VAX Public Access Communications (VAXPAC)

User's Guide

Order No. AA-JL29B-TK

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Order Number: AA-JL29B-TK

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This manual explains how to use VAX Public Access Communications (VAXPAC).

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Operating System and Version:	VMS or MicroVMS 4.4 or higher
Software Version:	1.1

digital equipment corporation, maynard, massachusetts

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Introduction

With VAX Public Access Communications (VAXPAC), you can use your computer system to communicate with other computer systems. The system with which you communicate is called the **remote system**. Your system uses one or more modems to communicate with a remote system over phone lines.

You can, for example, use VAXPAC to get timely business information from such remote systems as **The Dow Jones News/Retrieval Service**, **The SOURCE**, or **CompuServe**. Or, you may want to communicate with one of your remote branch offices. In this case, you can use VAXPAC to do work on the remote system from the system in your office, or to transfer files back and forth. You can communicate with any remote system to which you have access that has the industry-standard asynchronous RS-232C, RS-422, or RS-423 interfaces.

VAXPAC is not, however, a communications network. If there are several computers at one site, DIGITAL recommends you use **DECnet**.

Intended Audience

This manual is intended for users who need to access remote systems using VAXPAC. No prior technical experience or knowledge is required.

The System Manager

The system manager's duties are described in greater detail in the *VAX Public Access Communications (VAXPAC) Installation and Setup Guide.*

Your system manager must do the following before you can use VAXPAC:

- Install the VAXPAC software
- Attach the modem to your system
- Set up communication lines

In addition, your system manager may need to do some or all of the following:

- Define standard connections to remote systems
- Define groups of communication lines
- Specify any additional file transfer methods
- Enter data for modems not recognized by VAXPAC
- Enter any additional interrupt procedures
- Enter any new definitions for the LOCAL key

Organization of This Guide

Chapter 1 of this guide contains information on using VAXPAC, including the options on the VAXPAC Main menu.

Chapter 2 contains information you will use after you are connected to the remote system. It discusses the LOCAL key, file transfer concepts, and session logging.

Appendix A contains information on VAXPAC function keys.

Using VAXPAC 1

VAXPAC is easy to use, and does not require extensive training. You can learn VAXPAC as you use it.

VAXPAC has an online help facility. Anytime you are not sure what to do, press the Help key. When you log in to a remote system, the Help key and the other function keys such as Exit or Resume might not have the same functions as they have on your system.

1.1 Starting VAXPAC

You can use VAXPAC with the VMS or MicroVMS operating system or with A-to-Z. The following sections explain how to get started with VAXPAC on these systems.

1.1.1 Starting VAXPAC on VMS or MicroVMS

To start VAXPAC on a VMS or MicroVMS operating system:

- Log in to your account.
- Enter the following command at the DIGITAL Command Language (DCL) prompt ($):

```
$ COMMUNICATE Return
```

You can also enter an abbreviated form of the command, such as COMM or COMMU. After you enter the command, the VAX Public Access Communications Main menu appears.

Note

You can use the DCL command HELP COMMUNICATE for a full list of options available from the DCL prompt ($).

1.1.2 Starting VAXPAC on A-to-Z

To start VAXPAC on an A-to-Z system:

- Log in to your A-to-Z User's Account.
- Display the A-to-Z User's Main menu or the A-to-Z Interrupt menu.

The A-to-Z User's Main menu contains two entries for VAX Public Access Communication. They are:

COM Public Access Communications

REM Remote File Transfer Server

Both of these entries are also available on the A-to-Z User's Interrupt menu.

Refer to the appropriate A-to-Z documentation and follow the directions to begin using VAX Public Access Communications.

1.2 VAXPAC Function Keys

A keystrip for VT200 or VT300 keyboards is included as part of the VAXPAC installation kit.

When choosing menu options, or entering information for screens, use the following keys on the VT200 or VT300 keyboard (see Appendix A for VT100 equivalent function keys).

- Enter information for any fields that have an underline to the right of the field. For example:

```
Phone number: _____________________
```

- Use ← or → to change the values enclosed in angle brackets:

  ```
  <Fields like this>
  ```

- Use Return, ↑ or ↓ to move between fields.
- Whenever you are not sure how to respond, press the Help key.
- Press Do to confirm selections or accept information when all the fields for a screen are complete.
- Press Exit or F10 to return to the previous menu or screen or to exit from VAXPAC at the Main menu. Changes are saved.
- Press Cancel or F8 when you want the system to ignore a selection or disregard information you have entered.
- The PF1 or **GOLD** key is used in conjunction with other keys to simulate VT200 or VT300 function keys on VT100 series terminals. The PF1 or **GOLD** key is always pressed before the other key. For example, on a VT100, if you press PF1 and then press P, it is equivalent to pressing Prev Screen on a VT200 or VT300 keyboard.
- Control keys are a combination of Ctrl and another key pressed simultaneously. Control keys are used to simulate the VT200 or VT300 function keys on VT100 series terminals. For example, Ctrl Y on the VT100 is equivalent to Interrupt or F6 on the VT200 or VT300 keyboard.
- Press Find to display a list of files.
- Press Insert Here to add a new record.
- Press Remove to delete an existing record.
- Press Interrupt or F6 to start the interrupt procedure.
- Press Resume or F7 to continue after receiving an information message.

See Appendix A for a listing of all function keys available for use with VAXPAC. To get online help on the function keys while you are in a VAXPAC session, press PF2.

1.3 The VAXPAC Main Menu

The VAX Public Access Communications Main menu displays the options associated with **Using Communications** and **Miscellaneous** functions.

To select an option from the Main menu, either enter the three-letter name of the option or use the arrow keys, ↑ or ↓, to position the pointer next to the option you want. For example, to select the **INT - Introduction to Communications** option you can either enter **INT** or use the arrow keys to position the pointer next to **INT**. After you select the option you want and press Return or Do, a new screen appears.

When you use VAX Public Access Communications for the first time, select the **INT** option. The **INT** option gives an overview of the capabilities of VAX Public Access Communications.

The following screen shows the VAXPAC Main menu.

```
d i g i t a l     VAX Public Access Communications V1.1
                  Main Menu

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                Using Communications

                -> CON  Connect to a remote system
                   DEF  Set personal defaults
                   PER  Define personal connections


                Miscellaneous

                   INT  Introduction to VAX Public Access
                        Communications
                   REM  Start remote file transfer server
                   RES  Reset communication lines


Select option and press DO:
```

The following sections explain each of the options on the Main menu. Because you should use the **INT - Introduction to Communications** option before any other option, that option is covered first. The remaining options are covered in the order in which they appear on the screen.

1.4 INT - Introduction to Communications

The best and quickest way to learn how to use VAXPAC is to select the **INT - Introduction to Communications** option from the Main menu. The introduction explains how to make a connection, how to interrupt a connection, and what your options are during a connection.

To view the online introduction, select the **INT** option from the VAXPAC Main menu.

The following screen appears.

```
d|i|g|i|t|a|l    VAX Public Access Communications V1.1
                  Introduction to VAX Public Access Communications

This introduction describes the following features of VAX Public Access
Communications:

     -> OVE   Overview of VAX Public Access Communications
        KEY   Keyboard features
        MEN   Using menus and forms
        CON   Connecting to remote systems
        TRA   Transferring files between systems
        PER   Personal connections and defaults
        MAN   System management


Enter the letters (for example, OVE) or use the arrow keys to select a topic.

Press Help, or PF1 and H at any time for help in using VAXPAC.
Press PF2 at any time for help in using VAXPAC function keys.

Select a topic and press DO, or press EXIT. ▌
```

It is best to review the entire introduction before actually using VAXPAC.

You should select the first three options (**OVE**, **KEY,** and **MEN**) to learn the basic information about VAXPAC.

Select the next three options (**CON**, **TRA,** and **PER**) to learn what these options cover.

Select the last option (**MAN**) for an explanation of the system manager's responsibilities in VAXPAC.

When you are finished with the introduction, you can begin using VAXPAC.

1.5 CON - Connect to a Remote System

Connecting to a remote system is the single most important function you can do with VAXPAC. There are several ways to make a connection. You can:

- Use a predefined connection
- Define a new connection
- Change, review, or delete a predefined connection

1.5.1 Getting Started

When you want to connect to a remote system, select the **CON** option from the VAXPAC Main menu.

If the system manager has set up standard connections to remote systems, a list of these connections appears.

If you defined any personal connections (described in Section 1.7), these connections also appear.

The LOCAL key is important once you have established a connection. It is used to return control to your local system from the remote system and to terminate a connection. The default LOCAL key is actually two keys, Ctrl and \, pressed simultaneously. You can use the **DEF - Set Personal Defaults** option (described in Section 1.6) to define a different LOCAL key. See Section 2.1 for information on the LOCAL key.

Once you have established a connection to a remote system, you can use VAXPAC to transfer files. This is explained in Section 2.2.

1.5.2 Using Predefined Connections

A list of all previously defined connections appears when you select the **CON** option from the Main menu. If you have no predefined connections, refer to Section 1.5.3 for information on defining a new connection, or to Section 1.7 for information on defining a personal connection. Section 1.7 also explains how to enter information for the fields required to set up a connection.

Note

If you are using VAXPAC on a VAXcluster, you can use only the communication lines defined on the cluster member to which you are connected. If you need to use the communication lines on another cluster member, you must connect to that cluster member using the DCL SET HOST command.

The following is an example of a screen that displays predefined connections.

```
d i g i t a l     VAX Public Access Communications V1.1
                  Connect to a Remote System
                  Select a Connection


                Personal Connections
                -> Boston Office
                   Home

                Standard Connections
                   CompuServe
                   Dow Jones News/Retrieval
                   Electronic Store
                   NewsNet
                   The SOURCE

                   Manual Connection



Make a selection and press DO to connect to a remote system.
Press SELECT to display details for a connection; otherwise, press CANCEL.
```

To connect to one of the remote systems displayed on the screen, use the arrow keys to select the connection and press Do. You can also enter the name of the connection and press Do.

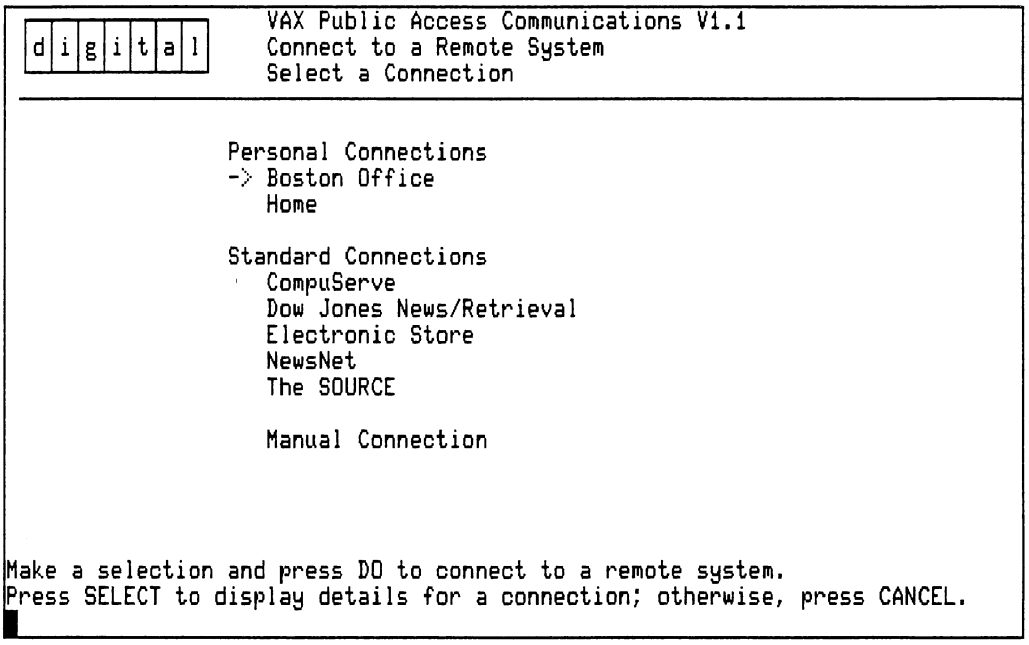
At the bottom of the screen, the system displays the name of the connection and the communication line used for the connection.

You can wait for the connection to be established, or you can press Cancel to end the call.

Once you are connected to a remote system, you can transfer files to and from your local system. Study Chapter 2 for information on the LOCAL key and transferring files before proceeding.

1.5.3 Defining a New Connection

To define a new connection, select the **CON** option from the Main menu. The following is an example of a screen containing a list of all previously defined connections.



You now have two choices:

- You can select **Manual Connection** and press Do. This allows you to define a new connection using your personal defaults.
- Alternatively, if a previously defined connection is similar to the connection you now want to define, you can copy the information from the previously defined connection to a new connection. To do this, position the cursor on the connection you want to copy and press Select.

In either case, a screen similar to the following appears.

```
d i g i t a l     VAX Public Access Communications
                  Connect to a Remote System
                  Connection: Manual Connection


 Phone number:
 Dial method:           <Use computer dialing>
 Communication line:    <Any phone line>
 Session logging:       <Disabled>
 Logging mode:          <Record>
 Timeout (secs):        30
 Transmit speed:        <Same as communication line>
 Receive speed:         <Same as communication line>
 Automatic newline?     <No>
 Character size:        <8>
 Parity:                <None>
 XON/XOFF support?      <Yes>
 Local echo?            <No>
 File transfer:         <KERMIT>
 LOCAL key:             <Ctrl and \>
 Swap BACKSPACE and RUBOUT keys? <No>

Press DO to establish a connection. Press EXIT to save connection details.
Press CANCEL or MAIN SCREEN to quit.
```

If you choose **Manual Connection**, the screen appears with the **Phone number** field blank. If you choose a predefined connection, the screen appears with a number in the **Phone number** field.

To immediately establish a connection to the remote system, enter the **Phone number** if necessary and make any other changes to the information on the screen. Press Do to connect to the remote system.

At the bottom of the screen, the system displays the name of the connection and the communication line used for the connection.

You can wait for the connection to be established, or you can press Cancel to end the call.

Once you are connected to a remote system, you can transfer files to and from your local system. Study Chapter 2 for information on the LOCAL key and transferring files before proceeding.

When you are finished using the current connection, press Exit. A list of options for the connection appears at the bottom of the screen.

```
                    Options for Saving Current Connection

   -> A  Add a new connection              R  Replace an existing connection
      E  Exit with no change

Select option and press DO:
```

Use the arrow keys to position the cursor on the option you want and press Do.

If you want to save the connection, select **A - Add a new connection** and press Do. The system prompts you for the name of the connection. Enter the name and press Do. The connection is then added to your list of personal connections.

If you do not want to save the connection, press Exit.

If you want to replace one of your personal connections with the new connection, select **R - Replace an existing connection** and press Do.

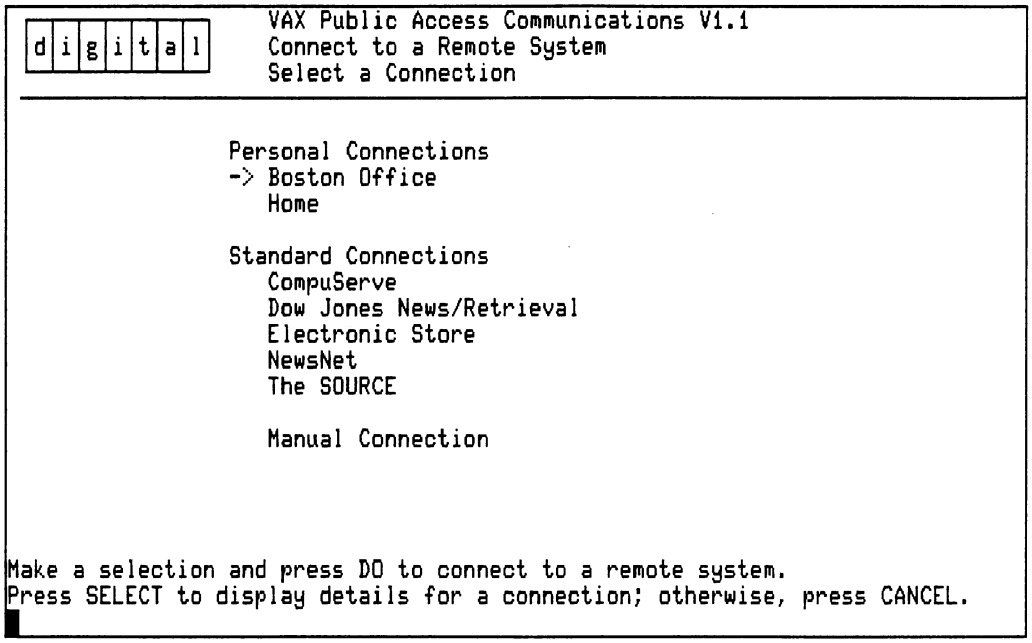
The system displays a screen showing your current connections and prompts you to select the connection you want to replace. Select the connection you want to replace and press Do. The system then displays the connection in the **Name for connection** field. Press Do to replace the connection you selected with the current connection. The connection is then added to your list of personal connections.

If you choose a predefined connection, you also have the option to replace, review, or delete the current connection. These options are described in the next section.

The system manager can save any connection as a standard connection.

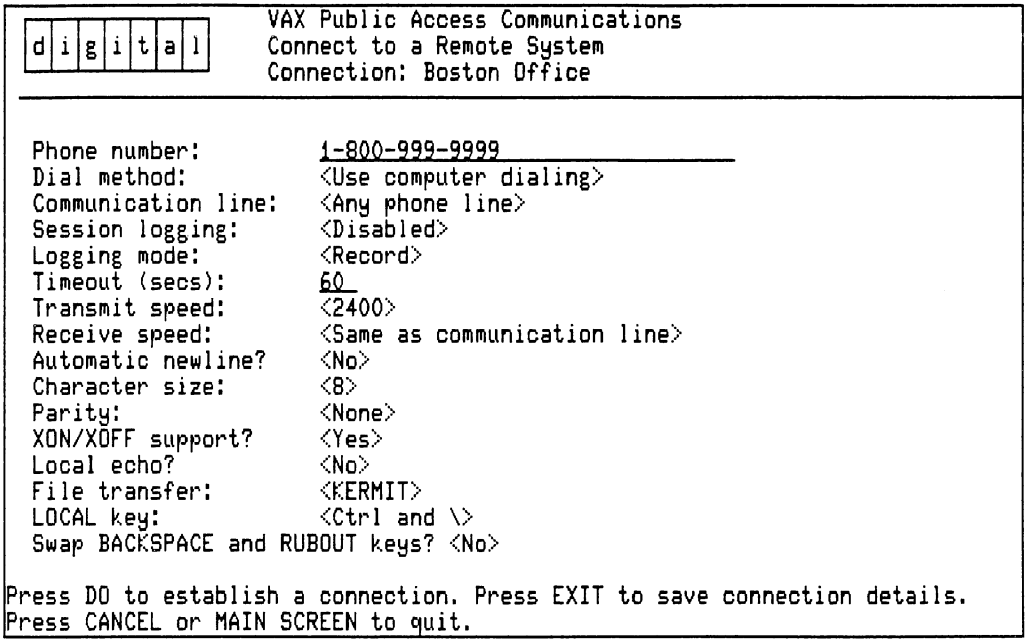
1.5.4 Changing, Reviewing, or Deleting an Existing Connection

You might want to review and possibly change a connection before using it. To do this, select the **CON** option from the Main menu. The following is an example of the screen that appears.



Select the connection you want to review or change, and press Select.

The following is an example of the screen that appears.



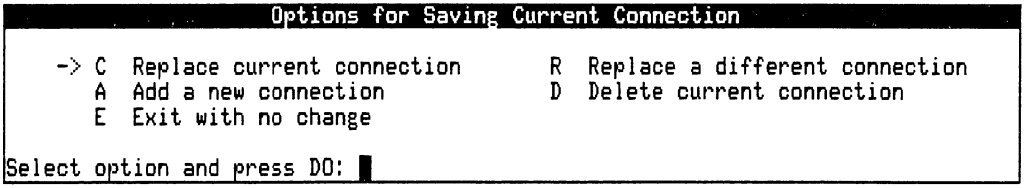
You can make any necessary changes to the information on the screen. Press Do to connect to the remote system.

At the bottom of the screen, the system displays the name of the connection and the communication line used for the connection.

You can wait for the connection to be established, or you can press Cancel to end the call.

Once you are connected to a remote system, you can transfer files to and from your local system. Study Chapter 2 for information on the LOCAL key and transferring files before proceeding.

When you are finished using the predefined connection, press Exit. A list of options for the connection appears at the bottom of the screen.



Use the arrow keys to position the cursor on the option you want and press Do.

If you want to save changes to the current connection, select **C - Replace current connection** and press Do.

At the bottom of the screen, the system displays the name of the connection and the communication line used for the connection.

Enter a new name for the connection and press Do to establish a connection, or press Cancel to end the connection.

If you want to create a new connection, select **A - Add a new connection** and press Do.

The system prompts you for the name of the connection. Enter the name and press Do to add the connection to your list of personal connections.

At the bottom of the screen, the system displays the name of the connection and the communication line used for the connection.

You can wait for the connection to be established, or you can press Cancel to end the call.

If you do not want to save the connection, press Exit.

If you want to replace a predefined connection with the current connection, select **R - Replace a different connection** and press Do.

The system displays a listing of your previously defined personal connections. (Only a system manager can replace a standard connection.) Select the connection you want to replace and press Do.

The system prompts you to enter a new name for the connection. Enter a name and press Do to add the connection to your list of personal connections.

If you want to delete the current connection, select **D - Delete current connection** and press Do. The current connection is then deleted from your list of personal connections.

1.6 DEF - Set Personal Defaults

Personal defaults are used when you define a new connection. Some defaults are system defaults; others are entered by the system manager. You can change some of these defaults and establish your own personal defaults.

Use personal defaults to select the options you require for session logging, logging mode, file transfer, your interrupt procedure, and the length of time you normally allow for a connection to be made. You can also use personal defaults to select the definition of the LOCAL key.

The following is an example of the screen that appears when you select the **DEF** option from the Main menu.

```
d i g i t a l     VAX Public Access Communications
                  Set Personal Defaults

Startup option:          <Default Main Menu>

Field editing?           <Yes>

Session logging:         <Disabled>
Logging mode:            <Record>

File transfer:           <KERMIT>
Interrupt procedure:     <Spawn DCL>

LOCAL key:               <Ctrl and \>

Timeout (secs):          30

Press DO to confirm changes to your personal defaults.
```

The following sections explain how to respond to each field on the screen. Press Help if you are not sure how to respond to a field.

Startup option:

This field allows you to specify the first screen displayed by VAXPAC. The value you specify is used only when VAXPAC is started using the DCL command COMMUNICATE with no other qualifiers.

If you select **User's Main Menu,** VAXPAC displays the User's Main menu when you start VAXPAC, even if you are operating from a privileged account. If you select this option and later want to use the Manager's Main menu in a session, you must start VAXPAC with the command COMMUNICATE/SYSTEM.

If you select **Default Main Menu,** the menu displayed when you start VAXPAC will depend on your privileges. Normally, VAXPAC will display the User's Main menu. If you are operating from a privileged account, VAXPAC will display the Manager's Main menu.

If you select **Connect to Remote System,** VAXPAC bypasses all Main menus and displays the list of available connections. If you select this option and later want to use a Main menu, you must start VAXPAC with the command COMMUNICATE/USER (for the User's Main menu) or COMMUNICATE/SYSTEM (for the Manager's Main menu).

Field editing?

If you select <No> for this field, whenever you enter a value in a field the previous value is erased. You can, however, use the erase keys when entering a new value.

If you select <Yes> for this field, you can edit a value for a field that you have previously typed using the cursor movement keys in addition to the erase keys.

Session logging:

Use **Disabled** if you do not want the system to log (or save) the information displayed by the remote system. Use **Enabled** if you want to log this information. This option is installed set to **Disabled**. You can enable logging while connected to a remote system by using the Local Options menu. See Section 2.3 for additional information.

Logging mode:

This field specifies the format of the session logging data you want to save. Use **Record** if you receive information from the remote system one line at a time. Use **Image** if the data contains control characters such as screen displays (for example, a menu screen). **Record** is the usual setting.

File transfer: This field specifies the file transfer method you can use to transfer files between your system and the remote system. When VAXPAC is first installed, KERMIT is the only file transfer method available. If you want to use another file transfer method, your system manager must install it.

Interrupt procedure: This field allows you to select the interrupt procedure you use when you press Interrupt. When VAXPAC is first installed, two procedures are defined: **Spawn DCL** and **A-to-Z Interrupt Menu**. Your system manager can define additional procedures for you. Note that when you use **Spawn DCL**, you must log out to continue the VAXPAC session.

The system manager can restrict the use of the Interrupt procedure. If this is done, you cannot make changes to this field. The terminal beeps when you try to change the Interrupt procedure field.

LOCAL key: This field specifies the key that is used to return control from the remote system to your system. The default LOCAL key is actually two keys, Ctrl and \, pressed simultaneously. Use ← or → to select a different value for the LOCAL key.

Timeout (secs): This field shows the number of seconds allowed for VAXPAC to establish a connection with the remote system. If the connection is not made within this time, VAXPAC stops trying to make a connection.

1.7 PER - Define Personal Connections

This option allows you to maintain your own personal connections. All the options available here are also available from the **CON - Connect to a remote system** option.

This section explains in detail the fields used for defining a connection.

If the system manager has restricted this option so you cannot define personal connections, the following message appears when you select the **PER** option:

```
The option to define personal connections has been disabled. You
can only use existing connections to connect to a remote system.
```

The first time you select **PER** from the Main menu, the screen that is used to add new personal connections appears. The next time you select the **PER** option, a list of the personal connections you have already set up appears. You can then add a new personal connection, change the information for a personal connection, or delete a personal connection.

Note

If you are using VAXPAC on a VAXcluster, and you use personal connections on more than one member of the cluster, you should be aware that the communication line you specify might not be available on the cluster member to which you are connected. In this case, you must press Select when choosing the connection, and specify a communication line defined for the system you are logged in to.

The following is an example of the screen that appears when you select the **PER** option (sample values have been added).

```
d i g i t a l     VAX Public Access Communications
                  Define Personal Connections
                  Add

Name for connection:  Boston Office

Phone number:         1-800-999-9999
Dial method:          <Use computer dialing>
Communication line:   <Any phone line>
Session logging:      <Disabled>
Logging mode:         <Record>
Timeout (secs):       60
Transmit speed:       <2400>
Receive speed:        <Same as communication line>
Automatic newline?    <No>
Character size:       <8>
Parity:               <None>
XON/XOFF support?     <Yes>
Local echo?           <No>
File transfer:        <KERMIT>
LOCAL key:            <Ctrl and \>
Swap BACKSPACE and RUBOUT keys? <No>

Press DO to confirm changes to personal connections.
```

The following sections explain how to respond to each field on the screen. Press Help if you are not sure how to respond.

Name for connection:

Enter a name to identify the connection; for example, "Dow Jones" or "Branch Office." The name you enter here appears among the list of connections that can be made when you select the **CON** option from the Main menu.

Phone number:

If you are using a modem to reach the remote system, enter the telephone number of the remote system. If necessary, include the area code. You can enter up to 30 numeric characters. Alpha-characters as they appear on the dialer are not allowed. Use the numeric equivalent. You can enter the number with or without separators. For example, either of the following is correct: (999) 999-9999 or 9999999999.

Sometimes it may be necessary to wait for a secondary dial tone when dialing. To do this, type **%W** where you want the pause. Some long-distance companies require this feature. For example, you may need to dial 9 for an outside line, pause, and then dial the phone number. To do this, type the following: **9-%W-(123)-999-9999**.

Dial method:

Specify the type of dialing you want to use to reach remote systems. The type of modem you have, your own expertise with your modem's capabilities, and the remote system determine the type of dialing you use. Consider the following possibilities:

If your modem has **Autodial** capabilities, this means the modem can dial the number for you. In this case, select the **Use computer dialing** option.

If your modem does not have autodial capabilities, you must specify the **Dial from handset** option.

If someone at the site of the remote system must answer the telephone to allow you to continue, you should also specify the **Dial from handset** option.

If you are experienced at using your modem and you want to take advantage of your modem's unique setup and special dial features, select the **Expert dialing mode** option.

The system manager can restrict the Dial method field. If this is done, you cannot make changes to this field. The terminal beeps when you try to change the **Dial method** field.

Communication line:

Use this field to assign a communication line to your connection. The values enclosed within angle brackets show the name of a communication line or group of communication lines. Use ← or → to select a different communication line (if more than one communication line is available).

Session logging:

Use **Disabled** if you do not want the system to log (or save) the information displayed by the remote system. Use **Enabled** if you want to log this information. This option is installed set to **Disabled**. You can enable logging while connected to a remote system by using the Local Options menu. See Section 2.3 for additional information.

Logging mode:

This field specifies the format of the session logging data you want to save. Use **Record** if you receive information from the remote system one line at a time. Use **Image** if the data contains control characters such as screen displays (for example, a menu screen). **Record** is the usual setting.

Timeout (secs):

This field shows the number of seconds allowed for VAXPAC to establish a connection with the remote system. If the connection is not made within this time, a message appears informing you of this.

Transmit speed:

To set the transmit speed, you must know what the receive speed of the remote system is. Use this field to match your system's transmit speed with the remote system's receive speed. Use ← or → to change the transmit speed. For example, if the remote system's receive speed is 1200, select **1200** as your transmit speed. Initially, the transmit speed is **Same as communication line**.

Receive speed:

To set the receive speed, you must know what the transmit speed of the remote system is. Use this field to match your system's receive speed with the remote system's transmit speed. Use ← or → to change the receive speed. For example, if the remote system's transmit speed is 1200, select **1200** as your receive speed. Initially, the receive speed is **Same as communication line**.

Automatic newline?

Use **No** if you do not want a line feed added to each line displayed on the remote system. Use ← or → to change this field to **Yes** if you want a line feed added to each new line. Use **Yes** if the text displayed from the remote system is crowded when displayed on the same line.

Character size:	This field is used to specify the length of the characters you send and receive from a remote system. It can be either 7 or 8 data bits. Use ← or → to change this field.
Parity:	Parity can be **None**, **Even**, **Odd**, or **Space**. Parity is a means of checking that the data sent from one system is received correctly by another system. Use ← or → to change this field.
XON/XOFF support?	All DIGITAL terminals and systems support this feature. The XON/XOFF feature is used to recognize when and when not to send characters. Use ← or → to change this field to **No** if the remote system does not have the XON/XOFF feature.
Local echo?	If you select **Yes,** each character sent to the remote system is displayed on your terminal. If, when you type text on the remote system, the text is not displayed on your terminal, you should select **Yes** for this field. However, most systems do not require local echo. If you select **No,** only characters sent by the remote system are displayed. Use ← or → to select the proper response.
File transfer:	This field specifies the file transfer method you can use to transfer files between your system and the remote system. When VAXPAC is first installed, KERMIT is the only file transfer method available. If you want to use another file transfer method, your system manager must install it.
LOCAL key:	This field specifies the key that is used to return control from the remote system to your system. The default LOCAL key is actually two keys, Ctrl and \, pressed simultaneously. Use ← or → to select a different value for the LOCAL key.
Swap Backspace and Rubout Keys?	If you select this option, the definitions of the **Backspace** and **Rubout** key are reversed. This means when you press the **Rubout** key, the definition for **Backspace**, Ctrl H, is passed to the remote system. If you press either **Backspace** or Ctrl H, the definition for **Rubout** is passed to the remote system.

After you enter the information, press Do to set up a new personal connection.

If you want to cancel the information just entered, press Cancel.

After you set up a personal connection, it is displayed along with all previously defined personal connections.

You then have the option to add, change, delete, or display a personal connection.

When you want to add a personal connection, you are given the choice of either copying the values of an existing connection or entering new values.

To copy values, select the line you want to copy and press Insert Here and then press Do. Information for the standard connection appears.

You can enter information for **Name for connection** and **Phone number** and make any other necessary changes. Press Do to add the new communication line.

If you want to use default values instead of values from an existing personal connection, press Insert Here and then press Resume.

If you want to display or change a personal connection, select the line and press Do. When the information for the personal connection appears, you can make any changes and press Do.

If you want to delete a personal connection, select the line you want to delete and press Remove. The definition of the line to be deleted appears and you are prompted to confirm the deletion as follows:

```
Press DO to confirm changes to personal connections.
```

Press Do to confirm the deletion, or press Cancel if you want to keep the information as it is.

Press Exit to return to the Main menu.

1.8 REM - Start Remote File Transfer Server

The **REM** option starts a remote file transfer server that allows you to transfer files to and from your local system. Your local system can be a system that has VAXPAC installed on it, or it can be a personal computer. When VAXPAC is first installed, KERMIT is the only file transfer server available.

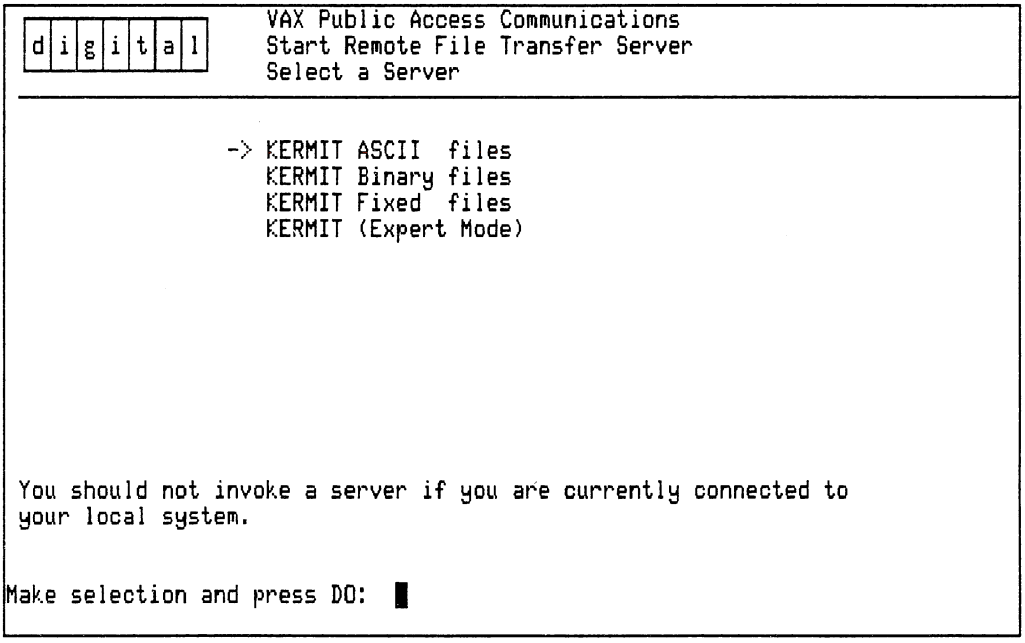
Note

Use the **REM** option to start the file transfer server *only* on the remote system. The file transfer server could lock up your terminal if you attempt to use it on your local system.

To use the **REM** option, first connect to a remote system that has VAXPAC installed and then log in to that system and enter the following at the DCL prompt:

```
$ COMMUNICATE/REMOTE Return
```

The following is an example of the screen that appears when you select the **REM** option.



If any other file transfer servers are installed on the remote system, the names of these servers also appear.

There are four ways of starting the KERMIT file transfer server: ASCII, Binary, Fixed, and Expert Mode.

- ASCII: Use this for simple text files. All versions of KERMIT support this. ASCII is also suitable for transferring files with variable-length records between VAX systems, or for files containing special characters.
- Binary: Use this for transferring binary files from a personal computer (such as CP/M COM files) which need to be kept in a format that allows the file to be returned without any change. Binary is *not* suitable for transferring Record Management Services (RMS) files between VAX systems.

- Fixed: Use this for transferring .EXE files between VAX systems. These files are stored as fixed-length 512-character records.
- Expert Mode: Expert mode allows you to use KERMIT commands interactively. If you specify this mode, you see the following prompt:

```
COMM$KERMIT>
```

  Enter the HELP command for instructions on using KERMIT in expert mode.

  Press Ctrl Z to return to VAXPAC.

Press Do to start the server on the remote system. The system displays a message informing you that the server is starting.

Press the LOCAL key to return to your local system and carry out the file transfer. If you are using VAXPAC on your local system, the file transfer option is automatically selected. See Chapter 2 for information on file transfers.

1.9 RES - Reset Communication Lines

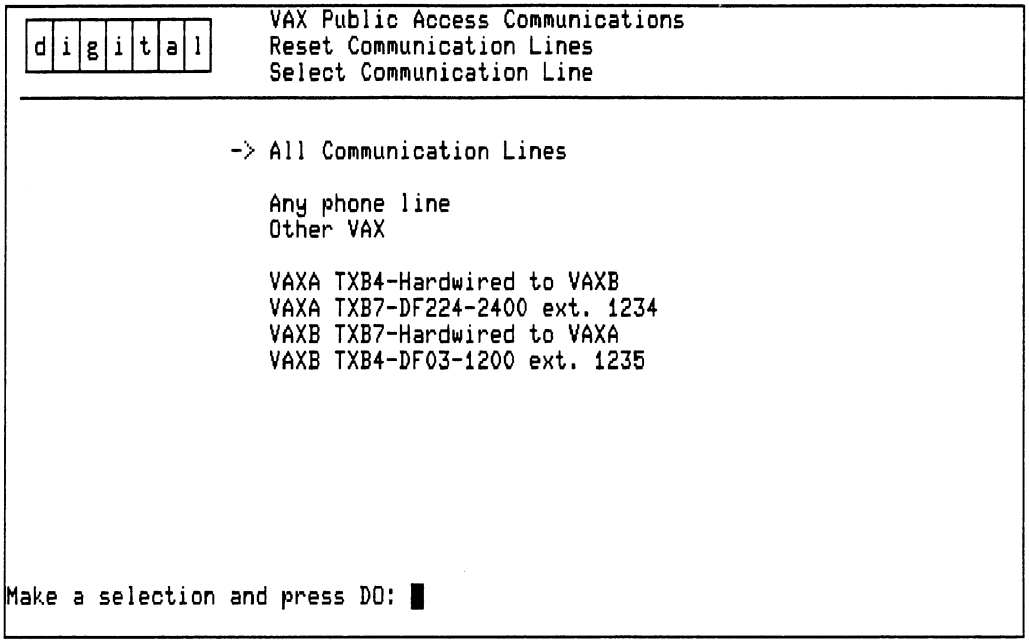
Use the **RES** option after changing the setup for communication lines or changing the definition of modems.

After selecting the **RES** option, you can choose to either reset all communication lines or reset a specific line.

When you reset a line, VAXPAC does the following:

- Makes the communication line available to all users (only for system managers)
- Sets the permanent characteristics of the communication line for use with VAXPAC (only for system managers)
- Sets up the modem (if required)

The following is an example of the screen that appears when you select the **RES** option from the Main menu.



Use ↑ or ↓ to position the cursor at the communication line you want to reset. Press Do to begin the reset process. It is not possible to interrupt this procedure once you begin it. The system executes the reset to completion.

Using the Connection 2

This chapter explains the options available once you establish a connection to a remote system.

2.1 LOCAL Key and Local Options Menu

The LOCAL key is used after a connection to a remote system has been established. Use the LOCAL key either to end a session or to access any of the other options available during a connection to a remote system.

The default LOCAL key is actually two keys, Ctrl and \, pressed simultaneously. Use the **DEF - Set personal defaults** option to select a different LOCAL key if you do not want to use the default. You can choose a different LOCAL key for each connection.

The following Local Options menu appears when you connect to a remote system and then press the LOCAL key.

```
Boston Office (VAXA TXB7-DF224-2400 ext. 1234)  Logging: Disabled
-> C  Continue       L  Logging          F  File transfer    B  Send break
   E  End session    T  Send text file   S  Change setup     K  Send LOCAL key
                                         I  Interrupt        R  Reset

Select option and press DO:
```

Note

The only way to discontinue a link to the remote system is to end the session using the **End session** option from the Local Options menu.

When the Local Options menu appears, use the arrow keys to select the option you want. Press Help for an online explanation of each option. The following sections describe what each option does.

C - Continue

Select **C** if you want to continue the connection to the remote system.

E - End session

Select **E** when you finish with the remote system.

L - Logging

Select **L** to change the current session logging status. For example, if you enter the remote system with session logging disabled and then decide to save some of the data displayed by the remote system, select **L** to enable session logging. You return to the remote system after you change (or keep) the logging status.

If you enable logging at any time during your session, and then decide to file your logging data, you have the following options:

- File: Create a new file for the logging data
- Append: Add to the end of the current file
- Print: Print a file on the system printer and delete the file when finished
- Delete: Delete the file

Section 2.3 explains session logging in greater detail.

T - Send text file

Select **T** to transfer files that do not require error checking (like mail messages or simple text files). To send a text file from your system to the remote system, do the following:

1. Create or edit a file on the remote system.
2. Press the LOCAL key while in the file.
3. Select **T** and then enter the name of the text file you want to send to the remote system. The text file is displayed on the screen and inserted into the remote system's file.

F - File transfer

Select **F** to transfer files that require error checking, such as source code files, large files, or files sent over noisy phone lines. To send a file from your system to the remote system, do the following:

1. Connect to the remote system and start the file transfer server on that system. For example, if the file transfer server on the remote system is KERMIT, use the appropriate procedure to start the KERMIT file transfer server. The server KERMIT is provided as a component of VAXPAC and is already on the system. Usually, this would be the file transfer server you would use.
2. Press the LOCAL key (installed as Ctrl \).
3. Select **F** to display a menu of file transfer options, such as sending a text file to the remote system or receiving a text file from the remote system. Select the menu option you want.

S - Change setup

Select **S** to change any of the following features:

```
Transmit speed:
Receive speed:
Automatic newline?
Character size:
Parity:
XON/XOFF support?
Local echo?
File transfer:
Interrupt procedure:
LOCAL key:
Swap BACKSPACE and RUBOUT keys?
```

Refer to Section 1.7, **PER - Define Personal Connections,** for information on these fields.

I - Interrupt

Select **I** to start the interrupt procedure; for example, **Spawn DCL**.

If you use the **Spawn DCL** interrupt procedure, you must log out at the DCL command level to resume your connection.

Note

An interrupt procedure executed while you are connected to a remote system does not terminate your link to that system. This means you continue to incur all charges normally associated with your link to the remote system while engaged in your interrupt procedure. The only way to discontinue a link to the remote system is to end the session using the **End session** option from the Local Options menu.

B - Send break Select **B** to send a break to the remote system. You might need to send a break to the remote system to initialize that system.

K - Send LOCAL key Select **K** to send the LOCAL key to the remote system. If the LOCAL key Ctrl \ conflicts with the remote system's interpretation of Ctrl \, then use this option to send the LOCAL key to the remote system. You can also use this option if you want to stop sending a file.

R - Reset Select **R** to reset the communication line. You might want to use this option if you get unexpected characters randomly displayed on your terminal or you want to stop the **Send text file** option. The **Reset** option *does not* break the remote connection. Select the **End session** option to break the remote connection.

2.2 Transferring Files

There are several methods of transferring files. Some methods use error checking; others do not. The following sections describe the various types of file transfers.

Occasionally, noise intrudes on a communication line. This can cause characters to be lost or garbled. Error checking means that when a transmission problem occurs, data is automatically deleted and retransmitted by the transmitting system.

2.2.1 File Transfer Concepts

Transferring a file from one system to another requires two programs working together:

- The first program retrieves data from the file and transmits it over the communication line.
- The second program receives the data from the communication line and stores it in a file on the receiving system.

The program that operates on the remote (receiving) system during file transfer is called the **file transfer server**, or just **server**.

The server is part of the communications product and can be used to transfer files if VAXPAC is installed on both your system and the remote system. VAXPAC uses a file transfer server called KERMIT. Initially, KERMIT is the only file transfer server VAXPAC recognizes. If KERMIT is installed on the remote system, you can use it as the server even if VAXPAC is not installed on the remote system.

There are four ways of starting the KERMIT file transfer server: ASCII, Binary, Fixed, and Expert Mode.

- ASCII: Use this for simple text files. All versions of KERMIT support this. ASCII is also suitable for transferring files with variable-length records between VAX systems, or for files containing special characters.
- Binary: Use this for transferring binary files from a personal computer (such as CP/M COM files) which need to be kept in a format that allows the file to be returned without any change. Binary is *not* suitable for transferring Record Management Services (RMS) files between VAX systems.
- Fixed: Use this for transferring .EXE files between VAX systems. These files are stored as fixed-length 512-character records.
- Expert Mode: Expert mode allows you to use KERMIT commands interactively. If you specify this mode, you see the following prompt:

  ```
  COMM$KERMIT>
  ```

  Enter the HELP command at the prompt to get instructions on using KERMIT in expert mode.

  Press Ctrl Z to return to VAXPAC.

Your system manager may specify a new or alternative file transfer server by using the **XFR - Define Methods of File Transfer** or **SRV - Define Remote File Transfer Servers** options from the Manager's Main menu.

Regardless of the file transfer server used, every file transfer operation you perform with VAXPAC consists of the following steps. The details vary depending on exactly what program you are using as the server on the remote system.

1. Connect to the remote system.
2. Ready the server on the remote system.
3. Initiate the file transfer.
4. Terminate the server's operation (unless that happens automatically) after the file transfer is complete.
5. Disconnect from the remote system.

If neither VAXPAC nor KERMIT is installed on the remote system, you can usually still transfer simple text files. Nearly every system has some program that accepts a continuous stream of input data from the keyboard. For example, a DIGITAL system supporting DCL and using the DCL commands CREATE and EDIT can open a file and accept keyboard input. Either command can be used as a server when you are sending a text file from the local system to the remote system. Non-DIGITAL systems and DIGITAL systems running under some other command language or menu system might have different programs that accomplish the same purpose.

Similarly, systems supporting DCL can use the TYPE command to display the contents of a text file on the screen. This program can be the server when you want to receive data from a remote system and store (or log) it into a file on your local system. Most systems have commands or programs equivalent to these DCL commands.

Commands such as CREATE, EDIT, and TYPE were not designed to act primarily as file transfer servers, so they have some limitations. Usually, they are able to transfer only text files correctly, and they may be unable to detect data transmission errors. However, these commands are usually well suited for transferring small files of text material.

Of course, while connected to the remote system you can do more than simple file transfers. In that case, additional steps are necessary.

Table 2-1 summarizes file transfer options. Each option is discussed more fully in the sections that follow.

Table 2–1: File Transfer Options

Menu Option on LOCAL Key	File Transfer Direction	File Type	Error Checking	Program Required on Remote System
T–Send text file	Local to remote only	Text only	No	EDIT or CREATE command or equivalent
L–Logging	Remote to local only	Text only	No	TYPE command or equivalent
F–File transfer	Either direction	Text or nontext	Yes	VAXPAC or KERMIT

2.2.2 Sending Text Files to the Remote System Without Error Checking (Option T)

Perform the following steps to send simple text files to the remote system when you do not require error checking. This method is most useful for mail messages and short text files.

1. Connect to the remote system.
2. Create or edit a file on the remote system.
3. While in the file on the remote system, press the LOCAL key.
4. When the Local Options menu appears, select **T**. You are then prompted for the file name. To send a file, enter the file name and press Do. You can also select the file you want to send from a list of available files. To do this, either leave the file name blank or enter a file name containing wildcard characters and press Find. For example, use the file name *.TXT for a list of files with file type .TXT. Use the arrow keys to select the file you want to send to the remote system, and press Do.
5. Each line of data within the text file is displayed as it is passed to the remote system. You can stop the transfer by pressing the LOCAL key and selecting **R**.
6. At the end of the transfer, the session on the remote system is resumed. You must then close or exit from the file that you have created before performing other operations on the remote system.

2.2.3 Receiving Text Files from the Remote System Without Error Checking (Option L)

Perform the following steps to receive text files from the remote system without error checking.

1. Connect to the remote system.
2. Press the LOCAL key and then select **L** from the Local Options menu to display the options for session logging.
3. Select **E** to enable session logging and press Do.
4. Use the appropriate command on the remote system to display the file on the screen; for example, TYPE LOGIN.COM.
5. When all of the text in the file that you want to receive has been displayed, press the LOCAL key and select **L** from the Local Options menu.
6. Select **F** to display a menu of options for filing the logging data and press Do.
7. Select **F** to store the data in a new file and press Do.
8. You are then prompted for the file name. Type the name you want and press Do.
9. Press Resume to continue the session on the remote system with logging disabled.

2.2.4 Transferring Files Using KERMIT (Option F)

Before you can use KERMIT to transfer files between the remote system and your local system, you must first start KERMIT on the remote system in server mode.

If VAXPAC is installed on the remote system, start the remote file transfer server as follows.

1. Connect to the remote system.
2. Enter the COMMUNICATE/REMOTE command on the remote system to display a list of available servers.
3. Select the file transfer server you want to start on the remote system and press Do to start the server. For example, if you expect to send text files from your local system to the remote system, choose the server **KERMIT ASCII files**.

4. A message displays showing that the server has started. Once KERMIT has started in server mode on the remote system, control will be automatically returned to your local system and the File Transfer Options menu will be displayed.

If VAXPAC is *not* installed on the remote system, you must start the KERMIT server using KERMIT commands as follows.

1. Connect to the remote system.
2. Use the command KERMIT to start KERMIT on the remote system. KERMIT then prompts you for commands. Many versions of KERMIT support the HELP command. Use this command if you are unfamiliar with KERMIT.
3. Set the remote KERMIT server to server mode. The usual command for this is SERVER. Sometimes it is necessary to specify the file type to be received by the remote system before entering KERMIT server mode. See the documentation for remote KERMIT for information on this.
4. The remote KERMIT server then instructs you to return to your local system. Press the LOCAL key and select the option **F** to start KERMIT on your local system. When this is complete, the File Transfer Options menu displays.

```
KERMIT                          KERMIT file transfer

  -> S  Send File          R  Receive file        T  File type   ASCII

Select option and press DO:
```

The following sections explain what each option does.

S - Send file

Select **S** if you want to send a file to the remote system. After selecting this option you are prompted for the name of the file you want to send. A file name can be up to 40 characters long and can contain wildcard characters. To send a file, type the name of the file that you want to send and press Do. You can send multiple files by including wildcards in the file name. For example, a file name of *.TXT would send all files with file type .TXT. You can also get a list of available files by pressing Find. You can use this to check the file that will be sent. To do this, enter a file name with wildcards before pressing Find. You can also use this method to select a specific file to send.

R - Receive file

Select **R** if you want to receive a file from the remote system. After selecting this option you are prompted for the name of the file you want to receive. A file name can be up to 40 characters long and can contain wildcard characters. To receive a file, type the name of the file you want to receive from the remote system and press Do. You can receive multiple files by including wildcards in the file name. However, this feature is available only if wildcards are meaningful to the version of KERMIT running on the remote system. You can also get a list of files available on the remote system by pressing Find. Unlike the list feature, when sending a file you cannot use the arrow keys to select the file you want to receive. After listing the files available on the remote system, you must then type the name of the file you want to receive.

T - File type

Select **T** if you want to receive file types different than ASCII. When you select this option, you can select either ASCII, Binary, or Fixed files. These different file types are explained in Section 2.2.1.

Some versions of KERMIT do not support server mode. In this case you must run KERMIT interactively on your local system. It is important that you understand KERMIT commands before attempting this.

You can start KERMIT on your local system interactively in one of two ways.

1. Use the interrupt procedure **Spawn DCL** and type the following DCL command:

```
$ RUN SYS$SYSTEM:COMM$KERMIT Return
```

2. Alternatively, you can have the system manager define interactive KERMIT as a file transfer method using the **XFR** option on the VAXPAC Manager's Main menu. The command MCR COMM$KERMIT can be used to start KERMIT in interactive mode on the local system. The version of KERMIT supplied with VAXPAC automatically uses the same communication line as the one used to establish the connection. You can use the HELP command while using KERMIT interactively.

2.3 Session Logging

Session logging allows you to selectively record a session on the remote system. This means you can extract and save as much information as you want from the remote system. This feature is particularly useful when you want to extract part of a file from the remote system and simply view the rest.

Once you have extracted the desired data, you can edit it, store it, or include it as part of another document.

Session logging is useful in several areas. For example, when performing a credit check through an online credit bureau, you can extract the relevant credit information using session logging and merge that information into the customer's records that you maintain. Session logging is also used extensively in financial and legal firms to extract data and place that data into customer or company files.

2.3.1 How to Use Session Logging

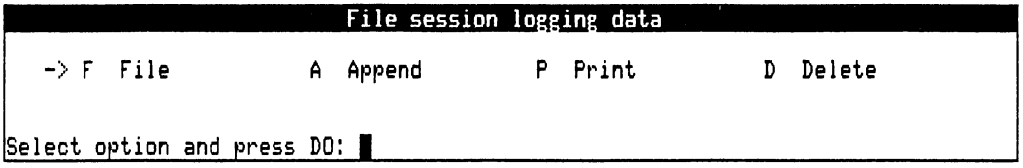
Follow these steps to use session logging:

1. Access the remote system data base and preview the information on the remote system. Decide what you want to save.
2. Press the LOCAL key. The Local Options menu appears which shows the current logging status.
3. Select the **L** option for a menu of logging options.
4. Select **E** to enable logging. After enabling logging, your session on the remote system automatically resumes. While logging is enabled, everything that is displayed on the terminal from this point is saved.
5. To disable logging, press the LOCAL key and select the **L** option for a menu of logging options.
6. Select **D** to disable logging.

You can disable and reenable logging anytime during the session. You can save all of the session logging data either in a single file or in several files. To start a new file you must first file the current session logging data. Follow these steps to do this:

1. Press the LOCAL key and select the **L** option for a menu of logging options.

2. Select **F** for a menu of filing options.



Choose the filing option you require. These options are described in Section 2.1. When you file session logging data, session logging is disabled automatically.

Be sure to give unique names to the text files you create.

Using session logging, you could get more data in the session logging file than you require. You can use a text editor to delete extraneous data. Do this by exiting from VAXPAC (or use the interrupt procedure) and editing the files you just created with your text editor.

2.3.2 Things to Remember in Session Logging

The following are points to remember concerning session logging:

- Session logging is a one-way data transfer method. You can copy *from* a source but not *to* a source.
- There is no error checking performed on data extracted.
- Saved data might contain unwanted characters (such as control characters). You must edit out unwanted characters after filing the data.
- Once you enable logging, you must remember to disable it when you are finished. Otherwise, you end up logging everything in a session. (If your default is **logging disabled**, ending the session disables logging.)
- The data source you are using might have prohibitions about copying data from it. Consult your agreement with the data source before using the session logging feature.

VAXPAC Function Keys A

The following function keys are used in VAXPAC operations.

- **Interrupt**: Interrupts VAXPAC and starts the interrupt procedure
- **Resume**: Allows you to continue after receiving an informational message
- **Cancel**: Ignores any changes and returns to the previous screen
- **Main Screen**: Where appropriate, returns to the Main menu; otherwise functions as Cancel
- **Exit**: Exits from the current screen and returns to the previous screen; changes are saved
- **Refresh**: Redisplays the current screen
- **Rub Word**: Erases all characters to the beginning of the previous word
- **Erase Field**: Deletes characters from cursor to beginning of field
- **Subject Help**: Displays help on the current menu option, field, or list
- **Function Key Help**: Displays a diagram of the function keys and explains each key
- **Do**: Confirms selections or changes to values when all the fields for a screen are complete
- **Return**: Completes the command line; can be used in most places instead of Do or Resume

- **Arrow Keys**: Position the cursor on menu items and options; use ← or → to change the values enclosed in angle brackets
- **Find**: Displays a list of files
- **Insert Here**: Adds a new record
- **Remove**: Deletes an existing record or erases current field
- **Select**: Allows you to review, copy, or change the details of a connection
- **Prev Screen**: Displays the preceding related screen or message
- **Next Screen**: Displays the following related screen or message
- **PF1** and ↑: Moves cursor to top of list
- **PF1** and ↓: Moves cursor to bottom of list
- **Backspace** or **PF1** and ←: Moves cursor to beginning of field
- Ctrl E or **PF1** →: Moves cursor to end of field

Table A–1: VT200/300 and VT100 Series Keyboards

Key	VT200/300	VT100
Interrupt	F6	Ctrl Y
Resume	F7	Return
Cancel	F8	Ctrl C
Main Screen	F9	PF1 M
Exit	F10	Ctrl Z
Refresh	F11	Ctrl W
Rub Word	F13	Line Feed or Ctrl J
Erase Field	Ctrl U	Ctrl U
Subject Help	Help	PF1 and H
Function Key Help	PF2	PF2
Do	Do	PF4 or PF1 and Return
Find	Find	PF1 and S

Table A–1: VT200/300 and VT100 Series Keyboards (Cont.)

Key	VT200/300	VT100
Insert Here	Insert Here	PF1 and 0
Remove	Remove	PF1 and -
Select	Select	PF1 and .
Prev Screen	Prev Screen	PF1 and P
Next Screen	Next Screen	PF1 and N
Top of list	PF1 and ↑	PF1 and ↑
Bottom of list	PF1 and ↓	PF1 and ↓
Beginning of line	PF1 and ← or F12	Ctrl H or PF1 and ←
End of line	PF1 and →	Ctrl E or PF1 and →

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