



**MAILMAN
TECHNICAL MANUAL**

Version 7.1 & Patch XM*7.1*50

July 1999

Department of Veterans Affairs
VISTA Software Development
Infrastructure Product Line

Preface

The "MailMan Version 7.1 & Patch XM*7.1*50 Technical Manual" provides descriptive information and instructions on the use of the MailMan software within the VA's Veterans Health Information Systems and Technology Architecture (**VISTA**) environment. This document is intended for systems managers—Information Resource Management (IRM) personnel who are responsible for implementing and maintaining MailMan, application programmers, and developers. It acquaints system managers with the utilities, software structure and functionality of the MailMan system modules, including information about the routines and files that comprise MailMan. It also has information about MailMan's structure and recommendations regarding MailMan's efficient use (e.g., routine mapping). However, it does *not* describe how MailMan is used nor does it detail its use in package development. Additional information on installation, security, management features, and other requirements is also included, with emphasis on the changes made to the MailMan interface introduced by MailMan Patch XM*7.1*50 (i.e., Patch 50 specifically related to **VISTA** application Programmers and IRM.).

MailMan Patch 50 is a large patch that has modified not only existing options and functionality but added new options and functionality to MailMan V. 7.1. These changes have resulted in a new user interface to MailMan. Both the new and existing functionality is described in the chapters that follow.

The MailMan Development Team appreciates and encourages all feedback regarding MailMan and its use. Please use the National Online Information Sharing (NOIS) system to report any problems encountered and the Electronic Error and Enhancement Requests (E3R) system to request enhancements you would like incorporated into the MailMan software and documentation. Although we can't guarantee their incorporation, the MailMan Development Team will consider your suggestions for future enhancements to MailMan.

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Orientation

How to Use this Manual

This manual uses several methods to highlight different aspects of the material:

- Various symbols are used throughout the documentation to alert the reader to special information. The following table gives a description of each of these symbols:

Symbol	Description
	Used to inform the reader of general information including references to additional reading material.
	Used to caution the reader to take special notice of critical information.

Table 1: Documentation Symbol Descriptions

- Descriptive text is presented in a proportional font (as represented by this font).
- "Snapshots" of computer online displays (i.e., roll-and-scroll screen captures/dialogues) and computer source code are shown in a *non*-proportional font and enclosed within a box.
 - User's responses to online prompts will be in boldface type.
 - The "<RET>" found within these snapshots indicate that the user should press the Enter or Return key on their keyboard.
 - Author's comments are displayed in italics or as "callout" boxes.



Callout boxes refer to labels or descriptions usually enclosed within a box, which point to specific areas of a displayed image.

- All uppercase is reserved for the representation of M code, variable names, or the formal name of options, field and file names, and security keys (e.g., the XUPROGMODE key).

How to Obtain Technical Information Online

Exported file, routine, and global documentation can be generated through the use of Kernel, MailMan, and VA FileMan utilities.



Please refer to the "Implementation and Maintenance" and/or specific sections of this manual for further information.

Help at Prompts

MailMan has extensive online help, commonly used system default prompts, and bulletins. Users are strongly encouraged to enter question marks at any response prompt. At the end of the help display, you are immediately returned to the point from which you started. This is an easy way to learn about any aspect of MailMan.

To retrieve online documentation in the form of Help in MailMan:

- Enter a single question mark ("?") at a field/prompt to obtain a brief description. If a field is a pointer, entering one question mark ("?") displays the HELP PROMPT field contents and a list of choices, if the list is short. If the list is long, the user will be asked if the entire list should be displayed. A YES response will invoke the display. The display can be given a starting point by prefacing the starting point with an up-arrow ("^") as a response. For example, **^M** would start an alphabetic listing at the letter M instead of the letter A while **^127** would start any listing at the 127th entry.
- Enter two question marks ("??") at a field/prompt for a more detailed description. Also, if a field is a pointer, entering two question marks displays the HELP PROMPT field contents and the list of choices.
- Enter three question marks ("???) at a field/prompt to invoke additional Help text stored in Help Frames.

In addition to the "question mark" help, you can use the Help (User/Group Info., etc.) menu option on the main MailMan Menu to access the MailMan Help Frames through the following options:

- New Features in MailMan
- General MailMan Information
- Questions and Answers on MailMan
- Manual for MailMan Users

The Help Frames themselves are grouped according to function. The lead frame for a function contains the "keywords" or reference words, highlighted in reverse video, for linking to related frames. For example, while in a Help Frame, enter the desired keyword at the "Select HELP SYSTEM action or <return>:" prompt. The user can return to the previous Help frame simply by pressing the Enter/Return key at the message prompt.

Obtaining Data Dictionary Listings

Technical information about files and the fields in files is stored in data dictionaries. You can use the List File Attributes option on the Data Dictionary Utilities submenu in VA FileMan to print formatted data dictionaries.



For details about obtaining data dictionaries and about the formats available, please refer to the "List File Attributes" chapter in the "File Management" section of the "VA FileMan Advanced User Manual."

Assumptions About the Reader

This manual is written with the assumption that the reader is familiar with the **VISTA** computing environment.

It provides an overall explanation of the maintenance and implementation of the MailMan Software and the changes contained in MailMan Patch 50 (i.e., XM*7.1*50). However, no attempt is made to explain how the overall **VISTA** programming system is integrated and maintained. Such methods and procedures are documented elsewhere. We suggest you look at the various VA home pages on the World Wide Web (WWW) for a general orientation to **VISTA**. For example, check out the following web sites:

- Veterans Health Information Systems and Technology Architecture (**VISTA**), formerly known as the Decentralized Hospital Computer Program (DHCP) System:
 - <http://www.va.gov/vama.htm#DHCP>
 - <http://vawww.va.gov/vama.htm#DHCP>
- **VISTA** Software Development Home Page: <http://vista.med.va.gov/>

Related Manuals and Other References

Readers who wish to learn more about MailMan should consult the following:

- "MailMan V. 7.1 & XM*7.1*50 Release Notes"
- "MailMan V. 7.1 & XM*7.1*50 Getting Started Manual"
- "MailMan V. 7.1 & XM*7.1*50 User Manual"
- "MailMan V. 7.1 & XM*7.1*50 Programmer Manual"
- "MailMan V. 7.1 Network Reference Manual"
- MailMan Home Page at the following web address:
<http://vista.med.va.gov/mailman/index.html>

This site contains additional information and documentation.

MailMan documentation is made available online, on paper, and in Adobe Acrobat Portable Document Format (PDF). The PDF documents *must* be read using the Adobe Acrobat Reader (i.e., ACROREAD.EXE), which is freely distributed by Adobe Systems Incorporated at the following web address:

<http://www.adobe.com/>



For more information on the use of the Adobe Acrobat Reader, please refer to the "Adobe Acrobat Quick Guide" at the following web address:

<http://vista.med.va.gov/infrastructure/acrobat/index.html>

Introduction

MailMan, the Department of Veterans Affairs (VA) electronic mail system, is a communications tool that provides electronic communication among users sharing computing facilities. A communications link can be made with cables, telephone lines, or satellite connections. In this manner, the networking of electronic mail on a large scale is made possible.

MailMan provides teleconferencing via chained responses. MailMan is the transport vehicle for most Veterans Health Information Systems and Technology Architecture (**VISTA**) applications. MailMan is also used to preserve copies of software and data. MailMan also has the ability to include non-textual data in messages (i.e., Multimedia). Network features allow users to construct dialogues for logging on to remote systems for mail delivery. Message actions allow users great flexibility in managing personal mail. Users can address mail to individuals and groups at local and remote sites, with the tedium of waiting for process completion being reduced by the system's background filer. In addition, the system has extensive online documentation, which can be printed to create a manual.

MailMan is designed to allow users to send and receive mail from individuals or groups. A message can take the form of a personal letter or a formal bulletin extracting data from VA FileMan. The text of messages is not difficult to edit, and the context can be made confidential in several ways. Surrogates can be appointed to read mail. Mail groups can be set up to allow each member to respond to a message and to view the replies, as in an informal committee meeting. Mail can be sorted, deleted, forwarded, queried, copied, revised, or printed. In addition, MailMan cross-references messages by subject and message number.

MailMan allows users to send, receive, copy, respond to, and organize electronic mail. It has entry points to allow other applications to trigger bulletins or send messages without user intervention. There is a communications facility (i.e., TalkMan) to allow users to automatically hook into the VA Wide Area Network(WAN) or modems. This feature connects the user to a remote domain, playing the script to that domain without displaying it to the user. It then informs the user that the connection was successful, and can capture whatever has been displayed to the user's terminal into a message called DIALOGUE CAPTURE.

An extended search for messages can be invoked at the "Message Action" prompt or as a stand-alone option. The extended search includes filters on the subject, sender, recipient, responder, the date sent, and text contents.

MailMan informs users of network delivery failures and their causes. Message characteristics including Closed, Confidential, Confirmation Requests, Information, and Scrambling can be carried across the network. Package security information for PackMan can also be conveyed on the network.

MailMan allows the transfer of any word-processing text from any VA FileMan file or message into a message or response. New documents are placed in a user's "IN" basket or to any other designated basket (e.g., based on mail filters).

Introduction

The "MailMan Version 7.1 & Patch XM*7.1*50 Technical Manual" provides information on the following topics:

- Implementation and Maintenance
 - MailMan site parameters
 - System manager menus and options
- Routines
- Files
- Options
- Cross-references
- External Relations
- Internal Relations
- Package-wide Variables
- Security

These sections provide pertinent information, along with examples, that allow system managers and programmers to effectively implement, support, and maintain MailMan Version 7.1 with Patch XM*7.1*50.

What Happens When You Send a Message?

I. MESSAGES TO LOCAL USERS (OVERVIEW)

When you send a message to local users, MailMan calls `^XMKP` to enter the message into a queue called `^XMBPOST("BOX")`.

Think of it as putting a letter into a mailbox.

All messages (new ones, forwards, and responses) are put into `^XMBPOST("BOX")` with timestamps on them so MailMan can deal with them on a first come, first served basis.

MailMan then calls `CHECK^XMKPL` to make sure that the background filers are running. If the background filers aren't running, they'll be started (unless they were deliberately stopped).

Think of it as calling the post office to see if they're open. However, the post office analogy breaks down here, because if they're not working today, they're not going to start just because you asked them nicely. ;-)

The background filer we are interested in is `GO^XMKPLQ`. It is also known as the "mover." (The other filer, `GO^XMTDT`, a.k.a. the "tickler", is responsible for delivering "latered" messages and deleting inactive messages that were previously marked for deletion.) `GO^XMKPLQ` is constantly running and checking `^XMBPOST("BOX")` to see if any messages have been put into it.

Think of the mail carrier making her rounds picking up letters from the mailbox at certain times every day.

If there are messages in `^XMBPOST("BOX")`, `GO^XMKPLQ` will first read the queue definition from the `MAILMAN SITE PARAMETERS` file, `^XMB(1)`. The queue definition tells how many queues there should be for new and forwarded messages and how many queues there should be for responses. Each queue is defined to take messages with a certain range of addressees. Then `GO^XMKPLQ` will go through the messages according to their timestamp and put them into their correct delivery queue, based on whether they are new or forwarded messages or responses and how many addressees they have.

Think of a clerk in a post office sorting mail onto the correct delivery truck. Now imagine that there is more than one truck per route. One of the trucks would handle personal mail, like from your mom, and another would handle mass mailings, like from Publisher's Clearing House ("you may already have won..."), and there could be other trucks for other types of mail. Anyway, the letter from your mom would be delivered right to you, while the letter from Publisher's Clearing House would take forever to be delivered because it's going to every person in your neighborhood. In real life, of course, there's just one truck. MailMan can have up to 10 trucks, or queues, for responses, and 10 for new and forwarded messages, so your message to your boss doesn't have to be mixed in with a Broadcast message about the scheduled shutdown next Saturday evening.

Every 30 seconds, GO[^]XMKPLQ will stop sorting messages into delivery queues long enough to check each queue to make sure there is a task assigned to that queue to deliver its messages. If there is no task running for a delivery queue that has messages in it, GO[^]XMKPLQ will start one up.

Think of a supervisor at a post office making sure that there is a mail carrier for each route and calling in substitutes, if any is missing.

GO[^]XMKPLQ tasks GO[^]XMTDL to deliver messages for a particular group (new or forwarded messages are in one group, "M", and responses are in another group, "R") and queue (1 through 10, based on your site definition in [^]XMB(1,)). GO[^]XMTDL goes through a particular group/queue and delivers its messages, according to timestamp, to their addressees.

II. MESSAGES TO LOCAL USERS (DETAIL)

1. [^]XMKP—

- Populates the message's "addressed to" and "recipient" multiples
- Attaches replies to the original messages
- Creates the [^]XMBPOST("BOX" nodes

Definitions—

timestamp	\$H*86400+\$P(\$H,"",2)
xmz	IEN of the message in [^] XMB(3,9
xmduz	DUZ of the user who sent/forwarded/responded
bskt	Basket number (usually) or basket name

A. New Message

Local—Broadcast:

```
S ^XMBPOST("BOX",timestamp,"M",xmz)=# users in xmb(3.7
  _"^^_bskt for self
  _"^^_bskt for shared,mail_"^^_delete date for shared,mail_"^^"
```

(The asterisk at the very end signifies a local broadcast.)

Local—Not Broadcast:

```
S ^XMBPOST("BOX",timestamp,"M",xmz)=# addressees_"^^_bskt for self
  _"^^_bskt for shared,mail_"^^_delete date for shared,mail
```

B. Forward

Local—Broadcast:

```
S ^XMBPOST("BOX",timestamp,"M",xmz_"^"_xmduz)=# users in xmb(3.7
  _"^"_bskt for self
  _"^"_bskt for shared,mail_"^"_delete date for shared,mail_"^*"
```

(The asterisk at the very end signifies a local broadcast.)

Local—*Not* Broadcast:

```
S ^XMBPOST("BOX",timestamp,"M",xmz_"^"_xmduz)=# users forwarded to
  _"^"_bskt for self
  _"^"_bskt for shared,mail_"^"_delete date for shared,mail
```

The following nodes contain the DUZs of the users to whom the message is forwarded. They have a maximum length of 245:

```
S ^XMBPOST("FWD",xmz_"^"_xmduz_"^"_timestamp,1)=duz l_"^"_"..."^"_duz j
.
.
.
S ^XMBPOST("FWD",xmz_"^"_xmduz_"^"_timestamp,#)=duz r_"^"_"..."^"_duz z
```

(MailMan puts them in ^XMBPOST("FWD" so they don't have to be transferred from ^XMBPOST("BOX" to the ^XMBPOST("M",queue. Thus, MailMan saves processing time.)

C. Reply

```
S ^XMBPOST("BOX",timestamp,"R",original xmz_"^"_reply xmz)=#addressees
  _"^"_xmduz (xmduz="NR" if network reply from remote site)
```

2. CHECK^XMKPL—Manage the local message delivery process:

If the "tickler" and "mover" processes aren't running, task them:

GO^XMTDT (task) "Tickler"—Deliver latered messages.

GO^XMKPLQ (task) "Mover"—Put local messages into local delivery queues.

3. GO^XMKPLQ—Define number of queues for each message/reply group.

S group="R" if message is a reply; "M" otherwise.

S queue=one of the queues depending on number of addressees.

Place messages in appropriate group/queue. If the process handling the group/queue isn't running, task it:

GO^XMTDL (task)—Deliver messages for specific group and queue.

A. New

```
S ^XMBPOST("M",queue,timestamp,xmz)= ^XMBPOST("BOX",timestamp,"M",xmz)
K ^XMBPOST("BOX",timestamp,"M",xmz)
```

Increment the queue "to do" counter:

```
S ^XMBPOST("M",queue)=# messages+1
  _"^"_"# addressees+# addressees for this message
```

When you check the local message delivery status, this is where the information comes from on messages waiting to be delivered.

B. Forward

```
S ^XMBPOST("M",queue,timestamp,xmz_"^"_"_xmduz)=
  ^XMBPOST("BOX",timestamp,"M",xmz_"^"_"_xmduz)
K ^XMBPOST("BOX",timestamp,"M",xmz_"^"_"_xmduz)
```

Increment the queue "to do" counter:

```
S ^XMBPOST("M",queue)=# messages+1
  _"^"_"# addressees+# addressees for this message
```

C. Reply

If a reply for this message is already in the queue, then file this new reply right next to it:

```
S oldtimestamp=$O(^XMBPOST("R",queue,"B",original xmz,0))
I oldtimestamp exists S timestamp=oldtimestamp
E S ^XMBPOST("R",queue,"B",original xmz,timestamp)=" "
```

If replies to a message are coming in fast and furious, MailMan groups them all under the same timestamp so they can be delivered all at once. This saves processing time.

File the new reply:

```
S ^XMBPOST("R",queue,timestamp,original xmz,reply xmz)=
  ^XMBPOST("BOX",timestamp,"R",original xmz_"^"_"_reply xmz)
K ^XMBPOST("BOX",timestamp,"R",original xmz_"^"_"_reply xmz)
```

Increment the queue "to do" counter:

```
S ^XMBPOST("R",queue)=# messages+1
  _"^" _# addressees+# addressees for this message
```

4. GO^XMTDL—Deliver the messages for a group/queue.

DELIVER^XMTDL1—Deliver a message to a recipient. Filters, if any, will direct the message to the correct basket.

The messages in the particular group/queue are delivered to each recipient. Messages can be added to the group/queue while the task is running. If the queue remains without messages in it for 15 minutes, the task stops.

A. New

After a message is delivered, MailMan does the following:

```
K ^XMBPOST("M",queue,timestamp,xmz)
```

Decrement the queue "to do" counter:

```
S ^XMBPOST("M",queue)=# messages-1
  _"^" _# addressees-# addressees for this message
```

Increment the delivery statistics counter:

```
S ^XMBPOST("STATS","M")=# actual deliveries
  +# actual deliveries for this message
```

B. Forward

After a message is delivered, MailMan does the following:

```
K ^XMBPOST("M",queue,timestamp,xmz_"^"_xmduz)
K ^XMBPOST("FWD",xmz_"^"_xmduz_"^"_timestamp)
```

Decrement the queue 'to do' counter:

```
S ^XMBPOST("M",queue)=# messages-1
  _"^" _# addressees-# addressees for this message
```

Increment the delivery statistics counter:

```
S ^XMBPOST("STATS","M")=# actual deliveries
  +# actual deliveries for this message
```

C. Reply

Before MailMan starts delivering a reply, MailMan does the following:

```
K ^XMBPOST("R",queue,"B",original xmz,timestamp)=""
```

By doing so, MailMan signals that no more replies will be accepted for this message for this particular delivery.

The truck has left the post office to begin delivering. Any further letters will have to go on the next truck.

MailMan delivers the reply to each recipient on the original message.

After a reply is delivered, MailMan does the following:

```
K ^XMBPOST("R",queue,timestamp,original xmz,reply xmz)
```

Decrement the queue "to do" counter:

```
S ^XMBPOST("R",queue)=# messages-1
  _"^"_"# addressees-# addressees for this message
```

Increment the delivery statistics counter:

```
S ^XMBPOST("STATS","R")=# actual deliveries
  +# actual deliveries for this message
```

III. MESSAGES TO DEVICES, SERVERS, AND REMOTE SITES (DETAIL)

1. ^XMKP—

- Populates the message's "addressed to" and "recipient" multiples
- Attaches replies to the original messages

For each remote, device, and server recipient, immediately:

A. REMOTE^XMKPO (remote)—Put message in the Postmaster's mailbox in the site's basket:

```
S ^XMB(3.7,.5,2,1000+site #,xmz,0)=xmz
```

If a task for that site is not already running, then task it:

^XMBPOST—Select transmission method and script.

ZTSK^XMB (task)—Send the messages in the queue.

B. DEVICE^XMKPO (device)—Set up, then

DEVICE^XMTDO (task)—Send the message to the device.

- C. **SERVER^XMKPO (server)**—Set up, then
 SERVER^XMTDO (task)—Send the message to the server.

Implementation and Maintenance

Implementation

The Postmaster

The MailMan installation automatically creates a special user (DUZ=.5) called Postmaster and Postmaster mail baskets. Persons assigned to the management of MailMan and Network mail at a site must be entered in the MAILMAN SITE PARAMETERS file (#4.3) as surrogates of the Postmaster and given READ and WRITE access privileges. A person *must* sign on as himself and then assume the Postmaster's identity for performing Postmaster management tasks.

Mail Baskets

The Postmaster has mail baskets and can send and receive messages like any other user. In addition to the "IN" and "WASTE" baskets, the "ARRIVING" basket is also automatically created for the Postmaster. All mail for a site automatically comes to the "ARRIVING" basket from which it is then routed to the individual recipients. The Postmaster can examine the header information of messages but *cannot* read the text of the message.

Network Transmission Failures

Network transmission failures are reported to the Postmaster via bulletins to the Postmaster's "IN" basket. These bulletins should be purged once the problems have been resolved. The Postmaster also needs to check the "ARRIVING" basket for purging.

Domain Baskets

The Postmaster has special Domain baskets (e.g., Birmingham, San Francisco, etc.), which are numbered greater than 1000 and are used for the transmission of Network Mail. Network Mail from a site goes to the appropriate Domain basket (queue) prior to transmission. Occasionally, the Postmaster may need to stop networked message from going out. This is done by:

1. Deleting the message number from the Postmaster's Domain basket. If a message is deleted from a basket, it is deleted from a queue.
2. Using the RJD Kill off User's Job option to kill transmission of the message to the Domain.

Broadcast Messages

The Postmaster also may need to broadcast messages to users. To do this:

1. Send the message to the Postmaster.
2. Assume the identity of the Postmaster.
3. Copy the message into a new message and edit any information that is not appropriate for broadcasting.
4. At the "Send to:" prompt, enter an asterisk ("*").



The XMSTAR security key gives users the ability to broadcast messages to all local mail users by entering an asterisk ("") at the "Send to:" prompt.*

The XMSTAR LIMITED security key gives users the ability to broadcast messages to a subset of local mail users by entering an asterisk ("") at the "Send to:" prompt.*

Menu Structure

MailMan is accessed from three sets of menus:

- **XMMGR**—includes options and utilities that are useful for system management. The options for maintaining the local mail system are also contained here.



For more information on the XMMGR menu options, please refer to the "Manage MailMan Options" that follows in this section of the manual.

- **XMNET**—includes options that are used for managing the network side of MailMan. While the local system requires only some initial setup, the network side must be periodically monitored. The options for displaying the queues in various fashions on the XMNET menu are useful for this purpose. The network sometimes needs to be flushed; options for polling and queuing are provided for this purpose. Sometimes, non-delivery of network mail requires investigation; the options for testing a network device and playing scripts are useful in these instances.



For more information on the XMNET menu options, please refer to the "MailMan V. 7.1 Network Management Reference Guide."

- **XMUSER**—includes the commonly used functions of electronic mail. It also contains some very powerful tools for the individual using MailMan. The most commonly used functions are at the top of the hierarchical structure. Help features are contained in a separate submenu, as are the tools. XMUSER can be used independently and can be installed on menus of other packages for distribution.



*For more information on the XMUSER menu options, please refer to the "MailMan V. 7.1 & Patch XM*7.1*50 Getting Started Manual" and the "MailMan V. 7.1 & Patch XM*7.1*50 User Manual."*



*In order to acquire a good idea of the various functions and their power, users should also consult the "MailMan V. 7.1 & Patch XM*7.1*50 Programmer Manual." In addition, online Help Frames are also available.*

Namespace Conventions

The namespace for MailMan is **XM**. All routines and globals used in MailMan start with **XM**, except for some that are shared and located in the **DI** and **XU** namespaces.

Variables used homogeneously throughout the package include:

- **DUZ** User's IEN in NEW PERSON file.
- **XMABORT** 0=don't abort; 1=abort.
- **XMDUZ** DUZ of user or surrogate.
- **XMFROM** Message from.
- **XMINSTR(** Special handling instructions for a message.
- **XMK** Basket number (IEN in BASKET multiple of the MAILBOX file [#3.7]).
- **XMKN** Basket name.
- **XMKZ** Message sequence number (in basket).
- **XMRESTR(** Special restrictions for a message.
- **XMSUBJ** Message subject.
- **XMTO** Array of addressees [XMTO(addr)=""], or addressee [XMTO=addr].
- **XMV(** User identification and preferences.
- **XMZ** Message number (IEN in the MESSAGE file [#3.9]).
- **XMZO** Original message number (IEN in the MESSAGE file [#3.9]), used during copy, answer, reply.
- **XMZREC** Zero node of message.



*For more information concerning programmer entry points (APIs), please refer to the "MailMan V. 7.1 & Patch XM*7.1*50 Programmer Manual."*

Controlled Procedures

All files, fields, and routines in this package are considered to perform controlled procedures and *cannot* be modified.

Recommendations for Routine Mapping

Routine mapping is at the discretion of the systems manager. The RTHIST routines provide a method for each site to determine the extent to which certain routines are utilized.

Listed here are *recommendations* for mapping MailMan's XM namespaced routines. While we *highly* recommend that the routines provided under the *long* listing be mapped, sites that do *not* use electronic mail to a great extent may choose to map only the routines noted on the short listing:

Long List

XM
XMBPOST
XMC
XMC1*
XMD
XMJ*
XMK*
XML
XML1CRC
XML4CRC*
XMLSWP*
XMR
XMR0*
XMR1*
XMS
XMS0*
XMS1
XMSMAIL
XMV*
XMXSEC
XMXUTIL

Short List

XM
XMC1
XMJ*
XML1CRC
XML4CRC*
XMLSWP*
XMR
XMR0*
XMS
XMS0*

Maintenance

System Maintenance

There are several ways to keep the amount of messages stored at a minimum. MailMan provides the Disk Space Management menu options for this purpose under the Manage MailMan main menu.

XMAUTOPURGE is generally run after XMCLEAN (the "WASTE" basket cleaner) for automatic purging. It purges messages that are not pointed to by any message recipients or senders. XMPURGE-BY-DATE can also be run to purge messages that have an origination date older than the date used to initiate the process. Users are notified by a Postmaster bulletin of the proposed purging date, so that they can save important messages. These are the only options that actually KILL entries in the MESSAGE file (#3.9).

The following tables show mandatory and suggested system management tasks for proper maintenance of MailMan. These tasks increase utilization of software functionality and system response time. They also reduce the amount of disk space used and minimize system errors.

Mandatory Task Requirements

<u>Task</u>	<u>Scheduled Time</u>	<u>Frequency</u>
XMCLEAN	Off Hours	Daily
XMAUTOPURGE	One Hour After XMCLEAN	Weekly

Suggested Task Requirements

<u>Task</u>	<u>Scheduled Time</u>	<u>Frequency</u>
XMPURGE-BY-DATE	Off Hours	According to Site Policy
XMMGR-LARGE- MESSAGE-REPORT	Off Hours	Monthly
XMMGR-DISK-MANY- MESSAGE-MAINT	Off Hours	Monthly
XMMGR-PURGE-AI- XREF	Off Hours	Quarterly
XMUT-CHKFIL	Off Hours	Monthly
XMMGR-RESPONSE- TIME-COMPILER	Off Hours	Daily

<u>Task</u>	<u>Scheduled Time</u>	<u>Frequency</u>
XMMGR-RESPONSE-TIME-TOGGLER		Daily
XM-IN-BASKET-PURGE	Off Hours	Monthly

Bulletins

The MailMan package uses the following Bulletins:

<u>Bulletin</u>	<u>Description</u>
XM BANNER MESSAGE	This bulletin might be generated when a user changes his banner.
XM FWD ADDRESS DELETE	This bulletin is generated when a forwarding address is deleted.
XM GROUP ERROR	This bulletin is generated when there is an error in a mail group.
XM SEND ERR MSG	The MailMan network processor issues this bulletin when the remote node has rejected a message.
XM SEND ERR RECIPIENT	The MailMan network processor issues this bulletin when the remote node has rejected a message recipient. The rejection message of the remote node is included in the bulletin. (Previously called XMUSERNO.)
XM SEND ERR REMOTE MSG ID	The MailMan network processor issues this bulletin when a remote message ID node is not in a message.
XM SEND ERR SERVER MSG	The MailMan network processor issues this bulletin when a server message was not found.
XM-FWD-ADDRESS-CHECKER	This bulletin is generated when a user's forwarding address changes.

Bulletin**Description**

XMDATANO

This bulletin is generated whenever a message cannot be delivered after the Simple Mail Transfer Protocol "DATA" command is issued. It indicates that the "Mail From:" and RCPT (recipient) commands were successfully issued, but that something in the header of the message was rejected, such as duplicate message ID. The error message that is returned by the remote receiver is included in the bulletin.

XMMISS

This bulletin is generated when a user gets a missing message.

XMNEWBUL

This bulletin is generated whenever a remote MailMan Domain attempts to establish a connection with this Domain and the validation numbers do not properly match. This may indicate an attempted breach of security or some other network failure. In order to re-establish communication with this Domain, call the site manager to reset the validation numbers.

XMNEWUSER

This bulletin is generated whenever a new user is added to the NEW PERSON file (#200).

XMQFAIL

This bulletin is sent to the Postmaster when the server cannot process a queue after a significant number of times.

XMRDACK

This bulletin is used by MailMan to confirm the "reading" of a message when the CONFIRMATION REQUESTED flag is "ON" in the MESSAGE file (#3.9).

MESSAGE: Your message: Subj: |1| has been read by |2|.

PARAMETER: 1—This is the message subject.

PARAMETER: 2—This is the reader's name.

XMRDNAK

This bulletin is used by MailMan to tell the sender that a message was not "read" in the time prescribed in the CONFIRMATION TIME LIMIT field of the MESSAGE file (#3.9).

MESSAGE: Your message '|1|', has not yet been read by |2|.

PARAMETER: 1—This is the message subject.

PARAMETER: 2—This is the intended reader's name.

Bulletin

Description

XMREPNAK

This bulletin is used by MailMan to tell the sender that a response to a message has not been received before the RESPONSE REQUEST DATE of the message.

MESSAGE: |1| has not yet responded to your message '|2|'.

PARAMETER: 1—This is the responder's name.

PARAMETER: 2—This is the message subject.

XMTFAIL

This bulletin is generated whenever a script fails. It includes the transcript of the failed script.

XM_TRANSMISSION_ERROR

This bulletin is generated when the background transmission process detects a fatal error and *cannot* continue.

MESSAGE: While transmitting a |1| the following error was detected: |2|

The following action was taken: |3|

PARAMETER: 1—This is the transmission type:

- Response
- Message
- Bulletin

PARAMETER: 2—This is the error that was detected.

PARAMETER: 3—This is the action taken by the filer and suggested remedies.

XMVADABORT

This bulletin is generated whenever the VADATS receiver is unable to read a line from the MCTS.

XMVALBAD

This bulletin is generated whenever a remote MailMan Domain attempts to establish a connection with this Domain and the validation numbers do not properly match. This may indicate an attempted breach of security or some other network failure. In order to re-establish communication with this Domain, call the site manager to reset the validation numbers.

Managing MailMan

Management Features in MailMan V. 7.1+

This topic describes the various maintenance requirements and technical solutions introduced with MailMan Patch XM*7.1*50 and any subsequent patches.

This information is directed mainly at the site's Information Resource Management (IRM) personnel.

Renamed and Revised File #4.3

With Patch 50, the KERNEL SITE PARAMETERS file (#4.3) was renamed to the MAILMAN SITE PARAMETERS file (#4.3). In addition to renaming the file, several fields have been added, deleted, or redefined in this file.



For a complete listing of all of the changes to File #4.3, please refer to the "Patch 50 Description" document located on the MailMan Home Page at the following web site:

<http://vista.med.va.gov/mailman/index.html>

Large Mail Groups—BIG GROUP SIZE Field

MailMan Patch 50 introduced new functionality when addressing messages to mail groups. Mail groups can now be classified as "large" (site-specified) and processed differently from "small-" to "medium-sized" mail groups. A mail group may be considered "large" when it has:

- A large number of local and remote members
- At least one or more member groups
- At least one or more distribution lists.

A new field, BIG GROUP SIZE (#7.2), was added to the MAILMAN SITE PARAMETERS file (#4.3) that allows IRM to set the number used to indicate when a mail group is considered "large." This helps eliminate the "dots of death" when addressing mail to a large group.

IRM can populate this field with a number ranging from 100 to 10,000 (no decimal points). There is no default for this field. If BIG GROUP SIZE equates to zero, then groups are processed in the foreground, as usual.

If IRM populates this field *and* if the group being addressed contains any member groups, or distribution lists, or the number of local members plus remote members exceeds or equals the BIG GROUP SIZE, then the user is asked whether or not they want to queue the group for later delivery and avoid waiting while the group is processed. The user is also warned that if they choose to queue the delivery, then recipients *cannot* be "minused" from the group.

If the user chooses to queue the delivery to the group, they are asked when the delivery should take place. The group will be queued for processing and delivery at the specified date and time by the same background job that "news" messages.

If the user chooses *not* to queue the delivery to the group, then processing proceeds in the foreground, as usual.

Display DUZ on User Lookup—SHOW DUZ WHEN ADDRESS MESSAGE Field

MailMan V. 7.1 with Patch 50 introduced new functionality where MailMan can display the user's DUZ when doing a lookup on a user in the following situations:

- Addressing messages.
- Displaying user information with the User Information option available on the Help (User/Group Info., etc.) menu.

A new field, SHOW DUZ WHEN ADDRESS MESSAGE (#7.3), was added to the MAILMAN SITE PARAMETERS file (#4.3) that allows IRM to decide whether or not the DUZ should be displayed when doing a lookup.

What are the advantages and disadvantages to displaying the DUZ of the local user?

- **Advantages**—A DUZ is unique, whereas some users may share the same or very similar name. If a user knows the addressee's DUZ, the DUZ may be used to address a message, instead of the name.
- **Disadvantages**—
 - Your site's DUZs may be Social Security Numbers (SSNs), thus, they should not be displayed.
 - Users may be confused by the display.

IRM can populate the SHOW DUZ WHEN ADDRESS MESSAGE field with a "YES" or "NO" value (i.e., 0 = NO, 1 = YES). If this field is null, the default answer is "NO." Thus, if SHOW DUZ WHEN ADDRESS MESSAGE field is "NO" or null, then a user's DUZ will *not* be shown when doing a lookup.

Display Address on User Lookup—SHOW ADDRESS ON USER LOOKUP Field

When doing a lookup on a user with the User Information option available on the Help (User/Group Info., etc.) menu, MailMan, among other information, displays the user's contact address (Fields .111 through .116 in the NEW PERSON file [#200]). Some sites have *home* address information stored in these fields, which should *not* be displayed.

A new field, SHOW ADDRESS ON USER LOOKUP (#7.4), was added to the MAILMAN SITE PARAMETERS file (#4.3) that allows IRM to decide whether or not the user's address should be displayed when doing a lookup.

IRM can populate the SHOW ADDRESS ON USER LOOKUP field with a "YES" or "NO" value (i.e., 0 = NO, 1 = YES). If this field is null, the default answer is "NO." Thus, if SHOW ADDRESS ON USER LOOKUP field is "NO" or null, then a user's address will *not* be shown when doing a lookup.

P-MESSAGE Lines Controlled—P-MESSAGE LINE LIMIT Field

MailMan Patch 50 introduced new controls when creating messages using the P-MESSAGE device.



*For an example using the P-MESSAGE device, please refer to the "Sending Mail Using the P-MESSAGE Device" topic in Chapter 4 in the "MailMan V. 7.1 & Patch XM*7.1*50 User Manual."*

A new field, P-MESSAGE LINE LIMIT (#16.1), was added to the MAILMAN SITE PARAMETERS file (#4.3) that allows IRM to set the maximum number of lines that can be written to the P-MESSAGE device. This helps MailMan to operate more efficiently when using the P-MESSAGE device.

IRM can populate this field with a number ranging from 2000 to 9,999,999 (no decimal points). There is no default for this field.

If this field is null, there is no limit set when writing to the P-MESSAGE device.

If a value is entered into this field, the number of lines written to the P-MESSAGE device is limited to that value. If the number of lines exceeds this value, MailMan will truncate the report when it reaches the maximum number of lines and puts the following message (between lines of asterisks) at the end of the message text:

```
*****
P-MESSAGE line limit of nnnn reached.  Rest of file ignored.
*****
```

"nnnn" represents the value in the P-MESSAGE LINE LIMIT field.

Recycled Message Numbers—MAX DIGITS FOR MESSAGE NUMBER Field

MailMan Patch 50 introduced new functionality that allows MailMan to reuse/recycle internal message identification numbers when creating messages. Thus, MailMan can avoid creating huge message numbers, making them more manageable in size.



It is extremely important that all VISTA programmers use only MailMan APIs to create new message stubs.

A new field, MAX DIGITS FOR MESSAGE NUMBER (#17.1), was added to the MAILMAN SITE PARAMETERS file (#4.3) that allows IRM to set the maximum number of digits that can comprise a MailMan internal message identification number before they recycle back and start again from 100,000.



MailMan internal message identification numbers start at 100,000 to avoid any confusion between message numbers and message sequence numbers in baskets.

IRM can populate this field with a number ranging from 7 to 14 (no decimal points). If this field is left null, the default will be eight digits.

If the MailMan internal message identification number exceeds the number of digits stored in this field, the message number will recycle back to the next vacant message number after 999999.

If MailMan is *not* able to find a vacant message number less than the allowable number (i.e., value stored in the MAX DIGITS FOR MESSAGE NUMBER field), then MailMan will take the next available message number, no matter how many digits it has, *and* automatically change this field to reflect the new maximum. Thus, it is very important that the unreferenced messages purge and/or date purge be run on a regular basis.

Other Related Changes

Because of this new functionality introduced with the MAX DIGITS FOR MESSAGE NUMBER field, the purge routines no longer operate on message number. Instead, they now operate off a new field, LOCAL CREATE DATE (#31), in the MAILBOX file (#3.9) and its "C" cross-reference.

This field is set with the current date (no time) when a new message stub is created. (For locally created messages, this will usually, but not necessarily, be the same as the date sent. For incoming messages from remote sites, this acts as a "date-received" stamp.)

The date purge routine is now much faster, since it has an appropriate cross-reference to work with.

The other fields in Files #3.7 and #4.3, which previously referred to message numbers, now refer to date, as shown below:

MAILBOX File (#3.7):

Field Number	Field Before Patch 50	Field After Patch 50
3.7,1.2	MESSAGE @ REINSTATEMENT	DATE @ REINSTATEMENT

MAILMAN SITE PARAMETERS File (#4.3):

Field Number	Field Before Patch 50	Field After Patch 50
4.3,4.301	NO-PURGE MESSAGES BUFFER	NO-PURGE DAYS BUFFER
4.302,3	FIRST MESSAGE TO PROCESS	START PURGE DATE
4.302,4	LAST MESSAGE TO PROCESS	STOP PURGE DATE
4.302,8	LAST MESSAGE PROCESSED	LAST DATE PROCESSED
4.3,4.304	WEEKDAY MESSAGES TO PURGE	WEEKDAY DAYS TO PURGE

Combined Surrogate Options—XMSHARE Option

MailMan Patch 50 combined the Assume the Identity of SHARED,MAIL option and the Assume another identity as a surrogate option into the new Become a Surrogate (SHARED,MAIL or Other) option [synonym AML].

Even though these two options have been combined, this is to notify IRM that the XMSHARE option still exists. However, it is not attached to any menu. IRM can still place that option on the XUCOMMAND menu so users don't have to go into MailMan to go into SHARED,MAIL.

Broadcast Messages to a Subset of Users—LIMITED BROADCAST Multiple Field

MailMan Patch XM*7.1*107 provided the capability that allows an authorized user to send a Limited Broadcast message to a *subset* of local users as opposed to *all* users. A subset of local users might include all users who have a certain primary menu, or who belong to a certain division, or any other way that users in the NEW PERSON file (#200) might be categorized.

Users authorized to send Limited Broadcast messages are the Postmaster, any holder of the XMSTAR security key, and any holder of the XMSTAR LIMITED security key.

A new field, LIMITED BROADCAST multiple (#50), was added to the MAILMAN SITE PARAMETERS file (#4.3) that allows IRM to set the number and type of limited broadcasts allowed at a site. The multiple consists of the following fields:

- LIMITED BROADCAST (Multiple-4.32), [5;0]
- .01 LIMITED BROADCAST (MF), [0;1]
- 1 POINTED TO FILE (RNJ9,3), [0;2]
- 2 NEW PERSON FILE XREF (RF), [0;3]

The multiple is initially loaded with the following four limited broadcast categories:

<u>Limited Broadcast</u>	<u>Pointed to File</u>	<u>NEW PERSON File Cross-reference</u>
DIVISION	INSTITUTION file (#4)	?
KEY	SECURITY KEY file (#19.1)	"AB"
PRIMARY MENU	OPTION file (#19)	"AP"
SERVICE/SECTION	SERVICE/SECTION file (#49)	"E"

IRM has the capability of adding additional Limited Broadcast categories to the LIMITED BROADCAST multiple based on alternative categorizations available with users in the NEW PERSON file (#200).



For more information about and an example of sending a broadcast message, please refer to the "Broadcast Messages" topic in the in Chapter 4 in the "MailMan V. 7.1 & Patch 50 User Manual."

Forwarding Priority Messages to a Mail Group

MailMan Patch XM*7.1*130 provided the capability to allow anyone to forward a priority message to a mail group, if the site so chooses. A new field has been added to file 4.3, MAILMAN SITE PARAMETERS, and option XMKSP, MailMan Site Parameters, has been updated to include it. This is the new field:

STANDARD DATA DICTIONARY #4.3 -- MAILMAN SITE PARAMETERS FILE
 STORED IN ^XMB(1, (1 ENTRY)

DATA	NAME	GLOBAL	DATA
ELEMENT	TITLE	LOCATION	TYPE

 4.3,21 FORWARD PRIORITY MAIL TO GROUP 2;1 SET

'0' FOR NO;
 '1' FOR YES;

HELP-PROMPT: Let users forward priority messages to mail groups?

DESCRIPTION: Enter YES is you wish to allow users to forward priority messages to mail groups.

Enter NO if you don't. (This is the default.)
 Then only the message originator or anyone with the XM GROUP PRIORITY key may forward priority messages to mail groups.

*Note: If you do nothing with this new field, then this patch will not change MailMan's behavior with regard to the forwarding of priority messages. Only if you answer YES will the behavior change as described above.

Manage MailMan Options

Manage MailMan--[XMMGR]

The Manage MailMan menu contains options that allow the system manager to fully implement and manage the MailMan system by manipulating the BULLETIN (#3.6), MAILBOX (#3.7), MAIL GROUP (#3.8), and MESSAGE (#3.9) files.



*The Network Management options reached from this menu are discussed in depth in the "MailMan V. 7.1 Network Reference Manual." User options are discussed in the "MailMan V.7.1 & Patch XM*7.1*50 Getting Started Manual" and "MailMan V.7.1 & Patch XM*7.1*50 User Manual."*

```
Select Systems Manager Menu Option: Manage Mailman
```

```

Check MailMan Files for Errors
Create a Mailbox for a user
Disk Space Management ...
Group/Distribution Management ...
Local Delivery Management ...
MailMan Site Parameters
Network Management ...
New Features for Managing MailMan
Remote MailLink Directory Menu ...

```

```
Select Manage Mailman Option:
```

Check MailMan Files for Errors—[XMUT-CHKFIL]

This option is used to check for errors in cross-references and very important fields in the MailMan system files (i.e., MAILBOX [#3.7] and MESSAGE [#3.9] files). It should *not* be run every day.

There are times when it is recommended that it be run:

- After any database problem.
- Whenever the system has gone down without the MailMan background filer being stopped gracefully.



Some of the errors need not be corrected—they are not fatal. However, others *must* be corrected—it is best to correct them all or call your CIO Field Office for help. The most crucial errors would be in the MUMPS cross-reference of the MAILBOX file (#3.7).

Although the system will not fail because of errors detected, your users may call you about the problems they experience. This utility will allow you to detect them first and correct them before anyone knows.

This option is locked with the XUPROG security key.

Create a Mailbox for a user—[XMMGR-NEW-MAIL-BOX]

This option is only meant to be used on systems where Kernel V. 6.0 or later is *not* running or when a repair must be made to the MAILBOX file (#3.7). Since a mailbox is created for each new or reinstated user through the Kernel software, this routine only needs to be run when an error occurs while setting up the user or if there is a file degradation problem. Using this option for a user whose mailbox is wholly or partially set up will not cause data to be lost. A mailbox can be created or repaired using this option.

Disk Space Management—[XMMGR-DISK-SPACE-MANAGEMENT]

This option provides a submenu under the XMMGR main menu. It contains options for managing disk space. All reports are 80 columns wide.

The following options can be found on the Disk Space Management menu:

```
Select Manage Mailman Option: Disk Space Management

      AI x-Ref Purge of Received Network Messages
      Ask users with many messages to do maintenance
      Clean out waste baskets
      IN Basket Purge
      Large Message Report
      Message statistics
      Purge a message
      Purge Messages by Origination Date
      Purge Unreferenced Messages
      Recover Messages into User's IN Basket ...
      Terminate mail user suggestions
      Terminate many mail users
      Terminate one mail user

Select Disk Space Management Option:
```

- **AI x-Ref Purge of Received Network Messages—[XMMGR-PURGE-AI-XREF]**

This option maintains the "AI" cross-reference of mail messages. This is the cross-reference of messages received across the network and it prevents duplicate messages from being received again. The default number of days kept is 730 (2 years is the number of days messages can exist before being purged on FORUM).

- **Ask users with many messages to do maintenance—[XMMGR-DISK-MANY-MESSAGE-MAINT]**

This option is used to send out a message to users with many messages and instructs them to eliminate excess messages.

- **Clean out waste baskets—[XMCLEAN]**

This option is used to delete each user's "WASTE" basket, without deleting the messages from the MESSAGE file (#3.9).

- **IN Basket Purge—[XMMGR-IN-BASKET-PURGE]**

This option purges the "IN" mail basket in two steps:



This option can be run via TaskMan!

1. In the first step, a message is sent to users.
 - a. The message contains a list of messages to be purged in Step 2.
 - b. The message contains a list of actions that will prevent the purging of the listed messages.
 - c. The message will state the number of days before the listed messages will be purged unless the action is taken on a message by message basis.
 - d. The messages listed will not have been referenced for 30 days or the number of days in the MESSAGE RETENTION DAYS field of the MAILMAN SITE PARAMETERS file (#4.3), if it is not null.
 2. In the second step, the messages listed in the message from Step 1 will be purged (not less than 30 days later) unless they:
 - a. Have been saved into a basket other than the "IN" basket
 - b. Have been referenced (read or printed)
 - c. Are marked as NEW
- **Large Message Report—[XMMGR-LARGE-MESSAGE-REPORT]**

This option generates a list of messages that are:

- Longer than a specified number of lines (see Field #8.14 in the MAILMAN SITE PARAMETERS file [#4.3]).
- Messages that have no owner or only one owner.
- Messages that have no text or subject.

- **Message Statistics—[XMSTAT]**

This option displays information about the MESSAGE (#3.9) and MAILBOX (#3.7) files. It displays a history of messages kept and purged by XMAUTOPURGE. You can delete unwanted

dates through VA FileMan. XMAUTOPURGE enters new data when it successfully completes a purge.

The option also displays statistics about the total number of messages in a user's mailbox. This portion of the report can be aborted when displayed on the terminal.

- **Purge a message—[XMMGR-PURGE-MESSAGE]**

This option removes a message from users' mail baskets and deletes it, along with any responses chained to it.

- **Purge Messages by Origination Date—[XMPURGE-BY-DATE]**

This option removes messages from users' mail baskets then deletes them along with any responses chained to them. It will do this for a range of messages based upon user input. The user enters the range of internal message numbers that will be processed and the date against which they will be checked. This option is locked with the XMMGR security key.

- **Purge Unreferenced Messages—[XMPURGE]**

This option purges the mail system of all messages that are no longer needed.

- **Recover Messages into User's IN Basket—[XMUT-REC-MENU]**

This option provides a submenu under the XMMGR-DISK-SPACE-MANAGEMENT menu. It contains options for recovering messages for a user. It will recover all messages a user has ever received as long as the user has not terminated from them.

The following options can be found on the Recover Messages into User's IN Basket menu:

```

Select Disk Space Management Option: recover Messages into User's IN
Basket

    DEL    Delete Found Messages from Found Messages List
    DRM    Deliver Found Messages into User's IN Basket
    FRM    Find Messages for User
    LRM    List Messages Found

Select Recover Messages into User's IN Basket Option:

```

- **Delete Found Messages from Found Messages List—[XMUT-REC-DELETE]**

This option [synonym DEL] deletes the temporary storage of a list of messages found when the Find Messages for User option (i.e., XMUT-REC-FIND) is used by a user.

- **Deliver Found Messages into User's IN Basket—[XMUT-REC-DELIVER]**

This option [synonym DRM] delivers messages found with the Find Messages for Users option (i.e., XMUT-REC-FIND). The messages found will be placed into the user's "IN" basket as long as they are not already in another basket.

- **Find Messages for User—[XMUT-REC-FIND]**

This option [synonym FRM] finds all messages that a user has ever had and has not terminated from. This list of messages can be used as input into two other processes:

- Deliver Found Messages into User's IN Basket
- List Messages Found

- **List Messages Found—[XMUT-REC-RPT]**

This option [synonym LRM] lists messages found for users with the Find Messages for User option (i.e., XMUT-REC-FIND).

- **Terminate mail user suggestions—[XMMGR-TERMINATE-SUGGEST]**

This option goes through the MAILBOX global and reports on users who perhaps should have their mail access terminated. Users are included in the report if:

- The user was terminated before a manager-supplied cutoff date and allowed to keep a mailbox.
- The user has an Access Code, Verify Code, and primary menu, but last signed on before a manager-supplied cutoff date.

This option does not terminate mail access. The report page breaks on Service/Section and includes the following information:

- User's DUZ and name.
- Whether the user has an Access Code, a Verify Code, and a primary menu.
- When the user last signed on.
- When the user was terminated (if applicable).
- If the user was terminated, then whether the site manager chose to delete the user's mailbox. (Remember, you should usually answer "yes" to this question, unless the user is coming back and needs to have his mail retained.)
- How many new messages the user has. (New messages are never purged, except during purge-by-date purges.)

Finally there are two blank columns:

- "Term User Mbox" (Terminate user mailbox)
- "Deact VISTA Access" (Deactivate VISTA Access).

Besides being of interest to the site manager, this report is also designed to be submitted to other services. The intent is that the other services would check one of the columns for each user in the report and return the report to the site manager for action.

- **Terminate many mail users—[XMMGR-TERMINATE-MANY]**

This option goes through the MAILBOX global and removes any mailbox if:

- The user is not in the NEW PERSON file (#200).
- The user has no Access Code and was not terminated.
- The user has no Access Code and was terminated without mailbox retention.
- The user has an Access Code and primary menu, but no Verify Code, AND:
 - Has never signed on, since being added before a cutoff date.OR
 - Last signed on before a cutoff date.

Remove means:

- Delete user's private mail groups.
- Remove user from membership in all groups.
- Remove user as an authorized sender from all groups.
- Remove user from anyone's list of surrogates.
- Delete user's latered-messages list.
- Delete user's mailbox.

As a result, the user will not receive any mail.

This option can be run in "test" or "real" mode.

The report lists, in DUZ order:

- The user's DUZ and name.
- Whether the user has an Access Code, Verify Code, and primary menu.
- When the user was added to the NEW PERSON file (#200).
- When the user last signed on.
- When the user was terminated (if applicable).
- If the user was terminated, then whether the site manager chose to delete the user's mailbox. (It's generally a good idea to go ahead and delete the mailbox upon termination.)

- **Terminate one mail user—[XMMGR-TERMINATE-ONE]**

This option lets you remove the mailbox of any user who meets the criteria of either the XMMGR-TERMINATE-MANY option or the XMMGR-TERMINATE-SUGGEST option.

Remove means:

- Delete user's private mail groups.
- Remove user from membership in all groups.
- Remove user as an authorized sender from all groups.
- Remove user from anyone's list of surrogates.
- Delete user's latered-messages list.
- Delete user's mailbox.

As a result, the user will not receive any mail.

Remember:

- Whenever you give a user a new Access Code, the system gives the user a mailbox, if he doesn't already have one.
- Whenever a user logs on, the system gives the user a mailbox if he doesn't already have one.

Group/Distribution Management—[XMMGR-GROUP-MAINTENANCE]

This is a submenu under XMMGR.

The following options can be found on the Group/Distribution Management menu:

```
Select Manage Mailman Option: group/Distribution Management

      Bulletin edit
      Edit Distribution List
      Enroll in (or Disenroll from) a Mail Group
      Mail Group Coordinator's Edit
      Mail Group Coordinator's Edit W/Remotes
      Mail group edit

Select Group/Distribution Management Option:
```

- **Bulletin edit—[XMEDITBUL]**

This option allows management to enter/edit a MailMan bulletin, change the routing information, and document a bulletin.

- **Edit Distribution List—[XMEDITDIST]**

This option is used to edit a Distribution List. The name of a Distribution List is the name of a position such as Postmaster or group name such as G.IRM. A list primarily contains a set of domain names that are concatenated to the Distribution List name to create additional recipients for a message. A recipient with the same name as the list name is presumed to exist at each different domain.

For example, if the Distribution List name is G.SUPPORT and the Domains are FORUM.VA.GOV and ALTOONA.MED.VA.GOV, the message will be sent to:

- G.SUPPORT@FORUM.VA.GOV
- G.SUPPORT@ALTOONA.MED.VA.GOV



A Distribution List can be in more than one mail group. Each mail group can include more than one distribution list.

- **Enroll in (or Disenroll from) a Mail Group—[XMENROLL]**

This option allows a MailMan user to join mail groups for which the "SELF ENROLLMENT ALLOWED?" flag is set to "yes". If the user is already a member of a group, then this option allows the user to leave the group. The user will only be able to join or rejoin public groups for which self-enrollment is allowed.

- **Mail Group Coordinator's Edit—[XMMGR-MAIL-GRP-COORDINATOR]**

This option allows mail group coordinators to edit the membership of mail groups that he is the coordinator of (and no other). It does not allow editing of remote recipients, but limits the responsibility for problems of delivering to incorrect addresses.

- **Mail Group Coordinator's Edit w/Remotes—[XMMGR-MAIL-GRP-COORD-W/REMOTES]**

This option allows mail group coordinators to edit the membership of mail groups that he/she is the coordinator of (and no other). It allows editing of local and remote recipients.

- **Mail Group Edit—[XMEDITMG]**

This option edits all fields in the MAIL GROUP file (#3.8).

Local Delivery Management—[XMMGR-MESSAGE-DELIVERY-MGT]

This submenu contains options for the background filer. All reports are 132 columns wide.

The following options can be found on the Local Delivery Management menu:

```
Select Manage Mailman Option: local Delivery Management

Active Users/Deliveries Report
CHECK background filer
Compile Response Time Statistics
Deliveries by Group
Delivery Queue Statistics Collection
Edit numbers to Normalize Reports
Graphics Download (TAB separators)
Log Response Time Toggler
Mail Delivery Statistics Report
New Messages and Logon Statistics
START background filer
STOP background filer

Select Local Delivery Management Option:
```

- **Active Users/Deliveries Report—[XMMGR-BKFILE-ACT]**

This option generates a report that lists active users and message deliveries made from previously filed information in half-hour intervals.

- **CHECK background filer (XMAD)—[XMMGR-CHECK-BACKGROUND-FILER]**

This option tells you if the background filer is running and tells how many recipients need delivery for each of the messages/responses in the queue.

- **Compile Response Time Statistic—[XMMGR-RESPONSE-TIME-COMPILER]**

This option should be used as a background job, scheduled daily to collect statistics on the previous day's response time. The data is put into File #4.2998. It will then KILL associated %ZTRL global nodes.

- **Deliveries by Group—[XMMGR-BKFILE-GROUP]**

This option produces a list of deliveries made for each distinct delivery queue in half-hour intervals.

- **Delivery Queue Statistics Collection—[XMMGR-DELIVERY-STATS-COLL]**

This option collects delivery queue statistics.

- **Edit numbers to Normalize Reports—[XMMGR-BKFILER-EDIT-NORMALIZED]**

This option allows the user to customize the Normalized Report.

- **Graphics Download to Graphics (TAB Separators)—[XMMGR- BKFILER-TABBED-STATS]**

This option can be used to capture a report and then use the captured file in a graphics package (e.g., Microsoft Excel). The data has TABS between the fields as delimiters.

- **Log Response Time Toggler—[XMMGR-RESPONSE-TIME-TOGGLER]**

This option turns on Kernel's system parameters for response time logging, a little after each half-hour.

It will then schedule another task to turn off the Kernel system parameters for response time logging, unless the time is between 4:00 p.m. and 8:00 a.m. During these hours, response time logging will remain on unless site management interferes, by canceling the tasks associated with this phenomenon and edits the LOG RESPONSE TIME field for the appropriate VOLUME SET to be "OFF."

- **Mail Delivery Statistics Report—[XMMGR-BKFILER-STAT]**

This option generates reports showing a list of active users, queue waits, average response time, number of lines displayed to users, etc., in half-hour intervals.

- **New Messages and Logon Statistics—[XMMGR-NEWMESS/LOGON-STATS]**

This option prints the number of new messages created and logons with logon minutes for a specified time period.

- **START background filer—[XMMGR-START-BACKGROUND-FILER]**

This option reverses the action of the Stop background filer option, if it has been run. It also restarts the background filer, if it disappears from the system status report. In order for this option to be effective, TaskMan (ZTM) must be running.

- **STOP background filer—[XMMGR-STOP-BACKGROUND-FILER]**

This option stops the background filer at the *end* of a delivery and *before* it starts to deliver any further messages. This only stops local delivery operations.

All local mail delivery will stop until the START background filer option is run.



This option stops delivery of local mail, gracefully!

MailMan Site Parameters—[XMKSP]

This option allows system managers to edit the fields in the MAILMAN SITE PARAMETERS file (#4.3) that do not have to do with christening. To christen a Domain, use the Christen a Domain option. Christen a Domain will also allow you to change fields set during the original christening, if they are set incorrectly. You can use VA FileMan to edit the TRANSMISSION SCRIPT file (#4.6), if the scripts for Austin or the Mini engine need to be changed.

Network Management—[XMNET]

The options located on the Network Management menu are discussed in depth in the "Network MailMan V. 7.1 Reference Manual."

New Features for Managing MailMan—[XMMGR-HELP]

This option provides help for site management.

Remote MailLink Directory Menu—[XMMGR-DIRECTORY-MAIN]

This menu provides options that allow the site manager to manage the remote MailLink Directory by loading the VACO, WANG/NOAVA, and REMOTE DOMAIN USER Directories into the REMOTE USER DIRECTORY file, ^XMD(4.2997). This option is locked with the XMMGR security key.

The following options can be found on the Remote MailLink Directory Menu:

```
Select Manage Mailman Option: remote MailLink Directory Menu

    Enter/Edit Directory Request Flags by Group
    Enter/Edit Remote User
    Group eMail Directory Request
    List eMail Directory Request by Groups
    Load Remote VACO (Wang/Noava) Directory
    Remote Directory from all Domains
    Request Mail Directory From a Single Domain Server

Select Remote MailLink Directory Menu Option:
```

- **Enter/Edit Directory Request Flags by Group—[XMMGR-DIRECTORY-EDITGRP]**

This option allows site management to control groups of Domains from which directories are requested.

- **Enter/Edit Remote User—[XMEDIT-REMOTE-USER]**

This option allows a single person's remote address to be put into the REMOTE USER DIRECTORY, so messages can be automatically addressed to him.

- **Group eMail Directory Request—[XMMGR-DIRECTORY-GROUP]**

This option allows site management to request directories from all the Domains in a group of Domains as defined in the Enter/Edit Directory Request Flags by Group option [XMMGR-DIRECTORY-EDITGRP].

- **List eMail Directory Request by Groups—[XMMGR-DIRECTORY-LISTGRP]**

This option lists groups created by the Group eMail Directory Request option [XMMGR-DIRECTORY-EDITGRP].

- **Load Remote VACO (Wang/Noava) Directory—[XMMGR-DIRECTORY-VACO]**

This option loads a file from the Host File Server. The user has the choice of whether to run this task interactively or to schedule a batch job to update the MailLink Directory.

- **Remote Directory from all Domains—[XMMGR-DIRECTORY-ALL]**

This option schedules tasks to run in the background to update the MailLink Directory, ^XMD(4.2997).



Use this option cautiously, because it sends requests to all the Domains for soliciting REMOTE USER Directories.

- **Request Mail Directory From a Single Domain Server—[XMMGR-DIRECTORY-SINGLE]**

This option schedules a task to run in the background to update the MailLink Directory, ^XMD(4.2997), from a single Domain server.

MailMan Menu—[XMUSER]

The options located on the MailMan Menu are discussed in depth in the "MailMan V. 7.1 & Patch XM*7.1*50 Getting Started Manual" and the "MailMan V. 7.1 & Patch XM*7.1*50 User Manual."

Routine Descriptions

This section provides information related to all executable XM* routines exported in MailMan Version 7.1 with Patch XM*7.1*50. Do *not* delete any XM* routines. Also, XM initialization routines are listed here; they *can* be deleted after installation.

All MailMan routines are prefixed with the namespace XM. Version 7.1 with Patch XM*7.1*50 is composed of and exports approximately 265 executable routines.



Other routine information, such as the Routine Size Histogram, the Routine %Index, etc., can be generated through the use of Kernel Utilities.

The Routine Layout design for MailMan is functionally grouped as followed:

<u>Program Name</u>	<u>Description</u>
XM	Top Level
XMA*	APIs (Pre-Patch XM*7.1*50)
XMA3*	Purges
XMB*	Bulletins
XMC*	Network Mail and Communications
XMC	Script/TalkMan
XMC1-XMC3	Script Interpreter
XMCSIZE	Statistics of Messages (Bytes and Rate of Transmission)
XMD	Programmer Entry Point
XMDIR*	Remote Directories
XMH*	Information Routines
XMJ*	Interactive Basket and Message Handling
XMK*	Posting Messages
XML*	Network Mail and Communications

Routine Descriptions

<u>Program Name</u>	<u>Description</u>
XMM*	Modem Control
XMP*	PackMan Control
XMR*	SMTP Receiver
XMS*	SMTP Sender
XMT*	Delivering Messages
XMU*	Utilities
XMV*	User Identity
XXM*	APIs
XXY*	Patches and Post-/Pre-Inits

Routines



Parent routines are signified by bold type.

XM	Contains a programmer entry point into MailMan, as well as entry and exit actions for MailMan options.
XMO	*** OBSOLETE ***
XMA	Read mail API.
XMA0	Print messages APIs.
XMA01	*** OBSOLETE ***
XMA02	*** OBSOLETE ***
XMA03	Resequence basket API.
XMA0A	*** OBSOLETE ***
XMA1	*** OBSOLETE ***
XMA10	*** OBSOLETE ***
XMA11	Edit message "Information Only" API.
XMA11A	Send a message/answer API.
XMA11B	*** OBSOLETE ***
XMA1A	*** OBSOLETE ***
XMA1B	Save and delete message APIs.
XMA1C	Save and delete server message APIs.
XMA1E	*** OBSOLETE ***
XMA2	Create message stub APIs.
XMA20	*** OBSOLETE ***
XMA21	Address lookup APIs.
XMA210	*** OBSOLETE ***
XMA21A	*** OBSOLETE ***
XMA21B	*** OBSOLETE ***
XMA21C	Mail Name edit.
XMA21FWD	*** OBSOLETE ***
XMA21G	*** OBSOLETE ***
XMA22	*** OBSOLETE ***
XMA23	*** OBSOLETE ***
XMA24	*** OBSOLETE ***
XMA25	*** OBSOLETE ***
XMA2B	Send Multimedia MailMan message (for Imaging package).
XMA2C	*** OBSOLETE ***
XMA2C0	*** OBSOLETE ***
XMA2R	Reply/Answer APIs.
XMA3	Purge unreferenced messages.
XMA30	XMA3 continued.
XMA31	*** OBSOLETE ***
XMA32	Purge messages by date.
XMA32A	XMA32 continued.
XMA33	*** OBSOLETE ***
XMA4	*** OBSOLETE ***

Routine Descriptions

XMA5	***OBSOLETE***
XMA50	***OBSOLETE***
XMA51	***OBSOLETE***
XMA5A	***OBSOLETE***
XMA6	***OBSOLETE***
XMA7	***OBSOLETE***
XMA7G	***OBSOLETE***
XMA7G1	***OBSOLETE***
XMAD	***OBSOLETE***
XMAD0	***OBSOLETE***
XMAD1	***OBSOLETE***
XMAD1A	***OBSOLETE***
XMAD1X	***OBSOLETE***
XMAD2	Basket lookup/create API.
XMADA	***OBSOLETE***
XMADDOC	***OBSOLETE***
XMADDOC1	***OBSOLETE***
XMADDOC2	***OBSOLETE***
XMADGO	Start background filer API.
XMADGO1	***OBSOLETE***
XMADJ999	***OBSOLETE***
XMADJF0	***OBSOLETE***
XMADJF1	***OBSOLETE***
XMADJF1A	***OBSOLETE***
XMADJF1B	***OBSOLETE***
XMAFTP	This routine asks for user interaction for sending a file across the network using the FTP service of TCP/IP.
XMAH	List responses API.
XMAH0	***OBSOLETE***
XMAH1	Reply API.
XMAI	***OBSOLETE***
XMAI0	***OBSOLETE***
XMAI1	***OBSOLETE***
XMAI2	Too Many Messages Report.
XMAK	***OBSOLETE***
XMAL0	***OBSOLETE***
XMAL0A	***OBSOLETE***
XMANON	***OBSOLETE***
XMAP	***OBSOLETE***
XMAP0	***OBSOLETE***
XMAP1	***OBSOLETE***
XMAPBLOB	Print attachments for Imaging package.
XMAPHOST	Print to P-MESSAGE device.
XMAREAD	NO LONGER SUPPORTED.
XMASEC	***OBSOLETE***

XMB	Bulletin APIs.
XMB1	*** OBSOLETE ***
XMBBLOB	XMB continued.
XMBGRP	Mail group APIs.
XMBPOST	Schedule remote transmission tasks.
XMC	This is the focal point for network options and the TalkMan controller, handling the script interpreter, script interpreter setup, the open/close commands for the script processor, and various network/management functions.
XMC1	XMC continued.
XMC11	XMC continued.
XMC11A	XMC continued.
XMC1A	XMC continued.
XMC1A1	XMC continued.
XMC2	XMC continued.
XMC3	XMC continued.
XMC4	Miscellaneous network management functions.
XMCD	Diagnostic options for testing.
XMCDNT	NT communications diagnostics.
XMCSIZE	Statistics.
XMCTLK	TalkMan talk-mode.
XMCTLK0	XMCTLK continued.
XMCTRAP	General error trap to use for Network MailMan tasks.
XMCU1	Decode/encode subjects.
XMD	Message sending APIs.
X MDF	NO LONGER SUPPORTED.
X MDIE	*** OBSOLETE ***
XMDIR	Remote directories.
XMDIR1	Local Remote User Directories.
XMDIR1A	XMDIR1 continued.
XMDIR1B	XMDIR1 continued.
XMDIRQST	XMDIR continued.
XMDIRRCV	XMDIR continued.
XMDIRSND	XMDIR continued.
X MDOC	This routine contains information on MailMan documentation.
XME	*** OBSOLETE ***, See XMJMCODE
XME1	*** OBSOLETE ***
XMF1	This routine is an example of a server.
X MFAX	Fax capability.

XMGAPI0	Subject editing APIs.
XMGAPI1	NO LONGER SUPPORTED.
XMGAPI2	Message header Information API.
XMGAPI3	Server for broadcasts to all mailboxes.
XMGAPI4	Private DBIA with Kernel.
XMH	Information routines.
XMHIG	Group information.
XMHIU	User information.
XMJ	Interactive basket and message handling routines.
XMJB	Interactive basket handling routines.
XMJBL	List contents of all baskets.
XMJBM	Manage existing messages in a basket.
XMJBM1	XMJBM continued.
XMJBN	Read new messages in a basket.
XMJBU	Basket utilities (select, rename)
XMJDIR	Customized ^DIR for "SET OF CODES" reads.
XMJERR	Display errors.
XMJM	Interactive message handling routines.
XMJMA	Answer messages.
XMJMBULL	Send bulletin interactively.
XMJMC	Copy messages.
XMJMCODE	Encrypt/decrypt messages.
XMJMD	Later messages.
XMJMF	Find messages based on search criteria.
XMJMFA	Find messages in ^XMB(3.9.
XMJMFB	Find messages in a user's mailbox.
XMJML	List messages in a basket (can't read them).
XMJMLN	List and read new messages in one or all baskets.
XMJMLR	List and read messages in a basket.
XMJMLR1	XMJMLR continued.
XMJMOI	Options for individual message activities.
XMJMOI1	XMJMOI continued.
XMJMOIE	Edit a message that the user has sent only to themselves.
XMJMOR	Options for range-of-messages activities.
XMJMORX	Options for range-of-messages activities for non-basket-specific lists.
XMJMORX1	XMJMORX continued.
XMJMP	Print, back up messages.
XMJMP1	XMJMP continued.
XMJMP2	XMJMP continued.
XMJMQ	Query (Q, QD, QN)
XMJMQ1	XMJMQ continued.
XMJMR	Send a reply to a message.
XMJMRO	Options for replying to a message.
XMJMS	Send a new message.

XMJMSA	Send an anonymous message to the SUGGESTION BOX.
XMJMSSO	Options for sending/answering messages.
XMJMST	Send to whom?
XMK	Posting messages routines.
XMKP	Address and mail a message.
XMKPL	Make sure background filers are running.
XMKPLQ	Put local messages in correct local delivery queues.
XMKPO	Set up tasks for bulletin, server, device, and remote message delivery.
XML	Network protocol initialization.
XML1	***OBSOLETE***
XML1CRC	ISC/Protocol.
XML3	***OBSOLETE***
XML4CRC	Block-mode protocol.
XML4CRC1	XML4CRC continued.
XML98	***OBSOLETE***
XMLPC	PC Protocol.
XMLSTAT	Statistics control.
XMLSWP	Sliding Window Protocol.
XMLSWP0	XMLSWP continued.
XMLSWP2	XMLSWP continued.
XMLTCP	TCP/IP Protocol.
XMM1	Modem control for Vadic 3451.
XMM2	Modem control for the Cermatek Info Mate.
XMNETV	***OBSOLETE***
XMNTEG	Checksum.
XMNTEG0	XMNTEG continued.
XMP	PackMan—Front-end.
XMP2	Printing, installing, summing, and comparing PackMan messages.
XMP2A	PackMan install.
XMP3	Building, uninstalling PackMan messages.
XMPC	Routine compare.
XMPD	***OBSOLETE***
XMPDAT	Reserved for the VA FileMan server.
XMPG	Global list/load.
XMPH	PackMan print.
XMPSEC	PackMan security.
XMPX	***OBSOLETE***

XMR	SMTP Message Receive.
XMR0	*** OBSOLETE ***
XMR0A	XMR continued.
XMR0B	XMR continued.
XMR0BLOB	XMR continued.
XMR1	XMR continued.
XMR1A	XMR continued.
XMR2	SMTP help processor.
XMR3	SMTP help processor.
XMRENT	Network Mail information API.
XMRFTP	SMTP receiver.
XMRFTPUX	SMTP receiver (Modified for UCX).
XMRINETD	process MSM-NT TCP request.
XMRMSM	TCP/IP receiver for the MSM/Unix platform.
XMRONT	OpenM-NT TCP/IP INETD and front-end.
XMRPCTS	Obtain TWIX's from PCTS Host.
XMRPCTS0	XMRPCTS continued.
XMRPCTS1	XMRPCTS continued.
XMRPCTSA	XMRPCTS continued.
XMRTCP	TCP/IP poller.
XMRTCPGO	XMRTCP continued.
XMRUCX	This routine is the TCP/IP receiver for the Alpha UCX platform.
XMS	SMTP Message Transmit.
XMS0	XMS continued.
XMS0A	XMS continued.
XMS0BLOB	XMS continued.
XMS1	Task creation and queuing for NetMail.
XMS1PPoller.	
XMS2	*** OBSOLETE ***
XMS3	This routine contains the server read/write logic.
XMS4	Message Queues Reports.
XMS5	Display/transmit Queues Reports.
XMS5A	Message Queues reports.
XMS5B	Reserved for IHS Parallel queuing.
XMSER	*** OBSOLETE ***
XMSERR	Bulletins concerning network mail problems.
XMSFTP	TCP/IP-FTP sender.
XMSFTPUX	TCP/IP-FTP sender (Modified for UCX).
XMSM	SMTP error messages.
XMSM1	Reject duplicate messages.
XMSMAIL	SMTP Mail Command.

XMT	Delivering messages routines.
XMTDF	Filter message.
XMTDL	Deliver message, local (to a user's mailbox).
XMTDL1	XMTDL continued.
XMTDL2	XMTDL continued.
XMTDO	Deliver server and device messages.
XMTDT	Deliver message later, auto-delete message, later message.
XMUDNC	Domain name change.
XMUT1	Find user messages.
XMUT1A	Recover messages.
XMUT1B	List basket.
XMUT2	Message analysis—Large Message Reports.
XMUT4	Integrity checker.
XMUT4A	XMUT4 continued.
XMUT4B	XMUT4 continued.
XMUT4BA	XMUT4B continued.
XMUT4C	XMUT4 continued.
XMUT5	Check out delivery queue.
XMUT5B	Delivery Queue Data Collecting.
XMUT5C	XMUT5 continued.
XMUT5G	XMUT5 continued.
XMUT5Q	XMUT5 continued.
XMUT5Q1	XMUT5Q continued.
XMUT5R	Delivery Queue Data Reports.
XMUT5R1	XMUT5R continued.
XMUT5R2	XMUT5R continued.
XMUT6	Verify Delivery Queue Data.
XMUT7	Forwarding Address Check Bulletin.
XMUTASK	Miscellaneous Utilities.
XMUTERM	Delete Mailbox/Delete Message.
XMUTERM1	XMUTERM continued.
XMUTCOM1	Document COMM file to VMS users.
XMUTPUR0	AI cross-reference purger.
XMVA	***OBSOLETE***
XMVCODE	***OBSOLETE***
XMVGROUP	Create or join a mail group.
XMVPIC	***OBSOLETE***
XMVSURR	Become a surrogate.
XMVSTUFF	***OBSOLETE***
XMVTEST	***OBSOLETE***
XMVVITA	Edit identity and preferences.
XMVVITAE	Set up identity and preferences.

XXM

XXMADDR

XXMADDR1

XXMADDR2

XXMADDRD

XXMADDRG

XXMANSER

XXMAPI

XXMAPIB

XXMAPIG

XXMAPIU

XXMBSKT

XXMBULL

XXMEDIT

XXMLIST

XXMLIST1

XXXMBOX

XXMMSG

XXMMSG1

XXMMSG2

XXMPARM

XXMPARM1

XXMPARMB

XXMPRT

XXMREPLY

XXMSEC

XXMSEC1

XXMSEC2

XXMSEC3

XXMSEND

XXMTO

XXMUTIL

XXMUTIL1

XXMUTIL2

XXMUTIL3

XXMUTIL4

APIs.

Main address resolver.

XXMADDR continued.

XXMADDR continued.

Domain Name server.

Group name resolver.

Answer a message.

Message APIs.

Mailbox and basket APIs.

Does a mail group have any local members?

Interactive user APIs.

Basket handling.

Send a bulletin.

Edit a message.

Get a list of messages.

XXMLIST continued.

Mailbox handling.

Message handling.

XXMMSG continued.

XXMMSG continued.

Message APIs parameter checking.

XXMPARM continued.

Mailbox and basket APIs parameter checking.

Print messages.

Reply to a message.

Find out if a user is authorized to access a message.

XXMSEC continued.

Find out what a user may and may not do with a message.

XXMSEC2 continued.

Send a message.

Address a message.

Mailbox and message utilities used by other routines.

String and date manipulation utilities used by other routines.

Message information utilities.

Message information utilities.

XXMUTIL3 continued.

XXMYMNEM

XXMYMNEM0

XXMYMNEM1

XXMYMNEM2

XXMYPDOM

XXMYPDOM1

XXMYPOSD

Mnemonic Conversion—MailMan Hosts.

XXMYMNEM continued.

XXMYMNEM continued.

XXMYMNEM continued.

Domain Name checkers.

XXMYPDOM continued.

DOMAIN file (#4.2) validation for post initialization.

XMYPOST

XMYPOST0

XMYPOST1

XMYPOST2

XMYPOST3

XMYPOST4

XMYPOST5

XMYPOST6

XMYPOST7

XMYPOST8

XMYPOST9

XMYPOSTA

XMYPRE

XMYPRE1

XMYPRE2

XMYPRE2A

XMYPRE2B

XM post-initialization.

Reset mailbox x-references.

Reset mailbox x-references.

MailMan post-initialization.

Pre installation initialization.

MailMan pre-initialization.

MailMan pre-initialization.

XMYPRE2 continued.

XMYPRE2 continued.

File List

This section contains information on all MailMan-related files and globals. This information includes: file numbers, file names, global location, and file descriptions. MailMan file numbers range from 3.4 to 4.6.



Files security access is described in the "File Security" topic in the "Software Product Security" section of this manual.

Other pertinent file information, such as data dictionaries and relations with other files, can be generated online through the use of VA FileMan utilities.



All files, fields, and routines in MailMan are considered to perform controlled procedures and *cannot* be modified.

Globals

The following are MailMan namespaced globals:

- **^XMB**
- **^XMBPOST**
- **^XMBS**
- **^XMBX**
- **^XMD**

MailMan also stores data in the following globals:

- **^DIC**
- **^%ZISL**

All of these globals are used to store the data contained in the files referenced below.

Journaling is highly recommended.

Your translation table must be set up properly in order to translate the **^XMB*** globals and the **^DIC** global in all UCIs.

Files

The following are the MailMan files:

3.4 COMMUNICATIONS PROTOCOL ^{^DIC(3.4,}

This file stores the definitions of all the communications protocols known to Kernel. A protocol has executable M code for sending, receiving, opening, and closing a link.



This file should only be edited by someone with intimate knowledge of Network MailMan.

3.51 SPOOL DOCUMENT ^{^XMB(3.51,}

This file stores the name of spool documents created by the Kernel spooler (i.e., %ZIS4) for all operating systems. It does *not* hold the text of the documents themselves. That text is first spooled to spool space, then moved into the ^{^XMB} global as a mail message. This file does, however, provide the mechanism for securing spool space for and during spooling. It is cross-referenced by NAME, USER, OTHER AUTHORIZED USERS, SPOOL DATA, and SPOOL NUMBER.

3.519 SPOOL DATA ^{^XMB(3.519,}

This is the holding file for spool documents until moved to a mail message or deleted.

3.54 RESOURCE ^{^%ZISL(3.54,}

This file is for internal use by TaskMan and the Device Handler in the sequential processing of tasks. Jobs that have been sent to a resource-type device will be monitored according to fields in this file. To accommodate the Device Handler's need to write to but rarely read from this file, the translated ^{^%ZISL} global is used. This file is cross-referenced by NAME and JOB #.

3.6 BULLETIN ^{^XMB(3.6,}

This file stores bulletins. Bulletins are "Super" messages. Each Bulletin has a text and a subject just like a normal message. However, embedded within the subject and/or the text can be variable fields that can be filled in with parameters. There is also a standard set of recipients in the form of a mail group that is associated with the bulletin.

MailMan processes bulletins either because of a special cross-reference type of VA FileMan or because of a direct call in a routine. The interface for the direct call is described in the documentation on programmer entry points. VA FileMan sets up code that will issue a bulletin automatically when the

special cross-reference type is created. In either case, the parameters merged into the text and/or the subject normally make each bulletin instance unique.

3.7 MAILBOX ^XMB(3.7,

This file stores pointers to the MESSAGE file (#3.9), according to users. Each MAILBOX file entry corresponds to a user. The Postmaster is a special user who controls the network communications queues. Each user is automatically given two baskets: "IN" and "WASTE." All incoming messages are delivered either to a user's "IN" basket or to another basket based on mail filters established by the user. When the user deletes messages, they are temporarily stored in the "WASTE" basket. Users can create new baskets and filter mail as they wish.

3.73 MESSAGES TO BE NEW AT A LATER DATE ^XMB(3.73,

This file stores pointers to the MESSAGE file (#3.9), pointing to messages to be new at a later date and time. The background filer processes entries in this file. The messages pointed at become new at the date and time requested.

3.8 MAIL GROUP ^XMB(3.8,

This file stores the names of all mail groups known to MailMan and their members.

3.816 DISTRIBUTION LIST ^XMB(3.816,

This file stores names of Distribution Lists. A Distribution List is interpreted as a name to which the message will be delivered at each of the associated Domains in the list. Each name is associated with one or more Domains. When a Distribution List is entered into a mail group, MailMan delivers a message to all the entities it has linked to it.

For example, a Distribution List whose name is G.SUPPORT and whose associated domains are FORUM.VA.GOV, ALTOONA.VA.GOV, and CIOFO-SF.VA.GOV will be sent (in addition to all other entities attached to the mail group) to:

- G.SUPPORT@FORUM.VA.GOV
- G.SUPPORT@ALTOONA.VA.GOV
- G.SUPPORT@CIOFO-SF.VA.GOV

3.9 MESSAGE ^XMB(3.9,

This file stores all MailMan messages.

4.2 DOMAIN ^DIC(4.2,

This file stores the names of all nodes to which MailMan messages can be routed (i.e., Domains). Each name in this file corresponds to the right side of a MailMan address following the at-sign ("@").

Domains can have synonyms, allowing users to name sites with one name, while MailMan uses the more formal Domain naming conventions.

This file also controls whether messages are queued for immediate transmission and into what queue they are dropped.

Any Domain can have a Relay Domain, which controls the routing as follows:

- If a Domain has a named Relay Domain, the message is put in the queue for the Relay Domain.
- If a Domain does *not* have a named Relay Domain and the Domain has a TRANSMISSION SCRIPT, the message is put in the queue for that Domain.
- If a Domain does *not* have a named Relay Domain and also does *not* have a TRANSMISSION SCRIPT, the message is put in the queue for the Parent Domain, as defined at MailMan initialization time.



If for some reason your site needs a copy of the DOMAIN file, it is recommended that you call another site nearby or your supporting CIO Field Office.

4.281 INTER-UCI TRANSFER ^%ZISL(4.281,

The file is used by MailMan to do non-interactive transmissions and receptions of messages to and from UCIs that share the %ZISL file either because they are on the same machine or because they are on the same local area network (LAN) and use DDP translation techniques for the %ZISL global.

4.2995 MAILMAN OUTSTANDING FTP TRANSACTIONS ^XMBX(4.2995,

This file stores entries that describe file transfers that will be controlled by the TCP/IP Poller.

4.2996 INTERNET SUFFIX ^DIC(4.2996,

This file stores Internet-reserved names that *cannot* be used under certain circumstances:

- Domain names cannot partially match the Internet-reserved name.
- Domain names cannot match the Internet-reserved name.

4.2997 REMOTE USER DIRECTORY ^XMD(4.2997,

This files stores users with known off-system electronic mail addresses.

4.6 TRANSMISSION SCRIPT ^XMB(4.6,

This file stores transmission scripts. Transmission scripts are lists of script commands that are executed by the script processor for Network Mail transmissions, in order, when they are invoked. The command in a script that invokes a transmission script is the CALL (C). Therefore, "C KERNEL" invokes a script that interfaces with the Simple Mail Transfer Protocol (SMTP) process using the Simple Communications Protocol (SCP). Transmission scripts are used most often to invoke a portion of a longer script that is used in many different domains.

Multimedia MailMan-related Files

In order for Multimedia MailMan to work properly, sites must also have access to the following files:

2005 IMAGE

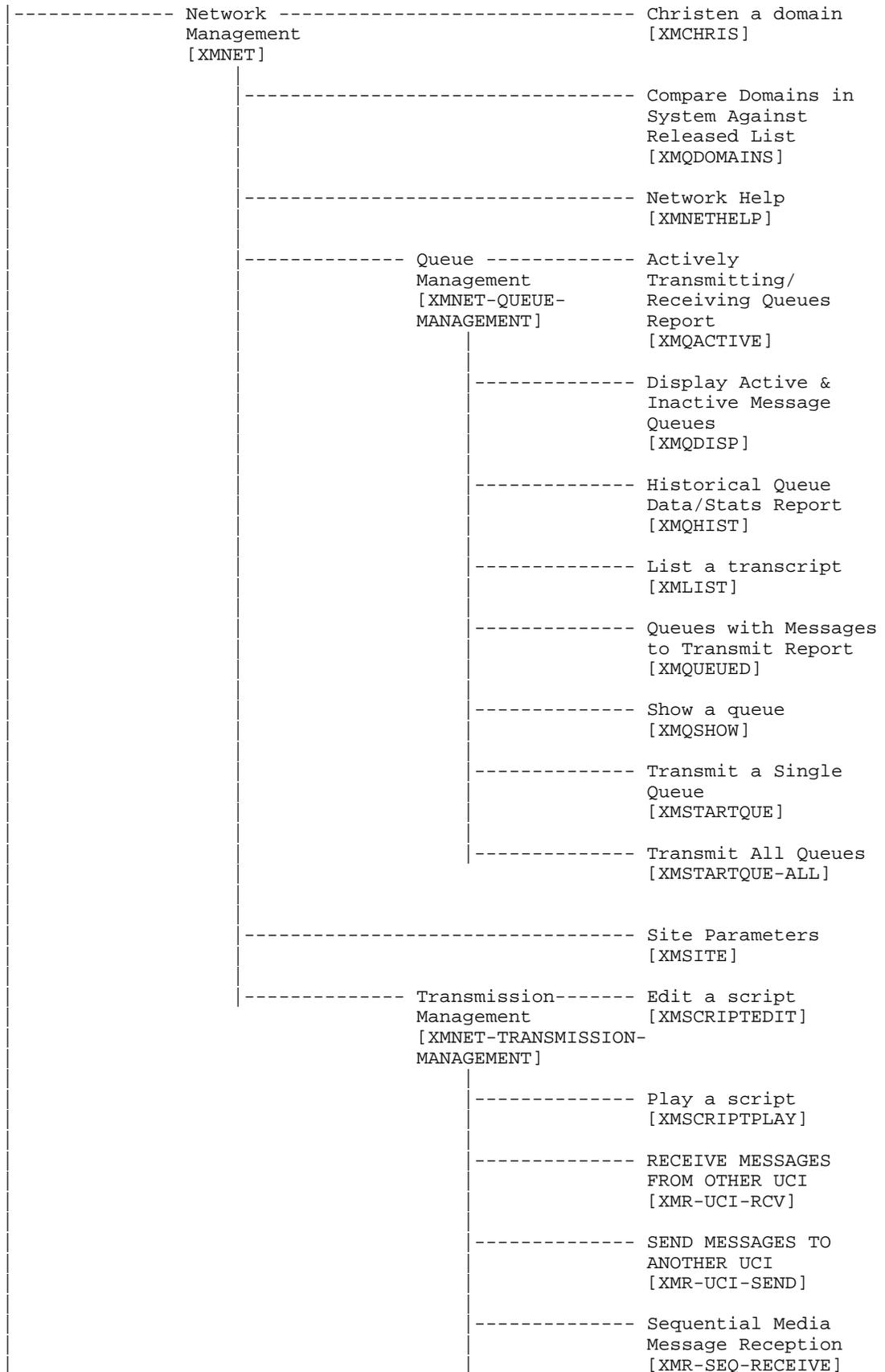
This file stores pointers to files and related data so that they can be displayed.

2005.2 NETWORK LOCATION

This file stores the logical name of the physical location where an image is stored.

	Recover Messages into User's IN Basket [XMUT-REC-MENU]	-----DEL	Delete Found Messages from Found Messages List [XMUT-REC-DELETE]
		-----DRM	Deliver Found Messages into User's IN Basket [XMUT-REC-DELIVER]
		-----FRM	Find Messages for User [XMUT-REC-FIND]
		-----LRM	List Messages Found [XMUT-REC-RPT]
		-----	Terminate mail user suggestions [XMMGR-TERMINATE-SUGGEST]
		-----	Terminate many mail users [XMMGR-TERMINATE-MANY]
		-----	Terminate one mail user [XMMGR-TERMINATE-ONE]
-----	Group/Distribution Management [XMMGR-GROUP-MAINTENANCE]	-----	Bulletin edit [XMEDITBUL]
		-----	Edit Distribution List [XMEDITDIST]
		-----	Enroll in (or Disenroll from) a Mail Group [XMENROLL]
		-----	Mail Group Coordinator's Edit [XMMGR-MAIL-GRP-COORDINATOR]
		-----	Mail Group Coordinator's Edit W/Remotes [XMMGR-MAIL-GRP-COORD-W/REMOTES]
		-----	Mail group edit [XMEDITMG]

Local Delivery Management [XMMGR-MESSAGE-DELIVERY-MGT]	Active Users/ Deliveries Report [XMMGR-BKFILER-ACT]
	CHECK background filer [XMMGR-CHECK-BACKGROUND-FILER]
	Compile Response Time Statistics [XMMGR-RESPONSE-TIME-COMPILER]
	Deliveries by Group [XMMGR-BKFILER-GROUP]
	Delivery Queue Statistics Collection [XMMGR-DELIVERY-STATS-COLL]
	Edit numbers to Normalize Reports [XMMGR-BKFILER-EDIT-NORMALIZED]
	Graphics Download (TAB separators) [XMMGR-BKFILER-TABBED-STATS]
	Log Response Time Toggler [XMMGR-RESPONSE-TIME-TOGGLER]
	Mail Delivery Statistics Report [XMMGR-BKFILER-STAT]
	New Messages and Logon Statistics [XMMGR-NEWMESS/LOGON-STATS]
	START background filer [XMMGR-START-BACKGROUND-FILER]
	STOP background filer [XMMGR-STOP-BACKGROUND-FILER]
	MailMan Site Parameters [XMKSP]



			Sequential Media Queue Transmission [XMS-SEQ-TRANSMIT]
			Subroutine editor [XMSUBEDIT]
			Toggle a script out of service [XMSCRIPTOUT]
			Validation Number Edit [XMEDIT-DOMAIN-VALIDATION#]
			New Features for Managing MailMan [XMMGR-HELP]
	Remote MailLink Directory Menu [XMMGR-DIRECTORY-MAIN] **LOCKED: XMMGR**		Enter/Edit Directory Request Flags by Group [XMMGR-DIRECTORY-EDITGRP]
			Enter/Edit Remote User [XMEDIT-REMOTE-USER]
			Group eMail Directory Request [XMMGR-DIRECTORY-GROUP]
			List eMail Directory Request by Groups [XMMGR-DIRECTORY-LISTGRP]
			Load Remote VACO (Wang/Noava) Directory [XMMGR-DIRECTORY-VACO]
			Remote Directory from all Domains [XMMGR-DIRECTORY-ALL]
			Request Mail Directory From a Single Domain Server [XMMGR-DIRECTORY-SINGLE]

--XMN Network Management
 [XMNET]

Exported Options

```

--XMU MailMan Menu-----NML New Messages and
[XMUSER]                  Responses
                           [XMNEW]
-----RML Read/Manage Messages
                           [XMREAD]
-----SML Send a Message
                           [XMSEND]
----- Query/Search for
                           Messages
                           [XMSEARCH]
-----AML Become a Surrogate
                           (SHARED,MAIL or
                           Other)
                           [XMASSUME]
----- Personal Preferences----- User Options Edit
[XM PERSONAL MENU]          [XMEDITUSER]
                           ----- Banner Edit
                           [XMBANNER]
                           ----- Surrogate Edit
                           [XMEDITSURR]
                           ----- Message Filter Edit
                           [XM FILTER EDIT]
                           ----- Delivery Basket
                           Edit
                           [XM DELIVERY BASKET
                           EDIT]
                           -----GML Enroll in (or
                           Disenroll from) a
                           Mail Group
                           [XMENROLL]
                           ----- Personal Mail Group
                           Edit
                           [XMEDITPERSGROUP]
                           ----- Forwarding Address
                           Edit
                           [XMEDITFWD]
----- Other MailMan----- Report on Later'd
[XMOTHER]                  Messages
                           [XMLATER-REPORT]
                           ----- Change/Delete
                           Later'd Messages
                           [XMLATER-EDIT]
                           ----- Mailbox Contents
                           List
                           [XMBASKLIST]
                           -----LML Load PackMan Message
                           [XMPACK]
                           **LOCKED:
                           XUPROGMODE**

```

----- Help -----	User Information
(User/Group Info., etc.)	[XMHELPUSER]
[XMHELP]	
-----	Group Information
-----	[XMHELPGROUP]
-----	Remote User
-----	Information
-----	[XMHELPLNK]
-----	New Features in
-----	MailMan
-----	[XM-NEW-FEATURES]
-----	General MailMan
-----	Information
-----	[XMHELPALL]
-----	Questions and
-----	Answers on MailMan
-----	[XMHELPQUEST]
-----	Manual for MailMan
-----	Users
-----	[XMHELP-ON-LINE-
-----	USER_MANUAL]

Options—Without Parents

The following options are *not* assigned to any menu when the MailMan software is exported. They can be assigned at the discretion of the system manager, if appropriate:



The XMPSEND, XMPRECV, and XMDX options cannot be independently invoked or are for developer/support debugging only. The XMPSEND and XMPRECV menu options are used as PackMan options and are used from the menus executed from ^DOPT("XMP").

<u>Option</u>	<u>Description</u>
XMAUTOPURGE	Purge unreferenced messages.
XMBLOBSEND	Send multimedia messages (Imaging package).
XMDX	Diagnostics menu.
XMMASTER	Master menu.
XMMGR-BACKGROUND-FILER	Background filer submenu.
XMMGR-BKFILER-WAIT	Runs Delivery Queues Wait Report.
XMMGR-DIRECTORY-RECV	Server—Receives a directory.
XMMGR-DIRECTORY-SEND	Server—Sends a directory.
XMMGR-PURGE-MESSAGE	Purge a message.
XMNET-TWIX-SEND	Sends a TWIX via PCTS.
XMNET-TWIX-TRANSMIT	Transmits a TWIX over the network.
XMOTHER-COMMUNICATIONS	Send and receive files.
XMPOLL	Play scripts.
XMPRECV	PackMan menu to print, compare, and load PackMan messages.
XMPSEND	PackMan menu to load routines, files, globals, and data dictionaries.
XMR-BROADCAST-VA-WIDE	Server for messages broadcast to SHARED,MAIL.
XMRONT	TCP/IP Listener for MailMan.

Exported Options

Option

Description

XMSCRIPTRES

Resume processing a script.

XMSHARE

Assume the identity of SHARED,MAIL.

XMSUGGESTION

Send anonymous mail to the SUGGESTION BOX of SHARED,MAIL.

XMTALK

TalkMan communications tool.

XMYB-BROADCAST-VA-WIDE

Server for message broadcast to all users.

Options—Listed by Name

The following option list includes information on the: option name, Locks, option type, routine, entry action, exit action, menu text, and option description.



The options whose names begin with XMP (except for XMPURGE) and XMDX cannot be independently invoked or are for developer/support debugging only. The XMP options (except for XMPOLL, XMPOST, and XMPURGE*) are used as PackMan options and are used from the menus executed from ^DOPT("XMP").*

XM DELIVERY BASKET EDIT

Type: run routine

Routine: BASKET^XMVVITA

Menu Text: Delivery Basket Edit

The sender of a message may specify the basket to which the message should be delivered for all recipients. Using this option, you indicate whether or not you accept such target basket delivery, and if you do, to what degree you accept it.

XM FILTER EDIT

Type: run routine

Routine: FILTER^XMVVITA

Menu Text: Message Filter Edit

The filter is used by MailMan to determine into which basket to place a message. Messages can be filtered based on up to three criteria, which are "and"ed together:

- Subject contains
- Message is from
- Message is to

For example, if you specify "subject contains" and "message is from," the filter takes effect only if the subject contains the string you specify *and* the message is from the person you specify. If you wish the filter to take effect upon "subject contains" *or* "message is from" you must create two filters, one with "subject contains," and the other with "message is from."

XM PERSONAL MENU

Type: menu

Menu Text: Personal Preferences

This menu accesses various options to let you configure MailMan to your liking.

XMHELP

Type: menu

Menu Text: Help (User/Group Info., etc.)

This menu provides Help options for users. It includes the following options:

- XMHELPUSER
- XMHELPGROUP
- XMHELPLNK
- XM-NEW-FEATURES
- XMHELPALL
- IXMHELPQUEST
- XMHELP-ON-LINE-USER_MANUAL

XMHELP-ON-LINE-USER_MANUAL

Type: action

Menu Text: Manual for MailMan Users

Entry Action: S XQH FY="XMHELP-MANUAL" D ACTION^XQH4

This option displays the MailMan online user manual.

XMHELPALL

Type: action

Menu Text: General MailMan Information

Entry Action: S XQH="XMHELP" D EN^XQH

This is a general Help Frame that provides a brief description about what MailMan is and does. It is a good starting point for the beginner MailMan user.

XMHELPGROUP

Type: run routine

Routine: HELP^XMHIG

Menu Text: Group Information

This option enables the user to get detailed information about mail groups.

XMMGR

Type: menu

Menu Text: Manage MailMan

Entry Action: D CHECKIN^XM S XMMENU(0)="XMUSER"

Exit Action: K XMMENU D CHECKOUT^XM

This menu provides options that allow the site manager to manage the MailMan system, by manipulating the MESSAGE (#3.9), MAIL GROUP (#3.8), BULLETIN (#3.6), and MAILBOX (#3.7) files. It includes the following options:

- XMUT-CHKFIL
- XMMGR-NEW-MAIL-BOX
- XMMGR-HELP
- XMNET
- XMMGR-MESSAGE-DELIVERY-MGT
- XMMGR-GROUP-MAINTENANCE
- XMMGR-DISK-SPACE-MANAGEMENT
- XMKSP
- XMMGR-DIRECTORY-MAIN

XMMGR-BACKGROUND-FILER

Type: menu

Menu Text: Background Filer (XMAD)

This option is a submenu of options for the background filer. It includes the following options:

- XMMGR-START-BACKGROUND-FILER
- XMMGR-STOP-BACKGROUND-FILER
- XMMGR-CHECK-BACKGROUND-FILER
- XMSTAT



This option is not assigned to a menu.

XMMGR-DISK-SPACE-MANAGEMENT

Type: menu

Menu Text: Disk Space Management

This option is a submenu of Disk Space options. It includes the following options:

- XMCLEAN
- XMPURGE-BY-DATE
- XMPURGE
- XMUT-REC-MENU
- XMMGR-IN-BASKET-PURGE
- XMMGR-PURGE-AI-XREF
- XMSTAT
- XMMGR-LARGE-MESSAGE-REPORT
- XMMGR-DISK-MANY-MESSAGE-MAINT
- XMMGR-TERMINATE-ONE
- XMMGR-TERMINATE-MANY
- XMMGR-TERMINATE-SUGGEST
- XMMGR-PURGE-MESSAGE

XMMGR-GROUP-MAINTENANCE

Type: menu

Menu Text: Group/Distribution Management

This option is a submenu of Group/Distribution Management options. It includes the following options:

- XMEDITDIST
- XMENROLL
- XMEDITMG
- XMEDITBUL
- XMMGR-MAIL-GRP-COORD-W/REMOTES
- XMMGR-MAIL-GRP-COORDINATOR

XMMGR-HELP

Type: action

Menu Text: New Features for Managing MailMan

Entry Action: S XQH="XMMG-NEW-FEATURES" D EN^XQH

This option has help for site management.

XMMGR-IN-BASKET-PURGE

Type: run routine

Routine: ENTER^XMUPIN

Menu Text: IN Basket Purge

This option purges "IN" baskets in two steps:

1. In the first step messages are sent to users
 - a. Message will contain a list of messages to be purged in Step 2.
 - b. Message will contain list of actions that will prevent the purging of the listed messages.
 - c. Message will state how many days later listed messages will be purged unless the action is taken on a message by message basis.
 - d. The messages listed will *not* have been referenced for 30 days or the number of days in the MAILMAN SITE PARAMETERS file ("4.3), IN-BASKET-PURGE DAYS field, if it is not null.
2. In the second step, the messages listed in the message from Step 1 will be purged *not* less than 30 days later unless they:
 - a. Have been saved into a basket other than the "IN" basket.
 - b. Have been referenced (read or printed) otherwise.
 - c. Are marked as NEW.



This option can be run via TaskMan!

XMMGR-MESSAGE-DELIVERY-MGT

Type: menu

Menu Text: Local Delivery Management

This is a submenu of options for the background filer. It contains the following options:

- XMMGR-CHECK-BACKGROUND-FILER
- XMMGR-START-BACKGROUND-FILER
- XMMGR-STOP-BACKGROUND-FILER
- XMMGR-NEWMESS/LOGON-STATS
- XMMGR-RESPONSE-TIME-COMPILER
- XMMGR-RESPONSE-TIME-TOGGLER
- XMMGR-BKFILER-ACT
- XMMGR-BKFILER-EDIT-NORMALIZED
- XMMGR-BKFILER-GROUP
- XMMGR-BKFILER-STAT
- XMMGR-BKFILER-TABBED-STATS
- XMMGR-DELIVERY-STATS-COLL

XMMGR-NEW-MAIL-BOX

Type: run routine

Routine: NEWMBOX^XM

Menu Text: Create a Mailbox for a user

This option is only meant to be used on systems where Kernel V. 6.0 or later is *not* running (or when a repair must be made to the MAILBOX file [#3.7]). A mailbox is created for each new or reinstated user in Kernel V. 6.0 or later so there should be no need to use this routine unless there was an error setting up the user or there was a file degradation problem. Using this option for a user whose mailbox is partially or wholly set up will *not* cause data to be lost.

A mailbox can be created or repaired using this option.

XMMGR-NEWMESS/LOGON-STATS

Type: run routine

Routine: XMUT5R1

Menu Text: New Messages and Logon Statistics

This option prints the number of new messages created, logons, and logon minutes for a specified time period.

The report page breaks on Service/Section and includes the following information:

- User's DUZ and name.
- Whether the user has an Access Code, a Verify Code, and a primary menu.
- When the user last signed on.
- When the user was terminated (if applicable).
- If the user was terminated, then whether the site manager chose to delete the user's mailbox. (Remember, you should usually answer "yes" to this question, unless the user is coming back and needs to have his mail retained.)
- How many new messages the user has. (New messages are never purged, except during purge-by-date purges.)

Finally, there are two blank columns with the following headings:

- "Term User Mbox" (Terminate user mailbox).
- "Deact VISTA Access" (Deactivate VISTA Access).

Besides being of interest to the site manager, this report is also designed to be submitted to other services. The intent is that the other services would check one of the columns for each user in the report and return the report to the site manager for action.

XMNET

Type: menu

Menu Text: Network Management

Entry Action: D CHECKIN^XM

Exit Action: D CHECKOUT^XM

This menu allows the user to control the network: editing, playing, and listing scripts, managing domains, christening subordinate domains, and controlling pollers. It includes the following options:

- XMSITE
- XMCHRIS
- XMNETHELP
- XMQDOMAINS
- XMNET-TRANSMISSION-MANAGEMENT
- XMNET-QUEUE-MANAGEMENT

XMNET-QUEUE-MANAGEMENT

Type: menu

Menu Text: Queue Management

This option is a submenu for Queue Management. It includes the following options:

- XMQACTIVE
- XMQHIST
- XMQUEUED
- XMQDISP
- XMSTARTQUE-ALL
- XMQSHOW
- XMSTARTQUE
- XMLIST

XMNET-TRANSMISSION-MANAGEMENT

Type: menu

Menu Text: Transmission Management

This is a menu with options having to do with network transmissions. It includes the following options:

- XMSCRIPTPLAY
- XMSCRIPTEDIT
- XMR-UCI-SEND
- XMR-UCI-RCV
- XMR-SEQ-RECEIVE
- XMS-SEQ-TRANSMIT
- XMSUBEDIT
- XMEDIT-DOMAIN-VALIDATION#
- XMSCRIPTOUT

XMOTHER

Type: menu

Menu Text: Other MailMan Functions

This is the mailman option menu for special user activities. It includes the following options:

- XMLATER-REPORT
- XMLATER-EDIT
- XMBASKLIST
- XMPACK

XMOTHER-COMMUNICATIONS

Type: Menu

Menu Text: Communications

Lock: XMNET

This menu contains options that allow users to send and receive data that is not necessarily in an electronic mail message form. FTP options to get and put files are here. It includes the following options:

- XM-FTP-GET
- XM-FTP-PUT

This option is locked with the XMNET security key.



This option is not assigned to a menu.

XMPACK

Type: run routine

Routine: PAKMAN^XMJMS

Menu Text: Load PackMan Message

Synonym: LML

Entry Action: D CHECKIN^XM

Exit Action: D CHECKOUT^XM

Lock: XUPROGMODE

This option enables the user to create a PackMan message. It is locked with the XUPROGMODE security key.

XMYB-BROADCAST-VA-WIDE

Type: Server
Menu Text: none

Routine: ENT^XMGAPI3("*")

This option is set up as a server. When a message is addressed to this server (i.e., S.XMYB-BROADCAST-VA-WIDE), it runs the ENT^XMGAPI3 routine to send the message to all users. The message is marked "closed" (*cannot forward*) and "information only" (*cannot reply*). To prevent broadcast messages from being delivered to the user sending the message, use the XM NO BROADCASTS security key.

The message is marked with a vaporization date of seven days from the date of receipt.



The XMR-BROADCAST-VA-WIDE server option is similar to this option, except that it sends the message to SHARED,MAIL.



This option is not assigned to a menu.

Cross-references

In addition to the standard "B" cross-references, this section contains a description of the cross-references that exist on fields in MailMan files.

The cross-references are grouped by file. The field affected is identified along with the cross-reference's name (or subscript location if there is no name) and a brief description. Many of these cross-references are described in more detail in the data dictionaries.

COMMUNICATIONS PROTOCOL File (#3.4)

Field Name (#)	X-Ref ID	Description
NAME (.01)	"B"	Communication protocol name.

SPOOL DOCUMENT File (#3.51)

Field Name (#)	X-Ref ID	Description
NAME (.01)	"B"	Spoiled document name.
SPOOL NUMBER (1)	"C"	Spool number.
USER (4)	"ADUZ" "AOK"	DUZ of creator of a spoiled document. DUZ of users who have access to this document. The creator of the document is automatically assigned access. It is a MUMPS-type cross-reference.
SPOOL DATA (9)	"AM"	Points to the SPOOL DATA file (#3.519) where the document is actually stored.
DEVICE (3.5121,.01)	"B"	Device name used for "despooling" (printing) this document.
OTHER AUTHORIZED USERS (3.5131,.01)	"AOK2" "B"	The "AOK2" cross-reference sets the "AOK" cross-reference. The "AOK" cross-reference identifies who has authorized access to an individual document. It is a MUMPS-type cross-reference. Other authorized users for a spoiled document.

SPOOL DATA File (#3.519)

Field Name (#)	X-Ref ID	Description
NAME (.01)	"B"	Spooled data name.

RESOURCE File (#3.54)

This file is maintained and documented by Kernel.

BULLETIN File (#3.6)

Field Name (#)	X-Ref ID	Description
NAME (.01)	"B"	Bulletin name.
MAIL GROUP (3.62,.01)	"B"	Mail groups that are recipients to a bulletin.

MAILBOX File (#3.7)

Field Name (#)	X-Ref ID	Description
NAME (.01)	"B"	DUZ of mailbox owner.
MAIL NAME (.3)	"C"	Unique alternate name used in outgoing network mail and used for lookup by the Name Server for incoming network mail and local mail.
BASKET (3.701,.01)	"B"	Basket names in a mailbox.
MESSAGE (3.702,.01)	"M" TRIGGER	This is a whole file cross-reference. It indicates, for each message, which users have the message in their mailbox and in which basket they have it. This trigger gives a new message the next sequence number in the mail basket.
MAILBOX INDEX (3.702,2)	"C"	Message sequence number in a basket.
NEW FLAG (3.702,3)	"N" "NO"	For each user, it indicates which baskets have new priority mail and which messages in those baskets are new priority messages. It is a MUMPS-type cross-reference. For each user, it indicates which baskets have new mail and which messages in those baskets are new. It is a MUMPS-type cross-reference.
AUTOMATIC DELETE DATE (3.702,5)	"AC"	This is a whole file cross-reference. It indicates when, which, whose, and in which basket a message should be deleted.
NETWORK PRIORITY TRANSMISSION? (3.702,6)	"AC"	Used only in the Postmaster's "NETWORK TRANSMISSION" basket queues. It indicates which message should be transmitted first. It is a MUMPS-type cross-reference.

MAILBOX File Cross-references (continued):

Field Name (#)	X-Ref ID	Description
FORWARDING ADDRESS (2)	BULLETIN MESSAGE "F"	Sends a bulletin (i.e., XM-FWD-ADDRESS-CHECKER) when a user creates or changes a new FORWARDING ADDRESS. It also sends out a test message (from the Postmaster) that will generate an error message to the Postmaster, if the new FORWARDING ADDRESS is not correct. Forwarding address cross-reference that enables the site manager to easily find a user who has a bad forwarding address.
BANNER (4)	BULLETIN MESSAGE	Sends a bulletin (i.e., XM BANNER MESSAGE) whenever a banner is changed or created.
MESSAGE BEING EDITED (5)	"AD"	Notes the message currently being edited. It is a MUMPS-type cross-reference.
SURROGATE (3.703,.01)	"AB"	This is a whole file cross-reference. It indicates which users are authorized to act as surrogates for this user.
FILTER (3.715,.01))	"B"	Mailbox filter names.
ORDER (3.715,1)	"AF"	Indicates for each active filter in a user's mailbox, the order in which to check them when delivering mail. It is a MUMPS-type cross-reference.
BASKET (3.715,2)	"C"	Names of baskets to which messages may be filtered.
STATUS (3.715,3))	"AC"	It sets the "AF" cross-reference when the filter is turned on and KILLS it when the filter is turned off. It is a MUMPS-type cross-reference.

MESSAGES TO BE NEW AT A LATER DATE File (#3.73)

Field Name (#)	X-Ref ID	Description
DATE MESSAGE WILL BE NEW (.01)	TRIGGER "AB1"	Sets the USER field to the user's DUZ. This cross-reference SETs/KILLs the "AB" cross-reference when a user <i>changes</i> the later date and time of a message. It is a MUMPS-type cross-reference.
USER (1)	"C"	Indicates which users have messages to be latered.
MESSAGE (2)	"AB" "AC"	Notes the dates on which users have messages that are scheduled to become new. Each message may have many such dates. It is a MUMPS-type cross-reference. Notes the dates on which messages are scheduled to become new for certain users. Each message may have many such dates. It is a MUMPS-type cross-reference.

MAIL GROUP File (#3.8)

Field Name (#)	X-Ref ID	Description
NAME (.01)	"B"	Mail group names.
MEMBER (3.81,.01)	"B" "AB"	Local mail group members. This is a whole file cross-reference. It indicates to which mail groups each user belongs.
COORDINATOR (5.1)	"AC"	Mail group coordinator.
AUTHORIZED SENDER (3.802,.01)	"B"	Authorized senders for a mail group.
MEMBER GROUP NAME (3.811,.01)	"B"	Pointers to mail groups that are members of this mail group.
REMOTE MEMBER (3.812,.01)	"B"	Remote members of a mail group.
DISTRIBUTION LIST (3.813,.01)	"B"	Pointers to distribution lists for a mail group.
FAX RECIPIENT (3.814,.01)	"B"	Fax recipients in a mail group.
FAX GROUP (3.815,.01)	"B"	Fax groups in a mail group.

DISTRIBUTION LIST File (#3.816)

Field Name (#)	X-Ref ID	Description
NAME (.01)	"B"	Distribution list name.
DOMAIN (3.8161,.01)	"B"	Pointers to domains in a distribution list.

MESSAGE File (#3.9)

Field Name (#)	X-Ref ID	Description
SUBJECT (.01)	"B"	Message subject.
RECIPIENT (3.91,.01)	"C"	Message recipients.
PATH (3.91,6)	"AQUEUE"	This cross-reference makes it possible for network mail transmissions to immediately find the recipients to whom it should transmit a message.
FAX RECIPIENT (3.91,13)	"AFAX"	This cross-reference makes it possible for MailMan to immediately find the recipients to whom it should fax a message.
INCOMING MESSAGE ID (9)	"AI"	This cross-reference sets a node in a totally separate global, which is used as an index to messages that have been received from other sites. It is a MUMPS-type cross-reference.
ADDRESSED TO (3.911,.01)	"B"	Message addressees.
LATER DELIVERY TO (3.914,.01)	"B"	Addressees to whom a message is to be delivered later.
BY WHOM DUZ (3.914,.2)	"AW"	This is a whole file cross-reference. It indicates which users have scheduled messages for later delivery.
DELIVERY DATE/TIME (3.914,4)	"AL"	This is a whole file cross-reference. It indicates the date and time that messages are scheduled for later delivery.

MESSAGE File Cross-references (continued):

Field Name (#)	X-Ref ID	Description
LOCAL CREATE DATE (31)	"C"	Date and time a message was added to the MESSAGE file (#3.9). Used by the Date purge and by the Unreferenced Messages purge.
OBJECTS - OTHER BODY PARTS (3.92005, .01)	"B"	Message attachments.

DOMAIN File (#4.2)

Field Name (#)	X-Ref ID	Description
NAME (.01)	"B"	Domain name.
FLAGS (1)	"AC"	Notes Domains that have the Poll flag on ("P"). It is a MUMPS-type cross-reference.
PRIORITY (4.21,1)	"AC"	Transmission script priority. Controls which transmission script will be used to transmit messages. The highest priority script will be used first. Low numbers mean high priority.
SYNONYM (4.23,.01)	"C"	This is a whole file cross-reference of Domain synonyms. It is a MUMPS-type cross-reference.
DHCP ROUTING INDICATOR (6.2)	"AD"	Domain routing indicator.
TCP/IP POLL FLAG (6.61)	"D" "ATCP"	If this cross-reference is deleted, network mail may not be transmitted. This cross-reference is used by XMRTCP to poll Domains that have messages to be sent out. Sometimes, TaskMan does <i>not</i> run on the node that has the TCP/IP device.
POLL LIST (4.24,.01)	"AB"	This is a whole file cross-reference of Poll list Domain members.
DIRECTORY REQUESTS FLAG (50)	"AE"	Flags whether directory requests should be sent to this Domain. Also, it indicates which Domains share the same flag group.

INTER-UCI TRANSFER File (#4.281)

Field Name (#)	X-Ref ID	Description
FROM DOMAIN (.01)	"B"	Inter-UCI Transfer From Domain.
TO DOMAIN (1)	"C"	Inter-UCI To Domain. Used by the software to look up entries that have been "transmitted" when RECV^XMS3 is executed from a receiving Domain.

MAILMAN OUTSTANDING FTP TRANSACTIONS File (#4.2995)

Field Name (#)	X-Ref ID	Description
NAME (.01)	"B"	Outstanding FTP transaction name.

INTERNET SUFFIX File (#4.2996)

Field Name (#)	X-Ref ID	Description
NAME (.01)	"B"	Internet suffix name.

REMOTE USER DIRECTORY File (#4.2997)

Field Name (#)	X-Ref ID	Description
LAST NAME (.01)	"B"	Remote user last name.
MAIL CODE (3)	"C"	Remote user mail code.
LOCATION (5)	"D"	Remote user location. It is a Key Word In Context (KWIC)-type cross-reference.
DATE LAST USED (6)	"AC"	Notes the last time an entry was used. Used by the XMDIR1 routine to automatically delete entries that have <i>not</i> been used for at least two years.
AUTOMATICALLY ENTERED BY (98)	"E"	Notes who or what added an entry. Used to delete old directory entries.
NETWORK ADDRESS (99)	"F"	Remote user's network address. Used for lookups and also to determine if an entry already exists. The theory is that the old and new addresses can exist in the file and that is okay. The bad entry will be removed when the user notifies the support staff.

MESSAGE DELIVERY STATS File (#4.2998)

Field Name (#)	X-Ref ID	Description
DATE/TIME (.01)	"B"	Message delivery statistics year and month (in VA FileMan format).

MESSAGE STATISTICS File (#4.2999)

Field Name (#)	X-Ref ID	Description
NAME (.01)	"B"	Message statistics Domain.
MESSAGE STATISTICS MONTH (4.29991,.01)	"B"	Message statistics year and month.

MAILMAN SITE PARAMETERS File (#4.3)

Field Name (#)	X-Ref ID	Description
DOMAIN NAME (.01)	"B"	MailMan site parameters Domain.
	"AD"	This cross-reference sets ^XMB("NUM") to the pointer to the local site's Domain. It is a MUMPS-type cross-reference.
	"AF"	This cross-reference sets ^XMB("NAME") and ^XMB("NETNAME") to the local site's name. It is a MUMPS-type cross-reference.
TIME ZONE (1)	"AC"	This cross-reference sets ^XMB("TIMEZONE") to the name of the local site's time zone. It is a MUMPS-type cross-reference.
	"AG"	This cross-reference sets ^XMB("TIMEDIFF") to the time difference, in standard Internet format, between this time zone and Greenwich Mean Time (GMT). It is a MUMPS-type cross-reference. For example: +0800 means 8 hours ahead of GMT -0130 means 1½ hours behind GMT
PARENT (3)	"AE"	This cross-reference sets ^XMB("PARENT") to the name of the Domain that is the parent of the local site. It is a MUMPS-type cross-reference.
PURGE DATE (4.301,.01)	"B"	Domain purge dates.

MAILMAN TIME ZONE File (#4.4)

Field Name (#)	X-Ref ID	Description
CODE (.01)	"B"	Time zones.
TIME ZONE NAME (1)	"C"	Time zone name.

NETWORK TRANSACTION File (#4.5)

This file is *****OBSOLETE*****.

NETWORK SENDERS REJECTED File (#4.501)

Field Name (#)	X-Ref ID	Description
NAME (.01)	"B"	Remote users from whom messages will be rejected.

TRANSMISSION SCRIPT File (#4.6)

Field Name (#)	X-Ref ID	Description
NAME (.01)	"B"	Transmission script name.

Archiving and Purging

Archiving

There are no MailMan specific archiving procedures or recommendations.

Purging

MailMan exports an entire submenu (called Disk Space Management) under the Manage MailMan menu to facilitate purging of MailMan files and the cleanup of MailMan produced globals. The "Managing MailMan" section of this document describes these options and provides a summary of system management, as well as giving recommendations for scheduling frequency of maintenance tasks. All of these options can be queued.

Callable Routines

MailMan V. 7.1 with Patch 50 has several new entry points. Pre-existing entry points have been enhanced. You may find the utilities and the additional functionality useful.

Entry Points and Extrinsic Functions

All MailMan Application Programming Interface (API) entry points and extrinsic functions are documented in detail in the "MailMan V. 7.1 & Patch XM*7.1*50 Programmer Manual."

Retired APIs

The following APIs have been retired (superseded by others) and are no longer supported:

- `$$CHECK^XMAREAD` NO LONGER SUPPORTED. Use `^DIR` instead.
- `$$READ^XMAREAD` NO LONGER SUPPORTED. Use `^DIR` instead.
- `$$ENT^XMDF` NO LONGER SUPPORTED. Use `ENT1^XMD`.
- `$$EN^XMGAPI1` NO LONGER SUPPORTED. Use `INIT^XMOVITAE`.

Classic APIs

The following are the "classic" MailMan APIs (Pre-Patch 50):

Programmer Calls

- `^XM` Programmer entry point into MailMan.
- `GO^XMCTLK` Interactive use a device and displays keyboard entry and data coming down the line.

Utility Calls

- `KILL^XM` KILL any MailMan variables that may be left over from previous calls.
- `N1^XM` Create a mailbox for a user.
- `NEW^XM` Create a mailbox for a user.
- `ZTSK^XMADGO` Start tasks to deliver messages in local delivery queues.
- `$$DECODEUP^XMCU1` Takes a string, converts `~U~` to `^`, and returns the result.



Identical to `$$DECODEUP^XMXUTIL`.

- `$$ENCODEUP^XMCU1` Takes a string, converts `^` to `~U~`, and returns the result.
 *Identical to `$$ENCODEUP^XMXUTIL`.*
- `$$RTRAN^XMCU1` Undoes the conversion of a string previously converted by `$$STRAN^XMCU1` and returns the result.
- `$$STRAN^XMCU1` Takes a string, converts any control characters to printable characters, and returns the result.
- `ENT^XMUT7` Send a test message to a user's forwarding address and the Postmaster.

Creating a Message

- `$$INFO^XMA11` Interactive, lets the user edit the message "Information Only" field.
- `GET^XMA2` Create a new message stub in the MESSAGE file (#3.9). Unlike `XMZ^XMA2`, however, if the stub creation fails, your process will halt.
 *Recommend you use `XMZ^XMA2` or `CRE8XMZ^XMXAPI`.*
- `XMZ^XMA2` Create a new message stub in the MESSAGE file (#3.9).
- `$$SUBCHK^XMGAPI0` Validates the message subject and returns the valid subject or an error message.

Creating/Sending/Forwarding a Message

- `WRITE^XMA11A` Interactive send a message.
 *Identical to the Send a Message option (`XMSEND`). It is similar to `ENT^XMD`, however, it does not display the MailMan greeting.*
- `^XMD` Create and send a message.
- `EN1^XMD` Add text to a message, address it, and send it.
- `ENL^XMD` Add text to a message.
- `ENT^XMD` Interactive send a message.
 *Identical to the Send a Message option (`XMSEND`).*
- `ENT1^XMD` Forward a message. Addressing restrictions are waived.
- `ENT2^XMD` Forward a message. If `'$D(ZTQUEUED)`, prompt for additional recipients, whether or not any are already defined.

Creating and Sending a PackMan Message

- ENT^XMPG Create and send a PackMan message with globals in it.

Creating and Sending a Reply or Answer

- WRITE^XMA11A Interactive answer a message.
- \$\$ENT^XMA2R Creates and sends a reply to a message and returns the message number of the reply.
- \$\$ENTA^XMA2R Creates and sends an answer to a message and returns the message number of the answer.
- ^XMAH1 Interactive create and send a reply to a message.
- ENTA^XMAH1 Interactive create and send a reply to a message.



Identical to ^XMAH1.

Creating and Sending a Bulletin

- ^XMB Create and send a bulletin in the background.
- BULL^XMB Interactive create and send a bulletin.
- EN^XMB Create and send a bulletin in the foreground.

Address Lookup

- DES^XMA21 Interactive addressing with the *next* default recipient set.
- DEST^XMA21 Interactive addressing with the *first* default recipient set.
- INST^XMA21 Non-interactive addressing.
- WHO^XMA21 Non-interactive addressing.



Identical to INST^XMA21.

Getting Information About a Message

- ENT8^XMAH Interactive display a list of all responses to a message.
- \$\$SUBGET^XMGAPI0 Returns the subject of a message.
- \$\$HDR^XMGAPI2 Sets up an array of information about a message.
- \$\$NET^XMRENT Returns an ^-delimited string of information about a message.

Getting Text From a Message

- `$$READ^XMGAPI1` Returns a line of text from a message.
- `GET^XML` Set up an executable variable, which, when executed, retrieves the next line of text from a message.
- `REC^XMS3` Get a line of text from a message.

Mailbox, Basket, and Message Activities

- `$$NU^XM` Returns the number of new messages the user has, and it may display a message to the user telling how many.
- `REC^XMA` Interactive read/manage messages.
 *Identical to the Read/Manage Messages option (XMREAD).*
- `ENTPRT^XMA0` Interactive print a message.
- `HDR^XMA0` Headerless print a message.
- `PR2^XMA0` Print a message.
- `$$REN^XMA03` Performs an integrity check on a user's basket, resequences messages in a user's basket, and returns a string.
- `KL^XMA1B` Delete a message from a basket.
- `KLQ^XMA1B` Delete a message from a basket and put it in the "WASTE" basket.
- `S2^XMA1B` Put a message in a basket.
- `$$BSKT^XMAD2` Given a basket name and a user's DUZ, look up the basket. If it doesn't exist, create it and return its IEN. If it does exist, return its IEN. If there is an error, return an error message.

Server Message Activities

- `REMSBMSG^XMA1C` Delete a message from a Postmaster server basket.
- `SETSB^XMA1C` Put a message into a Postmaster server basket.
- `$$SRVTIME^XMS1` Sets the LAST READ DATE/TIME (#2) and STATUS (#5) fields of a (server) message recipient in the RECIPIENT multiple of a message in the MESSAGE file (#3.9).
- `$$STATUS^XMS1` Returns the STATUS field (#5) of a (server) message recipient from the RECIPIENT multiple of a message in the MESSAGE file (#3.9).

Mail Group Activities

- `CHK^XMA21` Checks to see if a user is a member of a mail group.
- `$$DM^XMBGRP` Deletes local members from a mail group.
- `$$MG^XMBGRP` Creates a new mail group or adds members to an existing mail group.

Post-Patch 50 APIs

Effective with MailMan V. 7.1 with Patch XM*7.1*50 new APIs have been created. These APIs are similar to VA FileMan APIs, and enable other front ends (e.g., GUI) to be written for MailMan. Where possible, existing MailMan code has been altered to use these APIs.

User Setup (^XMOVITAE)

- INIT Sets up vital user information and should *not* be used for any other purpose.
- OTHER Change certain MailMan settings when the user becomes a surrogate.
- SELF Restore certain MailMan settings when the user becomes himself or herself again, after having been a surrogate.

Message Actions (^XMXAPI)

- ANSRMSG Answer a message (Send a new message, with a copy of the original message to the sender of the original message).
- DELMSG Delete messages from a basket
- FLTRMSG Filter messages in a basket.
- FWDMSG Forward messages from a basket.
- LATERMSG "Later" messages in a basket.
- MOVEMSG Move messages (from one basket) to another basket.
- PRTMSG Print messages.
- PUTSERV Put a message in a server basket.
- REPLYMSG Reply to message (Attach reply to original message).
- SENDBULL Send a bulletin (returns XMZ).
- SENDMSG Send a message.
- TASKBULL Send a bulletin (quicker than SENDBULL, but does *not* return XMZ).
- TERMMSG Terminate messages, possibly from a basket.
- ZAPSERV Delete a message from a server basket.

Message Action Building Blocks (^XMXAPI)

- ADDRNSND Address and send a message (does *not* handle message body).
- CRE8XMZ Create a new message stub in the MESSAGE file (#3.9).
- TOWHOM Check one message addressee.
- VSUBJ Validate a subject.

Mailbox Actions (^XMXAPIB)

- CRE8MBOX Create a mailbox for a user.
- FLTRMBOX Filter all messages in a user's mailbox.
- QMBOX Query a mailbox for new messages.
- TERMMBOX Remove all traces of a user from MailMan globals.

Basket Actions (^XMXAPIB)

- CRE8BSKT Create a basket.
- DELBSKT Delete a user's basket.
- FLTRBSKT Filter messages in a basket.
- LISTBSKT Get a list of baskets in a mailbox.
- LISTMSGS Get a list of messages in one or all baskets in a mailbox. Search criteria can be used.
- NAMEBSKT Change the name of a basket.
- QBSKT Get information on a basket.
- RSEQBSKT Resequence messages in a basket.

Mail Group Functions and Actions (^XMXAPIG)

- \$\$GOTLOCAL Determine if a mail group has *active* local members.

Interactive User Options/Actions (^XM & ^XMXAPIU)

^XM

- EN Meant to be the entry action of the primary MailMan option. It sets up the user's MailMan environment and calls HEADER^XM to greet the user.
- CHECKIN Meant to be the entry action of any subordinate MailMan option.
- CHECKOUT Meant to be the exit action of every MailMan option.
- HEADER Meant to be part of the entry action of the primary MailMan option, whether called by itself or as part of another call (e.g., EN^XM). It displays a greeting to the user.

^XMXAPIU

- READ Read/Manage messages in your mailbox.
- READNEW Read new messages in your mailbox.
- SEND Send a message.
- TOWHOM Ask user for message addressees.

Message Editing Routines (^XMXEDIT)

- CLOSED Toggle the message's "closed" flag.
- CONFID Toggle the message's "confidential" flag.
- CONFIRM Toggle the message's "confirm receipt requested" flag.
- DELIVER Set/Delete the message delivery basket for all users.
- INFO Toggle the message's "information only" flag.
- PRIORITY Toggle the message's "priority" flag.
- SUBJ Change the message subject.
- TEXT Replace the message text.
- VAPOR Set/Delete the message vaporize date.

Message Security and Restrictions Functions and Routines (^XMXSEC)

- \$\$ACCESS Returns whether the user may access a message.
- \$\$ANSWER Returns whether the user may answer a message.
- \$\$BCAST Returns whether a message was broadcast.
- \$\$CLOSED Returns whether a message is closed.
- \$\$CONFID Returns whether a message is confidential.
- \$\$CONFIRM Returns whether a message is confirm receipt requested.
- \$\$COPY Returns whether the user may copy a message.
- \$\$DELETE Returns whether the user may delete or terminate a message.
- \$\$FORWARD Returns whether the user may forward a message.
- \$\$INFO Returns whether a message is information only.
- \$\$LATER Returns whether the user may later a message.
- \$\$MOVE Returns whether the user may save or filter a message.
- \$\$ORIGIN8R Returns whether the user (XMDUZ or DUZ) sent the message (sender or surrogate).

- `$$POSTPRIV` Returns whether the user has Postmaster privileges, including whether the user may perform group message actions in `SHARED,MAIL`.
- `$$PRIORITY` Returns whether a message is priority.
- `$$READ` Returns whether the user may read a message.
- `$$REPLY` Returns whether the user may reply to a message.
- `$$RPRIV` Returns whether the surrogate has `READ` privileges.
- `$$RWPRIV` Returns whether the surrogate has `READ` or `WRITE` privileges.
- `$$SEND` Returns whether the user may send a message.
- `$$SURRACC` Returns whether the surrogate may access a message.
- `$$SURRCONF` Returns whether a message is confidential, and if it is, whether the surrogate may access it.
- `$$WPRIV` Returns whether the surrogate has `WRITE` privileges.
- `$$ZCLOSED` Returns whether a message is closed.
- `$$ZCONFID` Returns whether a message is confidential.
- `$$ZCONFIRM` Returns whether a message is confirm receipt requested.
- `$$ZINFO` Returns whether a message is information only.
- `$$ZORIGIN8` Returns whether the user (`XMDUZ` or `DUZ`) sent the message (sender or surrogate).
- `$$ZPOSTPRV` Returns whether the user has Postmaster privileges, including whether the user may perform group message actions in `SHARED,MAIL`.
- `$$ZPRI` Returns whether a message is priority.

Message Security and Restrictions Functions and Routines (^`XMSEC1`)

- `$$COPYAMT` When copying a message, this function checks the total number of lines and responses to be copied.
- `$$COPYLIMS` When copying a message, this function returns the sites message copy limits.
- `$$COPYRECP` When copying a message, this function checks the total number of recipients on the message to see if it's "OK" to list them in the copy text and also send the copy to them.
- `$$PAKMAN` Returns whether a message is a PackMan message.
- `CHKLINES` Checks whether the message is too long to be sent to a remote site.
- `CHKMSG` Checks whether a message is located where the calling routine says it is and whether the user may access it.
- `GETRESTR` Returns assorted restrictions, if any, on sending or forwarding the message.
- `OPTGRP` Determines what the user may do at the basket or message group level.

Message Security and Restrictions Functions and Routines (^XMXSEC2)

- `$$EDIT` Returns whether the user may edit a message.
- `OPTEDIT` If `OPTMSG^XMXSEC2` determines that the user may edit the message, then this routine details what exactly the user may and may not edit.
- `OPTMSG` Determines what the user may do with the message.

Message and Mailbox Utility Functions and Routines (^XMXUTIL)

- `$$BMSGCT` Returns the number of messages in a user's basket.
- `$$BNMSGCT` Returns the number of new messages in a user's basket.
- `$$BSKTNAME` Returns the name of a user's basket.
- `$$NAME` Returns the name of the user by looking up `XMDUZ` in the `NEW PERSON` file (#200). Optionally, it may also return the user's title and/or institution.
- `$$NETNAME` Returns the network name of a user, including the @site name.
- `$$NEWS` Returns the information on new messages in a user's mailbox.
- `$$TMSGCT` Returns the total number of messages in a user's mailbox.
- `$$TNMSGCT` Returns the total number of new messages in a user's mailbox.
- `KVAPOR` Sets/Removes a message vaporize date in a user's basket.
- `LASTACC` Records that the user has read the message.
- `MAKENEW` Makes a message new and updates the new message counts.
- `NONEW` Makes a message *not* new and updates the new message counts.
- `PAGE` Displays to the user: "Enter RETURN to continue or '^' to exit:" and waits until the user presses a key.
- `WAIT` Displays to the user: "Press RETURN to continue:" and waits until the user presses a key.

Date and String Utility Functions and Routines (^XMXUTIL1)

- `$$CONVERT` Given the Internet date/time string, it returns the VA FileMan date/time.
- `$$CTRL` Strips the control characters from a string.
- `$$DECODEUP` Change all `~U~` to `^` in a string.
- `$$ENCODEUP` Change all `^` to `~U~` in a string.
- `$$GMTDIFF` Given the time zone, it returns `+ -hhmm` difference from Greenwich Mean Time (GMT).

- **\$\$INDT** Given the VA FileMan date/time, it returns the Internet date/time string: **dd mm yyy hh:mm:ss +-hhmm (time zone)**.
- **\$\$MAXBLANK** Reduce all three or more consecutive blanks in a string to two.
- **\$\$MELD** Combine a string and a number to form a new string of a given length.
- **\$\$MMDT** Given the VA FileMan date/time, it returns the string: **dd mmm yy hh:mm**.
- **\$\$SCRUB** Strips the control characters and leading/trailing blanks from a string.
- **\$\$STRIP** Strips the leading/trailing blanks from a string.
- **\$\$TIMEDIFF** Given the decimal time difference, it returns **+hhmm** (e.g. -2.5 equates to -0230).
- **\$\$TSTAMP** Returns a timestamp (**\$H** expressed in seconds).
- **ZONEDIFF** Given the time zone (or time difference **+hhmm** from GMT), it returns the number of hours and minutes difference between that and the local time zone.

Message Information Functions and Routines (^XMXUTIL2)

- **\$\$BSKT** Returns in which basket a message is located for a user.
- **\$\$DATE** Returns the message sent date in external format: **DD MMM YY HHJ:MM**.
- **\$\$FROM** Returns the message from in external format.
- **\$\$KSEQN** Returns the sequence number for a message in this user's basket.
- **\$\$LINE** Returns the number of lines in the text of a message.
- **\$\$NEW** Returns whether the message is new for this user in this basket.
- **\$\$PRI** Returns whether the message is priority.
- **\$\$QRESP** Determines whether a message is a response or not.
- **\$\$RESP** Returns the number of responses to a message.
- **\$\$SUBJ** Returns the message subject in external format.
- **\$\$ZDATE** Returns the message sent date in external format: **DD MMM YY HHJ:MM**.
- **\$\$ZFROM** Returns the message from in external format.
- **\$\$ZNODE** Returns the message zero node: **^XMB(3.9,XMZ,0)**.
- **\$\$ZPRI** Returns whether the message is priority.
- **\$\$ZREAD** Returns the number of responses to a message this user has read.
- **\$\$ZSUBJ** Returns the message subject in external format.
- **INMSG** Message information.



Should only be called for messages, not for responses.

- INMSG1 Message information, Part 1.
 *Should only be called for messages, not for responses.*
- INMSG2 Message information, Part 2.
 *Should only be called for messages, not for responses.*
- INRESP Response information.
 *Should only be called for responses, not for messages.*
- INRESPS How many responses? What's the user read?

Message Information Routines (^XMXUTIL3)

- Q Lists/Finds message addressees.
- QD Lists/Finds message recipients.
- QL Lists/Finds "latered" message addressees.
- QN Get the network header records from a message that originated at a remote site.

External Relations

Only users of MailMan with TCP/IP and Multimedia MailMan need mandatory resources available in order for these features to be properly implemented, used, and maintained. Check the appropriate appendices in this manual for prerequisites.

In order for Multimedia MailMan to work properly, sites must also have access to the IMAGE file (#2005), the NETWORK LOCATION file (#2005.2), and the Radiology package.

DBA Approvals and Database Integration Agreements (DBIAs)

To obtain the current list of active DBIAs of which MailMan is a custodian:

1. Sign on to the **FORUM** system.
2. Select the **DBA menu**.
3. Select the **Integration Agreements Menu**.
4. Select the **Custodial Package Menu**.
5. Choose the **ACTIVE by Custodial Package option**.
6. When this option prompts you for a package, enter **MAILMAN**.
7. All current DBIAs for which the MailMan package is custodian are listed.

To obtain detailed information on a specific integration agreement:

1. Sign on to the **FORUM** system.
2. Select the **DBA menu**.
3. Select the **Integration Agreements Menu**.
4. Choose the **Inquire option**.
5. When prompted with "Select INTEGRATION REFERENCES:", enter the **integration agreement number of the DBIA you would like to display**.
6. The full text of the requested DBIA will be displayed.

To obtain the current list of DBIAs that MailMan is a subscriber to:

1. Sign on to the **FORUM** system.
2. Select the **DBA menu**.
3. Select the **Integration Agreements Menu**.
4. Select the **Subscriber Package Menu**.
5. Choose the **Print ACTIVE by Subscribing Package option**.
6. When prompted with "START WITH SUBSCRIBING PACKAGE: FIRST//", enter **MAILMAN** (in uppercase). Then, when prompted with "GO TO SUBSCRIBING PACKAGE: LAST//", enter **MAILMAN** (in uppercase).
7. All current DBIAs to which the MailMan package is a subscriber are listed.

Internal Relations

Pointer Relationships

The following pages contain a diagram of the pointer relationships between fields in MailMan's files. As files are added to a system, new pointer relationships can be created; thus, the actual map for an operational system may differ.

This diagram was created using the Map Pointer Relations option on the VA FileMan Data Dictionary Utilities submenu.



For more information about creating and reading this map, please refer to the "Map Pointer Relations option" topic in the "List File Attributes" chapter in the "File Management" section of the "VA FileMan Advanced Users Manual."

Files Included

<u>File Number</u>	<u>File Name</u>
3.4	COMMUNICATIONS PROTOCOL
3.6	BULLETIN
3.7	MAILBOX
3.73	MESSAGES TO BE NEW AT A LATER DATE
3.8	MAIL GROUP
3.816	DISTRIBUTION LIST
3.9	MESSAGE
4.2	DOMAIN
4.281	INTER-UCI TRANSFER
4.2995	MAILMAN OUTSTANDING FTP TRANSACTIONS
4.2996	INTERNET SUFFIX
4.2997	REMOTE USER DIRECTORY
4.2998	MESSAGE DELIVERY STATS
4.2999	MESSAGE STATISTICS
4.3	MAILMAN SITE PARAMETERS
4.4	MAILMAN TIME ZONE
4.5	NETWORK TRANSACTION
4.501	NETWORK SENDERS REJECTED
4.6	TRANSMISSION SCRIPT

Pointer Relationship Map

File/Package: MAILMAN		Date: APR 29,1999	
FILE (#)	POINTER TYPE	(#) FILE POINTER FIELD	FILE POINTED TO
L=Laygo *=Truncated		S=File not in set m=Multiple	
		N=Normal Ref. v=Variable Pointer	

OPTION (#19)			
SERVER BULLETIN	(N S L)->	3.6 BULLETIN m MAIL G:MAIL G*	-> MAIL GROUP

		3.7 MAILBOX	
		NAME	-> NEW PERSON
		LAST MAILMAN A*	-> NEW PERSON
		MESSAGE BEING *	-> MESSAGE
		MESSAGE BEING *	-> MESSAGE
		BASK:MESS:MESS*	-> MESSAGE
		m SURROG:SURROG*	-> NEW PERSON

		3.73 MESSAGES T*	
		USER	-> NEW PERSON
		MESSAGE	-> MESSAGE

BULLETIN (#3.62)			
MAIL GROUP	(N L)->	3.8 MAIL GROUP	
MAIL GROUP (#3.811)			
MEMBER GR:MEMBER GROU*	(N C)->	ORGANIZER	-> NEW PERSON
OPTION (#19)			
SERVER MAIL GROUP	(N S L)->	COORDINATOR	-> NEW PERSON
CM SITE PARAMETERS (#8986.095)			
MAILGROUP FOR REPORTS/*	(N S L)->	m AUTHOR:AUTHOR*	-> NEW PERSON
MAILGROUP FOR REMOTE X*	(N S L)->	m MEMBER:MEMBER	-> NEW PERSON
		m MEMBER:MEMBER*	-> MAIL GROUP
		m DISTRI:DISTRI*	-> DISTRIBUTION LI*
		m FAX RE:FAX RE*	-> FAX ROLODEX
		m FAX GR:FAX GR*	-> FAX GROUP

MAIL GROUP (#3.813)			
DISTRIBUTION LIST	(N C L)->	3.816 DISTRIBUT*	
		m DOMAIN:DOMAIN	-> DOMAIN

FILEGRAM HISTORY (#1.12)			
MESSAGE	(N S)->	3.9 MESSAGE	
MAILBOX (#3.7)			
MESSAGE BEING EDITED .	(N C L)->	ORIGINAL MESSA*	-> MESSAGE
MESSAGE BEING RESPONDE*	(N L)->	m RESPON:RESPON*	-> MESSAGE
BASKET:MESSAGE	(N)->	RECIPIENT:PATH	-> DOMAIN
MESSAGES TO BE NEW A (#3.73)			
MESSAGE	(N)->	RECIPI:FORWAR*	-> NEW PERSON
MESSAGE (#3.9)			
ORIGINAL MESSAGE	(N)->	RECIPI:FAX RE*	-> FAX ROLODEX
RESPONSE	(N)->	LATER :BY WHO*	-> NEW PERSON
		m OBJECT:OBJECT*	-> *** NONEXISTENT*

DISTRIBUTION LIST (#3.8161)		
DOMAIN (N C)->	4.2 DOMAIN	
MESSAGE (#3.91)		
RECIPIENT:PATH (N)->	RELAY DOMAIN	-> DOMAIN
INSTITUTION (#4)		
DOMAIN (N S)->		
DOMAIN (#4.2)		
RELAY DOMAIN (N L)->		
MESSAGE STATISTICS (#4.2999)		
NAME (N C)->		
MAILMAN SITE PARAMET (#4.3)		
DOMAIN NAME (N C)->		
PARENT (N C)->		
SUBORDINATE DOMAIN ... (N)->		
KERNEL SYSTEM PARAME (#8989.3)		
DOMAIN NAME (N S C)->		
RPC BROKER SITE PARA (#8994.1)		
DOMAIN NAME (N S C)->		
	4.2995 MAILMAN *	
	USER	-> NEW PERSON
	IMAGE	-> *** NONEXISTENT*
	4.2999 MESSAGE *	
	NAME	-> DOMAIN
	4.3 MAILMAN SIT*	
	DOMAIN NAME	-> DOMAIN
	TIME ZONE	-> MAILMAN TIME ZO*
	PARENT	-> DOMAIN
	DEFAULT INSTIT*	-> INSTITUTION
	m SUBORD:SUBORD*	-> DOMAIN
	SUBORD:CHRIST*	-> NEW PERSON
MAILMAN SITE PARAMET (#4.3)		
TIME ZONE (N C)->	4.4 MAILMAN TIM*	

Templates

SORT Templates

XMMGR-BKfiler-DAY@23:30

```

FILE NAME: MESSAGE DELIVERY STATS
FILE NUMBER: 4.2998
READ ACCESS:
WRITE ACCESS:
DESCRIPTION: This template is used to produce a report that lists the number of
messages that were created in a month, a day at a time.

SORT BY: DATE/TIME//      (User is asked range)
        WITHIN DATE/TIME, SORT BY: '$E($P(INTERNAL(DATE/TIME),".",2),1,3)=233;L1//
From '0' To '1'

```

XMMGR-BKfiler-TIME_PER_DATE

```

FILE NAME: MESSAGE DELIVERY STATS
FILE NUMBER: 4.2998
READ ACCESS:
WRITE ACCESS:
DESCRIPTION: This template allows information in a time oriented file to
generate output from a beginning time to and ending time.

SORT BY: @DATE/TIME//      (User is asked range)
        WITHIN DATE/TIME, SORT BY: @$E($P(INTERNAL(DATE/TIME),".",2),1,3)// (User is
asked range)

```

PRINT Templates

XMHOSTLIST

```

FILE NAME: DOMAIN
FILE NUMBER: 4.2
READ ACCESS:
WRITE ACCESS:
DESCRIPTION: This template may be used to produce a list of domains with
pertinent network routing information.

FIRST PRINT FIELD: NAME;L10//
THEN PRINT FIELD: STATION;"STATION";R5//
THEN PRINT FIELD: DHCP ROUTING INDICATOR;"DHCP";L6//
THEN PRINT FIELD: MAILMAN HOST;"HOST";R8//
THEN PRINT FIELD: MCTS ROUTING INDICATOR;"MCST";L6//

```

XMMGR-BKFILER-ACTIVE_USERS/DEL

```
FILE NAME: MESSAGE DELIVERY STATS
FILE NUMBER: 4.2998
READ ACCESS:
WRITE ACCESS:
DESCRIPTION: This template is used to display active users and message delivery
information.

FIRST PRINT FIELD: DATE/TIME//
THEN PRINT FIELD: ACTIVE USERS#//
THEN PRINT FIELD: TOTAL QUEUE LENGTH#//
THEN PRINT FIELD: MESSAGE DELIVERIES MADE#//
THEN PRINT FIELD: RESPONSE DELIVERIES MADE#//
THEN PRINT FIELD: MESSAGE DELIVERIES IN QUEUE#//
THEN PRINT FIELD: RESPONSE DELIVERIES IN QUEUE#//
```

XMMGR-BKFILER-DEL_BY_GROUP

```
FILE NAME: MESSAGE DELIVERY STATS
FILE NUMBER: 4.2998
READ ACCESS:
WRITE ACCESS:
DESCRIPTION: This template is used to generate output mail deliveries by
delivery group. It will output two message delivery groups columns and three
response delivery groups.

FIRST PRINT FIELD: DATE/TIME//
THEN PRINT FIELD: QUEUED DELIVERIES MESSAGE G1#//
THEN PRINT FIELD: QUEUED DELIVERIES MESSAGE G2#//
THEN PRINT FIELD: QUEUED DELIVERIES RESPONSE G1#//
THEN PRINT FIELD: QUEUED DELIVERIES RESPONSE G2#//
THEN PRINT FIELD: QUEUED DELIVERIES RESPONSE G3#//
```

XMMGR-BKFILER-LENGTH_OF_QUEUES

```
FILE NAME: MESSAGE DELIVERY STATS
FILE NUMBER: 4.2998
READ ACCESS:
WRITE ACCESS:
DESCRIPTION: This template is used to output the length of mail delivery queues.
Each queue is a column and two messages and three response columns are displayed.

FIRST PRINT FIELD: DATE/TIME//
THEN PRINT FIELD: TOTAL QUEUE LENGTH#//
THEN PRINT FIELD: MESSAGE NUMBER GROUP1#//
THEN PRINT FIELD: MESSAGE NUMBER GROUP2#//
THEN PRINT FIELD: RESPONSE NUMBER GROUP1#//
THEN PRINT FIELD: RESPONSE NUMBER GROUP2#//
THEN PRINT FIELD: RESPONSE NUMBER GROUP3#//
```

XMMGR-BKFLER-LONGTERM-STATS

```
FILE NAME: MESSAGE DELIVERY STATS
FILE NUMBER: 4.2998
READ ACCESS:
WRITE ACCESS:
DESCRIPTION: This template is used to output statistics of mail deliveries by
month.

FIRST PRINT FIELD: DATE/TIME//
THEN PRINT FIELD: MESSAGE NUMBER LAST ASSIGNED//
THEN PRINT FIELD: W:$S('$D(XMLLAST):0,$P(X,U,11)-XMLLAST>999999:0,$P(X,U,11)-
XMLLAST>0:1,1:0) $P(X,U,11)-XMLLAST S XMLLAST=$P(X,U,11);"New Messages"//
```

XMMGR-BKFILER-OLD_STATS/TABBED

```

FILE NAME: MESSAGE DELIVERY STATS
FILE NUMBER: 4.2998
READ ACCESS:
WRITE ACCESS:
DESCRIPTION: This template will produce a report just like the XMMGR-BKFILER-
STATS-PLUS template, except the output for this template generates is formatted
for capture into a file that can then easily be converted into a graphical
display.

FIRST PRINT FIELD: DATE(#.01);L12//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: TIME(#.01)//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: S %XMNORMAL=$S($D(^XMB(1,1,120001)):^(120001),1:"");X//
THEN PRINT FIELD: ACTIVE USERS;L6//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: W $J($S('D(X):.1,X=0:.1,1:X)/%XMNORMAL,4,2);X//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: LINES OUTPUT;R6//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: W $J($S('D(X):.1,X=0:.1,1:X)/$P(%XMNORMAL,"",2),8,2);X//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: MESSAGE DELIVERIES MADE;R10//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: S XMTEMP=X;X//
THEN PRINT FIELD: RESPONSE DELIVERIES MADE;R10//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: S Y=X+XMTEMP W
$J($S('D(Y):.1,Y=0:.1,1:Y)/$P(%XMNORMAL,"",3),7,2);X//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: MESSAGE DELIVERIES IN QUEUE;R10//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: S XMTEMP=X;X//
THEN PRINT FIELD: RESPONSE DELIVERIES IN QUEUE;R10//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: S Y=X+XMTEMP W
$J($S('D(Y):.1,Y=0:.1,1:Y)/$P(%XMNORMAL,"",4),7,2);X//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: RESPONSE TIME - AVERAGE;R8//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: W $J($S('D(X):.1,X=0:.1,1:X)/$P(%XMNORMAL,"",5),4,2);X//
THEN PRINT FIELD: K %XMNORMAL;X//

```

XMMGR-BKFILER-QUEUE-WAIT

```

FILE NAME: MESSAGE DELIVERY STATS
FILE NUMBER: 4.2998
READ ACCESS:
WRITE ACCESS:
DESCRIPTION: This template is used to output the time messages are waiting to be
delivered in the mail delivery queues. Each queue is a column and two message
columns and three response columns are displayed.
FIRST PRINT FIELD: DATE/TIME//
THEN PRINT FIELD: TOTAL QUEUE LENGTH#//
THEN PRINT FIELD: MESSAGE AGE GROUP1#//
THEN PRINT FIELD: MESSAGE AGE GROUP2#//
THEN PRINT FIELD: RESPONSE AGE GROUP1#//
THEN PRINT FIELD: RESPONSE AGE GROUP2#//
THEN PRINT FIELD: RESPONSE AGE GROUP3#//

```

XMMGR-BKFILER-STATS-PLUS

```

FILE NAME: MESSAGE DELIVERY STATS
FILE NUMBER: 4.2998
READ ACCESS:
WRITE ACCESS:
DESCRIPTION: This template gives important daily delivery statistics.

FIRST PRINT FIELD: DATE/TIME//
THEN PRINT FIELD: ACTIVE USERS#//
THEN PRINT FIELD: LINES OUTPUT#//
THEN PRINT FIELD: MESSAGE DELIVERIES MADE#//
THEN PRINT FIELD: RESPONSE DELIVERIES MADE#//
THEN PRINT FIELD: MESSAGE AGE GROUP1#//
THEN PRINT FIELD: RESPONSE AGE GROUP1#//
THEN PRINT FIELD: MESSAGE DELIVERIES IN QUEUE#//
THEN PRINT FIELD: RESPONSE DELIVERIES IN QUEUE#//
THEN PRINT FIELD: RESPONSE TIME - AVERAGE#//

```

XMMGR-BKFILER-STATS/TABBED

```

FILE NAME: MESSAGE DELIVERY STATS
FILE NUMBER: 4.2998
READ ACCESS:
WRITE ACCESS:
DESCRIPTION: This template will produce a report just like the XMMGR-BKFILER-
STATS-PLUS template, except the output this template generates is formatted for
capture into a file that can then easily be converted into a graphical display.

FIRST PRINT FIELD: DATE(#.01);L12//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: TIME(#.01)//
THEN PRINT FIELD: S XMTEMP=$P(X,U,21) W $C(9);X//
THEN PRINT FIELD: S %XMNORMAL=$S($D(^XMB(1,1,120001)):^(120001),1:"");X//
THEN PRINT FIELD: ACTIVE USERS;L6//
THEN PRINT FIELD: S Y=$P(X,U,21) W
"A" $C(9)_$J($S($D(Y):.1,Y=0:.1,1:Y)/%XMNORMAL,4,2);X//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: LINES OUTPUT;R6//
THEN PRINT FIELD: W
"L" $C(9)_$J($S($D(Y):.1,Y=0:.1,1:Y)/$P(%XMNORMAL,"",2),8,2);X//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: MESSAGE DELIVERIES MADE;R10//
THEN PRINT FIELD: S XMTEMP=Y;X//
THEN PRINT FIELD: RESPONSE DELIVERIES MADE;R10//
THEN PRINT FIELD: S Y=Y+XMTEMP W
"R" $C(9)_$J($S($D(Y):.1,Y=0:.1,1:Y)/$P(%XMNORMAL,"",3),7,2);X//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: MESSAGE DELIVERIES IN QUEUE;R10//
THEN PRINT FIELD: S XMTEMP=Y;X//
THEN PRINT FIELD: RESPONSE DELIVERIES IN QUEUE;R10//
THEN PRINT FIELD: S Y=Y+XMTEMP W
"Q" $C(9)_$J($S($D(Y):.1,Y=0:.1,1:Y)/$P(%XMNORMAL,"",4),7,2);X//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: RESPONSE TIME - AVERAGE;R8//
THEN PRINT FIELD: W
"T" $C(9)_$J($S($D(Y):.1,Y=0:.1,1:Y)/$P(%XMNORMAL,"",5),4,2);X//
THEN PRINT FIELD: K %XMNORMAL;X//

```

XMMGR-BKFILER-TABBED-RT

```

FILE NAME: MESSAGE DELIVERY STATS
FILE NUMBER: 4.2998
READ ACCESS:
WRITE ACCESS:
DESCRIPTION: This template provides information about daily response time.

FIRST PRINT FIELD: DATE/TIME;X//
THEN PRINT FIELD: $C(9);X//
THEN PRINT FIELD: RESPONSE TIME - AVERAGE//

```

Options—Not Independent

The following options whose names begin with XMP and XMDX *cannot* be independently invoked or are for developer/support debugging only. They will *not* appear on any menu. The following XMP options (except for XMPOST) are PackMan options and are used from the menus executed from ^DOPT("XMP").

<u>Option</u>	<u>Description</u>
XMPCOM	Compare message option, compares the message with the currently installed version of the package.
XMPDAT	File load option, loads data according to the Filegram format.
XMPGLO	Global load option, loads data into the message from the global subtree indicated.
XMPINS	Install Package & Run Inits option, installs the package contained in the message into the active area.
XMPOST	Post a bulletin option, allows a user to manually post a bulletin to test its operation.
XMPPRT	Print message (formatted) option, prints the message in a neatly formatted form.
XMPRECV	Package received menu (PackMan) to print, compare, and load PackMan messages.
XMPROU	Routine load option, loads routines from the routine library to the message.
XMPSEND	Send Package transfer (PackMan) menu to load routines, files, globals, and data dictionaries.
XMPSUM	Summarize message option, summarizes the message, listing each packet in the package, along with its line number.
XMDX	Diagnostics menu to test various components of the MailMan system.
XMDXERROR	Error rate test option— ***OBSOLETE***
XMDXMODEM	Modem Autodialer test option, tests the modem.

Option

Description

XMDXNAME

Name Server option, tests the MailMan Name Server.

XMDXPROT

Physical link protocol option, sends a line of text to the terminal.

XMDXSCRIPT

Script processor option, tests a script.

XMDXSERVER

Server diagnostics option, allows the user to name a server, then type in lines of input, as if the server were reading them from a message.

XMDXSMTP

Simple Mail Transfer Protocol option, allows the user to enter information directly into the Simple Mail Transfer Protocol (SMTP) receiver from the keyboard.

XMDXVADATS

VADATS link test option, tests the VA Data Transmission System (VADATS) link to see if it can be opened, and that the wires, site parameters, and devices are working.

Help Frames

An extensive set of MailMan Help Frames have been created and updated for MailMan V. 7.1 with Patch XM*7.1*50.



For a complete list of Help Frames, please refer to "Appendix A—Help Frames" in this manual.

Package-wide Variables

Standards and Conventions (SAC) Exemptions

The following package-wide variables have received SACC exemptions.

■ STANDARD SECTION: 2A

B,J,V,Z,\$V,\$Z

- Beginning December 14, 1989, MailMan, by virtue of being defined as part of Kernel, can use non-standard **\$Z** functions and non-standard **\$Z** special variables.
- Beginning April 27, 1995, MailMan has an exemption to use **\$ZV** in the **XML*** series of routines that are used for reading and writing data across the network for Patch XM*7.1*8.

■ STANDARD SECTION: 2A

OPEN, CLOSE device

Beginning October 25, 1990, MailMan is exempted from using the device handler to open and close synchronous communications channels to support electronic communications until such time that the VA device handler provides the needed functionality.

Also involved are scripts distributed in the DOMAIN file (#4.2) or the TRANSMISSION SCRIPT file (#4.6). This exemption allows MailMan to set the appropriate IO* variables as needed.

■ STANDARD SECTION: 2D2

*** & # READs**

Beginning March 26, 1990, the following MailMan routines can use * or # READs: XMC1, XMCTLK, XLM, XML1CRC, and XML4CRC*.

■ STANDARD SECTION: 4B

Package-wide variables

Beginning February 9, 1989, XMDUN, XMDUNO, XMDUZ, and XMPRIV are package-wide variables for use in MailMan.

■ STANDARD SECTION: 6D

FM compatibility

- Beginning February 3, 1993, the global **^XMBPOST** is exempted from VA FileMan compatibility in Version 7.1 of MailMan and later. This global will be used to store information concerning mail messages to be posted by MailMan's background filer. It will also temporarily store statistical data concerning mail messages.



*Approval to store statistical data in the **^XMBPOST** global is only granted on a temporary basis. Once Kernel releases the **^XTMP** global the MailMan developers are required to move statistical data from **^XMBPOST** to **^XTMP**.*



*The exemption to store data in a non-VA FileMan global applies only to the data specified in the original request. Any changes in future versions of the MailMan package that change the type of data or increase the nodes/pieces of data to be stored in the **^XMBPOST** global will require a new request for exemption.*



MailMan no longer uses the following globals referenced in this exemption:

- The global **XMB("NOP"**, is exempted from VA FileMan compatibility. It is a temporary list of messages that should *not* be purged.
- The global **XMB("POST"**, is exempted from VA FileMan compatibility. It is a temporary list of messages to be posted by MailMan's background filer. This exemption is for Version 7.0 or earlier of MailMan.
- Beginning August 10, 1989, the global **XMB("PURGE"** is exempt from VA FileMan compatibility.

Software Product Security

Mail Groups and Alerts

MailMan does *not* distribute any mail groups. However, it does provide the capability to create and use mail groups. Also, MailMan does *not* generate alerts.

Remote Systems

MailMan does *not* transmit data to any remote system, facility, or database. However, it does provide the capability to transmit data.

Interfacing

No non-VA products are embedded in or required by MailMan, other than those provided by the underlying operating systems.

Electronic Signatures

Electronic signatures are *not* used within MailMan.

Security Keys

MailMan options are locked with the security keys described below. The keys in the XU namespace are distributed by Kernel; however, they lock MailMan options. MailMan distributes the keys in the XM namespace:

- **XM GROUP PRIORITY** This key allows users to forward priority mail to groups. Without this key, only the sender of a priority message can forward it to groups.
- **XM NO BROADCASTS** This key is used to prevent broadcast messages from being delivered to the user.
- **XMBLOB** This key is used to control access to Multimedia MailMan options (Imaging package).
- **XMMGR** This key is required for options that can remove data from the MailMan system or for options that require most trusted employee status and are used for managing MailMan. This key is also used to control privileges in SHARED,MAIL.
- **XMNET** This key is used to control options that require special privileges for use of network mail. Also, this key can be used to control the ability for users to have and change their forwarding address.
- **XMNOPRIV** This key is used to control privileges in SHARED,MAIL. Without this key, users *cannot* assume the identity of SHARED,MAIL.
- **XMQ- (DOMAIN file Keys)** There are domains in the DOMAIN file (#4.2) whose names begin with "Q-". These are referred to as "Queue Domains". Each has a security key. Each key begins with "XMQ-". For example, if the Domain name is Q-CLM.VA.GOV, the corresponding key is named "XMQ-CLM". Since these domains are used to send data to central collection points, this key prevents users from sending personal messages. Any domain containing FOC-AUSTIN.VA.GOV or Q- should have keys.
- **XMSTAR** This key gives users the ability to broadcast messages to *all* local mail users by entering an asterisk/star ("*") at the "Send to:" prompt.
- **XMSTAR LIMITED** This key gives users the ability to broadcast messages to a *subset* of local mail users by entering an asterisk/star ("*") at the "Send to:" prompt.
- **XMTALK** This key is used to control access to the TalkMan options, which allow users to connect to remote computers via Network Mail scripts.
- **XUPROG** This key is used to allow access to the PackMan options
- **XUPROGMODE** This key is used to allow access to the PackMan options and to control a version of prototype "Answering" of Network Mail.

The MailMan security check involves comparing a message with what is on the disk and ensuring that the message security has not been altered. The security check of a message against its checksums is part of the installation process. DUZ(0)="@" is not necessary to compare, summarize, or "pretty print" a PackMan message. DUZ(0)="@" is necessary for the routine and global load process and to do an installation (after the security check).

The installer and the security checker both resolve the install/check functions using the same option, however, the security checker does not get to do the installation. To access PackMan, a user must hold the XUPROGMODE key. DUZ(0) must equal "@" (i.e., at-sign) in order for PackMan messages to be created or installed.

File Security

MailMan has two levels of VA FileMan file security. MailMan files contain data that are prepared according to VA policy and procedures and therefore require a high level of protection regarding WRITE, DELETE, and LAYGO access.

The following figure indicates the MailMan files with security access. The definitions for each security key attached to these files are:

- # System Manager access
- @ Programmer access

FILES WITH SECURITY ACCESS		MAR 2, 1994 14:18 PAGE 1				
NAME	NUMBER	DD ACCESS	RD ACCESS	WR ACCESS	DEL ACCESS	LAYGO ACCESS
COMMUNICATIONS PROTOCOL	3.4	#		#	#	#
BULLETIN	3.6	#		#	#	
MAILBOX	3.7	#		#	#	#
MESSAGES TO BE NEW AT A LATER	3.73					
MAIL GROUP	3.8	#		#	#	
DISTRIBUTION LIST	3.816					
MESSAGE	3.9					#
DOMAIN	4.2					
INTER-UCI TRANSFER	4.281					
MAILMAN OUTSTANDING FTP TRANSA	4.2995	@	@	@	@	@
INTERNET SUFFIX	4.2996	@	@	@	@	@
REMOTE USER DIRECTORY	4.2997	@	@	@	@	@
MESSAGE DELIVERY STATS	4.2998					
MESSAGE STATISTICS	4.2999					
MAILMAN SITE PARAMETERS	4.3	@	#	#	#	#
MAILMAN TIME ZONE	4.4					
NETWORK TRANSACTION	4.5					
NETWORK SENDERS REJECTED	4.501	@	@	@	@	@
TRANSMISSION SCRIPT	4.6					



Site-specific parameters can be set in the MAILMAN SITE PARAMETERS file (#4.3).

References

The following directive specifies the data archiving and purging process with MailMan:

VHA Directive 10-95-094

Official Policies

No additional legal requirements are imposed on MailMan users, nor does MailMan relieve users of any requirements.

Distribution of the MailMan software is unrestricted.

Glossary

.001 FIELD	A field containing the internal entry number of the record.
.01 FIELD	The one field that must be present for every file and file entry. It is also called the NAME field. At a file's creation the .01 field is given the label NAME. This label can be changed.
APPLICATION PROGRAMMER INTERFACE (API)	Programmer calls provided by MailMan for use by application programmers. APIs allow programmers to carry out standard computing activities without needing to duplicate MailMan utilities in their own packages. APIs also further DBA goals of system integration by channeling activities, such as adding new users, through a limited number of callable entry points.
ASCII	American Standard Code for Information Interchange. A standardized coding scheme that assigns numeric values to letters, numbers, punctuation marks, and other characters to enable computer systems to exchange information.
AT-SIGN ("@")	A VA FileMan security Access Code that gives the user programmer-level access to files and to VA FileMan's developer features. See Programmer Access. Also, the character "@" (i.e., at-sign, Shift-2 key on most keyboards) is used at VA FileMan field prompts to delete data.
BLOB	Binary Large Object (Imaging package).
BOOLEAN EXPRESSION	A logical comparison between values yielding a true or false result. In M, zero means false and non-zero (often one) means true.
BSCP	Block Mode Simple Communications Protocol. A procedure used for message transmission with error checking.
BULLETIN	Electronic mail messages that are automatically delivered by MailMan under certain conditions. For example, a bulletin can be set up to fire when database changes occur, such as adding a record to the file of users. Bulletins are fired by bulletin-type cross-references.
CHECKSUM	The result of a mathematical computation involving the individual characters of a routine or file.

CROSS-REFERENCE	<p>An attribute of a field or a file that identifies an action that should take place when the value of a field is changed. Often, the action is the placement of the field's value into an index. A Traditional cross-reference is defined with a specific field. A New-Style cross-reference is a file attribute and can be composed of one or more fields. New-Style cross-references are stored in the INDEX file (#.11).</p> <p>A cross-reference on a file provides direct access to the entries in several ways. For example, the PATIENT file is cross-referenced by name, Social Security Number (SSN), and bed number. When asked for a patient, the user can then respond with the patient's name, SSN, or bed number. Using cross-references speeds up access to the file for printing reports. A cross-reference is also referred to as an index or cross-index.</p>
DATA DICTIONARY	<p>A Data Dictionary (DD) contains the definitions of a file's elements (fields or data attributes); relationships to other files; and structure or design. Users generally review the definitions of a file's elements or data attributes; programmers review the definitions of a file's internal structure.</p>
DATA DICTIONARY ACCESS	<p>A user's authorization to write, update, and/or edit the data definition for a computer file, also known as DD Access.</p>
DBA	<p>Database Administrator.</p>
DBIA	<p>Database Integration Agreement, a formal understanding between two or more VISTA packages which describes how data is shared or how packages interact. The DBA maintains a list of DBIAs between package developers allowing the use of internal entry points or other package-specific features that are not available to the general programming public.</p>
DOMAIN	<p>A site for sending and receiving mail.</p>
DOUBLE QUOTE (")	<p>A symbol used in front of a Common option's menu text or synonym to select it from the Common menu. For example, the four-character string "TBOX" selects the User's Toolbox Common option.</p>
FIELD	<p>In an entry, a specified area used to hold values. The specifications of each VA FileMan field are documented in the file's data dictionary.</p>
FIELD NUMBER	<p>The unique number used to identify a field in a file. A field can be referenced by "#" followed by the field number.</p>

FREE TEXT	The use of any combination of numbers, letters, and symbols when entering data.												
HELP FRAMES	Entries in the HELP FRAME file (#9.2) that can be distributed with application packages to provide online documentation. Frames can be linked with other related frames to form a nested structure.												
HELP PROMPT	The brief Help that is available at the field level when entering one or more question marks.												
IDCU	The I ntegrated D ata C ommunications U tility that is a wide area network (WAN) used by VA for transmitting data between VA sites.												
INITIALIZATION	The process of setting variables in a program to their starting value.												
INPUT TRANSFORM	An executable string of M code that is used to check the validity of input and converts it into an internal form for storage.												
INTERNAL ENTRY NUMBER	The number used to identify an entry within a file. Every record has a unique internal entry number. Often abbreviated as IEN.												
IRM	I nformation R esource M anagement. A service at VA sites responsible for computer management and system security.												
KERNEL	A set of VISTA software routines that function as an intermediary between the host operating system and the VISTA application packages (e.g., Laboratory, Pharmacy, IFCAP, etc.). Kernel provides a standard and consistent user and programmer interface between application packages and the underlying M implementation. (VA FileMan and MailMan are self-contained to the extent that they can stand alone as verified packages.) Some of Kernel's components are listed below along with their associated namespace assignments: <table data-bbox="641 1459 1047 1669"> <tr> <td>KIDS</td> <td>XPD</td> </tr> <tr> <td>Menu Management</td> <td>XQ</td> </tr> <tr> <td>Tools</td> <td>XT</td> </tr> <tr> <td>Sign-on/Security</td> <td>XU</td> </tr> <tr> <td>Device Handling</td> <td>ZIS</td> </tr> <tr> <td>Task Management</td> <td>ZTM</td> </tr> </table>	KIDS	XPD	Menu Management	XQ	Tools	XT	Sign-on/Security	XU	Device Handling	ZIS	Task Management	ZTM
KIDS	XPD												
Menu Management	XQ												
Tools	XT												
Sign-on/Security	XU												
Device Handling	ZIS												
Task Management	ZTM												
KEY	The purpose of Security Keys is to set a layer of protection on the range of computing capabilities available with a particular software package. The availability of options is based on the level of system access granted to each user.												

KEYWORD	A reference name that calls a Help Frame when entered at a message prompt.								
KEY	A security code that is assigned to individual users. It allows access to options.								
KIDS	K ernel I nstallation & D istribution S ystem.								
LOCAL	The system to which a user is currently signed on.								
LOOKUP	To find an entry in a file using a value for one of its fields.								
MESSAGE-ID	A message identifier which shows the message number and the domain name of the message.								
MIME	M ultipurpose I nternet M ail E xtension. A standard that allows you to create structured message bodies.								
MODEM	A device for connecting a terminal to a telephone line, allowing it to communicate with another modem. Modems include the following types: <table><tr><td><i>Direct Connect</i></td><td>The modem is directly hooked into the phone line.</td></tr><tr><td><i>Acoustic</i></td><td>The modem is connected to the telephone through the handset.</td></tr><tr><td><i>Auto Answer</i></td><td>When it detects a ring signal, the modem will "answer the phone."</td></tr><tr><td><i>Auto Dial</i></td><td>The modem, upon command from the terminal or the computer, will dial another modem.</td></tr></table>	<i>Direct Connect</i>	The modem is directly hooked into the phone line.	<i>Acoustic</i>	The modem is connected to the telephone through the handset.	<i>Auto Answer</i>	When it detects a ring signal, the modem will "answer the phone."	<i>Auto Dial</i>	The modem, upon command from the terminal or the computer, will dial another modem.
<i>Direct Connect</i>	The modem is directly hooked into the phone line.								
<i>Acoustic</i>	The modem is connected to the telephone through the handset.								
<i>Auto Answer</i>	When it detects a ring signal, the modem will "answer the phone."								
<i>Auto Dial</i>	The modem, upon command from the terminal or the computer, will dial another modem.								
MULTIMEDIA MAIL	Multimedia MailMan provides the capability of attaching Binary Large Objects (BLOBs, Imaging package) to MailMan messages so that images, spreadsheets, graphs, and other operating system files that are not pure ASCII text, can be sent and received either locally or across the network.								
MULTIPLE	A DATA TYPE that allows more than one value for a single entry. Also known as a Subfile.								
MUMPS	Abbreviated as M. The American National Standards Institute (ANSI) computer language used by MailMan and throughout VISTA . The acronym MUMPS stands for M assachusetts G eneral H ospital U tility M ulti P rogramming S ystem.								

NAME FIELD	The one field that must be present for every file and file entry. It is also called the .01 field. At a file's creation the .01 field is given the label NAME. This label can be changed.
NAMESPACING	A convention for naming <i>VISTA</i> package elements. The DBA assigns unique character strings for package developers to use in naming routines, options, and other package elements so that packages can coexist. The DBA also assigns a separate range of file numbers to each package.
NULL	Empty. A field or variable that has no value associated with it is null.
ON THE FLY	A term given to the process of not permanently storing data in the data dictionary but having a computation performed at run time.
PATTERN MATCH	In M, an operator that compares the contents of a variable or literal to a specified pattern of characters or kinds of characters.
PERIPHERAL DEVICE	Any hardware device other than the computer itself (central processing unit plus internal memory). Typical examples include card readers, printers, CRT units, and disk drives.
PHYSICAL LINK DEVICE	Hardware used to establish outgoing communication.
"PLAYING A SCRIPT"	A method of opening a transmission link for a message. It is used to force message transmission and testing.
POINTER	Points to another file where the computer stores information needed for the field of the file in which you are currently working. If you change any of the information in the field in which you are working, the new information is automatically entered into the "pointed to" file.
POLLER	An option that opens the transmission line to all domains with "P" in the Flags field.
POSTMASTER	The basket where message queues are stored. Also, the person who manages this basket for a particular site.
PROGRAMMER ACCESS	The ability to use VA FileMan features that are reserved for application developers. Referred to as "having the at-sign ('@')" because the at-sign is the DUZ(0) value that grants programmer access.
PROTOCOL	Code containing logic for opening and closing links, and for sending/receiving transmissions.
PURGE	A procedure used to delete messages or message pointers.

QUEUE	A list that stores messages destined for a given domain.
QUEUING	Requesting that a job be processed in the background rather than in the foreground within the current session. Jobs are processed sequentially (first-in, first-out). Kernel's TaskMan module handles the queuing of tasks.
READ ACCESS	A user's authorization to read information stored in a computer file.
ROUTINE	A program or a sequence of instructions called by a program that may have some general or frequent use. M routines are groups of program lines that are saved, loaded, and called as a single unit via a specific name.
SACC	Standards and Conventions Committee of the Veterans Health Information Systems and Technology Architecture (VISTA).
SCRIPT	A set of MailMan commands and transmission scripts to a remote domain in the DOMAIN file (#4.2).
SERVER	An automatic mail reader for internal messages.
SIGN-ON/SECURITY	The Kernel module that regulates access to the menu system. It performs a number of checks to determine whether access can be permitted at a particular time. A log of signons is maintained.
SYSTEM MANAGER/IRM CHIEF	At each site, the individual who is responsible for managing computer systems, installing and maintaining new modules, and serving as liaison to the CIOFOs.
SMTP	Simple Mail Transport Protocol. The primary transport protocol for MailMan.
SURROGATE	A person who is authorized to read and/or send mail in another user's name.
TASKMAN	The Kernel module that schedules and processes background tasks (also called Task Manager).
TRANSMISSION SCRIPT	List of commands for directing a message stored in the TRANSMISSION SCRIPT field.
TRIGGER	A trigger is an instruction that initiates a procedure. In VA FileMan, a trigger can be set up when entry of data in one field automatically updates a second field value.

VA FILEMAN (ALSO CALLED VA FILEMANAGER)	A set of programs used to enter, maintain, access, and manipulate a database management system consisting of files. A package of online computer routines written in the M language which can be used as a stand-alone database system or as a set of application utilities. In either form, such routines can be used to define, enter, edit, and retrieve information from a set of computer-stored files.
VALIDATION NUMBER	A security check number that <i>must</i> be in both the sending and receiving sites' domains.
VARIABLE	A symbol representing a value that changes during the execution of a routine.
WRAP-AROUND MODE	Text that is fit into available column positions and automatically wraps to the next line, sometimes by splitting at word boundaries (spaces).

Appendix A—Help Frames

This appendix contains the Help Frames available with MailMan V. 7.1 and Patch XM*7.1*50. In some cases, the original Help Frames released with MailMan V. 7.1 in June of 1994 have either been renamed or are now obsolete (i.e., overcome by events [OBE]) and are indicated by ***OBE***.

The following Help Frame naming convention was introduced with the release of Patch XM*7.1*50:

Help Frame Prefix

Description

XM-I

IRM-related Help Frames

XM-I-S-

Site Parameters

XM-U-

User-related Help Frames

XM-U-A-

Address-related Help Frames.

XM-U-B-

Basket-related Help Frames.

XM-U-BO-

Basket Options-related Help Frames

XM-U-H-

Help Option-related Help Frames.

XM-U-H-Q

Frequently Asked Questions-related Help Frames.

XM-U-I-

Information-related Help Frames.

XM-U-K-

KIDS/PackMan-related Help Frames.

XM-U-M-

Message-related Help Frames.

XM-U-MO-

Message Options-related Help Frames.

XM-U-NEW-

New features in MailMan V. 7.1 with Patch XM*7.1*50-related Help Frames

XM-U-P-

Personal Preferences-related Help Frames.

XM-U-Q-

Query/Searching/Lookup-related Help Frames.

XM-U-R-

Reading and Managing Mail-related Help Frames (including New Mail).

Help Frame Name	Help Frame Title
XM-API-DISPLAYS-NUMBER	***OBE***
XM-API-FEATURES	***OBE***
XM-API-FORWARD-MESSAGE	***OBE***
XM-API-MAIL-GROUPS	***OBE***
XM-API-MESSAGE-QUERY	***OBE***
XM-API-REPLYING	***OBE***
XM-API-REQUESTING- INFORMATION	***OBE***
XM-BACKGROUND-FILER	HOW MAILMAN'S BACKGROUND FILER WORKS
XM-CONTROLLED-PRIORITY-MAIL	***OBE***
XM-COORDINATORS	***OBE***
XM-I-S-BIG GROUP SIZE	BIG GROUP SIZE FIELD
XM-I-S-MAX DIGITS FOR MSG NUM	MAX DIGITS FOR MESSAGE NUMBER FD
XM-I-S-MESSAGE LINE LIMIT	P-MESSAGE LINE LIMIT FIELD
XM-I-S-SITE PARAMETERS	MAILMAN SITE PARAMETERS FILE
XM-IN-BASKET-PURGE	HOW THE 'IN' BASKET PURGE WORKS
XM-IN-BASKET-PURGE-1	MESSAGES PURGED BY THE IN-BASKET-PURGE
XM-IN-BASKET-PURGE-2	COMPILING LISTS BY DATE FOR THE IN-BASKET PURGE
XM-IN-BASKET-PURGE-3	IN-BASKET-PURGE MAY ALSO BE RUN ACROSS ALL MAIL BASKETS
XM-INQUIRY	***OBE***
XM-INTERNAL-MESSAGE-NUMBER	***OBE***
XM-LOCAL-LAST-SIGN-ON	REPORT OF MESSAGES AND BASKETS PER USER NOW SHOW LAST SIGNON
XM-LOCAL-RESPONSES	***OBE***

Help Frame Name	Help Frame Title
XM-MASTER	VA ELECTRONIC MAIL SYSTEM
XM-NEW-FEATURES	***OBE***
XM-NEW-FEATURES-7.0	***OBE***
XM-NEW-MAIL-LIST	***OBE***
XM-NEW-VERSION3.1FEATURES	***OBE***
XM-OUTPUT	***OBE***
XM-P-MESSAGE	***OBE***
XM-Q-DELETE	***OBE***
XM-Q-DISAPPEARED	***OBE***
XM-Q-INTERRUPT	***OBE***
XM-Q-LOOKUP	***OBE***
XM-Q-RECAL	***OBE***
XM-Q-REMOVE	***OBE***
XM-Q-REPLIES	***OBE***
XM-QUESTIONS	***OBE***
XM-SENDER-INFORMATION-ONLY	***OBE***
XM-SUGGESTION	***OBE***
XM-U-A-ADDRESS	SENDING A MESSAGE - ADDRESSING
XM-U-A-CC	ADDRESSING A RECIPIENT AS 'CARBON COPY'
XM-U-A-GROUP LARGE	ADDRESSING MAIL TO LARGE MAIL GROUPS
XM-U-A-GROUP LARGE-2	ADDRESSING MAIL TO LARGE MAIL GROUPS (CONTINUED)
XM-U-A-INFO ONLY	ADDRESSING A RECIPIENT AS INFORMATION ONLY
XM-U-A-LOCAL USER NAME	ENTERING A LOCAL USER'S NAME IN MAILMAN

Help Frame Name	Help Frame Title
XM-U-A-LOCAL USER NAME-2	ENTERING A LOCAL USER'S NAME (CONTINUED)
XM-U-A-STAGGER DELIVERY	STAGGER DELIVERY OF A MESSAGE
XM-U-A-STAGGER DELIVERY-2	STAGGER DELIVERY OF A MESSAGE (CONTINUED)
XM-U-B-BASKET CONTENTS LIST	DIRECTORY OF BASKETS
XM-U-B-BASKET NAME	NAMING BASKETS
XM-U-B-BASKET NAME CHANGE	CHANGE A MAIL BASKET NAME
XM-U-B-BASKET SELECT	RESPONDING TO THE 'MAIL BASKET' PROMPT
XM-U-B-CHANGE DETAIL	CHANGE DETAIL
XM-U-B-FILTER	FILTERING MESSAGES - BASKET ACTION
XM-U-B-NAVIGATE CLASSIC	READING A MESSAGE AND NAVIGATING IN THE CLASSIC READER
XM-U-B-NAVIGATE FULL SCREEN	READING A MESSAGE AND NAVIGATING IN THE FULL SCREEN READER
XM-U-B-NEW MAIL LIST	LIST OF NEW MESSAGES IN A BASKET
XM-U-B-OPPOSITE TOGGLE	OPPOSITE SELECTION TOGGLE
XM-U-B-READER	MAILMAN MESSAGE READERS
XM-U-B-READER CLASSIC	CLASSIC MESSAGE READER
XM-U-B-READER DETAILED	DETAILED MESSAGE INFORMATION
XM-U-B-READER DETAILED LIST	DETAILED INFORMATION DISPLAYED WITH MESSAGE LISTS
XM-U-B-READER DIFF	BASKET ACTION CODES
XM-U-B-READER DIFF-2	BASKET ACTION CODES (CONTINUED)
XM-U-B-READER DIFF-3	BASKET ACTION CODES (CONTINUED)
XM-U-B-READER FULL SCREEN	FULL SCREEN MESSAGE READER
XM-U-B-READER SUMMARY	SUMMARY MESSAGE INFORMATION

Help Frame Name	Help Frame Title
XM-U-B-RESEQUENCE MESSAGES	RESEQUENCING MESSAGE NUMBERS
XM-U-B-XMIT PRIORITY TOGGLE	TOGGLING MESSAGE TRANSMISSION PRIORITY
XM-U-B-XMIT PRIORITY TOGGLE-2	TOGGLING MESSAGE TRANSMISSION PRIORITY (CONTINUED)
XM-U-B-ZOOM TOGGLE	ZOOM SELECTION TOGGLE
XM-U-BO-CLASSIC	CLASSIC READER BASKET MESSAGE ACTIONS
XM-U-BO-CLASSIC-2	CLASSIC READER BASKET MESSAGE ACTIONS (CONTINUED)
XM-U-BO-FULL SCREEN	FULL SCREEN READER BASKET MESSAGE ACTIONS
XM-U-BO-FULL SCREEN LIST	FULL SCREEN READER MESSAGE LIST ACTIONS
XM-U-BO-FULL SCREEN-2	FULL SCREEN READER BASKET MESSAGE ACTIONS (CONTINUED)
XM-U-H-GROUP	MAIL GROUP INFORMATION
XM-U-H-GROUP-2	MAIL GROUP INFORMATION (CONTINUED)
XM-U-H-GROUP-3	MAIL GROUP INFORMATION (CONTINUED)
XM-U-H-GROUP-4	MAIL GROUP INFORMATION (CONTINUED)
XM-U-H-Q DELETE	DELETED MESSAGES
XM-U-H-Q DISAPPEARED	'DISAPPEARED' MESSAGES WHICH HAVE NOT BEEN DELETED
XM-U-H-Q INTERRUPT	INTERRUPTED MESSAGES
XM-U-H-Q LOOKUP	LOOKING UP A MESSAGE TO BE READ
XM-U-H-Q RECALL	RECALLING OR EDITING A MESSAGE AFTER TRANSMISSION
XM-U-H-Q REMOVE	REMOVING A RECIPIENT FROM THE LIST
XM-U-H-Q REPLIES	REPLIES TO A MESSAGE FROM AN UNKNOWN RECIPIENT

Help Frame Name	Help Frame Title
XM-U-H-QUESTIONS	FREQUENTLY ASKED QUESTIONS ABOUT MAILMAN
XM-U-H-USER	USER INFORMATION
XM-U-I-EDITOR FM LINE	VA FILEMAN LINE EDITOR
XM-U-I-EDITOR FM SCREEN	VA FILEMAN SCREEN EDITOR
XM-U-I-GROUP	MAIL GROUPS
XM-U-I-GROUP COORDINATOR	MAILMAN MAIL GROUP COORDINATORS
XM-U-I-GROUP MEMBER	MEMBERS OF MAIL GROUPS
XM-U-I-GROUP-2	MAIL GROUPS (CONTINUED)
XM-U-I-SHARED MAIL	SHARED,MAIL - A LIBRARY OF MESSAGES
XM-U-I-SURROGATE	MAILMAN SURROGATES
XM-U-I-SURROGATE BECOME	BECOMING A SURROGATE
XM-U-I-SURROGATE-2	MAILMAN SURROGATES (CONTINUED)
XM-U-I-SURROGATE-3	MAILMAN SURROGATES (CONTINUED)
XM-U-I-SURROGATE-4	MAILMAN SURROGATES (CONTINUED)
XM-U-K-PACKMAN COMPARE	COMPARE PACKMAN MESSAGE ROUTINES AGAINST THOSE INSTALLED NOW
XM-U-K-PACKMAN INSTALL	INSTALLING A PACKMAN MESSAGE
XM-U-K-PACKMAN LOAD GLOBALS	LOADING GLOBAL DATA INTO A PACKMAN MESSAGE
XM-U-K-PACKMAN LOAD PACKAGE	LOADING AN ENTIRE PACKAGE INTO A PACKMAN MESSAGE
XM-U-K-PACKMAN LOAD ROUTINES	LOADING ROUTINES INTO PACKMAN MESSAGES
XM-U-K-PACKMAN PRINT	PRINTING PACKMAN MESSAGES
XM-U-K-PACKMAN SUMMARIZE	SUMMARIZE PACKMAN MESSAGE
XM-U-M-ANSWER	ANSWERING A MESSAGE (INTERNET STYLE)

Help Frame Name	Help Frame Title
XM-U-M-BACKUP	BACKING UP THE MESSAGE DISPLAY
XM-U-M-BACKUP BEFORE SENDING	BACKUP A MESSAGE TO REVIEW BEFORE SENDING
XM-U-M-BROWSER	PRINTING TO THE BROWSER
XM-U-M-CHOOSE RANGE	SPECIFYING A LIST OR RANGE OF MESSAGES
XM-U-M-CHOOSE RESPONSES	SPECIFYING A LIST OR RANGE OF RESPONSES
XM-U-M-CHOOSE SELECT	SELECTING MESSAGES
XM-U-M-CHOOSE SELECT-2	SELECTING MESSAGES (CONTINUED)
XM-U-M-CLOSED	CLOSED MESSAGES
XM-U-M-CONFIDENTIAL	MAKING A MESSAGE CONFIDENTIAL
XM-U-M-CONFIRM RECEIPT	REQUESTING CONFIRMATION BEFORE SENDING A MESSAGE
XM-U-M-COPY	COPYING A MESSAGE INTO A NEW MESSAGE
XM-U-M-COPY-2	RESPONSES TO THE COPY OPTION PROMPTS
XM-U-M-DELETE	DELETING MESSAGES
XM-U-M-DELETE-2	DELETING MESSAGES (CONTINUED)
XM-U-M-DELETE-3	DELETING MESSAGES (CONTINUED)
XM-U-M-DELIVERY BASKET SET	DELIVERY BASKET SET OPTION
XM-U-M-EDIT RECIPIENTS	EDIT RECIPIENTS
XM-U-M-EDIT SUBJECT	EDIT THE SUBJECT OF A MESSAGE
XM-U-M-EDIT TEXT	EDIT THE TEXT OF A MESSAGE
XM-U-M-FORWARD	FORWARDING MESSAGES
XM-U-M-FORWARD-2	FORWARDING MESSAGES (CONTINUED)
XM-U-M-INCLUDE MESSAGE	INCLUDING A MESSAGE
XM-U-M-INFO ONLY	MESSAGES MARKED AS INFORMATION ONLY

Help Frame Name	Help Frame Title
XM-U-M-LATER	MAKE MESSAGES NEW LATER
XM-U-M-LATER-2	MAKE MESSAGES NEW LATER (CONTINUED)
XM-U-M-LATER-3	MAKE MESSAGES NEW LATER (CONTINUED)
XM-U-M-LATERED MESSAGE CHANGE	CHANGE/DELETE LATERED MESSAGES
XM-U-M-LATERED MESSAGE REPORT	REPORT ON LATERED MESSAGES
XM-U-M-MESSAGE HEADER	WHAT APPEARS IN THE MESSAGE HEADER
XM-U-M-NETWORK SIGNATURE	ADD YOUR NETWORK SIGNATURE TO A MESSAGE
XM-U-M-NEW	FORCING A MESSAGE TO APPEAR AS NEW
XM-U-M-NEW-2	MAKE NEW MESSAGES NOT NEW AND VICE VERSA (CONTINUED)
XM-U-M-PRINT	PRINTING MESSAGES
XM-U-M-PRINT DEVICE P-MESSAGE	P-MESSAGE DEVICE
XM-U-M-PRINT HEADER	IDENTIFYING YOUR MESSAGE PRINTOUT
XM-U-M-PRINT NO HEADER	HEADERLESS PRINTING
XM-U-M-PRINT NO HEADER-2	HEADERLESS PRINTING (CONTINUED)
XM-U-M-PRINT NO HEADER-3	HEADERLESS PRINTING (CONTINUED)
XM-U-M-PRINT-2	PRINTING MESSAGES (CONTINUED)
XM-U-M-PRIORITY SEND	SENDING MESSAGES WITH A PRIORITY STATUS
XM-U-M-PRIORITY TOGGLE	PRIORITY REPLIES TOGGLE
XM-U-M-QUERY	QUERYING A MESSAGE FOR ITS STATUS
XM-U-M-QUERY DETAILED	DETAILED QUERY ON A MESSAGE
XM-U-M-QUERY GENERAL	GENERAL QUERY ON A MESSAGE
XM-U-M-QUERY INFO BASIC	BASIC QUERY INFORMATION

Help Frame Name	Help Frame Title
XM-U-M-QUERY INFO LOCAL	LOCAL USER QUERY INFORMATION
XM-U-M-QUERY INFO REMOTE	REMOTE USER QUERY INFORMATION
XM-U-M-QUERY NETWORK	NETWORK QUERY ON A MESSAGE
XM-U-M-QUERY NETWORK-2	NETWORK QUERY ON A MESSAGE (CONTINUED)
XM-U-M-QUERY SPECIFIC	SPECIFIC QUERY ON A MESSAGE
XM-U-M-QUERY-2	QUERYING A MESSAGE FOR ITS STATUS (CONTINUED)
XM-U-M-REPLY	REPLYING TO A MESSAGE
XM-U-M-REPLY INCLUDE	INCLUDE PREVIOUS RESPONSES IN YOUR REPLY
XM-U-M-REPLY-2	REPLYING TO A MESSAGE (CONTINUED)
XM-U-M-SAVE	SAVING MESSAGES
XM-U-M-SCRAMBLE	SCRAMBLING A MESSAGE BEFORE SENDING
XM-U-M-SCRAMBLE HINT	RESPONDING TO 'Enter Scramble Hint'
XM-U-M-SCRAMBLE PASSWORD	RESPONDING TO 'Enter Scramble Password'
XM-U-M-SEND	USING THE 'Send a message' OPTION
XM-U-M-TERMINATE	TERMINATING MESSAGES
XM-U-M-TERMINATE-2	TERMINATING MESSAGES (CONTINUED)
XM-U-M-TRANSMIT LATER	SEND A MESSAGE LATER (DEFER)
XM-U-M-TRANSMIT NOW	SEND A MESSAGE NOW ('Transmit Now')
XM-U-M-VAPORIZE DATE EDIT	VAPORIZE MESSAGE WITH AUTOMATIC DELETION DATE
XM-U-M-VAPORIZE DATE SEND	SET A VAPORIZE DATE WHEN SENDING A MESSAGE
XM-U-M-WRITE	SENDING A NEW MESSAGE INSTEAD OF A REPLY
XM-U-M-WRITE-2	SENDING A NEW MESSAGE INSTEAD OF A REPLY (CONTINUED)

Help Frame Name	Help Frame Title
XM-U-MO-EDIT	EDITING A MESSAGE
XM-U-MO-READ	READING A MESSAGE - OPTIONS
XM-U-MO-READ-2	READING A MESSAGE - OPTIONS (CONTINUED)
XM-U-MO-REPLY	REPLYING TO A MESSAGE - OPTIONS AT THE 'Transmit' PROMPT
XM-U-MO-SEND	SENDING A MESSAGE - OPTIONS AT THE 'Transmit' PROMPT
XM-U-MO-SEND-2	MORE MESSAGE OPTIONS
XM-U-NEW FEATURES	NEW FEATURES AND FUNCTIONALITY IN MAILMAN V. 7.1 WITH PATCH 50
XM-U-NEW FEATURES-2	NEW FEATURES AND FUNCTIONALITY (CONTINUED)
XM-U-NEW FEATURES-3	NEW FEATURES AND FUNCTIONALITY (CONTINUED)
XM-U-NEW FEATURES-4	NEW FEATURES AND FUNCTIONALITY (CONTINUED)
XM-U-NEW FEATURES-5	NEW FEATURES AND FUNCTIONALITY (CONTINUED)
XM-U-P-ASK BASKET	THE 'ASK BASKET' PROMPT
XM-U-P-BANNER	THE MAILMAN BANNER
XM-U-P-DELIVERY BASKET PRIV	DELIVERY BASKET PRIVILEGES
XM-U-P-EDITOR	PREFERRED EDITOR
XM-U-P-FILTER	FILTERING MAIL
XM-U-P-FILTER ACTIONS	FILTERING MAIL ACTIONS
XM-U-P-FILTER CRITERIA	FILTERING MAIL CRITERIA
XM-U-P-FILTER CRITERIA-2	FILTERING MAIL CRITERIA (CONTINUED)
XM-U-P-FILTER ORDER	FILTERING MAIL - ORDER FIELD
XM-U-P-FILTER-2	FILTERING MAIL (CONTINUED)

Help Frame Name	Help Frame Title
XM-U-P-FILTER-3	FILTERING MAIL (CONTINUED)
XM-U-P-FORWARDING ADDRESS	HOW TO USE THE FORWARDING ADDRESS
XM-U-P-GROUP ENROLL	PUBLIC MAIL GROUPS
XM-U-P-GROUP ENROLL-2	PUBLIC MAIL GROUPS (CONTINUED)
XM-U-P-GROUP PERSONAL	PERSONAL MAIL GROUPS
XM-U-P-GROUP PERSONAL-2	PERSONAL MAIL GROUPS (CONTINUED)
XM-U-P-INSTITUTION	MAILMAN INSTITUTION
XM-U-P-INTRODUCTION	INTRODUCING YOURSELF IN MAILMAN
XM-U-P-MESSAGE ACTION DEFAULT	MESSAGE ACTION DEFAULT
XM-U-P-MESSAGE ORDER	MESSAGE LIST ORDER
XM-U-P-NETWORK SIGNATURE	NETWORK SIGNATURE
XM-U-P-OFFICE INFO	CONTACT INFORMATION
XM-U-P-OPTIONS	PERSONAL PREFERENCES
XM-U-P-OPTIONS-2	PERSONAL PREFERENCES (CONTINUED)
XM-U-P-OPTIONS-3	PERSONAL PREFERENCES (CONTINUED)
XM-U-P-PERSONAL PREFERENCES	PERSONAL PREFERENCES MENU
XM-U-P-P-MESSAGE FROM	P-MESSAGE FROM
XM-U-P-PRIORITY FLAG	PRIORITY RESPONSES FLAG
XM-U-P-PRIORITY PROMPT	PRIORITY RESPONSES PROMPT
XM-U-P-PRIORITY PROMPT-2	PRIORITY RESPONSES PROMPT (CONTINUED)
XM-U-P-READER DEFAULT	DEFAULT MESSAGE READER
XM-U-P-READER PROMPT	MESSAGE READER PROMPT
XM-U-P-SHOW MESSAGE PREVIEW	SHOW MESSAGE PREVIEW
XM-U-P-SHOW TITLES	SHOW TITLES

Help Frame Name	Help Frame Title
XM-U-P-SURROGATE EDIT	SURROGATES - DESIGNATING SURROGATES
XM-U-P-SURROGATE READ PRIV	SURROGATES - READ PRIVILEGES
XM-U-P-SURROGATE WRITE PRIV	SURROGATES - WRITE PRIVILEGES
XM-U-Q-CLASSIC LOOKUP ?	LOOKING FOR MESSAGES WHOSE SUBJECT CONTAINS A SPECIFIC STRING
XM-U-Q-CLASSIC LOOKUP ??	LOOKING FOR MESSAGES WHOSE SUBJECT BEGINS WITH A SPECIFIC STRING
XM-U-Q-REMOTE USER NAME	ENTERING A REMOTE USER'S NAME WHEN FILTERING OR SEARCHING MAIL
XM-U-Q-SEARCH	SEARCHING FOR MESSAGES
XM-U-Q-SEARCH CRITERIA	SEARCHING FOR MESSAGES - SEARCH CRITERIA
XM-U-Q-SEARCH CRITERIA-2	SEARCH CRITERIA (CONTINUED)
XM-U-Q-SEARCH CRITERIA-3	SEARCH CRITERIA (CONTINUED)
XM-U-Q-SEARCH CRITERIA-4	SEARCH CRITERIA (CONTINUED)
XM-U-Q-SEARCH MAILBOX	SEARCHING FOR MESSAGES - SEARCHING YOUR MAILBOX
XM-U-Q-SEARCH SYSTEM	SEARCHING FOR MESSAGES - ANYWHERE ON THE SYSTEM
XM-U-R-NEW LIST ALL	LIST ALL NEW MESSAGES
XM-U-R-NEW LIST BASKETS	LIST BASKETS WITH NEW MAIL
XM-U-R-NEW LIST PRIORITY	LIST ALL PRIORITY MESSAGES
XM-U-R-NEW PRINT	PRINT ALL NEW MESSAGES
XM-U-R-NEW READ	READ NEW MAIL BY BASKET
XM-U-R-NEW SCAN	SCAN ALL NEW MESSAGES
XM-U-R-READ	READING AND MANAGING YOUR MAIL
XM-U-R-READ NEW	PROCESSING NEW MAIL
XM-U-R-READ NEW-2	PROCESSING NEW MAIL (CONTINUED)

Help Frame Name	Help Frame Title
XM-U-R-READ-2	READING AND MANAGING YOUR MAIL (CONTINUED)
XM-U-R-READ-3	READING AND MANAGING YOUR MAIL (CONTINUED)
XMANSWER	***OBE***
XMBULL+	Network Bulletins
XMDOMAIN+	Network Domain Names
XMEDIT	***OBE***
XMFLAGS+	Network Message Flags.
XMGROUPMEMBER	***OBE***
XMHELP	USING MAILMAN
XMHELP-MANUAL	THE ONLINE MAILMAN USER MANUAL
XMHELP2	***OBE***
XMJOIN	***OBE***
XMKEYS+	Network Security Keys
XMMAILGROUP	***OBE***
XMMG-BULLETIN-MANY- MESSAGES	Bulletins Sent to Owners of Many Messages
XMMG-LOCAL-DELIVERY- STATISTICS	Local Mail Delivery Statistics
XMMG-LOCAL-FIRST READ	Records Date and Time Recipients First Read Message
XMMG-LOCAL-FORWARD	Bulletins Automatically Forward to Forwarding Address
XMMG-LOCAL-INTEGRITY	Integrity Checker More Descriptive and Corrects More Errors
XMMG-LOCAL-LARGE-REPORT	Report on Large Messages for System Managers
XMMG-NEW-FEATURES	New Management Features in MailMan V7
XMMG-NEW-FEATURES-7.1	New MailMan Management Features in 7.1

Help Frame Name	Help Frame Title
XMMG-NEW3.1FEATURES	NEW FEATURES FOR MANAGING 3.1 MAILMAN
XMMG-POSTMASTER-BULLETINS	Bulletins from Postmaster are Information Only
XMMG-TYPE	*** OBE ***
XMNET-BLOB-HARDWARE	BLOBs (Binary Large Objects) Message
XMNET-BLOB-NETWORK	Sending and Receiving BLOBs across a Network
XMNET-CASE-SENSITIVE	CASE SENSITIVE ADDRESSING
XMNET-DIRECTORY-REQUEST-FLAG	DIRECTORY REQUEST FLAG
XMNET-ERROR-COMMAND	Network Delivery Script Error (E command)
XMNET-FORWARD-ADDRESS	FORWARD ADDRESSES AUTOMATICALLY VERIFIED
XMNET-FTP-COMPONENTS	Basic components in setting up the Multimedia MailMan
XMNET-FTP-REC-NETWORK-LOCATION	FTP Receive Network Location
XMNET-KERNEL-SITE-PARAMETERS	MAILMAN SITE PARAMETERS FOR NETWORK MAIL
XMNET-LPC-CHECKSUM	LPC CHECKSUM
XMNET-MAIL-NAME	Network Mail Name
XMNET-MAILLINK	Remote Users Directory
XMNET-MAILLINK-ADDRESS	Remote User Address Information
XMNET-MAX-LINES	LIMIT MAXIMUM NUMBER LINES A SITE CAN RECEIVE
XMNET-MAX-TCP-CHANNEL	MAXIMUM NUMBER OF TCP CHANNEL AVAILABLE
XMNET-MULTIMEDIA	HOW MULTIMEDIA MAILMAN WORKS
XMNET-MULTIMEDIA-HARDWARE	The relationships of Multimedia hardware
XMNET-MULTIMEDIA-OVERVIEW	Multimedia Technical Overview

Help Frame Name	Help Frame Title
XMNET-NET-FEATURES-7.1	New Features in MailMan 7.1
XMNET-NEW-FEATURES	New Features in MailMan
XMNET-NEW-FEATURES1	New Features for MailMan V3.2 Network Mail
XMNET-NEW-FEATURES2	New Features for MailMan V3.2 Network Mail
XMNET-NEW-FEATURES3	Additional New Features for Network Mail
XMNET-NEW3.1FEATURES	NEW NETWORK MAIL FEATURES IN 3.1 MAILMAN
XMNET-SENDER-REJECT	NETWORK SENDERS REJECTED NAME
XMNET-SIZE-LIMIT	MAX # OF LINES ALLOWED TO SEND OUT
XMNET-TCP/IP	TCP/IP Channels
XMNET-TIME-ZONE	TIME ZONE FOR THE DOMAIN SITE
XMNETSEND+	SENDING A NETWORK MESSAGE
XMNETWORK*	Network MailMan Overview
XMNEW	***OBE***
XMPACK-COMP	***OBE*** (See XM-U-K-PACKMAN COMPARE)
XMPACK-ENHANCED	***OBE***
XMPACK-GLO	***OBE*** (See XM-U-K-PACKMAN LOAD GLOBALS)
XMPACK-INSTALL	***OBE*** (See XM-U-K-PACKMAN INSTALL)
XMPACK-PACKAGE	***OBE*** (See XM-U-K-PACKMAN LOAD PACKAGE)
XMPACK-PRNT	***OBE*** (See XM-U-K-PACKMAN PRINT)

Help Frame Name	Help Frame Title
XMPACK-ROU	***OBE*** (See XM-U-K-PACKMAN LOAD ROUTINES)
XMPACK-SUM	***OBE*** (See XM-U-K-PACKMAN SUMMARIZE)
XMPACKMAN	PACKMAN - MOVING DATA, ROUTINES, AND PACKAGES IN MESSAGES
XMPARENT+	Parent Domains
XMPHYSLINK	Network Physical Link Device
XMPOLL+	Network Poller
XMQUERY+	PERFORMING A QUERY ON A MESSAGE SENT OVER THE NETWORK
XMQUEUE+	Network Queues
XMR-ACT-BACK	***OBE***
XMR-ACT-COPY	***OBE***
XMR-ACT-COPYA	***OBE***
XMR-ACT-COPYB	***OBE***
XMR-ACT-COPYC	***OBE***
XMR-ACT-COPYD	***OBE***
XMR-ACT-DELETE	***OBE***
XMR-ACT-E-SELECT	***OBE***
XMR-ACT-EDIT	***OBE***
XMR-ACT-EDIT2	***OBE***
XMR-ACT-EDIT3	***OBE***
XMR-ACT-FORWARD	***OBE***
XMR-ACT-NEW	***OBE***

Help Frame Name	Help Frame Title
XMR-ACT-NEW LATER (TICKLER)	***OBE***
XMR-ACT-PRINT	***OBE***
XMR-ACT-QUERY	***OBE***
XMR-ACT-REPLY	***OBE***
XMR-ACT-SAVE	***OBE***
XMR-ACT-TERM	***OBE***
XMR-ACT-VAPORIZE	***OBE***
XMR-ACT-WRITE	***OBE***
XMR-ACTION	***OBE***
XMR-ACTION-PRINT-W/O-HEADER	***OBE***
XMR-ACTION-PRIORITY-TOGGLE	***OBE***
XMR-ACTION-VAPORIZE	***OBE***
XMR-ACTION2	***OBE***
XMR-BASKET	***OBE***
XMR-MESS-HEADER	***OBE***
XMR-MESS-KEYWORD	***OBE***
XMR-MESS-RANGE	***OBE***
XMR-MESSAGE	***OBE***
XMR-RES	***OBE***
XMR-SEARCH	***OBE***
XMREAD	***OBE***
XMRELAY+	Relay Domains
XMS-ADDRESS-CC	***OBE***
XMS-ADDRESS-INFO	***OBE***

Help Frame Name	Help Frame Title
XMS-ADDRESS-THRU	***OBE***
XMS-PRIORITY	***OBE***
XMS-RECIP-CONFIDENT	***OBE***
XMS-RECIPIENT	***OBE***
XMS-TEXT	***OBE***
XMS-TRANS	***OBE***
XMS-TRANS-CONFIRM	***OBE***
XMS-TRANS-EDIT	***OBE***
XMS-TRANS-SCR-HINT	***OBE***
XMS-TRANS-SCR-PASS	***OBE***
XMS-TRANS-SCRAMBLE	***OBE***
XMSCRIPT+	Network Scripts
XMSEND	***OBE***
XMSHARE	***OBE***
XMSUBORDINATE+	Subordinate Domains
XMTALK	TALKMAN - COMMUNICATIONS TOOL
XMTALK-CAPTURE	HOW TO CAPTURE A SESSION INTO A MAILMAN MESSAGE
XMTALK-END	HOW TO END A TALKMAN SESSION
XMTALK-KERMIT	TALKMAN CAN SEND AND RECEIVE FILES USING KERMIT
XMTALK-RETURN	HOW TO CONTINUE A TALKMAN SESSION
XMTALK-USER	USING THE TALKMAN COMMUNICATIONS UTILITY
XMTROUBLE+	Network Trouble Shooting
XMTURN+	Network Turn Command

Help Frame Name	Help Frame Title
XMUOPT-ASKBASKET	***OBE***
XMUOPT-BANNER	***OBE***
XMUOPT-BML	***OBE***
XMUOPT-INTRO	***OBE***
XMUOPT-SUR-ASSIGN	***OBE***
XMUOPT-SUR-ASSUME	***OBE***
XMUOPT-SURROGATE	***OBE***
XMUSEROPT	***OBE***
XMUT-%ZISL-SEND	Sending messages via DDP
XMUT-INTEGRITY	USING THE MAILMAN INTEGRITY CHECKER
XMUT-REC-DEL	DELIVER MESSAGES FOUND INTO USER'S IN BASKET
XMUT-REC-FIND	STEPS IN THE RECOVER MESSAGES FUNCTION
XMUT-REC-LIST	LIST MESSAGES FOUND
XMUT-RECOVER MESSAGES	HOW TO USE THE RECOVER MESSAGES FUNCTION
XMUT-TAPE-TRANSMISSION	Transmission of Messages via Sequential Media
XMUT4-AUTOPURGE	HOW THE AUTOPURGE WORKS
XMVALID+	Message Validation Numbers

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