To: Distribution

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INITIAL IMPLEMENTATION OF EXECUTIVE MAIL

This   document   describes   what will   be   the initial
implementation of Executive Mail for MR9.0. It is a subset of
the designs described in the Kyzivat internal design notes and
MTB-479.

Before reading this document, the reader should be familiar
with the read_mail and send_mail commands and some of the basic
concepts used in Emacs fundamental-mode.   crt_ discussed in
MTB-462 Rev. I.

Terminology

Some of the terminology used in Executive Mail may not seem
suitable for the office environment. This terminology is subject
to change. Any comments on this topic are appreciated greatly.

How To Invoke Executive Mail

To invoke Executive Mail, simply type the following command:

executive_mail

or use the short name of the command:

xmail

When a user invokes Executive Mail for the first time, he
goes through an initialization process. This process has some
side effects which are visible to the user.   They are the
following:

1.   A   directory   named   user_name.xmail   is   created
     immediately under the user's home directory.   All
     objects related to or created by Executive Mail are
     placed in this directory. The user's xmail directory
     is the Executive Mail work area and should only be
     accessed through Executive Mail.

2.   A segment named xmail_data is created and placed in the
     user's xmail directory. This segment (somewhat akin to
     the profile segment) contains all permanent data (such
     as printout destination) used by Executive Mail. The
     data segment is a value segment.

3.   A link to the user's default mailbox (user_name.mbx
     located in the user's home directory) is created and
     placed in the user's xmail directory. The name of the
     link is "incoming.mbx". If the user has no default
     mailbox, it is created.

4.   The access of the xmail directory is set to the
     following:

          s   user_name.*.*
          s   *.SysDaemon.*

     and the segment initial access list will be set to the
     following:

          r   user_name.*.*
          r   *.SysDaemon.*

     Executive Mail gives the user w access to files only
     when it is needed.

5.   The safety switches of all segments and mailboxes
     created by Executive Mail are set to "on".

6.   A mail file named outgoing.sv.mbx is created in the
     user's xmail directory. All outgoing messages which
     have not been explicitly filed by the user are saved in
     this file.

After the necessary initialization, the main menu of Executive
Mail is displayed (the menus are described below).

Mailboxes and Mail Files

A mailbox is a place where all incoming messages are
recieved (analogous to a home mailbox). A mail file a file in
which mail may be stored (analogous to a drawer in a filing
cabinet). A mail file is implemented as a save box.

Operations on Messages

All options of a particular message-processing menu operate
on messages in the current mailbox (or mail file). The current
mailbox is chosen by the user before entering the menu (see

"Process Filed Mail" below for an example of this). This choice must be made when there exists more than one mailbox (or mail file) which can be examined from a particular menu.

When doing any sort of message processing (i.e., processing incoming or filed mail), options in a menu operate on the current message of the current mailbox (or file). The current message is just a message which is marked by Executive Mail or the user to be the target of some operation. When the user enters a menu such as the "Process Incoming Mail" menu, the current message is arbitrarily selected by Executive Mail to be message number one. If the user then chooses an option such as display, message number one is displayed. If the user chooses an option such as delete, message number one is deleted.

Once in a message-processing menu, the user can decide which message is to be the current message. He can do this in two ways. He can change the current message via the "Next Message" option or the "Select Message(s)" option. For example, suppose the current message is message number one. If the user chooses the "Next Message" option, message number two becomes the current message. If he chooses the "Next Message" option again, message number three becomes the current message. If there is no message number three (i.e., there are only two messages in the mailbox), message number one becomes the current message. Suppose again that the current message is message number one. If the user then chooses the "Select Message(s)" option, he is prompted for a message number or a keyword (see "Keywords" below). The user then responds with a number, "3". If that message exists, it is made into the current message. If not, an error message is displayed and the current message stays the same as it was before.

There is also a way that the user can perform operations on more than one message at a time. He can have a set of current messages. This is possible, again, via the "Select Message(s)" option. For example, suppose the user chooses the "Select Message(s)" option. He is prompted for a list of numbers, a range (see "Ranges" below), or a keyword. This time, he answers the prompt with the list "2 1 3". The set of current messages now consists of the messages numbered two, one and three (note that the order has not been changed). If one or more of the specified messages do not exist, the user is informed of this and asked if he wants to continue processing. For example, the set of current messages is specified as above. Suppose that message number three does not exist (there are only two messages in the mailbox). The prompt "Message # 3 does not exist. Do you wish to continue?" is displayed. If the user answers "yes", messages

two and one are made the current messages.   If the user answers
"no", the current message(s) remains unchanged.

        Some last points should be made concerning the "current
message(s)" concept. When options (such as "Display") have no
effect upon the status of a message in a mailbox, they have no
effect on which message is considered to be the current message.
When options (such as "Delete") have an effect upon the status of
a message in a mailbox, the first existing message after the one
which is being operated on becomes the current message. If there
is no next message, then the first message in the mailbox becomes
the current message.   If a list of messages is the target of an
operation such as "Delete", the first existing message <u>after</u> the
highest numbered one in the list becomes the current message.
Again, if there is no next message, then the first message in the
mailbox becomes the current message.

Ranges

        A <u>range</u> is a specification of the form:

        n:m

where n and m are integers and n $\leq$ m.   This is just a way of
specifying that a set of messages is made up of the messages
numbered from n to m.

Keywords

        A keyword is a term which is used to specify a message or a
set of messages. The following are keywords known to Executive
Mail:

        all
                specifies <u>all</u> of the messages in the current mailbox.

        first
                specifies the first existing message in the current
                mailbox.

        last
                specifies the last existing message in the current
                mailbox.

        next
                specifies the message after the current message, or in
                the case of a set of current messages, the message
                after the highest numbered current message.

prev
> specifies the message before the current message, or in
> the case of a set of current messages, the message
> before the lowest numbered current message.

Files Managed by Executive Mail

At this point, the following kinds of files are managed by Executive Mail: mailboxes,   mail   files,   mailing   lists, abbreviation tables and the user-data segment. These files will have the following naming conventions:

incoming mailbox	--	incoming.mbx
mail files	--	any_name.sv.mbx
		outgoing.sv.mbx
mailing lists	--	any_name.mlist
abbreviation tables	--	xmail_abbrevs
user-data segment	--	xmail_data

Also, the above concept of "current mailbox" can be generalized to include all types of files that are processed by Executive Mail.

Dynamic Menus

Sometimes it is necessary to create menus dynamically. These menus are created at the point of invocation. They are created because of a "??" response to a prompt. For example, if Executive Mail needs to know which mail file a user wants to examine (see the "Process Filed Mail" menu below) it prompts the user for the name of a file. If the user does not know the names of his mail files, he answers "??" to the prompt. At this point, Executive Mail constructs a menu which contains, as options, the names of all of the user's mail files. The files will be listed in order of "most recently used" first. If there are too many to fit on the screen (or in the window), then as many names as will fit are displayed with a trailer line that notifies the user of the situation. Now, the user may either choose a name (the same way he chooses options in all menus) or he may peruse the entire menu using the "Scroll Menu" function keys (see "Function Keys" below).

Screen Format

While within Executive Mail, a screen will typically look as follows:

```
 _____
|{date}                    {usage instructions}            {time}|
|{file_name} {current_message(s)}                         {actee}|
|========================= {title} ==============================|
|(1) First Option                      (4) Fourth Option         |
|(2) Second Option                     (5) Fifth Option          |
|(3) Third Option                      (6) Sixth Option          |
|================================================================|
|                                                                |
|                       bottom window                            |
|                                                                |
|                                                                |
|_____|
```

where:

   date
        is the current date.   The date is redisplayed at
        12:00 am of the current time zone.   The format of the
        date is mm/yy/dd.

   usage instructions
        contains useful information about the current menu
        (information such as "Type ESC-H for help").

   time
        is the current time. The time is updated every minute.
        The current time zone is that specified by the user via
        the "Defaults" menu.   The format of the time is
        hh:mm zzz where zzz is the current time zone.   If no
        zone is specified by the user, then the system time
        zone is used.

   file_name
        is the name of the file currently being processed. For
        example, file_name could be the name of a mailbox or a
        mail file if that is what is currently being processed.
        If it is not applicable, file_name is not displayed.

   current message(s)
        are the numbers of the current messages.   (See
        "Operations on Messages" for information about current
        messages.) This list is updated every time the current
        message set changes.   If there are too many message
        numbers to fit in the space   allotted for this
        information, the word "MORE" appears at the end of
        whatever portion of the list is displayed.

   actee
        is the name of the person currently using Executive
        Mail.

title
>   is the name of the current menu. For example, "Process
>   Incoming Mail".

options
>   are what make up the menu display.   These are the
>   numbered items labeled "First Option", "Second Option"
>   and so on.   The options on display are the items
>   (actions) available to the user from within the current
>   menu.   To choose an option (invoke an action) the
>   cursor must physically be within the menu display.

bottom window
>   is   where   the   user   is   prompted   for additional
>   information.

Editing Functions Available

>   Since the user is required to do text entry in the bottom
window, there are certain text editing functions provided.   There
are two types of editing facilities, a line-editing facility and
a more extensive facility called the mail editor. One of these
two is always available depending on how much text the user is
required to enter. If the user must enter only one line of text,
the line-editing facility is provided (by crt_). If more than
one line must be entered, then the mail editor is provided. The
mail editor is really an Emacs extension which incorporates
everything provided by crt_ plus a few more fundamental mode
requests. The following are legal editor requests. Those marked
by a "*" are only available in the mail editor.

* ^E
>   means that the user is done editing and wants to exit
>   the editor.

* ^P
>   moves the cursor to the previous line.

* ^N
>   moves the cursor to the next line.

* ^F
>   moves the cursor forward one character.

* ^B
>   _ moves the cursor backward one character.

* ESC-F
>   moves the cursor forward one word.

* ESC-B

        moves the cursor backward one word.

* ^D

        deletes one character to the right of the cursor.

    #

        deletes one character to the left of the cursor.

    DEL

        is the same as #. This is the DEL key.

* ESC-D

        deletes one word to the right of the cursor.

    ESC-#

        deletes one word to the left of the cursor.

    ESC-DEL

        is the same as ESC-#.

    @

        kills text between the cursor and the beginning of the
        line.

* ^K

        kills text between the cursor and the end of the line.

      Text that is deleted by any editor request other than ^D, #
and DEL can be retrieved. Deleted   text is saved on something
called the kill ring. The kill ring has ten positions. Every
time text is deleted it is placed on the first position of the
kill ring. Any text at that position is then moved to the second
position of the kill ring and so on down to the tenth position of
the kill ring.

    ^Y

        retrieves newly deleted text (that text which is on the
        first position of the kill ring).

    ESC-Y

        can be typed only after either ^Y or ESC Y. It deletes
        the text just retrieved, without saving it on the kill
        ring, rotates the ring (to the next most recently
        killed text) and retrieves the new item.

    ^L

        causes the window to be cleared, and the current input
        line to be displayed again, starting from home.

^Q

"quotes" the next character, causing it to have no
special meaning. This is useful for entering such
characters as "#" or "@" into text.

Anything that the user types that is not proceeded by ^ (control)
or ESC (escape) or is not a legal editing request, is inserted
into the text at the current cursor position.

The editing is usually contained in the bottom window. When
the editor is invoked, there will be some indication to the user
that this extended editing facility is available. Scrolling is
provided. Also, automatic filling of text occurs as the user
types.

Function Keys

There are certain options which will always be available to
the user while he is in a menu (i.e., the cursor is in the menu
portion of the screen), but are not listed in the menu. These
options are available through the use of function keys. If a
specific terminal does not have function keys then escape
sequences are used. These options and the function keys (or
escape sequences) which invoke them are as follows:

F1 (ESC-H)
    invokes the "help" option. The user presses F1 (or the
    character sequence ESC-H). He is prompted in the
    bottom window for an option number. He responds with
    the number of the option for which he needs an
    explanation. The description of that option is
    displayed in the bottom window. If the user needs a
    description of what a function key does, for example
    the help function key, he presses F1 and then when
    prompted types the character sequence "F1" (or "F" and
    the number of the function key for which he needs a
    description).

F2 (ESC-F)
    invokes the "first menu" option. The user presses F2
    (or the character sequence ESC-F). The first menu (in
    this case the menu called "Executive Mail") is
    displayed. Anything the user was doing is discarded.
    The bottom window is cleared.

F3 (ESC-P)
    invokes the "previous menu" option. The user presses
    F3 (or the character sequence ESC-P). The previous
    menu (the menu which was on display before the current

menu) is displayed. Anything the user was doing is discarded. The bottom window is cleared.

F4 (ESC-Q)
invokes the "quit" option. The user presses F4 (or the character sequence ESC-Q). The screen is cleared, anything the user was doing is discarded and the user is placed at Multics command level.

F5 (ESC-R)
invokes the "redisplay" option. The user presses F5 (or the character sequence ESC-R). Any menus on the screen are redisplayed and the bottom window is cleared. This option is useful when unexpected output messes up the screen.

F6 (ESC-D)
invokes the "scroll menu down" option. The user presses F6 (or the character sequence ESC-D). This option enables the user to look at the previous screenful of menu. This is useful when in a dynamic menu which has too many options to fit on the screen.

F7 (ESC-U)
invokes the "scroll menu up" option. The user presses F7 (or the character sequence ESC-U). This option enables the user to look at the next screenful of menu. This is useful when in a dynamic menu which has too many options to fit on the screen.

Remember, function keys are only enabled while the cursor is within a menu.

The Break Key

The break key is used to move back into the current menu from the bottom window. Whatever task that is currently being done is discarded. The bottom window is cleared. The break key is useful when, for example, the user decides (for whatever reason) that he doesn't want to do what he is currently doing in the bottom window.

Help

There are two kinds of help: help for menu options and help for bottom window prompts. To get a description of a menu option, the user presses the function key to which the help option is bound (see "Function Keys" above). He is prompted in the bottom window for an option number. After the user responds to the prompt, a description of the specified option is displayed

in the bottom window. To get help while being prompted, the user
just responds to the prompt with "?". A discussion of the prompt
will be displayed in the bottom window. Any prompt may be
answered with a "?".

        All Executive Mail info segs are managed by help_. The info
search list is used to locate them.

Interactive Messages

        In this implementation of Executive Mail, interactive
messages are treated the same as regular mail. Interactive
messages are not printed immediately upon receipt. They are held
in the user's mailbox for processing as usual in the "Process
Incoming Mail" menu.

Terminals Supported By Executive Mail

        Executive Mail supports only terminals which can be used
with the Multics video system (i.e., video terminals only). Upon
trying to invoke Executive Mail with any other kind of terminal,
an error message will be printed. At some time in the future,
the user will be able to obtain a list from Executive Mail, of
the terminals which are supported.

To Be Addressed

        The following topics will be addressed in a later revision
of this document (and a later implementation of Executive Mail):

    1.   The local printer issue.

    2.   Shared mailing lists.

    3.   A "brief" mode for more experienced users.

    4.   Ability to include original message in reply or
         forward.

Note

        Items marked by a "*" in the following menus are considered
to be low priority and will probably not be implemented in this
version of Executive Mail.

Content and Functionality of Executive Mail

        What follows is a description of the appearance and
functionality of the initial implementation of the Executive Mail
menu interface.

EXECUTIVE MAIL

Contents of the menu:

        (1) Process Incoming Mail
        (2) Send Mail
      * (3) Send Mail from a File
        (4) Process Filed Mail
        (5) Review Defaults

This is the main Executive Mail menu, displayed immediately after
the invocation of the "xmail" command.

The "Process Incoming Mail" Option

        This option initiates the processing of mail contained in
the user's incoming mailbox. After choosing this option, a new
menu is displayed. See "Process Incoming Mail" below for a
description of this menu.

The "Send Mail" Option

        This option initiates the creation of a piece of mail which
can be sent to one or more users. After choosing this option, a
new menu is displayed. See "Send Mail" below for a description
of this menu.

The "Send Mail form a File" Option

        This option is essentially the same as the "Send Mail"
option with one exception. The text of the message is obtained
from a file that is already in the Multics storage system. The
user is prompted for the name of a file instead of the message
text.

The "Process Filed Mail" Option

        This option enables a user to review the messages stored in
his mail files. After choosing this option, a new menu is
displayed. See "Process Filed Mail" below for a description of
this menu.

The "Review Defaults" Option

        This option enables a user to change the information kept in
his xmail_data   segment. After choosing this option, a new menu
is displayed.   See "Review Defaults" below for a description of
this menu.

PROCESS INCOMING MAIL

Contents of the menu:

```
    (1) Display
    (2) Print
    (3) Delete
    (4) Forward
    (5) Reply
    (6) Forward With Comments
    (7) File
  * (8) Annotate
    (9) Search Messages
    (A) Display Summary of Messages
    (B) Select Message(s)
    (C) Next Message
```

The contents of the user's incoming mailbox are processed through this menu.

Any references in this menu description to the "current mailbox" refer to the user's incoming mailbox. All options in this menu act on messages in the current mailbox only.

Upon entering this menu, the number of messages contained in the current mailbox is displayed.

The "Display" Option

This option displays one or more messages in the bottom window.

The "Print" Option

This option makes a printout of one or more messages. If there is more than one message to be printed, the printout of the specified messages is prefixed with a summary ("table of contents") of the messages. The summary is in the same format as that produced by the "Display Summary of Messages" option.

The "Delete" Option

This option deletes one or more messages.

The "Forward" Option

        This option enables the user to forward one or more
messages. The user is prompted for a list of recipients. The
current message (or set of current messages) is then forwarded to
the specified recipients.

The "Reply" Option

        This option enables the user to reply to one or more
messages. The primary recipients of the new message are preset
from the   author list of the   original message,   secondary
recipients are preset from the recipient lists of the original
message, and the subject is derived from the subject of the
original message. The "Send Mail" menu is then displayed. (See
"Send Mail" below for a description of this menu.) If there is
to be a reply to more than one message, then the same reply is
sent to every message in the set of current messages.

The "Forward With Comments" Option

        This option enables the user to forward one or more messages
with comments added by the user. These comments are made part of
the message header when the message is forwarded.   The "Send
Mail" menu is invoked. Then, the user must provide the names of
the recipients as in the "Forward" option above.   If more than
one message is to be forwarded, each message is sent to the same
set of recipients with the same comments.

The "File" Option

        This option enables a user to store one or more messages in
a selected mail file. Actually, a copy of the specified message
is stored. The original remains in the current mailbox. The
user is prompted for the name of a mail file. Any comments,
which have been specified via the "Annotate" option, about a
particular message are added on to the message before it is
filed.   If the file specified by the user does not exist, the
prompt: "Mail file "file_name" does not exist. Do you wish to
create it?" is displayed. If the user answers "yes", the file
is created and the current message is added to it. If the user
answers "no", this option is aborted. Also, if the user answers
"??" to the file name prompt, a menu of all mail files owned by
the user is displayed. The user may then choose a file from the
menu options (see "Dynamic Menus" above).

        One use of this option could be to categorize incoming mail
into high, medium, and low priority mail by filing it into mail

files with those names. Then the mail in these files can be
processed later by using the "Process Filed Mail" menu.

The "Annotate" Option

        This option enables a user to specify comments about one or
more messages. These comments are made part of the message
header when the message is filed. This option is used only to
comment messages that are being filed. If it is desired to
forward a message with comments, the "Forward with Comments"
option must be used.

The "Search Messages" Option

        This option allows the user to search through messages
contained in the current file using a search string specified by
the user. The user is prompted for the search string. Both the
header and message text of all messages are searched. If one or
more messages are found to contain the text specified in the
regular expression, a summary of those messages is displayed.
The summary is in the same format as that of the "Display Summary
of Messages" option. If not, a message to that effect is
displayed. All messages containing the search string become the
"current message(s)".

The "Display Summary of Messages" Option

        This option displays, in the bottom window, a summary of the
current mailbox contents.

The "Select Message(s)" Option

        This option allows the user to explicitly specify which
messages are operated on by other options such as delete, print,
or reply (see "Operations on Messages" above). The user is
prompted in the bottom window for one or more message numbers, a
range, or a keyword.

The "Next Message" Option

        This option makes the next message into the current message
(see "Operations on Messages" above).

SEND MAIL

Contents of the menu:

       (1) Transmit
       (2) File
       (3) Print
       (4) Edit
       (5) Create Mailing List
       (6) Review Mailing Lists
    * (7) Create Abbreviation
    * (8) Review Abbreviations
       (9) Process Filed Mail
       (A) Display Message Header
       (B) Edit Message Header

        This menu allows the user to construct a piece of mail and
distribute it to one or more users. When this menu is invoked, a
default mail heading is provided. The user is prompted for any
infomation missing from the header. (The contents of the default
heading vary depending on how the menu was invoked.)

        After typing in the heading material, the user is prompted
for whatever will make up the body of the message. This could be
message text or the name of a storage system file depending upon
which option was previously chosen.   (At this point, the mail
editor is provided.)   Then the user types in or edits his text.
Upon exiting the editor, the user may utilize the various menu
options to complete processing of the message.

        When the user exits this menu, if he has not already filed
his message via the "File" option, it is automatically saved in
his default outgoing mail file.

The "Transmit" Option

        This option transmits the message to the mailboxes of the
recipients listed in the message heading.

The "File" Option

        This option stores the newly created message in a selected
mail file.   See the "File" option in "Process Incoming Mail"
above for details.

The "Print" Option

This option makes a hard copy of the message. See the "Print" option in "Process Incoming Mail" above for details.

The "Edit" Option

This option enables the user to edit or re-edit the body of the message that he is currently working on. The mail editor is provided.

The "Create Mailing List" Option

This option enables the user to create a new mailing list. The user is prompted for the name of a new mailing list. He must respond with the name of a non-existent mailing list.   If he answers "??" to the prompt, then a list of all existing mailing lists is displayed.   The mail editor is available to the user while he is typing in his mailing list. Upon trying to exit the mail editor, all of the entries are verified. If any entries are in error, they are listed and the user is not allowed to exit the editor. He must correct the invalid entries before exiting the editor.

The "Review Mailing Lists" Option

This option   invokes the corresponding   menu to allow inspection or updating of mailing lists. For a description of this menu see "Review Mailing Lists" below.

The "Create Abbreviation" Option

This option enables the user to create a new abbreviation. Abbreviations can be specified in place of user names in recipient lists. They can save a lot of typing when user names are especially long, however, they must be defined in advance via this option.   The user is prompted first for the abbreviation, then for its expansion. If the abbreviation already exists, the user is asked whether or not he wants to replace it.

The "Review Abbreviations" Option

This option   invokes the corresponding   menu to allow inspection or updating of the user's abbreviations.

The "Process Filed Mail" Option

    Described above in "Executive Mail".

The "Display Message Header" Option

    This option displays the present message header in the
bottom window.

The "Edit Message Header" Option

    This option enables the user to edit the variable parts of a
message header.   The mail editor is provided to the user. The
parts of a header which are subject to revision are read into the
editor in a format such as:

    To: John.Doe ...
    Cc: Jane.Doe ...
    Subject: This is a test ...

The user may edit this as he pleases. The header is subject to
verification when the user exits from the editor. If any part of
the header is found to be invalid, the user is informed. He must
make the appropriate corrections before exiting the editor.

PROCESS FILED MAIL

Contents of this menu:

       (1) Display
       (2) Print
       (3) Delete
       (4) Forward
       (5) Reply
       (6) Forward with Comments
       (7) File
   *   (8) Annotate
       (9) Search Messages
       (A) Display Summary of Messages
       (B) Select Message(s)
       (C) Next Message
       (D) Select New File
       (E) Clean Out File

        This menu allows a user to review the messages stored in any
of his mail files (including the default outgoing mail file).
Before the menu is displayed, if the user owns more than one mail
file, he is prompted for the name of one of his files. There are
two valid answers to this prompt (in addition to "?" to get
help): the name of a file and "??". If the answer is "??", a
new menu is displayed. This new menu contains (as options) the
names of all of the mail files owned by the user (see "Dynamic
Menus" above).   After choosing a file (by option or by prompt)
the "Process Filed Mail" menu is displayed. If the user owns
only one mail file, the "Process Filed Mail" menu is displayed
with no prompt.

        Any references in this menu description to the "current
file" refer to the mail file which was selected by the user upon
entry to this menu. All options in this menu description act on
messages in the current mail file only.

        Upon entering this menu, the number of messages contained in
the current mailbox is displayed.

The "Display" Option

        Described above in "Process Incoming Mail".

The "Print" Option

        Described above in "Process Incoming Mail".

The "Delete" option

    Described above in "Process Incoming Mail".

The "Forward" Option

    Described above in "Process Incoming Mail".

The "Reply" Option

    Described above in "Process Incoming Mail".

The "Forward with Comments" Option

    Described above in "Process Incoming Mail".

The "File" Option

    Described above in "Process Incoming Mail".

The "Annotate" Option

    Described above in "Process Incoming Mail".

The "Search Messages" Option

    Described above in "Process Incoming Mail".

The "Display Summary of Messages" Option

    Described above in "Process Incoming Mail".

The "Select Message(s)" Option

    Described above in "Process Incoming Mail".

The "Next Message" Option

    Described above in "Process Incoming Mail".

The "Select New File" Option

This option allows the user to select a new mail file that
is to be examined using this menu. The new mail file specified
becomes the current mail file. The current message is reset to
be message number one of the new mail file. The file selection
process is the same as when entering this menu (see above).

The "Clean Out File" Option

This option is particularly useful when a mail file is full.
It makes a printout of specified messages contained in the
current file and then deletes them from the file.   The user is
prompted for a list of message numbers, a range or a keyword.

REVIEW MAILING LISTS

Contents of this menu:

    (1) Display
    (2) Print
    (3) Update
    (4) Delete
    (5) Select New List

        This menu allows inspection or updating of mailing lists
owned by the user. Before the menu is displayed, the user is
prompted for the name of a mailing list. The same procedure as
in the "Process Filed Mail" menu is used here to help the user
select a mailing list.

        Any references in this menu description to the "current
mailing list" refer to the mailing list that was selected by the
user upon entry to this menu. All options in this menu act on
the current mailing list only.

The "Display" Option

        This option displays the current mailing list in the bottom
window.

The "Print" Option

        This option makes a printout of the current mailing list.
See the "Print" option in the "Process Incoming Mail" menu for
details.

The "Update" Option

        This option enables the user to update the current mailing
list via the mail editor. The current mailing list is read into
the editor and the user edits it. When the user tries to exit
the editor, all of the entries are verified. If any entries are
in error, they are listed and the user is not allowed to exit the
editor until he has corrected the invalid intries.

The "Delete" Option

        This option deletes the current mailing list.

The "Select New List" Option

        This option enables the user to select a new mailing list
that is to be processed using this menu. The new mailing list
specified becomes the current mailing list.   The selection
process is the same as when entering this menu (see above).

REVIEW ABBREVIATIONS

Contents of this menu:

    (1) Display
    (2) Update

    This menu enables the user to inspect and update his abbreviation file.

The "Display" Option

    This option displays the contents of the user's abbreviation file.

The "Update" Option

    This option enables the user to update his abbreviations and their corresponding expansions via the mail editor.

REVIEW DEFAULTS

Contents of this menu:

        (1) Printout Header
        (2) Printout Destination
        (3) Time Zone

        This menu enables the user to change information kept in his
xmail_data segment. This information is needed by Executive Mail
to perform certain specific tasks.

The "Printout Header" Option

        This option enables the user to change his default printout
header. The default is User_id.

The "Printout Destination" Option

        This option enables the   user to change his printout
destination. The default is "".

The "Time Zone" Option

        This option enables the user to change the zone of the time
displayed in the status window. The default is the system time
zone.