KeyesMail™

iSeries E-mail Software

Version 11, User's Guide

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1 Introduction

KeyesMail is a full function E-mail package for the iSeries. You can use it to automatically generate outbound e-mail messages, with attachments. This can be accomplished using API's or by placing spooled files in an output queue that it monitors. It can also serve as an interactive e-mail client for 5250 terminals or PC's.

It allows iSeries 5250 terminals to send and receive full Internet e-mail, with attachments. KeyesMail contains two different mail servers allowing PC's to use any POP3 mail client software (Outlook and Eudora are examples), or any Web browser (Internet Explorer, Firefox and Netscape are examples) to access mail.

KeyesMail can connect to your existing network mail server, or to an Internet Service Provider (ISP) using a direct or a dial-up connection. Security will not be compromised. KeyesMail will not start any of the TCP/IP Application servers. KeyesMail is immune to e-mail viruses and hackers cannot gain access to your iSeries through the KeyesMail software.

You can retrieve e-mail from more than one ISP or Network and can have multiple individual accounts or multi-user domain accounts for each connection. You decide how often the system will contact each host. All incoming messages are automatically routed to the appropriate mailboxes, that you configure.

The software comes complete with a text editor for creating, editing, and viewing e-mail messages on iSeries terminals. The editor is very easy to learn and use. It includes automatic word wrapping within paragraphs, inserting, deleting, and copying text. It also has a spell checker and a phone book for saving and retrieving e-mail addresses.

KeyesMail is SMTP/MIME compliant which allows multiple attachments to be sent and received with your messages. Any iSeries object can be exchanged as an attachment, including physical files, source files, spool files, program objects, save files, and any files located in the Shared Folders.

The recipients of the iSeries objects can be on any kind of computer. They do not have to have an iSeries or AS/400 and they do not have to have KeyesMail software. The data will be translated between EBCDIC and ASCII, as appropriate.

Any type of spooled file can be sent as is, so that it can be restored as a spool file on another iSeries or AS/400 computer. Spool files can also be translated into ASCII text, Rich Text, PDF files, or mapped onto a forms overlay to be displayed or printed by PC's. PCL and AFPDS Spool files can also be translated into TIFF Images or PDF files.

Physical files can be sent as is or translated into ASCII text or CSV (Comma Separated Values) files that are easily imported into Excel or other Spread Sheets.

KeyesMail can create encrypted PDF's and it can compress attachments, using Java Archive Compression. If you purchase PKZIP software, for your iSeries, KeyesMail can use this to compress and optionally password encrypt any type of attachment. KeyesMail can open SSL (Secure Sockets Layer) or TLS (Transport Layer Security) sessions to encrypt all communication with your mail servers.

Installing KeyesMail

Sign on as a Security Officer

The following installation procedure will require that you have enough authority to be able to create subsystems, communication controllers and devices, and to be able to change system values.

New Installation

If this is the first installation of the KeyesMail system it will take several steps to complete. Please follow the instructions on the following pages to complete the installation outlined below.

Steps for a new installation:

- Copy KeyesMail programs to a new library.
- Install the KeyesMail Data library.
- Enter your KeyesMail License number.
- Change your library list to include the KeyesMail libraries.
- Create the KeyesMail Subsystem.
- Create a KeyesMail Communication line. †
- Connect a Modem to your iSeries. †
- Obtain ISP Connection Information. †
- Define a Connection to a Mail Server.
- Create a Connection Script for each connection. †
- Work with Point-to-Point TCP/IP Modem Information †
- Define a SLIP or PPP Connection Profile. †
- Check the Connection. †
- Add User Mailboxes.
- Setup the KeyesMail Servers.

† These items are for dial-up connections only.

Updating an Existing System

An update to an existing KeyesMail system will take fewer steps to complete. During the update, objects in your original KeyesMail Program library will be replaced with new ones from the CD or tape.

Steps for an update:

- Copy KeyesMail programs to a new KMUPD library.
- Ending the System and Backing up the Libraries.
- Run the KeyesMail Update program (KMUPDATE).
- Reinstall the KeyesMail Data library (if this is a new version).
- Update KeyesMail License number (if this is a new version).
- Recreate the KeyesMail Subsystem (if this is a new version).

Copying KeyesMail Programs to a New Library

The library that you copy the programs into must not already exist. We suggest that you restore the KeyesMail programs into a permanent program library called KMLIB. If this is an update, restore the new programs into a temporary update library called KMUPD.

Restoring Instructions:

1. Follow the instructions found in the **Readme.txt** file that you download from our website (www.ckeyes.com). It will use FTP to transfer Save File data to your IBM i.
2. *If this is a New Installation:*

   Enter: RSTLIB SAVLIB(KM11LIB) DEV(*SAVF) SAVF(QGPL/KM11SVF) MBROPT(*ALL) RSTLIB(**KMLIB**)

   If you are Updating an Existing System:

   Enter: DLTLIB LIB(KMUPD)

   Ignore any "Library not found" message.

   Enter: RSTLIB SAVLIB(KM11LIB) DEV(*SAVF) SAVF(QGPL/KM11SVF) MBROPT(*ALL) RSTLIB(**KMUPD**)

Ending the System and Backing Up the Libraries

If this is an update to an existing KeyesMail system, you must end the system. We recommend that you backup both the KeyesMail Program library and the KeyesMail Data library, at this time.

Ending and Backup Instructions:

1. End the KeyesMail systems using; ENDKM, ENDKMSRV, ENDKMLOUTQ, then ENDSBS KMAIL.
2. Get everyone off of the KMMENU and out of any KeyesMail programs.
3. Load a tape to receive the backed up libraries.
4. The following command will backup both libraries.

   Enter: SAVLIB LIB(KMLIB KMDATA) DEV(device)

Run the KeyesMail Update Program

If you are installing KeyesMail for the first time, skip this step. Run this only for an update to an existing KeyesMail Program library. You should have two KeyesMail Program libraries on your system, the original Program library (KMLIB), and the temporary Update library just installed (KMUPD).

1. Change your current library to the Update library.
   Enter: CHGCURLIB *kmupd*
2. Prompt the KeyesMail Update program.
   Enter: KMUPDATE then press F4 (Prompt)
3. Fill in the appropriate library names in the parameters:
   KeyesMail Program library . . . *kmlib*
   KeyesMail Update library . . . . *kmupd*
4. Press the Enter key to start the update.
5. Change your current library back to whatever you wish.
   Enter: CHGCURLIB **crtdft*
6. If all of the update library objects were successfully copied to your program library, you may delete the update library.
   Enter: DLTLIB *kmupd*

Install the KeyesMail Data library

This step will create a library that will contain all your KeyesMail data. You will need to run this if you are installing a new system or if you are updating KeyesMail to a different Version number (such as Version 11.0 to 11.1).

Before the KeyesMail Data library can be installed you must change your library list. Your KeyesMail Program library must be the current library. Also, if you have installed the KeyesFax system, its library (KFLIB) must be included in your library list. This will allow the two systems to share Phonebooks and dictionary files.

In each of the steps below substitute the correct library names.

1. Change your current library to the KeyesMail Program library just installed or updated, it is usually called KMLIB.
   Enter: CHGCURLIB *kmlib*
2. If you have the KeyesFax system, make sure that the KeyesFax library, usually called KFLIB, is in your library list.
   Enter: ADDLIBLE *kflib*
3. Install the KeyesMail Data library, we suggest that you call it KMDATA.
   Enter: KMINSTALL *kmdata*

Note! If you get a message saying "KeyesMail communication is active", you must remove the Job called KMAIL1 that is most likely sitting in the KMAIL1 Job Queue. Use WRKJOBQ KMAIL1 to find it, then use option 4 to End it.

Enter your KeyesMail License number

The KeyesMail system will not fully function until the system is activated with a license number. The license number is based on your i5, iSeries or AS/400 Serial Number and the Logical Partition that you run it in.

Your KM License number may have been sent to you in the space provided below or on the packing list that came with the software, if not you may call Computer Keyes to get it. Before you call, get the serial number of your iSeries. The KMLICENSE command described below will tell you what the serial number is and the logical partition.

Recording the KeyesMail License Number:

1. Switch your current library to your KeyesMail Program library, usually called KMLIB.

   Enter: CHGCURLIB *kmlib*

2. Start up the program that will record your KM License.

   Enter: KMLICENSE

3. Key your KM License number in the field provided, then press Enter.

KeyesMail License Number:

Permanent: _____ S# ____-_____

Temporary: _____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

Change your Library List to include the KeyesMail libraries

Your KeyesMail Program library (KMLIB) and your KeyesMail Data library (KMDATA) must be on your library list in order for you to run the KeyesMail programs. You may permanently add the libraries to the user portion of the system's library list or temporarily add them to your own library list whenever you want to use the system

Your library list should have the following libraries on the list, in the order specified:

- KMLIB
- KFLIB *(If you already have KeyesFax on your system)*
- KMDATA
- KOLIB *(If you have KeyesOverlay)*

To Permanently add the libraries to the library list:

1. Go to the iSeries Main Menu.
   Enter: GO MAIN
2. Select item 7 *Define or change the system.*
3. Select item 8 *Work with system values.*
4. Roll down or position to QUSRLIBL and select option 2.
5. You will be placed on the *Change System Value* screen for changing QUSRLIBL.
6. Add your KeyesMail and KeyesFax libraries to the list.

To Temporarily add the libraries to your library list:

Enter: ADDLIBLE *kmdata*
Enter: ADDLIBLE *kflib* (If this library exists)
Enter: ADDLIBLE *kmlib*
Enter: ADDLIBLE *kolib*

Create the KeyesMail Subsystem

You will need to run this if you are installing a new system or if you are updating KeyesMail to a different Version number.

The KeyesMail programs run in their own subsystem, called KMAIL, with their own job queues, job descriptions, message queues, etc. All of the subsystem objects needed will be created in the KeyesMail Data library.

1. Be sure that the KeyesMail Program and Data libraries are on your library list, as described in the previous instructions.
2. Create the KeyesMail Subsystem.
   Enter: CRTKMLSBS

Create a KeyesMail Communication line

If you will be dialing into an Internet Service Provider (ISP) *with a SLIP or PPP connection*, a communication line must be defined. You may skip this step, if you will be using a direct or a network connection to the Internet.

First you must determine the system resource name assigned to the communication port that will be used by the modem. The communication resource name can be determined using the WRKHDWRSC command.

1. Determine the resource name of the communications port.

   Enter: WRKHDWRSC *CMN

2. Note the resource name listed for the V.24 Port that you will be using. If you only have a single communications line, it will probably be called LIN011 or CMN01. A second line may be called LIN021 or CMN02, etc.

3. Be sure that the KeyesMail Program and Data libraries are on your library list, as described on a previous page.

4. Create the KeyesMail Communication Objects.

   Enter: CRTKMLCOM then press F4 (Prompt)

5. Fill in the appropriate parameters and press the Enter key.

   KeyesMail line number 1
   Resource name cmn01

Connect a Modem to your iSeries

You may skip this step, if your iSeries has a direct or a network connection to the Internet.

Most Hayes Compatible modems can be connected to the EIA-232 cable that comes with each V.24 Port on your iSeries. You may double use the same port and the modem that you have been using for Electronic Customer Support (ECS).

1. Locate the 25 pin EIA-232 cable for the desired port and plug it directly into the modem.

2. Connect a telephone cable into the modem.

3. Plug the power cord for the modem to an electrical outlet.

4. Leave any external modem switches to the factory default settings, except for any switch that is used to change from Synchronous to Asynchronous communication. Electronic Customer Support (ECS) uses Synchronous, whereas KeyesMail will use Asynchronous communication.

Obtain ISP Connection Information

You may skip this step, if your iSeries has a direct or a network connection to the Internet.

Up to 8 different Internet Service Providers (ISP's) can be contacted to send and receive your mail. Each dial-up connection will be defined as either a SLIP or a PPP connection, depending on your iSeries or AS/400's capabilities. (Only newer RISC AS/400's and all iSeries machines can connect using PPP.)

You must obtain the following information from your ISP;

- The local interface address to be used. For Dialup connection this is often dynamically assigned by the ISP on each connection.
- The ISP's Internet or gateway address. This is sometimes dynamically assigned on each connection.
- The name or address of the POP3 mail server.
- The name or address of the SMTP mail server.
- The address of the ISP's DNS (Domain Name Server).
- The connection phone number.
- Your log-on account name or user-id.
- Your log-on password.
- The log-on script to be used (SLIP connections only).
- One or more e-mail account names and/or user-id's.
- Passwords for each e-mail account.
- Your domain name (host.network).

Internet Addresses

Smaller ISP's may use the same address for logging on, the POP3 server, the SMTP server, and the DNS server. Larger ISP's usually use different servers for each function.

Addresses must be in a dotted decimal format (XXX.XXX.XX.X). Server names are quite often called "mail." in front of the ISP's domain name. For example "mail.domain-name.net". Or sometimes they will be named separately, such as "smtp.domain-name.net" and "pop3.domain-name.net".

It is possible to Sign-on to the Internet using a connection on one ISP, and download your E-mail from a POP3 server run by a different ISP. You simply have to code the server addresses, account names, and passwords, appropriately.

Define a Connection to a Mail Server

You can define up to 8 different connections. These can be to different ISP's, to your iSeries mail servers, or to your network mail servers. Mail is sent outbound using an SMTP mail server. Inbound mail is retrieved from a POP3 mail server.

ISP Mail Accounts

If you are connecting to an ISP, we recommend that you purchase a single *domain* mail account. A domain mail account at your ISP could receive mail for everyone in your entire domain or company. KeyesMail will route each message received into the appropriate mailbox within KeyesMail on the iSeries. This can save you money, as it would allow you to pay for a single mail account at your ISP, instead of individual accounts for each user.

Domain mail accounts are defined on the *KeyesMail System Setup* screens which are accessed from the *Work with KeyesMail Connections* program. After mail is received from a domain mail account, it is routed to the appropriate KeyesMail mailbox using the Routing entries that you define in the *User Setup* screens. Individual or personal mail accounts are defined on the *User Setup* screens.

Defining a Connection

1. Be sure that the KeyesMail Program and Data libraries are on your library list, as described on a previous page.
2. Display the KeyesMail Menu.

   Enter: GO KMMENU
3. Start item 21 *Work with KeyesMail Connections*.
4. Use option 3 to copy an existing connection to the new number. If no connections exist use F6 to create a new one.
5. Use option 2 to define the new connection information. The Help key may be used to get additional information about each parameter.

Sample connections are shown on the following pages.

Sample Dial-up Connection

Use this sample definition for dial-up connections. Be sure to substitute your domain name and the appropriate server names and account names. If you have a domain mail account, define it here. If you have individual accounts for each user, define those on the *User Setup* screens.

KeyesMail System Setup

Type choices, press Enter.

KeyesMail connection number . . . . . >	1	1, 2, 3, 4, 5, 6, 7, 8
Text description 'use quotes' . . . . . >	'Dial-up connection'	
Organization/'Company name' . . . . . >	'Company Name'	
Connection type . . . . . >	D	(Dialup/Intranet/Continuous)
Time zone . . . . . >	*SYS	*(hrs from Universal time)*
Domain name 'use quotes' . . . . . >	'company.com'	*(key in quotes)*
SMTP Server 'Name' or Address . . . . . >	'smtp.iprovider.net'	*(Outbound mail)*
POP3 Server 'Name' or Address . . . . . >	'pop3.iprovider.net'	*(Inbound mail)*
SMTP Authentication:		
User/Account 'use quotes' . . . . . >	*NONE	
Password 'use quotes' . . . . . >	*SAME	
Domain mail account #1:		
User/Account 'use quotes' . . . . . >	'account-name'	*(company accts)*
Password 'use quotes' . . . . . >	'password'	*(only go here)*
Domain mail account #2:		
User/Account 'use quotes' . . . . . >	*NONE	
Password 'use quotes' . . . . . >	*SAME	
Check mail start time . . . . . >	0800	
Check mail end time . . . . . >	1700	
Time between checks . . . . . >	030	*(minutes 5-240)*
Off hours time between checks . . . . . >	0	*(hours 0=no check)*
Redial attempts . . . . . >	2	0-9 retries
Connection timeout . . . . . >	03	01-10 minutes
Communication timeout . . . . . >	045	005-120 seconds
Max mail size auto retrieved . . . . . >	02000	00002-99999 Kbytes
Max mail size manual retrieved . . . . . >	05000	00002-99999 Kbytes
Lowest priority starts send . . . . . >	H	Low, Normal, High
System Phonebook . . . . . >	PHONEBOOK	
Phonebook Name Heading . . . . . >	CONTACT	
Phonebook Company Heading . . . . . >	COMPANY	
Phonebook E-mail Heading . . . . . >	E-MAIL	
SMTP Port (usually 00025) . . . . . >	00025	
Use SSL/TLS or STARTTLS . . . . . >	N	Y=SSL or TLS, S=STARTTLS, N=No
POP3 Port (usually 00110) . . . . . >	00110	
Use SSL Secure Connection . . . . . >	N	
Default System Language . . . . . >	AMERICAN	
(Also available: British, Danish, French, German, Italian, or Spanish)		
Expire rejected passwords . . . . . >	N	*(Y,N)*
Default paper size . . . . . >	S	*(S)tandard, (L)egal, (A)4*
Disable PING connection test . . . . . >	N	*(Y,N)*
Text or Image based PDF's . . . . . >	T	*(T,I)*
Encode PDF text streams . . . . . >	Y	*(Y/N)*
Batch Conversion Run Priority . . . . . >	50	20-99, Default 50
Server added Spam String . . . . . >	'X-Spam-Status: Yes'	
Max mail size Transmitted . . . . . >	015	001-999 MBytes, 999=No Max
Max mail sent per Session . . . . . >	040	001-999 Pieces, 999=No Max
Switch FROM Addr to Reply-To . . . . . >	N	Y-Yes, N-No

Sample Network Connection

You can define a KeyesMail connection directly to your own iSeries, but we recommend that you define a connection your network mail server. You may define POP3 mail accounts for each of the iSeries terminals KeyesMail will act like an SMTP and POP3 mail client to send and receive the mail.

KeyesMail System Setup

Type choices, press Enter.

KeyesMail connection number . . . . . >	1	1, 2, 3, 4, 5, 6, 7, 8
Text description 'use quotes' . . . . . >	'Network connection'	
Organization/'Company name' . . . . . >	'Company Name'	
Connection type . . . . . >	I	(Dialup/Intranet/Continuous)
Time zone . . . . . >	*SYS	*(hrs from Universal time)*
Domain name 'use quotes' . . . . . >	'company.com'	*(key in quotes)*
SMTP Server 'Name' or Address . . . . . >	'smtp.iprovider.net'	*(Outbound mail)*
POP3 Server 'Name' or Address . . . . . >	'pop3.iprovider.net'	*(Inbound mail)*
SMTP Authentication:		
User/Account 'use quotes' . . . . . >	*NONE	
Password 'use quotes' . . . . . >	*SAME	
Domain mail account #1:		
User/Account 'use quotes' . . . . . >	*NONE	*(individual accts)*
Password 'use quotes' . . . . . >	*SAME	*(are coded in User Setup)*
Domain mail account #2:		
User/Account 'use quotes' . . . . . >	*NONE	
Password 'use quotes' . . . . . >	*SAME	
Check mail start time . . . . . >	0800	
Check mail end time . . . . . >	1700	
Time between checks . . . . . >	010	*(minutes 5-240)*
Off hours time between checks . . . . . >	2	*(hours 0=no check)*
Redial attempts . . . . . >	2	0-9 retries
Connection timeout . . . . . >	03	01-10 minutes
Communication timeout . . . . . >	045	005-120 seconds
Max mail size auto retrieved . . . . . >	02000	00002-99999 Kbytes
Max mail size manual retrieved . . . . . >	05000	00002-99999 Kbytes
Lowest priority starts send . . . . . >	N	Low, Normal, High
System Phonebook . . . . . >	PHONEBOOK	
Phonebook Name Heading . . . . . >	CONTACT	
Phonebook Company Heading . . . . . >	COMPANY	
Phonebook E-mail Heading . . . . . >	E-MAIL	
SMTP Port (usually 00025) . . . . . >	00025	
Use SSL/TLS or STARTTLS . . . . . >	N	Y=SSL or TLS, S=STARTTLS, N=No
POP3 Port (usually 00110) . . . . . >	00110	
Use SSL Secure Connection . . . . . >	N	
Default System Language . . . . . >	AMERICAN	
(Also available: British, Danish, French, German, Italian, or Spanish)		
Expire rejected passwords . . . . . >	Y	*(Y,N)*
Default paper size . . . . . >	S	*(S)tandard, (L)egal, (A)4*
Disable PING connection test . . . . . >	N	*(Y,N)*
Text or Image based PDF's . . . . . >	T	*(T,I)*
Encode PDF text streams . . . . . >	Y	*(Y/N)*
Batch Conversion Run Priority . . . . . >	50	20-99, Default 50
Server added Spam String . . . . . >	'X-Spam-Status: Yes'	
Max mail size Transmitted . . . . . >	100	001-999 MBytes, 999=No Max
Max mail sent per Session . . . . . >	040	001-999 Pieces, 999=No Max
Switch FROM Addr to Reply-To . . . . . >	N	Y-Yes, N-No

Create a Connection Script for each ISP

You may skip this step, if your iSeries has a direct or a network connection to the Internet.

A connection script is always used by dial-up SLIP connections and is rarely used by PPP connections.

The connection script is used to exchange *Sign on* and *Password* information with the ISP. It can also be used to dynamically assign your *Local interface address* and the *Remote IP address* (sometimes called the *Gateway address*). Using the log-on script obtained from the ISP you can create an appropriate script.

1. Start item 21 *Work with KeyesMail Connections* from the KeyesMail menu, as described previously.
2. Press F22 *Work with Connection Scripts*.
3. Choose one of the sample connection scripts that is the closest match to what your ISP needs. You can read each script using option 5 (View).
4. Use option 3 to copy the selected connection script member to a new member that you will call KMAILx (where x is the Connection number).
5. Use option 2, if necessary, to change the Connection Script to match the log-on script from your ISP. Please see *Rules for Creating Connection Scripts* in the Appendix section for additional information.
6. Repeat steps 3, 4 & 5 for each Connection to be defined.
7. Press F3 when you have finished creating the scripts.

Sample KeyesMail Connection Script

```
**************************************************
* KeyesMail Connection Script                    *
* For iSeries with Dynamic IP Address            *
**************************************************
login
& (USERID)
password
& (PASSWORD)
IP address is (IPADDR)
* End of KeyesMail Connection Script
```

Work with Point-to-Point TCP/IP Modem Information

You may skip this step, if your iSeries has a direct or a network connection to the Internet.

IBM has created the appropriate initialization string for a number of different kinds of modems, but not necessarily for the brand that you wish to use. You may need to copy one of their definitions to make one for your modem.

1. Start item 21 *Work with KeyesMail Connections* from the KeyesMail menu, as described previously.
2. Press F21 *Work with TCP*.
3. Choose option 11 *Work with modem information*.
4. If your modem is not already defined, copy one of the definitions for a modem that is similar to yours using option 3 (Copy). You may not alter any of the DEFAULTS.
5. Use option 2 (Change), on the new modem information, to alter the modem initialization string to match the capabilities of your modem.

Note: The TCP/IP connection is very sensitive to the modem initialization string. An incorrect initialization will cause the modem to hang up during a connection attempt.

Practical Peripherals use AT&D2&C1X4V1Q0S7=70&Q9&K3
PP33.6MT: AT&FW1&C1&D3&K3&Q5&S0%C1\N3S95=1S0=1&W
For reset use ATZ0

Defining a SLIP Connection Profile

You may skip this step, if your iSeries has a direct or a network connection to the Internet, or if you will be defining a PPP connection.

Using the information obtained from the ISP you can create a profile, as follows:

1. Start item 21 *Work with KeyesMail Connections* from the KeyesMail menu.
2. Press F21 *Work with TCP*.
3. Choose option 1 *Work with Point-to-Point TCP/IP*.
4. You may copy any existing KMAILx profile and change it or create a new profile by entering option 1 *Add* with a Name of KMAILx (where x is the Connection number) and a Mode of *DIAL.
5. Fill out the parameters using the ISP connection information that you gathered earlier, as shown on the following page:
6. Repeat steps 4 & 5 for each Connection.
7. Press F3 twice when you have finished creating the profiles.

Sample SLIP Connection Profile

TCP/IP Point-to-Point *DIAL Profile

Name: KMAILx (x=Connection number)
Text: KeyesMail Connection #x

TCP/IP Information:
- Protocol type . . . . . *SLIP
- Local interface address . . . . . *DYNAMIC (normally *dynamic)
- Remote IP address . . . . . *DYNAMIC (dotted decimal addr)
- Request header compression . . . . . N (N=SLIP, Y=CSLIP)
- Maximum transmission unit 576
- Add default route . . . . . Y
- Additional name server . . . . . 165.87.194.244 (DNS server addr)

Physical line information:
- Line description . . . . . KMAILLIN1 (use for all Connections)
- Line type . . . . . *ASYNC
- Auto create controller & device . . . . . Y
  - Remote location name . . . . . (Leave blank)

Modem information:
- Use a modem . . . . . Y
  - Modem information name . . . . . (Use F4 to select a modem)
    MultiTech 28800 Multimodem

Script source information:
- Use connection dialog script . . . . . Y
  - Member . . . . . KMAILx (x=Connection number)
  - File . . . . . KMSCRIPT
    - Library . . . . . KMDATA
  - ASCII character set identifier 00819

Remote system access information:
- Remote service phone number (connection number)
  9,674-1201
- Remote service access name (log-on account and/or user-id)
  usinet sample
- Remote service access password (log-on password)
  password

Sample Connection to A T&T's Global Network

Defining a PPP Connection Profile

You may skip this step, if your iSeries has a direct or a network connection to the Internet, or if you have defined a SLIP connection.

If you have OS/400 V4R2 or higher, you may be able to define a PPP connection. PPP requires a 2699, 2720, 2721, 2745 or a PCI-WAN IO Adaptor. Earlier releases and earlier adaptors will only support SLIP connections. You must also have *Operations Navigator* installed and working on a PC. If you meet these prerequisites, you can define a PPP dial-up connection.

Complete instructions can be found under "Configuring Point-to-Point TCP/IP" in the IBM *TCP/IP Configuration and Reference Manual V4R2*.

The following instructions use the iSeries Operations Navigator with Client Access.

1. Start the *iSeries Operations Navigator* and click on the machine that you intend to configure. This will give you a list of components that the Operations Navigator can access.
2. Double Click *Network*.
3. Double Click *Point-to-Point*.
4. Right Click *Connection Profiles* to open a Context window.
5. Select New *Profile*.
6. Select each Tab and fill out the appropriate parameters on the "*New Point to-Point Profile Properties*". You may use the **Help** button for additional information.

Note: You must call the profile KMAILx, where x is the connection number. The information that you fill out will be pretty much the same as defining a connection for a PC to an ISP.

The following parameters are normally set, as follows:

- Name: KMAIL1
- Type: PPP
- Mode: Switched line-dial or Dial
- Line name: KMAILLIN1
- Interface type: RS232 / V.24
- Modem: Choose the appropriate one from list
- Local IP address: Usually dynamically assigned
- Remote IP address: Usually dynamically assigned
- Routing: Press button
- Static routing: Add remote as default route
- Header compression: Usually yes
- Script: Usually not used
- Authentication: Enable local system identification
- User name/Password: These are case sensitive
- Domain name server: Give dotted decimal address

Check a Dial-up Connection

After creating or changing a dial-up connection to an ISP, you should use these instructions to verify that all the parameters are set correctly before attempting to start the KeyesMail mail run. If you can position yourself at a terminal that is near the modem, you can watch and listen to the modem while running the test.

Note: You will need the Domain name for the ISP or its dotted decimal address (xxx.xx.xxx.x) for this test. You can also use the ISP's SMTP Server or POP3 Server name or address.

Starting TCP/IP:

Before the test can be performed, you must start the TCP/IP interface on the iSeries. Be careful not to start any application servers.

Enter: STRTCP STRSVR(*NO)

Starting the Point-to-Point TCP/IP connection:

1. Start item 21 *Work with KeyesMail Connections* from the KeyesMail menu.
2. Press F21 *Work with TCP*.
3. Choose option 1 *Work with Point-to-Point TCP/IP*.
4. Enter option 9 (Start) on the KMAILx profile. (where x is the Connection number to be tested).
5. Use F5 (Refresh) periodically so you can watch the *Status* column and listen to the modem, if possible, to follow the system as it attempts to connect to the ISP.

If the connection is successful:

- The Status will change to STRSSN while it sets up an interface to the communication line.
- After 20-30 seconds the communication line will be Varied ON. You can tell when this happens because the modem's TR light will turn on.
- After a few more seconds the Status will change to DIAL as the modem dials and tries to connect with the ISP.
- After another 10-15 seconds the Status will change to CNNDIALOG as the connection script is being processed.
- In just a few more seconds, if the ISP accepts the user-id and password, the Status will change to ACTIVE.

Verifying the Point-to-Point TCP/IP connection:

1. Press F12 (Cancel) to get to a command line and verify the connection using a PING to the ISP's name or address.

   Enter: PING RMTSYS('name or address')

   Note: If the PING is successful you will see a successful verification message.

If the connection was not successful:

- The modem does not vary ON.
- The modem does not dial the ISP.
- The ISP does not answer.
- The modem hangs up during the connection.
- The Status does not change to ACTIVE.

  - or -
- The PING does not return a successful verification message.

Ending the Point-to-Point TCP/IP connection:

1. Enter option 10 (End) for the KMAILx profile on the *Work with Point-to Point TCP/IP* screen.

2. Use F5 (Refresh) periodically so you can watch the *Status* column. The Status will change from ENDTCPCMN to ENDSSN and finally to OUTQ when it has completed.

Diagnosing a failed connection:

If the connection fails, one or two spool files will be created to assist you in diagnosing the cause of the failure.

1. Enter option 14 (Work with Job) for the KMAILx profile on the *Work with Point-to-Point TCP/IP* screen.

2. Enter option 4 (Work with spooled files).

3. Use option 5 (Display) to view the spooled files or you can allow them to print.
   - One of the spooled files, called KMAILx, is a trace of the connection dialog. This can be used to diagnose problems with the connection script.
   - The other spooled file is a session job log which can be used to see how the connection failed.

KeyesMail Communication

All KeyesMail communication is performed in a KMAIL subsystem. Dial profiles use one of your communication ports to connect to an ISP. Direct and network connections use other established communication links to connect to mail servers. KeyesMail will act as an SMTP and a POP3 mail client to exchange e-mail with the Internet.

Starting and Stopping Mail Runs

You may start or stop the KeyesMail Mail Runs either manually or using commands:

Manually starting or stopping KeyesMail Mail Runs:

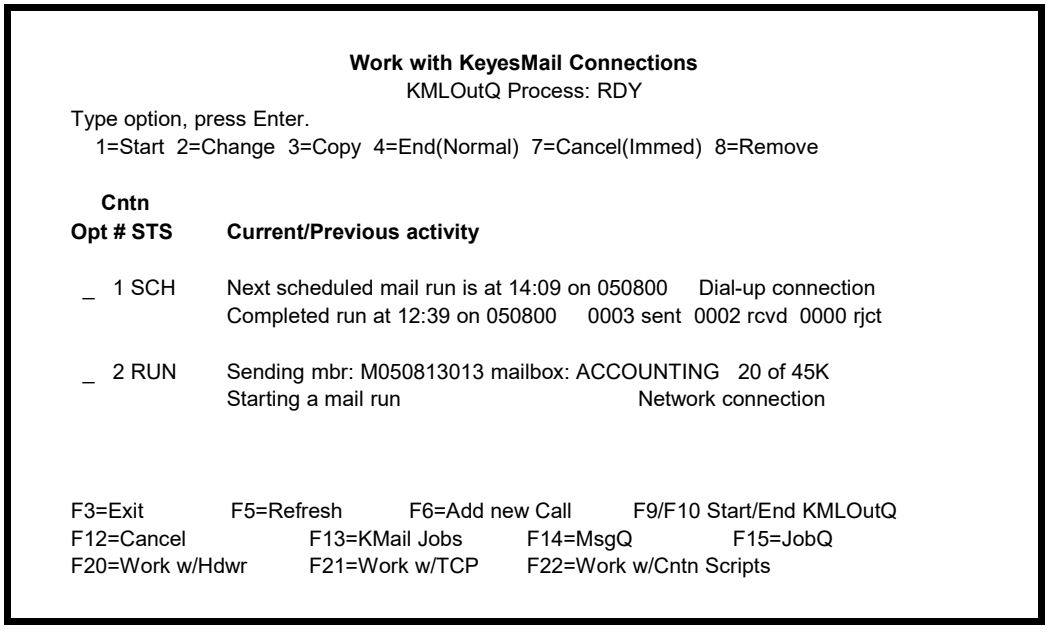
1. Select item 21 (KeyesMail Connections) from the KeyesMail menu.
2. Use option **1** to start or option **4** to end any of the mail runs.

Using Commands:

The commands STRKM and ENDKM can be used to start or stop KeyesMail Mail Runs, respectively. You may wish to place STRKM in your normal QSTRUP routine, so that it automatically starts after an IPL. It is also recommended that you end all Mail Runs before and restart them after doing any backup of the KeyesMail data library.

Working with KeyesMail Connections

A user must have *JOBCTL special authority to use this program. A user must also have access to the KMAIL user profile to start a Mail Run (option 1). Please see *Granting Authority to Start the KeyesMail System* in the Appendix section for more information.



Options

Option 1=Start

This will start the KeyesMail subsystem, if it was not already active, and then start a mail run for the selected Connection. If a mail run is already scheduled for a later time, it will be immediately released.

Option 2=Change

This can be used to change the setup information for each Connection.

Option 3=Copy

This can be used to copy the Connection information to create a new one for another ISP or network connection.

Option 4=End

This is the normal way to end a mail run that is either active or scheduled.

Option 7=Cancel

This can be used to immediately end a mail run, if it is stuck or not responding properly.

Option 8=Remove

This can be used to remove a Connection definition when it is no longer needed.

Function Keys

Press this:	To do this:
F3	Exit the program.
F5	Update the screen with current activity.
F6	Creates a new Connection for a mail server.
F9	Starts the KeyesMail output queue processing.
F10	Ends the KeyesMail output queue processing.
F12	Cancels the program.
F13	Shows you all the active Jobs in the KMail subsystem.
F14	Shows you all the messages in the KMail MsgQ.
F15	Shows you all the KMail Job Queues.
F20	Shows you the Work with Communication Resources screen.
F21	Shows you the Work with Point-to-Point TCP/IP menu.
F22	Lets you work with Connection Scripts.

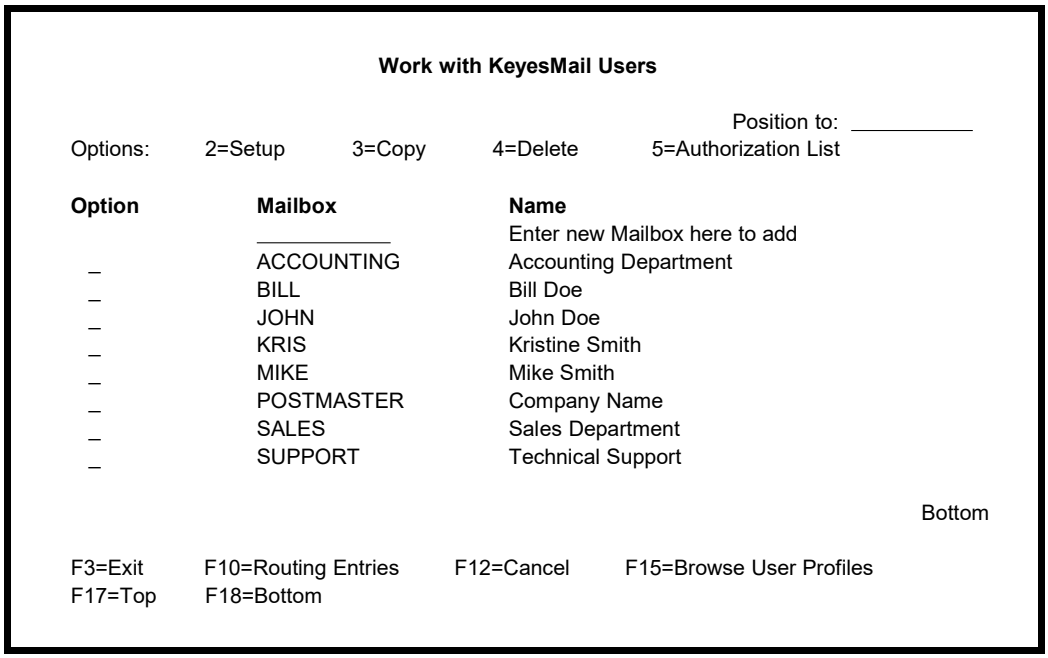
Adding User Mailboxes

All outbound mail can be sent from a single default mailbox (POSTMASTER), if desired. Or you can send mail from individual mailboxes made for each department or user.

Before a user can receive e-mail on their 5250 terminal or PC mail client, they will need a KeyesMail mailbox created for them.

To add mailboxes, you must be signed on with a user profile that has *SECADM special authority. Users may change some of their own mailbox attributes but only after you have added their mailbox to the system.

1. Start item 31 *User Setup* from the KeyesMail menu.
2. You may add mailboxes by entering them on the top line, or use **F15** to browse the iSeries user profiles to select and add user mailboxes.



Work with KeyesMail Users

Position to: _____

Options: 2=Setup 3=Copy 4=Delete 5=Authorization List

Option	Mailbox	Name
	_____	Enter new Mailbox here to add
_	ACCOUNTING	Accounting Department
_	BILL	Bill Doe
_	JOHN	John Doe
_	KRIS	Kristine Smith
_	MIKE	Mike Smith
_	POSTMASTER	Company Name
_	SALES	Sales Department
_	SUPPORT	Technical Support

Bottom

F3=Exit F10=Routing Entries F12=Cancel F15=Browse User Profiles
F17=Top F18=Bottom

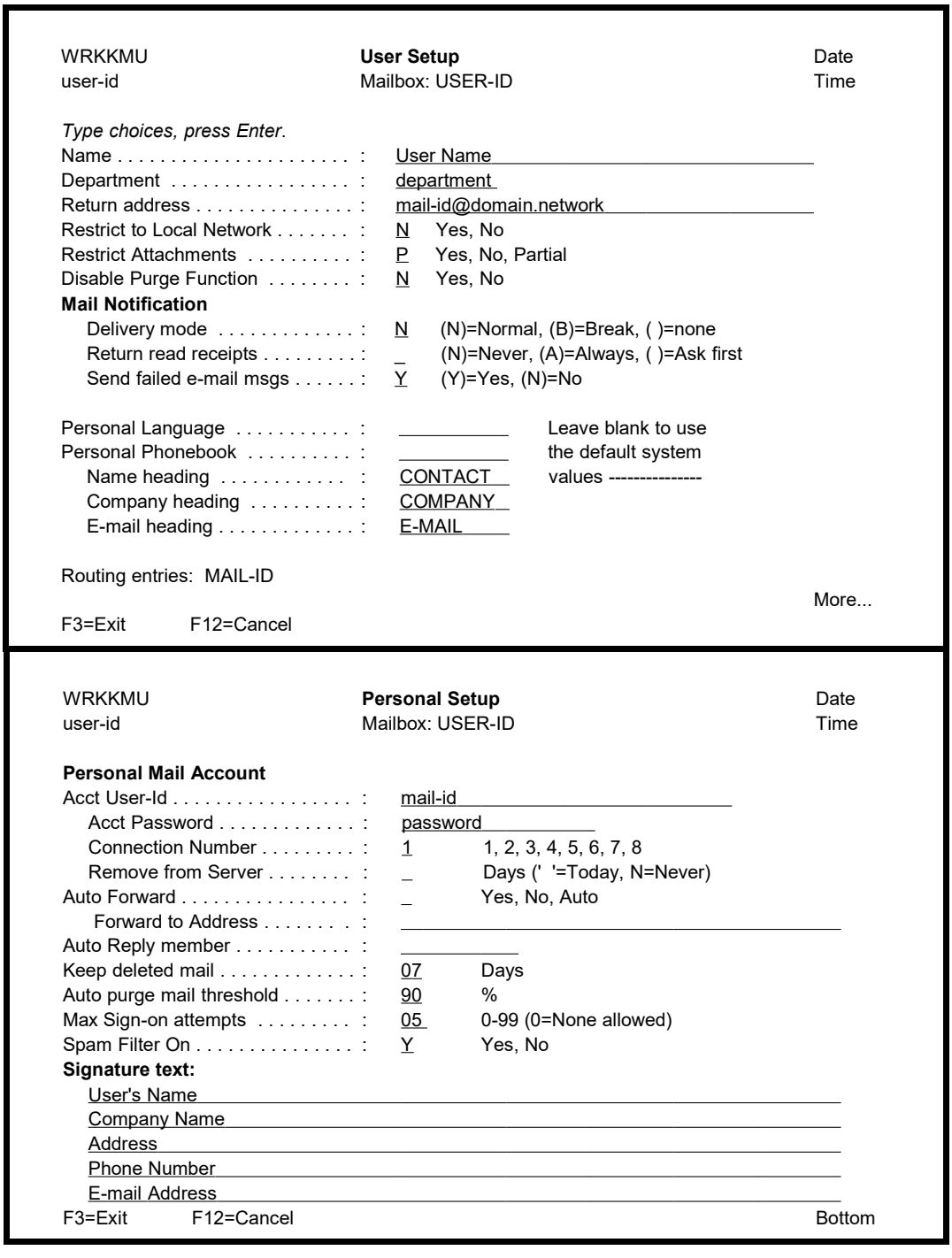
Important! Name each of the user mailboxes the same as their iSeries User-Id. This is done so that the system can locate the user to notify them when mail arrives. You may also create mailboxes for groups of users and use the *Authorization List* screen to specify users to notify. For example, you can create a mailbox called SALES and one called ACCOUNTING that multiple users can access.

Note: You must create a mailbox for POSTMASTER. This is used to hold inbound mail from a domain mail account that cannot be routed according to your routing table and outbound mail from applications or users that do not have their own mailbox to use.

User Setup Screens

Each time an administrator adds a new mailbox, the system will preset some of the fields to default values. A user may change only those fields that an administrator allows them to.

A user will be placed directly on these screens when they run option 31 *User Setup* from the KeyesMail menu. An administrator may use option 2 (Setup) from the *Work with KeyesMail Users* screen to access the following screens.



```
WRKKMU                          User Setup                          Date
user-id                         Mailbox: USER-ID                    Time

Type choices, press Enter.
Name . . . . . :  User Name
Department . . . . . :  department
Return address . . . . . :  mail-id@domain.network
Restrict to Local Network . . . . . :  N   Yes, No
Restrict Attachments . . . . . :  P   Yes, No, Partial
Disable Purge Function . . . . . :  N   Yes, No
Mail Notification
  Delivery mode . . . . . :  N   (N)=Normal, (B)=Break, ( )=none
  Return read receipts . . . . . :  _   (N)=Never, (A)=Always, ( )=Ask first
  Send failed e-mail msgs . . . . . :  Y   (Y)=Yes, (N)=No

Personal Language . . . . . :  _____      Leave blank to use
Personal Phonebook . . . . . :  _____      the default system
  Name heading . . . . . :  CONTACT    values ----------
  Company heading . . . . . :  COMPANY
  E-mail heading . . . . . :  E-MAIL

Routing entries:  MAIL-ID
                                                              More...
F3=Exit          F12=Cancel
```

```
WRKKMU                          Personal Setup                      Date
user-id                         Mailbox: USER-ID                    Time

Personal Mail Account
Acct User-Id . . . . . :  mail-id
  Acct Password . . . . . :  password
  Connection Number . . . . . :  1        1, 2, 3, 4, 5, 6, 7, 8
  Remove from Server . . . . . :  _        Days (' '=Today, N=Never)
Auto Forward . . . . . :  _        Yes, No, Auto
  Forward to Address . . . . . :  _____
Auto Reply member . . . . . :  _____
Keep deleted mail . . . . . :  07       Days
Auto purge mail threshold . . . . . :  90       %
Max Sign-on attempts . . . . . :  05       0-99 (0=None allowed)
Spam Filter On . . . . . :  Y        Yes, No
Signature text:
  User's Name
  Company Name
  Address
  Phone Number
  E-mail Address
F3=Exit          F12=Cancel                                         Bottom
```

Note: Instructions for setting the fields that a user may change can be found in the WRKKMUFM source code which is located in QDDSSRC in KMLIB.

Name

The user's full name in upper and lower case. For the Postmaster mailbox, you can use the Company Name.

Department

This can be used to assist a user in locating someone that works in a particular area. It can also be used when sending mail to groups of users.

Return address

For convenience, try to set the mail-id to be the same as the iSeries User-Id. Each user's *Return address* is their POP3 mail account name (mail-id) added to the left of your domain name, as shown below:

mail-id@domain.network

If you use a Cloud Mail Server, some of them will require that the Return Address has to match your Account on their Server.

Restrict to Local Network

Key a **Y** in this field to restrict a user to sending e-mail only to their local network. Manually addressed mail must have the same domain as the user's return address.

Restricted users, however, may address mail to any predefined mailbox or address list, even if some of those recipients are located outside the local network.

Restrict Attachments

To prevent a user from creating or saving any attachments, code a **Y** in this field You may code a **P** in the field to allow the user Partial access to creating and saving attachments.

The exact definition of Partial access can be altered by an administrator by altering the program called CHKKMAS. The original definition allows a user access to their own output queue, their own QTEMP library, their own shared folder, and a public folder called EMAIL.

Disable Purge Function

Key a **Y** in this field to disable the Purge function from removing mail from this mailbox. You will still be able to manually delete or move mail out of the mailbox. But, the Purge mail function will skip this mailbox.

You can use this feature to create an Archive type of mailbox. Mail can be auto Blind Copied into the mailbox. Mail will remain forever and never be purged unless you turn OFF the Disable Purge Function.

Mail Notification

Use this to define what method that you want to be notified when mail has been received in your mailbox.

Delivery mode:

Key an **N** to receive a Normal message in your message queue or key a **B** to receive a Break message. Leave this field blank to receive no notification messages.

Return read receipts:

Key an **N** to never send a Read Receipt. Key an **A** to always send a Read Receipt. Leave this field blank to ask permission before sending a Read Receipt back to any sender that requests one.

Send failed e-mail messages:

Use this field only if you are sending e-mail with Return Addresses that do not come back to the iSeries or KeyesMail. If you code a **Y** in this field, transmission failure messages will be generated and sent to the From Address that was coded for each failed e-mail message.

Personal Language

Use this field to override the default system language that is entered in the *System Setup*. This will be used when spell checking E-mail messages. The available languages are:

American, British, Danish, French, German, Italian and Spanish

Personal Phonebook

A user should leave these parameters blank, if they wish to use the common System Phonebook. The System Phonebook is defined in the *System Setup*.

Personal Mail Account

Enter an account name, password, and a connection number, if you have an individual POP3 mail account that feeds this mailbox. The number of days before removing mail from the server can be used when you have a second mail client accessing the same mail account on your mail server. Leave these fields blank if you have defined a domain mail account on the *System Setup* that contains mail for this mailbox.

The password field is also used to validate both PC mail clients and Web browsers, to allow them to access the mail in this mailbox.

Auto Forward

Enter a (**Y**) in this field to cause all inbound mail to be forwarded to another address. This can be used when a person is temporarily out of the office, or to define an internal mailbox for a user that is actually located elsewhere.

For a personal mailbox, enter an (**A**) to forward the mail only when you are not signed on. For a community mailbox, the mail will be forwarded whenever no one that is set to be notified of inbound mail on the Authorization List is signed on.

Forward to address

Used only when you have coded a (**Y**) in the previous field, you may enter an Internet address or an address list in this parameter. If you forward to an address list, you may not exceed 100 recipients and you may not include this mailbox in any department or address list.

Auto Reply member

Enter the name of an existing mail member only if you wish all inbound mail to be automatically replied to. The reply message, found in the member, will be sent to the normal *reply-to* address for each piece. This can be used to report vacation delays, change of address, alternate recipients, or other important messages.

Keep deleted mail

Key the number of days that you wish to save deleted mail before it is purged. When you delete mail, it is placed in a Category called ***Deleted** and will only be purged after the delay. You may undelete a message by moving it to a different Category.

Auto purge mail threshold

The maximum number of mail members that can be created is 32766 in each mailbox. Each morning the system will remove the oldest members that exceed the auto purge mail threshold.

Max Sign-on attempts

Use this field to prevent hackers from gaining access to your mail accounts using a Web browser. The system will automatically disable the mailbox, whenever the maximum invalid attempts have been made. The mailbox will be automatically re-activated after 1 hour of no Sign-on attempts. You may enter a **0** value to prevent all access to this mailbox using a Web browser.

Spam Filter On

Each mailbox can turn On or Off their own spam filter. When the filter is On, mail that meets the spam criteria will be received into the ***Spam** category. Mail in the *Spam category will remain until the *Mail purge delay* has been reached. Then the spammed mail will be purged.

You may remove an entry from the *Spam category using the *Move* option to move it to a different category. When you move an entry out of *Spam, the corresponding e-mail address will no longer be considered spam for the current mailbox.

You may move an entry into the *Spam category using the "S" option in the *Work with KeyesMail* screen. After spamming an e-mail entry, the corresponding e-mail address will be considered spam for the current mailbox.

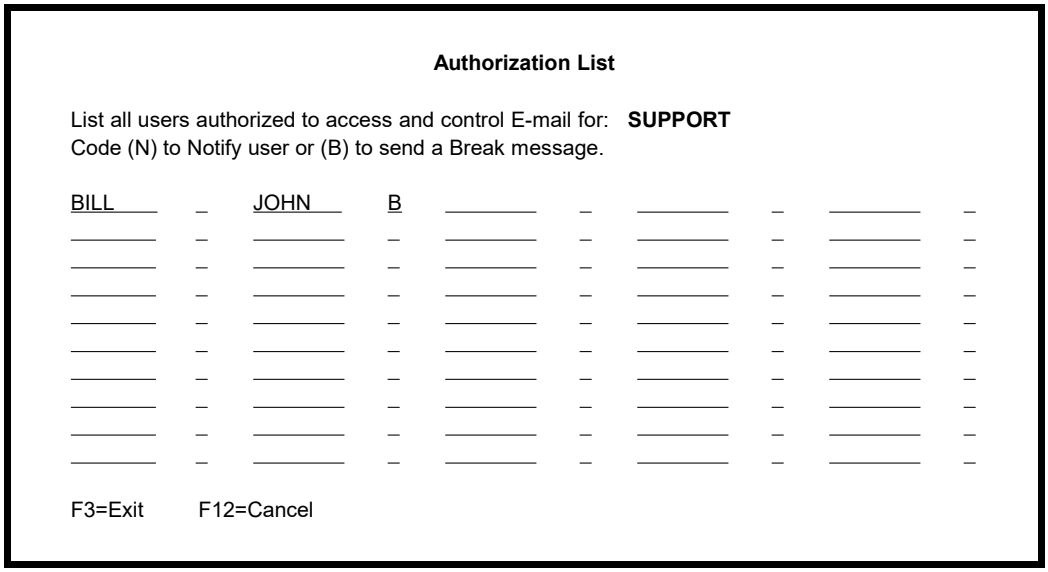
Signature text

Use these fields to define information about yourself (company, phone numbers, etc.) that you wish to include with your messages. You may include this text with any e-mail by positioning the cursor and pressing F16 (Add Signature), while editing the message.

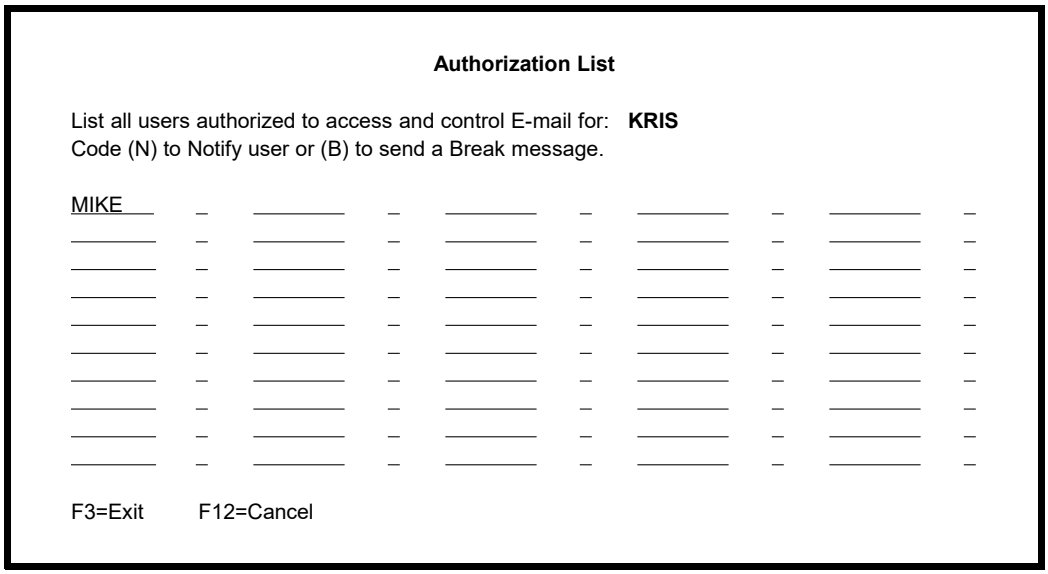
Authorization Lists

Up to 50 different users may be given access to each internal mailbox, by coding their iSeries User-Id on this screen. All users that have either an "**N**" or a "**B**" coded after them will be sent either a Normal message or a Break message telling them when mail has arrived in this mailbox.

In the following example, Bill and John have access to the mail in this mailbox. John will be sent a Break message when mail arrives.



You should not include the owner of a mailbox in their own list. By default, the owner of a mailbox will be notified of any received mail. In the following example, Mike has been authorized to access the e-mail in Kris's mailbox.



Special Values

*PUBLIC may be used to allow all users to access a mailbox.
*TEMPLATE may be used to allow any API to access a mailbox.

Routing Entries

Routing entries must be included for every internal mailbox. The routing entries are used to determine which mailbox an Internet address will be sent to.

Each of the entries in the routing table is used to search the name and address of any mail coming from a company domain account. It is also used to recognize internal addresses in all outgoing mail.

Routing Entries

Make changes, press Enter.
Separate multiple entries with commas
Use leading spaces to change routing order

Mailbox	Routing entries
JOHNSON	JOHNSON
ACCOUNTING	ACCOUNTING, ACCTNG
BILL	BILL, WILLIAM
JOHN	JOHN
KRIS	KRIS
POSTMASTER	POSTMASTER
SALES	SALES

F3=Exit F5=Refresh F12=Cancel F17=Top B18=Bottom

The first matching entry that is found will cause the mail to be routed to that mailbox. If none of the routing entries match the recipient address, the mail will be routed to the Postmaster mailbox.

Leading spaces can be used in the routing entries to change the order in which the routing takes place. In the example above, to prevent all of JOHNSON's mail from being routed to JOHN, a leading space was used. This forces the routing of JOHNSON's mail to happen before the routing of JOHN's mail.

Naming Conventions

Always create user mailboxes the same as their iSeries *User-Id*. Use this same value for the POP3 *Mail-Id*, if possible. If you wish to use a different convention for your Internet addresses, then be sure to use the *Mail-Id* in both the *Return Address* and the *Routing Entry*.

Given:	**Assign:**
User name: John Smith	Mailbox: JOHN
iSeries User-Id: JOHN	Return address: jsmith@domain
Mail-Id: JSMITH	Routing entry: JSMITH

KeyesMail Servers

KeyesMail servers can be used to allow PC's to send and receive mail using a PC mail client or a Web browser. You do not need to activate the SMTP or POP3 servers if you already have a network mail server. Otherwise, these servers can eliminate the need for each PC to dial-up the Internet independently. It can also save you money by eliminating multiple accounts with an ISP, when you have the ISP define a single domain mail account for your entire company.

Starting and Stopping the Servers

You may start or stop the KeyesMail Servers either manually or using commands:

Manually starting or stopping KeyesMail Servers:

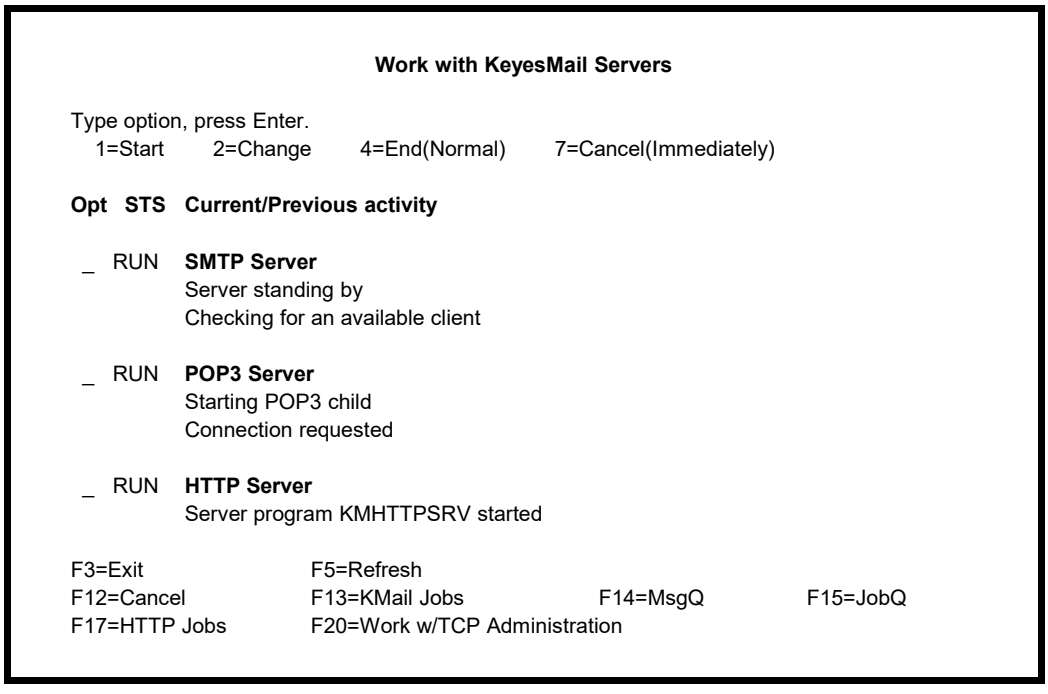
1. Select item 22 (KeyesMail Servers) from the KeyesMail menu.
2. Use option **1** to start or option **4** to end each of the servers.

Using Commands:

The commands STRKMSRV and ENDKMSRV can be used to start or stop the KeyesMail Servers, respectively. You may wish to place STRKMSRV in your normal QSTRUP routine.

Working with KeyesMail Servers

The WRKKMSRV (Work with KeyesMail Servers) program is used to control and track the e-mail server activity on your system. A user must have *JOBCTL special authority to use this program.



Options

Option 1=Start

This will start the KeyesMail subsystem, if it was not already active, and then start the selected server program. The server program will bind to the appropriate socket and wait for connection requests from PC mail clients.

Option 2=Change

This can be used to change the server setup information.

Option 4=End

This is the normal way to end a server. No additional connection requests will be accepted. Any PC that is already connected will continue until normal completion.

Option 7=Cancel

This can be used to immediately end a server, if it is stuck or not responding properly.

Function Keys

Press this:	To do this:
F3	Exit the program.
F5	Update the screen with current activity.
F12	Cancels the program.
F13	Shows you all the active Jobs in the KMail subsystem.
F14	Shows you all the messages in the KMail MsgQ.
F15	Shows you all the KMail Job Queues.
F17	Shows you all the HTTP Server Jobs.
F20	Shows you the Work with TCP/IP Administration menu.

KeyesMail Server Setup

Option 2 (Change) on any of the servers will show you the Server Setup. This is used to setup all of the KeyesMail Servers.

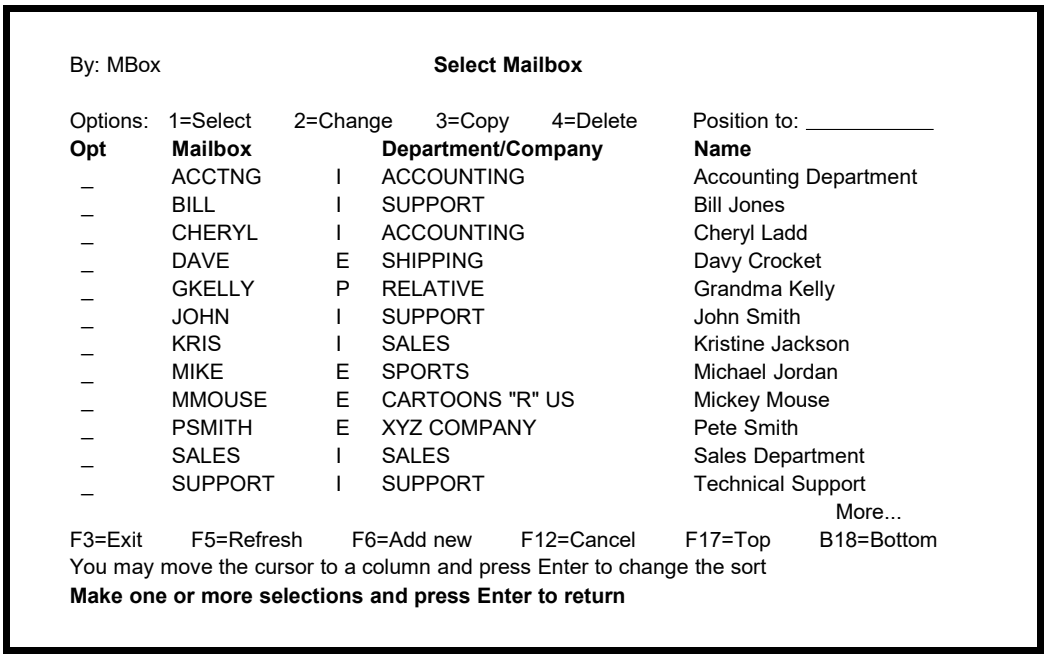
KeyesMail Server Setup

Type choices, press Enter.

Organization or 'Company Name' . . . . . >	'Company Name'	
Server domain 'use quotes' . . . . . >	'company.com'	
Server's IP Address . . . . . >	'192.168.10.1'	(iSeries's address)
Server Run Priority . . . . . >	15	(10-70)
Number of SMTP clients . . . . . >	05	(00-99)
SMTP client backlog . . . . . >	01	(00-99)
Number of POP3 clients . . . . . >	05	(00-99)
POP3 client backlog . . . . . >	01	(00-99)
Number of HTTP clients . . . . . >	05	(00-99)
Communication timeout . . . . . >	020	(005-120 seconds)
Maximum mail size relayed . . . . . >	02000	(00020-99999 Kbytes)
SMTP Port (usually 00025) . . . . . >	00025	
POP3 Port (usually 00110) . . . . . >	00110	

External Mailboxes

You may define external mailboxes for commonly used recipients. You are not charged for External mailboxes, so you can create as many as you want. They can be maintained using item 32 *External Mailboxes* from the KeyesMail menu.



By: MBox **Select Mailbox**

Options: 1=Select 2=Change 3=Copy 4=Delete Position to: _____

Opt	Mailbox		Department/Company	Name
_	ACCTNG	I	ACCOUNTING	Accounting Department
_	BILL	I	SUPPORT	Bill Jones
_	CHERYL	I	ACCOUNTING	Cheryl Ladd
_	DAVE	E	SHIPPING	Davy Crocket
_	GKELLY	P	RELATIVE	Grandma Kelly
_	JOHN	I	SUPPORT	John Smith
_	KRIS	I	SALES	Kristine Jackson
_	MIKE	E	SPORTS	Michael Jordan
_	MMOUSE	E	CARTOONS "R" US	Mickey Mouse
_	PSMITH	E	XYZ COMPANY	Pete Smith
_	SALES	I	SALES	Sales Department
_	SUPPORT	I	SUPPORT	Technical Support

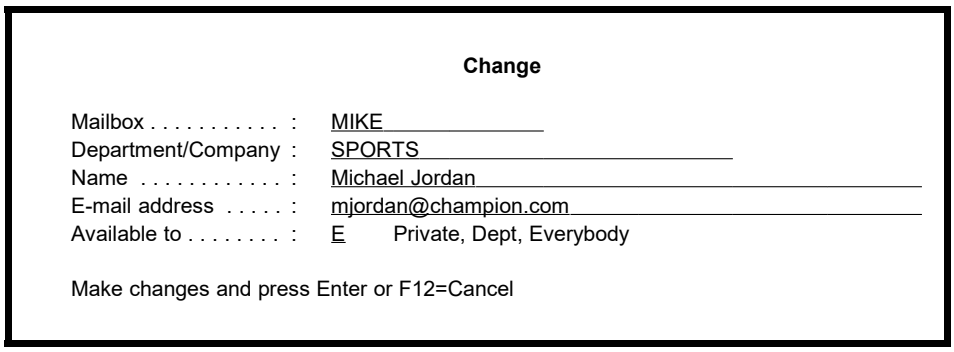
More...

F3=Exit F5=Refresh F6=Add new F12=Cancel F17=Top B18=Bottom

You may move the cursor to a column and press Enter to change the sort

Make one or more selections and press Enter to return

You may wish to store external Internet addresses in the company Phonebook. However, you can add addresses as external mailboxes, if desired. Each mailbox can be coded with either a department or a company name, as you see fit. Private addresses are stored in a separate file, one for each Internal mailbox.



Change

Mailbox . . . . . : MIKE
Department/Company : SPORTS
Name . . . . . : Michael Jordan
E-mail address . . . . . : mjordan@champion.com
Available to . . . . . : E Private, Dept, Everybody

Make changes and press Enter or F12=Cancel

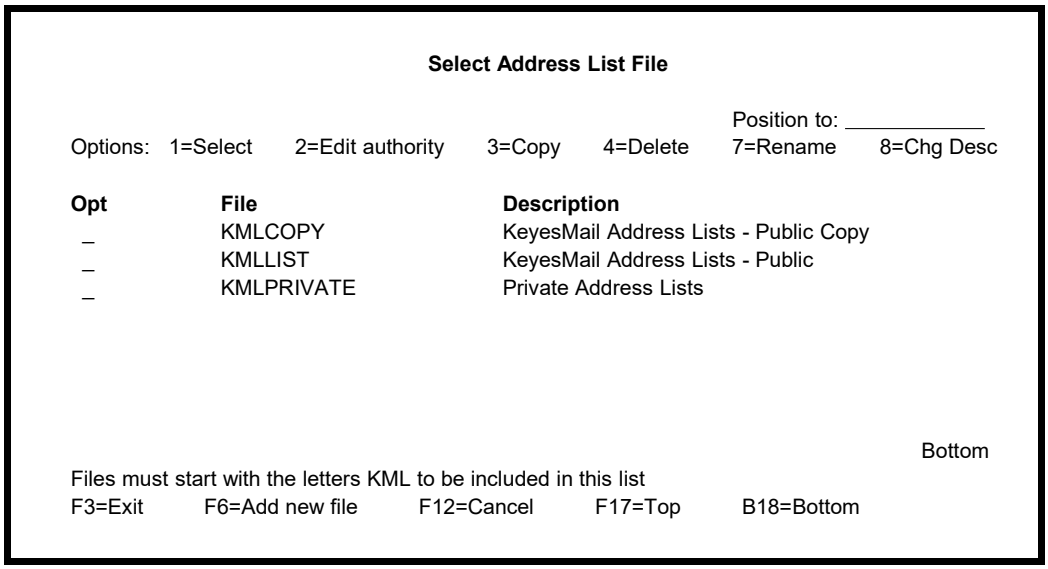
Hint: You can send mail to everyone within a department, by coding *ALL followed by the department name (limited to 10 characters). For this reason, coding external addresses with a department name instead of a company name, may prove to be useful. Anybody in the world can be considered part of some department within your company, for mailing purposes.

Available to:

Private mailboxes will only be shown to the user that created them. Mailboxes marked for a department will only be shown to users within the department of the user that created them.

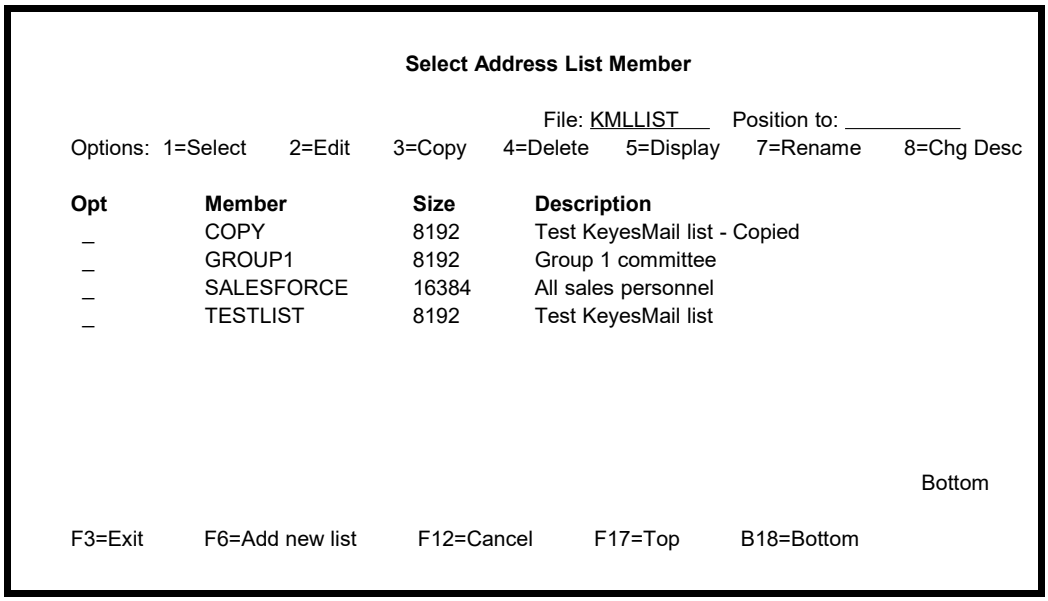
Address Lists

You may define address lists that contain any number of mailboxes or Internet addresses for sending E-mail. Addresses in an Address List will be sent as Blind Copies. Address lists are maintained using item 33 *Address Lists* from the KeyesMail menu.



Create as many files, as desired, to contain the address lists for different purposes or groups of users. The authority for each file can be set so that only the appropriate groups of users can access or change each set of lists.

Note: If **Public* is excluded from a List file, be sure to include the profile KMAIL as an authorized user of the file. This must be done to allow the system to access the lists for mailing.

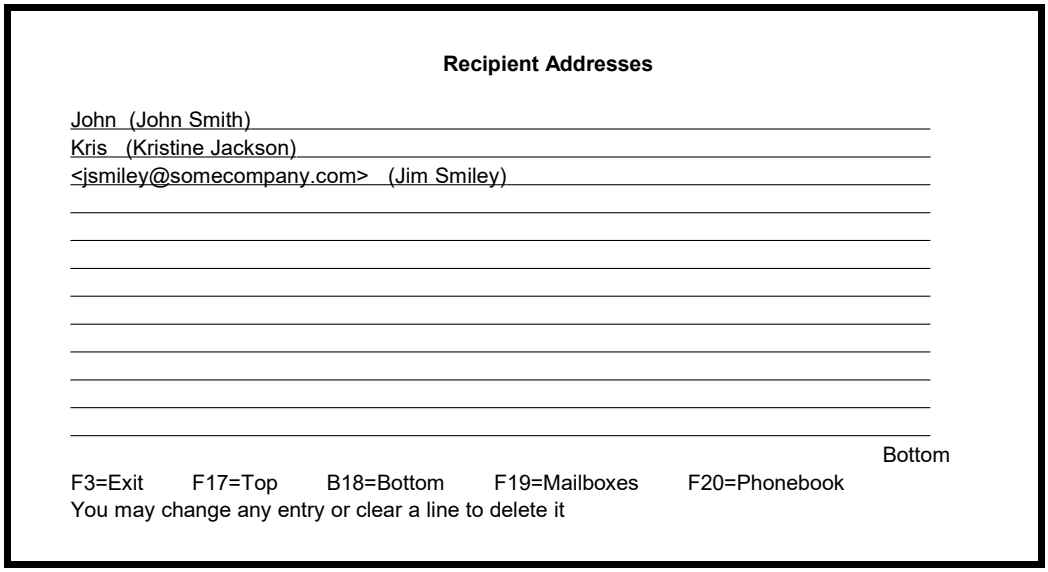


To select a List member enter a **1** in the option column. The program will end and the member name will be sent back to the calling program.

Editing an Address List

Each list can contain any number of mailboxes and Internet addresses for a specific purpose.

While editing an Address List, you can manually enter mailbox names or Internet addresses, left justified, on any line. The complete (user name) is automatically included for you when you enter a mailbox on a line. The Internet address and the full name is included for external addresses, to assist you in identifying the recipients.



You may use F19 to open a list of mailboxes that you can select from. Or, F20 will open your default Phonebook to assist you in selecting recipients.

Recipient addresses should be entered in one of the following formats:

- account_name@domain.network
- <account_name@domain.network> (Recipients name)
- mailbox_name

You may delete recipients from the List member, by clearing lines.

Using PC Mail Clients

PC mail clients can be easily configured to read mail from KeyesMail mailboxes. Any of the mailboxes can be shared between 5250 terminals and PC mail clients. This can be handy for reading your mail at home or on the road.

To do this, you must first configure and start the KeyesMail SMTP and POP3 Servers, described previously in this section. Create a new mail account in your PC mail client or change an existing one to have the following properties:

PC Mail Account Properties

User Information	
Name:	Your full name.
Organization:	Your company name.
E-mail address:	This must match the return address in the KeyesMail User Setup screen.
Reply address:	This can be left blank, as desired.
Server Information	
Incoming mail server type:	POP3
Incoming mail (POP3):	Set these both to the IP address
Outgoing mail (SMTP):	of your iSeries or AS/400. This same address must also be coded in the KeyesMail Server Setup screen.
Account name:	This must match the KeyesMail mailbox name (upper case).
Password:	This must match the password on the KeyesMail User Setup screen, and is case sensitive.
Secure Password Authentication	This must not be used.
Server Port Numbers	
Outgoing mail (SMTP):	This must match the value set in the KeyesMail Server Setup screen, and is usually 25.
Incoming mail (POP3):	This must match the value set in the KeyesMail Server Setup screen, and is usually 110.
Delivery	
Leave mail on server	You may do this, if you are sharing this mailbox.
Remove from server	You must remove the mail from the server after a few days, unless you are also reading the same mail using another PC or 5250 terminal.

Note: PC's will only read mail that has a Status of ***New**. If you open a piece of mail with a 5250 terminal, the Status will be changed to **Opened**. If you wish to have a PC read the same piece of mail, you must use option 2 (Change) on the *Work with KeyesMail* screen to change the Status back to ***New**.

Using a Web Browser

Any Web browser can be used to access the mail from KeyesMail mailboxes. Any of the mailboxes can be shared between 5250 terminals, PC mail clients, and any Web browser. This can be handy for reading your office mail at home or on the road.

To do this, you must first configure and start the KeyesMail HTTP Server, described previously in this section. The following steps are needed to activate the HTTP Server:

Using the HTTP Server

Item 31 (User Setup)	
Personal mail account:	
Password:	This is the password that will be used to access your mailbox.
Max Sign-on attempts:	This must be set to a value > 0 to allow access to a mailbox. For extra security, each mailbox will be disabled for 1 hour, if more than the maximum Sign-on attempts are made with the wrong password. Be aware that the password is case sensitive.
Item 22 (KeyesMail Servers)	
Start the HTTP Server:	Use option 1 on the HTTP Server to start it.
Firewall	
Open port 18110:	KeyesMail will use port 18110.
Web Browser	
Set your Browser to access http://your-AS/400:18110/	'your-AS/400' can be the iSeries' domain name or the external IP address.
Signin screen:	Use the mailbox name and the password for that mailbox to sign in.

2 Tutorial

This chapter contains a number of exercises that can be used to familiarize a 5250 terminal user with the KeyesMail system. Each exercise was designed to be short and easy to complete in 10 to 30 minutes, and will depend on the completion of the previous exercises. Be sure that the system has been completely installed before starting the exercises.

We recommend that you spend the time to go through this tutorial. This will be the easiest and fastest method of finding out what the system can do. After that, you can refer to the other chapters for detailed information about each program.

✔ ***Note:*** Detailed instructions are given to you with a check-mark so that you will not miss any steps. Explanations for what the program is doing may either precede or follow each instruction.

Before you can use the KeyesMail system, a *Security Administrator* should have created a mailbox named after your user-id for you.

✔ Display the KeyesMail menu, using GO KMMENU.

✔ Choose item 31 on the menu (User Setup) and press the Enter key.

If you are a Security Administrator the program will show you the *Work with KeyesMail Users* screen. If this is the case, enter a **2** beside your mailbox to go to the *User Setup* screen shown below:

```
WRKKMU                          User Setup                      Date
user-id                         Mailbox: Yours                  Time

Type choices, press Enter.
Name . . . . . :    Your Name
Department . . . . . :    YOUR-DEPARTMENT
Return address . . . . . :    your-account-id@host.network
Restrict to Local Network . . . . . :    N    Yes, No
Restrict Attachments . . . . . :    P    Yes, No, Partial

Mail Notification
Delivery mode . . . . . :    B    (N)=Normal, (B)=Break, ( )=None

Personal Language . . . . . :    _____    Leave blank to use
Personal Phonebook . . . . . :    _____    the default system
Name heading . . . . . :    CONTACT    values ----------
Company heading . . . . . :    COMPANY
E-mail heading . . . . . :    E-MAIL

Routing entries:  YOUR-USER-ID or YOUR-ACCOUNT-ID
                                                              More...
F3=Exit      F12=Cancel
```

✔ Verify that your name and return address are correct. The system will use both of these fields in your outbound e-mail messages. Make any necessary corrections and press the Enter key, then F3 (Exit).

Creating and Editing an E-mail Message

✔ Choose item 1 on the menu (KeyesMail) and press the Enter key.

This will start the *Work with KeyesMail* program where you can control all of your E-mail messages. If this is your first time, it will probably be empty.

```
WRKKML                          Work with KeyesMail                          Date
user-id                                                                      Time
Sort By> Date                   Mailbox> Yours____          Position to: ________

Options:  2=Change   3=Copy   4=Delete   5=Open   6=Print   7=Rename   8=Move
          9=Reduce   H=Hold   S=Spam
Category> In Box                                          (K)          YYMMDD
Opt       Subject                 To/From              Status   Size  PSAN   Date
_         KeyesMail brochure  Fr  Kristine Kujala <info  *New     21    Y     000715




Bottom
F3=Exit        F5=Refresh      F6=Create new mail      F10=Expand      F11=View 2
F12=Cancel     F17=Top         F18=Bottom
Move the cursor to a column and press Enter to change the sort.
```

✔ Press F6 to create a new mail message.

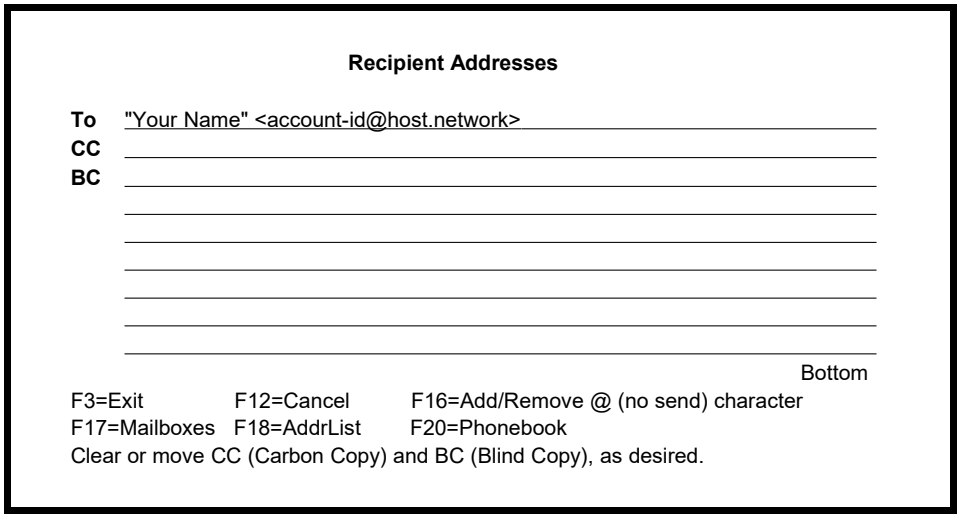
The system will create a unique member name in your mailbox, then it will open the new member with the *Message Editor* program.

```
EDTKML      Mailbox: Yours      Member: M071515432      Outbound

    Sent:
      To>
 Subject:   ____________________________________________________________
  Attach>
 Options>   Normal, From: "Your Name" <account-id@host.network>
  Status:   Created                    Category:  In Box
  Errors:
Message:
 *. . .+. . . .1. . . .+. . . .2. . . .+. . . .3. . . .+. . . .4. . . .+. . . .5. . . .+. . . .6. . . .+. . . .7. . . .+.




F1=Functions>                                   Full-Roll     Insert     Bottom
F3=Exit   F4=Adjust   F6=Insert/OvrTyp   F10=Top   F11=Bottom   F24=More Keys
```

Addressing your E-mail

For new mail members, the system will automatically open the *Recipient Addresses* window for you.

✔ If your message was not new, you must move the cursor up to anywhere on the *To>* line and press the Enter key to open the *Recipient Addresses* window, shown below.



You will learn how to use the Phonebook to address your E-mail in a later exercise, but for now you are going to send this mail to yourself.

✔ Enter your own mailbox name (user-id) on the *To* row and press Enter.

Your name should appear in "double quotes" and your E-mail address in <angle brackets>. Mailboxes are automatically addressed for you. Internet addresses can be entered in the following formats:

- "Person's Name" <account-id@host.network>
- account-id@host.network
- <account-id@host.network> (Person's Name)

✔ Press the Enter key when you are finished and the *Recipient Addresses* window will be closed.

Keying the Message

The Message Editor will automatically word wrap for you as you type beyond the end of each line.

✔ Enter a subject on the *Message Editor* screen in the Subject column, for example: "Test E-mail message". Now Tab down to the Message area and type the following text, with a blank line separating each paragraph:

This is a short message that I will use to see how the Message Editor works. I should learn how to use the Phonebook, the spell checker, how to copy lines, and how to insert new information.

Be sure to include a blank line between paragraphs.

Your_first_name

When finished your message should look as follows:

```
EDTKML        Mailbox: Yours          Member: M071515432        Outbound

    Sent:
      To>     Your Name <account-id@host.network
 Subject:     Test E-mail message
  Attach>
 Options>     Normal, From: "Your Name" <account-id@host.network>
  Status:     Created                    Category:  In Box
  Errors:
Message:
 *. . .+. . . .1. . . .+. . . .2. . . .+. . . .3. . . .+. . . .4. . . .+. . . .5. . . .+. . . .6. . . .+. . . .7. . . .+.
 This is a short message that I will use to see how the Message Editor  works.
 I should learn how to use the Phonebook, the spell checker, how to copy
 lines, and how to insert new information.

 Be sure to include a blank line between paragraphs.

 Your_first_name



F1=Functions>                                          Full-Roll     Insert    Bottom
F3=Exit    F4=Adjust    F6=Insert/OvrTyp    F10=Top    F11=Bottom    F24=More Keys
```

Inserting Text

To insert text in a paragraph you will use the F6 (Insert/OvrTyp) key. You are going to insert the phrase "how to adjust lines," to the last sentence in the first paragraph.

✔ Move the cursor to the beginning of the word "how" on the second line of the first paragraph on the far right side of the screen. Press the F6 key to start inserting. The editor will be in **Insert** mode.

Notice that the rest of the current line is cleared and the words "how to copy" are moved down to the next line.

✔ Type in the missing phrase "how to adjust lines,".

Notice that word wrapping continues to work as before, except that the rest of the sentence is pushed down while you add more text.

✔ Press F6 again to toggle the editor into **OverType** mode.

The rest of the text will be automatically adjusted to fill out the remainder of the paragraph.

Note: When you press F6 key with the cursor in the middle of a line, the editor will always switch or stay in **Insert** mode. It will only toggle into **OverType** mode when there is no text to the right of the cursor.

Spell Checking

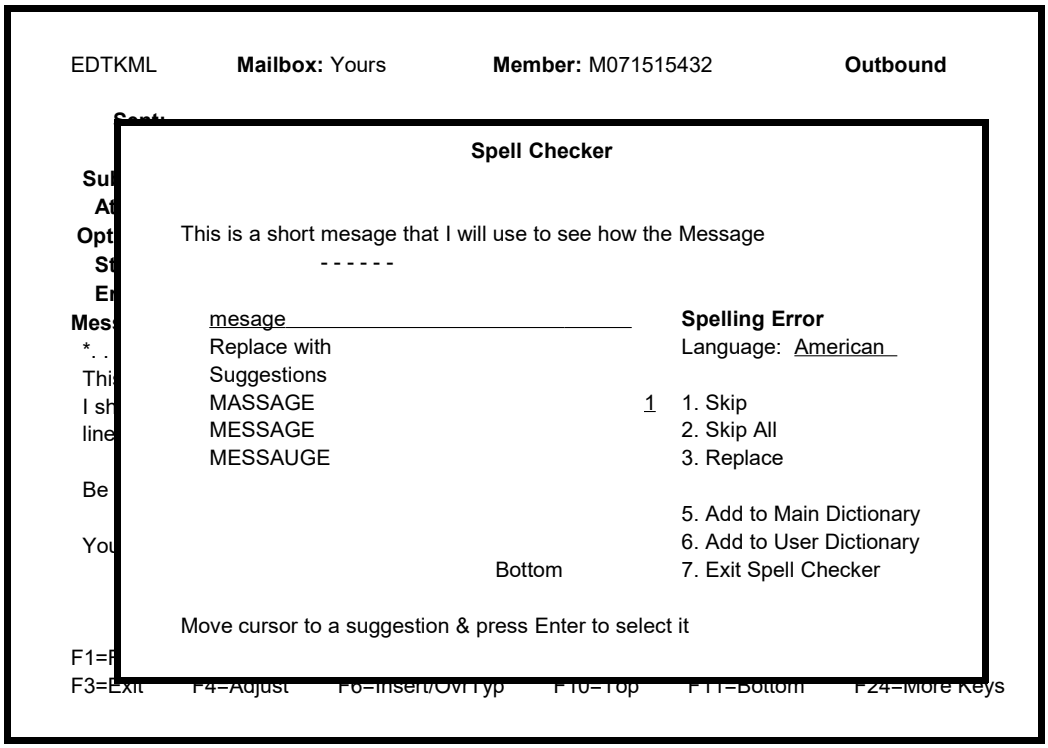
You will use the F23 (Spell Check) key to do spell checking. Before we do that, let's make a misspelled word to be checked.

✔ Move the cursor up to the top message line and change the word "message" to read "mesage" by removing an "s" with the Delete key.

The spell checker starts checking for spelling errors, capitalization errors, and for duplicate words from the cursor down. So before we get started, you must move the cursor to the beginning of the message.

✔ Press the F10 (First) key. This moves the cursor to the top of the screen. Now press F23 to start the spell checker.

The following window should pop onto the screen:



It is showing you that the word "mesage" is misspelled. One of the suggestions should show you the correct spelling of the word.

✔ To select the suggested word "message" move the cursor down to the line with the correct spelling, then press the Enter key.

The selected suggestion will appear in the *Replace with* field and (Replace) will become the default *action*.

Note: Enhanced screens will use Radio buttons instead of the numbers (1-7) for you to select an *action*. One way to select a Radio button action is to Tab to the *action* field, cursor down, and press the Space Bar when the desired selection is highlighted.

✔ To replace the misspelled word you may now press the Enter key.

The spell checker will then try to kick out the word "Phonebook".

- ✔ You may skip the word, leaving it as is, by simply pressing the Enter key which will select the default *action* (Skip).

  When the spell checker has finished checking your message, the window will close, and return you to the *Message Editor* screen.

Copying Lines

You may copy individual lines of text or whole paragraphs from any message member to the same member or to any other member using the F22 (Copy lines) key. Let's copy the entire first paragraph to see how this works.

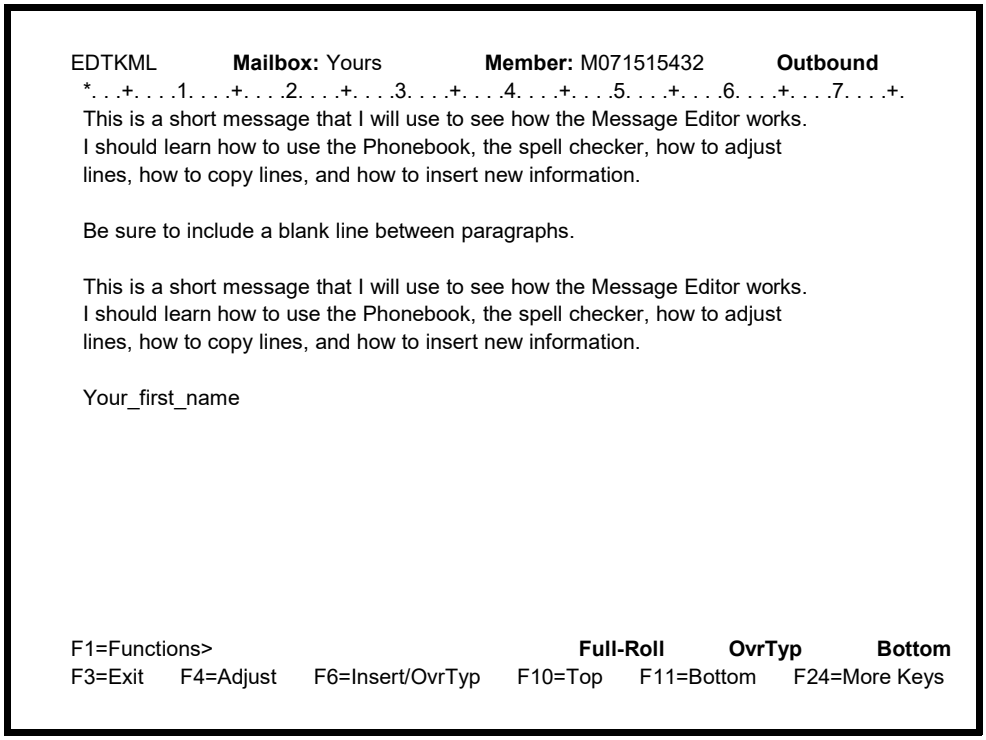
- ✔ First move the cursor to the first line of the first paragraph. It does not matter what column the cursor is in, only the line matters.
- ✔ Press F22 and the line that you were on is highlighted and the cursor moves down one line.
- ✔ Press F22 three more times to highlight the rest of the paragraph, plus the blank line after it.

  You now may move the cursor to any line where you wish to copy the selected lines, in this or any other message member. We are going to copy it just above your name, after the second paragraph.

- ✔ Move the cursor down to the line where you entered your name, and press the Enter key.

  A copy of the selected lines will appear at the cursor location.

- ✔ If you cannot see your entire message, press the Roll Up or Page Down keys on your keyboard. You should see the following:



Editing and Adjusting Text

Characters may be deleted from your message using the Delete key. Then you can re-adjust or paginate the paragraph line endings using the F4 (Adjust) key. Let's remove some of the text in the message, to see how this works.

- ✔ Move the cursor to the second line of the copied paragraph, to the word "Phonebook".
- ✔ Use the Delete key to remove the words "Phonebook, the".

The line you are on will now be too short, the paragraph needs adjusting.

- ✔ Press F4 to adjust the paragraph.

Deleting Lines

Whole lines may be removed from your message using the F13 (Delete) key.

- ✔ Move the cursor up to the first line of the copied paragraph. It does not matter what column the cursor is in, only the line matters.
- ✔ Press the F13 key four times to remove the whole paragraph, plus the blank line after it.

Notice that the following text lines move up to take the place of each line as it is deleted.

Sending your E-mail

You have seen how the Message Editor allows you to key and edit an E-mail message. Now it is time to mail it.

- ✔ Press the F2 (Send) key.

The message line at the bottom of the screen will give you the following instructions:

Send? Press Enter to mail in Batch mode, F2=Interactive, or F12=Cancel

- ✔ Press F2 a second time to send the mail Interactively.

The *Message Editor* will check the recipient addresses, using the routing tables, to see if any or all are actually internal mailboxes defined in the KeyesMail system. All internal recipients will be sent the message immediately. If there are any external addresses, the message will be prepared for transport over the Internet and its *Status* will be changed to "Out Box". These messages will be sent through the Internet on the next mail run.

If you change your mind, before the mail has been sent, you can place your message on **Hold** using option H on the *Work with KeyesMail* screen. This will allow you to reopen your message, modify it, and mail it at a later time, as desired.

- ✔ Press F3 (Exit) and you will be returned to the KeyesMail Menu.

KeyesFile Information Manager

A program called *KeyesFile Information Manager* is used to maintain your Phonebook. You will be able to store a wide variety of information in your Phonebook, including company names, contact names, phone numbers, E-mail addresses, etc. Each user can create and use their own personal phonebooks or a company wide phonebook can be used.

The following steps will have you open a sample KeyesFile member (called SAMPLE) to see how the information manager works.

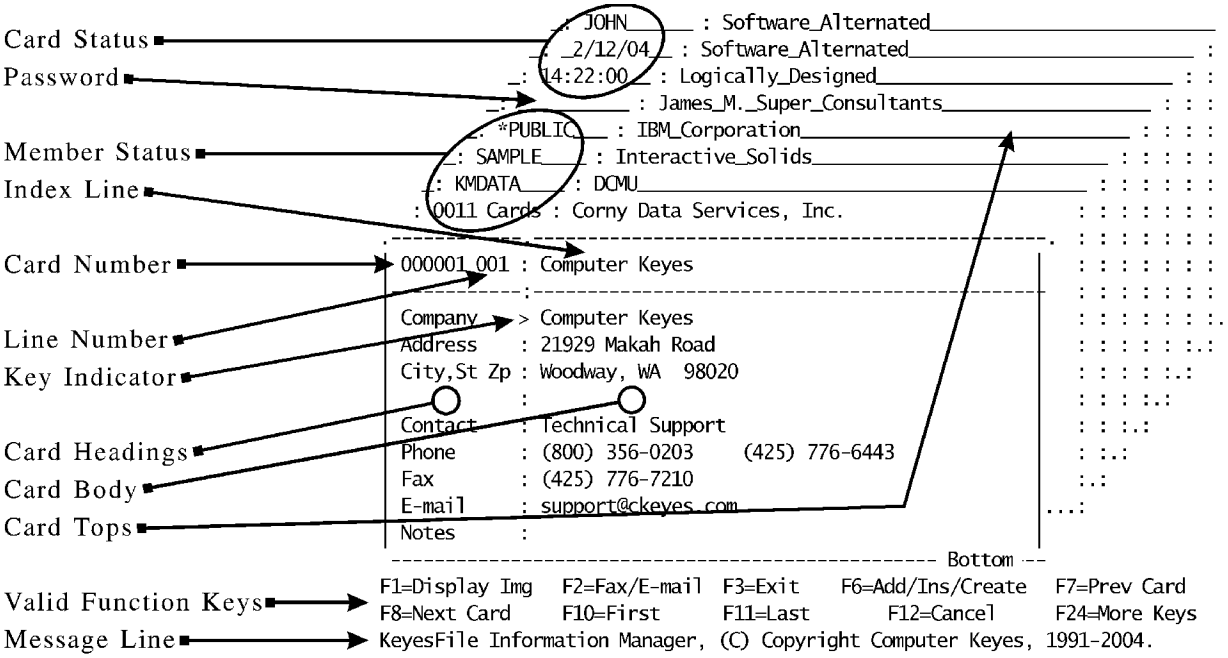
✔ Display the KeyesMail menu (KMMENU), using the GO KMMENU command.

You can start the program using option 2 from this menu, however, if you prefer you can enter a PB (Phonebook) command directly on the command line, as follows:

✔ Enter: PB

This will start up the KeyesFile Information Manager showing you the cards in your default Phonebook member name.

The following picture should assist you in finding the different areas on the screen. Like all the KeyesMail programs, the information manager is sensitive to the location of the cursor. It will perform completely different functions depending on where the cursor is at the time you press the Enter key or a function key.



Switching Members

A sample KeyesFile member containing fictitious names and addresses is available for this exercise. We will be using it to demonstrate how you can store and retrieve information in a number of ways. But first, you must switch to the SAMPLE member.

To do this you need to find the location of the *Member Name* field. You may want to refer to the picture on the previous page. The *Member Name* field is located directly below the word *PUBLIC, in the Member Status area.

✔ Move the cursor straight up four lines from the index line, placing it into the *Member Name* field and press the Enter key.

This will activate the Member Status area, allowing you to open a new member.

✔ Replace the existing member name with the name **SAMPLE** and press the Enter key.

Managing Information

9 Card Tops show you the index or key to the cards. You can quickly jump to a specific card using the Index line, but before we do that, let's see some of the other ways of moving around.

Scrolling through the cards:

✔ Use F8 and F7 to scroll forwards and backwards through the cards.

This is one of the ways of moving around, and is normally used when the card that you seek is only a few cards away, or you want to look at each card in a group. For a faster scroll you can use the Page or Roll keys.

✔ Be sure that the cursor is on the Index line, then use Page Up (or Roll Down) to scroll 8 cards at a time through the file.

There were only 11 cards in this file when we first gave it to you. As you scroll through the file, notice that the program shows you where the bottom of the file is, then starts the list over at the beginning of the file again.

Displaying a particular card:

If you see the top of a card that you want to display, here is another method you can use to get to it.

✔ Move the cursor to one of the Card Tops. Be sure that you have moved the cursor over to the right of the Card and Member Status areas.

✔ Press the Enter key.

The card top that you were on instantly moves to the front, so that you can read the rest of the data on the card.

Searching for a specific card:

The computer can also find a card for you if you give it one or more characters of a key to search for.

- ✔ Move the cursor to the first character of the Index line (see picture).
- ✔ Type a capital **S** followed by the Field Exit key.

The computer will move to the first card with a Company Name that starts with the letter **S**.

Jumping to the first card:

Before we go on to the next step, lets jump to the first card in the file.

- ✔ Be sure that the cursor is on the Index line.
- ✔ Press F10 to jump to the first card.

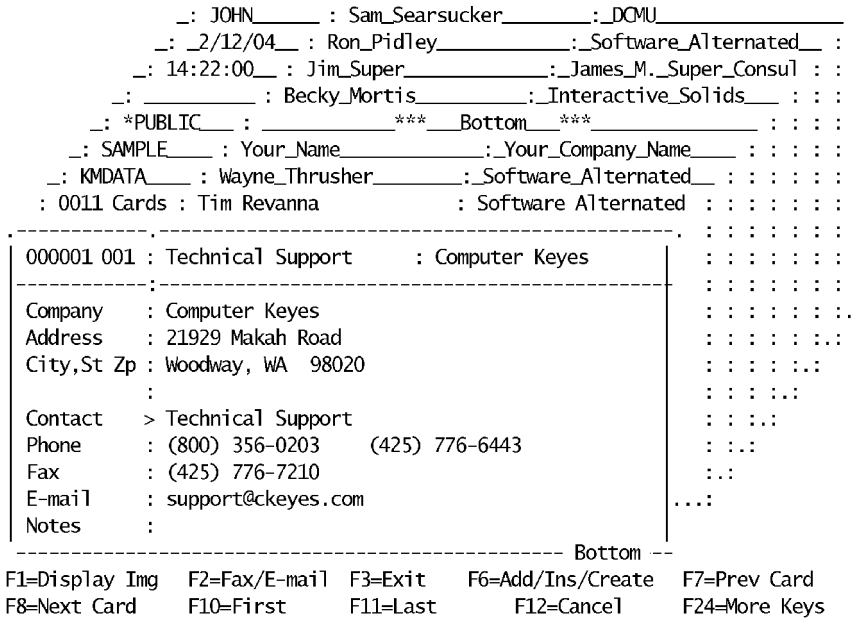
You now should be on the Computer Keyes card. If not, use F8 or any other method to position yourself there.

Changing the Index

You have been able to move around in the cards freely looking for different companies. But, what if you were looking for a person instead of a company. KeyesFile allows you to easily switch the key to any of the 999 card lines.

- ✔ Move the cursor to the Key Indicator column on the Contact line. The cursor should be on the colon in front of *Technical Support*.
- ✔ Press the Enter key.

The Card Top area is now split, showing you both the newly selected key and the primary key to the cards. The cards are instantly shown to you in a new order based on the newly selected key.



Searching by the new key:

Searching for cards using a different key is no different than for the primary key except that not all of the cards will necessarily be shown to you. Any card that does not have anything keyed for the selected key is not shown.

For example, there is a card in the file for IBM Corporation. Notice however, that if you scroll through the file, the IBM card is not shown to you. That is because the IBM card does not have anything keyed in the Contact column.

✔ Move the cursor to the first character of the Index line, type a capital **Y**, then press the Field Exit key.

This time the computer moves the first card with a Contact name that starts with the letter **Y** to the front. We are looking for a card with *Your Name* and *Your Company Name* on it.

Editing a Card

We are going to duplicate the *Your Name* card, so that you can change it. This should allow everyone to use the tutorial without things getting confusing.

✔ Put the cursor on the Index line of the *Your Company Name* card.

✔ Press F22 to duplicate the card.

Notice that the message, at the bottom of the screen, tells you that you are looking at the original (not the copy) of the card. The copy should be just behind the original in the file. The original had card number 11. The copy will have a higher card number.

✔ Press F8 to move to the copy of the card.

Making the copy your own:

The card that you just duplicated is for you, and you alone. You get to make any changes to this card that you want.

✔ Move the cursor down into the Card Body to the *Company Name* line (not the Index line).

✔ Key in your own company name over the top of *Your Company Name*.

✔ You may move the cursor down to the next line, using the Field Exit key.

✔ Fill in the address, your name, phone numbers, and E-mail address as each line is labeled.

As long as you do not press the Enter key, the Index line will stay the same as it was when you first displayed the card.

✔ Press the Enter key to update the card and the Index line.

Undoing Changes

Before you press the Enter key, a function key, or a Roll key, any changes to a card are not permanently recorded. You will be able to undo those changes using the Home key (Alt+Home on some terminals). Lets make a change to your card and get the original back to see how this works.

- ✔ Use the down arrow key to move the cursor down to the *Address* line.
- ✔ Type some garbage over the top of the good address, but do not press the Enter key.

Remember, as long as you do not press the Enter key, a function key, or a Roll key, you can undo the changes that you make to the card.

- ✔ Press the Home key **twice** to undo the changes.

On some terminals, you must hold down the Alt key to activate the Home key. You will be able to tell when this is necessary, when the word *Home* is written on the front of the key in green.

Scrolling to additional card lines:

There are up to 999 lines of data for each card, but we have only seen 9 lines of the cards so far. Let's move down to the other lines in this card.

- ✔ Move the cursor down to any line on the front card, not the Index line.
- ✔ Press the Page Down or Roll Up key to scroll down to the next 8 card lines.

When you roll up, you should see the Card Heading column change to *Notes* at the top of the column, and the number *009* appear in the Line Number field. A lot of additional information can be added to the cards, including new Headings, as desired.

- ✔ Press the Page Up or Roll Down key to scroll back up to the top of the card.

We have successfully explored the KeyesFile Information Manager to the point where you should be able to get around in any card file. For additional information please refer to the PhoneBook chapter. It will show you how to make subsetted lists, use the search function, add or delete lines, update card headings, use the printing features, etc.

If you wish to end the tutorial now, just press the F3 (Exit) key. But if you stick around a little longer, the following exercise will show you how to create a new E-mail message directly from the KeyesFile Information Manager.

Sending E-mail from your Phonebook

E-mail messages can be addressed directly from the KeyesFile Information Manager. It can start the KeyesMail program for you and send it recipient information which will be used for addressing your message.

We will start from where you left off from the previous exercise, on your card. If you need to get back to your card, you may do so as follows:

- ✔ Start the Phonebook from the KeyesMail menu or by entering PB.

  This will open your default Phonebook member.

- ✔ Change the member name, by moving the cursor up to the *Member Name* field, pressing the Enter key, then entering the desired member name **SAMPLE**.

- ✔ Change the key to the Contact name, by moving the cursor to the Key Indicator column at the Contact line and pressing the Enter key.

- ✔ Find your card, by typing the first few characters of your name on the Index line and pressing the Field Exit key.

  You should now be looking at your card in the SAMPLE KeyesFile member.

Addressing a new E-mail Message

In order to address an E-mail message from the KeyesFile Information Manager, you must position the cursor on an E-mail address. The address can be located anywhere in any of the 999 lines of any card, and should be entered in the following format:

account-id@host.network

- ✔ Move the cursor to your E-mail address on your card. The cursor can be anywhere on the address itself.

- ✔ Press F2 (Fax/E-mail).

  The *Work with KeyesMail* program will start and should show you the messages in your mailbox. The message line at the bottom of the screen will give you the following instructions:

  Select an entry to be copied using Option 3 or press F6 for a new entry.

- ✔ You have your choice of copying any existing message or creating a new message. Either method will provide you with a new message that is automatically addressed to the recipient on the selected card.

- ✔ If your "Test E-mail message" from the earlier exercise still exists, key a **3** option next to it and press the Enter key. If there are no messages available to copy, you will have to press the F6 key to create a new message.

  The system will copy the message for you and address it. This new message is ready for you to make any changes and mail, as desired.

- ✔ When you are finished, press F3 (Exit) until you have ended all the program call levels and you are back to a command line.

Updating the Phonebook from your Mail

As you receive new E-mail messages, you may want to add new sender addresses to your Phonebook. This short exercise will show you how this can be done.

- ✔ Start the KeyesMail program from the KeyesMail menu or by entering KM.
- ✔ Open one of your E-mail messages using Option 5 on the *Work with KeyesMail* screen.

  From the *Message Editor's* main screen you can pass the current address to the KeyesFile Information Manager. For Outbound mail, it will send the **To** address. For Inbound mail, it will send the **From** address.

- ✔ Press F20 (Phonebook).

  The KeyesFile Information Manager program will start and your default Phonebook member will be opened. The message line at the bottom of the screen will give you the following instructions:

  Use F6 on Index line to add Person's name/account-id@host.network

  You may use any of the KeyesFile tools to search for existing cards for the person named, in case a card already exists in the Phonebook for this person or company. If you find an existing card, you can enter or change the E-mail address on that card, by typing it in as it is shown to you on the message line.

  If a card does not exist, you can add a new card by moving the cursor to the Index line and pressing the F6 key.

- ✔ With the cursor on the Index line, press F6 (Add).

  A new card will be created with the Person's name placed in the Contact line and the address placed in the E-mail line. You may add or update any other information on the new card, as desired, before returning to the KeyesMail program.

  Because you really do not want to add this card to your Phonebook, the following instructions will have you delete this card before leaving.

- ✔ With the bad card shown as the front card and the cursor on the Index line, press F13 (Delete).

  The message line at the bottom of the screen will give you the following instructions:

  Delete? Press Enter to confirm deletion of this card, or F12 to Cancel

- ✔ Press the Enter key to delete the card you just added.
- ✔ When you are finished, press F3 (Exit) until you have ended all the program call levels and you are back to a command line.

Addressing your Mail using the Phonebook

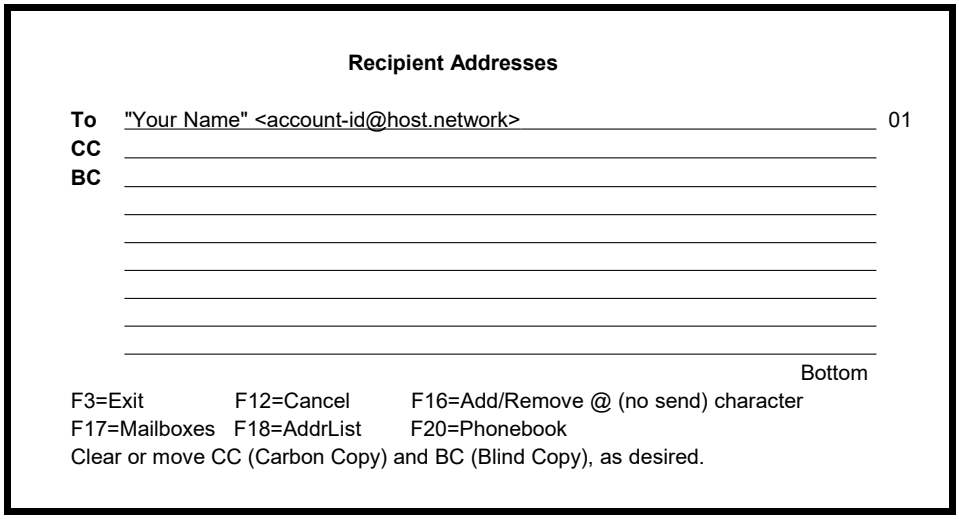
Up to 100 different recipients can be named for each E-mail message. Your Phonebook will provide an easy way for you to address your mail. This exercise will show you how this works.

✔ Start the KeyesMail program from the KeyesMail menu or by entering KM.

Both inbound and outbound mail are shown to you on the *Work with KeyesMail* screen. You can tell the difference between the two types of E-mail by looking just to the left of the **To/From** address column. Outbound messages will display **To** and a recipient's address, whereas, inbound messages will display **Fr** and the sender's address.

✔ Open one of your outbound test E-mail messages using Option **5**, this will start the *Message Editor*.

✔ Move the cursor up to the **To>** line and press the Enter key to open the *Recipient Addresses* window on your screen.



It will probably already have your name and address on the screen, as shown above. Now we are going to add additional recipients.

✔ Press F20 (Phonebook) from this window.

The *KeyesFile Information Manager* program will start and your default Phonebook member will be opened. The message line at the bottom of the screen will give you the following instructions:

Use F20 on a card to select it or on a card top to select a series of cards

To select a card you must move the card to the front and position the cursor in the Card Body area before pressing F20. You may select additional recipients by moving new cards to the front and again pressing F20 with the cursor in the Card Body. Up to 100 recipients can be selected in this manner.

If you wish to select a series of cards, you would position the cursor on the Card Top of the first card in the series and press F20. The message line at the bottom of the screen will change to:

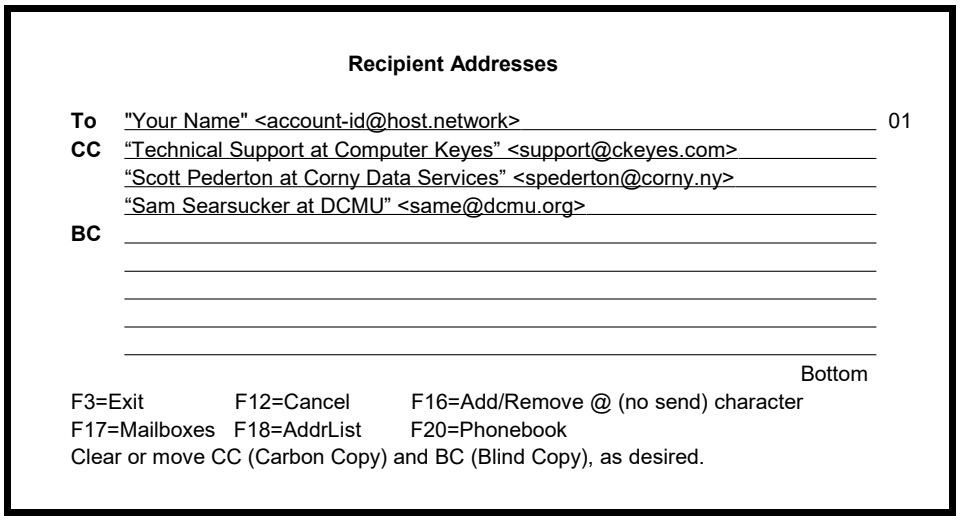
Press Enter with cursor on last card in this series to select, or F12=Cancel

You then use the Roll or Page keys until you can see the last card in the series. You move the cursor to the Card Top of the last card that you wish to select and press the Enter key. All the cards from the first to the last will be selected.

✔ If there are a few cards with addresses in your default Phonebook, go ahead and select some of them for this exercise. Otherwise, switch to the SAMPLE KeyesFile member and select some of the recipients from that member.

✔ When you have finished selecting recipients, press F3 (Exit).

You will be returned to the *Recipient Addresses* window. All the selected recipient addresses will be placed on the screen underneath any existing addresses.



If you have opened the mail that you sent to yourself, an **01** will appear to the right of your address, as shown above. This will show you how many internal recipients have read your message.

The **CC** code, found underneath the **To** heading, designates carbon copy. These recipients will be treated just the same as the original recipient, except that they will be listed as carbon copy recipients in the message.

The **BC** code, may be moved up to any recipient marking it and all addresses below it as blind copies. **BC** must remain below the **CC** recipients. Blind copy recipients will receive the same message, but will not be listed as recipients in the message itself.

✔ Press the Enter key after moving BC to the desired position.

The *Recipient Addresses* window will be closed. You can go back and see or update the recipients at any time by moving the cursor back up to the **To>** line and pressing the Enter key again.

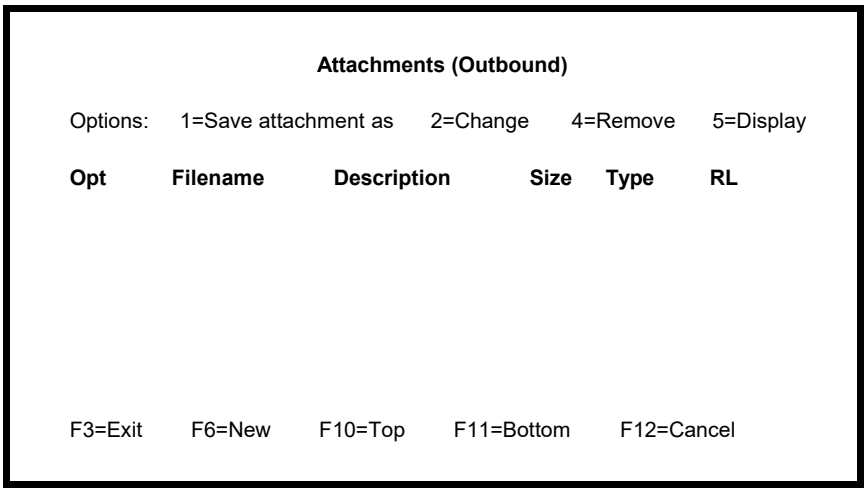
✔ When you are finished, press F3 (Exit) until you have ended all the program call levels and you are back to a command line.

Sending Attachments with your Mail

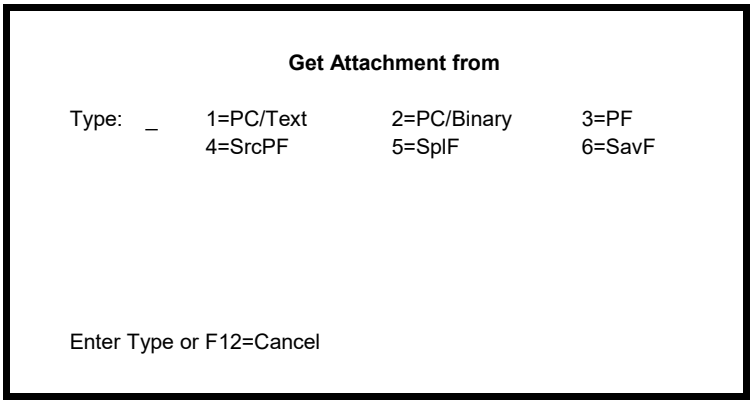
Up to 99 different attachments can be prepared and sent with each of your E-mail messages. You can send any type of iSeries file or object as an attachment, but be aware that large attachments (over one megabyte in size) may take a long time to prepare and transmit over a switched circuit.

This exercise will prepare a source member as an attachment with your test message.

- ✔ Start the KeyesMail program from the KeyesMail menu or by entering KM.
- ✔ Open one of your outbound test E-mail messages using Option 5 on the *Work with KeyesMail* screen.
- ✔ Move the cursor down to the **Attach>** line and press the Enter key to open the *Attachments (Outbound)* window on your screen.



- ✔ Press F6 (New) and the *Get Attachment from* window will open.



- ✔ Key a **4** (Source Physical File) in the Type field.

After selecting a type, the *Get Attachments from* screen will be expanded to include additional fields.

The source file member that you will be preparing as an attachment, in this exercise, is called CPYPFSF. We included this member with the system because it is a set of instructions that you could send to someone that you wanted to send an iSeries Save File to. These instructions would tell the recipient how to restore and install a Save File onto their iSeries, assuming they did not have KeyesMail software to do it for them.

Notice the angle brackets around **<Filename>**. This designates a hot spot. Hot spots in the KeyesMail programs typically open additional windows or programs that assist you. In this case, the <Filename> hot spot can be used to open a browser program.

- ✔ If you wish to explore this feature, go ahead and try it by moving the cursor up to the hot spot and press the Enter key, otherwise:
- ✔ Fill out the parameters as shown below, changing the library name if necessary, and press the Enter key.

```
                    Get Attachment from

Type:   4        1=PC/Text        2=PC/Binary        3=PF
                 4=SrcPF          5=SplF             6=SavF

<Filename>                Description
QCLSRC                    Copy PF to SavF instructions
Library                   Member
KMLIB                     CPYPFSF
Translate:          2  0=None   1=AtoE   2=EtoA    3=CSV
Compress:           _  0=None   1-3=PKZIP  4=Java
Encrypt:            _  0=None   1=ZipStd   2=ZipAdv

Enter From information or F12=Cancel
```

The attachment will be prepared for transport over the Internet and added to your message. The screen should show the following:

```
                    Attachments (Outbound)

Options:    1=Save attachment as    2=Change    4=Remove    5=Display

Opt     Filename     Description                  Size    Type      RL
 _      QCLSRC       Copy PF to SavF instructions 4141    SrcPF     92
        Fr: KMLIB       CPYPFSF                           Translt: EtoA



                                                                Bottom
F3=Exit    F6=New    F10=Top    F11=Bottom    F12=Cancel
```

- ✔ This exercise is finished, so you can press F3 (Exit) until you have ended all the program call levels.

Saving Attachments from your Mail

As you receive E-mail from the Internet, you will probably be sent messages with attachments.

The attachments can be any kind of iSeries, AS/400 or PC objects. When you save iSeries objects, you will tell the program what library, file, member, or output queue to place the attachments in. When you save PC objects, you will tell the program what file name and folder to place the attachments in, so they will be accessible to a PC.

You can also display the text of any attachment. This can be especially useful for viewing PC word processing documents.

This exercise will show you how to save an attachment onto your iSeries. We will be saving the attachment that you prepared in the previous exercise with your test E-mail message.

✔ Start the KeyesMail program from the KeyesMail menu or by entering KM.

✔ Move the cursor over to the *PSA* column and press the Help key.

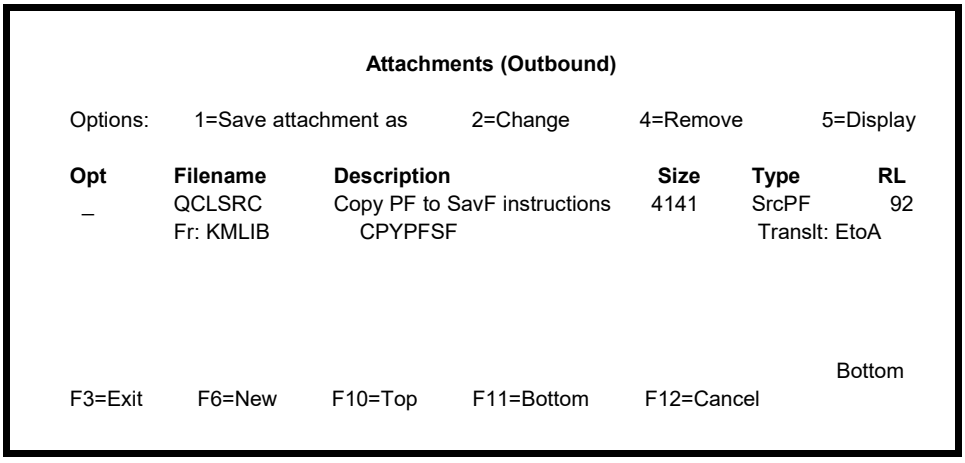
This will bring up a screen that describes what is listed under the PSA column heading. Position sensitive help information is available for all of the KeyesMail programs.

✔ Press F12 or F3 to exit the help screen.

You will see that a "Y" is coded on the screen in the *PSA* column to show which messages have attachments in them.

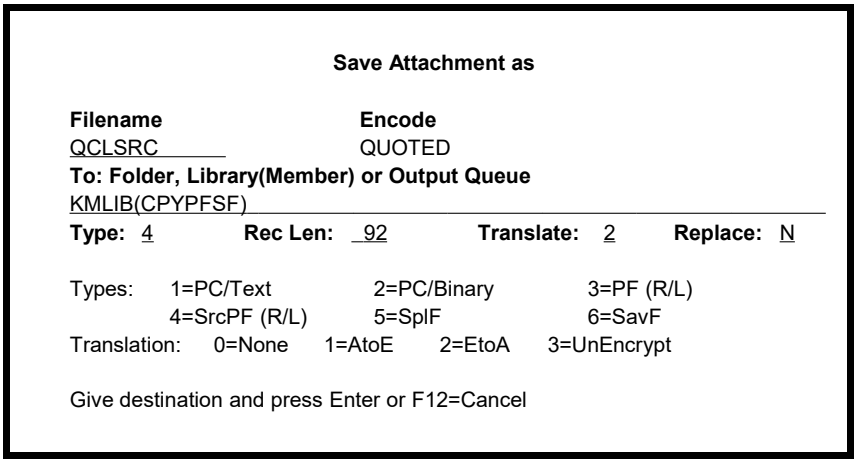
✔ Open the outbound test E-mail message that has the attachment that you prepared in the previous exercise, using Option **5** on the *Work with KeyesMail* screen.

✔ Move the cursor down to the **Attach>** line and press the Enter key to open the *Attachments* window on your screen.



✔ Enter a **1** (Save attachment as) in the Option column and press the Enter key.

The *Save Attachment as* window will open on your screen.



Normally, all of the parameters will not already have values filled out for you. They are on this screen only because this attachment was originally defined by you, in the previous exercise.

When attachments are created with the KeyesMail program, it tracks and sends more information about the attachments than PC E-mail programs do. That is because PC programs only have to deal with file names and directories, with their attachments. The iSeries must concern itself with file names, libraries, member names, record lengths, output queues, and so on.

We are going to save this attachment to your QTEMP library into a physical file named TESTFILE rather than back into the source file that it came out of.

✔ Change the file name to **TESTFILE**.

✔ Tab to the *To:* field and change it to read **QTEMP(TESTMBR)**.

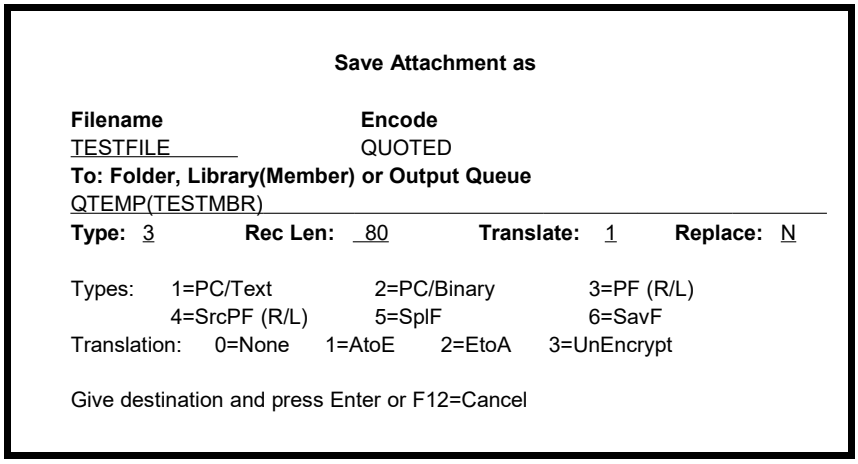
The original file was a source file with a 92 byte record length. The physical file that we will be creating, will only need to have an 80 byte record length, however, because there will not be any sequence numbers or dates for each record in the file (that source files have).

✔ Change the *Type:* field to **3** (PF) and change the *Rec Len:* field to **80**.

The original data that you placed in the attachment was translated from EBCDIC to ASCII so that PC users could read the instructions. When we save the attachment back to the iSeries, you will want to translate it back into EBCDIC so that you can read it on your iSeries.

✔ Change the *Translate:* field to **1** (AtoE).

Your screen should now look as follows:



✔ Press the Enter key.

The attachment will be translated to EBCDIC and saved as an iSeries physical file. To see the results, you would have to return to a command line and enter the following command:

Enter: dsppfm file(qtemp/testfile) mbr(testmbr)

This will start IBM's Display Physical File Member program where you can roll through the data to see what it says.

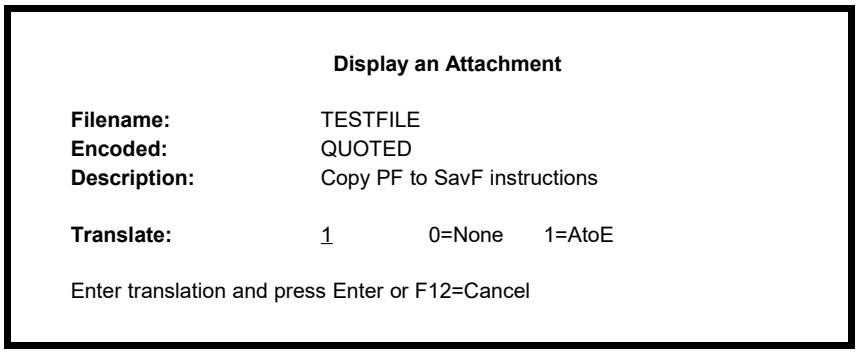
But don't bother! The following exercise will allow you to display the attachment on your screen.

Displaying Attachments

Rather than trying to view the physical file member, you can view the attachment data directly.

✔ Enter a **5** (Display) in the Option column in the *Attachments* window for the same attachment and press the Enter key.

The *Display an Attachment* window will open on your screen.



✔ Change the *Translate:* field to **1** (AtoE) and press Enter.

The attachment will be translated into EBCDIC, placed temporarily into a physical file in your QTEMP library and displayed on your screen.

✔ When you are finished, press F3 (Exit) until you have ended all the program call levels.

This concludes the tutorial. You can refer to the following chapters in this user's guide for additional information about the KeyesMail programs.

3 KeyesMail

Each user may track and control their e-mail using the *Work with KeyesMail* program (shown below). This program can be started from the KeyesMail menu or by entering KM on a command line.

```
WRKKML                          Work with KeyesMail                          Date
user-id                                                                      Time
Sort By> Date                   Mailbox> John_____          Position to: _________

Options:  2=Change   3=Copy   4=Delete   5=Open   6=Print   7=Rename   8=Move
          9=Reduce   H=Hold   S=Spam
Category> In Box                                                  (K)        YYMMDD
Opt  Subject                    To/From                 Status    Size  PSAN  Date
_    Please send KeyesFax  Fr   Kristine Kujala <kris   *New       1     P    000908
_    Re:How to Fax an AFP  To   Chris Marrett <cmarr    Out Box    1          000908
_    How to Fax an AFPDS   Fr   Chris Marrett <cmarr    Answered   2          000908
_    Re:Forms overlay que  To   Eldon Benton <EBent     Sent       1          000907
_    Forms overlay questio  Fr   Eldon Benton <EBent     Answered 922     Y    000907
_    Re:KeyesPunch Inform  To   Ginny Bunn <ginny@      Sent      52     Y    000907
_    KeyesPunch Informati  Fr   Ginny Bunn <ginny@      Answered   *          000907



                                                                             Bottom
F3=Exit      F5=Refresh      F6=Create new mail      F10=Expand      F11=View 2
F12=Cancel     F17=Top     F18=Bottom
Move the cursor to a column and press Enter to change the sort.
```

Cursor positioning

A number of KeyesMail's functions are performed by moving the cursor to a specific position and pressing the Enter key. For example, you can change the sort order of the messages as they are shown to you, by moving the cursor to one of the columns (Subject, To/From, Status, or Date) and pressing the Enter key. You can also change the sort order by moving the cursor up to the "Sort By>" line and pressing Enter.

Subject column

This shows you the first part of the subject for your e-mail messages. To change this field, you can either open the message and change it using the Message Editor, or simply use option 2 (Change) on one or more messages. Option 2 gives you a quick method of creating *threads* of conversation.

You may sort the messages by subject by moving the cursor to one of the fields in the *Subject* column and pressing the Enter key. You will then be shown all messages with that subject.

Status column

This will show you the disposition of each of your e-mail messages. You may sort the messages by this column by moving the cursor to the *Status* field and pressing the Enter key. The *Status* is automatically maintained by the system, but can be manually changed to any desired value using option 2 (Change) on one or more messages.

*Accept This message was only partially retrieved. The rest of the message has been accepted and should be retrieved on the next mail run.

*Auto This is a new message that is being created by an API. If it remains in *Auto status, then something went wrong.

*Forwrdd This inbound message was automatically forwarded to another address as defined in the User Setup for the mailbox.

*New This is a new inbound message that you have not opened yet.

*Partial This is a new inbound message that was only partially retrieved. This happens when a message is larger than the *Max mail size auto retrieved* threshold set in the KeyesMail System Setup. You can either accept or reject the rest of the message by opening the mail and setting your response in the *Options* window.

*Reject This message was only partially retrieved. The rest of the message was rejected and will not be retrieved.

Answered This is an inbound message that has been replied to.

Created This is a message that was created using F6 but has not been placed in (Out Box) to be mailed yet.

Delayed The delivery of this message has been delayed.

Deliverd This outbound message has been delivered to the recipient. This information is sent back to you when you set the *When Notify* option value to either **Successes** or **Both**.

Expanded This outbound message has been expanded and sent to a list of recipients by a mailing list program.

Failed The system tried to mail the message, but it failed. You may open the message to read the reason for failure.

Forward This message has been prepared to be forwarded, but has not been mailed yet.

Held This outbound message has been held. You must reopen the message and press F2 to mail it.

Out Box This message will be sent on the next mail run.

Opened This is an inbound message that has been opened and read, but has not been replied to or forwarded.

Passed This is an inbound message that has been forwarded or passed on to someone else.

Relayed This outbound message has been relayed to a system that does not have Delivery Status capability.

Reply This message has been prepared as a reply but has not been mailed yet.

Sent This outbound message has been mailed.

To/From column

This shows you the address for the sender (for inbound mail) or recipient (for outbound mail). To change this field, you must open the message and change it using the Message Editor. You may sort the messages by this column by moving the cursor to the *To/From* field and pressing the Enter key.

Size column

This shows you how large each e-mail message is in K bytes. One K is defined as 1024 bytes. The size will read * if you have purged the ASCII mail member, using option 9 (Reduce).

PSAN column

The PSAN column shows you additional information about each of your e-mail messages.

- P Priority (Low, Normal, High)
- S Sensitivity (Normal, Personal, Confidential)
- A Attachments (Yes, No)
- N Notification (Normal, Failures, Successes, Both)

Date column

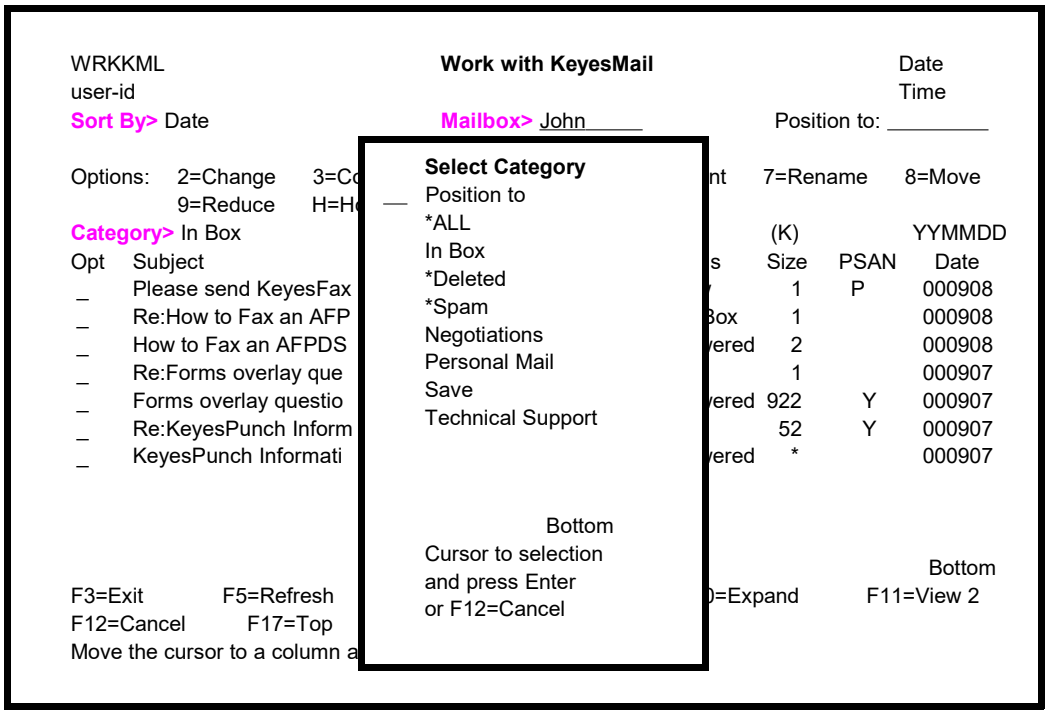
This is the date that each e-mail message was originally received or created. If you copy, reply, or forward an e-mail message, the new message will have the new date.

Note: If you delete a message, it will be moved to the **Deleted* category and also given a new date. The new date is used so that the message can be purged after the appropriate number of days, as specified in the *Mail purge delay* field in the setup for each mailbox.

Category>

All mail arrives in your mailbox in the category titled "In Box", except for mail that the Spam filter routes to the "*Spam" category. You may copy or move your mail into any category that you desire.

You can change the category of the messages that are being shown to you by moving the cursor to the *Category>* line and pressing the Enter key. A window will open showing you all the categories that you have any mail in, as shown below:



To make a selection, move the cursor down to the desired category and press the Enter key.

Note: Mail messages are placed in the ***Deleted** category when they are deleted. Mail is placed in the ***Spam** category automatically by the Spam filter and can be sent there manually using the **S** (Spam) option. Deleted and Spammed mail are automatically purged from the system after the *Mail purge delay* has passed. You may specify the number of days before purging in the setup for each mailbox. The default is 7 days. You can undelete a message by moving it to a different category. You can un-Spam a message by moving it out of the ***Spam** category. When you un-Spam a message, the From Address will be recorded. New mail from that address will no longer be sent to the ***Spam** category.

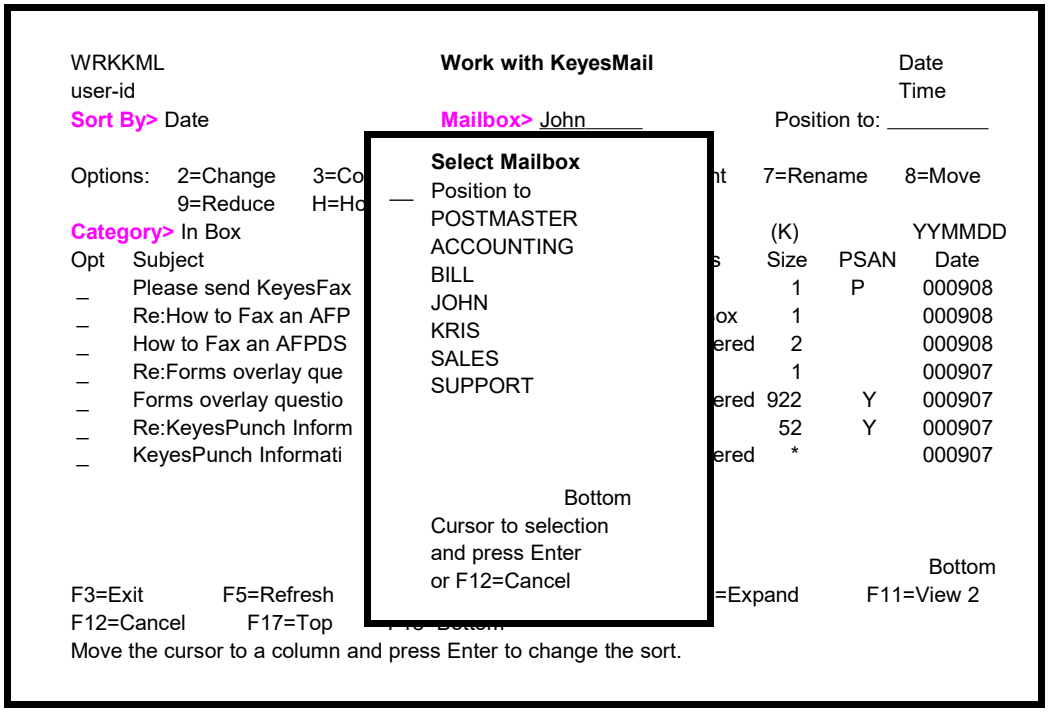
Sort By>

This shows the currently selected sort order of the e-mail messages. You may change the sort order by moving the cursor to one of the columns (Subject, To/From, Status, or Date) and pressing the Enter key. You can also change the sort order by moving the cursor to the *Sort By>* line and pressing the Enter key. A window will open that will allow you to select a sort order.

Mailbox>

The Work with KeyesMail program defaults to showing you your own mailbox when it is started. You may open other mailboxes that you have been given access to, by typing the name in the *Mailbox* field and pressing Enter.

You may select from a list of mailboxes by moving the cursor to the *Mailbox* field and pressing Enter. A window will open showing you all the mailboxes that you have access to, as shown below:



To make a selection, move the cursor down to the desired mailbox and press the Enter key.

Note: A user may only open their own mailbox unless they have been given specific access to another mailbox using the User Setup program, as described in the *Introduction* section. Users with a special authority of *SECADM may open any other mailbox, but may not read any mail that is marked Personal.

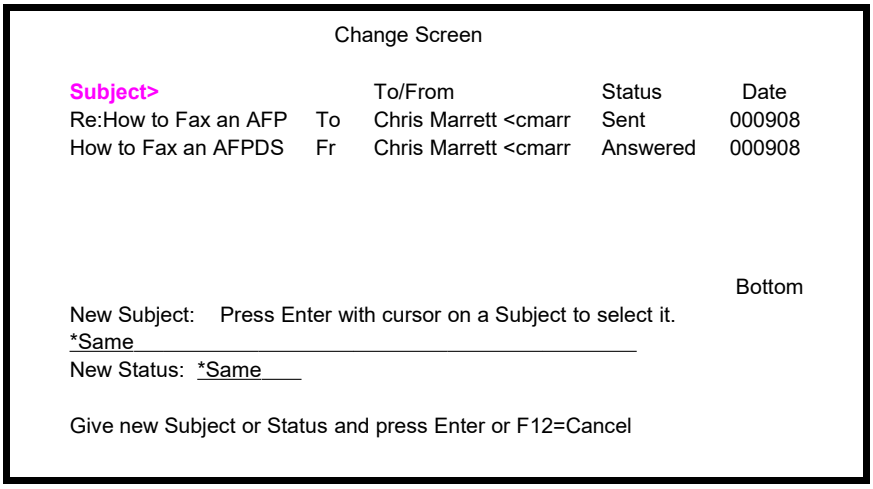
Position to:

Type one or more characters in the *Position to* field and press Enter to jump directly to a specific place in the list of e-mail messages. This field works with the currently selected sort.

Options

Option 2=Change

You can change the *Subject* and/or the *Status* field of one or more messages using option 2. A window will open on the screen (shown below) to let you complete the change.



You can type in a new subject, or you can easily pick up an existing subject by moving the cursor up to one of the messages and pressing Enter. That subject will be copied into the *New Subject* field for you to edit, as desired. This gives you a quick way of making conversation threads using the *Subject* column.

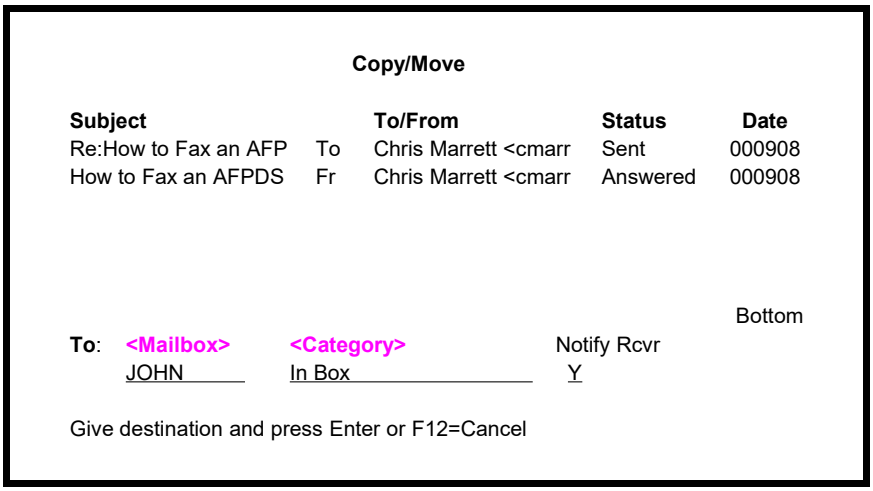
Changing the status can give you a method of setting messages aside for special attention or again as a way of making conversation threads.

Note: The *Status* field, if changed, may affect auto purging functions. The Purge KeyesMail program will only purge messages with a status of *Answered, Deliverd, Expanded, Opened, Passed, Relayed, *Reject, Sent,* or <blank>, when told to purge *NORMAL messages. You would need to purge *ALL messages, in order to purge any of the other statuses.

Messages that have a status of *Template* will not be purged even if you use the *ALL type of purge. You will have to manually delete Templates, if you want to get rid of them.

Option 3=Copy

You can copy one or more messages to another mailbox or category using option 3. A window will open on the screen (shown below) to let you direct where the selected messages should be copied.



You may type in a new mailbox or category, or use one of the **<hot spots>** to assist you in copying the messages to an existing mailbox or category.

To use a hot spot, move the cursor to the word **<Mailbox>** or **<Category>** and press the Enter key. A selection window will open on the screen with all of the available entries. To select one, move the cursor to the desired entry and press the Enter key.

Option 4=Delete

This option will delete the message from the mailbox. If the mailbox has a *Delay before purge* value, the mail will be temporarily moved to the *Deleted category, and only purged after the delay. You can easily undelete a message by moving it out of the *Deleted category.

Option 5=Open

This option opens up your message with the Message Editor so that you can edit, read, reply, or forward the mail. See *Message Editor* in the following section for more information.

Note: You cannot open any message that has a status of *Out Box* or if it is actively being transmitted. You must put it on **Hold** to open it.

Option 6=Print

You may print a message to any iSeries printer using this option.

Option 7=Rename

You can rename an e-mail message to any unique name, as desired. This option is especially useful for naming messages that are created as Templates.

Option 8=Move

You can move one or more messages to another mailbox or category using option 8. A window will open on the screen (shown previously) to let you direct where the selected messages should be moved.

You may type in a new mailbox or category, or use one of the <hot spots> to assist you in moving the messages to an existing mailbox or category.

Option 9=Reduce

You can reduce the amount of disk storage that your messages have taken using option 9. The ASCII member, used for sending the message through the Internet, will be deleted from the system. This will remove any attachments, which can free up substantial amounts of disk storage. Only the smaller member containing readable EBCDIC text will remain for future referencing.

For outbound e-mail you can reestablish the ASCII member, after it has been deleted, by opening the message, preparing any attachments again, and using option 2 to prepare the message for sending.

Warning! For inbound e-mail, be sure to save any attachments before using this option. The attachment data will not be retrievable after the ASCII member is deleted.

Option H=Hold

You cannot open any message that has a status of *Out Box*. However, you can use this option to change the status to *Held* so that it can be opened.

Option S=Spam

This option moves a message to the *Spam category. The e-mail address will be recorded and considered spam on future e-mails to the current mailbox.

If you move a spammed e-mail out of the *Spam category, the e-mail address will be recorded and not considered spam on future e-mails to the current mailbox.

Mail in the *Spam category will be purged after the Mail purge delay has been reached.

User Defined Options

A CL program called KMLUSROP (KeyesMail User Options) has been provided to you so that you can create your own custom user options. Any option (alpha or numeric) that the operator types in the option column, that is not one of the predefined options, will be sent to the KMLUSROP program to check if it is user defined.

Please see the program located in the source file QCLSRC in the KeyesMail Program library (usually KMLIB) for additional instructions.

Function keys

Press this:	To do this:
Roll/Page keys	Scrolls through the entries in the KeyesMail Queue.
F3	Exit the program.
F5	Refresh or update the entries on the screen.
F6	Create a new mail message.
F10	Expands the data on the screen to show you additional information about each entry.
F11	Toggles the display to show different fields for each entry.
F12	Cancels a function returning you to the previous screen.
F17	Positions you to the top of the list of entries.
F18	Positions you to the bottom of the list of entries.

E-mail Security

No one else may access the messages in your mailbox unless you or a security administrator specifically gives them the authority. You can give other users temporary access using the User Setup program. Please see *Adding User Mailboxes* in the Introduction section for more information.

Note: Users with a special authority of *SECADM may access all other mailboxes. However, only the owner of a mailbox can open any mail that has been marked as *Personal*. Only the owner of a mailbox or security administrators can open any mail that has been marked as *Confidential*.

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4 Message Editor

The Message Editor was designed to be a fast and extremely easy to use editor for reading and preparing e-mail messages.

You start the editor by opening a message from the *Work with KeyesMail* screen using option 5 (Open) or F6 (Create new mail). You can also start the editor using F2 (Fax/E-mail) from the KeyesFile Information Manager as described in the *Phonebook* section.

Launching E-mail from KeyesFile

KeyesFile, the information manager, will automatically call the Message Editor for you when you move the cursor to an e-mail address in your data, and press F2 (Fax/E-mail). The address must be in the form *name@host.network* with the "@" character embedded in it to be recognized as an address. For example:

johndoe@somecompany.org

To send an e-mail message:

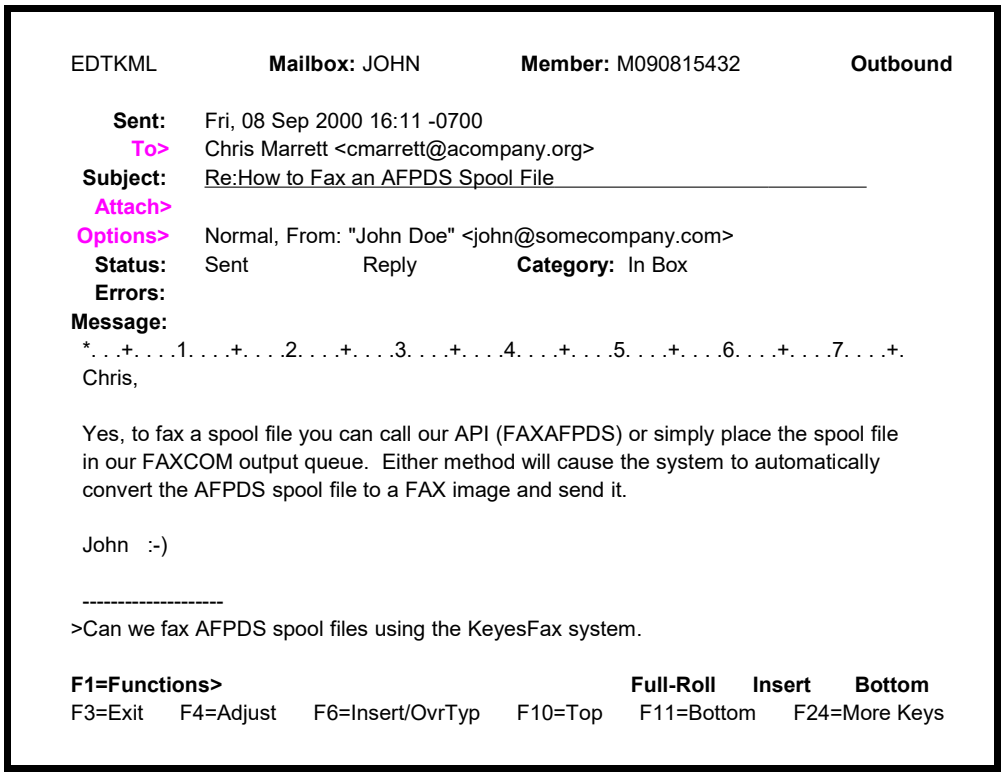
When you press F2 on an e-mail address, the system will search for the card heading that matches the company name and contact definition. The appropriate card heading is defined in the user or system setup for the Phonebook.

1. Place the cursor anywhere on an e-mail address.
2. Press F2 (Fax/E-mail).

   KeyesFile will save the company name, contact, and address in a data queue and call the Work with KeyesMail program.
3. You will be given the chance to either create a new mail message using F6, or copy an existing mail member using option 3. The new or copied mail will be addressed appropriately and opened for you to edit the message.
4. After you have finished editing and sending the new message, you may end the Work with KeyesMail program using F3 (Exit). You will be returned to the Phonebook where you left off.

Please see the *Phonebook* section of this manual for information on how to use the KeyesFile Information Manager.

The Message Editor Screen



The Message Editor screen contains all the fields necessary to send a complete e-mail message through the Internet, with any attachments that you wish to include. The message text section will expand to include up to 999 lines of text, as you type.

Note: A reply mark (>) is automatically included to the left of the original text when you make a reply to a message. You may leave any reply lines in your response that would help remind the recipient what the response is about. You should remove any lines that are redundant or superfluous using F13 (Delete) or F19 (Clear below cursor).

Getting Help

The Message Editor contains a number of Help screens to assist you in using the program. The Help key is position sensitive. The location of the cursor when you press the Help key determines what information is displayed. Using the Roll keys, you can move through as much of the Help text as you need.

Hot Spots

Hot spots within the Message Editor are identified by their Pink color or by a bracket (>) character, as in **To>** as shown above. Hot spots bring up other windows or programs to assist you. They are activated by placing the cursor on the hot spot and pressing the Enter key.

Function keys

Press this:	To do this:
Roll keys	Scroll to the previous or next page of the message.
F1	Opens a window on the screen to assist you in selecting some of the following functions.
F2	The recipient addresses are checked. The message is immediately sent to any internal mailboxes named. If any external addresses are found, the message is prepared for Internet transport and placed in *Out Box* status to be sent on the next mail run.
F3	Exits the Message Editor.
F4	Adjusts the current paragraph on word boundaries.
F6	Toggles insert/overtype mode at the current cursor position.
F7	Displays the previous e-mail message.
F8	Displays the next e-mail message.
F9	Toggles the roll amount between Full screen and Half screen rolls.
F10	Brings the cursor to the first message line.
F11	Brings the cursor to the last message line.
F12	Ends the previous function request.
F13	With the cursor in the Message text area, it will delete the current line and move the remaining lines up.
F14	Will create a Reply for the current e-mail message. The original text will have reply marks (>) added. The original *From:* or *Reply-To:* addresses will be copied to the recipient address list.
F15	Will create a copy of the current message, with any attachments, to be Forwarded to a new recipient.
F16	Adds the Signature text for the current mailbox to the message at the current cursor position.
F17	When the cursor is in the Message text area, it will toggle the reply mark (>) ON or OFF of the message line.
F18	Displays the Internet header information for inbound e-mail messages.
F19	Clears the entire message below the cursor, to allow for new text.
F20	Opens up your default Phonebook and passes it the current e-mail address so that it can be updated.
F21	Prints the e-mail message to any iSeries printer.
F22	Selects the current line of text to be copied.
F23	Activates the spell checker starting at the current cursor position. It will check for capitalization errors, duplicate words, and for spelling mistakes.
F24	Displays additional function keys available for the current display.

The Message Editor Fields

Sent:

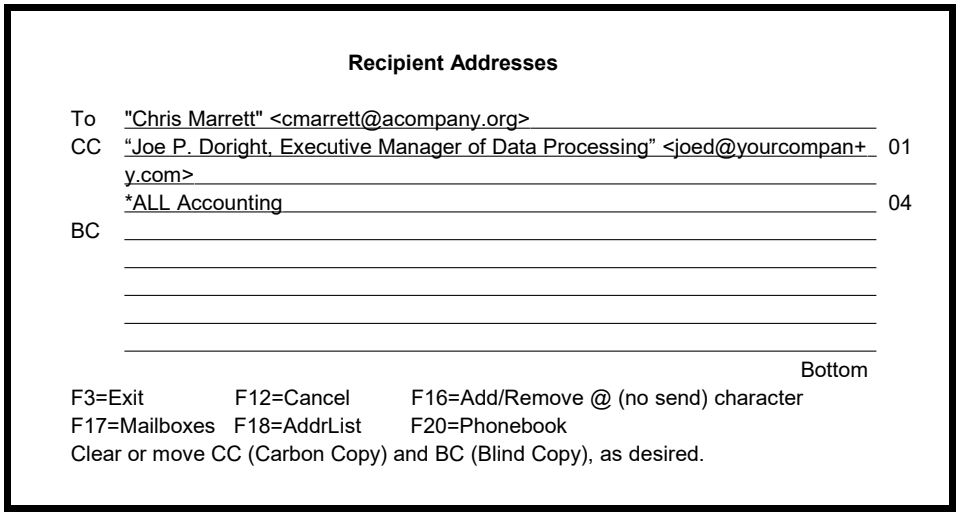
This will show you the date and time that the e-mail message was sent.

From:

On inbound mail only, this field shows you who sent the message.

To>

On outbound mail only, this shows you the first recipient of the e-mail. If you move the cursor up to the *To>* line and press the Enter key, the following window will open on your screen:



You may manually address the mail with up to 100 mailboxes, departments, address lists, or Internet addresses. Only one entry is allowed per line.

F17 opens a list of internal mailboxes that you can select from.
F18 lets you create and/or select an address list.
F20 opens your default Phonebook where you can select recipients.

You may select everyone in a department by entering *ALL followed by the department name, or to all internal mailboxes using just *ALL.
Ex: ***ALL Accounting** will send to everyone in accounting.

You may blank out any unwanted recipients using a Field Exit key. You may move the *CC* and *BC* codes to the desired location to show which recipients are to get carbon copies or blind copies. Blind copy recipients are not announced to the others.

A plus sign (+) in the far right hand column will allow you to continue an address onto a second line.

The number at the right hand side of the window is a count of the number of internal recipients that have opened their copy of your e-mail message.

Subject:

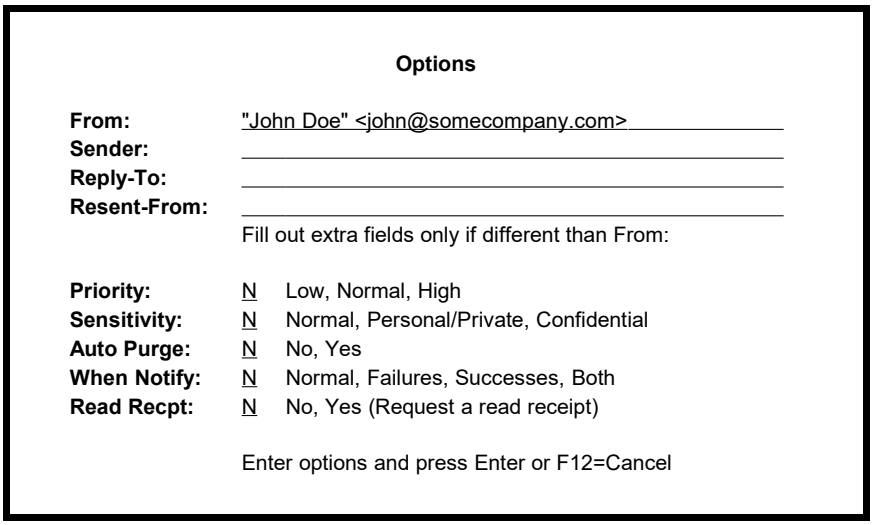
This is used to describe the subject matter of the e-mail message.

Attach>

This shows you the first attachment, if any, that was defined for this e-mail message. If you move the cursor to the *Attach*> line and press the Enter key, an *Attachments* window will open on your screen. Please see *Attachments (Inbound)* and *Attachments (Outbound)* later in this section for more information on how to send or receive multiple attachments with your e-mail messages.

Options>

This shows you the options that have been selected for this e-mail message. If you move the cursor to the *Options*> line and press the Enter key, the following window will open on your screen:



- The *From* address is a required field that defaults to the mailbox *Return address* value. The additional addresses are optional which you can use to further define who the original *Sender* was, who to *Reply to*, and who the mail was *Resent from*, if they are different than the From address. For Cloud Mail Servers, the *From* Address must match the Account on their Server.
- The *Priority* field is used to specify how important the message is or how soon it should be mailed.
- The *Sensitivity* field can be used to prevent others from reading the message. Personal or private messages (P) can only be read by the owner of a mailbox. Confidential messages (C) can only be read by the owner or by security administrators.
- The *Auto Purge* field can be used to have the message automatically deleted from the KeyesMail system after it is mailed.
- The *When Notify* field can be used to have the Internet SMTP mail system notify you of the delivery status of this mail member.
- The *Read Recpt* field can be used to request a Read Receipt from the recipient of this mail. If the recipient allows it, a receipt will be sent back to the return address, when they open their mail.

Status:

This field shows the last 3 statuses of the e-mail message. The most current is the left most status.

Errors:

If the message fails to be sent or delivered, the reason for failure can be found here.

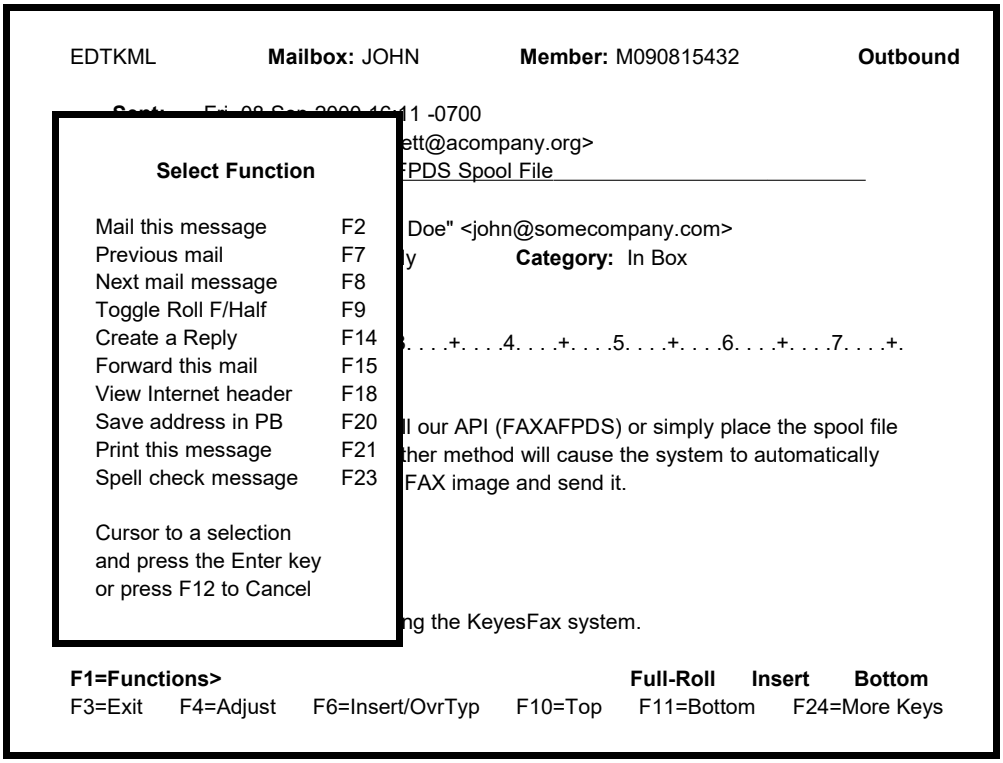
Message:

You may enter up to 999 lines of text in the message area. Each line is 76 characters wide. As you continue typing beyond the end of each line, the program will automatically word wrap for you. You should place a blank line between paragraphs.

If you are making a reply, the original text will be included in the message with reply marks (>) to the left of each line. You may enter your reply above or between the original text by toggling to *Insert* mode using F6 with the cursor in the desired location.

F1=Functions>

You may press a function key, to perform any available function. If you move the cursor to the *F1=Functions>* line and press the Enter key, or simply press the F1 key the following window will open.



To perform a function, you may press the appropriate function key, or move the cursor down to the desired function and press the Enter key.

Only some of the available function keys were defined in the Select Function window. The remaining functions, listed at the bottom of the screen are also available. Many of them require that you position the cursor to a specific location within the message text, before you press the desired function key. To list the remaining functions, use F24 (More Keys).

Editing the Message Text

Type the text just as you wish to see it on the finished e-mail message. The editor will automatically adjust the text as you type past the end of each line. You can correct typing mistakes using the Backspace key. You may also use the Delete key to remove text from a line.

To delete a line from the text:

1. Move the cursor to the line that you want to remove.
2. Press F13 (Delete). The program will delete the current line, and move all the following lines of the message up one line.

To insert text in a paragraph:

1. Move the cursor to the position where you want to insert text.
2. Toggle the editor into Insert mode using F6 (Insert/OvrTyp). The program will move all text down to the next line, starting at the current cursor position. The current line will be filled with blanks to the right of the cursor.
3. When you are finished inserting the new text, you can toggle the editor back into OvrTyp mode using F6 or use F4 to adjust the paragraph leaving the editor in Insert mode.

To adjust paragraph line endings:

If you have used the Delete key to remove text from a line. You may need to adjust the paragraph line endings.

1. Move the cursor to the line where you want to adjust line endings.
2. Press F4 (Adjust). The program will adjust the current paragraph line endings at word boundaries. The program will stop adjusting lines when it finds a blank character in the left hand column of a text line.

Copying Lines of Text

You can copy lines of text from one place in your message to another, or copy text lines to a different e-mail message.

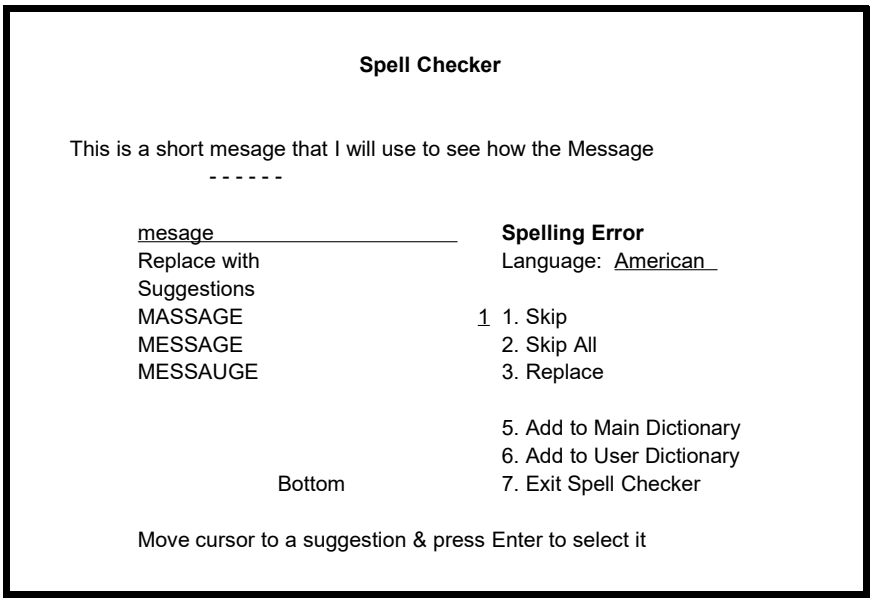
To copy text to another line or another message:

1. Move the cursor to the first line to be copied and press F22 (Copy). The selected line will be highlighted.
2. You may select additional lines to be copied by moving the cursor to each additional line and pressing F22 (Copy). If you make a mistake, you may press F12 (Cancel) and start the selection over again.
3. Move the cursor to the target location of the text in the current or another e-mail message and press the Enter key.

The program will copy the selected text to the target location after moving any existing text down.

Spell Checking

You may use F23 (Spell Check) to start the spell checker. It will check for capitalization errors, duplicate words, and for spelling mistakes in your message starting at the current cursor position. When an error is detected, the following screen will pop up:



The word that needs attention will be underlined on the screen and typed in the *Replace with* field. Alternative spelling suggestions will be listed on the screen for spelling errors.

Choosing a suggestion:

You may use the Roll keys to find a suggested spelling that you wish to choose. Once located you may move the cursor down to the same line as the suggestion and press the Enter key. The chosen word will be placed in the *Replace with* field, capitalized appropriately, and the default *action* will be changed to (Replace). To replace the word in the original text, you need only press the Enter key again.

If you cannot find an appropriate suggestion, you may type another word in the *Replace with* field and choose (Replace).

Note: Enhanced screens will use Radio buttons instead of the numbers (1-7) for you to select an action. There are several ways to make a Radio button selection after Tabbing to it:

- Use the arrow keys to move the highlight bar down to the desired action and press the Space Bar.
- Type the access key (underlined letter) corresponding to the desired action.
- Double click on the desired action with a mouse.

Selecting an action:

For each incident you may Tab to the *Action* field and select an action to be taken.

Skip	Skip this word, leaving it as is.
Skip All	Skip this word and all others with the same spelling.
Replace	Replace the word with the one that is typed in the Replace with field.
Remove	Remove the word from the text. This is only available for duplicate word errors.
Add to Main Dictionary	This will add the word to the main dictionary that everyone uses.
Add to User Dictionary	This is the **recommended** add option. It will add the word to a user specific dictionary.
Exit Spell Checker	This will stop the Spell Checker.

Correcting capitalization errors:

The correctly capitalized word will be placed in the *Replace with* field for you. You may correct the original text by choosing (Replace).

Correcting duplicate word errors:

The duplicated word will be placed in the *Replace with* field. You may change the word and replace the original with the new word by choosing (Replace), or you may choose (Remove) to have the word removed from the original message.

Changing your language:

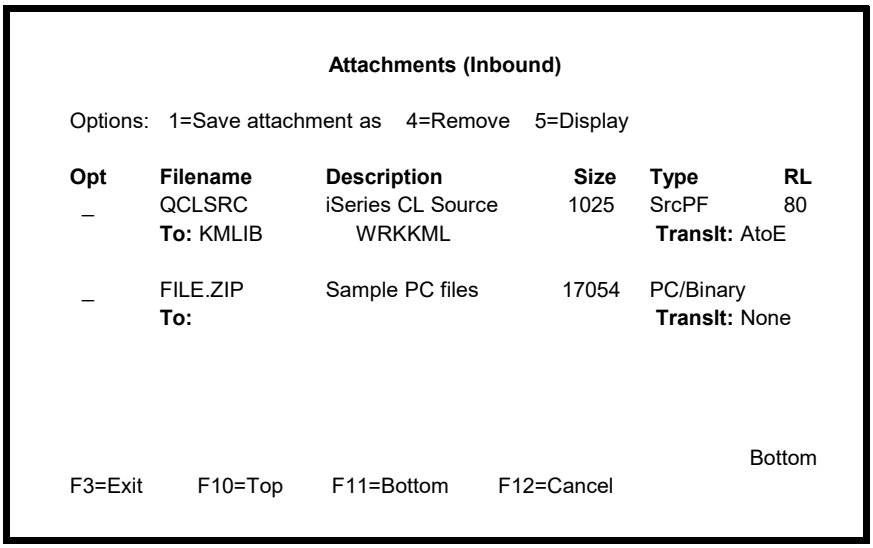
You may change the language dictionary that the system uses for spell checking this document by entering a new value in the *Language:* field and pressing the Enter key. The available languages are:

American, British, Danish, French, German, Italian, and Spanish

The *Default System Language* field is set in the *System Setup* screen. Each user can override the default value that they use by setting the *Personal Language* field in the *User Setup* screen for their Mailbox.

Attachments (Inbound)

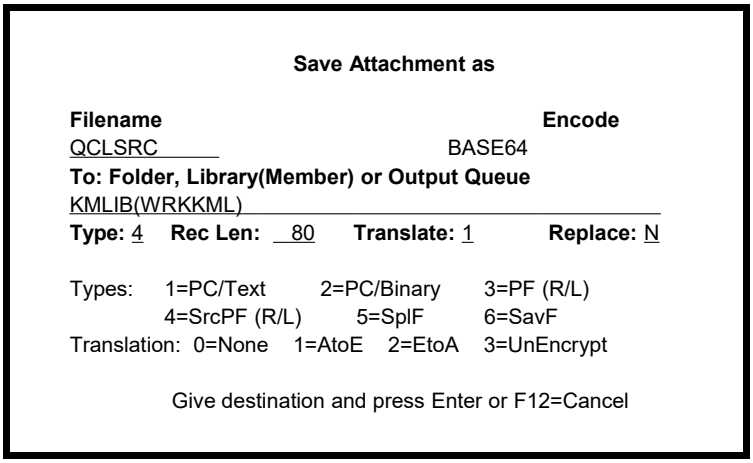
If any attachments were received with an inbound e-mail message, the first will be shown to you on the *Attach*> line, of the Message Editor. If you move the cursor to the *Attach*> line and press the Enter key, the following window will pop onto your screen.



You may display any attachment or save them to your iSeries or to a shared folder.

Option 1=Save attachment as

Select option 1 to save an attachment from the e-mail message to your iSeries or shared folder. The following window will pop onto your screen:



Filename:

The system will set this to the original name of the e-mail attachment, however, you can change the name to the desired destination.

Note: See Uncompression & Unencryption later in this chapter, for additional information.

Encode:

This cannot be changed. It tells you how the attachment was encoded for transport over the Internet. Most attachments are transported with either *QUOTED* or *BASE64* encoding. Text attachments can also be transported using either *7BIT* or *8BIT* ASCII encoding, but this is rare.

QUOTED encoding is usually used for text attachments, whereas, *BASE64* is normally used for binary attachments.

Description:

The system will set this to the original description from the e-mail attachment, however, you may change the description, as desired.

To:

You must set this field to where you wish to save the attachment.

- For PC type documents, enter a shared folder path.
- For iSeries source or physical files, enter a library name followed by a member name in parenthesis.
- For iSeries spool files, enter the name of an output queue.
- For iSeries save files, enter a library name.

Type:

Set the type according to where you will be saving the attachment.

- If it will be saved on a shared folder, set this to 1 or 2 depending on whether it was a text or a binary file.
- If it will be saved as an iSeries physical file, set this to 3.
- If it will be saved as an iSeries source file, set this to 4.
- If the attachment was an iSeries spool file saved using IBM's GETSPLF command, set this to 5.
- If the attachment was an iSeries save file, set this to 6.

Rec Len:

Set this field to the file's record length for iSeries physical files or iSeries source files only. If the destination file already exists, it must have a matching record length. For new files, this will be the record length of the file that is created.

Note: For iSeries source files, set this field to the length of the data plus 12 additional bytes that is used for the date and sequence numbering in the source file.

Translate:

This field can be used to have the attachment data translated while it is being saved.

- 0 = No translation
- 1 = Translate from ASCII to EBCDIC
- 2 = Translate from EBCDIC to ASCII
- 3 = UnEncrypt by supplying the password

Note: See Uncompression & Unencryption later in this chapter, for additional information.

Replace:

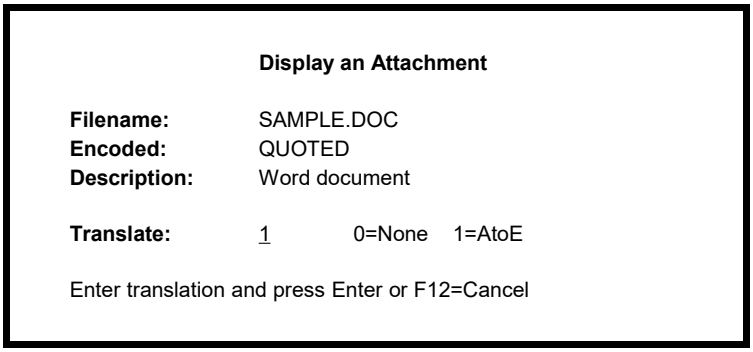
Code a Y in this field if you wish to replace an existing PC file, iSeries Physical file member, source member, or (or member) on the iSeries with the same name.

Option 4=Remove

Select option 4 to remove an attachment from the e-mail message. You may want to remove an inbound attachment before forwarding or copying the message to someone else.

Option 5=Display

You may display an attachment on your iSeries screen, by selecting option 5. The following window will pop onto your screen:



The program will optionally translate and temporarily save the attachment as a 78 character wide physical file in your QTEMP library. This is then displayed on your screen.

Notes: This will be most useful for displaying text based iSeries or PC type documents, such as physical files or word processing files.

It can also be used to view an archive (ZIP) file, to see the names of the objects that are included. You may need to know their exact names to be able to uncompress or unencrypt them.

Uncompression & Unencryption

If the filename that you supply, when saving an attachment, has a .ZIP extension, this signifies that the file has been compressed and may have been encrypted. If you have purchased PKZIP and it is available on your library list, KeyesMail will attempt to use it to uncompress the archive for certain types of attachments.

PC Text and PC Binary files are not uncompressed. They are saved as-is with the Filename that you supply and in the Folder that you designate. You should be able to use any available PC tool to uncompress and unencrypt these types of files.

iSeries Physical Files and Source Files can be uncompressed by KeyesMail. You must code the Filename parameter with the name of the file that you want to restore the member to, then add a .ZIP extension. The member name must match the member that was originally compressed to the archive. Code the library name and member where you want the file to be restored in the To: field. KeyesMail will strip off the .ZIP extension for the file, and use the member name for the name of the entry that it will try to extract from the archive. The name must match the member that was originally saved into the archive file.

Spooled Files that were saved as-is with no translation can be uncompressed. You must code the Filename parameter with the original spooled file name that was archived, then add a .ZIP extension. Code the output queue name in the To: field.

Save Files can also be uncompressed, in the same way. You code the Filename parameter with the original name of the Save File followed by the .ZIP extension. KeyesMail will uncompress the Save File into the library that you specify in the To: field.

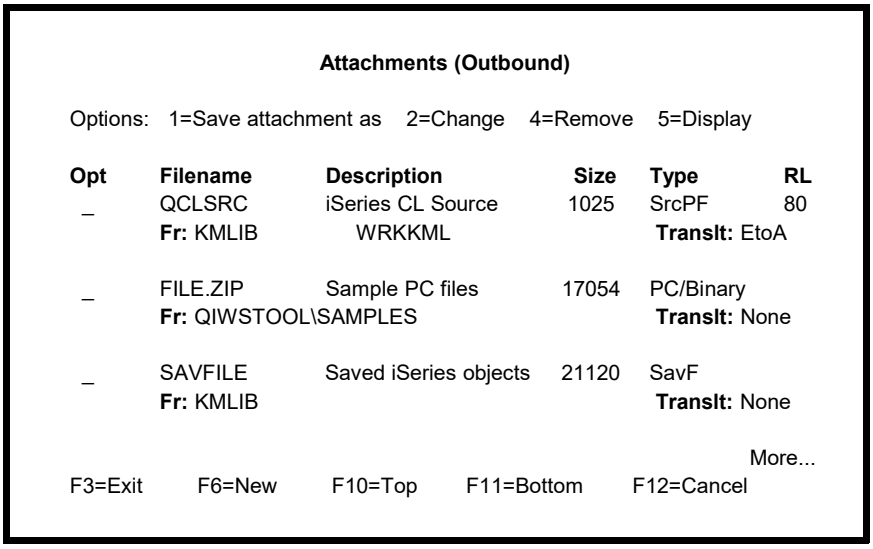
Notes: If you need to name the extracted file something other than its original name, you will have to save the file, without the .ZIP extension. You can then manually unzip what you need with the names you desire.

You can use the Display feature (option 5) to view an archive. This will allow you to see the names of the original objects that were saved in the archive file.

If the file was originally password encrypted using PKZIP, in the archive, you will have to code a 3 (Unencrypt) in the Translation field. KeyesMail will pop up a screen to allow you to specify the case sensitive password, that will be required to extract the file.

Attachments (Outbound)

You can define up to 99 different attachments with each outbound e-mail message. While using the Message Editor, if you move the cursor to the *Attach>* line and press the Enter key, the following window will pop onto your screen.



Note: Large attachments may take from 1 to 5 minutes per megabyte to be encoded for transmission and from 10 to 15 minutes per megabyte to transmit over a dial-up line.

Option 1=Save attachment as

This option will work the same as described previously for inbound attachments.

Option 2=Change

Use this option to change a definition of an attachment. When you change an attachment, the data will be retrieved and encoded for transport again.

Option 4=Remove

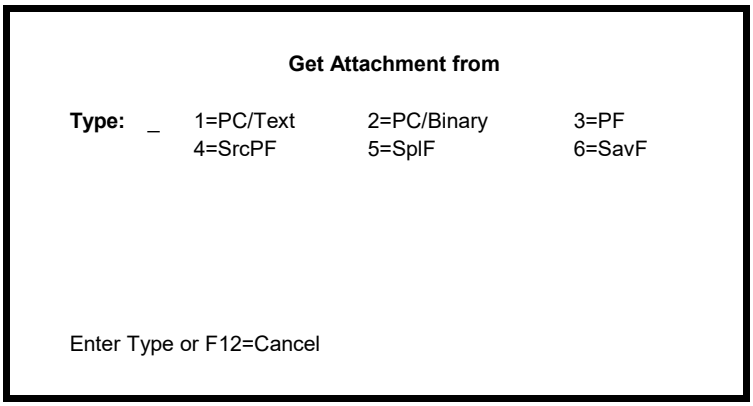
Select option 4 to remove an attachment from the e-mail message.

Option 5=Display

This option will work the same as described previously for inbound attachments.

Defining new Attachments

While on the Attachments (Outbound) screen, you can use F6 (New) to define new attachments for an e-mail message. The following window will pop onto your screen.



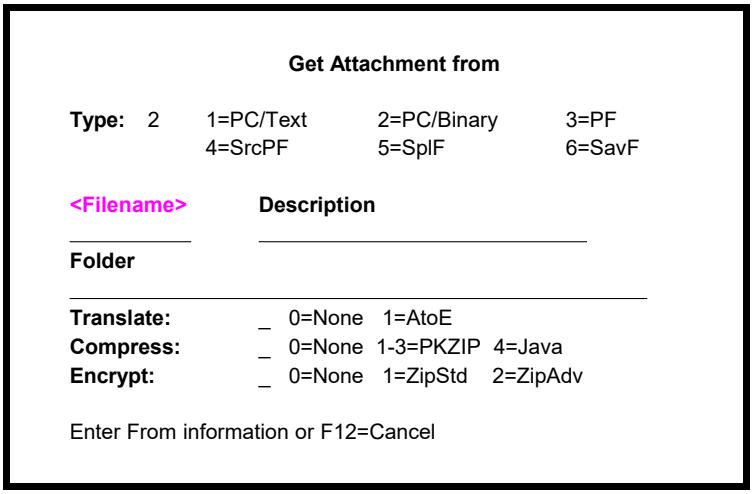
You must select a type for the attachment before you can define it.

1 PC text file located in the IFS or a shared folder.
2 PC binary file located in the IFS or a shared folder.
3 iSeries physical file member.
4 iSeries source file member
5 iSeries spool file
6 iSeries save file

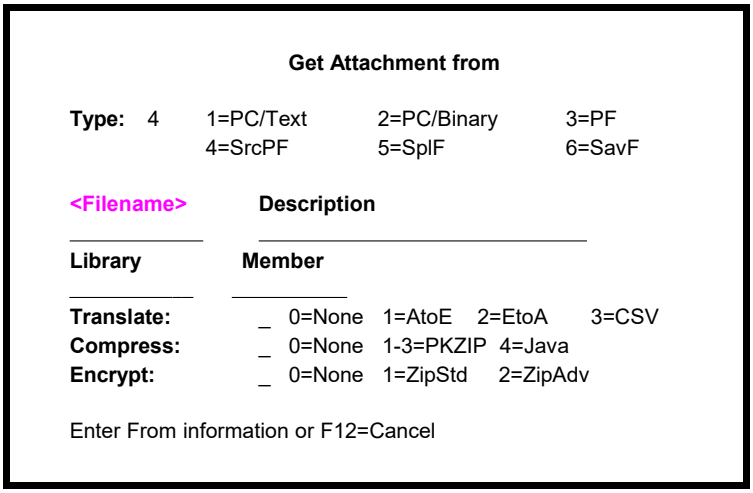
After selecting a type, the *Get Attachment from* screen will be expanded to include additional fields.

Type 1 (PC/Text) or Type 2 (PC/Binary)

You may use the **<Filename>** hot spot to open a browse screen to assist you in selecting the file and its folder for the attachment. Most PC files should be sent with no translation. However, you can translate a text file to EBCDIC, if needed. See Compression & Encryption later in this chapter, for additional information.



Type 3 (PF) or Type 4 (SrcPF)

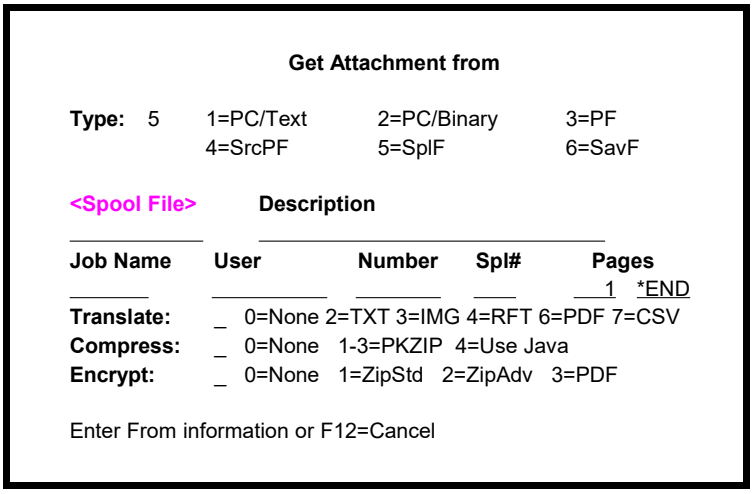


You may use the **<Filename>** hot spot to open a browse screen to assist you in selecting the iSeries physical file or source file, library, and member for the attachment.

If the file is being sent to another iSeries, you will typically send it with no translation. If the file is being sent to an ASCII machine, you can translate the file to ASCII using a translation code of **2** (EtoA) or **3** (CSV / Comma Separated Values). CSV is the best way to translate data that will be imported into spread sheets, such as Excel.

See Compression & Encryption later in this chapter, for additional information.

Type 5 (SplF)



You may use the **<Spool File>** hot spot to open a browse screen to assist you in selecting the iSeries spooled file and all its parameters for the attachment. You may select specific pages, but only if you specify a translation code other than **0** (None).

The entire spooled file can be sent as a spooled file to another iSeries, if you specify no translation. The other iSeries can restore the spooled file to one of its own output queues. If the recipient does not have KeyesMail software, they can follow the instructions that you can find in the *Appendix* section to restore the spooled file.

Selected pages of the spooled file can be sent if you translate it.

You can translate AFPDS or *USERASCII spooled files into *TIFF Images* (translation **3**). These can be viewed and printed by PC users, as well. All windows based PC's have TIFF viewers available to them.

Rich Text Format (translation **4**) is a convenient format for sending *SCS spooled files to a PC user. Most PC's will have an RTF reader (MS Word, Lotus WordPro, & WordPerfect are examples) that can easily view and print the document by simply clicking on the received attachment. The RTF file will contain all the page and font formatting necessary to print each spooled page properly, without any user intervention. KeyesMail will use the *Page Width* and *Page Length* spooled file attributes to determine the proper font sizes.

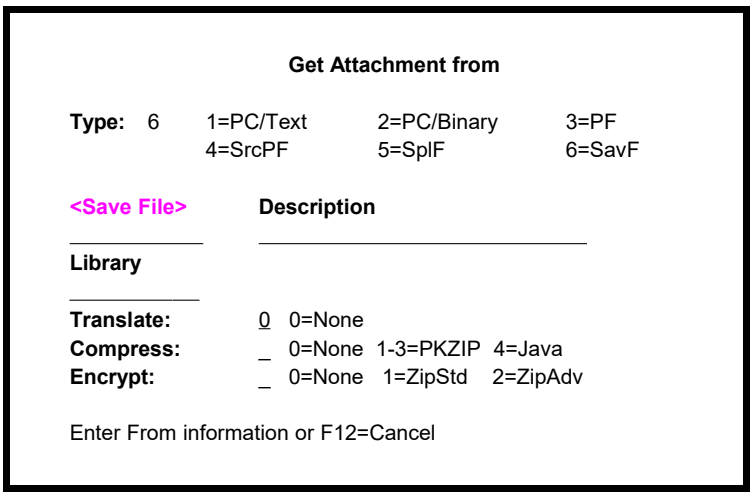
You can *map* (translation **5**) spooled data onto an overlay to fill out a form before mailing it. The overlay must be an RTF image that you create specifically for the form with substitutable fields where the spooled data will be mapped. The spooled file is then mapped onto the form using mapping entries. This feature has been deprecated in favor of KeyesOverlay mapping.

Portable Document Format (translation **6**) is a popular way of sending any type of spooled file. Adobe's Acrobat reader is available to most personal computers for free on the Web. KeyesMail will use the *Page Width* and *Page Length* spooled file attributes to determine the proper font sizes.

CSV Spreadsheet Format (translation **7**) can be used to convert *SCS printer files to CSV spreadsheets. You must specify the name of the KeyesCalc map in the Front Side Overlay of the spooled file attributes to use this option. You also must have the KeyesCalc library on your library list.

See Compression & Encryption later in this chapter, for additional information.

Type 6 (SavF)



You may use the **<Save File>** hot spot to open a browse screen to assist you in selecting the iSeries save file and its library for the attachment. The translation code must be **0** (None).

The save file can only be used on another iSeries. If the recipient does not have KeyesMail software, they can follow the instructions that you can find in the *Appendix* section to restore the save file.

See Compression & Encryption later in this chapter, for additional information.

Compression & Encryption

Zip Compression & Encryption:

If you own PKZIP and it is included on your library list, you can use it to compress and optionally password encrypt the attachments that you send. Otherwise, you can use Java to compress attachments, as this is built into the operating system.

Select the compression method of 1=Fast, 2=Normal, or 3=Max if you want to use PKZIP, or select option 4=Java to compress an attachment. The compression method will determine the amount and speed of compression that you desire.

- **Fast** will be fast and also provide fairly good compression amounts.
- **Normal** provides good compression amount at a reasonable speed.
- **Max** provides the maximum compression, but will also take the longest in time to process.
- **Java** is a built in method of compressing an attachment.

The filename that you supply, when creating an attachment, will have an extension of .ZIP added to it. This signifies that the file has been compressed, and allows you to optionally password encrypt the file, for options 1-3.

If you have PKZIP and you want to protect the compressed data, with the use of encryption, you can specify the encryption method of ZipStd or ZipAdv. This value specifies which algorithm is to be employed.

- **ZipStd** is the original algorithm used in PKZIP 2.x products and is compatible with other ZIP products that support standard encryption, such as GZIP.
- **ZipAdv** is a PKZIP exclusive implementation of the AES 128-bit key algorithm to produce a Strong Encryption protected document.

If you call for encryption, a password window will pop onto the screen. It will allow you to specify up to 64 characters of case-sensitive password. Please note that there is no way to extract the password used in an archive. If the password is forgotten, the file will become inaccessible.

PDF Encryption:

If you are translating a spooled file into a PDF document, you can optionally encrypt the PDF. Do this by specifying a 3 in the Encrypt parameter. A window will pop onto the screen, asking for a **User Password** and/or an **Owner Password**.

A user will be able to open a PDF document and optionally print and annotate the PDF. The user will not be allowed to change the PDF. An owner will be able to do anything to an encrypted PDF document.

5 PhoneBook

The KeyesMail Phonebook is maintained by a powerful information manager called KeyesFile. KeyesFile is like a set of index cards that automatically sorts itself. You can use it to keep track of a wide variety of information, such as: names, addresses, phone numbers, sales information, customer follow-up, or anything else that you need to have quick access to.

The true power of KeyesFile is its instant accessibility of the data using any piece of information that you have entered on the cards. For example, assume you recorded information about your customers with company name, address, contact, phone number, and e-mail address keyed on the cards. You could access the cards by company name one moment, then by contact, phone number, or e-mail address the next, or by any other information that you have placed on any of the available 999 lines of the cards.

Starting and Stopping the Phonebook

You may start the KeyesFile Information Manager program using either of two methods. It can be started from the KeyesMail menu or from a command line.

To start the KeyesFile Information Manager:

- Select item 2 (PhoneBook) from the KeyesMail menu.

OR

- Type the following command to start the Phonebook.

  Enter: PB

Note: The program will look in your user setup to see if you have a personal Phonebook defined and open that KeyesFile card file. If not, the default system Phonebook will be opened.

To stop the KeyesFile Information Manager:

- Press F3 (Exit).

  KeyesFile will end and the display will return to the previous program or menu.

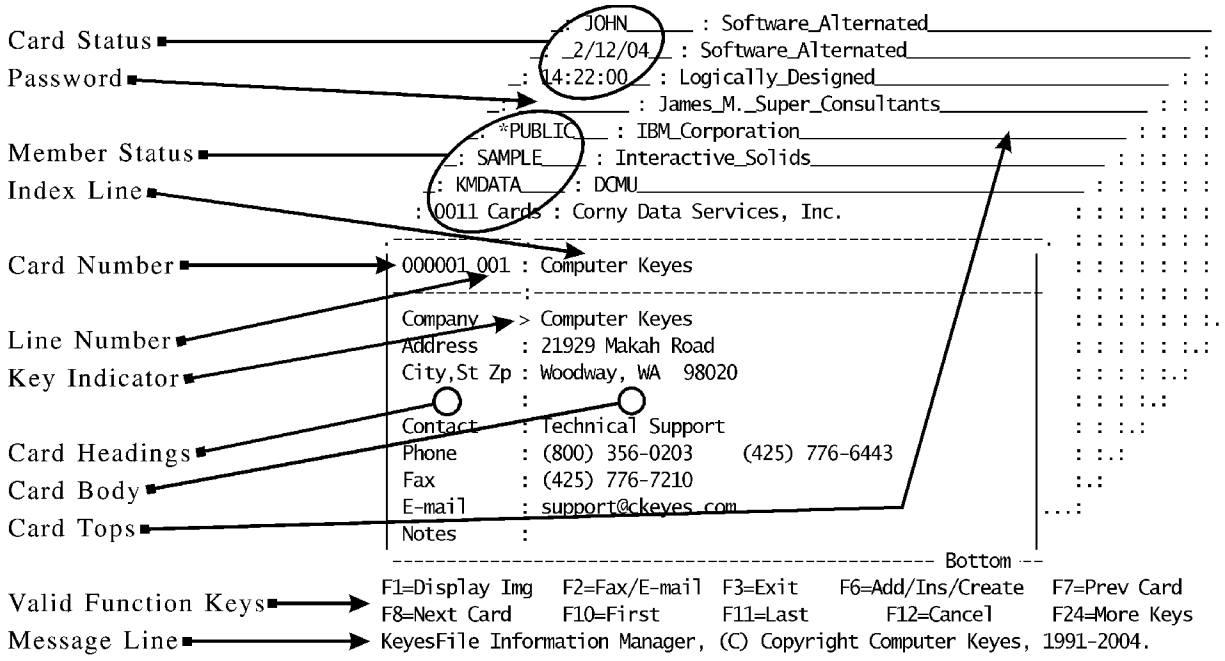
KeyesFile's Screen

The KeyesFile Information Manager uses a card file layout to enter and display all of your data. From 1 to 999 lines of data may be keyed on each card. Each line may contain up to 45 characters.

Information may be keyed anywhere on the cards. You may use a 10 character Card Heading area to help you key like information in the same lines of each card.

9 card tops are shown to you at all times. The card tops show you the index or key to the card file.

A Member Status area is used to show you the document member that is opened, and the total number of cards in the member. A Card Status area shows you the date, the time, and the last user-id of the person who changed each card in the member.



Note: Many of KeyesFile's function keys are position sensitive. They will perform a different function depending on where the cursor is located.

Getting Help

KeyesFile contains a number of Help screens to assist you in using the program. The Help key is position sensitive. The location of the cursor when you press the Help key determines what information is initially displayed. Using the Roll keys, you can then move through as much of the Help text as you need.

To display Help screens:

1. Move the cursor to the field or area that you want to display Help information for.
2. Press the Help key. KeyesFile will display a Help screen specific to that area.
3. Use the Roll keys to move through the Help text.
4. When you have finished viewing the Help text, press F3 (Exit Help) to return to KeyesFile.

Adding and Filling In Cards

Line #1 of each card is considered the primary key to KeyesFile. You should choose an important piece of information to enter in the first line. The primary key will always be shown to you to help you identify the specific cards that are being displayed. KeyesFile uses the text that you enter into each line to select and sort the cards.

You may select any line on the card to be the key. When you select a line, KeyesFile will only display cards that have something entered for that line. When you select the primary key, all cards will be displayed, even cards with the first line left blank.

To add a new card:

1. Move the cursor to the Index line (top of the first card).
2. Press F6 (Add/Insert/Create).
   KeyesFile will add a new blank card to the card file.

To fill in a blank card:

1. Move the cursor to the Card Body.
2. Type the text for the card.

Adding Lines to a Card

Additional lines on the card can be made available using the Roll keys (when the cursor is in the Card Body).

OR

Press F11 (Last) when the cursor is in the Card Body to move the cursor to the next available line to be entered for a card.

Moving Through Your Cards

You can scroll through a card file card by card or bring a specific card directly to the front. KeyesFile always shows you the cards in alphabetical order based on the selected key.

To change the selected key:

1. Move the cursor to the colon : in the Key Indicator column of the line that you wish to select as the key.
2. Press the Enter key.

   The symbol > will be placed in the Key Indicator column where the cursor was located.

   KeyesFile will show you the cards in a new order based on the newly selected key. The Card Tops will be split showing you both the newly selected key and the primary key for each card selected.

   Only those cards that have some information entered into the selected line will be shown, except when the primary key is selected.

Scrolling through Your Cards

The functions below, except for F7 (Prev Card) and F8 (Next Card), require that the cursor be located in the Index line or somewhere on the other Card Tops.

Press this:	**To do this:**
Roll Up	Scroll to the next 9 cards.
Roll Down	Scroll to the previous 9 cards.
F7	Scroll to the previous card.
F8	Scroll to the next card.
F10	Bring the first card to the front.
F11	Bring the last card to the front.

To bring a specific card to the front:

1. Move the cursor to the Index line at the top of the card.
2. Type a portion of the index line text for the card you want to bring to the front.

   You may type just enough text to distinguish the card from the other cards.
3. Press the Field Exit key.

Note: If you would like to display one of the 9 cards that are visible, move the cursor to that card's top and press the Enter key.

To bring a specific card number or line number to the front:

1. Move the cursor to the Card Number/Line Number area, and press the Enter key.

   KeyesFile will highlight the card number and line number to show that they are activated.

2. Type the new number and press the Enter key.

   KeyesFile will jump directly to the specified card and/or line number. If the card number does not exist, KeyesFile will ask you to confirm the creation of a new card.

Displaying a Subsetted List of Cards

You can display a subset of a list of cards by supplying a generic name followed by an asterisk * in the Index line. Only cards that match the generic name will be selected for display.

For example, if you type the three characters *07** on the Index line, this would define the subsetted list of all cards that have the two characters *07* in the first two columns of the selected key. If the selected key line was a date field, then only cards that have a July date would be displayed.

To display a subsetted list:

1. Move the cursor to the Index line at the top of the card.
2. Type the generic portion of the index line text that will define a subsetted list followed by an asterisk *.
3. Press the Field Exit key.

   An asterisk * will be displayed in the Key Indicator column instead of the usual > character to inform you that a subsetted list of cards is being displayed.

Cancelling a Subsetted List

If you create a subset of a list of cards, and then decide you no longer want to work with this subset, you can return to the full list in one of two different ways.

To cancel a subsetted list:

- Return to the Index line and key starting text without an asterisk.

  OR

- Change the selected key to the same or a different key, by moving the cursor to the desired Key Indicator column and pressing the Enter key.

KeyesFile will change the * back to a > character in the Key Indicator column.

Searching for Text in Cards

You can find specific text in the cards by using the Search command. You can start a search at any point in the card file. KeyesFile will search forward from the current card and, when it reaches the last card, automatically continues searching from the beginning of the card file.

When searching for text, KeyesFile ignores capitalization. KeyesFile will search cards according to the selected key in the order that is shown to you. If you are displaying a subsetted list of cards, only those cards will be searched. If you wish to search all cards, select the primary key before starting the Search command.

To search for text:

1. Bring to the front of the card file the card that you want to begin the search.
2. Press F14 (Search).
3. Type the text that you want to find in the specific line that you wish to search, or in the Index line to search all lines in the cards.

Note: KeyesFile will work much faster when searching for text in a specific line, rather than searching all lines in the cards.

4. Press the Enter key.

   KeyesFile searches for the text and selects the first occurrence. If there are no occurrences of the text in the cards that are selected for display, KeyesFile will display a message telling you that the text was not found.

5. To find the next occurrence of the same text, press F16 (Find Next).

Editing Text on Cards

You can make changes or add text to existing cards by selecting the card that you want to change, moving the cursor to the desired location, and adding or typing over any existing text.

If you change the text in the selected key, KeyesFile automatically places the card in its correct alphabetical order when you press the Enter key.

Scrolling Through a Card

There are up to 999 lines that can be entered on each card. The functions below require that the cursor be located within the Card Body.

Press this:	To do this:
Roll Up	Scroll to the next 9 lines.
Roll Down	Scroll to the previous 9 lines.
F10	Bring the cursor to the first line.
F11	Bring the cursor to the next available line at the bottom of the card.

Inserting a Line in a Card

If you want to move existing lines of text down in a card, you can make room for additional text to be inserted.

To insert a line in a card:

1. Move the cursor to the line that you want to move down.
2. Press F6 (Add/Insert/Create).

   KeyesFile will move all lines of the card down to the next line, starting at the cursor location. The current line will be filled with blanks.

Deleting a Line from a Card

For safety reasons, KeyesFile will not allow a line to be deleted unless the text from that line has been cleared. You can clear a line by placing the cursor in the first position and pressing the Field Exit key.

To delete a line from a card:

1. Clear the text from the line that you want to remove.
2. Move the cursor to the line.
3. Press F13 (Delete).

   KeyesFile will delete the current line, and move all the following lines up one line.

Copying Text to Another Line or Card

You can copy one or more lines of text into a blank area of any card. The text can be gathered from one or more cards, in any order. The resulting copy will be output in the order that the text was gathered.

If you wish to move text to a different position on a card, use the copy function, then clear the original text.

To copy text:

1. Free up enough lines in the target card to hold the text to be copied. You may want to use F6 (Insert) to make room for the copy.
2. Move the cursor to the first line to be copied and press F22 (Copy).

   KeyesFile will highlight the selected line.
3. You may select additional lines to be copied by moving the cursor to each additional line and pressing F22 (Copy). If you make a mistake, you may press F12 (Cancel) and start the selection over again.
4. Bring the target card to the front of the file.
5. Place the cursor at the beginning of the blank area in the target card and press the Enter key.

   KeyesFile will copy the text to the new location only if there is sufficient room to make the copy without overlapping any other text on the following lines.

Undoing Changes

You can use the Home key (Alt+Home on some terminals) to undo changes that were just made to a card.

You must press the Home key twice to activate Undo. The first time you press the Home key, the cursor will be moved to the home position. The second time you press the Home key, it will undo all changes that were made since the last time you pressed any function key, a Roll key, or the Enter key.

Using Card Headings

Card headings may be entered on the left side of the card. One set of headings will be used for all cards in each file. The headings will make it easier for you to enter like information in the same line of every card.

To enter card headings:

1. Move the cursor to the Card Headings, and press the Enter key.

   The Card Headings area will be highlighted to show that it is activated.

2. Type the text for the headings.

   Additional lines for the headings can be made available using the Roll keys.

   OR

   Press F11 (Last) to move the cursor to the next available line to be entered for a card heading.

3. When you have finished working with the card headings, press the Enter key.

   The cursor will return to the Index Line.

Editing Card Headings

When working with Card Headings, the insert, delete, and copy functions will affect a line for all cards in the card file. Before performing one of these functions KeyesFile will ask you to confirm it.

Press this:	To do this:
Roll Up	Scroll to the next 9 heading lines.
Roll Down	Scroll to the previous 9 heading lines.
F6	Insert a new line at the current cursor position for all cards in the card file.
F10	Bring the cursor to the first line.
F11	Bring the cursor to the next available line of headings at the bottom of the card headings.
F13	Delete the current line from all cards in the card file.
F22	Select the current line for all cards in the card file to be copied.

Deleting a Card

You can delete a card from a card file with the following procedure.

To delete a card:

1. Bring to the front of the card file the card you want to delete.
2. Move the cursor to the Index line at the top of the card.
3. Press F13 (Delete).
   You will be asked to confirm the deletion.
4. Press the Enter key.

Duplicating a Card

If the information to be keyed in a card is similar to another existing card, you might want to copy the entire card then edit the copy as necessary.

To duplicate a card:

1. Move the cursor to the Index line or to the Card Top of the card that you wish to duplicate.
2. Press F22 (Copy).

   KeyesFile adds an exact copy of the card to the card file. The original card will become the current card. You may press F8 (Next Card) to move to the copy.

Working with E-mail Addresses

If you have entered e-mail addresses on the cards, you can easily create, address and send messages to those addresses using F2 (Fax/E-mail).

Placing an E-mail Address on a Card

E-mail addresses may be keyed anywhere on the cards, using the following format.

name@host.network

E-mail addresses are recognized by the '@' character that must be keyed as part of the address.

Using F2 (Fax/E-mail)

The F2 key can be used for two different purposes. If you have our KeyesFax system, it can be used to create and send an image, Message member, text, or OV document as a fax. If the cursor is positioned on an e-mail address, it will pass the company name, contact, and e-mail address from the card to the Work with KeyesMail program.

From the Work with KeyesMail screen, you can create a new message (using F6) or copy any existing mail member (using option 3) to be sent to the selected recipient.

The information that is used to address the new mail member is defined in the user's setup screen under their personal Phonebook. If the user does not have a personal Phonebook defined, the system Phonebook definition is used.

To send an e-mail message:

When you press F2 on an e-mail address, the system will search for the card heading that matches the company name and contact definition. The appropriate card heading is defined in the user or system setup for the Phonebook.

1. Place the cursor anywhere on an e-mail address.

   johnsmith@somecompany.org

2. Press F2 (Fax/E-mail).

   KeyesFile will save the company name, contact, and address in a data queue and call the Work with KeyesMail program.

3. You will be given the chance to either create a new mail message using F6, or copy an existing mail member using option 3. The new or copied mail will be addressed appropriately and opened for you to edit the message.

4. After you have finished editing and sending the new message, you may end the Work with KeyesMail program using F3 (Exit). You will be returned back to the Phonebook where you left off.

Printing Lines from Cards

You can print an image of an entire card, or you can select specific lines from the cards to be printed on the default printer. After selecting lines to be printed, you can print individual cards or a series of cards by selecting the first and last card in the series to print.

Printing a Card Image

When printing a card image, KeyesFile will include card headings and lines around the text.

To print an image of a card:

1. Move the cursor to the Index line, or Card Top of the card that you want to print.
2. Press F21 (Print).

   KeyesFile will print an image of the card, which will include all lines down to the last line that contains headings or text for the selected card.

Selecting Lines to be Printed

To print selected lines you must first select the lines to be printed then either print those lines for individual cards or for a series of cards.

To select lines to be printed:

1. Move the cursor to the first line on a card to be printed.
2. Press F21 (Print).

   The selected line will be highlighted.
3. You may select additional lines to be printed by moving the cursor to each line and pressing F21 (Print).

Note: You may print blank lines, for proper spacing, by selecting lines with no data on them. If you make a mistake, you may press F12 (Cancel) and start the selection over again.

Printing Individual Cards

After selecting lines to be printed, you may select the individual cards that you want to print.

To print one or more individual cards:

1. Bring the card that you want to print to the front.
2. Move the cursor to the Card Body and press the Enter key.

   KeyesFile will print the previously selected lines in the order that the lines were selected, then ask if you would like to print the same lines for additional cards.
3. To select additional cards to be printed, repeat steps 1 and 2 above.
4. When you are finished selecting cards to be printed, press F12 (Cancel).

Printing a Series of Cards

After selecting lines to be printed, you may select a series of cards that you want to print.

When printing a series of cards, KeyesFile uses the selected key to determine the order and total number of cards to be printed.

To print a series of cards:

1. Move the cursor to the Index line, or the Card Top of the first card that you want in the series to be printed.
2. Press the Enter key.

   KeyesFile will ask you to select the last card in the series to be printed.

Note: You may use any method to scroll through the cards to find the last card in the series. However, you should not change the selected key between the selection of the first card and the last card.

3. Move the cursor to the Index line, or the Card Top of the last card that you want in the series to be printed.
4. Press the Enter key.

   KeyesFile will print the previously selected lines for all of the cards from the first card selected to the last, in the order that the lines were selected. When it is finished KeyesFile will ask if you would like to print the same lines for additional cards.
5. To select additional series of cards to be printed, repeat steps 1 through 4 above.
6. When you are finished selecting cards to be printed, press F12 (Cancel).

Managing KeyesFile Members

KeyesFile uses a database file called KEYFILE and a logical file called KEYFILEA. Your individual KeyesFile document members will be members of those files.

Opening a KeyesFile Member

You can open a new member or change to a different member at any time.

To open a KeyesFile member:

1. Move the cursor to the Member Name area, and press the Enter key.

   The Member Name area will be highlighted to show that it is activated.

2. Type the name of the new or existing member name that you want to open.

3. If the member is private or locked, and you are not the owner, then you must also provide the appropriate password.

   For a locked member, if you do not provide a password, you will still be allowed to open the member and work with any of the lines that are not locked.

4. Press the Enter key.

   KeyesFile will open the member named if it already exists. You will be asked to confirm the creation of a new member if it does not exist.

Determining Document Member Names and Sizes

The number of cards that have been created in each member is displayed in the Member Status area, but this does not tell you how many lines you have created for the cards. You can determine the names of all the KeyesFile document members and their total sizes using F4 (Prompt).

To determine member names and sizes:

1. Move the cursor to the Member Name area.

2. Press F4 (Prompt), with the cursor on the member name.

   KeyesFile will display a complete file description of the data base file called KEYFILE.

3. Use the Roll keys to scroll through the member names and sizes.

4. When you are finished you can return to KeyesFile by pressing the Enter key or F3 (Exit).

Copying and Merging Members

You can copy a KeyesFile member to another member name. If the other member already exists, you can merge or consolidate two sets of cards. Before you can copy or merge a member you must open it.

To copy or merge a KeyesFile member:

1. Open the KeyesFile member that you want to make a copy of.
2. Move the cursor back to the Member Name area and press the Enter key.
   The Member Name area will be highlighted to show that it is activated.
3. Leave the cursor in the Member Name area and press F22 (Copy).
   KeyesFile will ask you to type a new name to be copied into.
4. Key a new member name to be created or merged into.
5. Press the Enter key.
   KeyesFile will copy the original member that was open to the new name supplied. If the new name already exists, you will be asked to confirm that you want to merge the two members together. If the existing member is private or locked, you must be the owner to copy into it.

Deleting a KeyesFile Member

To delete an entire KeyesFile member, you must open it first, and you must have delete capability in the KeyesFax library.

To delete a KeyesFile member:

1. Open the KeyesFile member that you want to delete.
   Only the owner of a private or locked member can delete it.
2. Move the cursor back to the Member Name area and press the Enter key.
   The Member Name area will be highlighted to show that it is activated.
3. Leave the cursor in the Member Name area and press F13 (Delete).
   KeyesFile will ask you to confirm the deletion of the member.
4. Press the Enter key.

Be sure that you have the correct member before you delete it. You can only replace a deleted member with a backup copy of the file KEYFILE.

Securing a KeyesFile Member

You may designate each KeyesFile member as either *PUBLIC, *PRIVATE, or *LOCKnnn. A public member can be used by any person that has access to the KeyesFax library, based on their iSeries security profile. Private and locked members are owned by a single person, but can be used by anyone who knows the proper password. Passwords are set by the owner.

A locked member can be used by any person that has access to the KeyesFax library, but only those who know the password can add, change, or delete any of the locked lines in the cards. *nnn* specifies the last line number that is locked. By specifying *LOCK999 you can allow a member to be used for inquiry only. Smaller locks will allow some information to be added or changed for the cards.

To change the member security:

1. Open the KeyesFile member that you want to change.

   If the member is public, anyone can change the security. Otherwise, only the owner can change the security.

2. Move the cursor back to the Member Name area and press the Enter key.

   The Member Name area will be highlighted to show that it is activated.

3. Type either *PUBLIC, *PRIVATE, or *LOCKnnn in the secured line.

   nnn is the last line number to lock. For example, *LOCK010 will lock the first 10 lines of each card in the card file.

4. If you selected *PRIVATE or *LOCKnnn, you must also type a password in its line.

5. Press the Enter key.

To change the password:

1. Open the KeyesFile member that you want to change the password.

   Only the owner of a member can change the password.

2. Move the cursor to the Password area and press the Enter key.

   The Password area will be highlighted to show that it is activated.

3. Type the new password and press the Enter key.

Importing and Exporting Data

The KeyesFile Information Manager uses a database file where each record contains a single line of card data. This file format is very efficient for storage and retrieval purposes, but is extremely difficult to work with for your applications. We have included import and export programs to make the sharing of this data much easier for you.

Each line of data for the card file is 45 characters long. The import and export programs use a file that combines one or more lines from the card file into a single record for you to use. The first 45 characters of the import/export file is a reserved area. Characters 46 to the end of the file contain the data that is from or going to the card file.

You can choose the number of card lines that will be imported or exported. You can choose 1, 10, 20, 50, or 100 card lines. If you choose 1 line, the import/export file is built at 90 characters wide, with the 1 card line mapping to columns 46 through 90 of the file. If you choose 10 lines, the file is built at 495 characters wide, with the 10 card lines mapping to columns 46 through 495. 20 lines will build a 945 character file, 50 lines uses a 2295 character file, and 100 lines uses a 4545 character file.

Importing Data to KeyesFile

You can import data to a KeyesFile member from an existing database file so that you do not have to rekey the information. First you must decide how many card lines you will be importing (1, 10, 20, 50, or 100). You will then built an import file of the appropriate width that contains the data that you wish to be placed in the card file. Each of the records in the import file will contain all of the lines for one card in the KeyesFile member. You may then run the KFIMPORT command either from the KeyesFile menu or the command line. You can import data to an existing KeyesFile member.

From database file:

This is the name of the import file that you have built. Each record will contain up to 1, 10, 20, 50, or 100 card lines.

Library:

This defaults to *LIBL and specifies the library that the database file can be found in.

To KeyesFile member:

This names the KeyesFile member that you will be importing the data into. Records will be added to the member.

Number of lines per card:

This defaults to 100. You can specify 1, 10, 20, 50, or 100 lines depending on how you built the import file.

Exporting Data from KeyesFile

You can export data from a KeyesFile member to database file so that you can sort, select, process, or print the data with your own application programs. First you must decide how many card lines you will be exporting (1, 10, 20, 50, or 100). You may then run the KFEXPORT command either from the KeyesFile menu or the command line. It will build the appropriate size file and export data to it. Each of the records in the export file will contain all of the included lines for one card in the KeyesFile member.

From KeyesFile member:

This names the KeyesFile member that you will be exporting the data out of.

To database file:

This is the name of the export file that will be built. Each record will contain up to 1, 10, 20, 50, or 100 card lines.

Library:

This defaults to *CURLIB and specifies what library the database file should be built in.

Number of lines per card:

This defaults to 100. You can specify 1, 10, 20, 50, or 100 lines depending on how you want the export file built.

Using KeyesFile as a Phonebook

Any KeyesFile member can be used as a Phonebook to save and supply information for the KeyesMail Editor.

While using the KeyesMail Editor, you can press F20 (Phonebook) to access your Phonebook. The default member that you will be placed in is either defined as your personal Phonebook, or the system Phonebook will be used. You can switch to a different KeyesFile member by moving the cursor up to the member name field, activating it by pressing Enter, and changing the name.

Using F20 (Phonebook) on Inbound Mail

When you have opened an inbound mail member with the KeyesMail Editor, you may press F20 (Phonebook) to save the name and address of the sender to your Phonebook.

The From address is passed to your Phonebook in a data queue. After opening the Phonebook, you can use any of the standard search features to see if a card already exists for the address in question.

If a card already exists, you may include the new address (shown to you on the screen) on the existing card. If no card exists for that address, you may add a new card by placing the cursor on a card top and pressing F6 (Add/Ins/Create). A new card will be created and the name and address automatically entered on it.

After making any desired changes to the card, press F3 (Exit), and you will be returned to the KeyesMail Editor where you left off.

Using F20 (Phonebook) on Outbound Mail

When you are displaying the *Recipient Addresses* screen of the KeyesMail Editor, you may press F20 (Phonebook) to assist you in addressing the mail.

Your Phonebook is opened allowing you to select one or more entries (up to 100) to receive the e-mail message.

To select individual cards, move the cursor to the body of each card and press F20 (Select). To select a series of cards, position the cursor on a card top of the first card in the series and press F20. You may then roll through the cards to position the cursor on the card top of the last card in the series and press Enter. After all the recipients have been selected, press F3 (Exit) and you will be returned to the KeyesMail Editor. All of the selected recipients will be used to address your e-mail message.

Your user setup screen contains the default Phonebook name that you can set to any of the available KeyesFile member names. It also contains heading search values that the program will use for the selection. The default heading search values are "Contact" , "Company", and "E-mail". The program will look for these headings in your KeyesFile member and retrieve the information in the corresponding lines for the cards that you select.

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6 API's

Application Program Interfaces (API's)

KeyesMail contains a number of API's that can be used to customize or automate a system for specific tasks. The API's are used to create and send e-mail messages automatically to recipients on the Internet.

Chapter 7 (*Output Queue*) of this manual describes an easy method of automatically e-mailing Spooled Files. But, sometimes an API can be more flexible.

API's can be used to prepare mail with input from a user. They can be used to prepare and send e-mail with multiple attachments. They can be used to send automatic responses to e-mail queries from users on the Internet. To do this you would monitor for mail being received in a particular mailbox. The subject or the received message can be scanned for keywords which would trigger one or more of the API's being called in response.

This kind of automation speeds delivery, reduces operator workload, minimizes mistakes, and offers you a competitive tool for e-Business use.

Change KeyesMail Password (CHGKMLPWD)

This API can be used to change the mail account password for any mailbox in the KeyesMail system.

IBM mail servers use each user's sign-on password for their mail account password. Each time a user changes their sign-on password, they must also change their mail account password in the KeyesMail system. Another API *KeyesMail Password API* (KMLPWDAPI) can do this for you automatically. It will call the CHGKMLPWD API every time a user changes their sign-on password.

To activate the KMLPWDAPI for automatic password changing, you must enter the following command on your system:

```
Enter:  CHGSYSVAL  SYSVAL(QPWDVLDPGM)
        VALUE('KMLPWDAPI  KMLIB')
```

Note: You must have the special authority of *SECADM or have specific authority granted to you, if you are not the owner of a mailbox, in order to change its password.

Mailbox (MAILBOX)

The default value of *USER is used to change the current user's mailbox. You may specify another specific mailbox, but you must have *SECADM special authority to be able to change a password when you are not the owner.

Password (PASSWORD)

The default value of *SAME will not change the existing password for the specified mailbox. You may key the new password using the proper case (upper or lower) for each character. If any of the characters are lower case or are special characters, then you must surround the *'password'* with quotes.

Create a KeyesMail Message (CRTKMMSG)

This program may be used to create a new e-mail message where the recipient's name and address are passed from one of your applications.

You will be placed on the *Work with KeyesMail* screen where the program will allow you to *Select an entry to copy using Option 3 or press F6 for a new entry*. This allows you to copy another message (using **Option 3**) out of your mailbox that is similar to the new one you wish to create, or simply press the **Function 6** key to create a new empty message.

Mailbox (MAILBOX)

Name the mailbox where you wish to create the new e-mail message. The default value of ***USER** will create the message in the current user's mailbox.

Recipient's name (NAME)

Use this parameter to pass the name of the recipient to the e-mail message.

Recipient's address (ADDRESS)

Use this parameter to pass the Internet address of the recipient to the e-mail message.

Edit a KeyesMail Message (EDTKMMSG)

This program may be used to edit an existing e-mail message, or one that was just created by another API, such as KMLTXTM. You may pass the address of a recipient to the API.

You will be placed directly in the existing e-mail message so that you can edit any part of it and mail it. If you named a recipient address in this API, it will replace the first address in the existing message. If you leave the address parameters blank, any existing addresses will be left alone.

Mailbox (MAILBOX)

Name the mailbox where the message exists.

Mail member (MAILMBR)

Name the message member that you wish to edit. You can get this parameter from the other API's that create an e-mail message or by opening an existing message and reading the member name from the top line of the screen.

Recipient's name (NAME)

Use this optional parameter to pass the name of a recipient to the e-mail message (up to 45 characters).

Recipient's address (ADDRESS)

Use this optional parameter to pass the Internet address of the recipient to the e-mail message (up to 45 characters).

Returned messages (MESSAGE)

This parameter is used to retrieve the completion message that is created by this API. You must define a variable (78 characters long) that will receive the completion message.

Export KeyesMail to .eml Files (EXPORTKML)

This program can be used to export mail from the KeyesMail system. You may specify the period ending date, the mailbox, and the type of mail that you wish to export, along with the desired Path in the IFS where the .eml files will be created.

Normally you will only want to export mail once to the IFS. If you export the same mail twice, the same filenames will be used for the resulting .eml files. It is recommended that you develop a method to either move mail or purge mail using the same period ending date, that you have exported from a mailbox. You can use MOVEKML or PURGEKML commands to do this.

The filenames of exported .eml files will be a date and time stamp of when each piece of mail had been originally received or created. The format will be Myyyymmddhhmns.EML – that is an "M" followed by the Year, Month, Day, Hour, Min, and a Sequence number.

Note: You must have the special authority of *SECADM to be able to specify ***ALL** for the Mailbox parameter.

Period ending date (PERIODEND)

All mail will be exported that was either created or received on or before this date. You may key any specific date in your normal date format, or use one of the special values.

The default is a special value of ***LASTMONTH**. This can be used to export mail dated on or before this day last month. The special value ***LASTYEAR** will export mail through this day last year. ***LASTWEEK** will purge mail on or before this day last week. Also available is ***YESTERDAY** and ***TODAY**.

Mailbox (MAILBOX)

The default value of ***USER** is used to export your own mail. You may specify another specific mailbox or ***ALL** may be used to export mail from all mailboxes. You must have *SECADM special authority to be able to specify ***ALL**, or you must have been given specific authority by a user in order to export their mail.

To Path in IFS (TOPATH)

Specify the Path in the IFS where you wish to place the exported .eml files. The directory must already exist and you must have access to it. When processing ***ALL** mailboxes, a directory will be automatically created for each mailbox in this Path.

Type to export (TYPE)

The default value of ***BOTH** is used to export both Inbound and Outbound mail. If you wish to only export Inbound mail, then you can specify ***IN**. To only export Outbound mail, you can specify ***OUT**.

Submit to Batch or Interactive (SUBMITJOB)

The default value of ***BATCH** will cause the program to be submitted to the KMAILX job queue. If you specify ***INTER** the system will export the mail interactively.

Mail Automatic Reply from a Template (KMLAUTORPY)

This program is used to prepare a predefined message and mail it to one or more recipients. It will copy a mail member used as a template into a new message.

The Internet addresses for up to 10 recipients can be coded in this API, and the template can also include addresses. The addresses from this API are added to any addresses found in the template.

The template should be set up with all the appropriate information, ready for mailing, except for the data that is coded in this API.

Mail member template (MAILMBR)

Use this parameter to name an existing mail member, located in an accessible mailbox, that you wish to use as a template.

The template message will be copied to a new member, with all existing data including any addresses and attachments.

To E-mail address (TOADDR)

You may code up to 10 different e-mail addresses for the recipients of this message. The addresses will be added to any that are already found in the mail member used as a template. You may code ***SAME**, in the first address parameter, if the template already includes all of the addresses desired.

Subject (SUBJECT)

A Subject field can be used to briefly describe the content of the e-mail message. The subject may be coded in this parameter or you may code ***SAME** to indicate that the program should use the subject from the original template.

Change the Status of a Mail Member (KMLCHGSTS)

This program can be used to change the status of any mail member. This can be quite handy for marking messages that you have automatically processed with another API. For example, you could mark messages with an Answered or Opened status which will allow the normal Purge program to delete the members.

Mail member name (MAILMBR)

This is the name of the mail member to be changed. You may code ***LDA** to retrieve the member name from the LDA in positions 1 through 10.

New status (NEWSTATUS)

Code one of the following entries to change the status of the mail member:

Specify **OPENED** to mark the member as "Opened". You may want to do this after auto processing an inbound e-mail message so that it will be purged.

Specify **ANSWERED** to mark the member as "Answered". You may want to do this after auto processing an inbound e-mail message.

Specify **DELETED** to mark the member as "*Deleted". The mail member will be moved to the **Deleted* category allowing it to be purged after the number of Purge delay days. You may want to do this after saving an attachment from either an inbound or an outbound mail member.

Specify **NEW** to mark the member as "*New". You may want to do this after auto processing an inbound e-mail message.

Specify **RECOVER** to mark the member as "Recover".

Specify **OUTBOX** to place the member in "Out Box" status. You may want to do this after generating a new e-mail message that you want to e-mail. The member will be sent out on the new mail run.

Copy a Template (KMLCPYTMP)

This program is used to copy a mail Template. The copy can be placed in the same or a new Mailbox. It can also be placed in the same or a new Category.

After copying a Template, you would normally use another API to add addresses and attachments to the copy, before sending the mail.

The name of the newly created mail member will be recorded in the LDA in positions 1-10. You can retrieve this member name, after running this API, and use it to add addresses and attachments to the copied Template message.

Template name (TEMPLATE)

Name an existing mail Template, located in an accessible mailbox, that you wish to copy to make a new e-mail message.

New Mailbox name (MAILBOX)

You may code the name of a new Mailbox that you want the copied Template to go into. The default value of ***SAME** will make the copy into the same mailbox that the Template is located in.

New Category (CATEGORY)

You may code the name of a new Category that you want the copied Template to go into. The default value of ***SAME** will make the copy into the same category that the Template is located in.

Sample Code

The following code copies a Template message, adds a physical file member as an attachment, then mails it.

```
         PGM         PARM(&Addrs)
         DCL         VAR(&Addrs) TYPE(*CHAR) LEN(60)
         DCL         VAR(&ERRMSG) TYPE(*CHAR) LEN(128)

         KMLCPYTMP   MAILMBR(Template2)
         MONMSG      MSGID(CPF9898) EXEC(GOTO ERRORS)

         KMLPFMBR    MAILMBR(*LDA) TOADDR(&Addrs) +
                     SUBJECT(*SAME) FILENAME(yourfile) +
                     MEMBER(yourmbr) LIBRARY(yourlib) +
                     DESC('Newfilename.CSV') +
                     TRANSLATE(3) SENDMBR(*YES)
         MONMSG      MSGID(CPF9898) EXEC(GOTO ERRORS)
         GOTO        CMDLBL(EXIT)
ERRORS:  RCVMSG      MSGTYPE(*LAST) MSG(&ERRMSG)
         SNDPGMMSG   MSG(&ERRMSG) TOUSR(*SYSOPR)
EXIT:    ENDPGM
```

Mail a PC File as an HTML Message (KMLPCDMSG)

This program is used to prepare a PC file, located in a Folder on the IFS, as an HTML message with optional *Inline* images. The PC File may contain either plain Text or an HTML type message that was prepared by any HTML creation software.

The HTML should be placed in one of your IFS folders, along with any Inline images that the HTML references. KeyesMail will convert the HTML to an e-mail message and automatically add the Inline images to the e-mail.

The Src= statements that reference Inline images will be located and automatically altered to include Src=cid:. This will allow the Content-ID of the Inline images to be located by the recipient's mail client.

The name of the newly created e-mail member will be recorded in the LDA in positions 1-10. You can retrieve this member name, after running the API, and use it to add attachments to the message.

Note: Please see "HTML Messages" in the Appendix section for additional information about creating HTML.

PC File name (FILENAME)

This is a 60 character field that is the name of the PC file that you will be sending as an e-mail message.

Folder (FOLDER)

This is a 50 character field that is the name of the IFS Folder where the PC file can be found. The IFS Folder must start with a '/' character.

To E-mail address (TOADDR)

You may code up to 10 different e-mail addresses for the recipients of the message, in any of the following formats:

jdoe@somecompany.net
<jdoe@somecompany.net>
<jdoe@somecompany.net> (John Doe)
"John Doe" <jdoe@somecompany.net>
"BCC:" <jdoe@somecompany.net> (*Sent as Blind Copy*)
list-name (*Sent as Blind Copy*)
list-file/list-name (*Sent as Blind Copy*)
mailbox-name

Subject (SUBJECT)

A Subject field can be used to briefly describe the content of the e-mail message.

From E-mail address (FROMADDR)

You may code an address that will replace the Return E-mail address, in this parameter. This is the address that identifies who is sending the e-mail message, and where replies should be sent. You may code ***SAME** to indicate that the program should use the *Return address* from the mailbox.

From mailbox (MAILBOX)

Enter the name of a valid mailbox that the e-mail messages will be sent from. The mailbox supplies the *Return address* that is placed in the message. The user running this program must have access to the specified mailbox.

You may leave the default value of *USER which will use the current user-id as the mailbox. If that mailbox does not exist, Postmaster will be used.

Category (CATEGORY)

Enter the category that you wish to have the messages placed in. If you leave it blank, it will default to 'Transmitted PC Files'.

Send the member to Out Box (SENDMBR)

The default value of ***YES** will send the new mail members to *Out Box* for mailing on the next mail run. If you specify ***NO** the message will not be mailed. This is typically used only if you intend to add attachments to the message before mailing.

Remove message after sending (RMVMSG)

This 4 character field defaults to *NO. Enter *YES if you would like the program to set the Auto Purge field to "Y" in the messages. This will cause the message to be automatically deleted after it is sent.

Priority (PRIORITY)

This field is used to mark how important a message is or how soon it should be sent. (L=Low, N=Normal, H=High)

Delivery Status Notification (DSN)

This field is used to mark when you want the Internet SMTP servers to notify you of the Delivery Status of this e-mail message. The default value of **N (Normal)** will usually send you back a standard failure message, if the e-mail is undeliverable.

You may enter **F (Failures)** which will cause a delivery status message to be sent, if the message fails to be delivered.

If you enter **S (Successes)** the Internet will send back a delivery status message, when it is successfully delivered, relayed to a server that does not have delivery status capability, or when a list has been expanded by a list server.

You may enter **B (Both)** to have delivery status messages sent when it either fails or is successfully delivered, relayed, or expanded.

Request a Read Receipt (REQRR)

This field can be used to request a Read Receipt from the recipient of this piece of mail. If the recipient allows it, a receipt will be sent back to the return address, when the user opens their mail.

Receipts are only sent from recipients that are directly addressed in the mail. Blind copies and recipients in a list will typically not send a receipt.

Reply-to Address (REPLYTO)

You may code an address that will be used for replies to this e-mail message. You should code this address only if it is different than the From Address.

Sample Code

The following code creates an Invoice. It then sends an HTML message that references the Invoice so that it will appear in the body of the message along with any other inline images that may be referenced in the HTML. The Invoice is then attached to the e-mail as an Inline image.

```
            PGM

            DCL         VAR(&ERRMSG) TYPE(*CHAR) LEN(128)

            OVRPRTF     FILE(INVOICE) HOLD(*YES)
            CALL        PGM(your-pgm)
            DLTOVR      FILE(INVOICE)

            KMLPCDMSG   FILENAME(Invoice-Message.html)
                        FOLDER(/HTML/Messages)
                        TOADDR('Recipient address' +
                        'Second address') +
                        SUBJECT('Your Invoice') +
                        MAILBOX(*USER)
                        SENDMBR(*NO)
            MONMSG      MSGID(CPF9898) EXEC(GOTO ERRORS)

            KMLSPLFL    MAILMBR(*LDA) SPLFILE(INVOICE) +
                        SPLDESC('Inline-Invoice.pdf')
                        JOBNAME(*) +
                        TRANSLATE(6) SENDMBR(*YES)
                        DISP(INLINE)
            MONMSG      MSGID(CPF9898) EXEC(GOTO ERRORS)

            GOTO        CMDLBL(EXIT)

ERRORS:     RCVMSG      MSGTYPE(*LAST) MSG(&ERRMSG)
            SNDPGMMSG   MSG(&ERRMSG) TOUSR(*SYSOPR)
EXIT:       ENDPGM
```

Mail a PC File as an Attachment (KMLPCFL) - KMLPCFA is Deprecated

This program is used to prepare a PC file as an Attachment. The attachment will be added to existing mail member that was created using a previous API call.

The Internet addresses for up to 10 recipients can be coded in this API. The addresses from this API are added to any existing addresses found in the mail member.

Mail member name (MAILMBR)

Define a CL variable (10 characters long) and use it to pass the desired value to this parameter.

Name an existing mail member, located in an accessible mailbox, that you wish to add this attachment to. You may code *LDA in this parameter to retrieve the member name from the LDA in positions 1 through 10.

The PC file will be converted to an attachment and added to the mail member. The mail member will then be prepared and placed in "Out Box" ready for mailing, if the *Send the member to Out Box* parameter is set to ***Yes**.

To E-mail address (TOADDR)

You may code up to 10 different e-mail addresses for the recipients of the Physical file member. The addresses will be added to any that are already found in the mail member used as a template. You may code ***SAME**, in the first address parameter, if the template already includes all of the addresses desired.

Subject (SUBJECT)

A Subject field can be used to briefly describe the content of the e-mail message. The subject may be coded in this parameter or you may code ***SAME** to indicate that the program should use the subject from the original template.

From E-mail address (FROMADDR)

You may code an address that will replace the template's From E-mail address, in this parameter. This is the address that identifies who is sending the e-mail message, and where replies should be sent. You may code ***SAME** to use the From address from the original template.

PC File name (FILENAME)

This is a 42 character field that is the name of the PC file that you will be sending as an Attachment.

Folder (FOLDER)

This is a 50 character field that is the name of the Shared Folder where the PC file can be found.

Description (DESC)

This is a 30 character field that you can use to optionally give a brief description of the attachment.

Translation code (TRANSLATE)

The PC file will usually be sent as is with no translation, by selecting **0 (None)**.

You can translate the file into EBCDIC, if desired, by selecting **1 (AtoE)** for the translation code. This would only be useful if you were sending PC text data to an EBCDIC computer system.

Send the member to Out Box (SENDMBR)

The default value of ***YES** will send the new mail member to *Out Box* for mailing on the next mail run. If you specify ***NO** the message will not be mailed. This should only be used if you intend to add additional attachments to the mail member, with another API, before it is mailed.

Compress attachment (COMPRESS)

To compress the attachment, for faster transmission, you may choose one of these compression codes. The default value of **0** will send the attachment as-is, with no compression.

Specify **1** for Fast compression with good compression amounts. Code **2** for Normal compression with better compression amounts at a reasonable speed. Code **3** for Maximum compression that will take the longest time. Code **4** to use Java Archive Compression, which is built into the operating system.

Notes: The filename extension will be changed to .ZIP for compressed attachments. Options 1-3 require PKZIP software to be installed on your iSeries and available on the library list.

Encryption (ENCRYPT)

Use this along with compression options 1-3 to password protect a file by encrypting the data. The default value of **0** will send the attachment as-is, with no encryption.

Specify **1** for the ZipStd algorithm. This algorithm is compatible with other standard encryption products, such as GZIP. You may code **2** for a ZipAdv - Advanced Encryption Standard that uses a 128 bit key for Strong Encryption.

Note: This and the following option requires PKZIP software to be installed on your iSeries and available on the library list.

Encryption password (PASSWORD)

Specifies a password for files that are being encrypted. The password can be up to 64 characters in length and is case-sensitive.

Note: There is no way to extract a password from an encrypted file. If the password is forgotten, the file will become inaccessible.

Content Disposition (DISP)

The default value of ATTACH will make this entry an Attachment. You can specify INLINE to make an Inline image that can be referenced in an HTML type message, in the body of the e-mail. The name of the image will be used as the Content-ID. The HTML can be changed to reference this inline image by inserting cid: directly in front of the image name in the src= statement for that image. As an example: <img src="cid:image001.jpg">. Please see “HTML

Messages” in the Appendix section for additional information.

Sample Code

The following code creates a mail message, adds a PC type file as an attachment, then mails it.

```
            PGM

            DCL         VAR(&ERRMSG) TYPE(*CHAR) LEN(128)

            KMLTXTMSG   TOADDR('someone@theirdomain.com' +
                        'second address' 'third address' +
                        '”BCC:” <blind-copy-address>') +
                        SUBJECT('Monthly information') +
                        TEXT('Here is this months information +
                        that we generated on a PC.') +
                        MAILBOX(SYSTEM) SENDMBR(*NO)
            MONMSG      MSGID(CPF9898) EXEC(GOTO ERRORS)

            KMLPCFL     MAILMBR(*LDA) TOADDR(*SAME) +
                        SUBJECT(*SAME) FILENAME(PCfilename) +
                        FOLDER('/IFSfolder') +
                        DESC('Your file description') +
                        SENDMBR(*YES)
            MONMSG      MSGID(CPF9898) EXEC(GOTO ERRORS)
            GOTO        CMDLBL(EXIT)

ERRORS:     RCVMSG      MSGTYPE(*LAST) MSG(&ERRMSG)
            SNDPGMMSG   MSG(&ERRMSG) TOUSR(*SYSOPR)
EXIT:       ENDPGM
```

Mail Physical File Mbr as an Attachment (KMLPFMBR)
- KMLPFMA is Deprecated

This program is used to prepare a Physical file member as an Attachment. The attachment will be added to an existing mail member that was created from a previous API call.

The Internet addresses for up to 10 recipients can be coded in this API. The addresses from this API are added to any addresses already found in the mail member.

Mail member name (MAILMBR)

Define a CL variable (10 characters long) and use it to pass the desired value to this parameter.

Name an existing mail member that you wish to add an attachment to. You may code ***LDA** to retrieve the mail member name from the LDA in positions 1 through 10.

The Physical file member will be converted to an attachment and added to the mail member. The mail member will then be prepared and placed in "Out Box" ready for mailing, if the *Send the member to Out Box* parameter is set to ***YES**.

To E-mail address (TOADDR)

You may code up to 10 different e-mail addresses for the recipients of the Physical file member. The addresses will be added to any that are already found in the mail member. You may code ***SAME**, in the first address parameter, to use only the existing addresses.

Subject (SUBJECT)

A Subject field can be used to briefly describe the content of the e-mail message. Code the subject in this parameter or code ***SAME** to use the subject from the original template.

From E-mail address (FROMADDR)

You may code an address that will replace the template's From E-mail address, in this parameter. This is the address that identifies who is sending the e-mail message, and where replies should be sent. You may code ***SAME** to use the From address from the original template.

File name (FILENAME)

This is a 10 character field that is the name of the Physical file that you will be sending as an Attachment.

Member name (MEMBER)

This is a 10 character field that is the name of the Physical file member that you wish to e-mail.

Library (LIBRARY)

This is a 10 character field that identifies the library where the Physical file can be found. The default value of *LIBL tells the program to search the current library list for the file. You may also enter *CURLIB to search the current library for the file.

Rename attachment.ext (DESC)

This is a 30 character field that you can use to optionally specify a long filename.ext for the attachment. If you enter an extension, this will be used to replace the default filename that is generated by the program. The default name will be the member name plus an appropriate extension.

Translation code (TRANSLATE)

The Physical file member can be sent as is with no translation, if you select **0 (None)**. This would usually only be sent to another iSeries, AS/400, or another EBCDIC computer.

If the file is being sent to an ASCII machine, such as a PC, you can translate the file to ASCII using a translation code of **2** (EtoA) or **3** (CSV / Comma Separated Values). CSV files are easily imported into spread sheets, such as Excel.

It is unusual but possible to translate the data to EBCDIC, if the iSeries file was an ASCII file, using a code of **1** (AtoE).

Send the member to Out Box (SENDMBR)

The default value of ***YES** will send the new mail member to *Out Box* for mailing on the next mail run. If you specify ***NO** the message will not be mailed. This should only be used if you intend to add additional attachments to the mail member, with another API, before it is mailed.

Compress attachment (COMPRESS)

To compress the attachment, for faster transmission, you may choose one of these compression codes. The default value of **0** will send the attachment as-is, with no compression.

Specify **1** for Fast compression with good compression amounts. Code **2** for Normal compression with better compression amounts at a reasonable speed. Code **3** for Maximum compression that will take the longest time. Code **4** to use Java Archive Compression, which is built into the operating system.

Notes: The filename extension will be changed to .ZIP for compressed attachments. Options 1-3 require PKZIP software to be installed on your iSeries and available on the library list.

Encryption (ENCRYPT)

Use this along with compression options 1-3 to password protect a file by encrypting the data. The default value of **0** will send the attachment as-is, with no encryption.

Specify **1** for the ZipStd algorithm. This algorithm is compatible with other standard encryption products, such as GZIP. You may code **2** for a ZipAdv - Advanced Encryption Standard that uses a 128 bit key for Strong Encryption.

Note: This option requires PKZIP software to be installed on your iSeries and available on the library list.

Encryption password (PASSWORD)

Specifies a password for files that are being encrypted. The password can be up to 64 characters in length and is case-sensitive.

Note: There is no way to extract a password from an encrypted file. If the password is forgotten, the file will become inaccessible.

Content Disposition (DISP)

The default value of ATTACH will make this entry an Attachment. You can specify INLINE to make an Inline document that can be referenced in an HTML type message, in the body of the e-mail. The name of the image will be used as the Content-ID. The HTML can be changed to reference this inline image by inserting cid: directly in front of the document name in the src= statement for that image. As an example: <img src="cid:document001.csv">. Please see "HTML Messages" in the Appendix section for additional information.

Sample Code

The following code creates a mail message, adds a physical file member as an attachment, then mails it.

```
          PGM
          DCL         VAR(&ERRMSG) TYPE(*CHAR) LEN(128)

          KMLTXTMSG   TOADDR('someone@home.com') +
                      SUBJECT('System failure message') +
                      TEXT('The system has failed to complete +
                      the weekend process.') +
                      MAILBOX(SYSTEM) SENDMBR(*NO) +
                      RMVMSG(*YES) PRIORITY(H)
          MONMSG      MSGID(CPF9898) EXEC(GOTO ERRORS)

          KMLPFMBR    MAILMBR(*LDA) TOADDR(*SAME) +
                      SUBJECT(*SAME) FILENAME(yourfile) +
                      MEMBER(yourmbr) LIBRARY(yourlib) +
                      DESC('Your file description') +
                      SENDMBR(*YES)
          MONMSG      MSGID(CPF9898) EXEC(GOTO ERRORS)
          GOTO        CMDLBL(EXIT)

ERRORS:   RCVMSG      MSGTYPE(*LAST) MSG(&ERRMSG)
          SNDPGMMSG   MSG(&ERRMSG) TOUSR(*SYSOPR)
EXIT:     ENDPGM
```

Retrieve Attachment Attributes (KMLRTVA)

This program is used to retrieve the attributes for the first 4 attachments within any email member. After receiving an inbound email you can use this API to see what attachments are available in the mail member.

This command will return up to 256 characters of data in the parameter called ATTACH. You must define a CL variable to receive this data and code it in the ATTACH parameter. You can then use a CHGVAR command with a substring (%SST) to parse out the values that you need.

Mail member (MAILMBR)

This is the name of the Mail member for which you wish to retrieve the attachment attributes.

You may code ***LDA** to retrieve the mail member name from the LDA, in positions 1 through 10.

Mailbox (MAILBOX)

Enter the name of the mailbox where this mail member is located.

Attachment Attributes (ATTACH)

Specify the name of a CL variable that will receive the attributes for the first 4 attachments in this mail member. The program will return a string that is 256 characters long, containing the following values:

Start	Len	Value
001	42	First Attachment Name
044	4	Filename Extension
049	6	Type of Encoding used
056	9	Size of Attachment data
---	---	---
065	42	Second Attachment Name
108	4	Filename Extension
113	6	Type of Encoding used
120	9	Size of Attachment data
---	---	---
129	42	Third Attachment Name
172	4	Filename Extension
177	6	Type of Encoding used
184	9	Size of Attachment data
---	---	---
193	42	Fourth Attachment Name
236	4	Filename Extension
241	6	Type of Encoding used
248	9	Size of Attachment data
---	---	---

Sample Code

The following code will extract the filename extensions for the first 3 attachments for a new mail member.

```
            PGM         PARM(&MAILMBR &MAILBOX)

            DCL         VAR(&MAILMBR) TYPE(*CHAR) LEN(10)
            DCL         VAR(&MAILBOX) TYPE(*CHAR) LEN(10)
            DCL         VAR(&ATTACH) TYPE(*CHAR) LEN(256)
            DCL         VAR(&EXT1) TYPE(*CHAR) LEN(4)
            DCL         VAR(&EXT2) TYPE(*CHAR) LEN(4)
            DCL         VAR(&EXT3) TYPE(*CHAR) LEN(4)

            KMLRTVA     MAILMBR(&MAILMBR) MAILBOX(&MAILBOX) +
                          ATTACH(&ATTACH)
            CHGVAR      VAR(&EXT1) VALUE(%SST(&ATTACH 44 4))
            CHGVAR      VAR(&EXT2) VALUE(%SST(&ATTACH 108 4))
            CHGVAR      VAR(&EXT3) VALUE(%SST(&ATTACH 172 4))

/* The first 3 attachments have these 3 extensions */

            ENDPGM
```

Save an Attachment to Disk (KMLSAVAT)

This program is used to automatically save an attachment to your iSeries disk. It is intended to be used to automate the receiving of attachments that are sent regularly to your KeyesMail system from others on the Internet.

In order to completely automate the receiving of attachments, you should call this API when mail is received for a particular Mailbox, from a specific Sender, or with a specific Subject. This information is available, when mail is received, in the KMLADD CL program.

The KMLADD program, at line #125, contains a good place for you to use this API. You would check one or more of the parameters &MAILBOX, &REPLYTO, and &SUBJECT then submit a CL program that uses this KMLSAVAT API against the &NEWMBR parameter to save the attachment to your iSeries each time you receive the expected mail.

Mail member (MAILMBR)

This is the name of the Mail member that contains the attachment that you intend to save. You must have access to the Mailbox that this member is located in.

You may code ***LDA** to retrieve the mail member name from the LDA, in positions 1 through 10.

Attachment number (ANUMBER)

Code the attachment number to be saved in this parameter. Up to 99 attachments may be received in each MIME compliant message.

Filename (FILENAME)

The name of the file that will be saved is coded in this parameter. You can code ***SAME**, which will use the name of the file that was originally sent by the sender.

Description (DESC)

This will be used as the text description on the saved attachment. You can code ***SAME**, which will use the description as it was originally sent by the sender.

Type of attachment (TYPE)

You must code the type of attachment to be saved.

1) PC Text file to be saved into a Shared Folder.
2) PC Binary file to be saved into a Shared Folder.
3) iSeries Physical file to be saved to a Library.
4) iSeries Source Physical file to be saved to a Library.
5) iSeries Spooled file to be saved to an Output Queue.
6) iSeries Save file to be saved to a Library.

Translation code (TRANSLATE)

Attachments can be saved as is with no translation, if you select translation code **0 (None)**.

Attachments can be translated from ASCII to EBCDIC if you choose translation code **1 (AtoE)**.

Attachments can be translated from EBCDIC to ASCII if you choose translation code **2 (EtoA)**.

Attachments can be unencrypted from an Archive, if you have PKZIP on your library list. To do this, choose translation code **3 (UnEncr)**.

Record length (RECLN)

If you are saving either a Physical File or a Source File, you must give the length of the file, if the file does not already exist on your iSeries. The length is used when creating new files, only.

Folder (FOLDER)

If you are saving either a PC Text of PC Binary file, you must name the Shared Folder where you want it to be placed. The folder must already exist and you must have access to it.

Library (LIBRARY)

When you save a Physical File, Source File, or Save File you must name the library where you want it to be placed. The library must already exist and you must have access to it.

Member name (MEMBER)

When you save a Physical File or a Source File, you must name the member where you want it to be saved.

Output Queue (OUTQ)

When you save a Spooled File you must name the output queue where you want it to be saved. The attachment must be a Spooled file that came directly from another iSeries, untranslated.

Encryption password (PASSWORD)

If the attachment was encrypted with a password, you may be able to unencrypt it, by supplying the correct case-sensitive password. This cannot be used when saving PC Text or PC Binary attachments. If can only be used for unencrypting Physical Files, Source Files, Spooled Files (saved as-is), and Save Files.

The original Filename of the attachment that you are saving must have an extension of **.ZIP**. Set the Translation code to **3** for unencryption.

Sample Code

The following code could be placed at line #125 in the CL program called KMLADD. The source code for this is located in QCLSRC in KMLIB. It would look for mail coming into a Mailbox called INVENTORY with a Subject of "Weekly Inventory". When this is found it would submit this API to save the attachment into an Inventory file.

```
IF          COND(&MAILBOX *EQ INVENTORY *AND +
            &SUBJECT *EQ 'Weekly Inventory') THEN(DO)
   SBMJOB   CMD(KMLSAVAT MAILMBR(&NEWMBR) +
            ANUMBER(1) FILENAME(INVFILE) +
            DESC(*SAME) TYPE(3) LIBRARY(INVLIB) +
            MEMBER(INVMBR)) JOBQ(QBATCH) +
            INLLIBL(*CURRENT)
ENDDO
```

Mail a Spool File as an Attachment (KMLSPLFL) - KMLSPLFA is Deprecated

This program is used to prepare a spool file as an attachment. The attachment will be added to an existing mail member that was created in a previous API call.

The Internet addresses for up to 10 recipients can be coded in this API. The addresses from this API are added to any addresses found in the mail message.

This API also has the ability to send a "multipart/alternative" version of the original message in an HTML format. It also has the ability to attach an Inline image to the e-mail. Please see “HTML Messages” in the Appendix section for more information.

Mail member (MAILMBR)

Define a CL variable (10 characters long) and use it to pass the desired value to this parameter.

Name an existing mail member, located in an accessible mailbox, that you wish to add this attachment to. You may code ***LDA** to retrieve the mail member name from the LDA, in positions 1 through 10.

The Spool file will be converted to an attachment and added to the mail member. The mail member will then be prepared and placed in "Out Box" ready for mailing, if the *Send the member to Out Box* parameter is set to ***YES**.

To E-mail address (TOADDR)

You may code up to 10 different e-mail addresses for the recipients of the spool file. The addresses will be added to any that are already found in the mail member. You may code ***SAME**, in the first address parameter, if the template already includes all of the addresses desired.

Subject (SUBJECT)

A Subject field can be used to briefly describe the content of the e-mail message. The subject may be coded in this parameter or you may code ***SAME** to indicate that the program should use the subject from the original mail member.

From E-mail address (FROMADDR)

You may code an address that will replace the template's From E-mail address, in this parameter. This is the address that identifies who is sending the e-mail message, and where replies should be sent. You may code ***SAME** to indicate that the program should use the From address from the original template.

Spooled file (SPLFILE)

This is a 10 character field that is the name of the spooled file that you wish to e-mail. This comes from the name of the printer output file that is defined in the program that created it.

Rename attachment.ext (SPLDESC)

This is a 30 character field that you can use to rename the attachment with a long filename with an extension. This will be used to replace the default filename that is generated by the program. If you leave this field blank, a unique filename will be generated for you.

Job name (JOBNAME)

This is a 10 character field that identifies the job that built the spooled file. You may specify * to designate the current job, when calling the program from an application.

Number (NUMBER)

This is a 6 character field used to specify the number of the job that created the spooled file. You may leave this parameter blank if you coded * for the Job Name parameter above.

Spooled file number (SPLNBR)

This is a 5 character field used to separate multiple spooled files from the same job. The default is ***LAST**. You may specify ***ONLY**, ***LAST**, or the specific number to select the desired entry.

Remove SplF after preparing (RMVSPLF)

This is a 4 character field that defaults to ***NO**. If you specify ***YES**, the spool file entry will be removed after it has been prepared as an attachment for a new message. Otherwise, the spool file will be left in the Output Queue.

To PDF Printer (TOPRINT)

Specify the Name of a PDF Printer, if you want to print this attachment to the printer. The printer must have Direct PDF Printing capability. You must select option 6 (PDF) for the Translation Code on the following parameter. This works for *SCS type printer files only.

Save to IFS Path (TOPATH)

Use this parameter to save the attachment to the IFS. Specify the full path name starting with a "/". The Path must already exist, it will not be created. Any file of the same name will be replaced with the new one. It is recommended that you specify a unique filename, so that you do not replace existing files. If you leave the "Rename attachment.ext" parameter blank, the program will generate a unique name for you.

Translation code (TRANSLATE)

The spool file can be sent as a spool file with no translation, if you select **0 (None)**, but only to another iSeries or AS/400. The other iSeries can restore the spool file to one of its output queues. If the recipient does not have KeyesMail software on their iSeries, you can send them the instructions as described in the Appendix.

Selected pages of the spooled file can be sent if you translate it.

You can send HTML as a multipart/alternative version of a Text message, using translation code **1**. The original text message would have been created using KMLSPLFM.

You can translate an *SCS spooled file into *ASCII text* (translation **2**), however, this will not contain any page formatting. Each print line will simply be

followed by a CR/LF.

You can translate AFPDS or *USERASCII spooled files into *TIFF Images* (translation **3**). These can be viewed and printed by PC users, as well. All windows based PC's have TIFF viewers available to them.

Rich Text Format (translation **4**) is a convenient format for sending *SCS spooled files to a PC user. Most PC's will have an RTF reader (MS Word, Lotus WordPro, & WordPerfect are examples) that can easily view and print the document by simply clicking on the received attachment. The RTF file will contain all the page and font formatting necessary to print each spooled page properly, without any user intervention. KeyesMail will use the *Page Width* and *Page Length* spooled file attributes to determine the proper font sizes.

Portable Document Format (translation **6**) is a popular way of sending any type of spooled file. Adobe's Acrobat reader is available to most personal computers for free on the Web. KeyesMail will use the *Page Width* and *Page Length* spooled file attributes to determine the proper font sizes.

CSV Spreadsheet Format (translation **7**) can be used to convert *SCS printer files to CSV spreadsheets. You must specify the name of the KeyesCalc map in the Front Side Overlay of the spooled file attributes to use this option. You also must have the KeyesCalc library on your library list.

From page number (FROMPAGE)

This is a 3 digit number that defaults to 1. This selects the first page that is taken out of the spool file to be included in the attachment.

To page number (TOPAGE)

This is a 3 digit number that defaults to 999. You may specify a smaller number here if you do not wish to include the entire spool file in the attachment.

Note: If you select a translation code of **0 (None)** or **3 (IMG)**, the entire spool file will be sent regardless of the From and To page parameters.

Send the member to Out Box (SENDMBR)

The default value of ***YES** will send the new mail member to *Out Box* for mailing on the next mail run. If you specify ***NO** the message will not be mailed. This should only be used if you intend to add additional attachments to the mail member, with another API, before it is mailed.

Compress attachment (COMPRESS)

To compress the attachment, for faster transmission, you may choose one of these compression codes. The default value of **0** will send the attachment as-is, with no compression.

Specify **1** for Fast compression with good compression amounts. Code **2** for Normal compression with better compression amounts at a reasonable speed. Code **3** for Maximum compression that will take the longest time. Code **4** to use Java Archive Compression, which is built into the operating system.

Notes: The filename extension will be changed to .ZIP for compressed attachments. Options 1-3 require PKZIP software to be installed on your iSeries and available on the library list.

Encrypt with Password (ENCRYPT)

Use this along with compression options 1-3 to password protect a file by encrypting the data. The default value of **0** will send the attachment as-is, with no encryption.

Specify **1** for the ZipStd algorithm. This algorithm is compatible with other standard encryption products, such as GZIP. You may code **2** for a Zip Advanced Encryption Standard that uses a 128 bit key for Strong Encryption.

Specify **3** to create an encrypted PDF document. You must specify a User Password and/or an Owner Password for this option.

Note: Zip encryption options 1 & 2 require PKZIP software to be installed on your iSeries and available on the library list.

Encryption password (PASSWORD)

Specifies a password for files that are being encrypted by PKZIP. The password can be up to 64 characters in length and is case-sensitive. Therefore, you should enter the password within single quotes, to keep the case that you type.

Note: There is no way to extract a password from an encrypted file. If the password is forgotten, the file will become inaccessible.

User Password (USERPWD)

You may supply a user password, if you wish to encrypt a PDF. This password will allow a user to view and optionally print & annotate the PDF document. The user will not be able to change the PDF.

Enter the password within single quotes. The string may be up to 32 characters long and IS case-sensitive.

Owner Password (OWNERPWD)

You may supply an owner password, if you wish to encrypt a PDF. This password will allow the owner to do anything with the PDF document.

Enter the password within single quotes. The string may be up to 32 characters long and IS case-sensitive.

Content Disposition (DISP)

The default value of ATTACH will make this entry an Attachment. You can specify INLINE to make an Inline image that can be referenced in an HTML type message, in the body of the e-mail. The name of the image will be used as the Content-ID. The HTML can be changed to reference this inline image by inserting cid: directly in front of the image name in the src= statement for that image. As an example: <img src="cid:document001.pdf">. Please see “HTML Messages” in the Appendix section for additional information.

Sample Code

The following code creates a mail message, adds a spooled file translated to a PDF as an attachment, then mails it.

```
            PGM

            DCL         VAR(&ERRMSG) TYPE(*CHAR) LEN(128)

            OVRPRTF     FILE(ORDERS) HOLD(*YES)
            CALL        PGM(your-PO-pgm)
            DLTOVR      FILE(ORDERS)

            KMLTXTMSG   TOADDR('customer@their.com' +
                        'additional-addresses' +
                        '"BCC:" <blind copy address>') +
                        SUBJECT('Purchase Order') +
                        TEXT('Here is the Purchase Order +
                        that we discussed.') +
                        MAILBOX(POSTMASTER) SENDMBR(*NO) +
            MONMSG      MSGID(CPF9898) EXEC(GOTO ERRORS)

            KMLSPLFL    MAILMBR(*LDA) TOADDR(*SAME) +
                        SUBJECT(*SAME) SPLFILE(ORDERS) +
                        SPLDESC('Purchase Order.PDF') +
                        JOBNAME(*) SPLNBR(*LAST) RMVSPLF(*YES) +
                        TRANSLATE(6) SENDMBR(*YES)
            MONMSG      MSGID(CPF9898) EXEC(GOTO ERRORS)
            GOTO        CMDLBL(EXIT)

ERRORS:     RCVMSG      MSGTYPE(*LAST) MSG(&ERRMSG)
            SNDPGMMSG   MSG(&ERRMSG) TOUSR(*SYSOPR)
EXIT:       ENDPGM
```

Mail a Spool File as a Message (KMLSPLMSG) - KMLSPLFM is Deprecated

This program is used to prepare a spool file as one or more e-mail messages. The Internet addresses of the recipients can be hard coded in this API, or you can specify that the addresses are taken from the spooled data. Up to 10 different recipients can be coded on each page.

The e-mail message can be sent as either Text or an HTML message, depending on the *Content type* parameter value. Text messages are limited to 76 characters wide, whereas HTML will be sent at the width of the spooled file.

The name of the first e-mail member will be recorded in the LDA in positions 1-10. You can retrieve this member name, after running the API, and use it to add attachments to the message.

Note: If you intend to add one or more attachments to the mail before it is sent, be sure to use ***NO** on the (SENDMBR) parameter, so that the message will not be mailed before the next API has a chance to add the attachments.

To E-mail address (TOADDR)

You may code up to 10 different e-mail addresses for the recipients of the spool file. The addresses may be hard coded in this parameter or you may code ***SCAN** or ***LOC** values to indicate that the program should retrieve the addresses from the spooled data. Combinations of addresses, *SCAN, and *LOC values can be used together.

***SCAN(xxx)**

Use *SCAN to tell the program how to find the addresses in the spooled data. For example, ***SCAN(To:)** would tell the program to scan each page for the characters **To:**. If these characters are found, the address is taken from the 60 characters that follow in the spooled data.

Two adjacent blanks in the spooled data will end the address. For example, if you coded ***SCAN(To:)** and a spool line contained:

> To: "John Doe" <jdoe@somecompany.net> Other information ...

The address would be **"John Doe" <jdoe@somecompany.net>**. The two blanks just before the words (Other information) will prevent the program from considering those words as part of the address.

***LOC(L=xx,C=xxx):**

Use *LOC to tell the program exactly where to find each address on each page of the spooled data. For example ***LOC(L=5,C=15)** would tell the program to start looking in column 15 of line 5 on each page for an address. If any data is found in that location within 60 characters, this will be used as the address.

Two adjacent blanks in the spooled data will end the address. For example, if you coded ***LOC(L=5,C=3)** and line 5 contained:

> jdoe@somecompany.net (John Doe) Other information ...

The address would be **jdoe@somecompany.net (John Doe)**. The two blanks just before the words (Other information) will prevent the program from considering those words as part of the address.

Coding rules:

Combinations of hard coded addresses, *SCAN, and *LOC values can be used together. Any hard coded addresses will be used for all pages. Addresses found

in the spooled data using the *SCAN or *LOC parameters will only be used on the pages where they were found.

If no new addresses are found for a page, or if all of the new addresses are exactly the same, the data on that page will be considered a continuation of the previous page. If any address is different, a new message will be started and it will be sent to the new list of recipients.

Subject (SUBJECT)

A Subject field can be used to briefly describe the content of the e-mail message. The subject may be hard coded in this parameter or you may code ***SCAN** or ***LOC** values to indicate that the program should retrieve the subject from the spooled data.

***SCAN(xxx)**

Use *SCAN to tell the program how to find the subject in the spooled data. For example, ***SCAN(Subj:)** would tell the program to scan each page for the characters **Subj:**. If these characters are found, the subject is taken from the 60 characters that follow in the spooled data.

Two adjacent blanks in the spooled data will end the subject. For example, if you coded ***SCAN(Subj:)** and a spool line contained:

> Subj: Purchase Requisition #4563 Other information ...

The subject would be **Purchase Requisition #4563**. The two blanks just before the words (Other information) will prevent the program from considering those words as part of the subject.

***LOC(L=xx,C=xxx)**

Use *LOC to tell the program exactly where to find the subject on each page of the spooled data. For example ***LOC(L=5,C=15)** would tell the program to start looking in column 15 of line 5 on each page for the subject. If any data is found in that location within 60 characters, this will be used as the subject.

Two adjacent blanks in the spooled data will end the subject. For example, if you coded ***LOC(L=5,C=3)** and line 5 contained:

> Purchase Requisition #4563 Other information ...

The subject would be **Purchase Requisition #4563**. The two blanks just before the words (Other information) will prevent the program from considering those words as part of the subject.

Coding rules:

If you hard code a subject it will be used for all pages. If you have coded a *SCAN or a *LOC value for the subject, each new subject found will start a new message, even if all of the recipient addresses are the same.

If no new subject is found for a page, or if the subject is exactly the same, the data on that page will be considered a continuation of the previous page, assuming none of the recipient addresses had changed.

From E-mail address (FROMADDR)

You may code an address that will replace the Return E-mail address, in this parameter. This is the address that identifies who is sending the e-mail message, and where replies should be sent. You may code ***SAME** to indicate that the

program should use the Return address from the mailbox that the message is created in.

Spooled file (SPLFILE)

This is a 10 character required field that is the name of the spooled file that you wish to e-mail. This comes from the name of the printer output file that you define in your program.

Job name (JOBNAME)

This is a 10 character required field that identifies the job that built the spooled file. You may specify * to designate the current job, when calling the program from an application.

Number (NUMBER)

This is a 6 character field used to specify the number of the job that created the spooled file. You may leave this parameter blank if you coded * for the Job Name parameter above.

Spooled file number (SPLNBR)

This is a 5 character field used to separate multiple spooled files from the same job. The default is *LAST. You may specify *ONLY, *LAST, or the specific number to select the desired entry.

Remove SplF after preparing (RMVSPLF)

This is a 4 character field that defaults to *NO. If you specify *YES, the spool file entry will be removed after it has been prepared as one or more e-mail messages. Otherwise, the spool file will be left in the Output Queue.

From mailbox (MAILBOX)

Enter the name of a valid mailbox that the e-mail messages will be sent from. The mailbox supplies the *Return address* that is placed in the message. The user running this program must have access to the specified mailbox.

You may leave the default value of *USER which will use the current user-id as the mailbox.

Category (CATEGORY)

Enter the category that you wish to have the messages placed in. If you leave it blank, it will default to 'Transmitted SplFs'.

Send the member to Out Box (SENDMBR)

The default value of ***YES** will send the new mail members to *Out Box* for mailing on the next mail run. If you specify ***NO** the message will not be mailed. This should only be used if you intend to add attachments to the message before mailing.

Remove message after sending (RMVMSG)

This 4 character field defaults to *NO. Enter *YES if you would like the program to set the Auto Purge field to "Y" in the messages. This will cause the message to be automatically deleted after it is sent.

Priority (PRIORITY)

This field is used to mark how important a message is or how soon it should be sent. (L=Low, N=Normal, H=High)

From page number (FROMPAGE)

This is a 3 digit number that defaults to 1. This selects the first page that is taken out of the spool file to be converted into an e-mail message.

To page number (TOPAGE)

This is a 3 digit number that defaults to 999. You may specify a smaller number here if you do not wish to convert all pages of a spool file into an e-mail message.

Delivery Status Notification (DSN)

This field is used to mark when you want the Internet SMTP servers to notify you of the Delivery Status of this e-mail message. The default value of **N (Normal)** will usually send you back a standard failure message, if the e-mail is undeliverable.

You may enter **F (Failures)** which will cause a delivery status message to be sent, if the message fails to be delivered.

If you enter **S (Successes)** the Internet will send back a delivery status message, when it is successfully delivered, relayed to a server that does not have delivery status capability, or when a list has been expanded by a list server.

You may enter **B (Both)** to have delivery status messages sent when it either fails or is successfully delivered, relayed, or expanded.

Request a Read Receipt (REQRR)

This field can be used to request a Read Receipt from the recipient of this piece of mail. If the recipient allows it, a receipt will be sent back to the return address, when the user opens their mail.

Receipts are only sent from recipients that are directly addressed in the mail. Blind copies and recipients in a list will typically not send a receipt.

Content type (CONTENT)

Use this field to specify what type of message is being sent. The default value of *TEXT is used for regular Text spooled files. Text will be wrapped at 76 characters wide. You may code *HTML for the *Content type* field to send the spooled file as an HTML message. You can either code all of the HTML tags in your spooled file, or the system will add the following tags to make the spooled file text into preformatted HTML, if it does not find <HTML> in your spooled file:

```
<HTML><BODY><PRE>
```

your spooled file data
</PRE></BODY></HTML>

The HTML that you send is not limited to text. It can contain Images and website references, as long as those references are available to the recipient.

Reply-to Address (REPLYTO)

You may code an address that will be used for replies to this e-mail message. You should code this address only if it is different than the From Address.

Sample Code

The following code creates a Weekly Sales Report in two different formats; one in Text and the other HTML. It then e-mails this as a multipart/alternative message to an address found in the Text spooled file.

```
          PGM

          DCL         VAR(&ERRMSG) TYPE(*CHAR) LEN(128)

          OVRPRTF     FILE(TEXTRPT) HOLD(*YES)
          OVRPRTF     FILE(HTMLRPT) HOLD(*YES)
          CALL        PGM(your-pgm)
          DLTOVR      FILE(TEXTRPT HTMLRPT)

          KMLSPLMSG   TOADDR('*SCAN(To:)') +
                      SUBJECT('Weekly Sales Report') +
                      SPLFILE(TEXTRPT) JOBNAME(*) +
                      SPLNBR(*LAST) RMVSPLF(*YES) +
                      MAILBOX(*USER) CATEGORY('Weekly Sales +
                      Reports') SENDMBR(*NO)
          MONMSG      MSGID(CPF9898) EXEC(GOTO ERRORS)

          KMLSPLFL    MAILMBR(*LDA) SPLFILE(HTMLRPT) +
                      SPLDESC('HTML version') JOBNAME(*) +
                      RMVSPLF(*YES) TRANSLATE(1) SENDMBR(*YES)
          MONMSG      MSGID(CPF9898) EXEC(GOTO ERRORS)

          GOTO        CMDLBL(EXIT)

ERRORS:   RCVMSG      MSGTYPE(*LAST) MSG(&ERRMSG)
          SNDPGMMSG   MSG(&ERRMSG) TOUSR(*SYSOPR)
EXIT:     ENDPGM
```

Mail a Spool File with a Message (KMLSPLFWM)

This program is used to prepare a spooled file as an Attachment, and send it with a brief message. It allows you to enter all the addresses, subject, and message in the command itself or you can edit the prepared message to supply these values.

The name of the e-mail member is placed in the LDA in positions 1-10. You can retrieve this member name after running the API and use it to add additional attachments to the message.

From mailbox (MAILBOX)

Enter the name of a valid mailbox that the e-mail message will be sent from. The mailbox supplies the *Return address* that is placed in the message, unless it is overridden using the FROMADDR parameter below. The user running this program must have access to the specified mailbox.

You may leave the default value of ***USER** which will use the current user-id as the mailbox. If the specified mailbox does not exist or is not accessible, the POSTMASTER mailbox will be used.

To E-mail address (TOADDR)

You may code up to 10 different e-mail addresses for the recipients of the spooled file. You should surround each value with 'single quotes' to enter lower case characters in this parameter.

Subject (SUBJECT)

A Subject field can be used to briefly describe the content of the e-mail message. You should surround the value with 'single quotes' to enter lower case characters and spaces in this parameter.

From E-mail address (FROMADDR)

You may code an address that will replace the mailbox's From E-mail address, in this parameter. This is the address that identifies the sender of the e-mail message, and where replies should be sent. You may leave the default value of ***SAME** to indicate that the program should use the normal From address of the mailbox being used.

You should surround any address with 'single quotes' to enter lower case characters in this parameter.

Spooled file (SPLFILE)

This is a 10 character required field that is the name of the spooled file that you wish to e-mail, as an attachment.

Description (SPLDESC)

This is a 30 character field that you can use to rename the attachment with a long filename with an extension. This will be used to replace the default filename that is generated by the program. If you leave this field blank, a unique filename will be generated for you.

Job name (JOBNAME)

This is a 10 character required field that identifies the job that built the spooled file. You may specify * to designate the current job, when calling this program from an application.

Number (JOBNBR)

This is a 6 character field used to specify the number of the job that created the spooled file. You may leave this parameter blank if you coded * for the Job Name parameter above.

Spooled file number (SPLNBR)

This is a 5 character field used to separate multiple spooled files from the same job. The default value is ***LAST**, meaning the last spooled file created for the job. You may specify ***ONLY** or the specific number to select a desired entry.

Remove SplF after preparing (RMVSPLF)

This is a 4 character field that defaults to ***NO**. If you specify ***YES**, the spooled file entry will be removed after it has been prepared as an attachment for this message. Otherwise, the spooled file will be left in the Output Queue, on Hold.

To PDF Printer (TOPRINT)

Specify the Name of a PDF Printer, if you want to print this attachment to the printer. The printer must have Direct PDF Printing capability. You must select option 6 (PDF) for the Translation Code on the following parameter. This works for *SCS type printer files only.

Save to IFS Path (TOPATH)

Use this parameter to save the attachment to the IFS. Specify the full path name starting with a "/". The Path must already exist, it will not be created. Any file of the same name will be replaced with the new one. It is recommended that you specify a unique filename, so that you do not replace existing files. If you leave the "Rename attachment.ext" parameter blank, the program will generate a unique name for you.

Translation code (TRANSLATE)

The spool file can be sent as a spool file with no translation, if you select **0 (None)**, but only to another iSeries or AS/400 computer.

You can translate an *SCS spooled file into *ASCII text* (translation **2**), *Rich Text Format* (translation **4**), *Portable Document Format* (translation **6**), or you can *map* (translation **5**) spooled data onto an overlay. KeyesMail will use the *Page Width* and *Page Length* spooled file attributes to determine the proper font sizes, for RTF and PDF documents.

You can translate AFPDS or *USERASCII spooled files into *TIFF Images* (translation **3**) or *Portable Document Format* (translation **6**). KeyesMail will use the *Page Width* and *Page Length* spooled file attributes to determine the proper font sizes.

CSV Spreadsheet Format (translation **7**) can be used to convert *SCS printer files to CSV spreadsheets. You must specify the name of the KeyesCalc map in the Front Side Overlay of the spooled file attributes to use this option. You also must have the KeyesCalc library on your library list.

Text message (TEXT)

You may enter up to 1024 characters of text for the message. The text will be broken into 76 character lines, at word boundaries. You must surround the entire text message with 'single quotes'.

Edit the message (EDITMSG)

This is a 1 character field that defaults to **N**. If you code a **Y** the program will open the piece of mail with the Message Editor. This will allow you to alter the message or add addresses, using the Phonebook. The message is edited before the attachment is added, so be sure not to try to mail the message after editing it.

Send the member to Out Box (SENDMBR)

This is a 4 character field that determines whether or not the program will mail the message after adding the attachment. The default value of ***YES** sends the member as soon as it is prepared.

Specify ***NO** if you would like the program to prepare the message but not mail it yet. This will allow you to add additional attachments to the same message before it is mailed. To do this, you will need to know the name of the message member that this API creates. The API will save the new member name in the LDA in columns 1 - 10, where you can extract it.

Remove message after sending (RMVMSG)

This 4 character field defaults to ***NO**. Enter ***YES** if you would like the program to set the Auto Purge field to "**Y**" in the message. This will cause the message to be automatically deleted after it is sent.

From page number (FROMPAGE)

This is a 3 digit number that defaults to 1. This selects the first page that is taken out of the spool file to be included in the attachment.

To page number (TOPAGE)

This is a 3 digit number that defaults to 999. You may specify a smaller number here if you do not wish to include the entire spool file in the attachment.

Note: If you select a translation code of **0 (None)** or **3 (IMG)**, the entire spool file will be sent regardless of the From and To page parameters.

Compress attachment (COMPRESS)

To compress the attachment, for faster transmission, you may choose one of these compression codes. The default value of **0** will send the attachment as-is, with no compression.

Specify **1** for Fast compression with good compression amounts. Code **2** for Normal compression with better compression amounts at a reasonable speed. Code **3** for Maximum compression that will take the longest time. Code **4** to use

Java Archive Compression, which is built into the operating system.

Notes: The filename extension will be changed to .ZIP for compressed attachments. Options 1-3 require PKZIP software to be installed on your iSeries and available on the library list.

Encrypt with Password (ENCRYPT)

Use this along with compression options 1-3 to password protect a file by encrypting the data. The default value of **0** will send the attachment as-is, with no encryption.

Specify **1** for the ZipStd algorithm. This algorithm is compatible with other standard encryption products, such as GZIP. You may code **2** for a Zip Advanced Encryption Standard that uses a 128 bit key for Strong Encryption.

Specify **3** to create an encrypted PDF document. You must specify a User Password and/or an Owner Password for this option.

Note: Zip encryption options 1 & 2 require PKZIP software to be installed on your iSeries and available on the library list.

Encryption password (PASSWORD)

Specifies a password for files that are being encrypted by PKZIP. The password can be up to 64 characters in length and is case-sensitive. Therefore, you should enter the password within single quotes, to keep the case that you type.

Note: There is no way to extract a password from an encrypted file. If the password is forgotten, the file will become inaccessible.

User Password (USERPWD)

You may supply a user password, if you wish to encrypt a PDF. This password will allow a user to view and optionally print & annotate the PDF document. The user will not be able to change the PDF.

Enter the password within single quotes. The string may be up to 32 characters long and IS case-sensitive.

Owner Password (OWNERPWD)

You may supply an owner password, if you wish to encrypt a PDF. This password will allow the owner to do anything with the PDF document.

Enter the password within single quotes. The string may be up to 32 characters long and IS case-sensitive.

Priority (PRIORITY)

This field is used to mark how important a message is or how soon it should be sent. (**L**=Low, **N**=Normal, **H**=High)

Delivery Status Notification (DSN)

This field is used to mark when you want the Internet SMTP servers to notify you of the Delivery Status of this E-mail message. The default value of **N (Normal)** will usually send you back a standard failure message, if the e-mail is undeliverable.

You may enter **F (Failures)** which will cause a delivery status message to be sent, if the message fails to be delivered.

If you enter **S (Successes)** the Internet will send back a delivery status message, when it is successfully delivered, relayed to a server that does not have delivery status capability, or when a list has been expanded by a list server.

You may enter **B (Both)** to have delivery status messages sent when it either fails or is successfully delivered, relayed, or expanded.

Request a Read Receipt (REQRR)

This field can be used to request a Read Receipt from the recipient of this piece of mail. If the recipient allows it, a receipt will be sent back to the return address, when the user opens their mail.

Receipts are only sent from recipients that are directly addressed in the mail. Blind copies and recipients in a list will typically not send a receipt.

Reply-to Address (REPLYTO)

You may code an address that will be used for replies to this e-mail message. You should code this address only if it is different than the From Address.

Content type (CONTENT)

Use this field to specify what type of message is being sent. The default value of *TEXT is used for regular Text spooled files. Text will be wrapped at 76 characters wide. You may code *HTML for the *Content type* field to send the spooled file as an HTML message. You can either code all of the HTML tags in your spooled file, or the system will add the following tags to make the spooled file text into preformatted HTML, if it does not find <HTML> in your spooled file:

```
<HTML><BODY><PRE>
your spooled file data
</PRE></BODY></HTML>
```

The HTML that you send is not limited to text. It can contain Images and website references, as long as those references are available to the recipient.

Sample Code

The following code creates an Invoice in a spooled file. It prepares an e-mail message, adds the Invoice as a PDF attachment, adds another PDF as a second attachment, and mails it.

```
            PGM
            DCL         VAR(&ADDRESS) TYPE(*CHAR) LEN(60)
            DCL         VAR(&ERRMSG) TYPE(*CHAR) LEN(128)

            OVRPRTF     FILE(QPRINT) HOLD(*YES)
            CALL        PGM(your-pgm)  PARM(&ADDRESS)
            DLTOVR      FILE(QPRINT)
            KMLSPLFWM   MAILBOX(POSTMASTER) +
                        TOADDR(&ADDRESS1 &ADDRESS2) +
                        SUBJECT('Invoice') +
                        FROMADDR('sales@domain.com')
                        SPLFILE(QPRINT) JOBNAME(*) +
                        SPLNBR(*LAST) RMVSPLF(*YES) +
                        TRANSLATE(6) TEXT('Attached you +
                        will find our invoice') SENDMBR(*NO)
            MONMSG      MSGID(CPF9898) EXEC(GOTO ERRORS)

            KMLPCFL     MAILMBR(*LDA) FILENAME(PCFILE.PDF) +
                        FOLDER('/HOME') SENDMBR(*YES)
            MONMSG      MSGID(CPF9898) EXEC(GOTO ERRORS)
            GOTO        CMDLBL(EXIT)

ERRORS:     RCVMSG      MSGTYPE(*LAST) MSG(&ERRMSG)
            SNDPGMMSG   MSG(&ERRMSG) TOUSR(*SYSOPR)
EXIT:       ENDPGM
```

Mail a Text Message (KMLTXTMSG) - KMLTXTM is Deprecated

This program is used to prepare a quick text message for e-mailing. The Internet addresses for up to 10 recipients can be coded in this API.

You may enter up to 1024 characters of text for the e-mail message. The text will be broken up into 76 character lines at word breaks.

The name of the newly created e-mail member will be recorded in the LDA in positions 1-10. You can retrieve this member name, after running the API, and use it to add attachments to the message.

Note: If you intend to add one or more attachments to the mail before it is sent, be sure to use ***NO** on the (SENDMBR) parameter, so that the message will not be mailed before the next API has a chance to add the attachments.

To E-mail address (TOADDR)

You may code up to 10 different e-mail addresses for the recipients of the text message, in any of the following formats:

- jdoe@somecompany.net
- <jdoe@somecompany.net>
- <jdoe@somecompany.net> (John Doe)
- "John Doe" <jdoe@somecompany.net>
- “BCC:” <jdoe@somecompany.net> (*Sent as Blind Copy*)
- list-name (*Sent as Blind Copy*)
- list-file/list-name (*Sent as Blind Copy*)

Subject (SUBJECT)

A Subject field can be used to briefly describe the content of the e-mail message.

From E-mail address (FROMADDR)

You may code an address that will replace the From address that is normally used for the Mailbox that this message will be prepared in. This is the address that identifies who is sending the e-mail message, and where replies should be sent. You may code ***SAME** to indicate that the program should use the From address that is normally used for the Mailbox.

Text message (TEXT)

You may enter up to 1024 characters of text for the message. The text will be broken into 76 character lines at word breaks.

From mailbox (MAILBOX)

Enter the name of a valid mailbox that the e-mail messages will be sent from. The mailbox supplies the *Return address* that is placed in the message. The user running this program must have access to the specified mailbox.

You may leave the default value of *USER which will use the current user-id as the mailbox.

Category (CATEGORY)

Enter the category that you wish to have the messages placed in. If you leave it blank, it will default to 'Text Messages'.

Send the member to Out Box (SENDMBR)

The default value of ***YES** will send the new mail member to *Out Box* for mailing on the next mail run. If you specify ***NO** the message will not be mailed. This should only be used if you intend to add attachments to the message before mailing.

Remove message after sending (RMVMSG)

This 4 character field defaults to *NO. Enter *YES if you would like the program to set the *Auto Purge* field to "Y" in the messages. This will cause the message to be automatically deleted after it is sent.

Priority (PRIORITY)

This field is used to mark how important a message is or how soon it should be sent. (L=Low, N=Normal, H=High)

Delivery Status Notification (DSN)

This field is used to mark when you want the Internet SMTP servers to notify you of the Delivery Status of this e-mail message. The default value of **N (Normal)** will usually send you back a standard failure message, if the e-mail is undeliverable.

You may enter **F (Failures)** which will cause a delivery status message to be sent, if the message fails to be delivered.

If you enter **S (Successes)** the Internet will send back a delivery status message, when it is successfully delivered, relayed to a server that does not have delivery status capability, or when a list has been expanded by a list server.

You may enter **B (Both)** to have delivery status messages sent when it either fails or is successfully delivered, relayed, or expanded.

Request a Read Receipt (REQRR)

This field can be used to request a Read Receipt form the recipient of this piece of mail. If the recipient allows it, a receipt will be sent back to the return address, when the user opens their mail.

Content type (CONTENT)

Use this field to specify what type of message is being sent. The default value of *TEXT is used for regular. Text will be wrapped at 76 characters wide. You may code *HTML for the *Content type* field to send the text as an HTML message.

The HTML that you send is not limited to text. It can contain Images and website references, as long as those references are available to the recipient.

Reply-to Address (REPLYTO)

You may code an address that will be used for replies to this e-mail message. You should code this address only if it is different than the From Address.

Sample Code

The following code creates a mail message, adds a physical file member as an attachment, then mails it.

```
            PGM

            DCL         VAR(&ERRMSG) TYPE(*CHAR) LEN(128)

            KMLTXTMSG   TOADDR('someone@home.com' +
                        'additional addresses' +
                        '"BCC:" <blind copy address>') +
                        SUBJECT('System failure message') +
                        TEXT('The system has failed to complete +
                        the weekend process.') +
                        MAILBOX(SYSTEM) SENDMBR(*NO) +
                        RMVMSG(*YES) PRIORITY(H)
            MONMSG      MSGID(CPF9898) EXEC(GOTO ERRORS)

            KMLPFMBR    MAILMBR(*LDA) TOADDR(*SAME) +
                        SUBJECT(*SAME) FILENAME(yourfile) +
                        MEMBER(yourmbr) LIBRARY(yourlib) +
                        DESC('Your file description') +
                        SENDMBR(*YES)
            MONMSG      MSGID(CPF9898) EXEC(GOTO ERRORS)
            GOTO        CMDLBL(EXIT)

ERRORS:     RCVMSG      MSGTYPE(*LAST) MSG(&ERRMSG)
            SNDPGMMSG   MSG(&ERRMSG) TOUSR(*SYSOPR)
EXIT:       ENDPGM
```

List KeyesMail Categories (LISTKMCAT)

This program will print a summary listing of all the mail that exists in the KeyesMail system. It adds up the total number of members and their sizes by Category. You may direct the listing to any printer and for any or all mailboxes.

Mailbox (MAILBOX)

Name the mailbox that you wish to be summarized. The default value of ***USER** can be used to list your own mailbox. You may specify ***ALL** or ***EACH** to list all the mailboxes. ***EACH** will list each of the mailboxes on a separate page.

Note: A user may only list their own mailbox unless they have been given specific access to another mailbox using the User Setup program. Only users with a special authority of *SECADM may use the ***ALL** or ***EACH** values to list all the mailboxes.

Printer device (PRINTER)

This is a 10 character field which specifies which printer that you wish to make the listing on. The default value of ***JOB** will cause the listing to be printed on the default printer for the current job.

Submit to Batch or Interactive (SUBMITJOB)

The default value of ***BATCH** will cause the program to be submitted to the KMAIL job queue. If you specify ***INTER** the system will create the listing interactively.

Move KeyesMail Mail (MOVEKML)

This program can be used to move mail from one mailbox to another. You may specify the period ending date, the from and to mailbox that you wish to move, the status of the mail that you wish to move, and the category - if desired.

Normally you cannot keep more than 32766 pieces of mail in any one mailbox. This feature allows you to move old mail from your active mailbox into an archival mailbox - so you can keep your old e-mails for longer periods.

Note: You must have access to both mailboxes or have the special authority of *SECADM to use this program.

Period ending date (PERIODEND)

All mail will be moved from one mailbox to the other that is dated on or before this date. You may key any specific date in your normal date format, or use one of the special values.

The default is a special value of ***LASTYEAR.** This can be used to move mail that is dated on or before this day last year.

***LASTMONTH** will move mail on or before this day last month, ***LASTWEEK** is for this day last week. Also available is ***YESTERDAY** and ***TODAY**.

From Mailbox (FMAILBOX)

The default value of ***USER** is used to move mail from your mailbox. You may specify another specific mailbox, if desired. You must have access to the mailbox or have *SECADM special authority to be able to use this program.

To Mailbox (TMAILBOX)

The default value of ***USER** is used to move mail into your mailbox. You may specify another specific mailbox, if desired. You cannot name the same mailbox for both From and To. You must have access to the mailbox or have *SECADM special authority to be able to use this program.

Status to move (STATUS)

The default value of ***ALL** will move all mail members (except for Templates) to the To mailbox.

You may specify a specific status to move. If you name a specific status, be sure to enclose it in 'Quotes' and use the appropriate case (Upper or lower) for each character. It is case sensitive.

For example: The value **'*New'** can be used to move all unopened inbound mail. **'Template'** can be used to move everything with a status of Template.

Category to move (CATEGORY)

The default value of ***ALL** will move mail members from all of the categories. You may name a specific category to move. If you name a specific category, be sure to enclose it in 'Quotes' and use the appropriate case (Upper and lower) for each character. The selection is case sensitive.

For example: The value **'In Box'** can be used to move all mail from the In Box category only.

Submit to Batch or Interactive (SUBMITJOB)

The default value of ***BATCH** will cause the program to be submitted to the KMAILX job queue. If you specify ***INTER** the system will move the mail interactively.

Print a KeyesMail Member (PRTKML)

The print program can print the text part of an e-mail message to any printer attached to your iSeries or AS/400 computer. You can start the print command from a command line or an application.

Mailbox (MAILBOX)

Name the mailbox where the message exists.

Mail member (MAILMBR)

Name the message member that you wish to print.

Printer device (PRINTER)

This is a 10 character field which specifies which printer that you wish to use. The default value of ***JOB** will cause the e-mail to be printed on the default printer for the current job.

Inbound header (IHEADER)

Specify **Y** to print the inbound header information along with the e-mail message. The default value of **N** will print the e-mail message only.

Number of copies (COPIES)

Specify the number of copies to be printed of the e-mail message. The default value is **1**.

Purge KeyesMail (PURGEKML)

This program can be used to purge mail from the KeyesMail system. You may specify the period ending date, the mailbox, the type of purge that you wish to perform, the status of the mail that you wish to purge, and even the category if desired.

Normally you will only want to purge inbound mail that has been opened, answered, or forwarded, and outbound mail that has already been sent. But, you can purge mail with other statuses.

Note: You must have the special authority of *SECADM to be able to specify ***ALL** for the Mailbox parameter. This criteria can be changed by altering the program called CHKKMS (Check KeyesMail Security) located in the source file called QRPGSRC. For example, you could grant a specific user the ability to purge mail for *ALL mailboxes.

Period ending date (PERIODEND)

All mail will be purged that was either sent or received on or before this date. You may key any specific date in your normal date format, or use one of the special values.

The default is a special value of ***LASTMONTH**. This can be used to purge mail that is dated on or before this day last month. The special value ***LASTYEAR** will purge mail on or before this day last year.

***LASTWEEK** will purge mail on or before this day last week. Also available is ***YESTERDAY** and ***TODAY**.

Mailbox (MAILBOX)

The default value of ***USER** is used to purge your own mailbox. You may specify another specific mailbox or ***ALL** may be used to purge mail from all mailboxes. You must have *SECADM special authority to be able to specify ***ALL**, or you must have been given specific authority by a user in order to purge their mailbox.

Note: The purge program will not purge any mail from a mailbox that has its *Disable Purge Function* parameter set to **Y**.

Type of purge (TYPE)

The default value of ***REDUCE** is used to reduce the size of the mail. Any attachments and the ASCII version of the message will be removed from the system, substantially reducing the amount of disk storage that the system uses. Only the EBCDIC text portion of the mail will remain on the system.

You may specify ***DELETE** to delete the entire mail message including the EBCDIC text portion.

Status to purge (STATUS)

The default value of ***NORMAL** will purge mail members with the following statuses only: Answered, Deliverd, Expanded, Opened, Passed, *Reject, Relayed, Sent, or <blank>.

You may specify ***ALL** to purge all mail regardless of the status, or you may name a specific status to purge. If you name a specific status, be sure to enclose

it in 'Quotes' and use the appropriate case (Upper or lower) for each character. It is case sensitive.

For example: The value **'*New'** can be used to purge all unopened inbound mail.

Category to purge (CATEGORY)

The default value of ***ALL** will purge mail members from all of the categories. You may name a specific category to purge. If you name a specific category, be sure to enclose it in 'Quotes' and use the appropriate case (Upper and lower) for each character. The selection is case sensitive.

For example: The value **'In Box'** can be used to purge all mail from the In Box category only.

Submit to Batch or Interactive (SUBMITJOB)

The default value of ***BATCH** will cause the program to be submitted to the KMAILX job queue. If you specify ***INTER** the system will purge the mail interactively.

Recover Lost E-mails (RECOVERKML)

This program can be used to recover lost e-mail for the KeyesMail system. Each piece of E-mail is located in 3 different files. One file contains the EBCDIC version of your e-mail that you can view on the screen. This file is named after each mailbox. A second file is the ASCII translation of that e-mail, that is used for Internet transport. This file contains the name of the mailbox followed by underscores and an 'A' in column 10. A third file called KMLQUEUE contains a single record for each piece of mail, used to track it. It is the records in KMLQUEUE that you see when you view a list of your e-mail.

If any records in KMLQUEUE were to get lost, KeyesMail would have no method of finding the pieces of mail in the ASCII or EBCDIC files. This recovery program searches the ASCII and EBCDIC files to find lost e-mails. It will make sure that there is an entry in KMLQUEUE for each member found in those two files.

Note: You can use this program to recover pieces of mail that were restored from a backup. You normally cannot restore any of the mail files, without restoring all of them. But, by restoring the KMLQUEUE file, you would lose all new mail that you had received since the last backup. For this reason, restoring all files from a backup should not be performed, except as a last resort.

To restore lost e-mail from a backup, you can use this program. Restore individual entries or whole mailbox files from backup, using the *NEW data base member option. This recover program will then find and make an entry in KMLQUEUE for all the new entries in the mailbox files. For inbound mail, it is recommended that you restore the original ASCII file members. For outbound mail, it is recommended that you restore the EBCDIC file members.

Mailbox (MAILBOX)

The default value of *ALL can be used to recover lost e-mails for all of the mailboxes. You can specify a specific mailbox to be searched.

Submit to Batch or Interactive (SUBMITJOB)

The default value of *BATCH will cause the program to be submitted to the KMAILX job queue. If you specify *INTER the system will recover the mail interactively.

- - - - blank page - - - -

7 Output Queue

The output queue called KMLOutQ can be monitored for spooled files that you wish to e-mail. As a spooled file becomes **Ready** in this output queue, it will be automatically processed into e-mail messages and/or attachments and mailed. A second output queue called KMLOutH can be used for High Priority e-mails. If you use this second output queue sparingly, it offers you a method of sending important correspondence through the system in front of the regular e-mail traffic that might be backed up in KMLOutQ.

After processing a spooled file, it will be removed from the output queue unless you specify *YES on the *Save spooled file* attribute using an OVRPRTF command.

Starting and Stopping KMLOutQ

You may start or stop the KMLOutQ Processing program either manually or using commands:

Manually starting or stopping KMLOutQ Processing:

1. Select item 21 (KeyesMail Connections) from the KeyesMail menu.
2. Use **F9** to start or **F10** to end the processing program.

Using Commands:

The commands STRKMLOUTQ and ENDKMLOUTQ can be used to start and stop KMLOutQ and KMLOutH Processing. You may wish to place STRKMLOUTQ in your normal QSTRUP routine, so that it automatically starts after an IPL. It is also recommended that you end the processing program before and restart it after doing any backup of the KeyesMail data library.

Specifying E-mail Parameters

Addresses and other e-mail parameters can be specified using any or all of the following techniques:

- The *User Defined Data* field of the spooled file attributes can be used to specify E-mail commands for the entire spooled file.
- The program *Work with KeyesMail Spooled Files* can be used to specify e-mail parameters for each of your spooled files.
- You can code *E-mail commands* within your spooled files to direct exactly how each page should be e-mailed.
- An *Exit program* can be used to look up data within your own master files and set any of the e-mail parameters for each page of your spooled files.

Each of these methods can be used separately or together to specify e-mail parameters. The last method that you use, in the above order, will override any previous values for that parameter.

Spooled File Attributes

Special parameters can be placed in the *Front Side Overlay* and the *User Defined Data* fields of a spooled file, using an OVRPRTF command.

Front Side Overlay

You may code an overlay name in the *Front Side Overlay* field to have the spooled file pages mapped onto a forms overlay. The *Back Side Overlay* can also be used to specify a continuation form.

User Defined Data

These commands can be used to direct how and where a spooled file should be e-mailed.

¬Comp compression-code

This command can be used to compress the data for e-mailing.

- 0 = No compression
- 1 = Fast compression with good compression amounts.
- 2 = Normal compression with better compression amounts at a reasonable speed.
- 3 = Maximum compression that will take the longest time.
- 4 = Java Archive compression.

Notes: The filename extension will be changed to .ZIP for compressed attachments. Options 1-3 require PKZIP software to be installed on your iSeries and available on the library list.

¬Email recipient's-address

This command specifies the recipient's address. You can specify the name of a mailbox, a department, an address list, or an Internet address for the recipient. If you code “BCC:” as a comment in front of the address, this will be sent as a Blind Copy.

¬Encr encryption-code

Use this along with compression to password protect a file by encrypting the data.

- 0 = No encryption
- 1 = ZipStd algorithm which is compatible with other standard encryption products, such as GZIP.
- 2 = Zip Advanced Encryption Standard that uses a 128 bit key for Strong Encryption.
- 3 = Create an encrypted PDF. You must specify a User or Owner Password for this option.

Note: Options 1 & 2 require PKZIP software to be installed on your iSeries and available on the library list.

¬From sender's-address

This command can be used to specify the sender's return address. If not specified, the normal return address for the mailbox will be used.

¬MBox sender's-mailbox

This command specifies the sender's mailbox. The mail will be created and mailed from that KeyesMail mailbox. If not given, the user that created the spooled file will be considered the sender. If a mailbox does not exist for that user's User-Id, the mailbox called POSTMASTER will be used. This command will be ignored, if you specify a Template using the ¬Temp command, described below.

¬Pass password

Use this to specify a password for files that are being encrypted using PKZIP. The password can be up to 64 characters in length and is case-sensitive.

Note: There is no way to extract a password from an encrypted file. If the password is forgotten, the file will become inaccessible.

¬POwner password

Use this to specify an owner password for PDF documents that are being encrypted. An owner can do anything to a PDF document. The password can be up to 32 characters in length and is case-sensitive. Use **¬Encr 3** for this password.

¬PUser password

Use this to specify a user password for PDF documents that are being encrypted. A user can view a PDF and can optionally print and annotate a PDF. A user cannot change a PDF document. The password can be up to 32 characters in length and is case-sensitive. Use **¬Encr 3** for this password.

¬Subj subject

This command specifies the subject of the e-mail message. If no subject is specified, the system will use a generic subject.

¬Temp mail-member

This command specifies the name of a mail member that you wish to use as a template for adding the spooled file as an attachment. See *How to Create a Template* in the Appendix for more information.

You may specify the special value ***MESSAGE** instead of the name of a mail member to cause the spooled file to be converted into the e-mail message instead of an attachment. You may code ***HTML** if the spooled file contains HTML for the message. The HTML that you send is not limited to text. It can contain Images and website references, as long as those references are available to the recipient.

¬Trans translation-code

This can be used to specify the type of translation for the spooled file.

- 0 = No translation (Only to another iSeries)
- 2 = ASCII text
- 3 = TIFF Image
- 4 = RTF (Rich Text Format)
- 5 = Map to Overlay (Requires the Front Side Overlay)
- 6 = PDF (Portable Document Format)

Work with KeyesMail Spooled Files

E-mail parameters can be specified for each of your spooled files, using the *Work with KeyesMail Spooled Files* program (shown below). This program can be started from the KeyesMail menu (Item 34) or using the KMSPOOL command.

```
WRKKSF                    Work with KeyesMail Spooled Files                    Date
user-id                                                                        Time
                                                          Position to: __________

Options:  2=Change    3=Copy    4=Delete
                 User Data or
Option           Spooled File
                 ___________   Enter new User Data or Spooled File name to add
  _              FORMS
  _              INVOICES
  _              ORDERS

                                                                               Bottom
F3=Exit    F12=Cancel    F17=Top    F18=Bottom
```

You may add a new spooled file description by entering either the User Data value or the Spooled File name on the top line.

Option **2** (Change) may be used to change existing spooled file descriptions.

Option **3** (Copy) may be used to copy a description to another name.

Option **4** (Delete) may be used to remove entries that are no longer needed.

Spooled File Setup Screens

When adding a new spooled file or selecting option **2** (Change) the following screens are used to define the e-mail parameters desired:

```
WRKKSF                          Setup Screen                          Date
user-id                         Spooled File: INVOICES                Time
Type choices, press Enter.
To address . . . . :  ____________________________________________________
Template. . . . . . :  ____________
Subject . . . . . . . :  Invoice #¬1 from XYZ ____________________________
From address . . :  ____________________________________________________
Mailbox . . . . . . :  SALES_____      Reply-To:  ¬UI ____________________
PDF Printer . . . :  ____________      Rename.ext:  Invoice ¬1.PDF ____________
Save to Path . . :  ____________________________________________________
Translation . . . . :  5                0=None, 2=EtoA, 3=Img, 4=RTF, 6=PDF
Map Overlay . . :  INVOICES___          You can use ¬n to insert Scan Field Values
Exit Program . . :  EXITPGM___          into other fields.  Also ¬UD=User Data
                                        and ¬UI=User-ID can be used.
Scan Field Locations:
      Line  Column Size  S/R                Line  Column Size  S/R
#1     7     68     5    _          #2     ___   ___   ___   _
#3     ___   ___   ___   _          #4     ___   ___   ___   _
#5     ___   ___   ___   _          #6     ___   ___   ___   _
#7     ___   ___   ___   _          #8     ___   ___   ___   _
#9     ___   ___   ___   _         #10     ___   ___   ___   _

F3=Exit        F12=Cancel                                          More . . .
```

```
WRKKSF                          Message Screen                        Date
user-id                         Spooled File: INVOICES                Time

Type choices, press Enter.

Message . . . . . :  Attached you will find Invoice #¬1.  If you have any questions please
 contact your salesperson at (800) 555-1212.
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
You can set Use and/or Owner Passwords – to Encrypt PDF attachments.
User:  ____________________________ Owner: ____________________________
You can use ¬n to insert Scan Field Values.  Also ¬UD=User Data, ¬UI=User-ID.
F3=Exit        F12=Cancel                                          Bottom
```

To address

For spooled files that always go to the same recipient or list, you may code the address here. You can specify "¬Fax # xxx xxxx" if you want to send the document as a Fax, and you have KeyesFax on your library list.

Template

This is the name of a mail member that you would like to use as a template for adding the attachment. See *How to Create a Template* in the Appendix for more information.

Leave this field blank if you will be keying a message on the *Message Screen*, described on the following page.

You may specify the special value ***MESSAGE** in this field to cause the spooled file to be converted into the e-mail message instead of an attachment. You may code ***HTML** if the spooled file contains HTML for the message. The HTML that you send is not limited to text. It can contain Images and website references, as long as those references are available to the recipient.

Subject

This will be used as the subject of the e-mail message. If no subject is specified, the system will use a generic subject for the message. This field may be coded with substitution values ¬1 - ¬10, see Scan fields on the following page for more information. You may also code ¬UD for User Data or ¬UI for User-ID.

From address

This is the sender's return address. If not specified, the normal return address from the sending mailbox will be used.

Mailbox

This specifies the sender's mailbox. The mail will be created and mailed from that KeyesMail mailbox. If not given, the user that created the spooled file will be considered the sender. If a mailbox does not exist for that user's User-Id, the mailbox called POSTMASTER will be used. This parameter will be ignored, if you specify a Template name.

Reply-To

This is a 30 character field that you can use to specify a Reply-To address for the email. You can use any of the special values, such as Scan Fields, to substitute a value into this field.

PDF Printer

You may specify the name of a Printer if you want to print your PDF attachments. To use this feature you must select Translation Code 6, so that the attachment is translated to a PDF. The printer must have Direct PDF Printing capability. This works for *SCS type printer files only.

Rename.ext

This is a 30 character field that you can use specify a filename.ext for the attachment. If you specify a filename without an extension, the appropriate extension will be added automatically based on the Translation code used.

Save to Path

You may specify the name of an IFS folder if you want to save the attachment. Give the complete path name starting with a slash /.

The name of the saved attachment should be unique to prevent the system from replacing a previously saved file. You can make the attachment name unique by either using a substitution field in the name, or by leaving the Rename.ext field blank. If you leave it blank, a unique name will be generated for you.

This feature can be used for printing, with an overlay, if you do not have a printer with Direct PDF Printing capability. Save the PDF attachments to the IFS, then use KeyesMonitor to monitor the folder and print the PDF's to any printer available on your network.

You may leave this field blank to not save the attachments.

Translation

This specifies how to translate the spooled file pages into an attachment.

- 0 = No translation (Only to another iSeries)
- 2 = ASCII text
- 3 = TIFF Image
- 4 = RTF (Rich Text Format)
- 5 = Map to Overlay (Requires the ¬Map command)
- 6 = PDF (Portable Document Format)

Koverlay Map

This is used to map spooled file pages onto a forms overlay. The translation code is automatically assumed to be 5 (Map) when you specify an overlay. The overlay that you name, must exist as a member in the files KMLTEMP and KMLMAP. See *Mapping a Spooled File to an Overlay* in the Appendix section for more information.

Exit Program

An exit program can be used to look up addresses in your master files. All the e-mail parameters and the Scan Field Values are sent to the exit program for each page of the spooled file, as it is being processed. The exit program can add to or change any of the e-mail parameters, as needed. The Scan Field Values can be used by the exit program for chaining or substitution into other fields, such as the *Subject* or *Return address*.

A sample exit program called EXITPGM can be found in the source file called QRPGSRC in KMLIB. You may copy this source code to any other name, in any library so that you can add your own custom code, to make your exit programs.

Scan Field Locations

Key the line number, column number, and length for up to 10 different fields to be extracted from each *SCS spooled file page. The values found at these locations are passed to the exit program and can be used for chaining to your master files. They can also be used for substitution into the Address, Message, Subject, Save to Path, Rename.ext, User and Owner Password fields.

The Scan Field Locations can only be defined for standard *SCS printer files. However, *USERASCII printer files can fill the same Scan Field Values using special Email commands **¬S1** - **¬S10**, embedded within the PCL data. See the following pages for more information.

You may code either an (S) or an (R) in the S/R column. An (S) will pick up the Scan Field value for the First Page of the Spooled File only. An (R) will pick up the Scan Field value for the First Page for each new Recipient only. Leave this column blank to pick up the Scan Field values from every page. If either an (S) or an (R) is coded - this field cannot be used to burst the Spooled File.

Note: Scan Fields only work for *SCS printer files. You can extract scan field values from an AFPDS type spooled file by making the spooled file an *SCS printer file. To do this use an OVRPRTF statement before the file is created. Set the Printer Type to *SCS and set the User Data field to *AFPDS. The Scan Fields will work for the *SCS printer file. But, this will tell KeyesMail to use the *AFPDS type conversion to a PDF, which will include any *AFPDS overlay that you have defined.

Message

Up to 1024 characters of text may be keyed to be used as the e-mail message. The spooled file pages will be added as attachments to the message. You may code **¬n** (where n is the Scan Field number) within the message text to substitute Scan Field Values taken from each page of the spooled file. You can also use ¬UD for User Data or ¬UI for User-ID to be inserted into the message.

User Password

You may code a password for the user to encrypt a PDF attachment. The password may be up to 32 characters long and is case-sensitive. Scan Field values may be used in the password.

Owner Password

You may code a password for the owner to encrypt a PDF attachment. The password may be up to 32 characters long and is case-sensitive. Scan Field values may be used in the password.

E-mail Commands within Spooled Files

You may include e-mail and fax commands within your *SCS and *USERASCII spooled files, to direct exactly how and where each of the pages should be e-mailed or faxed. The commands can be coded anywhere on each of the spooled file pages. The commands will be stripped out of the spooled files so that they will not be included with the e-mailed documents.

If you do not code any commands on a page - that page is considered a continuation of the previous page. Any individual commands that you do not code on a page will assume the values from the previous page.

Note: Fax commands can only be used if you also have the KeyesFax libraries on your library list. Each page can be sent as a fax or an e-mail or both.

Spooled File example:

The following example shows how e-mail commands can be coded in a spooled file for an Order Confirmation with an overlay.

```
¬Email jsmith@abc.com    ¬Fax # 555 1212
¬Email "BCC:" warehouse1@your-company.com
¬Subj Order acknowledgement
¬Temp M042112562                          #OC1234

        ABC Company
        123 Address
        Anytown, USA

         15      Parts being ordered      $25.00
          5      Other parts ordered      $16.00


                              Total        $41.00
```

Notes: In this example, the top four print lines were used to specify e-mail and fax commands which give the destination addresses, a fax number, the subject to be used, and the name of a template to be used for the message that goes with the attached document.

These commands will be stripped out of the spooled file before it is converted to an attachment.

¬Comp compression-code

This command can be used to compress the data for e-mailing.

- 0 = No compression
- 1 = Fast compression with good compression amounts.
- 2 = Normal compression with better compression amounts at a reasonable speed.
- 3 = Maximum compression that will take the longest time.
- 4 = Java Archive compression.

Notes: The filename extension will be changed to .ZIP for compressed attachments. Options 1-3 require PKZIP software to be installed on your iSeries and available on the library list.

¬Desc description

This command can be used to specify a description up to 30 characters long for each of the attachments within the spooled file. If you code a filename extension at the end of the description (a dot followed by 2 or 3 characters), the description will be used as the attachment filename. This is used as the Page Description when faxing.

¬Email recipient's-address

This command specifies the recipient's address. You may code up to 10 different recipients for each page. You can specify the name of a mailbox, a department, an address list, or an Internet address for each of the recipients. If you code "BCC:" as a comment in front of the address, this will be sent as a Blind Copy.

¬Encr encryption-code

Use this along with compression to password protect a file by encrypting the data.

- 0 = No encryption
- 1 = ZipStd algorithm which is compatible with other standard encryption products, such as GZIP.
- 2 = Advanced Encryption Standard that uses a 128 bit key for Strong Encryption.
- 3 = PDF Encryption.

Note: Options 1 & 2 require PKZIP software to be installed on your iSeries and available on the library list.

¬Fax # phone-number

This command can be used to fax the document through the KeyesFax system. Only 1 fax number can be specified along with up to 9 e-mail addresses for the same page. Other fax commands, described in the KeyesFax manual, can be coded for any pages that will be faxed.

¬From sender's-address

This command can be used to specify the sender's return address. If not specified, the normal return address from the sending mailbox will be used.

¬Map overlay-name

This command is used to map spooled file pages onto a forms overlay. The translation code is automatically assumed to be 5 (Map) when you specify an overlay. The overlay that you name, must exist as a member in the files KMLTEMP and KMLMAP. This feature has been deprecated in favor of KeyesOverlay mapping.

¬MBox sender's-mailbox

This command specifies the sender's mailbox, where the mail will be created and mailed from. If not given, the user that created the spooled file will be considered the sender. If a mailbox does not exist for that user's User-Id, the mailbox called POSTMASTER will be used. This command will be ignored if you specify a Template name.

¬Msg embedded-mail-message

Up to 256 characters of text may be embedded in a *USERASCII spooled file, to make up the mail message.

¬Pass password

Use this to specify a password for files that are being encrypted by PKZIP. The password can be up to 64 characters in length and is case-sensitive.

Note: There is no way to extract a password from an encrypted file. If the password is forgotten, the file will become inaccessible.

¬POwner password

Use this to specify an owner password for PDF documents that are being encrypted. An owner can do anything to a PDF document. The password can be up to 32 characters in length and is case-sensitive. Use **¬Encr 3** with this password.

¬PUser password

Use this to specify a user password for PDF documents that are being encrypted. A user can view a PDF and can optionally print and annotate a PDF. A user cannot change a PDF document. The password can be up to 32 characters in length and is case-sensitive. Use **¬Encr 3** with this password.

¬Print printer-name

Use this to specify the name of a Printer if you want to print your PDF attachments. To use this feature the attachment must be an *SCS printer file that is translated to a PDF. The printer must have Direct PDF Printing capability.

¬Reply reply-to address

Use this to specify a Reply-To address for the e-mail. If no reply-to address is given, most email clients use the From address for replies.

¬Subj subject

This command specifies the subject of the e-mail message. If no subject is given, the system will create a generic subject.

¬Temp mail-member

This command specifies the name of a mail member that you wish to use as a template for adding the attachment. See *How to Create a Template* in the Appendix for more information.

Leave this field blank if you will be keying a message on the *Message Screen*, described on the *Spooled File Setup Screens*.

You may specify the special value ***MESSAGE** in this field to cause the current page to be converted into the e-mail message instead of an attachment. You may code ***HTML** if the spooled file contains HTML for the message. The HTML that you send is not limited to text. It can contain Images and website references, as long as those references are available to the recipient. Further pages for the same recipient addresses can then be sent as attachments to this message page.

¬Trans translation-code

This command specifies what type of attachment that you would like the page translated into:

- 0 = No translation (Only to another iSeries or AS/400)
- 2 = ASCII text
- 3 = TIFF Image
- 4 = RTF (Rich Text Format)
- 5 = Map to Overlay (Requires an overlay name)
- 6 = PDF (Portable Document Format)

Note: *USERASCII files can be translated using code 3 or 6 only.

¬S1 - ¬S10 substitution-value

These commands can be used to fill the 10 Scan Field Values, described previously under the *Spooled File Setup Screens*. These fields can be used to pass information to your exit programs or as substitution fields into the Subject and Message fields. They are especially useful for passing information from *USERASCII printer files.

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Appendix

Rules for Creating Connection Scripts

Connection scripts are always used for AS/400 SLIP connections and rarely used for PPP connections. The rules are as follows:

- Column 1 of each line in the connection script may contain a control character. The control character specifies the action that should be taken by the AS/400 system. Column 2 may be left blank.
  - The AS/400 system ignores comment lines.

    Comment lines either begin with an asterisk (*), or are completely blank.
  - Output lines to the remote system begin with an ampersand (&).
- The AS/400 system interprets any non-blank line that does not contain either an "*" or an "&" control character, described above, as input from the remote host.
- You can mix upper-case and lower-case in a line that contains expected input from the remote host.

  The AS/400 translates all input to upper-case before comparing the dialog match text.
- Fields enclosed in parentheses () contain the keywords that describe an input or an output operation.

  You cannot define the keywords. However, you can control the operations performed during the connection dialog. To control the operations and the order in which they run, create a unique connection script using appropriately placed keywords.

The valid keywords are:

(USERID) The AS/400 uses this keyword to pass the user ID to the remote server for connection validation. If the remote system requires both an account name and a user ID, configure both in the *Remote service access name* parameter on the KMAILx profile.

(PASSWORD) The AS/400 uses this keyword to send the password to the remote server for connection validation.

(IPADDR) The AS/400 uses this keyword to exchange and activate the AS/400's address.

(IPGATE) The AS/400 uses this keyword to exchange and activate the ISP's address.

(PROMPT) Specifies that the AS/400 is to send a blank followed be a carriage return and a line feed.

(WAIT) Causes the AS/400 to wait 1 second before resuming. You can cause a delay from 1 to 99 seconds by entering (WAIT) 'xx'. (xx is the delay in seconds.)

Connection Script Example

You do not need to include all of the connection dialog in the connection script. For input lines containing a keyword, it is good practice to include some text preceding the keyword to help the AS/400 system locate the expected keyword input.

1. * Generic dial-out connection script example
2. Username
3. & (USERID)
4. Password
5. & (PASSWORD)
6. Protocol
7. & slip
8. The gateway address is (IPGATE) Your address is (IPADDR)

After the modem dials and connects, the AS/400 reads the connection script. Each line in the connection script causes the AS/400 to send or receive data as follows:

1. Comment line, no action taken.
2. Waits to receive the prompt "Username" from the ISP.
3. Sends the contents of the user ID field.
4. Waits for the "Password" prompt from the ISP.
5. Sends the contents of the password field.
6. Waits for the "Protocol" prompt from the ISP.
7. Sends the word "slip" to the ISP, to start the SLIP protocol.
8. Receives the ISP's and the AS/400's IP addresses that are dynamically assigned when the connection is made.

   Note that the input match text contains the (IPADDR) and (IPGATE) keywords. The keywords are located where the addresses will be received from the ISP or server.

Granting Authority to Start the KeyesMail System

A user must have the authority to the KMAIL user profile in order to start the KeyesMail system. This can be easily granted, as follows:

1. Enter: WRKOBJ KMAIL
2. Select option 2 (Edit authority) for the object of type *USRPRF.
3. Press F6 (Add new users).
4. Add each user desired with the Object Authority of *USE.

International Character Set

The following table shows the full international character set available to you when sending e-mail messages.

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0						&	-	ø	Ø	°	µ	^	{	}	\	0
1						é	/	É	a	j	~	£	A	J	÷	1
2					â	ê	Â	Ê	b	k	s	¥	B	K	S	2
3					ä	ë	Ä	Ë	c	l	t	•	C	L	T	3
4					à	è	À	È	d	m	u	©	D	M	U	4
5					á	í	Á	Í	e	n	v	§	E	N	V	5
6					ã	î	Ã	Î	f	o	w	¶	F	O	W	6
7					å	ï	Å	Ï	g	p	x	¼	G	P	X	7
8					ç	ì	Ç	Ì	h	q	y	½	H	Q	Y	8
9					ñ	β	Ñ	`	i	r	z	¾	I	R	Z	9
A					¢	!	¦	:	«	ª	¡	[	–	1	2	3
B					.	$	,	#	»	º	¿	]	ô	û	Ô	Û
C					<	*	%	@	ð	æ	Ð	¯	ö	ü	Ö	Ü
D					(	)	_	'	ý	¸	Ý	¨	ò	ù	Ò	Ù
E					+	;	>	=	þ	Æ	Þ	´	ó	ú	Ó	Ú
F					|	¬	?	"	±	€	®	×	õ	ÿ	Õ	

Restoring an iSeries or AS/400 Save File

Save files can only be used on another iSeries or AS/400. The KeyesMail software will automatically convert a save file to and from an e-mail attachment for you. You can send a save file as an attachment to a recipient that does not have KeyesMail software. They may use the following instructions to place the save file onto their iSeries:

1. Save the attachment to a PC disk.
2. Use CRTSAVF library/savefile-name on a command line to create a Save File on your iSeries.
3. Use FTP to do a Binary transfer of the attachment data into the Save File.

How to Create a Template

Templates can be used with many of the API's and the KeyesMail output queue (KMLOUTQ) to assist you in sending e-mail messages, with attachments. The template provides the message that goes along with the attachments. It can also include the subject, options, addresses, and even other attachments.

1. Choose a mailbox that you want the Template in. If you have only a single mailbox, or if you intend the mail to be sent from a lot of different users, then you should use the POSTMASTER mailbox.

2. Start item 1 *KeyesMail* from the menu and change to the selected mailbox, (Ex: POSTMASTER). You do this by moving the cursor (back tabbing) to the mailbox field and entering the correct mailbox name.

3. Press **F6** to create a new message. KeyesMail will create a new message and place you in the *Recipient addresses* window.

4. If this template will be used to mail attachments to the same recipients every time, then key their addresses in the window. But, if this template will be used for different recipients each time, then do not key any addresses. Close the window by pressing the **Enter** key or **F12** (Cancel).

5. Type a generic subject that could be used each time you send the attachments, such as: *Weekly Sales Report*

6. Type a generic message that will be used each time you send the attachments, such as: The following attachment is your Weekly Sales Report ... You may wish to include contact information, in case the recipient has any questions.

7. Move the cursor up to the *Options*> line and press **Enter** to open the *Options* window.

8. Set the *From:* address to any valid address. You may also want to set the *Auto Purge:* parameter to **Y**. This will make the system self cleaning.

9. Press **F3** (Exit) when you are finished preparing the message.

10. On the *Work with KeyesMail* screen enter an option 2 *Change* for the newly created mail member. Tab to the second field and change the *Status* to read "Template". This will allow you to recognize your templates, so you will not accidentally delete them. You may also wish to move them to a special Category, to keep them all together.

11. Use option 7 to rename the template to any valid mail member name that you would like.

12. Use item 31 *User Setup* from the menu and enter a **5** on the chosen mailbox (Ex: POSTMASTER).

13. Add ***TEMPLATE** to the Authorization list. This will allow the API's to use the templates out of this mailbox, even when the user running the API does not have specific authority to that mailbox.

Note: In an application, use KMLCPYTMP to make a copy of the Template, before adding attachments to the copy.

Debugging an Exit Program

If you write Exit Programs, to be used with KMMENU item 34 (Work with Spooled Files), you may need to debug one of the programs, during development. This is not an easy task, since the Exit Program will always be executed in Batch mode from a Job Queue. To perform this task, you will need to manually run the CHKKMLOUTQ program, rather than letting it run normally.

The following technique can be used for debugging your Exit Programs:

1. Start item 21 (KeyesMail Connections) from KMMENU. If the KMLOUTQ process is in a RDY status (shown on the top of the screen), use F10 to turn it OFF.
2. Create a test spooled file and place it in the KMLOUTQ output queue. Ideally, it will only contain one or two pages, just enough to run a quick test of your Exit Program.
3. Be sure that you have created an entry in item 34 (Work with Spooled Files) using the correct spooled file name, and make sure that it has a reference to your Exit Program.
4. Run the following command to allow the KMLOUTQ process program to be tested:

   CHGDTAARA DTAARA(KMDATA/KMDATA1 (711 3))
   VALUE(TST)

5. Start the Debug program of your choice (STRDBG or STRISDB) and set the location for a break point.
6. Start the processing of the spooled file using the command; CHKKMLOUTQ:

This should call your Exit program Interactively, allowing you to debug it. When you have finished debugging, you will have to use the System Request option 2, to end the CHKKMLOUTQ program. Otherwise, this program has been programmed to run forever, once started.

Automatic Blind Copies

KeyesMail has the ability to automatically send blind copies to one or more mailboxes, for all mail that originates or is sent from one of the KeyesMail mailboxes. The Auto Blind Copies can be sent to any Internal or External mailbox that is defined within KeyesMail. External mailboxes can point to addresses anywhere on the Internet.

Note: This is intended to be used for copying messages that are sent from specific mailboxes, for duplication or archival purposes . The recipients of the original e-mail will not know that the mail was also duplicated to the Blind Copy addresses, but the sender will know that this is being done.

Setting up Auto Blind Copies

A source physical file called AUTOBC should exist (or can be manually created) in the KMDATA library. Create a member, in this source file, named after the mailbox that you want to duplicate mail from. Enter one mailbox name, starting in column 1, on each line.

For example, if you create a member called POSTMASTER (named after the Postmaster mailbox), all mail sent from the POSTMASTER mailbox will be duplicated to the mailboxes that you enter into this source member.

Following is an example of entries that you can place in a source member using any editor, such as IBM's SEU:

```
 Columns . . . :   1  80                  Edit            POSTMASTER
SEU==>
FMT **  ...+... 1 ...+... 2 ...+... 3 ...+... 4 ...+... 5 ...+... 6 ...+... 7 ...+... 8
      ********** Beginning of data ************************************
0001.00 John
0002.00 Support
      ****************** End of data ****************************************
```

In this example, all mail sent from the POSTMASTER mailbox will be duplicated to both the JOHN mailbox and the SUPPORT mailbox, using Blind Copy addresses.

Spam Filter vs Unsubscribe

Not all unwanted or unsolicited mail is actually spam. Spam, in this context, is defined as unwanted or unsolicited mail that comes from sources that cannot be identified and cannot be stopped.

Legitimate corporate advertisement e-mail, that is sent using an address list, should give you a method of unsubscribing from their list. If you can unsubscribe from their list, this is not considered spam. You should take the time to unsubscribe from the legitimate lists, rather than spamming the e-mail.

The Spam Filter works by checking the senders address. If the address does not contain portions of the sender's name, it will be considered spam. If the address contains too many digits, it will also be considered spam. This was done because it was recognized that many spammers use computer generated names and addresses that do not match.

When you use the "S" option to send an e-mail to the *Spam category, the From address will be saved in a Spam file. Mail from that address will be considered spam from then on, for that mailbox. When you un-spam an e-mail, by moving it out of the *Spam category, the From address will also be saved in the Spam file. Mail from that address will no longer be considered spam, for that mailbox.

It is recommended that you do not send unwanted corporate advertising e-mail to the *Spam category. You should use the Delete function instead. Spamming the messages will tend to fill up the Spam file, needlessly, and the unwanted e-mail messages will continue to be sent, slowing down the SMTP mail system for everyone. You should attempt to remove yourself from address lists, if you no longer want to receive mail from them.

How to Create EBCDIC PCL Printer Data

KeyesMail conversion programs can convert PCL printer files into PDF documents or TIFF images for e-mailing. PCL printer files can include:

- Scalable Fonts from 4 to 99 point
- Raster graphics
- GL/2 vector graphics
- Shading & cross-hatch patterns
- Pie charts
- Macros

We have supplied tools that will allow you to create PCL printer data directly from your application programs in standard *SCS printer files. PCL and GL/2 vector graphics data contain escape sequences that all start with an ASCII Esc character followed by standard ASCII characters (in most cases).

We have provided a program that automatically transforms standard EBCDIC spool files into ASCII PCL. It will translate the EBCDIC negate character (¬) into an ASCII Esc character, strip out blanks at the ends of each line, and add Carriage Return/Line Feeds for each print line to the data. Using this technique you should be able to print any type of PCL graphics, lines, boxes, shading patterns, etc. using regular *SCS printer files. For example, the following line in a printer file would print a line across the page:

¬*p212y0X¬*c2b3326a0P

You must specify the phrase "EBCDIC PCL" in either the Form Type or the User Data field of a spooled file, for KeyesMail to be able to recognize that you have created EBCDIC PCL.

HTML Messages

KeyesMail can send HTML Messages, with optional *Inline* images. The HTML can be created manually or by any HTML creation program, such as OpenOffice.

Images can be referenced in the HTML using the standard **src=** type of statement shown below:

<img src=”image_name.ext”>

The image that is referenced, in this case, must be found in the same directory as the HTML. The **src=** statement may also name a subdirectory, as in this example:

<img src=”subdirectory/image_name.ext”>

If you double click the PC File containing the HTML, it should display appropriately along with any referenced images.

When this HTML is sent as an e-mail, any images that are referenced (other than with an HTTP address) must be sent as *Inline* images. In the e-mail message the **src=** statements must be altered to reference the image by its Content-ID, by adding **cid:** in front of the image name. In the above example, the statement must be altered to read:

<img src=”cid:image_name.ext”>

Any subdirectories must be removed and **cid:** must be added to the **src=** statement. The image must then be attached to the e-mail as an *Inline* image. The Content-ID of the added image will be set to **<image-name.ext>**. For this reason, all images that are referenced must have a unique name.

If you prepare the HTML as an e-mail using either KMLTXTMSG or KMLSPLMSG, you are responsible for altering the **src=** statements and you must attach all of the referenced *Inline* images.

If you place the HTML in a PC File, on the IFS, and prepare an e-mail using KMLPCDMSG, KeyesMail will automatically alter the **src=** statements for you. And, KeyesMail will automatically add each of the *Inline* images that were referenced, to the e-mail. Be sure that all the referenced images are located in the same directory or in a subdirectory as named in the **src=** statements.

Note: For *Inline* images, the complete folder name (the original PC File directory plus any subdirectories) cannot exceed 50 characters in length. The *Inline* image name itself (minus any subdirectories) cannot exceed 42 characters in length.

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