks. The Scheduled Tasks dialog box appears.

Figure 137. Scheduled Tasks Dialog Box



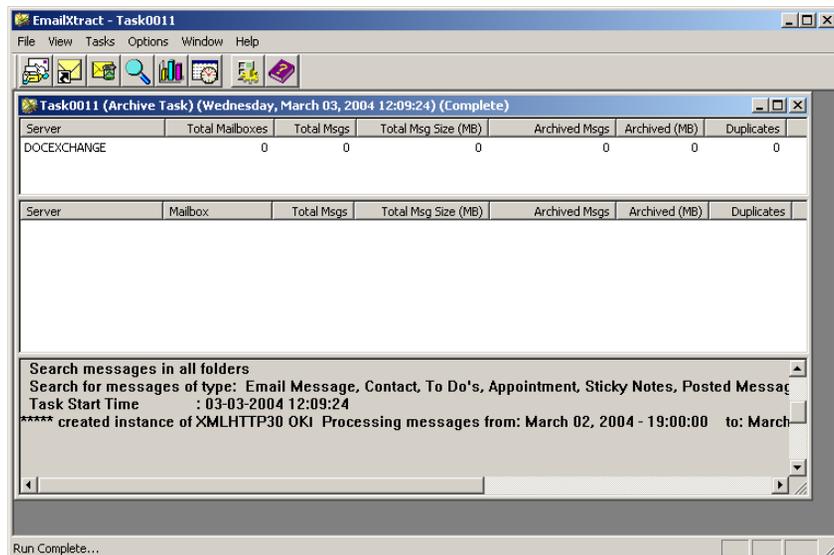
2. You have the following choices:
 - To edit a task, right-click on the task and then select Edit from the shortcut menu, or select the task and then click Edit.
 - To delete a task that is scheduled to run in the future (rather than a manual task), right-click on the task and then select Delete from the shortcut menu, or select the task and then click Delete.
 - To suspend a task that is scheduled to run in the future (rather than a manual task), right-click on the task and then select Suspend from the shortcut menu, or select the task and then click Suspend.
 - To resume a task that you suspended, right-click on the task and then select Resume, or select the task and then click Resume.

- To force a task that is scheduled to run in the future (rather than a manual task) to run immediately, right-click on the task and then select Force Run from the shortcut menu, or select the task and then click Force Run.
- To stop a task that is currently in progress, right-click on the task and then select Cancel Run, or select the task and then click Cancel Run.

Managing Task Results

After a task completes, the results appear in a task results window in the EmailXtract Administrator.

Figure 138. Sample Task Results Window



The task results window contains three regions:

- The top region displays summary server information about the task.
- The middle region displays task results; for instance, mailbox information in an Archive, Delete, or Analysis task (including messages processed, total message size, total mailboxes, number of duplicate messages encountered, and so on) or a list of matching mail messages in a Search task.

- The lower region displays the task log file. The amount of detail shown in the log file is determined by the criteria you selected on the Logging tab when you configured the task.

Note: EmailXtract log files cannot display multi-byte characters (such as Japanese or Simplified Chinese characters). These characters appear in the log file as question marks (?).

There are a number of ways you can further manipulate task results, depending on the type of task you have run.

When you run a Search task, you can delete, or *purge*, items that appear in the results list from the mail server message store. You can also view those items or remove them from the search results for easier viewing.

When you run any of the other tasks (Archive, Shortcut, Delete, and Analysis), you can view task results as a bar graph, stacked bar graph, or pie chart, all of which you can print or save as an image file for future reference. You can also organize chart data by message size in MB, the total number of messages, or the average size of messages.

If you run an Analysis task and you choose the Complete Mailbox Analysis option as well as either the Attachment info totals or the Attachment type information option, you can display task results for the attachments in a separate chart.

Regardless of the task you run, you can also export task results to a .csv file.

For more information, see the following sections:

Table 47. Task Result Options by Task

Task	Task Result Options
All tasks	"Exporting Task Results to a .csv File" on page 351
Search	<ul style="list-style-type: none"> • "Purging Search Task Results from the Mail Server" on page 351 • "Viewing Search Task Results" on page 352 • "Removing Items from Search Task Results" on page 352

Table 47. Task Result Options by Task

Task	Task Result Options
Archive, Shortcut, Delete, Analysis	<ul style="list-style-type: none"> • "Viewing Task Results as a Chart" on page 352 • "Printing a Chart" on page 357 • "Saving a Chart as an Image File" on page 358
Analysis (with a Complete Mailbox Analysis and either the Attachment info totals or the Attachment type information option)	"Viewing an Attachment Chart" on page 360

Exporting Task Results to a .csv File

After you run a task and the results appear in the task window, you can export the results to a .csv (Comma Separated Value) file so that you can view the results as a spreadsheet through programs such as Microsoft Excel. This feature is available for all EmailXtract tasks.

To export task results to a .csv file:

1. Select any line in the top two regions of the task results window.
2. Right-click on the line and then select Export to CSV file from the shortcut menu. The Save As dialog box appears.
3. Enter a path and filename for the file, and then click Save.

Purging Search Task Results from the Mail Server

When you run a Search task and the results appear in the task window, you can delete, or *purge*, messages in the results list from the mail server message store.



Important: Unlike with the Delete task, EmailXtract does not verify whether the items you are deleting using the Purge command have been archived to the EmailXtender Message Center. For more information on using a Delete task to delete messages from the mail server message store, see ["Delete Task" on page 284](#).

To purge items from the mail server:

1. Select the items in the results list that you want to delete.
2. Right-click on the items and then select Purge Message(s) from the shortcut menu that appears. A confirmation message appears.
3. Click Yes.

Viewing Search Task Results

When you run a Search task and the results appear in the task window, you can view the messages that appear in the results list using the default mail client. From the mail client, you can then forward or reply to the messages, if necessary.

To view items in the results list:

1. Select the items in the results list that you want to view.
2. Right-click the items and then select View Message(s) from the shortcut menu that appears. The items open through the default mail client.

Removing Items from Search Task Results

When you run a Search task and the results appear in the task window, you can reduce the number of items that appear in the results list without deleting the messages from the mail server. This allows you to more easily review the search results.

To remove items from the results list:

1. Select the items in the results list that you want to remove from the list.
2. Right-click the items and select Remove from Hits List from the shortcut menu that appears.

Viewing Task Results as a Chart

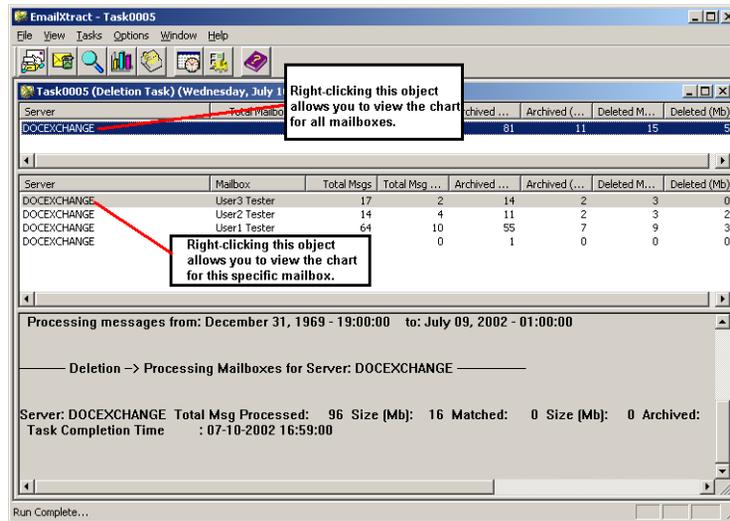
After you run an Archive, Shortcut, Delete, or Analysis task and the results appear in the task window, you can view the task results as a chart. (You cannot view Search task results as a chart.)

The chart can reflect data for all mailboxes or for an individual mailbox. You can change the appearance of the chart so that data is displayed as either a bar graph, a stacking bar graph, or a pie chart.

To view a task results chart:

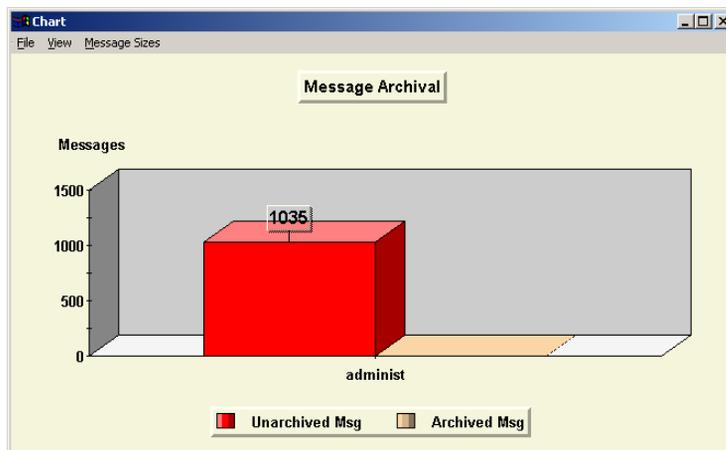
1. Choose whether to view a chart for all mailboxes or an individual mailbox.
 - To view a chart for all mailboxes, select a server in the top region of the task window.
 - To view a chart for an individual mailbox, select the mailbox in the middle region of the task window.

Figure 139. Selection Determines the Type of Chart



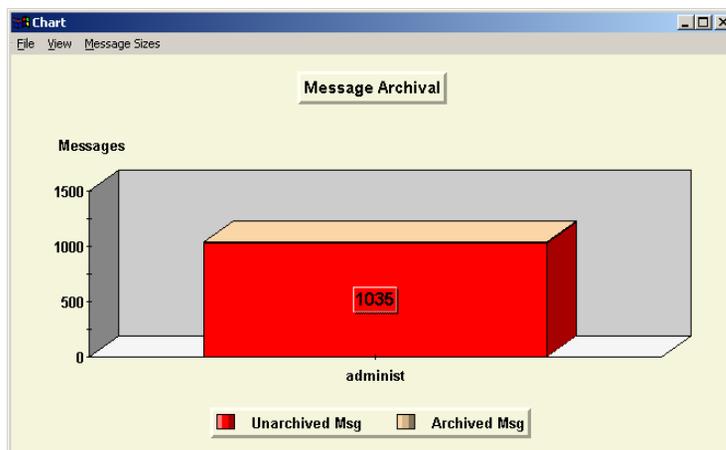
2. Right-click the line and then select View Chart from the shortcut menu. The chart appears in a Chart window.
3. Choose how you want the data displayed.
 - To view the chart as a bar graph, open the View menu in the Chart window and then select Bar Graph.

Figure 140. Example Bar Graph



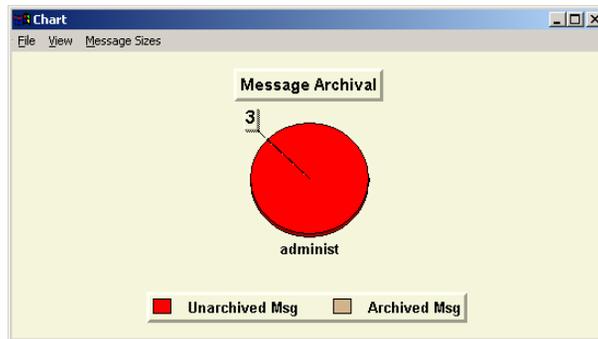
- To view the chart as a stacking bar graph, open the View menu in the Chart window and then select Stacking Bar Graph.

Figure 141. Example Stacking Bar Graph



- To view the chart as a pie chart, open the View menu in the Chart window and then select Pie Chart.

Figure 142. Example Pie Chart



4. To view detailed counts, move the mouse over each segment of the chart.

If necessary, you can change the way the chart appears - including manipulating the way the data is graphed - so that it is easier to view or analyze the chart. For more information, see ["Task Result Chart View Options" on page 355](#).

Task Result Chart View Options

While you are viewing a task results chart, you can change the way the chart appears - including manipulating the way the data is graphed.

You can change the scale of the chart, shift the chart's position in the window, zoom in on the chart, and rotate the chart.

You can also reorganize the chart data by message size in MB or the total number of messages. If the task results are for an Analysis task, you can also reorganize chart data by the average size of messages.

If you run an Analysis task and you choose the Complete Mailbox Analysis option as well as the Collect information by Quarters option, you can calculate an aging of the message store by quarter and displays a chart of the chosen aged data by message size in MB, the total number of messages, or the average size of messages.

- **Change the chart's scale**

Press [Ctrl], hold down both mouse buttons, and then move the mouse down to increase chart size or up to decrease chart size.

- **Shift the chart's position within the window**

Press [Shift], hold down both mouse buttons, and then move the mouse to shift the chart's position within the window.

- **Zoom in on the chart**

Press [Shift] or [Ctrl], hold down the left mouse button, move the mouse to select the area to zoom in on, and then release the mouse button.

- **Rotate the chart**

Hold down both mouse buttons and then move the mouse left and right to change the rotation angle, or up and down to change the inclination angle.

- **Return to the default display of the chart**

Press [R].

- **Organize chart data by message size in MB**

From the Message Sizes menu in the Chart window, select Show in Mb.

Note: For the Analysis task, this is the default chart display.

- **Organize chart data by the total number of messages in each category**

From the Message Sizes menu in the Chart window, select Show by Messages.

- **Organize chart data by the average message size**

From the Message Sizes menu in the Chart window, select Average Message Size.

Note: This chart display option is only available for the Analysis task.

- **Calculate an aging of the message store by quarter and display the chart as organized by message size in MB**

From the Message Sizes menu in the Chart window, select Quarterly Sizes by Messages.

Note: This chart display option is only available for the Analysis task when you choose the Complete Mailbox Analysis option as well as the Collect information by Quarters option.

- **Calculate an aging of the message store by quarter and display the chart as organized by the total number of messages in each category**

From the Message Sizes menu in the Chart window, select Quarterly Sizes by Mb.

Note: This chart display option is only available for the Analysis task when you choose the Complete Mailbox Analysis option as well as the Collect information by Quarters option.

- **Calculate an aging of the message store by quarter and display the chart as organized by average message size**

From the Message Sizes menu in the Chart window, select Quarterly Average Message Sizes.

Note: This chart display option is only available for the Analysis task when you choose the Complete Mailbox Analysis option as well as the Collect information by Quarters option.

Printing a Chart

When you view Archive, Shortcut, Delete, or Analysis task results as a chart, you can print the chart for future reference. If necessary, you can also adjust print settings.

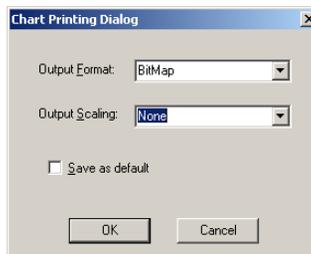
To print a chart:

- From the File menu in the Chart window, select Print.

To choose print settings:

1. From the File menu in the Chart window, select Print Settings. The Chart Printing dialog box appears.

Figure 143. Chart Printing Dialog Box



2. From the Output Format drop-down list, select the file type that you want to use when you print the chart. You have the following choices:

- **Bitmap** - Select this option to print the chart as a standard Windows *.bmp* file. The bitmap is generated at the same color depth as the video mode currently set on the computer.
- **Standard Metafile** - Select this option to print the chart as a standard Microsoft Windows Metafile (*.wmf* file).
- **Aldus-placeable Metafile** - Select this option to print the chart as a Windows metafile (*.wmf* file) called "Aldus-placeable".
- **Enhanced Metafile** - Select this option to print the chart as an enhanced metafile (*.emf* file).

3. From the Output Scaling drop-down list, choose the scale that you want to use when you print the chart. You have the following choices:
 - **None** - Select this option to print the chart as displayed on screen.
 - **Scale to Width** - Select this option to scale the printed chart to the width of the printed page.
 - **Scale to Height** - Select this option to scale the printed chart to the height of the printed page.
 - **Scale to Fit** - Select this option to scale the printed chart to the best fit of the printed page.
 - **Scale to Max** - Select this option to scale the printed chart to the maximum size possible.
4. Choose whether to save the settings that are currently selected on the Chart Printing dialog box as the defaults.
 - To save the settings as defaults, select the Save as default check box.
 - To use these settings only for the current chart, clear the Save as default check box.
5. Click OK.

Saving a Chart as an Image File

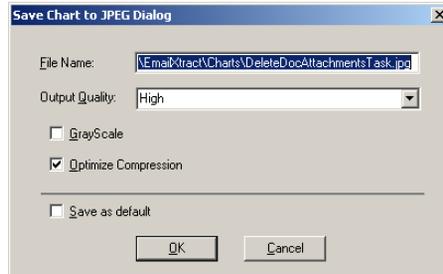
When you view Archive, Shortcut, Delete, or Analysis task results as a chart, you can save the chart as an image file so that you can view the results again at a later date.

By default, the chart files are saved as *.jpg* files in the *C:\Program Files\OTG\EmailXtract* directory where EmailXtract was installed. You can change the directory to which chart files are saved using the Directories tab of the Configuration Options dialog box. For more information, see ["Directories" on page 267](#).

To save a chart as an image file:

1. From the File menu in the Chart window, select Save as JPEG. The Save Chart to JPEG dialog box appears.

Figure 144. Save Chart to JPEG Dialog Box



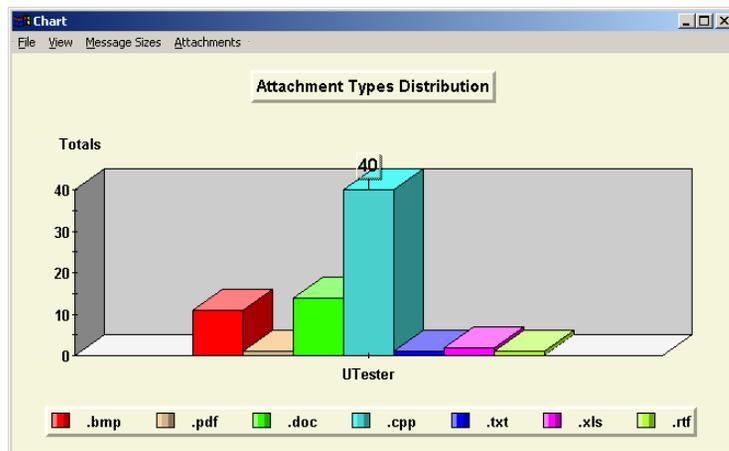
2. In the File Name text box, enter a name for the image file. If you do not specify a filename, the system saves it using the task name specified on the Scheduling tab of the task dialog box. For example, if you generate a chart for a task named *Task0035*, the chart is saved with the name *Task0035.jpg*.
3. From the Output Quality drop-down list, select the quality with which EmailXtract should save the file. You can choose Highest, High (default setting), Medium, Low, or Lowest. The higher the quality, the larger the file size.
4. Choose whether to save the file in black and white.
 - To save the file in black and white, select the Grayscale check box.
 - To save the file in color, clear the Grayscale check box.
5. Choose whether to compress the file to its smallest size for the selected output quality.
 - To compress the file, select the Optimize Compression check box.
 - To leave the file uncompressed, clear the Optimize Compression check box.
6. Choose whether to save the settings that are currently selected on the Save Chart to JPEG dialog box as the defaults.
 - To save the settings as defaults, select the Save as default check box.
 - To use these settings only for the current chart, clear the Save as default check box.
7. Click OK.

Viewing an Attachment Chart

If you run an Analysis task and you choose the Complete Mailbox Analysis option as well as either the Attachment info totals or the Attachment type information option on the Analysis Settings tab, you can display task results for the attachments in a separate chart. For more information on the Analysis Settings tab, see ["Analysis Settings" on page 346](#).

Attachments charts make it possible for you to collect and view the statistics on the number, size, and types of attachments contained within the mail server message store.

Figure 145. Sample Attachment Analysis Chart



If you selected the Attachment info totals check box on the Analysis Settings tab, you can view a chart of the total number of attachments or of the total attachment data by size for the chosen data set.

- To view a chart of the total number of attachments, open the Attachments menu in the Chart window and then select Number of Attachments.
- To view a chart of the total attachment data by size, open the Attachments menu in the Chart window and then select Attachment Sizes in MB.

If you selected the Attachment type information check box on the Analysis Settings tab, you can view a chart of the number of attachments by file type or of the top 15 attachment types by size in MB.

- To view a chart of the number of attachments by file type, open the Attachments menu in the Chart window and then select Number of Attachment by Type.

- To view a chart of the number of the top 15 attachment types by size in MB, open the Attachments menu in the Chart window and then select Attachment Sizes in MB by Type.

Appendix A: Expression Operators

When you create searches or keyword rules in EmailXtender, you can use expression operators to further focus the results. Because EmailXtender full-text indexes messages and their attachments when it processes the messages, these operators find occurrences of the rule both in messages and attachments. (Only attachments selected for indexing apply, however.)

Note: You should precede words that also function as operators with an underscore (`_`) if you want EmailXtender to regard them as regular words. For example, if you want to find the exact phrase "trade closed and finished", you should enter **trade closed _and finished** as the search phrase.

For more information, see the following sections:

- ["AND" on page 363](#)
- ["OR" on page 364](#)
- ["NOT" on page 364](#)
- ["Wildcards" on page 364](#)
- ["Proximity-based Operators" on page 365](#)
- ["Tense Conflation" on page 366](#)
- ["Parentheses" on page 367](#)
- ["Significant Characters" on page 368](#)
- ["Insignificant Characters" on page 368](#)
- ["Punctuation Characters" on page 369](#)

AND

You can use the expression operator AND in a search or keyword rule to find all items that include both of the terms.

Examples of acceptable syntax using AND are:

- ***.pdf AND *.doc**
- **trade AND closed**
- **trade AND closed AND management**

Note: Simply entering **trade closed** in a search field or keyword rule does not find or filter messages where the words "trade" and "closed" both occur. It only returns messages that include the exact phrase "trade closed".

Note: When using the AND operator, be aware that both terms must be in an attachment or in the message to match. For example, the keyword rule "trade AND closed" would not match a message where "trade" was in the message body and "closed" was in the message attachment.

OR

You can use the expression operator OR to set up an exclusive search or keyword rule.

Examples of acceptable syntax using OR are:

- ***.pdf OR *.doc**
- **trade OR closed**
- **trade OR closed OR management** (This example can be changed through the use of parentheses to alter the order of how EmailXtender processes it. For more information, see ["Parentheses" on page 367.](#))

NOT

You can use the expression operator NOT to set up a search or rule where one term occurs but not the other.

Examples of acceptable syntax using NOT are:

- ***.pdf NOT *.doc**
- **trade NOT closed**

Wildcards

You can insert the wildcard character (*) into searches or keyword rules to broaden the number of possibilities.

The following table contains examples of search or filter strings and their results:

Table 48. Wildcard Operator Examples

Using this string:	Returns messages and attachments with:
*.doc	A <i>.doc</i> attachment
manage*	The word "manage" or words that begin with "manage", such as management, manager, manages, managed, etc.
trade NOT manage*	The word "trade" but not any variant of "manage"

Proximity-based Operators

You can search or filter for terms based on how close they occur to one another. You can search or filter for two terms within a certain number of paragraphs, within a certain number of words, or with one before another. These operators are described in the following sections:

- ["Paragraph Proximity" on page 365](#)
- ["Word Proximity" on page 366](#)
- ["Word Order" on page 366](#)

Paragraph Proximity

You can use the paragraph proximity operator (`\number\`) to search or filter for two terms that are within a specified number of paragraphs from each other in an attachment. You should first enter the first term, then a backslash, then the number of paragraphs allowed between the terms as a whole number, another backslash, and then the second term.

For example, to search or filter for attachments containing the word "trade" followed within eight paragraphs by the word "closed", you would enter the following:

trade \8\ closed

Note: Paragraph proximity searching or filtering only works reliably within attachments and not in the body of the email message because EmailXtender processes the email message body. Either term can occur first in the attachment.

Word Proximity

You can use the word proximity operator (`\number\`) to search or filter for two terms that are within a specified number of words from each other in the paragraph of a message or an attachment. You should first enter the first term, then a slash, then the number of words allowed between the terms as a whole number, another slash, and then the second term.

For example, to search or filter for the word "trade" within five words of the word "opened", you would enter the following:

trade /5/ opened

Either term can occur first in the paragraph.

Word Order

You can use the word order operator (`...`) to search or filter for two terms where one term is followed by another in a message or attachment. You should enter the term that is to occur earlier in the message or attachment, followed by the word order operator, and then the term that is to occur later in the message or attachment.

For example, to search or filter for the word "trade" followed by the word "closed" in a message, you would enter the following:

trade ... closed

Note: When you use the word order operator, you must include a space before and after the three periods for it to be interpreted correctly.

Tense Conflation

You can use tense conflation to broaden the possibilities for results by querying for variants of a root verb that begin or end with the same word stem. Use a `~` at the end of the word for trailing conflation, or a `~` at the beginning of the word for leading conflation.

The following table contains examples of search or filter strings and their results:

Table 49. Tense Conflation Operator Examples

Using this string:	Returns these results:
manage~	manage, managed, managing, etc.
~install	install, uninstall, preinstall, reinstall, etc.

Note: When you use tense conflation to search for terms, those terms are not highlighted when you view the search results.

Parentheses

You can use parentheses to change the order in which the syntax is processed. Under normal operation, syntax is processed from left to right. For example, if you enter the search or filter string **trade AND closed OR management**, EmailXtender initially sets aside all messages and attachments containing both "trade" and "closed" as possible search results. Then it moves to the second half of the syntax, returning all messages and attachments that contain "management". Therefore, the final results set contains both messages that contain the words "trade" and "closed", *and* those that contain "management".

The following table contains examples of search or filter strings and their results:

Table 50. Parentheses Operator Examples

Using this string:	Returns these results:
trade AND (closed OR management)	<ul style="list-style-type: none"> • Messages and attachments containing both "trade" and "closed" • Messages and attachments containing both "trade" and "management"
.pdf NOT (.doc OR *.txt)	<ul style="list-style-type: none"> • Messages that have <i>.pdf</i> attachments, as long as they do not also have <i>.doc</i> or <i>.txt</i> attachments • No messages with <i>.doc</i> or <i>.txt</i> attachments are found

Significant Characters

You can use significant characters (\$ - _ % & @ , 0-9, A-Z, a-z, and the international character set) to further refine a search or rule. Significant characters are indexed as standard alphanumeric characters. You can search or filter for these characters if they are included as part of a word, or if they are a word by themselves.

The following table contains examples of search or filter strings and their results:

Table 51. Significant Character Operator Examples

Using this string:	Returns messages and attachments with:
5%	5%, but not 15%
p&l	p&l, but not gap&loss
\$	\$, but not \$5

Insignificant Characters

EmailXtender does not index insignificant characters (' / "); it treats them the same as a white space.

You cannot search or filter for these characters when they occur alone (rather than as part of a word); the search or rule does not differentiate between these characters. If you search for a single punctuation character, the search returns no results.

The following table contains examples of search or filter strings and their results:

Table 52. Significant Character Operator Examples

Using this string:	Returns messages and attachments with:
P/l	pl, p/l, p'l, etc., but not "p l"
pl	pl, p/l, p'l, etc., but not "p l"
Profit/loss	profitloss, profit/loss, profit_loss, etc., but not "profit loss"

Table 52. Significant Character Operator Examples

Using this string:	Returns messages and attachments with:
profitloss	profitloss, profit/loss, profit_loss, etc., but not "profit loss"
Cents/share	centsshare, cents/share, cents'share, etc., but not "cents share"
centsshare	centsshare, cents/share, cents'share, etc., but not "cents share"

Punctuation Characters

EmailXtender does not index punctuation characters (~ ! # ^ * () = + [] { } \ | ; : " , < > ?); it treats them the same as a white space.

You cannot search or filter for these characters when they occur alone (rather than as part of a word); the search or rule does not differentiate between these characters. If you search for a single punctuation character, the search returns no results.

The period (.) is also treated as a punctuation character, and it produces the same search results as other punctuation characters unless it occurs within a word, such as *Document.doc*. When a period occurs within a word, it is treated as an alphanumeric character.

The following table contains examples of search or filter strings and their results:

Table 53. Punctuation Character Operator Examples

Using this string:	Returns these results:
a+b	a+b, a~b, a!b, a:b, a b, etc.
a b	a+b, a~b, a!b, a:b, a b, etc.
stop=halt	stop=halt, stop halt, stop halt, etc.
test.	test, test., test#, test\, etc.
company.com	company.com (but not "company com" or company~com)

A

Glossary

.emx file	Flat, portable files of a configurable size containing archived messages organized by month. Also called <i>volumes</i> or <i>container files</i> .
.nsf file	A Lotus Domino database file. The Domino journaling utility automatically creates an <i>.nsf</i> file as a mailbox connector when it is installed. If users create private <i>.nsf</i> mail databases, you can use EmailXtract to archive messages from them.
.pst file	A Microsoft Exchange Personal Folder file. You can use EmailXtract to archive messages from <i>.pst</i> files.
action rule	A rule that allows you to perform an action on all messages collected by the vault, cabinet, or folder to which the rule applies. At this time, the only type of action you can perform on a message is to auto-forward it to the email address you specify.
Administrator	The graphical user interface for configuring EmailXtender. (The graphical user interface for configuring EmailXtract is also called the Administrator.)
administrator search	A type of search where certain users can search for and view <i>all</i> messages (even those of all other users) in the EmailXtender mail archive.
archive	A collection of information about and including copied email that is accessible to EmailXtender.

archiving	The process of moving copied mail from the mail server to a storage location on the EmailXtender server. This process occurs from either the journaling mailbox (the <i>mailbox connector</i>) or through the EmailXtract Archive task.
Audit Utility	An EmailXtender server component that records EmailXtender activity, including administrator searches, supervisor searches, directed searches, and deletion of any messages or volumes from the EmailXtender mail archive. You can then generate audit reports to view statistics or specific information about the searches, retrieved messages, and deleted messages or volumes.
BadDir directory	Directories on the EmailXtender server where messages are placed after processing errors.
Bloomberg Mail Parser	An EmailXtender server component that processes aggregated text files containing Bloomberg mail and separates them into individual emails that conform to the RFC 822 email standard. The parser then writes the mail files to a specified directory, and you can direct EmailXtender to full-text index and archive the email.
cabinet	The third-level organizational component of the EmailXtender Message Center. By default, EmailXtender creates a single cabinet named "Index"; however, you can create additional cabinets if necessary.
collection rule	Rules that allow you to specify which messages EmailXtender collects.
compression	With compression, EmailXtender compresses all messages as they are processed by the Message Center. This can mean a considerable savings in terms of how much disk space is required for message information. Compression does not, however, affect index or database size.
container file	Flat, portable files of a configurable size containing archived messages organized by month. Also called <i>volumes</i> or <i>.emx files</i> .

direct read	A DiskXtender setting whereby files that have been purged from the extended drive are read directly from the media rather than being copied back to the extended drive when requested.
directed search	A type of search where certain users can search for and view all messages (even those of all other users) in a specific cabinet or folder.
DiskXtender	A LEGATO product that allows you to "extend" the capacity of the EmailXtender storage drive by automatically writing <i>.emx</i> files to other storage media.
drop directory	The initial directory on the EmailXtender server from which EmailXtender draws messages to begin archiving them.
EmailXaminer	An add-on component to EmailXtender that offers additional advanced surveillance capabilities designed specifically for compliance with email regulations and policies, including message sampling, customizable automated procedures, intelligent cross-mailbox searching, purging, and more.
EmailXtender Archive Edition	A version of EmailXtender that contains a subset of the full EmailXtender product functionality. Intended for the general messaging market instead of regulated industries, EmailXtender Archive Edition allows you to archive messages from Microsoft Exchange, Lotus Domino, and UNIX sendmail on a scheduled basis (rather than in real time) in order to achieve storage savings. It is not designed for record retention or archiving.
EmailXtract	An EmailXtender server component that allows you to manage messages in the message store on the mail server. You can archive, shortcut, delete, search for, analyze messages and other item types.
EMC Centera	A line of disk-based storage devices deployed on a Redundant Array of Independent Nodes (RAIN). EMC Centera devices use unique, permanent content addresses to store and retrieve data. EmailXtender can write files to EMC Centera through DiskXtender.

encryption	Encryption works to add security to archived items as they are bundled into volumes. This ensures that volumes are unreadable outside the EmailXtender system, thereby increasing the security of the archived data. You can encrypt email data using one of three encryption types: FAST, ICE-Key (64-bit), or ICE-Key (128-bit).
exclusion rule	Rules that allow you to specify which messages EmailXtender should <i>not</i> collect.
extended drive	In DiskXtender, an NTFS volume (such as a hard drive or the EmailXtender storage drive) or partitioned part of a hard drive for which DiskXtender provides file migration services by moving files to media and fetching files from media according to the parameters you set.
folder	The fourth-level organizational component of the EmailXtender Message Center. By default, EmailXtender creates a single folder named "Archive"; however, you can create additional cabinets if necessary.
full-text indexing	An index of all available text within the header, message, or attachment of an email.
journaling	The process running on the Microsoft Exchange or Lotus Domino mail server that copies all incoming and outgoing mail to a mailbox (the <i>mailbox connector</i>) you specify.
mail router	See mail server.
mail server	A mail server is an application that receives incoming email from local users (people within the same domain) and remote senders and forwards outgoing email for delivery. A computer dedicated to such an application can also be called a mail server. Microsoft Exchange, IBM Lotus Domino, and sendmail are mail server applications.
mail transfer agent (MTA)	See mail server.
mailbox connector	The holding place on the mail server for messages before they are transferred to the EmailXtender Message Center.

MAPI	Messaging Application Program Interface. The interface that EmailXtender uses to access address books and to retrieve messages from the mailbox connector.
media	A physical medium on which data is written and from which data can be retrieved. Depending on the type of media, the medium may be different and the information may be recorded in different ways. EmailXtender writes files to media (such as DVD-R or magneto-optical) through DiskXtender.
Message Center	The server, vault, cabinets, folders, and their settings, which allow you to customize mail indexing and archival.
message store	A dedicated mail repository on the mail server for storing, retrieving, and manipulating messages.
MilVault milter and archiver	A mail server component that works with sendmail to capture mail and transfer it to an EmailXtender server when sendmail is installed on the Sun Solaris, Red Hat Linux, and IBM AIX platforms.
purge	<p>When used with EmailXtract, purging means that messages are deleted from the mail server message store.</p> <p>When used with DiskXtender, purging means that data for files that have been copied to media is removed from the extended drive and a file tag is left behind. The file tag allows a purged file to appear to be resident on the extended drive so that client computers can access it.</p>
remote administration	You can administer an EmailXtender server both from the computer on which the EmailXtender server components are installed and from remote computers. To remotely administer an EmailXtender server, you must install the EmailXtender Administrator interface only (you do <i>not</i> need to install the EmailXtender server components).
retention period	A folder-level setting that allows you to track how long volumes exist in the EmailXtender system. They are designed to help you to meet legal retention requirements by preventing you from deleting volumes before the specified amount of time has passed.

rules	Guidelines you configure at the vault, cabinet, or folder level so that you can efficiently organize email archives by controlling which messages EmailXtender archives.
Search Plug-in	An EmailXtender client component that offers EmailXtender search functionality from within Microsoft Outlook and Lotus Notes.
server	The top-level organizational component of the EmailXtender Message Center, the server represents the EmailXtender server.
shortcut	Pointers that are placed on the mail server to copies of messages that are archived in EmailXtender.
storage media	See media.
supervisor search	A type of search where certain users are authorized to search and view messages of other selected users.
vault	The second-level organizational component of the EmailXtender Message Center, the vault is automatically named "EmailVault". It collects all email data to be processed by EmailXtender.
volume	Flat, portable files of a configurable size containing archived messages organized by month. Also called <i>container files</i> or <i>.emx files</i>
Web Search	A website (located at <i>http://localhost/EmailXtender</i> , where <i>localhost</i> is the IP address or server name of the EmailXtender server) that allows administrators, supervisors, and users to search the EmailXtender archive.

Index

.access files. See ACCESS files
.dlc files. See DLC files
.emx files. See EMX files
.idx files. See IDX files
.nsf files. See NSF files
.pst files. See PST files
.ref files. See REF files
.tbl files. See TBL files
.txvlts files. See TXVLTS files
.xrc files. See XRC files
.xvlt files. See XVLT files

A

ACCESS files 150
action rules (auto-forward) 105–106
activating changes 58
address
 format (Bloomberg Mail) 238
 legacy (Bloomberg Mail) 250
 rules, specific 95–97
administrator
 account, EmailXtender 159
 interface, EmailXtender 52–58
 interface, EmailXtract 260–262
 search 39, 46, 193, 201–202
ADS (Active Directory Services)
 rules 32, 45, 91, 95, 108–116, 149
 with Microsoft Exchange 110
Akonix Systems instant message capture 31
Analysis task (EmailXtract) 294–300
 configuring 295–299, 346–347
 managing 299
 results 299, 350
 scheduling 296, 299
 toolbar icon 261
and, using in searches and rules 363
architecture
 Message Center 25–30
 Message Center, planning 60
 system 22
Archive (default Message Center folder). See folder
Archive Edition, EmailXtender 43–45
Archive task (EmailXtract) 270–276
 configuring 272–275
 managing 275
 results 275–276, 350
 scheduling 275
 toolbar icon 261
attachments 21, 23, 97–98, 139, 280, 303, 305
 analysis chart 360
 analyzing 269, 294–295, 297–298, 300, 346–347, 350–351
 archiving messages based on 274
 Bloomberg Mail 233, 235, 237–241, 247–252, 254–255
 deleting messages based on 288
 in the Message Center directory 150
 indexing 31–32, 44, 59, 149, 363
 input file (Bloomberg Mail) 239
 restoring when they are shortcut 278, 342–343
 searching for 293, 365
 searching for keywords 39, 193, 365–368
 sending an audit report as 207, 221, 229
 shortcutting messages based on 277, 280–281, 283, 343
Audit Utility 24, 38, 40–42, 194, 203, 205–230
 custom reports 205
 database 40, 42, 205, 219
 exporting a report to a Domino database 207, 228–229
 standard reports 205
 with EmailXtender Archive Edition 44

B

BadDir
 cabinet directory 151, 184
 checking for corrupt index files 146
 checking for unprocessed messages 140, 151, 183, 190

- folder directory 139, 151, 183
 - Message Center directory 139, 148, 151, 155, 172, 184
 - processor utility 151, 155, 157, 171–172, 184, 190
 - vault directory 139, 148, 151, 183
 - bang rules, keyword 97–102
 - Bear format (Bloomberg Mail) 233–235, 247
 - Bloomberg Mail Parser 25, 31, 46, 139, 231–255
 - adding legacy email addresses 250
 - attachment input file 239
 - attachments (parser output) 241
 - automating with custom scripts 251
 - Bear format 233–235, 247
 - Bull format 233, 236–238, 248
 - command line parameters 240, 251–252
 - configuration file 240, 244–250, 252
 - input files 233–240
 - installing 244
 - inventory report 243, 252
 - log file 232, 235, 239–240, 242–243, 250, 252–255
 - message input file 233–238
 - messages (parser output) 241
 - output 240–244
 - running 251–253
 - scheduling 240, 251
 - testing 232, 245, 250, 252
 - troubleshooting 253
 - user address formats 238
 - with EmailXtender Archive Edition 44
 - Boolean queries 305–306, 309
 - buffered files 150
 - Bull format (Bloomberg Mail) 233, 236–238, 248
 - buttons, toolbar 56
- C**
- cabinet 28, 78
 - BadDir directory 151, 184
 - configuring 79
 - copying 83
 - creating 45, 78–79, 103
 - creating automatically 32, 79, 91, 121
 - creating, reasons for 102
 - default (Index) 28, 78, 151
 - deleting 83
 - description 81
 - directed search 28, 40, 46, 82, 193, 202–204
 - directory 79, 151
 - drop directory 144, 146, 154, 156
 - in EmailXtender Archive Edition 44, 78–79
 - retention period 63
 - rules 28, 32, 45, 61–62, 78, 80–82, 91, 107, 278
 - within the Message Center hierarchy 25–26, 50, 59–60
 - cache rule logging 152
 - capacity
 - storage drive, extending 25, 37, 117, 130
 - storage media, usage 129
 - volumes 30, 117–118, 120, 128–130, 148
 - Centera. See EMC Centera
 - chart, viewing EmailXtract task results as 352–361
 - Code of Federal Regulations 21
 - collection
 - rules 91–105
 - strategy 26
 - command line parameters (Bloomberg Mail Parser) 240, 251–252
 - compliance
 - with an email policy 22, 38, 231
 - with federal regulations 21
 - compression
 - shortcut task analysis chart 359
 - volumes 28, 31, 35, 45, 59, 65–66, 75–78
 - connecting to an EmailXtender server 51–52, 164–165
 - container files. See volumes
 - corrupt
 - index 36, 125–126, 141, 146, 152, 156, 186
 - message queues 155, 184
 - Crystal Reports 205, 219–220, 222–224

D

- database
 - audit 40, 42, 205, 219
 - deleting messages from 168
 - Domino mailbox connector 70, 73
 - Domino, analyzing 294, 298

- Domino, archiving from 31, 43, 257, 269–270, 274, 276, 339
 - Domino, deleting from 284, 288
 - Domino, exporting an audit report to 207, 228–229
 - Domino, searching for messages 290, 293
 - Domino, shortcutting messages in 277, 282
 - EmailXtender, checking the status of 169
 - EmailXtender, compression of 35, 65, 75
 - EmailXtender, entering messages into 155, 184
 - EmailXtender, removing volume information from 127, 190
 - EmailXtender, updating with volume information 121
 - Delete task (EmailXtract) 284–290
 - configuring 285–289, 344–346
 - managing 289
 - results 289, 350
 - scheduling 286, 289
 - simulating 284, 289
 - toolbar icon 261
 - direct read (DiskXtender) 132, 134–135
 - directed search 28–29, 40, 46, 78, 80, 82, 85, 88, 193, 202–204
 - directory
 - BadDir (cabinet) 151, 184
 - BadDir (folder) 139, 151, 183
 - BadDir (Message Center) 139, 148, 151, 155, 172, 184
 - BadDir (vault) 139, 148, 151, 183
 - cabinet 79, 151
 - chart file, EmailXtract 267–268
 - drop (cabinet) 144, 146, 154, 156
 - drop (IIS) 139
 - drop (SMTP) 154, 171, 231, 241, 251
 - drop (vault) 139, 143, 155, 184
 - folder 84, 127
 - index (folder) 140
 - log file (EmailXtract) 267–268
 - mailbox connector 139
 - Message Center 139–140, 172, 190
 - Message Center, clearing 156–157
 - Message Center, excess files 150
 - storage (folder) 139, 144
 - disabling message collection 90
 - DiskXtender 23, 25, 30, 36–37, 45–46, 85, 117–118, 120, 128–135, 147, 149, 187, 190
 - retention considerations 64
 - distribution list 21, 93, 104–105, 108, 112, 147, 152, 158, 185, 189, 197, 199–200, 276, 305–306, 318, 323–324, 339
 - cache file 145, 152
 - DLC files 145, 147, 152, 185, 189
 - domain rules 61, 93–95
 - Domino. See Lotus Domino
 - drive scan (DiskXtender) 132, 135
 - drop directory
 - cabinet 144, 146, 154, 156
 - IIS (Internet Information Server) 139
 - SMTP 154, 171, 231, 241, 251
 - vault 139, 143, 155, 184
 - DVD-R 23, 25, 36–37, 117, 130, 135, 190
 - DVD-RAM 37, 130
- ## E
- EmailVault. See vault
 - EmailXaminer 22, 38, 143, 150, 184, 231–232, 239, 242, 244, 250
 - with EmailXtender Archive Edition 44
 - EmailXtender.dlc 145, 152, 189
 - EmailXtract 21, 25, 30, 43, 92–93, 104–105, 139, 149, 184
 - Analysis task 294–300, 346–347
 - Archive task 46, 270–276
 - configuring options 262–268
 - configuring tasks 300–347
 - date settings 310–312
 - default task settings 263
 - Delete task 284–290, 344–346
 - directories for log and chart files 267–268
 - exporting task results 350–351
 - folder settings 319–320, 336–338
 - item types 316–319, 333–335
 - logging 187–188, 267, 272–273, 276, 280–281, 284, 286–287, 289, 291–292, 296–297, 300, 314–316, 350
 - logging directories 263, 267
 - Lotus Domino settings 333–340
 - mailbox settings 322–324, 338–339
 - managing scheduled tasks 347–349
 - managing task results 349–361

- MAPI profile 266–267, 320–322
- Message Content settings 303–310
- Microsoft Exchange task settings 316–333
- NSF selection 339–340
- PST selection 325–333
- public folder settings 324–325
- runtime priorities 264
- scheduling tasks 262, 312–314
- Search task 290–294
- Search task, purging results 351
- Search task, removing items from results 352
- Search task, viewing results 352
- Shortcut task 47, 277–284, 341–344
- Shortcut task, troubleshooting 187–188
- task capabilities 269
- viewing task results as a chart 350, 352–361
 - with EmailXtender Archive Edition 44
- EMC Centera 23, 25, 36–37, 64, 117, 129–131, 133–135, 190
- EMX files 23, 25, 30, 35–37, 46, 117–118, 120, 139, 148, 190
 - deleting 124
 - transferring to another EmailXtender server 118
 - writing to storage media 117, 130–135
- encryption 28, 31, 35, 45, 59, 65–66, 75
 - key 65, 75, 77
 - volumes 75–78
- errors
 - Bloomberg Mail Parser 242, 253–255
 - troubleshooting 191
- event log
 - application 141
 - EmailXtender 125–126, 141, 145, 147, 149, 151–153, 157–158, 186, 189
 - security 141
 - system 141
- exAdmin
 - group 40, 51, 202
 - service 149
- Exchange. See Microsoft Exchange
- exclusion rules 61
- exporting EmailXtract task results 350–351
- expression operators 99, 363–369
 - and 363
 - insignificant characters 368
 - not 364

- or 364
- parentheses 367
- proximity-based 365–366
- punctuation 369
- significant characters 368
- syntax 367
- tense conflation 366
- wildcards 364
- extended drive 25, 37, 117, 129–131, 147, 187
 - creating 131
 - scanning for viruses 132
- external message rules (SMTP) 107–108

F

- FaceTime Communications instant message capture 31
- FAST encryption 65, 75
- folder 29, 84
 - BadDir directory 139, 151, 183
 - configuring 85–88
 - copying 89
 - creating 45, 84–85, 103
 - creating automatically 32, 69, 82, 84, 91, 107, 121
 - creating, reasons for 102
 - default 29
 - deleting 89
 - description 85–87
 - directed search 40, 46, 88, 193, 202–204
 - directory 84, 127
 - disabling mail collection 29, 85–87
 - in EmailXtender Archive Edition 44, 78–79, 84, 89
 - index directory 140
 - media. See media folder
 - public. See public folders
 - retention period 29, 31, 35, 46, 59, 62–64, 84–85
 - retention period, setting 86, 88
 - rules 28–29, 32, 45, 84–85, 88, 91, 107, 278
 - settings, EmailXtract 319–320
 - storage directory 139, 144
 - within the Message Center hierarchy 25–26, 50, 59–60
- full-text index 21, 23, 25, 31–32, 59, 139–140, 154, 231, 363

backlog 150
checking status 165, 169
corrupt 146
corrupt, checking for 156
corrupt, repairing 141, 152, 168, 186
corrupt, replacing 36, 125–126
directory 140
drop directory 154
file size 35, 65, 75
file size, monitoring 35, 117
insignificant characters 368
performance impact 97–98
polling frequency 45, 64, 68
preparatory queue 144
punctuation characters 369
re-creating 36, 55, 120–121, 124–126, 190
removing 36–37, 55, 117, 126–127, 190
repairing 147, 168
service 144, 146, 149
significant characters 368
troubleshooting 156, 184
verifying process 140, 146–147
with EmailXtender Archive Edition 44

H

hierarchy, Message Center. See architecture

I

ICE-Key encryption 65, 75
IDX files 146
IIS (Internet Information Server)
drop directory 139
IMlogic instant message capture 31
Index (default Message Center cabinet). See cabinet
index. See full-text index
instant message (IM) capture 31, 46, 139
with EmailXtender Archive Edition 44

J

journaling utility 23, 71, 73, 93, 104

K

key, encryption 65, 75, 77
keyword rules 97–102

L

language support 23, 30, 34, 71, 94, 98–100, 105, 118, 261, 266, 277, 305, 314, 321, 325, 330–331, 341, 350
LDAP rules 32, 45, 91, 95, 108–116, 149
toolbar icon 56
legacy volumes, upgrading 122
license
EmailXtender 56
EmailXtender Archive Edition 44–45
list, distribution. See distribution list
log
application 141
Bloomberg Mail Parser 232, 235, 239–240, 242–243, 250, 252–255
directory, EmailXtract 267–268
EmailXtender server status 169
EmailXtract 187–188, 263, 267, 272–273, 276, 280–281, 284, 286–287, 289, 291–292, 296–297, 300, 314–316, 350
event 125–126, 141, 145, 147, 149, 151–153, 157–158, 186, 189
format (Bloomberg Mail Parser) 233
format, bear (Bloomberg Mail Parser) 234
format, bull (Bloomberg Mail Parser) 236
OWA shortcut support installation 188
rule cache 152
security 141
system 141
logging in
administrator mailbox 159
EmailXtender 50
EmailXtract 258
LDAP server 110
Lost and Found volumes 36, 55, 83, 89, 120, 127, 186, 190
Lotus Domino 21
address book 91, 96, 106, 108, 158, 197, 209, 211, 216, 218, 232, 239, 244, 250
analyzing NSF files 294, 298

- analyzing the message store 294
 - and Microsoft Exchange in one environment 95, 106, 195, 258
 - archiving from NSF files 31, 43, 257, 269–270, 274, 276
 - archiving messages from 270
 - archiving modified data 276
 - checking event logs 141
 - deleting from NSF databases 284, 288
 - deleting messages from 284
 - EmailXtract logging 314
 - EmailXtract settings 43, 257, 272, 280, 286, 291, 296, 302, 333–340
 - EmailXtract, using with 31
 - exporting an audit report to 207, 228–229
 - journaling process 23, 30, 59, 139, 148
 - journaling utility 23
 - LDAP rules 32, 108
 - logging 316
 - mailbox connector 23, 70, 147
 - mailbox connector, adding 73
 - message files 155
 - message store, managing with
 - EmailXtract 257
 - password verification 54
 - restoring shortcut messages to 278, 342
 - searching for messages 290
 - searching NSF files for messages 290, 293
 - shortcut resolution service 149
 - shortcuts in NSF files 277
 - shortcuts in the message store 277
 - troubleshooting 145
 - viewing shortcut messages 278
 - with EmailXtender Archive Edition 43
 - with LDAP 110
- Lotus Notes
- password verification 260
 - Search Plug-in 23, 38, 193

M

- magneto-optical 23, 25, 36–37, 117, 130, 190
- mailbox connector 23, 30, 59, 92, 147–148, 185
 - adding 28, 66, 69–74, 154
 - deleting 74, 154
 - directory 139
 - polling frequency 28, 64, 66–68
 - verifying 185, 191
- maintenance 42, 140–156
- MAPI (Messaging Application Program Interface) 70, 114
 - profile, choosing 226–227, 258–259, 266–267, 274, 282, 288, 293, 298, 320–322
 - profile, testing 323
 - using to email an audit report 229–230
- media 23, 25, 27, 30, 36–37, 45–46, 117–118, 120, 128, 148, 150, 190
 - capacity usage 129
 - changing types 128, 130
 - DiskXtender 130–135
 - organizing with rules 32
 - rewritable 122–123
 - write-once 122
- media folder (DiskXtender) 37, 130, 133–135
- media service (DiskXtender) 37, 130–131
- MediaStor 131, 133–134
- menu bar 53, 56, 260–261
- Message Center 21, 23, 40, 59, 66, 70, 134, 148, 193, 202, 287, 344–345, 351
 - adding volumes to 118
 - architecture 25–30
 - archiving messages to 270
 - compression 65, 75
 - directory 139–140, 172, 190
 - directory, BadDir 139, 148, 151, 155, 172, 184
 - directory, clearing 156–157
 - directory, excess files 150
 - disabling mail collection 87
 - managing using the Administrator 49, 149, 191
 - planning 60
 - polling frequency 64, 67
 - viewing 54
 - volumes, managing 118
- message journaling. See journaling utility
- message processing 139–140
- message queues
 - blocked 184
 - checking 141–146
 - corrupt 155
 - log of contents 169
 - manually purging 155
- Microsoft Exchange 21

- 2000, configuring with EmailXtender 23
 - 2003, configuring with EmailXtender 23
 - address book 91, 96, 106, 108, 158, 197, 209, 211, 216, 218, 232, 239, 244, 250
 - analyzing PST files 294, 298
 - analyzing public folders 294, 299
 - analyzing the message store 294
 - and Lotus Domino in one environment 95, 106, 195, 258
 - archiving calendar items, contacts, tasks, etc. 92
 - archiving from PST files 30, 43, 257, 269–270, 274, 276, 325
 - archiving from public folders 43, 92, 257, 269–270
 - checking event logs 141
 - choosing a MAPI profile 51, 258–259, 266–267, 320–322
 - deleted retention items 303, 307
 - deleting calendar items, contacts, tasks, etc. from 344
 - deleting messages from mailboxes 284, 344
 - deleting messages from PST files 284, 288
 - deleting messages from public folders 284, 289
 - deleting PST files 332
 - EmailXtract runtime priorities 265
 - EmailXtract settings 43, 257, 272, 280, 286, 291, 296, 302, 316–333
 - EmailXtract, using with 30
 - exporting an audit report to 207, 226–228
 - hiding PST files 332
 - journaling process 23, 30, 59, 139, 148
 - journaling utility 23
 - language support 99–100
 - mailbox connector 23, 70–74, 147
 - making PST files read-only 332
 - message files 155
 - message store, managing with
 - EmailXtract 257
 - moving PST files 332
 - OWA shortcut support 342, 344
 - preserving PST folder structure after shortcuts 332
 - Public Organizational Forms Library 187–188
 - searching messages in public folders 293
 - searching PST files for messages 290, 293
 - searching public folders for messages 290
 - searching the message store for
 - messages 290
 - shortcut resolution service 149
 - shortcut troubleshooting 187–188
 - shortcuts in PST files 277, 282, 326
 - shortcuts in public folders 277, 282
 - shortcuts on the mail server 277
 - shortcuts, restoring 278, 342
 - shortcuts, upgrading 278, 342
 - shortcuts, viewing 278
 - testing a MAPI profile 323
 - troubleshooting 145
 - with Active Directory Services 110
 - with EmailXtender Archive Edition 43
 - with LDAP 110
 - Microsoft Outlook
 - Search Plug-in 23, 38, 193
 - troubleshooting shortcuts from 188
 - viewing an audit report 228
 - Microsoft SQL Server
 - audit database 40, 42
 - entering messages into 155, 184
 - status 169
 - MilVault 23, 30, 59
 - move group (DiskXtender) 37, 133–135
 - move rule (DiskXtender) 37, 133–135
 - multi-byte language support 34, 71, 94, 98–100, 105, 261, 266, 305, 314, 321, 325, 330–331, 350
- ## N
- NAS (Network Attached Storage) 37, 122, 130–131, 133–134
 - not, using in searches and rules 364
 - NSF files
 - analyzing message data 294, 298
 - applying EmailXtract tasks to 339–340
 - archiving from 31, 43, 257, 269–270, 274, 276
 - deleting messages from 284, 288
 - ExJournal 73
 - searching messages 290, 293
 - shortcutting messages from 277, 282

O

- optical storage 23, 25, 36–37, 117, 130, 190
- or, using in searches and rules 364
- OWA (Outlook Web Access)
 - HTTPS and forms authentication 320, 322
 - shortcut support installation log 188
 - shortcut support service 149
 - shortcut support, enabling 277, 283, 342–344
 - shortcut troubleshooting 188

P

- parentheses in searches and rules 367
- Parser, Bloomberg Mail. See Bloomberg Mail Parser
- planning the Message Center architecture 60
- polling frequency 28, 45, 64, 66–68, 70
- priorities, runtime (EmailXtract) 264
- proximity-based expression operators in searches and rules 365–366

PST files

- analyzing message data 294, 298
- applying EmailXtract tasks to 325–333
- archiving from 30, 43, 257, 269–270, 274, 276, 325
- archiving from with EmailXtender Archive Edition 44
- deleting 332
- deleting messages from 284, 288
- hiding 332
- making read-only 332
- moving 332
- preserving folder structure after shortcuts 332
- searching messages 290, 293
- shortcutting messages from 277, 282, 326

public folders

- access permissions 322
- analyzing message data 294, 299
- applying EmailXtract tasks to 324–325
- archiving from 30, 43, 92, 257, 269–270, 275
- archiving from with EmailXtender Archive Edition 44

- deleting messages from 284, 289
- exporting audit reports to 226
- searching messages 290, 293
- shortcutting messages in 277, 282
- Public Organizational Forms for shortcuts 187
- punctuation in searches and rules 369
- purge
 - message queues 155, 184
 - messages through EmailXtract 290, 294, 350–352
 - rule, DiskXtender 37, 133–134
 - through DiskXtender 131–132, 134–135

Q

- queues, message. See message queues

R

- REF files 150
- refreshing the interface 57, 164
- remote administration 41, 51–52, 164–165
- reports
 - all documents for an index or month 166
 - archiving 25, 30, 273, 316, 333
 - audit 24, 41–42, 205, 230
 - audit, custom 219–220
 - audit, emailing 229–230
 - audit, exporting 221, 230
 - audit, printing 220
 - audit, standard 207–219
 - audit, viewing 220
 - deleting from the message store 287, 316, 333
 - error, Bloomberg Parser 242–243, 252–255
 - events. See event log
 - inventory, Bloomberg Parser 243–244
 - message store analysis 297
 - message store, analyzing 297, 316, 333
 - message store, searching the message store for 292, 316, 333
 - system status 141
- retention period 21, 29, 31, 35, 59–60, 62–64, 84–86, 88, 132–134
 - example 62
 - with EmailXtender Archive Edition 44

- rewritable storage media 122–123
 - rules
 - action (auto-forward) 91–92, 105–106
 - ADS 32, 45, 91, 95, 108–116, 149
 - bang 97–102
 - cabinet level 28, 78, 80, 82
 - cache files 152, 189
 - cache logging 152
 - collection 91–105
 - copying 83, 89
 - deleting 107
 - domain 61, 93–95
 - editing 106
 - EmailXtender 21, 23, 26, 31–32, 45, 59–60, 91–116
 - exclusion 61, 91–105
 - expression operators 363–369
 - external (SMTP) 69, 79–82, 84, 91, 107–108
 - folder level 29, 84–85, 88
 - keyword 97–102
 - language 100
 - LDAP 32, 45, 91, 95, 108–116, 149
 - message queue 143, 184
 - move (DiskXtender) 37, 133–135
 - punctuation 369
 - purge (DiskXtender) 37, 133–134
 - service 149
 - specific address 95–97
 - strategy 61, 185
 - syntax 367
 - unmatched messages collection 102–104
 - vault level 28, 66, 69
 - with distribution lists 104–105
 - with the Bloomberg Mail Parser 241, 246
 - runtime priorities, EmailXtract 264
- ## S
- scheduling
 - Bloomberg Mail Parser 240, 251
 - EmailXtract tasks 262, 312–314
 - search
 - administrator 39, 46, 193, 201–202
 - auditing 24, 40, 42, 205, 207, 212–219
 - Boolean query 309
 - deleting/purging results 350–351
 - directed 28–29, 40, 46, 78, 80, 82, 85, 88, 193, 202–204
 - domain for LDAP/ADS queries 111
 - duplicate results 336
 - expression operators 363–369
 - maximum number of hits 306
 - message store (EmailXtract) 25, 43
 - NSF files after archiving them 276
 - plug-in 23, 38, 193
 - PST files 329
 - PST files after archiving them 276
 - public folders 275, 282, 299
 - punctuation 369
 - removing results 352
 - service 149
 - shortcuts 284
 - special characters 308
 - supervisor 39, 46, 193–201
 - syntax 367
 - syntax for LDAP/ADS queries 112–114
 - task (EmailXtract) 269, 290–294
 - task results (EmailXtract), managing 349–352
 - timeout for LDAP/ADS queries 111
 - toolbar icon (EmailXtract) 261
 - troubleshooting 189
 - types 21, 37–40
 - user 38, 193
 - verifying 153
 - viewing results 352
 - website 23, 37, 193
 - with EmailXtender Archive Edition 44
 - SEC (Securities and Exchange Commission)
 - compliance 21
 - security
 - log 141
 - volumes, encryption 31, 35, 45, 59, 65, 75–78
 - sendmail 23, 30, 59, 139, 154
 - with EmailXtender Archive Edition 44
 - server
 - Administrator interface 50, 52–57
 - ADS 91, 108–112, 115
 - configuration (volumes) 27, 30, 128–130
 - EmailXtender, Audit Utility on 24
 - EmailXtender, Bloomberg Mail Parser on 25, 241, 244

- EmailXtender, clearing of files 153–156
- EmailXtender, connecting to 50–52, 164–165, 191
- EmailXtender, DiskXtender on 25, 117, 130–135
- EmailXtender, EmailXtract on 25, 43, 257
- EmailXtender, status 169
- EmailXtender, status log 169
- EmailXtender, troubleshooting 190
- errors, writing to a log file (EmailXtract) 315
- exAdmin group 40, 202
- LDAP 91, 108–112, 115
- mail, analysis 346–347
- mail, checking for messages 144–146, 184–185
- mail, EmailXtract on 25, 43, 257
- mail, mailbox connector on 59, 70–74, 185
- maintenance 42, 137, 140–144, 146–156
- Message Center component 25, 27, 59–60
- proxy (instant message capture) 31
- remote administration of 41
- storage drive 23, 35–36, 117, 130
- system architecture 22–25
- troubleshooting 42
- used as NAS media in DiskXtender 37, 130
- website for searches 23, 37, 193
- service 143
 - account, EmailXtender 137, 159–160, 325
 - Address Rule (ExAddrRule.exe) 145, 147, 149, 152, 185
 - Administration API (ExAdmin.exe) 149
 - Archive (ExArchive.exe) 143–144, 147–148, 153, 187, 189
 - connection error 50, 52, 191
 - Email Data Source (ExEmail.exe) 70, 143, 148
 - Exchange Manager (ExExchangeMgr.exe) 71, 74, 149, 191
 - Index (ExIndex.exe) 144, 146, 149
 - Notes Manager (ExNotesMgr.exe) 149
 - Query (ExQuery.exe) 149, 153, 189
 - running EmailXtract tasks as 275, 283, 289, 293, 299, 312
 - starting 149
 - status 169
 - toolbar icon 57
 - verifying 148–149
- shortcuts
 - creating 25, 43, 47, 277, 284, 341–344
 - downloading Public Organizational Forms for 187
 - in NSF files 277, 282
 - in PST files 277, 326
 - managing the task 283
 - OWA support 188, 277, 342, 344
 - preserving PST file folder structure 332
 - resolution service 149
 - restoring 43, 278, 342–343
 - scheduling 280
 - simulation 279, 284
 - task results, managing 349–359
 - toolbar icon (EmailXtract) 261
 - troubleshooting 187–188
 - unresolved 278
 - upgrading 277–278, 342–343
 - verifying 342–343
 - with EmailXtender Archive Edition 44
 - with modified documents 277
- SMTP
 - drop directory 154, 171, 231, 241, 251
 - messages, converting instant messages to 31
 - rules 32, 45, 69, 80–82, 91, 107–108
 - specific address rules 95–97
- SQL Server. Microsoft SQL Server
- stopping message collection 90
- storage
 - container files 23
 - directory 139, 144
 - drive, EmailXtender 23, 25
 - media 23, 25, 27, 30, 36–37, 45–46, 117–118, 120, 128, 148, 150, 190
 - media, capacity usage 129
 - media, changing types 128, 130
 - media, DiskXtender 130–135
 - media, organizing 32
 - media, rewritable 122–123
 - media, write-once 122
- StorageTek ACSLS 132–134
- strategy for mail collection and archival 26
- supervisor search 39, 46, 189, 193–201
- syntax
 - keyword bang rule 98–102
 - LDAP/ADS search 112–113
 - rules 367

search 367
system architecture 22

T

tape 23, 25, 36–37, 117, 130, 190
tasks, EmailXtract. See EmailXtract
TBL files 146, 154
tense conflation in searches and rules 366
The 173
Tivoli Storage Manager (TSM) 130, 132–134
toolbar 53, 56, 260–261
troubleshooting 42
 EmailXtender server 190
 error messages 191
 message collection 183–185
 OWA shortcut access 188
 searches 189
 shortcuts 187–188
 volumes 185–187
TXVLTS files 146, 154

U

U.S. Code of Federal Regulations 21
U.S. Securities and Exchange Commission. See SEC compliance
UDO (Ultra-Density Optical) 37, 130
unmatched messages collection rule 102–104
user search 38, 193
utilities
 audit. See Audit Utility
 ExBadDirProcessor.exe 151, 155, 157, 171–172, 184, 190
 ExMailStatus.exe 141, 169–171
 ExSuspend 173
 HealthCheck 147, 156, 161–169
 Managexvlt 176
 ReadMSMQ 143, 145, 180, 184
 UnpackContainer 178

V

vault 27, 66
 BadDir directory 139, 148, 151, 183
 compression 28, 45, 65–66, 75–78

description 68
drop directory 139, 143, 155, 184
encryption 28, 45, 65–66, 75–78
mailbox connectors 28, 66, 69–74
polling frequency 28, 45, 64, 66–68
rules 28, 32, 66, 69, 91
within the Message Center hierarchy 25, 50, 59–60

virus

restoring the mail system after 21
scanning for 132

volumes

23, 29, 35–37, 117–135
after a cabinet deletion 83
after a folder deletion 89
assigning messages to 143
auditing deletion of 24, 41–42, 205, 207, 210–212
capacity 30, 129
closing 35–36, 120, 139, 155
compression 28, 31, 35, 59, 65–66, 75–78
configuring 27, 46, 128–130
corrupt, re-indexing 36, 125, 186
deleting 36, 123
disposing of data for 36, 127, 186, 190
ejecting 128
encryption 28, 31, 35, 59, 65–66, 75–78
legacy 122
Lost and Found 36, 55, 83, 89, 120, 127, 157, 186, 190
monitoring service 148
moving between EmailXtender servers 30, 35
NTFS 130
open, large numbers of 147, 150, 187, 190
processing messages associated with 172
re-indexing 36, 39, 125, 189, 195, 198, 200
removing indexes for 36, 126, 190
restoring 36, 120, 187
retention period 29, 31, 35, 46, 59, 63–64, 84–88, 133
size, changing for EMC Centera 133
status 119, 169
storage drive 23, 25
storage path 129
troubleshooting 185–187
upgrading 30, 36, 122–123, 278, 342
viewing through the Administrator 55

- within the Message Center hierarchy [25](#), [50](#),
[59–60](#)
- writing to media with DiskXtender [36–37](#),
[46](#), [130–135](#), [190](#)

W

- Web Search Client [23](#), [37](#)
- website (search). See Web Search Client
- wildcard characters
 - in EmailXtract tasks [305–306](#), [308–309](#)
 - in keyword rules [99](#), [364](#)
 - in searches [364](#)
- WORM [37](#), [130](#)
- WORM-tape [37](#), [130](#)
- write-once storage media [122](#)

X

- XRC files [152](#), [189](#)
- XVLT files [143](#)
- XVLTS files [146](#), [154](#)