

**IBM PC 3270 Emulation Program Version 3.00**

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# User's Guide

**Communications Family**



**Personal  
Computer  
Software**

## **First Edition (October 1986)**

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# Preface

## Product Short Title

For purposes of simplicity, the title of this product is shortened throughout this book to *3270 Emulation* when referencing the program, workstation types, and product functions, features, and other capabilities.

## Purpose of This User's Guide

This book provides the minimum amount of information necessary to:

- Install, load and customize your 3270 Emulation Program
- Perform primary 3270 Emulation tasks
- Use the following application program interfaces:
  - Presentation Space Application Programming Interface (PS API)
  - Server-Requester Programming Interface (SRPI) for the purpose of using IBM Enhanced Connectivity Facilities.

Error messages associated with this program are also provided.

# Intended Audience

This book is designed for:

- The persons responsible for loading, installing, and customizing 3270 Emulation
- Experienced users of 3270-type terminals or 3270 Emulation
- New users who have reviewed the conceptual training information in the *System Planner's and User's Reference* and whose primary objectives are to complete basic 3270 Emulation tasks such as transferring files or printing documents.

These users may have little or no computing or programming background.

- Application programmers.

**Note:** This *User's Guide* provides only the basic information needed to perform the 3270 Emulation tasks associated with this program.

If you need training, or if you are unfamiliar with the concepts and procedures discussed in any section of this book, refer to your *System Planner's and User's Reference* for more details.

If you are unfamiliar with IBM PC DOS, someone who *is familiar with DOS* should assist you in learning to use this program.

## For Additional Information...

To find the following types of information, refer to the *System Planner's and User's Reference* for:

- Conceptual training information
- Descriptions of each type of 3270 Emulation workstation
- Computer network planning information (including additional software, hardware, and memory requirements), emulated functions, and directions for compiling a *Run Book*
- Instructions for using advanced 3270 Emulation functions (including the Keyboard Remapping options, the Trace and Line Description Disable Program, the Data Trace option, the Screen Mode option, and the Color Selection Program).

## Customer Responsibilities

Purchasers of the IBM PC 3270 Emulation Program package have the following responsibilities as users of this product:

- Producing back-up copies of the original IBM PC 3270 Emulation Program, Version 3.0 diskettes
- Properly installing, loading, and using this product.

**Note:** Throughout this book references are made to the tasks that you can perform while accessing the host. Note that in order to access the host and perform the tasks mentioned in this

book, the host must have the proper software installed and the PC must have been properly attached to the host. The PC operator must also be authorized to access the host resources. It is the user's responsibility to ensure that the host and PC are set up for 3270 Emulation, and that the operator is authorized to access the host.

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# Chapter 1. 3270 Emulation Overview

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# User Notes:

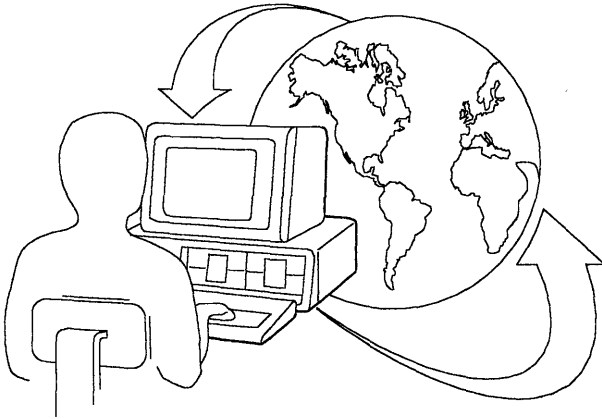
# About this Chapter

This chapter provides an overview of the following:

- The 3270 Emulation primary capabilities
- Prerequisites to consider before using this program.

Conceptual training information is provided in the *System Planner's and User's Reference*.

## 3270 Emulation Capabilities



Your IBM PC 3270 Emulation Program, Version 3.0 is a powerful program that provides emulation and host communications capabilities as well as options for writing and running your own application programs.

This product offers four different types of IBM PC workstations, each designed to meet specific

operating objectives. These workstations, along with a general product overview, are introduced in this chapter.

Conceptual training information is provided in your *System Planner's and User's Reference*, along with additional 3270 Emulation reference information for planning your computer network and using advanced product functions.

Users of 3270 Emulation can:

- *Customize* the program to function properly for their operating environments and work objectives
- Communicate and establish a 3270 Session with a host computer
- Perform a variety of 3270 Emulation tasks
- Change the display screen colors using the Color Selection Program, or change the screen mode using the Screen Mode Option.
- Redefine the keys using one of the “Keyboard Remapping” features.
- Write and run your own application programs using one of the following:
  - Presentation Space Application Programming Interface (PS API)
  - Server-Requester Programming Interface (SRPI).

A brief description of the primary 3270 Emulation tasks begins on the following page.

Additional information on these and other product capabilities is provided in this User's Guide, or in your *System Planner's and User's Reference*.

# Summary of Primary 3270 Emulation Tasks

Following is a list of the tasks you can perform while using 3270 Emulation. Steps to perform each of these tasks are provided later in this User's Guide.

- **Start and end a 3270 Emulation Session**

With 3270 Emulation you may establish a 3270 Emulation session that allows your workstation to communicate with your host computer.

- **3270 Screen Save**

With 3270 Screen Save you can save information displayed on your screen while you are logged on to the host. The information will be saved in a file on a disk or diskette.

- **3270 Print**

With 3270 Emulation, you can send print jobs directly to a printer (Direct Print), or you can send them to a PC file on a disk or diskette (Deferred print).

- **Perform tasks from the 3270 Request Tasks menu**

The Request Tasks menu is accessed by pressing the REQST key once you have established a 3270 Emulation session with the host. The options on this menu are:

- **3270 Printer Requests**

This option allows you access to the 3270 Printer Requests menu so that you can temporarily change the defaults for your printing options and destination.

– **File Transfer**

File Transfer allows you to download files from your host computer so you can work with them at your PC. It also allows you to upload files from your PC to the host.

– **Display Status of Network Stations**

Use this option from a Gateway workstation to display the status of the Network Stations in the Gateway's List of Network Stations.

– **Revise List of Network Stations**

Use this option from a Gateway workstation to revise the List of Network Stations.

– **Screen Mode**

This option lets you select the screen mode for your display from the Request Tasks menu. The changes you make are effective until you end the communication session.



Steps to perform the remaining 3270 Emulation tasks listed below are provided in the *System Planner's and User's Reference*.

- **Change the colors of the screen with the Color Selection Program**

The Color Selection Program lets you change the screen colors for 3270 Emulation from the IBM PC DOS prompt. The changes you make are effective while 3270 Emulation is loaded.

- **Redefine the keys on the keyboard**

3270 Emulation provides two ways for the user to redefine the keys on the keyboard: the Global Remap Program and the 3270 Keyboard Remap option.

- **Use other applications with 3270 Emulation**

When using 3270 Emulation, you can run compatible programs one of two ways: by using IBM TopView (if 3270 Emulation is loaded from a TopView window), or by using the Alternate Tasks function.

- **Trace data with the Data Trace option**

If you experience a communications problem that is not documented in this book and is not accompanied by a message, you can run the Data Trace option to isolate the error.

- **Disable access to the Data Trace option and Modem and Line Description menu.**

The Data Trace option, and access to the Modem and Line Description menu, can be disabled by running the Trace and Line Description Disable Program.

# Getting Started

## Determining Hardware and Software Requirements

Before you can use this program, the required hardware and additional software for your type of computer network must be properly installed in your IBM PC. This is usually done by your Network Coordinator or other programming personnel.

See your *System Planner's and User's Reference* for information on hardware and software requirements.

## Overview of Installing, Loading, and Customizing the Program

After satisfying your hardware and software requirements, 3270 Emulation must be correctly *installed, loaded, and customized* before you will be able to perform any 3270 Emulation tasks.

Each of these processes are introduced in this section, but steps for performing these processes are provided in subsequent chapters.

Consult your Network Coordinator or other appropriate programming personnel to determine if any or all of these procedures have already been completed for your PC workstation.

*Installation* is the process of copying 3270 Emulation onto a fixed disk or diskette. Once you have installed the program, use the *backup copy* to do subsequent 3270 Emulation work. Installation procedures are provided in Chapter 2.

*Customization* refers to the process of preparing your 3270 Emulation Program's *profile* to function properly for your operating environment and work objectives. When you customize you specify:

- The type of 3270 workstation your IBM PC will function as
- The 3270 Emulation tasks your IBM PC will perform
- How your IBM PC will physically attach to the host computer
- What your printed documents will look like.

See Chapter 4 for steps to customize. An indepth discussion of the customization process that includes explanations of the screen menu choices is provided in your *System Planner's and User's Reference*.

*Loading* is the process of starting your program by typing a command at the IBM PC DOS prompt. Once you load the program, you can perform 3270 Emulation tasks such as customize the profile and communicate with the host. Steps to load the program are provided in Chapter 3.

You must load the program before you can customize your profile. Once loaded, the program can be customized, *but* you must exit and reload the program to activate the newly customized profile.

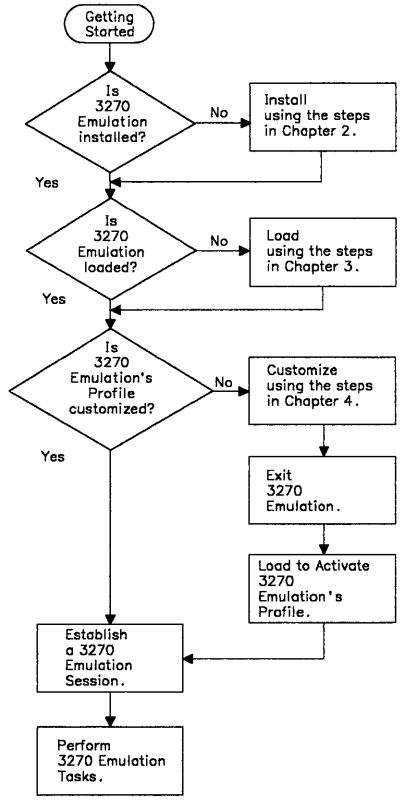
You may decide to change the profile from time to time as your work needs and operating circumstances change. When changing the profile, remember that you must exit the program and reload before the newly customized profile becomes active. Once this is done, you are ready to perform the tasks that were specified during customization.

Once 3270 Emulation has been properly installed, loaded, customized (and reloaded), use the information in Chapters 5 through 10 of this book to perform 3270 Emulation tasks.

The flowchart on the following page summarizes the relationships among the installation, loading, and customization processes.

# Flowchart for Installing, Loading and Customizing the Program

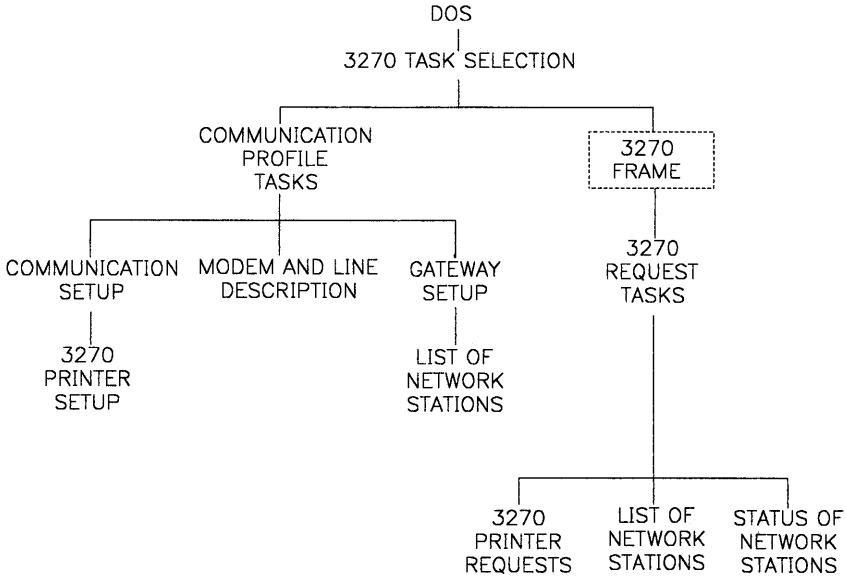
The flowchart below illustrates the order in which 3270 Emulation should be installed, loaded and, if necessary, customized and reloaded.



Getting Started Flow Chart

# Using the 3270 Emulation Menus

3270 Emulation provides menus for customizing the profile and for performing other primary 3270 Emulation tasks. The *menu tree* depicted below illustrates the *path*, or the order in which menus appear during the customization process or other 3270 Emulation tasks.



The menus highlighted in green are used to customize your program. The other menus are used to complete other primary tasks such as establishing host communications and transferring files.

The 3270 Frame is the screen that appears when you select "Communicate" from the 3270 Task Selection menu.

# **Understanding the Definitions of Your Keys**

Your 3270 Emulation program works with the three IBM PC keyboards illustrated on your Keyboards Card that is in your 3270 Emulation package. Use this card together with the glossary provided in "Using the Keyboards Card" on page 5-3 to learn the key functions associated with 3270 Emulation.

# User Notes:



# Chapter 2. Installing 3270 Emulation

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# User Notes:

# About this Chapter

This chapter provides:

- An overview of the installation process
- Prerequisites for installation
- Steps for installing 3270 Emulation on diskette(s) or a fixed disk.

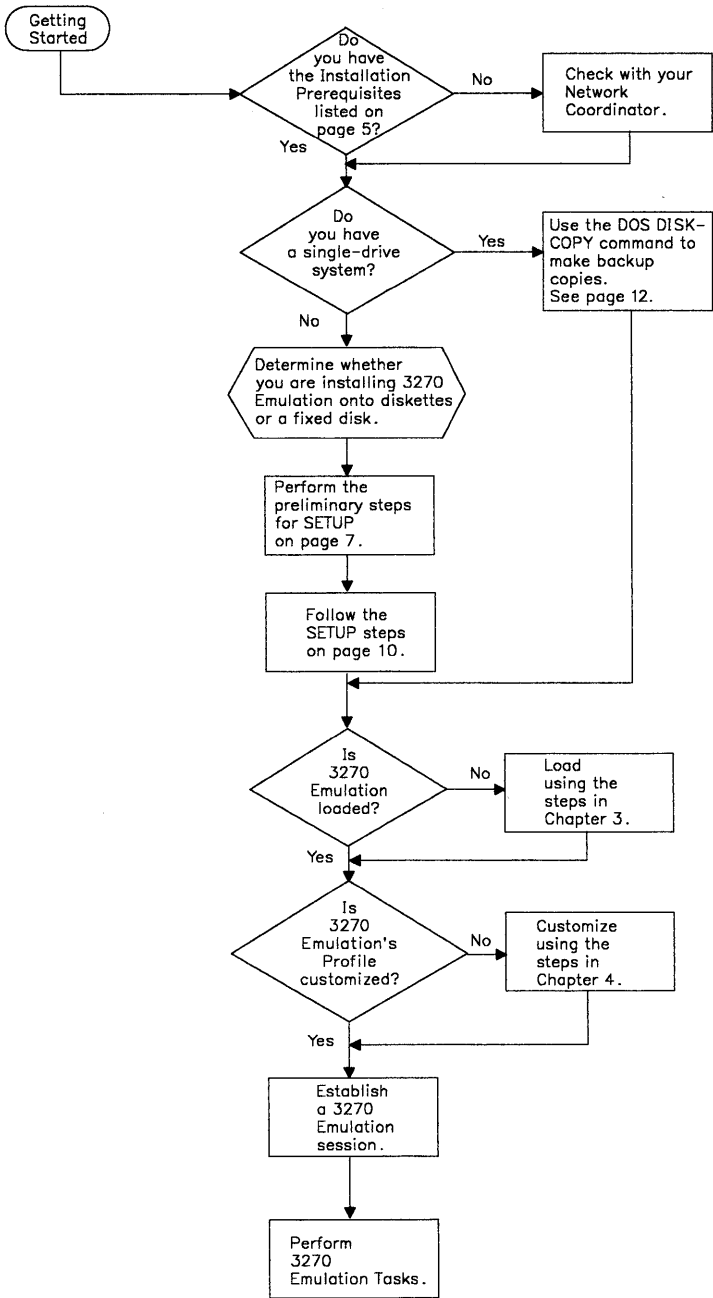
## Overview of Installation

When you install 3270 Emulation, you copy the program onto your fixed disk or backup diskettes. Once you have installed the program, use the backup copy to perform 3270 Emulation tasks.

3270 Emulation provides a *SETUP Program* that guides you through installation. Procedures to use this program are in “Using the SETUP Procedure to Install 3270 Emulation” on page 2-6.

If you have a one-drive system, it is recommended that you use the IBM PC DOS DISKCOPY command to make backup copies of the program. Procedures to use the DISKCOPY command are in “Using the DISKCOPY Command to Make Backup Copies” on page 2-13.

The installation process is illustrated in the flowchart on the following page.



Installation Flow Chart

# Prerequisites for Installation

Before attempting to install 3270 Emulation, check with your *Run Book* or with your Network Coordinator to make sure that the following types of requirements have been met for your 3270 workstation.

- PC and host software
- PC hardware
- Minimum memory amounts.

**Note:** This *is not* a complete list of system planning considerations. A more comprehensive discussion of these and other installation considerations, such as installing 3270 Emulation on an IBM PC that has IBM PC Local Area Network or IBM TopView 1.1 loaded, is provided in the *System Planner's and User's Reference*.

## About the Run Book

A *Run Book* is a guide that may be prepared for you by your Network Coordinator or host personnel. Once it has been prepared by the appropriate personnel, the Run Book may contain:

- Information regarding certain host computer functions such as log on and log off procedures, file transfer commands, and host key definitions (PA1 and PA2).
- Completed *customization worksheets*. See Chapter 4, "Customizing 3270 Emulation" for an explanation of the purpose of these worksheets.
- Completed network planning worksheets.

A Run Book with blank worksheets and instructions for completing these worksheets is provided in Appendix A of the *System Planner's and User's Reference*.

# Using the SETUP Procedure to Install 3270 Emulation

If you have a two-drive or fixed-disk system, the SETUP procedure will guide you through the steps to make a backup copy of 3270 Emulation.

## Definition of the SETUP Procedure

The 3270 Emulation SETUP procedure supports the installation of 3270 Emulation from one original IBM 3.5 inch diskette (720K) as well as two original IBM double-sided diskettes (360K each). Use the SETUP procedure to install the 3270 Emulation original program onto:

- Back-up diskette(s)
- A root or root and specified subdirectory on a fixed disk.

**Note:** Do not use the SETUP procedure if you have a one-drive system. See “Using the DISKCOPY Command to Make Backup Copies” on page 2-13 for steps to make back-up copies of the program on a one-drive system.

The SETUP procedure also creates two new batch files, PSC.BAT and PSCSRPI.BAT.

PSC.BAT is a batch file that issues commands to load 3270 Emulation.

PSCSRPI.BAT is the batch file that loads the 3270 Emulation API Support Program, loads 3270 Emulation, and invokes STARTSR.COM, the program that activates the SRPI.

Use PSCSRPI.BAT if you plan to use IBM Enhanced Connectivity Facilities. See Chapter 10, “Using IBM Enhanced Connectivity

Facilities” for details for using 3270 Emulation with Enhanced Connectivity.

Use the backup copy of 3270 Emulation for all 3270 Emulation tasks, and keep the original program in a safe place.

## Considerations for Using the SETUP Procedure

***When installing to diskettes:*** Perform the steps below before using SETUP.

1. Determine the number of diskettes you will need to format for the type of diskette drive in your PC by using the following chart. The following chart shows the drive systems and diskette types that SETUP supports.

<b>Original diskette type</b>	<b>Backup diskette type</b>	<b>Number of diskettes</b>
2 Double Sided diskettes (360K)	Double Sided diskette (360K)	2
2 Double Sided diskettes (360K)	High Capacity diskette (1.2M)	1
2 Double Sided diskettes (360K)	3.5 Inch diskette (720K)	1
1 3.5 Inch diskette (720K)	Double Sided diskette (360K)	2
1 3.5 Inch diskette (720K)	High Capacity diskette (1.2M)	1
1 3.5 Inch diskette (720K)	3.5 Inch diskette (720K)	1

2. Format the diskette(s). Use the procedures in the DOS publication, or use the instructions on the following page.
  - a. Make the default drive the one that contains the DOS command files.

See the definitions on page 2-10 for *source* and *default* drive.

- b. At the prompt, type **FORMAT d:** (where "d" is the drive that contains the diskette you want to format).

You are prompted to insert the new diskette.

- c. Insert the blank diskette in the drive.
- d. Press the Enter key.

The display says, "Formatting....".

- e. Follow the prompts on the display.

When formatting, do not use the /s parameter or a disk full error can result.

### ***When installing to a fixed disk:***

- **MODE.COM** is a DOS file that is assumed to be in the root directory of the first fixed disk. You can edit the **PATH** command in the batch file to locate **MODE.COM** so you do not have to load IBM PC DOS in the root directory of your first disk every time you load 3270 Emulation.
- **SETUP** supports only fixed disk drive designators C-Z.



- **SETUP** automatically copies 3270 Emulation into the root directory. If you want the programs in a directory other than the root, create the subdirectory using the DOS **MKDIR** command. You will be prompted for the name of the subdirectory and path during the **SETUP** procedure.
- When you specify a subdirectory, a path command is inserted into the batch files which **SETUP** creates. **PSC.BAT** and **PSCSRPI.BAT** are then copied into the root and into the specified subdirectory of the fixed disk.

# Steps for Using the SETUP Procedure

Steps to use the SETUP procedure for making backup copies are provided below.

1. Load IBM PC DOS.
2. If the original diskette is 360K, insert the 3270 Emulation Program, Volume 2 in the source drive. If the original diskette is 720K, insert the 3270 Emulation Program 3.5 inch diskette in the source drive.

The *source drive* is the one in which you will place the 3270 Emulation program during installation.

3. Make the source drive the default drive. The *default drive* is the current drive that your personal computer displays on the prompt.

For example, if the prompt on your display now says C > , this means that drive C is the default drive. If you will be inserting the program in drive A during the installation process, then drive A is your source drive.

To make the source drive (A) the default drive, type at the C prompt, a:. The prompt on the display changes to A > , and the source drive is the default drive.

SETUP will install 3270 Emulation onto the fixed disk or diskette that you specify as the destination drive during SETUP. The destination drive can be a diskette drive or fixed disk.

4. At the IBM PC DOS prompt, type

SETUP

and press the Enter key.

## The following screen displays:

```
IBM PC 3270 EMULATION SETUP PROGRAM

This SETUP program makes a copy of your ORIGINAL IBM
diskette(s) onto the medium you choose.

Which do you plan to back up to?

    a. Diskette
    b. Fixed Disk

Type a or b and press ENTER.
```

5. Type **a** if you plan to back up to a diskette.  
Type **b** if you plan to back up to a fixed disk.
6. Follow the instructions displayed by the SETUP Program.

If you receive a message saying that you typed an incorrect path, press **Ctrl + Break** to stop the SETUP program.

7. Verify the contents of the PSC.BAT and PSCSRPI.BAT batch files on the fixed disk or diskette by using the charts on pages 2-15 and 2-16.

**Note:** The back-up diskettes made using SETUP do not contain a copy of the DOS operating system. Therefore, you cannot use the back-up diskettes for a DOS System Reset (**Ctrl + Alt + Del**).

# Using the DISKCOPY Command to Make Backup Copies

If you have a one-drive system, it is recommended that you use the IBM PC DOS DISKCOPY command to make a backup copy of the program. You must then create two batch files on the backup copy.

**Note:** The backup diskette(s) that you are using for DISKCOPY must be the same type as the original 3270 Emulation Program diskette(s) that you are copying.

Once you have a backup copy, store the original program in a safe place, and use the backup copy for your 3270 Emulation tasks. Steps to copy the original program and to create the batch files are provided below.

1. If you want to copy 3270 Emulation from two Double Sided diskettes, access two blank diskettes for this procedure. Label one of the diskettes *3270 Emulation diskette 1*, and label the other diskette *3270 Emulation diskette 2*.

If you want to copy 3270 Emulation from one 3.5 inch diskette, access one blank diskette for this procedure.

**Note:** DISKCOPY formats the diskettes during the copy procedure.

2. Copy the original 3270 Emulation diskette(s) onto backup diskette(s). Consult the IBM PC DOS User's Guide for the level of DOS you are using for instructions on how to use DISKCOPY.
3. Use an available editor to create a file **PSC.BAT** on 3270 Emulation diskette 1 (if using Double Sided diskettes) or on the 3.5 inch backup diskette.

4. Turn to "Confirming the Batch Files Contents" on page 2-15.
5. Type in the contents of the batch file (PSC.BAT) as it appears in the left-hand column on page 2-15.
6. Save and file PSC.BAT that you just created.
7. Use an available editor to create a file **PSCSRPI.BAT** on 3270 Emulation diskette 1 (if using Double Sided diskettes) or on the 3.5 inch backup diskette.
8. Type in the contents of the batch file (PSCSRPI.BAT) as it appears in the right-hand column on page 2-15.
9. Save and file PSCSRPI.BAT that you just created.
10. Use the DOS COPY command to copy the MODE.COM file from your DOS diskette to the new 3270 Emulation diskette 1 or to the new 3.5 inch backup diskette. If you do not copy this file, you will receive error messages while attempting to execute the MODE command within the PSC.BAT or PSCSRPI.BAT files.

# Confirming the Batch Files Contents

## For Back-up Diskettes:

PSC.BAT	PSCSRPI.BAT
<pre>echo off rem Release 3.0 mode LPT1: mode **** 1 pscpg</pre>	<pre>echo off rem Release 3.0 mode LPT1: mode **** 1 pscapi rem check for TopView if ERRORLEVEL 12 goto exit rem check for PC 3270     Emulation already loaded if ERRORLEVEL 8 goto startu pscpg,f :startu startsr :exit</pre>

- 
1. The "\*\*\*\*" is MONO, CO80, or BW80.

## For Fixed Disks:

PSC.BAT	PSCSRPI.BAT
<pre>echo off rem Release 3.0 path **** 3 mode LPT1: mode **** 2 d:pscpg d:\(xxxxx\xxxx)<sup>4</sup></pre>	<pre>echo off rem Release 3.0 path **** 3 mode LPT1: mode **** 2 d:pscapi <sup>5</sup> rem check for TopView if ERRORLEVEL 12 goto exit rem check for PC 3270     Emulation already loaded if ERRORLEVEL 8 goto startu d:pscpg d:\(xxxxx\xxxx),f <sup>4</sup> :startu d:startsr <sup>5</sup> :exit</pre>

- 
2. The "\*\*\*\*" is MONO, CO80, or BW80.
  3. If a subdirectory is specified, "\*\*\*\*" is the path.
  4. The "xxxxx\xxxx" is the optional directory path, "d" is the drive where you installed 3270 Emulation, and ",f" is the fast path option. See "The Fast Path Option" on page 3-16 for details.
  5. The "d" is the specified drive letter.



# Chapter 3. Loading 3270 Emulation

## Contents

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# User Notes:

# About this Chapter

Steps for loading 3270 Emulation using one of two loading procedures are provided in this chapter.

A summary of the 3270 Emulation commands and their functions is also provided.

A third option for loading 3270 Emulation for use with IBM Enhanced Connectivity is provided in Chapter 10, “Using IBM Enhanced Connectivity Facilities.”

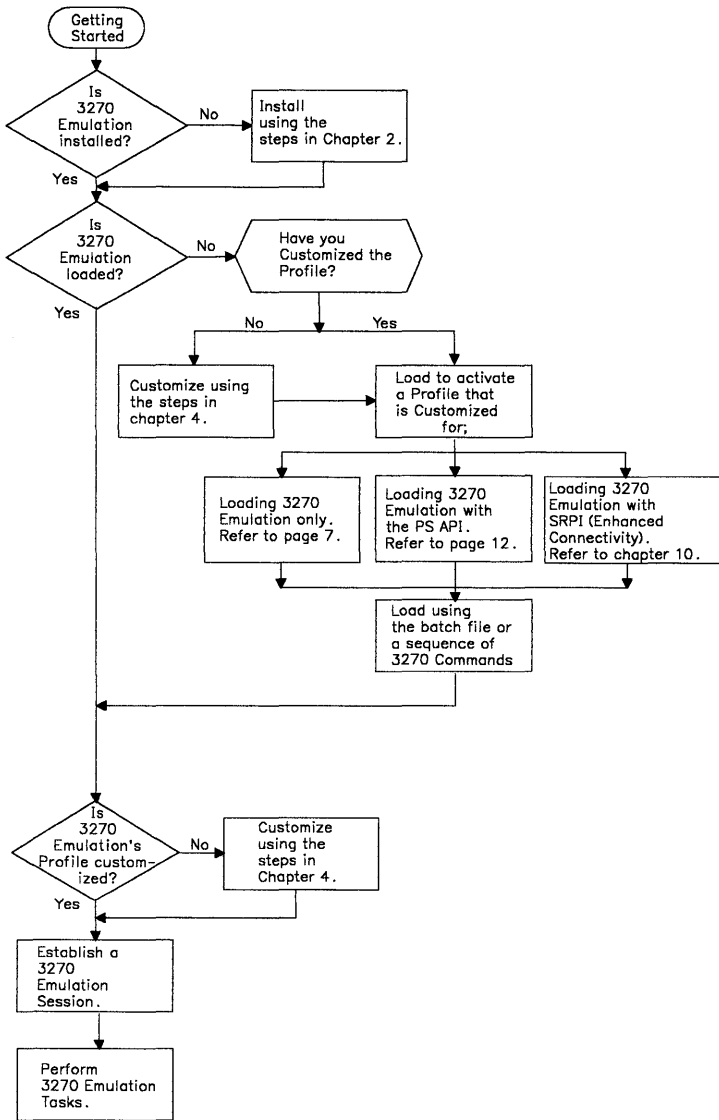
## Overview of Loading

After installation, you can load (start) 3270 Emulation using one of three procedures. Two of these are discussed in this chapter:

- Loading to perform only primary 3270 Emulation tasks
- Loading to perform 3270 Emulation tasks *and* to use the Presentation Space Application Programming Interface (PS API).

The third procedure, loading 3270 Emulation with IBM Enhanced Connectivity, is discussed in Chapter 10.

The flowchart on the following page illustrates your loading options. Associated steps are provided in subsequent sections of this chapter.



Flow Chart for Loading

As indicated by the list of loading procedures on page 3-3 and the preceding flowchart, there are different ways to load 3270 Emulation.

Determine which procedure you should use based upon your operating objectives and level of experience.

Remember, if you are loading for the purpose of customizing your profile, or if your program is already loaded and you want to change the profile, you must exit the program after customization and reload before changes to the profile will become active.

**Note:** For national language use of this product, load any keyboard drivers (KEYBxx) before loading 3270 Emulation.

# Definitions of 3270 Emulation Keys

As soon as 3270 Emulation is loaded, the 3270 Emulation *Alt Tasks* and *Msg* keys become active. You still have your regular keyboard functions, but these keys are specifically defined for 3270 Emulation.

Locate each of these keys on your keyboards card so you will know where they are located when you need to use them.

**Alt Tasks** Use the Alt Tasks key (Alt + Esc key) to switch between 3270 Emulation and the Alternate Field where compatible applications or tasks are run. The Alt Tasks key is active only if you specified "Yes" for "Alternate Tasks" during customization. Also, this key is not available when running TopView. For an explanation of the Alternate Tasks function, see Chapter 6.

**Msg** Use the Msg key to display and remove messages. Messages will either automatically display at the bottom of the screen, or a blinking square or greater than sign (>) in the lower left-hand corner of the screen will indicate that a message is waiting to be viewed. See Appendix A for a detailed explanation of all types of messages that can display.

# Loading To Perform Only Primary 3270 Emulation Tasks

When you load to perform only the primary 3270 Emulation tasks, you are loading 3270 Emulation by itself. Here are three reasons you may want to load the program by itself.

- To customize the 3270 Emulation Program profile
- To perform just the primary 3270 Emulation tasks
- To conserve memory so you can use other applications.

You can load 3270 Emulation by using a *batch file* (PSC.BAT) that contains the preset mode commands and 3270 Emulation commands needed to start the program. Procedures for using the batch file are provided on the following page.

If you do not want to use the batch file, turn to “Loading without a Batch File” on page 3-10.

**Note:** If you want to use the PS API, use the loading procedures provided in “Loading 3270 Emulation with the Presentation Space API” on page 3-12. Procedures for loading to use 3270 Emulation with the SRPI (used for IBM Enhanced Connectivity) are in Chapter 10, “Using IBM Enhanced Connectivity Facilities” on page 10-1.

If you currently do not need to use either application but decide at a later time to use one or both, you can customize again to change the profile and reload using the appropriate procedure.

# Loading with a Batch File

Following are steps to load 3270 Emulation with a batch file.

1. Type the following command at the IBM PC DOS prompt:

PSC

and press the Enter key.

The first time the program runs, you may see a READ.ME file displayed on the screen, if READ.ME exists. The file contains instructions for accessing additional or changed information that was not available at publication time.

Another file (PRINT.ME) contains the additional or changed information. Print this file later and insert it into the designated book. If you do not have a printer, view the file using an available editor or the IBM PC DOS TYPE command.

Use the TYPE or PRINT commands to view or print READ.ME and PRINT.ME later at any time. (See the first note on page 3-9 for instructions to use the TYPE and PRINT commands.)

2. When prompted, press any key to continue loading the program. The 3270 Task Selection menu displays.
3. Type one of the following letters:
  - a "Communicate" to start a 3270 Emulation Session
  - b "Communication Profile Tasks" to customize the profile
  - z "Exit" to exit 3270 Emulation.



## Notes:

1. To use the DOS PRINT or TYPE commands, at the DOS prompt type **TYPE filename** or **PRINT filename**. For example, if you want to print the file named "testfile" that has an extension called "sav", you will type:

```
PRINT testfile.sav
```

Your printer must be turned on before the file will print. Also, the TYPE command displays the file so you can view it.

2. If you use PSC.BAT to start 3270 Emulation and then enter the Alternate Field after loading the program, PSC.BAT completes execution as soon as the Alternate Field receives control. The mode (color or black and white) in the Alternate Field then returns to the mode that was active at the time the SETUP program was run.
3. You must customize the profile before you can select "Communicate" for the first time. To do this, type **b** and refer to Chapter 4, "Customizing 3270 Emulation" for steps on how to prepare your profile.
4. If you use the batch file, the 3270 Emulation files must be in the root directory *or*, if the files are in a subdirectory, the correct path to that directory must be in the batch file.

# Loading without a Batch File

Following are steps to load 3270 Emulation without a batch file. Note that in this procedure you use the PSCPG command. *Anytime* you issue this command, make sure you are in the same directory where 3270 Emulation is installed *before* you issue the command.

1. Type the following 3270 Emulation command at the IBM PC DOS prompt:

```
PSCPG
```

and press the Enter key. The 3270 Emulation logo screen displays.

**Note:** 3270 Emulation allows you to use the *the directory path option*, *the fast path option*, or the *automatic Alt Tasks key option* with the "PSCPG" command. Refer to "Options on the 3270 Emulation Command Line" on page 3-14 for details.

2. The first time the program runs, you may see a READ.ME file displayed on the screen, if READ.ME exists. The file contains instructions for accessing additional or changed information that was not available at publication time.

Another file (PRINT.ME) contains the additional or changed information. Print this file later and insert it into the designated book. If you do not have a printer, view the file using an available editor or the IBM PC DOS TYPE command.

Use the TYPE or PRINT commands to view or print READ.ME and PRINT.ME later at any time. (See the first note on page 3-11 for instructions to use the TYPE and PRINT commands.)

3. At the prompt, press any key to continue loading the program. The 3270 Task Selection menu displays.
4. Type one of the following letters:
  - **a** "Communicate" to start a 3270 Emulation Session
  - **b** "Communication Profile Tasks" to customize the profile
  - **z** "Exit" to exit 3270 Emulation.

#### Notes:

1. To use the DOS PRINT or TYPE commands, at the DOS prompt type **TYPE filename** or **PRINT filename**. For example, if you want to print the file named testfile that has an extension called sav, you will type:

```
PRINT testfile.sav
```

Your printer must be turned on before the file will print. Also, the TYPE command displays the file so you can view it.

2. You must customize the profile before you can select "Communicate" for the first time. To do this, type **b** and refer to Chapter 4, "Customizing 3270 Emulation" for the steps to prepare your profile.

# Loading 3270 Emulation with the Presentation Space API

Before you can use the PS API, you must customize the profile using the procedures in Chapter 4. While customizing, you must select "Presentation Space" or "Both" for the API option.

If you have already customized the profile, but you need to change your choice for the API option so you can use the PS API, customize using the steps on the following page before loading the PS API.

If you *have not* customized the profile using the customization worksheets, turn to Chapter 4 and customize the profile before attempting to load the PS API.

To perform 3270 Emulation tasks as well as to write and run application programs using the PS API, follow these procedures for loading 3270 Emulation and the PS API.

1. At the IBM PC DOS prompt, type **PSCAPI** to load the API Support Program, and press the Enter key.
2. At the IBM PC DOS prompt, type **PSC** (batch file) or type **PSCPG** (no batch file) to load 3270 Emulation. Refer to "Loading To Perform Only Primary 3270 Emulation Tasks" on page 3-7 for further information on loading 3270 Emulation.

See *IBM PC 3270 Emulation Program Version 3.00 Application Programming Interface and Host Reference* for an explanation of the Presentation Space API and how to use it.

# Customizing for PS API

1. Type **PSCPG** at the IBM PC DOS prompt to load 3270 Emulation.
2. At the 3270 Task Selection menu, type **b** and press the Enter key.

The Communication Profile Tasks menu displays.

3. Select "Yes" for the Alternate Tasks option and press the Enter key.
4. Type **f** and press the Enter key.

The Communication Setup menu displays.

5. Select "Presentation Space" or "Both" for the API option and press the Enter key.

The Printer Setup menu displays.

6. Press the Enter key.

The Communication Profile Tasks menu displays.

7. Type **z** and press the Enter key.

The 3270 Task Selection menu displays.

8. Type **z** to exit 3270 Emulation and press the Enter key.

# Options on the 3270 Emulation Command Line

When using the "PSCPG" command to load 3270 Emulation, you can specify three options with the command. They are:

- The directory path
- The fast path
- The automatic Alternate Tasks option

You can type the options at the IBM PC DOS prompt or modify a batch file to contain the desired options.

All path options are discussed in this section.

## Notes:

1. You can select any or all of the options. However, if the directory path option is specified, it must be the first option in the list. The fast path and automatic Alt Tasks key options may follow in any order.
2. Each option must be separated by a comma and no embedded blanks are allowed within each option. If any character, except trailing blanks, follows the last option, or if an unrecognized option is specified, the following message will be displayed and the last option or the unrecognized option is ignored.

200 Invalid option on PSCPG command.

3. An example of a valid command is provided below:

```
A>PSCPG C:\PROG,f,alt
```

# The Directory Path Option

The PSCPG command provides an option to specify a directory path. With this option, you can establish a drive, or drive *and* directory from which all subsequent programs will be loaded.

**Note:** If you installed 3270 Emulation onto your fixed disk into a directory other than the root, the directory path has already been specified following the PSCPG command, which is in the batch file, PSC.BAT.

If you choose *not* to use the batch file to load 3270 Emulation, you may specify the directory path by entering it after the PSCPG command. If nothing is specified, the IBM PC DOS default drive and current directory at the time you load the program will be used.

If you specify *only a drive*, all programs loaded after 3270 Emulation will be loaded from this drive and its current directory. If you also specify a directory, 3270 Emulation will use this as the full directory path from the root.

## Notes:

1. It is very important that the remainder of the 3270 Emulation program files remain in the same directory or subdirectory.
2. Any other required paths should be put in the path command of the batch file since this overrides any previous path. For example, the path to the DOS commands should be added if the commands are in a different directory.
3. The path to the 3270 Emulation program files becomes the default path for 3270 Emulation operations. For example, file transfers will use this path to send and receive, unless specified otherwise in the file transfer command.

The format for the directory path option is:

PSCPG directory path

In the following example, the PSCPG.COM file is loaded from drive A, and all other 3270 Emulation programs must be in C:\PROG.

```
A>PSCPG C:\PROG
```

## The Fast Path Option

If you use the *fast path option* to load the program, you can bypass the initial logo menu and the 3270 Task Selection menu and go directly to the 3270 Frame. This is where you log on to the host to begin communication.

To use the fast path, you must either enter the fast path parameter ,f, (lower or upper case) immediately after the PSCPG command on the command line, *or* use an available editor to edit PSC.BAT and change the PSCPG command to specify the fast path option.

The format for the fast path option is:

```
PSCPG,f
```

In the following example, the PSCPG.COM file will be loaded from drive A using the fast path parameter.

```
A>PSCPG,f
```

If you entered anything except ,f for the fast path option, the following message displays while the program is loading:

```
200 Invalid option on PSCPG command.
```



If you see this message, change the PSCPG command on the command line or in the batch file to reflect the correct fast path option.

## The Automatic Alt Tasks Key Option

With the automatic Alt Tasks key option, the Alternate Field appears on the display after either the 3270 Task Selection menu or the 3270 frame has appeared, depending on whether or not the fast path option was selected.

If the automatic Alt Tasks key option is specified along with the fast path option, the Alt Tasks function will be executed after loading the Communicate Tasks.

If the automatic Alt Tasks key option is specified and Alt Tasks support is not available, either the 3270 Task Selection menu or the 3270 frame will be displayed. The Alt Tasks function will not be executed.

To use the automatic Alt Tasks key option, you must use either the:

- Automatic Alt Tasks key parameter *,alt*, (lower or upper case) immediately after the PSCPG command on the command line, or
- An available editor to edit PSC.BAT and change the PSCPG command to specify the option.

The format for the automatic Alt Tasks key option is:

```
PSCPG,alt
```

If you entered anything except *,alt* for the automatic Alt Tasks key option, the following message displays while the program is loading:

200 Invalid option on PSCPG command.

If you see this message, change the PSCPG command on the command line or in the batch file to reflect the correct automatic Alt Tasks key option.

# The 3270 Emulation Commands

The table below lists the commands associated with this program. Also listed is the purpose for each command and where the command is issued.

**Note:** See Chapter 10 for additional commands that relate to IBM Enhanced Connectivity.

<b>Command:</b>	<b>Purpose:</b>	<b>Issued from:</b>
pscpg	Loads 3270 Emulation without using the batch file	IBM PC DOS
psc	Loads 3270 Emulation using the batch file	IBM PC DOS
pscapi	Loads the 3270 Emulation API Support Program without using a batch file	IBM PC DOS

**Note:** PSCPG and PSC should never be issued from the Alternate Field.

# User Notes:

# Chapter 4. Customizing 3270 Emulation

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Understanding the Customization Process .....	4-8
Flowchart for Customizing the Profile .	4-9
Customization Steps .....	4-10

# User Notes:

# About this Chapter

Use the information in this chapter to customize the 3270 Emulation Program profile. The following information is provided:

- A brief overview of the customization process
- The 3270 Emulation tasks you can perform from each type of 3270 Emulation workstation
- Information for accessing the 3270 Emulation *customization menus*
- Steps for customizing the profile.

For more information regarding the customization process, or its relationship to the installation and loading processes, see “Overview of Installing, Loading, and Customizing the Program” on page 1-8.

# Before Customizing...

## Understanding What Tasks Your 3270 Workstation Can Perform

Before you attempt to perform any 3270 Emulation tasks, it is important to understand that the tasks your IBM PC can perform depends upon how your workstation has been customized.

For example, each of the four workstation types has a different operating objective; therefore, each workstation type performs different tasks.

The four types of workstations are listed below. The abbreviations apply to the table on the following page.

- **Standalone (SA)**
- **Gateway (GW)**
- **Gateway with Network Station (GNS)**
- **Network Station (NS).**

A detailed description of the four types of 3270 Emulation workstations is provided in your *System Planner's and User's Reference*.

The following page contains a table that lists the tasks each workstation can perform.



## Available Tasks by Workstation

TASK	SA	GW	GNS	NS
Use the PS API	x		x	x
Connect directly or indirectly to the host	x	x	x	x
Communicate with the host <sup>1</sup>	x		x	x
Print documents	x		x	x
Save screens	x		x	x
Transfer files	x		x	x
Create a List of Network Stations		x	x	
Revise and Display the List of Network Stations		x	x	
Change or view your screen mode	x	x	x	x
Remap the keyboard	x	x	x	x
Communicate on a LAN <sup>2</sup>	x	x	x	x
Perform a data trace <sup>3</sup>	x	x	x	x
Access the Alternate Field and load alternate applications	x	x	x	x
Use IBM Enhanced Connectivity Facilities	x		x	x

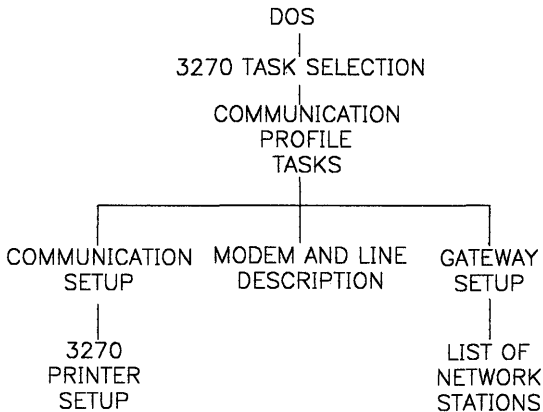
*See the notes on the following page.*

### Notes for the table:

- <sup>1</sup> Includes sending files and messages to, as well as sharing files with, other computers that are attached to the same host.
- <sup>2</sup> Includes sending files and messages to, sharing printers with, and accessing files on other PCs that are attached on the same LAN by way of the PC LAN Program 1.1.
- <sup>3</sup> Steps for Data Trace are not provided in this book. See the *System Planner's and User's Reference* for data trace explanation and procedures.

# Using the 3270 Emulation Menus to Customize the Profile

Use the customization *menu tree* below to determine the path you need to take to access the menus that are used to customize the program.



To use 3270 Emulation, you must customize the program profile. *Customization* refers to the process of preparing your IBM PC for use as a 3270 Emulation workstation by selecting options in the Communication Profile Tasks menu and related sub-menus.

# Understanding the Customization Process

When you customize, you make the following choices:

- The type of 3270 Emulation workstation your IBM PC will function as
- The communications attachment equipment you will be using
- The 3270 Emulation functions you wish to use
- The defaults you want to set for the print options.

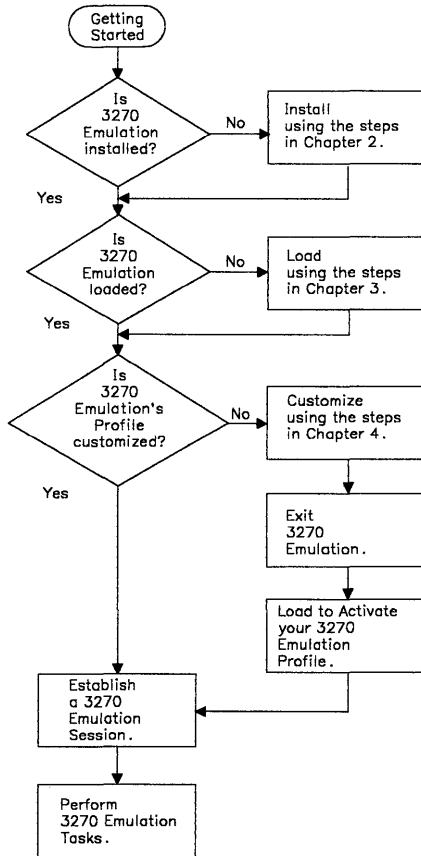
## Notes:

1. During a 3270 session, you can temporarily change your printer options and your List of Network Stations for the duration of that session by using the Request Task menu and associated sub-menus.
2. Before customizing, get completed *customization worksheets* from your Network Coordinator or your host personnel. These may be provided in your Run Book.

These worksheets include the information needed for customization. For the convenience of the persons responsible for providing this information, blank customization worksheets are provided in the Run Book in Appendix A of the *System Planner's and User's Reference*. These should be completed and placed back in the Run Book.

# Flowchart for Customizing the Profile

The flowchart below illustrates the overall customization process as well as your customization options. Associated steps begin on the next page.



Customization Flow Chart

# Customization Steps

Use the following steps to complete the customization process:

1. Obtain completed Customization Worksheets from your Network Coordinator or from your Run Book. The *System Planner's and User's Reference* has information for creating worksheets and explanations for the menu items and choices.
2. If 3270 Emulation is not loaded, make sure you are in the directory where 3270 Emulation is installed and load it now by typing **PSCPG** at the IBM PC DOS prompt.
3. Starting with the first worksheet, access the menu by following the instructions under the worksheet title.
4. Decide what items must be customized (refer to the customization worksheets in your Run Book). For each item to be customized, type the ID of the item, a space, your choice for the item selected, and press the Enter key.
5. Exit the menu when you have made a selection for all of the items your worksheet specifies (steps to exit are provided at the bottom of the worksheet).
6. Repeat steps 3 through 5 for each Customization Worksheet.

When you have made the selections for each Customization Worksheet, proceed to step 7 on page 4-11.

**Note:** Choosing some items will display another menu where additional choices should be made.

7. Exit the program by typing **z** in the 3270 Tasks Selection menu.

The IBM PC DOS prompt displays.

8. Reload the program by typing **PSC** (batch file) or **PSCPG** (no batch file) at the IBM PC DOS prompt.

**Note:** If you want to use Enhanced Connectivity, refer to Chapter 10 for loading procedures.

Your profile is now customized and you are ready to perform the 3270 Emulation functions.

The 3270 Emulation primary tasks are introduced in Chapter 1 and further described in the following chapters of this User's Guide. Advanced functions such as Keyboard Remapping, Data Trace, and Screen Mode selection are discussed in your *System Planner's and User's Reference*.

# **User Notes:**



# Chapter 5. Starting and Stopping a 3270 Session

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# User Notes:

# About this Chapter

This chapter provides:

- Instructions to start and stop a 3270 Emulation communication session
- Instructions for using the Keyboards Card
- A glossary of the 3270 Emulation keys.

## Preliminary Considerations for Starting a Session

After 3270 Emulation is correctly loaded and customized, you can establish a 3270 communication session with the host computer.

Steps for establishing (starting) a 3270 Session are provided later in this chapter. Before you attempt to establish a session, carefully read the following preliminary considerations.

## Using the Keyboards Card

When you type a "Communicate" from the 3270 Task Selection menu and the 3270 Frame displays, the 3270 Frame key definitions are activated for your keyboard.

This means that the familiar DOS functions associated with many keys on your keyboard will change. For example, the Enter function is now located on the End key.

The Keyboards Card included in your package is marked with the key definitions that are active

while you are in the 3270 Frame. This card depicts the following three IBM PC keyboards:

- Original IBM PC Keyboard (used on the PC, PC XT, and Portable PC)
- IBM Personal Computer AT Keyboard
- IBM Enhanced PC Keyboard.

Use the keyboard representation on the Keyboards Card that matches your workstation's keyboard.

An alphabetically arranged glossary of the 3270 Emulation keys is provided on the following page.

**Notes:**

1. The Keyboards Card is also marked with two keys that are active when 3270 Emulation is loaded. These keys are Msg and Alt Tasks.
2. If you have remapped your keys using either of the 3270 Emulation remap options, this keyboards card may not match your remapping. See the *System Planner's and User's Reference* for details for using the remapping option.
3. The abbreviations used for some keys in this glossary and throughout this publication may not match the actual engravings on the keyboard. These abbreviations match those that appear on the Keyboards Card and in the messages and prompts associated with this program.

# Glossary of 3270 Emulation Keys

Following is a glossary of the 3270 Emulation keys that are active once you start a 3270 Emulation session and enter the 3270 Frame. It is important to learn all of these keys since they are the only keys (other than the basic typewriter keys) available while you are in the 3270 Frame.

For more information on some of the keys listed below, consult the *IBM 3270 Information Display System 3274 Control Unit Description and Programmer's Guide*.

**Note:** The \* next to any key denotes that if that key is pressed while in the 3270 Frame, you cannot enter the Alternate Field until the function started by pressing that key is completed.

If an Unsolicited Message displays, that key is disabled until you press the RESET key or resolve the unsolicited message.

## **Alt Tasks**

Use the Alt Tasks key (Alt + Esc key) to switch between 3270 Emulation and the Alternate Field where compatible applications or tasks are run. The Alt Tasks key is active only if you specified "Yes" for "Alternate Tasks" during customization. Also, this key is not available when running TopView. For an explanation of the Alternate Tasks function, see Chapter 6.

## **ATTN**

Use the ATTN key when you are waiting for the host computer to respond and you want to change or end your previous request.

## **CLEAR**

Press the CLEAR key when you want to erase all the characters displayed on your screen.

## **CURSR SEL**

Press the CURSR SEL (Cursor Select) key to allow a host application program to take action on a field.

## **DEV CNCL \***

Use the DEV CNCL (Device Cancel) key to:

1. Cancel a Save request if the Screen Save was unsuccessful.
2. Cancel a Print request if the printer is busy (if the printer is performing a host-initiated screen print, you cannot cancel it with DEV CNCL).
3. Cancel a File Transfer operation.

## **DIR \***

Press the DIR key to display the contents of your IBM PC directory.

This key is available at all times *except* when you specify "Yes" for "Alternate Tasks" and "No" for "File Transfer".

## **Dup**

Use the Dup key when required by your host application program. See your Run Book or your host personnel for more information about this key.

## **END TASK**

Press the END TASK key to exit the 3270 session.

## **Enter**

Press the Enter key when you want to send a command to the host. When you are in the Request Tasks menu, you can also use the Return key (↵) for the Enter function.

## **Erase EOF**

Press the Erase EOF key to erase all the remaining characters from your cursor

position on a line. When you use Erase EOF, the cursor does not move.

### **ErInp**

Use the ErInp (Erase Input) key to erase the currently displayed screen. Most host computer programs allow you to enter information only in certain areas on the screen. When you use the Erase Input key, you erase information only in these fields.

### **FIELD MARK**

Use the FIELD MARK key to mark a field according to an application program at your host computer.

### **Msg**

Use the Msg key to display and remove messages. Messages will either automatically display at the bottom of the screen, or a blinking square or greater than sign ( > ) in the lower left-hand corner of the screen will indicate that a message is waiting to be viewed. See Appendix A for a detailed explanation of all types of messages that can display.

### **PA1**

Use the PA1 key when required by your host application program. See your Run Book or your host personnel for more information about this key.

### **PA2**

Use the PA2 key when required by your host application program. See your Run Book or your host personnel for more information about this key.

### **PF Select**

Press and hold down the PF Select key and press the appropriate number key when you want to select one of the PF host-controlled keys on supported IBM PC Keyboards. For example, if you want to select the PF7 key,

hold the PF Select key down and press the 7 key. The PF Select keys are directly selectable on the IBM Enhanced PC Keyboard; therefore, the PF Select key is not available on that keyboard.

### **Print \***

Use the Print key to print individual screens from the 3270 Frame. This key will not print host files or screens from the Alternate Field. (Use the IBM PC DOS PrtSc key in the Alternate Field to print screens.)

### **REQST \***

Press the REQST (Request) key when you want to perform a task within the "3270 Request Tasks" menu.

### **RESET**

Press the RESET key to free the keyboard when you get an Input Inhibited message or when you want to end Insert Mode.

### **Return**

←↵

Press the Return key to advance to a new line in a 3270 file or use the Return key as the Enter key in the 3270 Request Tasks or Communication Profile Tasks menus.

### **SAVE \***

Press the SAVE key to save the information on the screen in a file on a disk or diskette.

### **SYS REQ**

Use the SYS REQ key to clear your display screen or to switch your workstation between application and control programs. This key is not supported for non-SNA DFT attachments; use of the SYS REQ key may cause you to lose the host session.



# Workstation Initiation Information

When the Gateway attempts to establish a session with a Network Station and the Network Station is not loaded with 3270 Emulation, the Gateway periodically retries.

When you first load 3270 Emulation on the Network Station and try to start a 3270 session, the following message displays:

```
85 Wait - Gateway has not called  
Network Station.
```

It is normal for this message to display. The message is removed when the Gateway successfully establishes a session with the Network Station. This happens a few seconds after the Gateway is loaded with 3270 Emulation and the Network Station name is added to the Gateway List of Network Stations.

# Steps for Starting a 3270 Emulation Session

Once the program is properly installed, loaded, and customized, you can start a 3270 Emulation session using the steps below.

**Warning:** Do not attempt to use these steps until you are familiar with the “Preliminary Considerations for Starting a Session” on page 5-3.

1. Load 3270 Emulation by typing **PSC** (batch file) or **PSCPG** (no batch file) at the IBM PC DOS prompt.
2. In the 3270 Task Selection menu, type **a** (Communicate), and press the Enter key.

The 3270 Frame displays.

## Notes:

- a. If you use the fast path option to load 3270 Emulation, you automatically enter the 3270 Frame upon completion of the load process. Therefore, you do not need to type anything to access the 3270 Frame when communication is established.
- b. As soon as the 3270 Frame is accessed, the 3270 Emulation definitions of keys are activated for your keyboard, and the functions associated with many keys on your keyboard change. For example, the Enter function is now located on the End key.

A description of your *Keyboards Card* and the new key definitions are provided at the beginning of this chapter.

3. Determine the type of communications attachment you are using, and follow the corresponding sequence of events below.

**Note:** If the Communication Check messages do not appear in the order listed, find the proper Communication Check message in Appendix A, "Message Descriptions: Causes and Responses" and note the possible cause and action.

- **If you are connected to the host via an SDLC switched line**, you will see a blank screen with a Communication Check message (504) at the bottom. This means that you are now in the 3270 Frame.

Pick up the phone and dial the host. The number changes to 505, and when the host answers, the number changes to 510.

When the communication check goes away and the host logo displays, you are ready to log on to the host.

Proceed to step 4.

- **If you are connected to the host via an SDLC dedicated line**, you will see a blank screen with a Communication Check message (505) at the bottom. You are now in the 3270 Frame. The number will change to 510. This means that the SDLC link is active. When the communication check message goes away and the host logo displays, you are ready to log on to the host.

Proceed to step 4.

- **If you are connected to the host via DFT attachment**, the communication check 790 displays at the bottom of the screen, followed by the host logo.

Proceed to step 4.

- **If you are connected to the host via an IBM Token-Ring Network**, the communication check 510 displays at the bottom of the screen, then the host logo screen displays.

4. Log on to the host.

See your Run Book for steps to access your particular host.

# Steps for Ending a 3270 Session

## ***From a Network Station or a Standalone:***

Perform the following steps to end a 3270 Emulation session:

1. Log off the host. See your Run Book for procedures.
2. Press the END TASK key to end the 3270 Communication session. In some situations, you must press the END TASK key again. You will be prompted if this is the case.

The 3270 Task Selection menu displays.

## ***From a Gateway or Gateway with Network Station:*** Perform the following steps to end a 3270 Emulation session:

1. Log off the host if you are a Gateway with Network Station. See your Run Book for procedures.
2. Press the END TASK key to bring down all of the sessions for all of the Network Stations. The following message displays:

```
80  RESET or END TASK - all sessions  
will be cancelled.
```

The Gateway operator cannot end one Network Station session at a time. The operator must cancel *all* or *none* of the sessions. Therefore, at this point you must determine if you wish to bring down *all Network Stations using the Gateway or Gateway with Network Station*.

3. Press the Reset key to remove the message and cancel the END TASK request, or press the END TASK key to bring down all sessions.

If you press the END TASK key, the following message displays:

95 Wait - ending task.

When the END TASK request is complete, all Network Stations using the Gateway are brought down. The Gateway name that was created at initialization time (when you selected "Communicate" from the 3270 Task Selection menu) is deleted from the network adapter.

**Notes:**

1. Once the Communication session has been ended at the Network Station by logging off the host and pressing the END TASK key, that session can be reused by another Network Station. To reuse the session, add a new name to the List of Network Stations menu or load another Network Station with the same name.
2. If you press the END TASK key to end a 3270 session while you are in the 3270 Field *and* a file transfer is active in the Alternate Field, message 304 will display. This message means that the session will not be ended until you press the Alt Tasks key to go to the Alternate Field, let the file transfer complete, and press the Alt Tasks key to return to the 3270 Field.

# Chapter 6. Using the Alternate Tasks Function

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# User Notes:



# About this Chapter

This chapter provides an overview of, and steps for, using the Alternate Tasks function to load compatible programs. For a detailed explanation of procedures and considerations for running compatible programs in the Alternate Field, see the *System Planner's and User's Reference*.

## Overview of Alternate Tasks

Alternate Tasks is a 3270 Emulation function that lets you load and use a compatible program, such as DisplayWrite 3, while 3270 Emulation remains loaded.

The compatible program is loaded in an *Alternate Field* that is accessed via the Alt + Esc key (Alt Tasks key). While the compatible program is running in the Alternate Field, 3270 Emulation is running in a separate field referred to as the *3270 Field*.

### Notes:

1. The Alternate Tasks option is not available when 3270 Emulation is loaded with IBM TopView.
2. If you receive a message (either immediately displayed or queued and indicated by a blinking square or greater-than sign at the bottom of the screen), while attempting to use this option, press the Msg key to display and/or remove the message. If further explanation is needed, turn to Appendix A, "Message Descriptions: Causes and Responses" on page A-1.

3. If you want to use Alternate Tasks and use the DIR key, you must specify "Yes" for both "File Transfer" and "Alternate Tasks" when customizing the profile.
4. When a program is running in the Alternate Field and you press the Alt Tasks key to go to the 3270 Field, the program in the Alternate Field is suspended until you return to the Alternate Field.
5. If you use the remap option called *3270 Remap* and enter the Alternate Field via the Alt Tasks key, the remapping is not effective while in this Alternate Field. The active key definitions are those of the program that is running in the Alternate Field. However, if you run the *Global Remap program*, the keys are remapped, even for the Alternate Field.

See the *System Planner's and User's Reference* for details for the remapping options.

# Customizing for Alternate Tasks

If the 3270 Emulation Program profile *has not* already been customized for Alternate Tasks, complete the following steps. If it is already properly customized, turn directly to the next page for steps to use the Alternate Tasks option.

1. Load 3270 Emulation by typing **PSCPG** at the IBM PC DOS prompt.
2. At the 3270 Task Selection menu, type **b** for "Communication Profile Tasks" and press the Enter key.

The Communication Profile Tasks menu displays.

3. Select "Yes" for "Alternate Tasks".
4. Type **z** and press the Enter key.

The Task Selection menu displays.

5. Type **z** to exit 3270 Emulation and press the Enter key.

The IBM PC DOS prompt displays.

6. Reload 3270 Emulation by typing **PSC** (batch file) or **PSCPG** (no batch file) at the IBM PC DOS prompt.

# Steps for Using the Alternate Tasks Function

The steps to use the Alternate Tasks function are:

1. With 3270 Emulation loaded, start a 3270 Emulation session.
2. While in the 3270 Frame, press the Alt Tasks key to display the *Alternate Field*.

The following message displays before you load a compatible program:

Alternate Field for IBM PC 3270 Emulation Program. Compatible application programs may now be run. Press Alt+Esc to return.

**Warning:** This is not an IBM PC DOS field; This field should only be used to load compatible programs.

3. At the prompt in the Alternate Field type the command to load the compatible program you want to use.

The definitions of the keys, commands, and messages associated with the compatible program are effective in the Alternate Field once the program is loaded. However, if you ran the Global Remap Program before loading 3270 Emulation, the Global Remap definitions are still active.

4. To return to the 3270 Field, press the Alt Tasks key again.

# Compatibility Considerations

To determine whether a program meets compatibility requirements, refer to the *System Planner's and User's Reference*.

## Exiting the Alternate Field

To exit the Alternate Field, press the Alt Tasks key.

## Problems While Exiting the Alternate Field

- Certain actions taken by a program running in the Alternate Field will disable the Alt Tasks key. When the Alt Tasks key is pressed while it is disabled, a beep will sound.

The following actions will disable the Alt Tasks key:

**Note:** Under the following circumstances the system performance may be slowed.

1. When you start an application in the Alternate Field that issues a PS API Disable Service Input Request, but the PS API Enable Input Service Request has not been issued
2. When the application running in the Alternate Field uses either a graphics screen mode (BIOS Video Mode) greater than 7 or the IBM Enhanced Graphics Adapter and BIOS Video Modes 6 or greater than 7.

- When 3270 Emulation detects that a DOS function (such as screen print via the PrtSc key) is being performed in the Alternate Field, you cannot exit the Alternate Field until the DOS function is complete.

Refer to Appendix A, “Message Descriptions: Causes and Responses” for any messages that your system displays.

# Chapter 7. Transferring Files

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# User Notes:



# About this Chapter

This chapter provides instructions for transferring files with the host. These instructions include:

- Steps for transferring files:
  - When using the 3270 Request Tasks menu
  - While operating in an Alternate Field or in a TopView window.
- File Transfer command format for VM, TSO, and CICS
- Steps for cancelling a file transfer command.

## Overview of File Transfer

File Transfer can be executed while you are operating in three different operating environments: 3270 Frame, Alternate Field, or a TopView window. For specific information on how to perform File Transfer in each of these operating environments, refer to the appropriate section as directed below:

- “Performing File Transfer from the 3270 Frame” on page 7-8
- “Performing File Transfer from the Alternate Field or While Using the IBM TopView 1.1 Program” on page 7-10.

**Note:** Before turning to the specific information for your operating environment, read the general information on the following pages.

# Definition of File Transfer Commands

3270 Emulation lets you transfer (move) a file in two different directions using the command format associated with the following commands:

- **RECEIVE** for receiving (*downloading*) a file from the host computer to the user's workstation.
- **SEND** for sending (*uploading*) a file from the user's workstation to the host computer.

Use the information provided in "File Transfer Command Format" on page 7-15 together with the specific requirements for your host system to determine the correct File Transfer command format for your system.

The host system information should be provided by your Network Coordinator or host personnel.

## Additional Information

**Valid Keys:** During file transfer, only this subset of 3270 Emulation keys is valid:

- REQST
- DEV CNCL
- Alt Tasks (if you are not in an IBM TopView environment)
- CLEAR
- DIR
- PA2
- Msg.

These keys are defined in "Using the Keyboards Card" on page 5-3.

***File Transfer-Related Messages:*** If you see a blinking indicator in the lower left-hand corner of the 3270 Frame, a message is waiting to be viewed. Press the Msg key to display the message number and text, then locate the message in Appendix A in this book for an explanation.

When an *unsolicited message* is received from the host during file transfer, the flow of data is interrupted. The file transfer should be canceled using the DEV CNCL key. To resume proper flow with the host file transfer program, log off the host, log back on, and start the file transfer again.

***Note for local channel non-SNA and BSC DFT attachment:*** If you are using local channel non-SNA or BSC DFT to attach to the host, no other activity should be taking place on your PC while you are performing a file transfer. This includes activity in the Alternate Field or a TopView window, or *any* print operation, including host deferred print. This restriction does not apply when the file transfer is inactive.

# Customization Procedure for File Transfer

Before attempting to transfer files, you must use the steps below to customize the profile and specify that you want to use the File Transfer option.

If you have already done this, turn directly to the steps to transfer files.

1. Load 3270 Emulation by typing **PSCPG** at the IBM PC DOS prompt.
2. At the 3270 Task Selection menu, type **b** and press the Enter key.

The Communication Profile Tasks menu displays.

3. Type **f** and press the Enter key.

The Communication Setup menu displays.

4. Select "Yes" for the File Transfer option and press the Enter key.

The host command displays.

5. Press the Enter key to accept this command, or retype a new one.

**Note:** Do not erase (backspace over) the default for the host file transfer command **UNLESS** your host personnel have given you another command to type in its place. The default host command is **IND\$FILE**.

The 3270 Printer Setup menu displays.

6. Make any desired changes and press the Enter key.

The Communication Profile Tasks menu displays.

7. Type **z** and press the Enter key.

The Task Selection menu displays.

8. Type **z** to exit 3270 Emulation and press the Enter key.

The IBM PC DOS prompt displays.

9. Reload 3270 Emulation by typing **PSC** (batch file) or **PSCPG** (no batch file).

You are now ready to transfer files using the instructions provided in the remainder of this chapter.

# Performing File Transfer from the 3270 Frame

Before you can perform File Transfer from the 3270 Frame, your profile must be customized using the procedures provided in "Customization Procedure for File Transfer" on page 7-6.

1. With 3270 Emulation loaded, start a 3270 Emulation Session and log on to the host.
2. Press the REQST key. The 3270 Request Tasks menu displays.
3. Type **d** for the File Transfer option and press the Enter key.

You are prompted to type your command.

4. At the prompt, type (on one line) your command using one of the following command formats. You must *substitute your own information* for the parameters of the command following SEND and RECEIVE.

These commands are discussed in detail in "File Transfer Command Format" beginning on page 7-15. Note that each part of the command, such as the optional parameters, is listed and defined in that section.

- For uploading on VM:

```
SEND filespec filename filetype  
filemode (optional parameters)
```

- For downloading on VM:

```
RECEIVE filespec filename filetype  
filemode (optional parameters)
```

- For uploading on TSO:

```
SEND filespec datasetname  
<(member name) /password> options
```

- For downloading on TSO:

```
RECEIVE filespec datasetname  
<(member name) /password> options
```

- For uploading on CICS:

```
SEND filespec fn  
(options) comments
```

- For downloading on CICS:

```
RECEIVE filespec fn (options)
```

**Warning:** The correct command format and valid parameters are listed in “File Transfer Command Format” on page 7-15. However, you must consult with your host personnel or your Run Book to see if your host requirements differ from those listed in this publication.

5. Status messages will report the status of file transfers. These messages display at the bottom of the screen.

***File Transfer-Related Messages:*** Refer to Appendix A, “Message Descriptions: Causes and Responses” for an explanation of all File Transfer-related messages.

***Cancelling a File Transfer:*** Refer to “Cancelling File Transfers that Originated from the 3270 Request Tasks Menu” on page 7-29 for steps to cancel a file transfer request.

# Performing File Transfer from the Alternate Field or While Using the IBM TopView 1.1 Program

Before you can perform File Transfer from the Alternate Field or a TopView window, your profile must be customized using the procedures provided in "Customization Procedure for File Transfer" on page 7-6. You also must have specified "Yes" for the Alternate Tasks option if you will be transferring files from the Alternate Field. See "Customizing for Alternate Tasks" on page 6-5 for steps.

If you are unfamiliar with the Alternate Tasks function, refer to "Overview of Alternate Tasks" on page 6-3. If you are unfamiliar with IBM TopView, refer to the *System Planner's and User's Reference*.

The steps for downloading and uploading files from the Alternate Field or while using the IBM TopView Program are:

1. Load the 3270 Emulation API Support Program by typing **PSCAPI** at the IBM PC DOS prompt.
2. Determine if you wish to transfer files from the *Alternate Field* or from a *TopView window*, and follow the appropriate procedure below.
  - To transfer a file from the Alternate Field:
    - a. Load 3270 Emulation by typing **PSC** (batch file) or **PSCPG** (no batch file) at the IBM PC DOS prompt.
    - b. Start a 3270 Emulation Session and log on to the host.



- c. Press the Alt Tasks key to enter the Alternate Field.
  - d. Proceed to step 3.
- To transfer a file from the TopView window:
    - a. Select 3270 Emulation from the TopView "Start a Program Window".
    - b. Start a 3270 Emulation Session and log on to the host.
    - c. Access the TopView "Start a Program Window".
    - d. Select COMMAND.COM.

**Note:** You can also select the name of a batch file that you created and that contains the file transfer SEND or RECEIVE command.

- e. Proceed to step 3.
3. On the command line, type (on one line) your command using one of the following command formats. You must *substitute your own information* for the parameters of the command following SEND and RECEIVE.

These commands are discussed in detail in "File Transfer Command Format" on page 7-15. Note that each part of the command, such as the optional parameters, is listed and defined in that section.

- For uploading on VM:

```
SEND filespec filename filetype
filemode (optional parameters)
```

- For downloading on VM:

```
RECEIVE filespec filename filetype
filemode (optional parameters)
```

- For uploading on TSO:

```
SEND filespec dataset_name_  
<(member name) /password> options
```

- For downloading on TSO:

```
RECEIVE filespec dataset_name_  
<(member name) /password> options
```

- For uploading on CICS:

```
SEND filespec fn  
(options) comments
```

- For downloading on CICS:

```
RECEIVE filespec fn (options
```

**Warning:** The correct command format and valid parameters are listed in “File Transfer Command Format” on page 7-15. However, you must consult with your host personnel or your Run Book to see if your host requirements differ from those listed in this publication.

**Notes:**

1. You can put the SEND and RECEIVE commands in a batch file and run this batch file once you are in the Alternate Field or in a TopView window.

The following example shows a batch file transferring data between a PC and a VM host. *Line 1* sends daily sales stored in PC directory SLS, file DAY.A to the host file for daily processing. *Line 2* sends the same data to the host and appends the data to the host monthly sales file. *Line 3*, and *Line 4* transfers the monthly sales figures from the host to the PC file MO.PRT and causes the report to be printed on the PC printer.

```
SEND \SLS\DAY.A SALE DAY A1 (CRLF ASCII  
SEND \SLS\DAY.A SALE MO A1 (CRLF ASCII APPEND  
RECEIVE MO.PRT SALE MO A1 (CRLF ASCII  
COPY MO.PRT LPT1
```

2. TopView 1.1 may impact file transfer performance.
3. When transferring files from a TopView window, 3270 Emulation uses the current directory drive and path information of *its* window as the default if you do not specify a path with the filename. Therefore, you must specify a path with the filename if the file is not in the current default directory.
4. If a destination directory is not specified for both the SEND and RECEIVE commands, the file will be transferred to the current directory, which is the default for these commands.
5. Status messages will report the status of file transfers. These messages display at the bottom of the screen.
6. Status messages for small files appear and disappear *very quickly*.
7. If you return to the 3270 Field, the message in the Alternate Field that reports the number of bytes transferred is suspended until you return to the Alternate Field. If the file transfer completes while you are in the 3270 Field, the message is not updated and the file transfer completion message displays.
8. If you start the File Transfer in a TopView window using COMMAND.COM, then leave the window, the File Transfer is suspended.

***File Transfer-Related Messages:*** Refer to Appendix A, "Message Descriptions: Causes and Responses" for an explanation of all File Transfer-related messages.

***To Cancel a File Transfer:*** Press Ctrl+Break. Refer to "Cancelling File Transfers that Originated from the Alternate Field or TopView Window" on page 7-30 for more information.

# File Transfer Command Format

The general command format for file transfer is:

command   positional parameters  
optional parameters

**Note:** The entire command should be keyed on *one* line.

The command can be SEND (upload files) or RECEIVE (download files). The parameters associated with each command vary according to the command chosen and whether the host is a VM/CMS, TSO, or CICS/VS computer.

Before you transfer files, your Network Coordinator or host personnel should supply you with information regarding which parameters are valid for your host computer.

Detailed information on the command format for VM/CMS, TSO, and CICS is presented in the following sections.

# VM/CMS Command Format

The general command format for file transfer is:

command   positional parameters  
optional parameters

**Note:** The entire command should be keyed on *one* line.

The basic VM/CMS command format is:

SEND/RECEIVE filespec filename  
filetype filemode (optional parameters)

**Note:** When actually keyed in, this command should be entered on one line.

This is a *sample* download command for VM/CMS:

```
RECEIVE a:report.dat report  
script a (CRLF ASCII
```

**Note:** When actually keyed in, this command should be entered on one line.

## VM/CMS Commands

### SEND

The command that transfers a file from the PC to the host. IBM PC 3270 Emulation transforms this into the format expected by the host. The default is IND\$FILE PUT.

### RECEIVE

The command that transfers a file from the host to the PC. The default is IND\$FILE GET.

# VM/CMS Positional Parameters

The positional parameters are filespec, filename, filetype, and filemode.

## **filespec**

The PC file name. You are allowed 32 characters for the path plus 12 characters for the IBM PC DOS filename and extension. The personal computer disk to be used and any file extension is optional. The default extension for the filespec with **RECEIVE** is .HST (host). See your IBM PC DOS manual for PC file specification. This is a required positional parameter.

## **filename**

The VM filename of the file that you want to transfer. The name can be up to eight characters. A sample filename is *7198file*. This is a required positional parameter.

## **filetype**

The VM filetype. This is a required positional parameter for **SEND**. It is an optional positional parameter for **RECEIVE**. If this parameter is omitted, the default is \*. The \* means any character. A sample filename plus filetype is *7198file script*.

## **filemode**

The VM filemode. This is an optional positional parameter. If this parameter is omitted, the default for **SEND** is *a*, and the default for **RECEIVE** is \*. The \* means any character. A sample filename with filemode and filetype is *7198file script a*.

# VM/CMS Optional Parameters

The following optional parameters are separated from the last positional parameter by a left parenthesis with one space between each optional parameter.

## ASCII

With the SEND command, ASCII causes the host program to translate records from ASCII to EBCDIC before writing them to the file. With the RECEIVE command, ASCII causes the host program to translate file records from EBCDIC to ASCII before transmission to the PC. The default is no translation.

## CRLF

With the SEND command, CRLF (Carriage Return and Line Feed) causes the host program to delete carriage return and line feed characters from each record before writing it to the file. With the RECEIVE command, CRLF causes the host program to add carriage return and line feed characters to the end of each file record before transmission to the PC. The default is no CRLF.

## APPEND

Causes the file being transferred to be added to the end of the target file.

**Warning:** If APPEND is not specified and the target file already exists, the target file is replaced.

The APPEND parameter overrides any other values specified for LRECL and RECFM. The default is not to APPEND but to replace.



**LRECL n**

Used for SEND only. It provides the logical record length of the host file records. In the case of RECFM V, this is the maximum size record expected. If an existing host file is being replaced, its record length is used as the record length of the new version of the replaced file except if LRECL is provided in the parameter list. When LRECL is specified for a file which is being replaced, the specified values supersede the former record length of the file. If the APPEND option is specified, the current record length of the file is used and the LRECL value specified is ignored.

n = length

The default length is 80.

**RECFM F/V**

Used for SEND only.

This specifies the recording mode to use for the host file.

F = fixed length

V = variable length

The default is F, unless the CRLF option is also specified, in which case V is the default.

# TSO Command Format

The general command format for file transfer is:

```
command positional parameters
optional parameters
```

**Note:** The entire command should be keyed on *one* line.

The basic TSO format command is:

```
SEND/RECEIVE filespec dataset_name_
<(member name) /password> options
```

**Note:** When actually keyed in, this command should be entered on one line.

This is a *sample* RECEIVE command for TSO:

```
RECEIVE myfile.ext boss(bossname) ASCII
```

## TSO Commands

### SEND

The command that transfers a file from the PC to the host. IBM PC 3270 Emulation transforms this into the format expected by the host. The default is IND\$FILE PUT.

### RECEIVE

The command that transfers a file from the host to the PC. The default is IND\$FILE GET.

# TSO Positional Parameters

The positional parameters are filespec, dataset name, member name, and password.

## **filespec**

The PC file name. You are allowed 32 characters for the path plus 12 characters for the IBM PC DOS filename and extension. The personal computer disk to be used and any file extension is optional. The default extension for the filespec with RECEIVE is .HST (host). See your IBM PC DOS manual for PC file specifications. This is a required positional parameter.

## **dataset name**

The TSO dataset name which may be up to 44 characters in length, including periods. The data set can be either a physical sequential data set or a partitioned data set. For a full description of TSO data set naming conventions, refer to the *OS/VS2 TSO Terminal User's Guide*, form # GC28-0645. This is a required positional parameter.

## **(member name)**

This is a required positional parameter for partitioned data sets. The partitioned data set must already exist before the SEND command is used.

## **/password**

Allows access to password protected physical sequential or partitioned data sets. This is an optional positional parameter.

# TSO Optional Parameters

The following optional parameters are valid for both SEND and RECEIVE. They are separated with one space between each optional parameter.

## ASCII

With the SEND commands, ASCII causes the host program to translate records from ASCII to EBCDIC before writing them to the file. With the RECEIVE command, ASCII causes the host program to translate file records from EBCDIC to ASCII before transmission to the PC. The default is no translation.

## CRLF

With the SEND command, CRLF (Carriage Return and Line Feed) causes the host program to delete carriage return and line feed characters from each record before writing it to the file. With the RECEIVE command, CRLF causes the host program to add carriage return and line feed characters to the end of each file record before transmission to the PC. The default is no CRLF.

## APPEND

Causes the file being transferred to be added to the end of the target file.

**Warning:** If APPEND is not specified and the target file already exists, the target file is replaced.

APPEND is not supported when writing to members of a partitioned data set. The default is not to APPEND but to replace.

The following optional parameters are only valid when the command is SEND and the data set is of physical sequential organization. If you specify any of these parameters for a partitioned data set or with the RECEIVE command, an error condition occurs.

### **LRECL(n)**

Used for SEND only. This provides the logical record length of the host file records. In the case of RECFM V or U, this is the maximum size record expected. If a file is being replaced, or if the APPEND option is specified, LRECL must not be specified. In this case the old record length is used.

n = desired logical record length. For variable length records, the value specified must include the maximum data length (up to 32,752) plus 4 bytes for the record-descriptor word (RDW).

The default length is 80 for files with RECFM (F/U) and 84 for RECFM (V), except under the replace and APPEND conditions mentioned above.

**BLKSIZE(n)**

Used for SEND only. This specifies the desired block size of the host file.

n = desired length. It cannot exceed the capacity of a single track.

If BLKSIZE is omitted, the default is LRECL for new files. If a file is being replaced or appended to, BLKSIZE is ignored.

**RECFM (F/V/U)**

Used for SEND only. This specifies the recording mode to use for the host file.

F = fixed length

V = variable length

U = undefined record type

The default is F, unless CRLF option is also specified, in which case V is the default.

**SPACE(q <, i >)**

Used for SEND only. This specifies the amount of space to be allocated for a new TSO data set.

q = the number of units (quantity) of space to be added to the data set each time the previously allocated space has been filled.

i = the number of units (increment) of space to be allocated initially for a data set. It is required if the SPACE parameter is specified.

The default is SPACE(10,50).

**AVBLOCK(n)**

Used for SEND only. This is only valid if SPACE is also specified. This specifies the average block length of the records that will be written to the data set.

n = desired average block length in bytes.

**TRACKS**

Used for SEND only. This is only valid if SPACE is also specified. This specifies that the unit of space is to be a track.

**CYLINDERS**

Used for SEND only. This is only valid if SPACE is also specified. This specifies that the unit of space is to be a cylinder.

**Note:** The parameters AVBLOCK, TRACKS and CYLINDERS are mutually exclusive. The command will be rejected by the host if more than one is present within the command. If none of the three are specified, then the value specified for BLKSIZE will be used as the unit of space for the SPACE parameter. If BLKSIZE is not specified, then the default BLKSIZE value (80) will be used as the unit of space for the SPACE parameter.

# CICS Command Format

The general command format for file transfer is:

```
command  positional parameters
optional parameters
```

**Note:** The entire command should be keyed on *one* line.

The basic CICS format command is:

```
SEND filespec fn (options) comments
```

and

```
RECEIVE filespec fn (options
```

**Note:** When actually keyed in, each of these commands should be entered on one line.

This is a *sample* RECEIVE command for CICS:

```
RECEIVE b:myprog.exe basprog (binary
```

## CICS Commands

### SEND

The command that transfers a file from the PC to the host. IBM PC 3270 Emulation transforms this into the format expected by the host. The default is IND\$FILE PUT.

### RECEIVE

The command that transfers a file from the host to the PC. The default is IND\$FILE GET.



## CICS Positional Parameters

The positional parameters are filespec and fn.

### **filespec**

The PC file name. You are allowed 32 characters for the path plus 12 characters for the IBM PC DOS filename and extension. The personal computer disk to be used and any file extension is optional. The default extension for the filespec with **RECEIVE** is .HST (host). See your IBM PC DOS manual for PC file specifications. This is a required positional parameter.

### **fn**

The CICS host file name. This name may be 1 to 8 characters. This is a required positional parameter.

## CICS Optional Parameters

The CICS file transfer command can have two types of optional parameters:

1. Options
2. Comments (for SEND only).

They are separated as shown in the example commands on page 7-26.

The possible *options* are:

- ASCII or BINARY
- CRLF or NOCRLF.

*Comments* may be used for control information to be stored in the first record of the host file for the SEND command only.

Detailed information for these parameters and options, and a description of the messages

associated with CICS file transfers, is documented in the *CICS/VS 3270-PC File Transfer Program Descriptions/Operations Manual* (SH20-6306).

Specific information pertaining to CICS file transfers in VSE host environments is provided in *VSE/SP System Use Manual*, (SC33-6174-1).

**Note:** CICS file transfers may be used with either MVS or VSE host environments that have the appropriate CICS/VS 3270-PC File Transfer Program installed. For VSE host environments, file transfer commands should be entered from the Alternate Field only.

# Cancelling File Transfers that Originated from the 3270 Request Tasks Menu

Press the DEV CNCL key to cancel a file transfer that originated from the 3270 Request Tasks menu. The following message displays:

```
33 Wait - device cancel in progress.
```

When the file transfer termination is complete, the following message displays:

```
34 File transfer cancelled at operator request.
```

The host program may send additional messages during file transfer that are not documented in this publication. Contact your host personnel for information regarding these messages.

If you press the END TASK key during a file transfer, the following message displays:

```
31 Cannot END TASK during file transfer, use DEV CNCL to cancel.
```

When you press the DEV CNCL key during file transfer, a PF2 key signal is sent to the host. Any data processed before you pressed the DEV CNCL key is already written to the file, and the file is not restored to its condition prior to this transfer.

# **Cancelling File Transfers that Originated from the Alternate Field or TopView Window**

Press the **Ctrl+Break** key to cancel a file transfer that originated from the Alternate Field or a TopView window.

The following message displays:

```
39  File transfer being cancelled.
```

When the File Transfer termination is complete, the following message appears:

```
34  File transfer cancelled at operator  
request.
```

The host program may send additional messages during file transfer that are not documented in this publication. Contact your host personnel for information regarding these messages.

# User Notes:



# Chapter 8. Printing and Saving Documents and Screens

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# User Notes:



# About this Chapter

This chapter provides instructions for printing and saving documents and screens while using 3270 Emulation.

## Your Options

3270 Emulation enables you to print *documents* and *screens*. You can print these on a PC printer, or the data can be deferred to a file on a disk or diskette for revision before printing or printing at a later time.

Sending the print job directly to a printer is referred to as *Direct Print*. See “Printing Documents and Screens on the PC Printer (Direct Print)” on page 8-5 for an explanation of and procedures for this type of print.

When you send documents and screens to a disk or diskette, you are performing either *Deferred Print* or *Screen Save*. The difference in the two is:

- **Deferred Print** occurs when the operator issues a command to the host computer, asking for a certain document *or* screen to print. You have specified that the data will be saved in a file on a disk or diskette so that you can later revise and print this data. The section “Deferring Print Jobs to a PC Disk or Diskette (Deferred Print)” on page 8-7 lists the procedures for using this type of print.
- The **Screen Save** function allows the operator, *with no assistance from the host*, to save 3270 Frame screens (not documents) in a file on a disk or diskette. See “Using 3270

Screen Save” on page 8-11 for procedures for using this function.

**General Guidelines for Direct and Deferred Print:** Following are four rules that apply for direct *and* deferred print. These do not apply to the Screen Save function.

1. Select a configuration other than Gateway for your workstation. (The Gateway only configuration *cannot* print documents while using 3270 Emulation.)
2. Select a choice other than “None” for “3270 Printer Use” in the Communication Setup menu.
3. Select the destination where you want the documents to print. Your choices are:
  - Printer (for direct print)
  - Disk (for deferred print).
4. Obtain instructions from your Run Book or host personnel *if* you want to issue print commands to the host computer, asking for documents to be sent to your printer or diskette.

**Note:** When using BSC DFT or Non-SNA host-attach, you cannot use direct or deferred print while a file transfer is being performed.

Select the destination in either the 3270 Printer Requests menu or in the 3270 Printer Setup menu. See “Selecting Your Print Options from the 3270 Field” on page 8-10 to make temporary changes to your printing options. To set the default for these options, see Chapter 4.

# Printing Documents and Screens on the PC Printer (Direct Print)

To send documents and screens to print on the printer attached to your IBM PC, use the Direct Print function.

There are three types of Direct Print:

- **Operator-Initiated Screen Print**

When your IBM PC is displaying a screen in the 3270 Frame that you want as a paper copy, use this type of direct print, otherwise referred to as Screen Print. The screen will print at your IBM PC physically-attached printer. Steps for screen print are on the following page.

- **Host Print**

Host print occurs when you, or an operator at another terminal, issue a command to the host asking for a file to be sent to your printer. Since the procedure for using host print *and* the format of the command depends on your host program, follow the procedures listed in your Run Book for using host print. See also the notes on the following page.

- **Host-Initiated Screen Print.**

Host-initiated screen print occurs when you issue a command to the host computer asking for the contents of your display screen to print on the PC printer. Since the procedure for using this type of print *and* the format of the command depends on your host program, follow the procedures listed in your Run Book for using host-initiated screen print. See also the notes on the following page.

**Note:** Before using Direct Print, see “General Guidelines for Direct and Deferred Print” on page 8-4.

***Steps for Operator-Initiated Screen Print:***  
Follow these steps for screen print.

1. With 3270 Emulation loaded, start a 3270 Emulation session and log on to the host.
2. While in the 3270 Frame, access the screen that you want as a paper copy.
3. Turn your printer power switch to ON. The “Online” light should be lit.
4. Press the Print key.

The screen will now be printed at the printer.

If a printer error exists when a direct print is issued, a ten-minute timer is set. The job will not print until the error is resolved. If ten minutes elapses and the error still exists, the print is cancelled.

**Note:** To print a screen while in the Alternate Field, use the DOS PrtSc key.

***Notes for Host Prints:***

1. Generally, for both types of host print, the host computer, upon receiving your print request, issues a WRITE command on the display session (for host-initiated screen print) or begins a printer session (for host print) with the specified printer.
2. Host-initiated screen print is not supported for non-SNA communications.

# Deferring Print Jobs to a PC Disk or Diskette (Deferred Print)

When using 3270 Emulation, the host can *defer* documents or screens to a disk or diskette on your IBM PC so you can later revise and print this data. This procedure is called *Deferred Print*.

The two types of Deferred Prints are:

- **Host Print**

Host Print occurs when you issue a print command to the host, asking for a certain document to print. You have specified that the document will print to a file you have already named on your PC disk or diskette.

- **Host-Initiated Screen Print.**

During Host-Initiated Screen Print, the host computer (after receiving your print request) causes what is displaying on your screen to be stored on your PC disk or diskette.

**Note:** Host-initiated screen print is not supported for non-SNA communications.

***Steps for Deferred Print:*** Turn to “General Guidelines for Direct and Deferred Print” on page 8-4 and check that you have met all of the preliminary requirements listed. When all four of those requirements have been met, proceed with the steps below.

1. With 3270 Emulation loaded, start a 3270 Emulation session and log on to the host.
2. Name a file on your IBM PC disk or diskette for the deferred data to be printed to (if this was not done previously in the 3270 Printer

Setup menu). See "Naming a File for Deferred Print" below for procedures.

3. Issue the print command from the command line. See your Run Book for the command for deferred print.

***Naming a File for Deferred Print:*** Use these steps to name a file on your PC disk or diskette in which the deferred data will print.

1. Press the REQST key to display the 3270 Request Tasks menu.
2. Type **b** (Name PC File for 3270 Print to Disk) and press the Enter key.
3. At the prompt, type a filename and an optional path and press the Enter key. The default extension **.DFP** (deferred print) is added to the filename if you do not specify a different extension.

You can use the name of a file that already exists or create a new file. If you use an existing file, a form feed character will be placed between each new deferred print.

You are now ready for deferred print data to be stored in the file you have just named on your disk.

***Note for closing the deferred print file:***

When using SDLC or SNA DFT to attach to the host, the deferred print file is closed when the host sends an SNA UNBIND command to your PC. This command tells your PC that all of the printer data has been delivered to the file that you named for deferred print, and the PC can now close the file so the user can view it. The host automatically sends this command with no action from the user.

When you are using non-SNA DFT attachment, the host does not send an SNA UNBIND to tell

your PC that the deferred print is complete. Therefore, the file in which you are storing deferred print data is not closed until you end your communication session with the host (by pressing the END TASK key).

If you want to close the file to access the data, but you do not want to end the communication session, press the REQST key to access the 3270 Request Tasks menu and do one of the following:

- Type **b** (Name PC File for 3270 Print to Disk) and press the Enter key. At the prompt, enter a PC filename. You can enter the same filename, or you can enter a new one if you expect additional data from the host.
- Type **c** (3270 Printer Requests) and press the Enter key. When the 3270 Printer Request menu displays, select "3270 Print Destination" and choose either "Disk" (if you want to continue using deferred print) or "Printer" (if you want to use direct print).

After performing either of these steps to close the file, pressing the Enter key will return you to the 3270 Frame instead of to the 3270 Request Tasks menu.

# Selecting Your Print Options from the 3270 Field

When you print documents using 3270 Emulation, you choose the destination and type of output for your documents. You have two possible destination choices and up to ten printing options.

To set the defaults for your print destination and options, use the Communication Setup and 3270 Printer Setup menus. If you customized your profile, then you have already used these two menus.

To refresh your memory or for a first time explanation, refer to Chapter 4, "Customizing 3270 Emulation" on page 4-1 for steps to customize each of these menus.

To temporarily change the defaults for your print destination and options, use the 3270 Printer Requests menu. Steps to access the menu and to change the options are presented below:

1. With 3270 Emulation loaded, start a 3270 Emulation session and log on to the host.
2. Press the REQST key to display the 3270 Request Tasks menu.
3. Type **c** (3270 Printer Requests) and press the Enter key.

The 3270 Printer Requests menu displays.

4. Type the ID for the option you wish to change, a space, your choice where given a choice (if needed, see the *System Planner's and User's Reference* for an explanation of your options), and press the Enter key.



# Using 3270 Screen Save

Your 3270 Screen Save function allows you to save, on a diskette or disk, a copy of the 3270 Frame screens that you view on your monitor while in the 3270 Frame.

To use the Screen Save function, you must specify a file for saving the screens. You do this with the "Name PC File for 3270 Screen Save" option in the 3270 Request Tasks menu.

You can use the name of a file that already exists or create a new file. If you use an existing file, a form feed character will be placed between each new screen save. The default extension, **.SAV** (save), is added to the filename if you do not specify another extension.

The following steps for Screen Save include instructions for naming the file for Screen Save if you have not already done so.

1. Start a 3270 Session.

The 3270 Frame displays.

2. Access the 3270 Frame you wish to save.

If you have already specified a file for screens to be saved in, proceed to Step 7. If you have not specified a file, continue with the next step.

3. Press the REQST key, and the 3270 Request Tasks menu displays.
4. Type a (Name PC File for 3270 Screen Save), and press the Enter key.
5. Type a file name and an optional directory path when prompted.

6. After you type the file name, press the Enter key.

The 3270 Frame automatically displays.

7. Press the Save key to save what is displayed on your screen while you are in the 3270 Frame.

The screen is saved in the file that you previously named in step 5 for screen save.

8. **Optional** - Verify that the screen was saved by using the DOS TYPE command or an available editor to view the screen save file.

# Chapter 9. Reviewing or Changing the List of Network Stations

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# User Notes:

# About this Chapter

This chapter provides steps for the Gateway operator to review or change the List of Network Stations. For steps to create the List of Network Stations and for an explanation of valid names and requirements, see the *System Planner's and User's Reference*.

## Displaying the Status of Network Stations

The "Display Status of Network Stations" option allows the Gateway Operator to see which Network Stations attached to the local area network are using display or printer sessions. This enables the Gateway operator to allocate sessions not being used or to perform problem determination.

To view the status of the Network Stations:

1. Access the 3270 Request Tasks menu by pressing the REQST key while in the 3270 Frame.
2. Type e (Display Status of Network Stations), and press the Enter key. The Status of Network Stations menu displays.
3. Press the ↓ (cursor down) key or the ↑ (cursor up) key to scroll through the station names. Refer to "Values in the SESSION STATUS Column" on page 9-5 for an explanation of the values that can display in the SESSION STATUS column.
4. Press the Enter key to return to the 3270 Frame.

# Revising the List of Network Stations

The Gateway operator can make temporary changes to the List of Network Stations while in the 3270 Frame.

The List of Network Stations menu is required for each Gateway, and it should include the names of all Network Stations attached to the Gateway.

Four List of Network Stations menus *can* display, but the number you will see depends on the maximum number of sessions you specified in the Gateway Setup menu.

Only one menu displays if you selected eight sessions, two menus for 16 sessions, three menus for 24 sessions, and four menus for 32 sessions.

**Note:** You cannot change a display or printer session that is active at the time this menu displays.

To revise your list of Network stations, perform the following steps:

1. Access the 3270 Request Tasks menu by pressing the REQST key while in the 3270 Frame.
2. Type **f** (Revise List of Network Stations), and press the Enter key. The List of Network Stations menu displays.
3. Press the ↓ (cursor down) key or the ↑ (cursor up) key to scroll through the Network Station Names.
4. To change a Network Station name, type its ID letter. You will then be prompted to type the new name.

5. Type the new Network Station Name and press the Enter key.

See the *System Planner's and User's Reference* for an explanation of valid names and of the special requirements for changing the List of Network Stations menu.

6. Press the Enter key again to activate the new choices and to return to the 3270 Frame.

***Values in the SESSION STATUS Column:***

<b><i>Value</i></b>	<b><i>Meaning</i></b>
<b>INACTIVE</b>	IBM PC Network or IBM Token-Ring Network connection is not active between the Gateway and the Network Station or between the Gateway and the host.
<b>READY</b>	SDLC - Data Terminal Ready (DTR on); DFT - on-line to DFT Control Unit requested; Token-Ring - Token-Ring adapter is initialized.
<b>CONNECTED</b>	SDLC - Link active; Token-Ring - Token-Ring adapter open was successful.
<b>ON-LINE</b>	SDLC - Link active; DFT - on-line to host through DFT Control Unit; Token-Ring - the network link is established.
<b>SESSION</b>	An SNA LU-LU session is active.

Other values that may appear in the SESSION STATUS column are the primary logical unit (PLU) name, such as CICS, when the SNA LU-LU session is active, shortened to eight characters.

# User Notes:



# Chapter 10. Using IBM Enhanced Connectivity Facilities

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# User Notes:

# About this Chapter

Procedures for using IBM Enhanced Connectivity with 3270 Emulation are provided in this chapter. Steps are provided for:

- Properly customizing the 3270 Emulation profile so you can use Enhanced Connectivity
- Loading and starting the programs necessary for using Enhanced Connectivity.

This chapter also provides a brief introduction to IBM Enhanced Connectivity Facilities. An additional publication, *Introduction to IBM System/370 to IBM Personal Computer Enhanced Connectivity Facilities*, provides a more detailed description.

**Note:** Before using the information provided in this chapter, you should be familiar with the information in Chapters 1 through 6 of this book.

# Introduction to IBM Enhanced Connectivity Facilities

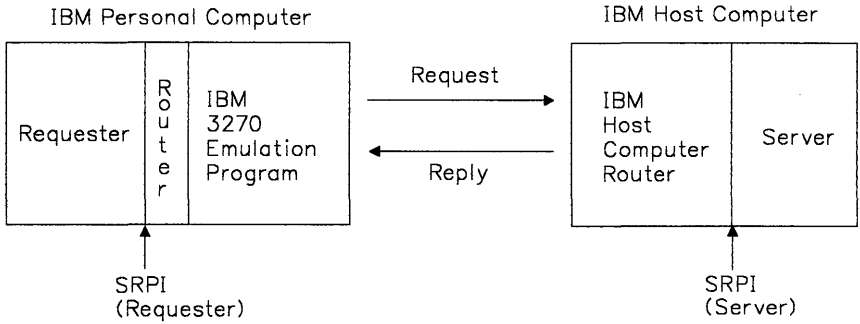
IBM Enhanced Connectivity Facilities is a set of programs for interconnecting IBM Personal Computers and IBM System/370 host computers operating with the MVS/XA or VM/SP environment.

## IBM Enhanced Connectivity Characteristics

Figure 10-1 on page 10-5 identifies the characteristics of IBM Enhanced Connectivity Facilities. The characteristics of Enhanced Connectivity are:

- A consistent interface for application programs in a personal computer to request services, data, or both from a host. The personal computer application program making the request is referred to as the *requester*.
- A consistent interface for programs in a host to reply to requests for services, data, or both from personal computers. The host application program that services the request is referred to as the *server*.
- A consistent interface for handling communications between requesters and servers. The function provided by 3270 Emulation and hosts is referred to as a *router*. The routers provide a new *Server-Requester Programming Interface (SRPI)*: a request interface for requesters, or a reply interface for servers. This interface isolates requesters and servers from the underlying communication environment.

Writing to the SRPI enables applications to be used in a number of communication environments. The SRPI provides a consistent interface for programs in personal computers to obtain services, data, or both from host systems.



**Figure 10-1. The Characteristics of IBM Enhanced Connectivity Facilities**

# Overview of Using Enhanced Connectivity with 3270 Emulation

The procedures required to use Enhanced Connectivity with 3270 Emulation are summarized below:

**1. Customize the 3270 Emulation profile.**

You must properly customize the 3270 Emulation profile before you can load 3270 Emulation and the Enhanced Connectivity routers (PC and host). Refer to “Customizing for Enhanced Connectivity” on page 10-7 and to Chapter 4, “Customizing 3270 Emulation” for more information.

**2. Load 3270 Emulation with the Enhanced Connectivity routers using the PSCSRPI batch file.**

Instructions for using the batch file to load 3270 Emulation are in “Loading 3270 Emulation with Enhanced Connectivity and Starting the SRPI” on page 10-9.

**Notes:**

1. IBM Enhanced Connectivity Facilities cannot be used while 3270 Emulation is running in an IBM TopView window.
2. The steps in this chapter make references to the *3270 Field*, the *Alternate Field*, and *3270-type terminal emulation*. If you are unfamiliar with any of these concepts, see the *System Planner's and User's Reference*.
3. If you see a blinking square or greater than sign in the lower left-hand corner of the 3270 Frame, a message is waiting to be viewed. Press the Msg key to display the message number and text, then locate the message in Appendix A for an explanation.

# Customizing for Enhanced Connectivity

If the 3270 Emulation profile has not already been customized to use Enhanced Connectivity, complete the following steps:

1. Load 3270 Emulation by typing **PSCPG** at the IBM PC DOS prompt.
2. Type **b** for "Communication Profile Tasks" and press the Enter key.

The Communication Profile Tasks menu displays.

3. Select "Yes" for the Alternate Tasks option and press the Enter key.
4. Type **f** for "Create or Revise Communication Setup" and press the Enter key.

The Communication Setup menu displays.

5. Select either "SRPI" or "Both" for the API option and press the Enter key.

The 3270 Printer Setup menu displays.

6. Press the Enter key.

The Communication Profile Tasks menu displays.

7. Type z and press the Enter key.

The 3270 Task Selection menu displays.

8. Type z to exit 3270 Emulation and press the Enter key.

9. Reload 3270 Emulation using the steps in “Loading 3270 Emulation with Enhanced Connectivity and Starting the SRPI” on page 10-9.



# Loading 3270 Emulation with Enhanced Connectivity and Starting the SRPI

The PSCSRPI batch file will load and start all of the PC programs necessary for using 3270 Emulation with Enhanced Connectivity. See “Overview of the PSCSRPI Batch File” on page 10-16 for an explanation of the commands contained in the batch file, as well as an explanation of what happens when each of these commands is issued.

Follow the steps below to load and start 3270 Emulation and the programs necessary for Enhanced Connectivity.

**Note:** If you are restarting the SRPI, follow the instructions provided in “Restarting the SRPI” on page 10-14.

1. Load 3270 Emulation by typing **PSCSRPI** at the IBM PC DOS prompt.

The following message displays:

```
166 PSCAPI - IBM PC 3270 Emulation  
support program loaded.
```

The 3270 Emulation logo displays and is automatically followed by the host logo within the 3270 Frame.

2. Log on to the host. See your Run Book for procedures.

**Note:** The 3270 Emulation definitions for the keyboard now are active in the 3270 Field. See “Using the Keyboards Card” on page 5-3 for a listing of the new definitions.

3. Start the host router by typing **CMSSERV** (for VM) or **MVSSERV** plus any additional parameters (for TSO).<sup>1</sup>

The logo for this program displays, and you may see a message depending on the host program.

4. Press the Alt Tasks key to go to the Alternate Field. This initiates the **STARTSR** command which starts the SRPI.

**Warning:** On an MVS system, if you do not go to the Alternate Field using the Alt Tasks key within 30 seconds, the host router will time out. If this happens, you must restart your host router by typing the **MVSSERV** command.

The following message displays one or more times:

```
920  Waiting for the IBM S/370 Enhanced
      Connectivity program to complete its
      initiation.  If you have not already
      started the IBM S/370 Enhanced
      Connectivity program, access the 3270
      Field and start the S/370 Enhanced
      Connectivity program before returning
      to the Alternate Field.
```

It is followed by this message:

```
921  The Server-Requester Programming
      Interface has started.
```

Your requester program can now be loaded and run in the Alternate Field. Remember to

---

<sup>1</sup> The additional parameters are defined in "Additional Parameters for the MVSSERV Command" on page 10-23. See your Run Book for additional information.

make sure that the host logo is displayed in the 3270 Field before you attempt to load and run the application in the Alternate Field.

**Notes:**

1. For steps to stop the SRPI, see “Stopping the SRPI” on page 10-12.
2. For a list of restrictions for using the 3270 Field once the SRPI is started, see “Restrictions for Using the 3270 Field with the SRPI” on page 10-21.
3. When using the batch file, the 3270 Emulation files must be in the root directory *or*, if the files are in a subdirectory, the correct path to that directory must be in the batch file.

# Stopping the SRPI

This section provides steps for two ways to stop the SRPI. These are:

- Stop the SRPI in the Alternate Field
- Stop the Host Router in the 3270 Field.

When you stop the SRPI using either of these procedures, the host router discontinues the conversation and the PC router stops processing requests.

## From the Alternate Field

Use the following steps to stop the SRPI from the Alternate Field.

1. Access the Alternate Field.
2. Stop your requester program if it is running. See your Run Book for procedures.
3. Type **STOPSR** at the prompt in the Alternate Field. The following message displays:

```
940 The Server-Requester Programming  
Interface is stopping. Please wait.
```

This message is followed by:

```
941 The Server-Requester Programming  
Interface has stopped.
```

To restart the SRPI, see “Restarting the SRPI” on page 10-14.

# From the 3270 Field

Use the following steps to stop the SRPI from the 3270 Field.

1. Access the 3270 Field.

The host logo is displayed.

2. Press the termination key (PF3) to initiate stopping both the PC and host routers.

The host router now stops, but the host screen is available for host functions.

When you access the Alternate Field, the prompt in the Alternate Field displays. You will not receive a message that the PC router has stopped.

The PC router will reject all SRPI requests until the SRPI is restarted.

If you decide that you want to start the host and PC routers again, use the instructions in "Restarting the SRPI" on page 10-14.

If you wish to prevent message 301 from appearing in the 3270 Field, switch to the Alternate Field and issue the STOPSR command.

# Restarting the SRPI

If you stop the SRPI but later decide that you want to run an application that uses the SRPI, restart the SRPI in the Alternate Field using the following steps.

**Note:** This procedure uses the batch file. Since some of the programs that the batch file normally loads are already loaded, the batch file will only load the programs necessary to restart the SRPI.

1. Access the Alternate Field.
2. Start the SRPI by typing **PSCSRPI** at the prompt in the Alternate Field. This will initiate the batch file.

The following message displays:

```
166 PSCAPI - IBM PC 3270 Emulation  
support program loaded.
```

It will be followed by this message:

```
920  Waiting for the IBM S/370 Enhanced  
Connectivity program to complete its  
initiation.  If you have not already  
started the IBM S/370 Enhanced  
Connectivity program, access the 3270  
Field and start the S/370 Enhanced  
Connectivity program before returning  
to the Alternate Field.
```

3. Press the Alt Tasks key to go to the 3270 Field.

4. Start the host router by typing **CMSSERV** (for VM) or **MVSSERV** (for TSO). See “Additional Parameters for the MVSSERV Command” on page 10-23. See your Run Book for more information.

The logo for this program displays.

5. Press the Alt Tasks key to go to the Alternate Field. Message 920 may display again, followed by this message:

921 The Server-Requester Programming Interface has started.

Your requester program can now be loaded and run in the Alternate Field. Remember to make sure that the host logo is displayed in the 3270 Field before you attempt to load and run the application in the Alternate Field.

**Note:** See “Stopping the SRPI” on page 10-12 for steps to stop the SRPI. See also “Restrictions for Using the 3270 Field with the SRPI” on page 10-21.

# Overview of the PSCSRPI Batch File

The PSCSRPI batch file is used to load and start the SRPI. Also use PSCSRPI.BAT whenever you wish to restart the SRPI after having stopped it using the STOPSR command or the PF3 key.

PSCSRPI.BAT includes the following commands. This list of commands is only a subset of the actual batch file and does not include any directory or path options that may be included in your batch file.

```
pscapi
if ERRORLEVEL 12 goto exit
if ERRORLEVEL 8 goto startu
pscpq,f
:startu
startsr
:exit
```

- If you are using PSCSRPI.BAT to initially load and start the SRPI at the IBM PC DOS prompt, the following steps are executed automatically by the commands in the PSCSRPI batch file:

1. **PSCAPI command is issued.**

This loads the 3270 Emulation API Support Program.

2. **ERRORLEVEL of 0 is returned from PSCAPI.**

This means that 3270 Emulation is not already loaded.



3. **PSCPG,f command is issued.**

This loads 3270 Emulation.

4. **The batch file stops and waits for you to perform the following actions:**

- a. Log on to the host.
- b. Enter the command to start the host router. See your run book for this command.
- c. Press the Alt Tasks key to go to the Alternate Field.

5. **STARTSR command is issued.**

This starts the SRPI.

6. **Message 920 is displayed one or more times.**

This is an informational message.

7. **Message 921 is displayed.**

This means the SRPI is started.

- If you are using PSCSRPI.BAT in the Alternate Field to restart the SRPI after having stopped the SRPI, the following steps are executed by the commands in the PSCSRPI batch file:

1. **PSCAPI command is issued.**

This attempts to load the 3270 Emulation API Support Program.

2. **ERRORLEVEL of 8 is returned from PSCAPI.**

This means that 3270 Emulation is already loaded.

3. **STARTSR command is issued.**

This starts the SRPI.

4. **Message 920 is displayed one or more times.**

This is an informational message.

5. **Message 920 repeats every few seconds until you perform the following actions:**

- a. Press the Alt Tasks key to enter the 3270 Field.
- b. Enter the command to start the host router. See your run book for this command.
- c. Press the Alt Tasks key to go to the Alternate Field.

6. **Message 920 may continue to display, depending on host response time. Then message 921 is displayed.**

This means the SRPI is started.

**Note:** If you use PF3 to stop the SRPI and decide later to restart it, **you** must enter the PSCSRPI or STARTSR command in the Alternate Field before starting the host router.

# Summary of Commands

The table below lists the 3270 Emulation commands that are issued by the PSCSRPI batch file *and* the commands issued by the user to perform Enhanced Connectivity tasks.

Also listed is the purpose for each command, where the command is issued, and how the command is issued (batch file or user).

<b>Command:</b>	<b>Purpose:</b>	<b>Issued from/by:</b>
pscsrcpi	Executes the batch file which loads the 3270 Emulation API Support Program, 3270 Emulation, and STARTSR.COM.	IBM PC DOS (when initially starting) or the Alternate Field (when restarting the SRPI) / operator
cmsserv	The VM command that starts the host router for Enhanced Connectivity	3270 Field / operator
mvsserv	The TSO command that starts the host router for Enhanced Connectivity	3270 Field / operator
stopsr	Stops the SRPI	Alternate Field / operator
startsr	Starts the SRPI	Alternate Field / batch file or operator
pscapi	Loads the 3270 Emulation API Support Program	IBM PC DOS / batch file or operator

<b>Command:</b>	<b>Purpose:</b>	<b>Issued from/by:</b>
pscp	Loads 3270 Emulation	IBM PC DOS / batch file or operator

**Note:** PSCPG should never be issued from the Alternate Field. Note that when PSCSRPI.BAT is invoked from the Alternate Field, it *bypasses* the PSCPG command.

# Restrictions for Using the 3270 Field with the SRPI

The following restrictions apply once the SRPI is active.

## Notes:

1. If your requester program is running in the Alternate Field and you press the Alt Tasks key to go to the 3270 Field, the requester program is suspended from running.

To return to the Alternate Field, ensure that the host logo is displayed in the 3270 Field then press the Alt Tasks key.

2. When the SRPI is started and you are performing a DOS function (such as DISKCOPY) or running a program in the Alternate Field that uses INT 21H, the Alt Tasks key is disabled until the INT 21H completes.

However, if you receive an unsolicited message while the DOS function is in process, the Alt Tasks key is enabled so you can go to the 3270 Field, process the message if necessary, and return to the Alternate Field. The DOS function will then resume.

3. If you hear a beep while in the Alternate Field, and your requester program is running, you *may* have received a 301 message in the 3270 Field. (This means that you are getting screen data from the host while using the SRPI). To correct the situation: press the Alt Tasks key to go to the 3270 Field, process the message if necessary, display the host logo, and press the Alt Tasks key to return to the Alternate Field. (You process the message only if the screen requires operator intervention).

4. If you start your requester program in the Alternate Field, and it does not complete in a reasonable amount of time, an error condition may exist at the host, or the host may have been disrupted by:
  - The host system operator taking down the system for maintenance or an emergency
  - A host system power failure or other types of host failure or communication session problems
  - The requester program operator logging off the host by issuing the logoff command from the host router command line in the 3270 Field *while* the requester is running.

If you think there is an error, press the Alt Tasks key to access the 3270 Field. Verify that the host server is active. The host server *is not active* if:

- a. You see a logon menu, logon prompt, or System Identification Logo.
- b. The screen is blank and there is no response when you attempt to enter a host command. This means that the host may be inoperative.

If the host server is not active, end the 3270 Emulation Session and press the Alt Tasks key when prompted. If the host is inoperative, perform the above procedure then contact your host personnel.

If the host server is still active, press the Alt Tasks key to return to the Alternate Field, and continue waiting for the requester program to complete.

# Additional Parameters for the MVSSERV Command

When using Enhanced Connectivity with a TSO host, you start the host router by typing **MVSSERV** plus any additional parameters. These parameters are listed following the **MVSSERV** command, and are separated from the command with one blank space. Each parameter is also separated with one blank space.

The additional parameters and their meanings are:

## **NOTRACE**

Specify **NOTRACE** or leave blank to run **MVSSERV** without sending messages to a trace data set on the host. Use this parameter for production work. When testing requesters and servers, use **TRACE**, or, preferably, **IOTRACE** to obtain complete diagnostic information about the **MVSSERV** session.

## **TRACE**

Specify **TRACE** to record all terminal messages as well as most diagnostic messages in a trace data set. The **TRACE** parameter requires a pre-allocated trace data set in which to store the messages.

## **IOTRACE**

Specify **IOTRACE** to record all terminal messages and all diagnostic messages in a trace data set on the host. In addition to the messages recorded with the **TRACE** parameter, the **IOTRACE** parameter records data sent between the host and the IBM PC, and information about the data flow.

# User Notes:



# Appendix A. Message Descriptions: Causes and Responses

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# About this Appendix

This appendix describes the types of messages and status indicators that can display while using 3270 Emulation.

This appendix also has a numerical listing of all messages, with the exception of those associated with the Color Selection Program, and the keyboard remapping options. These messages are listed in the *System Planner's and User's Reference* in the chapters where each of these functions is described.

This appendix, as well as the keyboard remapping and Color Selection Program chapters, lists the messages with the appropriate cause and the action needed to resolve the situation (if action must be taken).

## Does a Message Mean I Have a Problem?

Not all messages indicate that there is a problem. Some messages do refer specifically to a problem, but others are designed to provide information only.

In some instances, a problem can occur and you will not receive a message or other indicator to help you define and correct the problem. Refer to the *System Planner's and User's Reference* for examples of this type of problem and recommended recovery procedures.

Messages that you might see while using one of this program's keyboard remapping functions are discussed in the *System Planner's and User's Reference*.

# The Operator Information Line

The bottom line (line 25) of your IBM PC Display Unit screen serves as your *Operator Information Line*. This line displays messages as well as symbols that can indicate any of the following: machine status, mode and key usage, problems, and queued messages (see “Types of Messages” on page A-5).

When you are in the 3270 Frame, the Operator Information Line provides status information for the communication session. The locations and meanings of this type of information are presented below:

- Columns 1-2 displays one of the following:
  - For an IBM PC with a DFT adapter, an underscored 4 followed by a capital B, signifying an active communication session.
  - For an IBM PC with the other supported 3270 communication adapters:
    - A blank in column 1 and a ? in column 2, specifying a connection has been established but the specific controller type is unknown.
    - A blank in column 1 and a 4 in column 2, specifying the Controller Type field received from the controller was zero.
- Column 4 displays one of the following:
  - A video-reversed blank indicating the display session is connected to your application program.

- A  
¥

(yen sign) indicating the display session is connected to the system operator (control program).

- A ? (question mark) indicating communication has been established with the host computer, but the display session is not connected to any host program.

(If Column 4 remains blank, the display session has not been connected to the host computer.)

- Columns 9-62 may display an Input Inhibited symbol or message (this type of message is defined in the following section of this appendix).
- The message NUM in Columns 65-67 indicates the Num Lock option was selected during Communication Profile Tasks, and the cursor is in a numeric field.
- An arrow in Column 73 indicates Insert mode.
- The following printer status indicators appear in Columns 76-80, and they appear only if you have customized for 3270 Print.
  - O-O01 indicates that your local print job has been authorized for the current session.
  - O-O01 (in video-reverse) lets you know your job is printing.

(If Columns 76-80 remain blank, then local print is not authorized.)

# Types of Messages

The 3270 Emulation Program has four types of messages: *Immediate*, *Queued*, *Queued Action*, and *Input Inhibited*. Each of these types is discussed below.

**Note:** All 3270 Emulation messages, with the exception of messages associated with keyboard remapping, file transfer, Enhanced Connectivity Facilities (STARTSR.COM and STOPSR.COM), the Color Selection Program, and the API Support Program (PSCAPI.COM) appear on your screen in the Operator Information Line.

The keyboard remapping messages will be logged in an error file as they occur. All other messages that do not appear on the Operator Information Line (see above for the possible types) will appear on the screen wherever the cursor is.

See the *System Planner's and User's Reference* for an explanation of viewing the keyboard remapping error file and for a listing of the keyboard remapping and Color Selection Program messages. All other messages, including those that do not display on the Operator Information Line, are listed later in this chapter.

- **Immediate messages**

*Immediate* messages can display while you are customizing the profile and while you are communicating. They provide general direction on how to proceed while 3270 Emulation is engaged in a processing task; user response to these messages is usually not necessary unless the message directs the user to take a certain action.

Immediate messages are indicated by a blinking greater than sign (>), and will appear automatically on the Operator

Information Line. Press any key to remove the message.

- **Queued messages**

*Queued* messages wait in a message queue until you are ready to read and, if necessary, respond to them. A small, blinking video-reversed square (■) appearing in your Operator Information Line indicates that a Queued message is waiting to be viewed.

Press the Msg key to view a queued message, and again to remove it. Queued messages can display while you are customizing the profile and while you are communicating.

- **Queued Action messages**

*Queued Action* messages can display while you are customizing the profile and while you are communicating, and they *require* corrective action (only the proper action will delete the message from the display unit). An audio *beep* signals that such a message has entered the message queue.

Like Queued messages, the presence of a Queued Action message in the message queue is also indicated by the blinking video-reversed square (■) appearing in your Operator Information Line, and you must respond by pressing the Msg key to receive the message before the square will disappear.

- **Input Inhibited messages.**

*Input Inhibited* messages can display while you are communicating, and they indicate that you cannot currently enter data or perform normal 3270 functions. They also describe why this condition exists and what to do to correct it.

Input Inhibited messages are displayed automatically, beginning in Column 11 of the Operator Information Line.

Input Inhibited messages begin with a number between **1** and **9**, followed by a blank space and a phrase describing the cause and suggested action.

For example, such a phrase may begin by telling you to **Wait...**, or offer some other action. Input is inhibited until you press the Reset key.

Some Input Inhibited messages are referred to as *program checks*. These messages all begin with the number **9** and contain the words “program check,” followed by another number.

## Setting Message Priorities

If an Input Inhibited condition occurs, a message displays on your screen regardless of whether any messages are waiting in the message queue. These messages will also replace any Immediate Message (>) that may be on your screen.

However, if there is a blinking square (■) in the Operator Information Line to indicate that a Queued or Queued Action message is waiting, it will continue to blink even if you receive an Input Inhibited message.

If multiple Input Inhibited conditions exist, only one message will display. You should respond to this message; if the situation is corrected, but if an additional Input Inhibited condition still exists, a new message will appear.

The message queue holds up to six Queued and/or Queued Action messages. When the queue is full, the Queued message that has been there the longest gets replaced by any incoming message, but a Queued Action message will remain in the queue until you have responded with the appropriate action.

Remember, to view and begin responding to either a Queued or Queued Action message, press the Msg key. Both Immediate and Input Inhibited messages appear automatically for the purpose of telling you how to proceed.



# Using Your IBM PC 3270 Emulation Message List

The 3270 Emulation-generated messages that may appear on your Operator Information Line are numerically arranged beginning on A-11.

The following information describes other aspects of the arrangement of messages in this book. Read this information to ensure quick and easy access to message information:

- *Only* the messages that are unique to this program are presented in the following section. Host computer originated or *TRANS* messages that you may receive on your Operator Information Line are presented in the following section (“TRANS Messages” on page A-83). Each of these messages:
  - Begins with **TRANS** and is followed by a number.
  - Is numerically arranged in this book by its **TRANS** number.
- Messages *1 through 9* are Input Inhibited messages.
- If a message number appears more than once, such as the numeral 14 in some communication check messages, and 9 in the program check messages, the messages are further arranged numerically by the program-generated number, or alphabetically if no other number appears in the message.

For example, the message **9 RESET - program check 421** precedes the message **9 RESET - program check 422** where the number 9 is the message number for this message.

- For messages that contain words, numbers, or other characters that are supplied by the host computer or by your IBM PC rather than by the IBM PC 3270 Emulation Program, the characters (...) are used in this appendix in place of the filename that would actually appear on your display screen.

For example, in the following message, the host computer supplies the specific file name that already exists:

```
57 (...) already exists.
```

For such a message, a file name would actually appear on your screen rather than the (...) that appear in this book.

In other messages listed here, (...) is used to indicate that a communication check number, error code number, or a number indicating some type of status or progress will actually display on your screen. For example:

```
TRANS02 Number of bytes transferred  
so far: (...).
```

- A communication check will appear in one of the following three forms:

**10 RESET - communication check (...)**

**14 Communication check (...)**

**17 Wait - Communication check (...)**

A list including IBM PC 3270 Emulation messages, the probable cause of the message or problem, and the action, if any, that you should take begins on the following page. The messages as they appear on your screen are printed in **bold** type following the word **Message:**.

# List of IBM PC 3270 Emulation Messages

---

## 1 Wait.

*Cause:* You sent information to the host computer and it has not yet responded or is in the process of responding, *or* the host computer is sending information to your IBM PC, and IBM PC 3270 Emulation has not finished processing the information sent by the host computer.

*Action:* Wait one minute, then retry your operation. If the problem persists, contact your network coordinator or host personnel; *or* refer to your *IBM PC Local Area Network User's Guide*.

---

## 2 Wait or RESET - system.

*Cause:* You sent information to the host computer while it was sending information to you.

*Action:* Wait 5 minutes for the host computer to complete processing both tasks, *or* press the RESET key and retry the operation.

---

## 3 Wait - saving to (...).

*Cause:* The display screen is being put on a disk.

*Action:* None. This message will go away when the save is complete, and you may continue your work.

---

#### **4 RESET - try again.**

*Cause:* The task or function you tried did not work.

*Action:* Press the RESET key and try again.

---

#### **5 RESET - action not valid in that field.**

*Cause:* You attempted to change data in a protected field, or you attempted to use CURSR SEL in a protected field.

*Action:* Press the RESET key and move the cursor to the correct field.

---

#### **6 RESET - field full.**

*Cause:* Too many characters are in a field on a formatted 3270 screen.

*Action:* Press the RESET key and use a shorter entry for this field.

---

#### **7 RESET - numeric field only.**

*Cause:* You tried to enter a letter in a number-only field.

*Action:* Press the RESET key and use only numbers, the minus sign, the decimal point, or the DUP key in this field.

---

## **8 RESET - function not available.**

*Cause:* The function you are trying to use is currently not available.

*Action:* Press the RESET key and try another.

---

## **9 RESET - program check (...).**

*Cause:* For DFT attachment, a protocol error or a data stream error was detected in the data received from the host.

*Action:* See the *3274 Control Unit Description and Programmer's Guide* for recovery, if you are using DFT attachment. For other types of host attachment, find the message with the specific number that is listed on your display.

---

## **9 RESET - program check 401.**

*Cause:* The host computer received an invalid command.

*Action:* Check your modem. Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 402.**

*Cause:* The host computer received an invalid (out of range) address following a buffer address order.

*Action:* Check your modem. Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 403.**

*Cause:* The host computer received a data stream containing data following a Read or Erase command.

*Action:* Check your modem. Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 404.**

*Cause:* The data stream to your host computer ended before all required bytes were received.

*Action:* Check your modem. Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 413.**

*Cause:* The function you attempted to use is not supported, *or* while using DFT communications attachment with a non-SNA (local channel) attached 3174 or 3274 control unit, you tried to use the LU-SSCP session by pressing the SYSREQ key to return to the host session.

*Action:* Press the RESET key to reset the program check indicator and retry the operation, *or* press the RESET key then the SYSREQ key to return to the host session. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 420.**

*Cause:* The host computer received an exception response when BIND specified a definite response.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 421.**

*Cause:* The host computer received a definite response when BIND specified an exception response.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 422.**

*Cause:* The host computer does not allow a NO response.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 423.**

*Cause:* The format indicator (FI) bit is not allowed.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 430.**

*Cause:* The host computer detected a sequence number error.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---



## **9 RESET - program check 431.**

*Cause:* The host computer detected a chaining error.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 432.**

*Cause:* The host computer detected a bracket error.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 433.**

*Cause:* The host computer detected a Data Traffic Reset.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 434.**

*Cause:* The host computer detected a direction error.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 443.**

*Cause:* A Change Direction is required.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 445.**

*Cause:* An Activate LU (ACTLU) is not equal to Initial (COLD) or Error Recovery (ERP).

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 450.**

*Cause:* The host computer detected a Profile error and returned a Bind Reject because the Bind Parameters do not match.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 451.**

*Cause:* The host computer detected a Primary Protocol error and returned a Bind Reject because the Bind Parameters do not match.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 452.**

*Cause:* The host computer detected a Secondary Protocol error and returned a Bind Reject because the Bind Parameters do not match.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 453.**

*Cause:* The host computer detected a Common Protocol error and returned a Bind Reject because the Bind Parameters do not match.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 454.**

*Cause:* The host computer detected a Screen Size Specification error and returned a Bind Reject because the Bind Parameters do not match.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 455.**

*Cause:* The host computer detected an LU profile error and returned a Bind Reject because the Bind Parameters do not match.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 456.**

*Cause:* The host computer detected an LU Type 1 error and returned a Bind Reject because the Bind Parameters do not match.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 457.**

*Cause:* The host computer detected a bind specification for crypto when it was not present and returned a Bind Reject because the Bind Parameters do not match.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 470.**

*Cause:* You received an invalid character on your display.

*Action:* Press RESET key and retry the operation. If the problem persists, call your network coordinator.

---

## **9 RESET - program check 471.**

*Cause:* You do not have the right host system configuration for File Transfer, or the host computer may be trying to send your IBM PC something it does not support.

*Action:* Press RESET key and retry the operation. If the problem persists, call your network coordinator.

---

## **9 RESET - program check 498.**

*Cause:* A negative response was received.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **9 RESET - program check 499.**

*Cause:* An exception request was received.

*Action:* Press the RESET key to reset the program check indicator and retry the operation. Call your host personnel if the problem persists since it is possibly a data stream error.

---

## **10 RESET - communication check 501.**

*Cause:* The Data Set Ready (DSR) from your modem is off, or, if you are using Token-Ring attachment, either the adapter cable is disconnected or the line is inactive.

*Action:* Check your modem before you try to proceed. If you are using Token-Ring attachment, make sure the adapter cable is connected or make sure the communication line is active.

---

## **10 RESET - communication check 504.**

*Cause:* Your IBM PC has been disconnected from the host computer, and you tried to proceed.

*Action:* Re-establish communication before you try to proceed and dial-up to your host.

---

## **10 RESET - communication check 505.**

*Cause:* While trying to establish communication with the host, a disconnect was received.

*Action:* If this communication check number does not go away after a few seconds, call the host computer location and ask that the communication line be activated. If the line remains inactive, inform your network coordinator about the problem you encountered; include the communication check number.

---

## **10 RESET - communication check 510.**

*Cause:* The communication line is active, but the host computer is not sending information; this is a normal and temporary condition.

*Action:* Call your network coordinator before you try to proceed. Tell your network coordinator about the problem you encountered and the communication check number.

---

## **10 RESET - communication check 518.**

*Cause:* Data reception problem.

*Action:* Call the network coordinator before you try to proceed. Tell your network coordinator about the problem you encountered and the communication check number.

---

## **10 RESET - communication check 521.**

*Cause:* Too much time before data was received.

*Action:* Retry the operation. If communication check 521 occurs frequently and you have to reload the program to clear the error, contact your network coordinator.

---



## **10 RESET - communication check 530.**

*Cause:* Transmit failure time out.

*Action:* Check your modem. If there is no modem failure, call your network coordinator.

Tell your network coordinator about the problem you encountered and the communication check number.

---

## **10 RESET - communication check 790.**

*Cause:* You are communicating by way of a DFT attachment, but the control unit is not active or responding.

*Action:* Contact your host personnel.

---

## **11 RESET - function not selected in setup.**

*Cause:* You tried to print a screen, but you had not chosen the Screen Print option under "3270 Printer Use" in the Communication Setup menu.

*Action:* Go to the Communication Setup menu and type 1 (Screen Print) or 3 (Screen Print and Host) for "3270 Printer Use."

---

## **12 RESET - invalid character combination.**

*Cause:* The character you attempted to construct (for example, constructed from e and diaeresis) is not valid for the extension that you selected.

*Action:* Press the RESET key and try another combination.

---

### **13 Communication check 504. Dial host.**

*Cause:* Your IBM PC has been disconnected from the host computer, and you tried to proceed; or an initial connection has not been made. This is a normal and temporary condition.

*Action:* Re-establish communication before you try to proceed.

---

### **14 Communication check (...).**

*Cause:* For DFT attachment, the control unit reported an error with the host.

*Action:* See the *3274 Control Unit Description and Programmer's Guide* for recovery, if you are using DFT attachment. For other types of host attachment, find the message with the specific number that is listed on your display.

---

### **14 Communication check 501.**

*Cause:* The Data Set Ready (DSR) from your modem is off, or, if you are using Token-Ring attachment, either the adapter cable is disconnected, the line is inactive, or the NETBIOS Program parameters are incorrect.

*Action:* Check your modem before you try to proceed. If you are using Token-Ring attachment, make sure the adapter cable is connected, make sure the communication line is active, or see "Using the IBM Token-Ring Network PC Adapter" in Chapter 3 of the *System Planner's and User's Reference*.

---

#### **14 Communication check 504.**

*Cause:* The Gateway or Gateway with Network Station that your PC is attached to as a Network Station has not established communications with the host.

*Action:* Contact the Gateway operator to establish communications by dialing the host.

---

#### **14 Communication check 505.**

*Cause:* The communication line is not yet active (this is a normal and temporary condition) or a disconnect was received.

*Action:* If this communication check number does not go away after a few seconds, check the modem and communications cables, and call the host computer location and ask that the communication line be activated. If the line remains inactive, inform your network coordinator about the problem you encountered; include the communication check number.

---

#### **14 Communication check 510.**

*Cause:* The communication line is active, but the host computer is not sending information; this is a normal temporary condition.

*Action:* If the message does not go away, call your network coordinator and report the problem you encountered and the communication check number.

---

#### **14 Communication check 518.**

*Cause:* Data reception problem.

*Action:* Call the network coordinator before you try to proceed. Tell your network coordinator about the problem you encountered and the Communication check number.

---

#### **14 Communication check 521.**

*Cause:* Too much time before data was received.

*Action:* Reestablish connection with the host. If Communication Check 521 occurs frequently and you have to reload the program to clear the error, contact your network coordinator.

---

#### **14 Communication check 530.**

*Cause:* Transmit failure timeout.

*Action:* Check your modem. If there is no modem failure, call your network coordinator.

Tell your network coordinator about the problem you encountered and the communication check number.

---

#### **14 Communication check 532.**

*Cause:* Approximately 20 seconds have elapsed without the detection of SYN characters on the line.

*Action:* Verify the operation status of the host line. A valid poll or selection sequence is required.

---

#### **14 Communication check 790.**

*Cause:* You are communicating by way of a DFT attachment, but the control unit is not active or responding.

*Action:* Contact your host personnel.

---

#### **14 Communication check 791.**

*Cause:* You are communicating by way of a DFT attachment, but you selected either Network Station, Gateway, or Gateway with Network Station for your configuration. For BSC DFT attachment, only the Standalone is supported.

*Action:* Change your configuration or your control unit attachment.

---

## **15 SAVE, REQST, or DEV CNCL - save failed.**

*Cause:* Your attempt to save or store the information displaying on your screen on the diskette has failed.

**Note:** This message is preceded by a message explaining why the save failed. Note the message and refer to your reference files for appropriate actions.

*Action:* Press one of the following keys:

- SAVE key to save file.
  - DEV CNCL key to end Save operation.
  - REQST key to rename Save file.
- 

## **16 RESET - host message received and rejected.**

*Cause:* A control program message was received while your IBM PC was communicating with an application program.

*Action:* Press RESET. If the message reappears, call your local IBM Network coordinator.

---

## **17 Wait. Communication check (...).**

*Cause:* For DFT attachment, the control unit reported an error with the host. For other attachments, see the appropriate communication check under message 14.

*Action:* See the *3274 Control Unit Description and Programmer's Guide* for recovery.

---

## **18 Wait - end requested.**

*Cause:* The host computer is ending communication.

*Action:* Wait 1 minute, then retry your operation. If the condition persists, contact your network coordinator or host personnel.

---

## **19 Wait or DEV CNCL - printer busy.**

*Cause:* You tried to Screen Print while another screen was being printed.

*Action:* Wait until the first screen has printed, *or* press the DEV CNCL key to cancel Screen Print.

---

## **20 Wait or DEV CNCL - printer very busy.**

*Cause:* You tried to print a screen during a host-initiated print.

*Action:* Wait until the file has printed, *or* press the DEV CNCL key to cancel your print request.

---

## **21 Wait or DEV CNCL - printer not working.**

*Cause:* The printer needs operator intervention, or the printer is not working correctly.

*Action:* Press the Msg key to receive the operator intervention message and try to solve the printer problem, *or* press the DEV CNCL key to cancel your print request.

---

## **22 DEV CNCL - printer not working.**

*Cause:* The printer needs operator intervention, or the printer is not working correctly.

*Action:* Press the Msg key to receive the operator intervention message and try to solve the printer problem, or press the DEV CNCL key to cancel your print request.

---

## **30 Invalid Host Command**

*Cause:* You specified an invalid host command for File Transfer in the Communication Setup menu.

*Action:* Specify a valid host command. It must be eight characters or less with only numbers, letters, or special characters. The tab is not allowed.

---

## **31 Cannot END TASK during file transfer, use DEV CNCL to cancel.**

*Cause:* You pressed the END TASK key during a file transfer. The END TASK key is disabled during file transfer.

*Action:* Press the DEV CNCL key to cancel the file transfer. Then press the END TASK key if you still want to end your 3270 session.

---



**32 Cannot use file transfer while file transfer in progress.**

*Cause:* You issued a File Transfer command while you were already uploading or downloading a file.

*Action:* Wait until File Transfer is completed.

---

**33 Wait - device cancel in progress.**

*Cause:* You pressed the DEV CNCL key during File Transfer.

*Action:* None.

---

**34 File transfer cancelled at operator request.**

*Cause:* You pressed the DEV CNCL key or Ctrl + Break (in the Alternate Field or a TopView window) during a file transfer. The transfer process has been terminated.

*Action:* Proceed with task.

---

**35 Task unavailable - no display session active.**

*Cause:* You selected the File Transfer option in the 3270 Request Tasks menu, but IBM PC 3270 Emulation was not in an LU2 session.

*Action:* Make some other choice in the 3270 Request Tasks menu, or establish an LU2 session.

---

**36 Wait or DEV CNCL - File transfer in progress.**

*Cause:* You entered a File Transfer command and the system is processing your request.

*Action:* Wait for File Transfer to complete, or press the DEV CNCL key to cancel your File Transfer request.

---

**37 Wait or DEV CNCL - Bytes transferred: (...).**

*Cause:* If you are *creating or uploading* a file, this message replaces the "TRANS01" message after approximately 2K of initial data has been transferred, and continues with updates at intervals of approximately 2K until the file transfer is complete.

*Action:* Wait until the File Transfer is complete, or press the DEV CNCL key to cancel the File Transfer.

---

### **38 Send/receive function not available.**

*Cause:* You issued a File Transfer command from the Alternate Field or TopView window, but one of the following conditions exists:

- You did not load IBM PC 3270's Communicate Task by selecting "Communicate" from the 3270 Task Selection menu.
- Communicate Task is loaded, but you did not select "Yes" to activate the File Transfer option in the Communication Profile Tasks menu.
- The PSCAPI.COM Program is not loaded.

*Action:* Check each of the possible causes listed above and correct the menus as indicated, or exit 3270 Emulation, load the PSCAPI.COM Program, and reload 3270 Emulation.

---

### **39 File Transfer being cancelled.**

*Cause:* You issued a File Transfer command from the Alternate Field or TopView window, but you pressed the Ctrl and Break keys and terminated the File Transfer.

*Action:* Wait for message number 34 to appear. Then, retry or proceed as otherwise desired.

---

## **50 Invalid name.**

*Cause:* You specified an invalid name for a file. The name can contain any combination of letters (A-Z), numbers (0-9), or both.

*Action:* Press the ESC key and retype the name using valid characters, *or* display the directory contents and note exactly how the file name is typed.

---

## **51 (...) is damaged. Use a copy.**

*Cause:* The disk containing the file or program you tried to access is unusable.

*Action:* Use another copy of the program.

---

## **52 Disk error on drive (...).**

*Cause:* The diskette you loaded in the specified disk drive has an error, *or* the diskette is not mounted in the specified drive.

*Action:* Make sure the diskette is in the right drive, *or* refer to the *IBM PC Guide to Operations* for recovery.

---

### **53 Invalid choice.**

*Cause:* In the List of Network Stations menu, there are duplicate items or more than eight items for the display sessions and printer sessions; *or* in the Communication Setup menu, you specified an invalid host command for the File Transfer and then attempted to cancel this option; *or* you selected "Start" for the Data Trace option, but Data Trace has been disabled by the Trace and Line Description Disable Program.

*Action:* Enter a new file transfer command, *or* change one of the duplicate items, *or* press the ESC key to cancel the menu; *or* re-install 3270 Emulation using the *original* diskettes if you want to use the Data Trace option.

---

### **54 Invalid ID letter.**

*Cause:* You specified an invalid ID letter on a menu.

*Action:* Specify a valid ID letter, one of those displayed on the menu.

---

### **55 Diskette on drive (...) is unsupported type.**

*Cause:* You are using a diskette that IBM PC 3270 Emulation cannot support; it may, for example, be an unformatted diskette.

*Action:* Restart the task using a diskette that is a supported type.

---

## 56 (...) not found.

*Cause:* The file name that you entered does not exist as typed, *or* the correct disk is not inserted.

*Action:* First, try the following steps:

1. Display the directory.
2. Check the spelling and capitalization of the file name.
3. Choose the item again, and type it exactly as it appears in the directory, or choose the file from the directory.
4. Press the Enter key.

If the message displays again, insert the correct disk and try again, *or* press the ESC key to cancel the task.

---

## 57 (...) already exists.

*Cause:* When the system requested the file name, you entered a file name with one of the following problems:

- It is already on a disk
- It is the same as a file name with an .RES extension that exists on your disk
- It either already exists for an output file or is a default output file name used by the system.

*Action:* Use a different file name, *or* delete or rename the file with the .RES extension.

---

## **58 (...) is unsupported type.**

*Cause:* You specified a file for the Screen Save, Data Trace, File Transfer, or Deferred Print that is a Revisable-Form document.

*Action:* Restart the task using a file that is not a Revisable-Form document.

---

## **59 Invalid key.**

*Cause:* You pressed either a key which is invalid for your 3270 Keyboard while in the 3270 Frame, or the REQST key while the directory is displayed on the screen; *or* while in the List of Network Stations menu or Status of Network Stations menu, you attempted to cursor down past the last menu or up above the first menu.

*Action:* Select a valid key. For the Gateway configuration, your choices are REQST, RESET, DIR, Msg, Alt Task, END TASK, and PrtSc. In the List and Status of Network Station menus, your valid keys are the cursor up and cursor down keys.

---

## **60 Too many characters. BACKSPACE or ESC.**

*Cause:* You specified a value for an item that is longer than allowed for that item.

*Action:* Backspace to remove the extra characters, *or* specify a shorter value, *or* press the ESC key to cancel the prompt.

---

## **61 Name not specified.**

*Cause:* When the system requested a file name, you pressed the Enter key without typing the file name first.

*Action:* Type the file name and press Enter.

---

## **62 Diskette on drive (...) is write protected.**

*Cause:* The disk on which the 3270 screen, Deferred Print file, File Transfer file, or Data Trace data is to be saved is write protected.

*Action:* Retry using a disk that is not write protected.

---

## **63 Disk error accessing program (...).**

*Cause:* A disk error occurred while the system was trying to load a program.

*Action:* Try to load the program again, *or* if you have another copy of the program, try to load it.

---

## **64 Invalid drive specifier.**

*Cause:* The drive specifier you typed is not valid for your system.

*Action:* Select a valid drive specifier and try again (see an *IBM PC DOS User's Guide* for more details).

---



**65 Specified file(s) invalid for this task.**

*Cause:* You have specified a file that cannot be used for the task you have selected.

*Action:* Use a different file name and retry.

---

**66 Disk full on drive (...). Restart task using another disk.**

*Cause:* The disk on which the Deferred Print or File Transfer file, 3270 screen, or Data Trace data is to be saved is full.

*Action:* Restart the task using a disk with available space.

---

**67 Directory error for (...).**

*Cause:* The directory specified for the Screen Save, Data Trace, File Transfer, or Deferred Print does not exist, *or* the directory specified is the root, and it is full.

*Action:* Specify another directory and retry.

---

**68 Invalid choice. File name cannot exceed 44 characters.**

*Cause:* You specified a file name greater than 44 characters.

*Action:* Specify a file name of 44 characters or less *or* press the ESC key to cancel the operation.

---

## **69 No files found for (...)**

*Cause:* The directory you chose for the Display Directory function was not found *or* has no files in it.

*Action:* Choose a different directory.

---

## **70 DIR not available. Use Alternate Field and DOS DIR command.**

*Cause:* You pressed the DIR key and there is not enough memory to load the DIR function.

*Action:* Return to the 3270 Task Selection menu and press the DIR key there, or use the Alternate Tasks function.

**Note:** If, when you press the DIR key, there is an outstanding prompt for file name, the item selected in the Display Directory menu will be used to answer the prompt.

---

## **71 Unknown DOS critical error detected.**

*Cause:* IBM PC DOS, which was loaded before the IBM PC 3270 Emulation Program, has been terminated by an error.

*Action:* Try to start over, using a backup copy of IBM PC DOS before you load IBM PC 3270 Emulation.

---

## 72 Printer error. (...) cancelled.

*Cause:* Possible causes are:

- An error was encountered by your system while it was trying to access the printer during a print job
- There may be a printer-related problem, such as a paper jam, loss of power, the printer is out of paper, the printer ribbon may need to be changed, or the printer was not ready because **Stop** or **Offline** was pressed
- Your system has an unrecoverable hardware error
- DOS background print or another print job is active, and the printer is consequently unavailable.

*Action:* Check for any of the printer or printer system problems described above, and then try again, or wait for the current print job to finish and then try again, or cancel any other print jobs and start your print job.

---

## 73 Program (...) not found.

*Cause:* You tried to use a program that does not exist on your disk or that is in a different directory and you specified no path command.

*Action:* Use a different program, use a disk with the program on it that you need, or specify a path command.

---

**74 Cannot open file. Maximum number of files open.**

*Cause:* You cannot use the task you chose because it would require more files to be open than your system has available to it.

*Action:* Choose another task, or change the configuration of your system by including a FILES command in a CONFIG.SYS DOS file. For more information, see the directions for configuring your system in the *IBM PC DOS User's Guide* that corresponds to the level of DOS you are using (3.1 or 3.2 are possibilities).

---

**75 (...) is invalid program.**

*Cause:* A file exists on the disk which is not a program but which has the correct program name.

*Action:* Use another copy of the program.

---

**76 Software error. Record screen and error status. Press any key or power off.**

*Cause:* IBM PC 3270 Emulation encountered a software error that caused the system to abnormally halt the running of the program.

*Action:* Record the state of the screen (note the menu name, status indicators, and the numbers of any message). Then press any key to return to IBM PC DOS (or turn off the IBM PC), and contact your network coordinator.

---

## **77 Insufficient memory.**

*Cause:* Your PC does not have enough memory to load the minimum system configuration for 3270 Emulation.

*Action:* Additional memory is required to use 3270 Emulation. Refer to the memory requirements that are listed in the *System Planner's and User's Reference*, then secure enough memory for your PC so it can load 3270 Emulation and perform the basic tasks.

---

## **80 RESET or END TASK - sessions will be cancelled.**

*Cause:* You pressed the END TASK key on the Gateway or Gateway with Network Station.

*Action:* There is no way to end only the Network Station session on a Gateway with Network Station. If you have not logged off, press the RESET key and then perform the logoff procedure from your Run Book. Check that all people on your IBM Network are ready to end. If you have logged off and all Network Stations are ready to end, press the END TASK key again.

---

## **81 Cannot choose active session.**

*Cause:* You selected an active Printer or Display Session to be changed or deleted in the List of Network Stations menu.

*Action:* Wait until the session is inactive, or select another session; or press the ESC key to cancel the menu.

---

## **82 GATEWAY Name not in List of Network Stations. Use Profile Tasks.**

*Cause:* For the Gateway with Network Stations configuration, your Gateway name is not specified as a Network Station in the List of Network Stations menu.

*Action:* Return to the Communication Profile Tasks menu and add the Gateway name to the List of Network Stations menu.

---

## **83 Use Profile Tasks to specify a Station name.**

*Cause:* For the Network Station configuration, you did not specify a Network Station name in the Communication Setup menu.

*Action:* Use Communication Profile Tasks to specify a Network Station name in the Communication Setup menu.

---

## **84 Use Profile Tasks to specify a Gateway name.**

*Cause:* For the Gateway or Gateway with Network Station configuration, you did not specify a Gateway Name in the Gateway Setup menu.

*Action:* Use Communication Profile Tasks to specify a Gateway name in the Gateway Setup menu.

---

**85 Wait - Gateway has not called Network Station.**

*Cause:* You have loaded IBM PC 3270 Emulation in the Network Station PC, but the program has not been loaded in the Gateway PC.

*Action:* Make sure IBM PC 3270 Emulation is loaded in the Gateway PC and that your Network Station name is in the Gateway List of Network Stations. Add the name, if necessary, wait one minute and retry your operation. If you do not know which IBM PC is your Gateway Station or if the problem persists, contact your network coordinator or host support personnel.

---

**86 Wait - too many sessions on PC network.**

*Cause:* The maximum number of sessions with Network Stations is already established, or some other application is using IBM PC Network sessions.

*Action:* Wait until a session is available, or end the other application and reload IBM PC 3270 Emulation. For more information, see the information on resetting the adapter in the *System Planner's and User's Reference*.

---

## **87 PC network error (...).**

*Cause:* A problem with the IBM PC Network Adapter or IBM Token-Ring Network Adapter, *or* some other network condition is preventing the Network Station from communicating on the network.

*Action:* Wait 5 to 10 minutes, then retry your operation. If the problem persists, contact your network coordinator or host personnel.

---

## **88 Cannot call all requested Network Stations.**

*Cause:* Some other applications are using network sessions; there are consequently not enough sessions available to provide for the number of IBM PC Network or IBM Token-Ring Network sessions that you have requested.

*Action:* End the other sessions, *or* allow only the available number of sessions to be used by the IBM PC 3270 Emulation Program by requesting fewer Network Station sessions. For more information, see the information on resetting the adapter in the *System Planner's and User's Reference*.

---



## **89 Unable to load; not enough Network Control Blocks (NCBs).**

*Cause:* Some other applications are using network sessions; there are consequently not enough sessions available to provide for the number of IBM PC Network or IBM Token-Ring Network sessions that you have requested.

*Action:* Continue to use IBM PC 3270 Emulation using no more 3270 sessions, or end the other application's sessions. For more information, see the information on resetting the adapter in the *System Planner's and User's Reference*.

---

## **90 PC network error (...).**

*Cause:* There is a network condition or problem that is preventing the workstation from communicating on the local area network.

*Action:* Contact your network coordinator and describe the problem, or refer to the *IBM PC Local Area Network Program 1.1 User's Guide* or IBM Token-Ring Network user's documentation.

---

## **91 Name (...) already in use. Use Profile Tasks.**

*Cause:* You tried to give your station a name that already exists on the IBM PC Network or the IBM Token-Ring Network.

*Action:* Select another name in the Communication Profile Tasks menu or in the Gateway Setup menu.

---

**92 Function is not available on Gateway.**

*Cause:* You pressed an IBM PC 3270 Emulation function key that is not valid for the Gateway function.

*Action:* Valid keys for the Gateway are Alt Task, Msg, REQST, RESET, END TASK, PrtSc and DIR.

---

**93 Key is not available on Gateway.**

*Cause:* You pressed an IBM PC 3270 Emulation function key that is not valid for the Gateway function.

*Action:* Choose one of the valid keys for the Gateway: DIR, REQST, END TASK, RESET, Alt Task, Msg, and PrtSc.

---

**94 Too many sessions on PC network.**

*Cause:* The maximum number of sessions on the PC Network is already established, leaving no sessions for use by your IBM PC 3270 Emulation Program.

*Action:* Wait until a session is available, or end the other application and reload IBM PC 3270 Emulation. For more information, see the information on resetting the adapter in the *System Planner's and User's Reference*.

---

## **95 Wait - ending task.**

*Cause:* The END TASK function is being performed on the Gateway or Gateway with Network Station; this is a normal, temporary report of task status.

*Action:* Wait 1 minute. If the message remains on the Operator Information Line, retry your operation. If the problem persists, contact your network coordinator or host personnel.

---

## **100 Unable to load program; communication hardware unavailable.**

*Cause:* There is no SDLC, DFT, IBM PC Network, or IBM Token-Ring adapter(s) installed as your configuration requires.

*Action:* Contact your network coordinator.

---

## **101 RESET or END TASK - display session active.**

*Cause:* You pressed the END TASK key while the display application was still active.

*Action:* If you have not logged off, press the RESET key, then perform the logoff procedure from your Run Book. If you have logged off, press the END TASK key again.

---

## **102 REQST or DEV CNCL - screen save file not named.**

*Cause:* You have not named the file that will be created *or* added to when the display is saved on diskette.

*Action:* Use the REQST key to name file, *or* press the DEV CNCL key to end the save operation.

---

## **103 RESET or END TASK-display/print sessions active.**

*Cause:* You pressed the END TASK key while the display and printer applications were still active.

*Action:* If you have not logged off, press the RESET key, then perform the logoff procedure from your Run Book. If you have logged off, press the END TASK key again.

---

## **104 Use Profile Tasks to create a modem and line description.**

*Cause:* You have not specified an SDLC Station Address in the Modem and Line Description menu.

*Action:* Contact your network coordinator and obtain the Customization Worksheets. Go to the Modem and Line Description menu and specify an SDLC Station Address.

---

**105 SAVE, REQST, or DEV CNCL - file for save named.**

*Cause:* The task to name a save file is complete. A Save file has been previously named.

*Action:* Press one of the following keys:

- SAVE key to save file.
  - DEV CNCL key to end Save operation.
  - REQST key to rename another Save file.
- 

**106 File for 3270 print to disk not named.  
Use Request Tasks.**

*Cause:* You have not named the 3270 Print to Disk file.

*Action:* Name the 3270 Print to Disk file in the 3270 Request Tasks menu.

---

**107 Use Request Tasks to name a new file for 3270 print to disk.**

*Cause:* The print data cannot be written to your disk.

*Action:* Press the REQST key, type **b** "Name PC File for 3270 Print to Disk," and press the Enter key. When prompted, type a new Print file name.

---

**108 Invalid choices. Change choices marked with \*\*.**

*Cause:* You did not specify the Network Station Name or Gateway Station Name before exiting the menu, *or* the Network Station Name specified is invalid.

*Action:* Either change your choices that are marked with \*\*, *or* press the ESC key to cancel the invalid choices made in the menu. If no selections were made, IBM PC 3270 Emulation will exit the menu. If you made selections, the invalid selections will be cancelled the first time you hit the ESC key. Press ESC again to exit the menu.

---

**109 RESET or END TASK - printer session active.**

*Cause:* You pressed the END TASK key while the printer application was still active.

*Action:* If you have not ended the printer session, press RESET, then perform the procedure from your Run Book. If you have ended the printer session, press the END TASK key again.

---

**110 PC LAN Program Version 1.1 or later is required to run configurations other than Redirector with PC 3270 Emulation.**

*Cause:* You used a *lower* version number of the *IBM PC LAN Program* when you tried to run its Server, Messenger, or Receiver option.

*Action:* Use only the PC LAN Redirector option, *or* use *IBM PC LAN Program 1.1*.

---

## **120 Invalid 3270 Keyboard selected.**

*Cause:* You did not specify a 3270 Keyboard, or the keyboard specified is invalid.

*Action:* Refer to the the keyboard extensions appendix in the *System Planner's and User's Reference* for information on supported 3270 keyboards and retry the operation.

---

## **121 Exit and reload 3270.**

*Cause:* You selected "Yes" for "3270 Keyboard Remap," and you specified an input filename. You must reload IBM PC 3270 Emulation to activate the remapping application.

*Action:* Select "Exit" by typing z in the Task Selection menu. Then reload IBM PC 3270 Emulation.

---

## 122 Task not available for selected configuration.

*Cause:* In the Communication Profile Tasks menu, one of the following errors exists:

- Your configuration is Gateway, and you selected “Create or Revise Communication Setup.”
- Your configuration is Network Station, and you selected “Create or Revise Modem and Line Description.”
- Your configuration is Standalone or Network Station, and you selected “Create or Revise Gateway Setup.”
- You disabled access to the Modem and Line Description menu by running the Trace and Line Description Disable Program, but you selected “Create or Revise Modem and Line Description” from the Communication Profile Tasks menu.
- You chose an Item in the 3270 Request Tasks menu that is not valid for your configuration. The following are not valid for the Gateway configuration:
  - Name PC File for 3270 Screen Save
  - Name PC File for 3270 Print to Disk
  - 3270 Printer Requests
  - File Transfer.

Display Status of Network Stations and Revise List of Network Stations are valid for the Gateway and Gateway with Network Station. Data Trace is valid for all configurations. Screen Mode is not valid with a monochrome display.

*Action:* Select a task that is valid for your configuration, or if you want to access the Modem and Line Description menu, re-install 3270 Emulation using the *original* program diskettes.



**123 Task not available for selected  
Communication Attachment.**

*Cause:* Your configuration is Gateway, Gateway with Network Station, or Standalone, and you selected "Create or Revise Modem and Line Description" in the Communication Profile Tasks menu, *and* you selected "DFT" as your Communication Attachment.

*Action:* Select another task that is valid for your specified communication attachment.

---

**124 Alternate Tasks is not available with  
TOPVIEW.**

*Cause:* You pressed the Alt Task key while IBM PC 3270 Emulation was running under IBM TopView.

*Action:* None.

---

**125 RESET - machine check (...).**

*Cause:* Incompatibility with control unit.

*Action:*

*Action:* See the *3274 Control Unit Description and Programmer's Guide* for recovery. If the problem persists, report it to your network coordinator or other support personnel.

---

**126 Unable to load program; not enough memory.**

*Cause:* Your IBM PC does not have enough memory to load the Communication Task with the configuration options you have selected, or you selected "Communicate" after configuring your profile without reloading the program first.

*Action:* Either change your configuration selections to use less memory, have additional memory added to your IBM PC, or reload the program.

---

**127 Station not configured for Alternate Tasks.**

*Cause:* Your Communication Profile Tasks menu does not specify "Yes" for the Alternate Tasks option.

*Action:* If you want to use Alternate Tasks, go to the Communication Profile Tasks menu, and specify "Yes" for the Alternate Tasks option.

---

**128 Not enough memory for Alternate Tasks.**

*Cause:* You pressed the Alt Task key and there was not enough memory available to support the two fields.

*Action:* Install enough memory in your IBM PC, or perform your operation without using Alternate Tasks.

---

## 129 Printer not ready. Check printer.

*Cause:* There is a printer error such as Paper Jam, Printer Not Ready, Printer Not Attached, or Printer Power Off.

*Action:* Check your printer for any of the error conditions listed: fix the problem and wait a minute for printing to continue; or if no printer is attached, press the END TASK key and type a (Communicate) in the 3270 Task Selection menu.

*Note:* A 10-minute timer is set and the following conditions apply:

- For an operator initiated screen print, if the time expires and the error has not been cleared, the screen print is cancelled and normal processing resumes.
- For a host initiated screen print, if the time expires and the error has not been cleared, the error condition is reported to the host. Normal processing will not resume until the error condition is cleared.
- If the printer error condition is cleared before the time expires, printing will continue after a delay of approximately one minute.

---

## 130 File already exists. Name a new file for Data Trace.

*Cause:* You specified a Data Trace file name that already exists. Trace data cannot be appended to an existing file.

*Action:* Choose an original file name and retry.

---

**131 Disk or file error. ESC or retry with new disk or file.**

*Cause:* There is a disk or file error in the file you named for Data Trace when the file was opened.

*Action:* Use the ESC key to cancel the menu (the Data Trace will not be started), or retry with a new disk or file.

---

**132 Trace stopped. Use REQST to restart trace.**

*Cause:* Your Data Trace has stopped because there is a problem with the disk.

*Action:* Using another disk, use REQST to restart the trace. See the discussion on the Request Tasks menu in the *System Planner's and User's Reference* for valid options for each configuration.

---

**134 Exit and reload 3270. Change max size in PIF to (...).**

*Cause:* IBM TopView is active and you changed the values for your configuration, Alternate Tasks option, communication attachment specification, or keyboard remap option. As a result, you changed the amount of memory that IBM PC 3270 Emulation requires. The number that appears in the message in the same location as the (...) printed above indicates the amount of memory now required.

*Action:* Exit IBM PC 3270 Emulation, access the IBM TopView Program Information File, and change the maximum memory size to the number shown in this message. Reload IBM PC 3270 Emulation.

---

**135 Exit and reload 3270. New size: (...) KB.**

*Cause:* You changed the values for your configuration, Alternate Tasks option, communication attachment specification, or keyboard remap option. As a result, you changed the amount of memory that IBM PC 3270 Emulation requires. The number that appears in the message in the same location as the (...) printed above indicates the amount of memory now required.

*Action:* Exit IBM PC 3270 Emulation and reload.

---

### **136 Program in Alternate Field must be ended.**

*Cause:* You typed **z** to exit from the 3270 Task Selection menu, and an active program in the Alternate Field requires that it must be ended before IBM PC 3270 Emulation can perform this task.

*Action:* Return to the Alternate Field and end the program running there, then return to the 3270 menu to exit, or proceed as desired.

---

### **137 Use Profile Tasks to specify a multiple of four for SDLC Station Address.**

*Cause:* Your PC is not customized as a Network Station, you selected IBM Token-Ring Network as your host attachment, and the value that you specified as the SDLC Station Address is not a multiple of four.

*Action:* Access the Modem and Line Description menu and specify a multiple of four as the SDLC Station Address. Your choice should be **04** if 3270 Emulation is attached to a 3725.

---

### **138 Conflict in interrupt level for communications hardware.**

*Cause:* You typed a to start a 3270 Emulation session from the 3270 Task Selection menu, and you are using the Voice Communications Adapter and Token-Ring Network Adapter. Both adapters are set to interrupt level 7, and you have specified Token-Ring as your communications attachment.

*Action:* Change one of the interrupt level settings so that the two adapters are not using the same level.

---

### **140 Remapping is complete.**

*Cause:* You loaded 3270 Emulation, and the keys have been remapped to the definitions in the input file that you specified. 3270 Keyboard Remap is now active.

*Action:* No action is required.

---

### **141 Remapping to original definitions is complete.**

*Cause:* You previously had an active remapping, but you selected "No" to the 3270 Keyboard Remap option, exited the Communication Profile Tasks menu, and the remapping has been turned off.

*Action:* No action is required.

---

**142 See PSCREMAP.ERR file for remapping errors.**

*Cause:* You specified "Yes" for the 3270 Keyboard Remap option, loaded 3270 Emulation, and errors were found in the input file that you specified.

*Action:* Check the PSCREMAP.ERR file and correct the errors listed in it.

---

**160 Wait - API in use.**

*Cause:* A Disable Input service request was issued.

*Action:* Wait until the application program issues an Enable Input service request or a Disconnect From Keyboard service request (program dependent).

---

**161 Cannot END TASK while API is in use.**

*Cause:* You pressed the END TASK key between the time a Disable Input Service request was issued and the time an Enable Input Service request was issued.

*Action:* Wait until the application using the PS API is terminated, then press the END TASK key; *or* end the application using the PS API, then press the END TASK key.

---



**162 API function not available; you have not loaded PSCAPI.COM.**

*Cause:* PSCAPI.COM was not run before loading IBM PC 3270 Emulation, you specified in the Communication Setup menu that you want to use the PS API or the SRPI and you selected Communication Tasks from the 3270 Task Selection menu.

*Action:* Return to IBM PC DOS, run the PSCAPI.COM program, and reload IBM PC 3270 Emulation, *or* continue in Communicate Tasks but you will not be able to use either of the API's or File Transfer from the Alternate Field.

---

**163 Cannot use file transfer while API is in use.**

*Cause:*

- You tried to issue a File Transfer command from the 3270 Frame, the Alternate Field, or an IBM TopView 1.1 window between the time a Disable Input service request was issued and the time an Enable Input service request was issued
- or*
- You tried to issue a File Transfer command from the 3270 Frame, or the Alternate Field while the SRPI was in use.

*Action:* End or wait until the the application using the PS API is terminated, *or* end the SRPI then try the File Transfer (SEND or RECEIVE command) again.

---

**166 PSCAPI - IBM PC 3270 Emulation support program loaded.**

*Cause:* You loaded PSCAPI.COM, or PSCAPI.COM was previously loaded.

*Action:* No action is required. Load IBM PC 3270 Emulation to continue.

---

**167 PSCAPI - IBM PC 3270 Emulation support program cannot be loaded when TopView is running. Exit TopView, type PSCAPI again, and press Enter.**

*Cause:* You tried to load PSCAPI.COM while working in a TopView window; TopView does not support this application.

*Action:* If you still want to use PSCAPI, complete your TopView work and/or terminate the TopView session.

---

**168 PSCAPI - IBM PC 3270 Emulation support program cannot be loaded in the Alternate Field. Exit IBM PC 3270 Emulation, type PSCAPI again, and press Enter.**

*Cause:* You tried to load PSCAPI.COM while working in the Alternate Field. You must issue the PSCAPI command *before* loading IBM PC 3270 Emulation.

**Note:**

If PSCAPI.COM is invoked in the Alternate Field after having been successfully loaded prior to IBM PC 3270 Emulation Program, message 166 is produced.

*Action:* If you still want to use PSCAPI, exit IBM PC 3270 Emulation, type **PSCAPI** at the DOS prompt, and reload the Emulation Program.

---

**180 Communication error. Unable to disconnect.**

*Cause:* You have a wrong line configuration, and the modem cannot drop its signal.

*Action:* Check your Customization Worksheets to be sure that you have the right configuration.

---

**181 An SDLC Station Address must be specified.**

*Cause:* You tried to exit the Modem and Line Description menu without specifying an SDLC Station Address.

*Action:* Choose the ID "c" and specify the SDLC Station Address.

---

**182 Use Request Tasks to send PA1 or PA2 printer message to host.**

*Cause:* The host computer has requested PA1 or PA2 (application program dependent).

*Action:* Choose PA1 or PA2 as specified by your Run Book.

---

**183 Message (Buffer Reprint) sent to host.**

*Cause:* You selected Buffer Reprint in the 3270 Printer Requests menu.

*Action:* No action is necessary.

---

**183 Message (PA1) sent to host.**

*Cause:* You selected PA1 in the 3270 Printer Requests menu.

*Action:* Proceed with your task.

---

### **183 Message (PA2) sent to host.**

*Cause:* You selected PA2 in the 3270 Printer Requests menu.

*Action:* Proceed with your task.

---

### **184 Buffer not available for reprint.**

*Cause:* You selected "Reprint Buffer" from the 3270 Printer Requests menu, and the last buffer stored in the printer has been partly replaced by another buffer received from the host computer; or the first buffer has not been received from the host computer.

*Action:* No action is possible unless the host computer sends the buffer again.

---

### **185 Print cancelled.**

*Cause:* You selected Cancel Print from the 3270 Printer Requests menu.

*Action:* Proceed with task.

---

### **186 Printer Alarm received from host.**

*Cause:* The host computer has sent a printer alarm.

*Action:* Perform the predetermined actions from your Run Book.

---

## **200 Invalid option on PSCPG command.**

*Cause:* You specified an invalid option for fast path or automatic Alt Task key.

*Action:* If you are using a batch file, edit it and change the PSCPG command to reflect the correct option. Otherwise, type the Fast Path option or the automatic Alt Tasks key option correctly on the command line.

---

## **201 Too many characters in program directory path.**

*Cause:* You typed too many characters in the path name for the program directory.

*Action:* Check your spelling and try again, or shorten the path name to 28 characters or less.

---

## **202 Cannot load IBM PC 3270 Emulation Program in Alternate Field.**

*Cause:* You tried to load 3270 Emulation in the Alternate Field, but 3270 Emulation is already loaded.

*Action:* No action is required.

---

## **250 No changes to the IBM PC 3270 Emulation Program have been made.**

*Cause:* You ran the Trace and Line Description Disable Program and specified n (no) for the prompt asking if you wanted to continue.

*Action:* No action is required.

---

**251 Changes to the IBM PC 3270 Emulation Program are complete.**

*Cause:* You ran the Trace and Line Description Disable Program, and the changes to the IBM PC 3270 Emulation Program have been successfully completed.

*Action:* No action is required.

---

**253 File (...) not found.**

*Cause:* The 3270 Emulation file that you specified cannot be found.

*Action:* Check your spelling on the directory path option. Check that the 3270 Emulation files can be found on the directory you specified in the directory path option. If you did not specify the directory path option, check the default drive and current directory.

---

**254 Incorrect IBM PC 3270 Emulation Program version.**

*Cause:* The IBM PC 3270 Emulation Program you are using is not at version 3.00.

*Action:* Retry using IBM PC 3270 Emulation Program, Version 3.00.

---

## **255 Read/write error on file (...)**

*Cause:* You ran the Trace and Line Description Disable Program, but a read or write from one of the 3270 Emulation files was unsuccessful.

*Action:* Rerun the Trace and Line Description Disable Program. If the problem continues, you may have a damaged diskette.

---

## **300 Cannot use the SRPI API while running TOPVIEW.**

*Cause:* You configured for "SRPI" or "Both" in the "Communication Setup" menu while customizing the profile, and you are running TopView.

*Action:* Do not use IBM Enhanced Connectivity Facilities (SRPI) while using TopView.

---

## **301 SRPI is suspended; operator action may be needed.**

*Cause:* You have received 3270 screen data from the host while the SRPI is running.

*Action:* If you are currently using the SRPI, operator action may or may not be required, depending on the contents of the screen data. SRPI processing will no longer be suspended when the Enhanced Connectivity Facilities logo displays and you access the Alternate Field.

If you are not currently using the SRPI and you do not want this message to display each time screen data is received, type **STOPSR** in the Alternate Field.

---



### **302 Key not valid for responding to an unsolicited message from the host.**

*Cause:* You received an error message 301 indicating that you are in an unsolicited message state. You then pressed a 3270 Emulation key that is not allowed when an unsolicited message is displayed. The disabled keys are: DIR, SAVE, REQST, Print, and DEV CNCL.

*Action:* Take the appropriate action to reset or resolve the unsolicited message state without using an inactive 3270 Emulation key.

---

### **304 Press Alt + Esc to ensure that the END TASK process completes.**

*Cause:* You pressed the END TASK key, but the SRPI is active and has an outstanding request to which the host has not yet replied, or a file transfer is active in the Alternate Field.

*Action:* Press the Alt Tasks key to go to the Alternate Field, let the file transfer or SRPI request complete, and press the Alt Tasks key to return to the 3270 Field.

---

**305 Key not allowed. Press Alt + Esc to resume Alternate Field.**

*Cause:* The host issued an unsolicited message while you were in the Alternate Field. In order to reset or resolve the unsolicited message state, you entered the 3270 Field. After resolving the unsolicited message, you pressed a 3270 Emulation key that is disabled until you return to the Alternate Field.

*Action:* Press the Alt Tasks key to return to the Alternate Field.

---

**920 Waiting for the IBM S/370 Enhanced Connectivity program to complete its initiation. If you have not already started the IBM S/370 Enhanced Connectivity program, access the 3270 Field and start the S/370 Enhanced Connectivity program before returning to the Alternate Field.**

*Cause:* This informational message displays after the STARTSR command is issued.

*Action:* If you have already started the S/370 router, no action is necessary. If you have not already started the S/370 router, follow these steps:

1. Press the Alt Tasks key to access the 3270 Field.
2. Type **MVSSERV** or **CMSSERV**.
3. Press the Alt Tasks key to access the Alternate Field.

Message 921 displays.

---

**921 The Server-Requester Programming Interface has started.**

*Cause:* The SRPI has started and is ready to process your request.

*Action:* No action is necessary.

---

**922 The Server-Requester Programming Interface is not loaded. Refer to Appendix A in the IBM PC 3270 Emulation User's Guide.**

*Cause:* The SRPI is not loaded as a resident extension to DOS.

*Action:* Return to the 3270 Field and end the communication session. Make sure that your 3270 Emulation profile is properly customized. Type **PSCSRPI** at the IBM PC DOS prompt. Alternately, you may type **PSCAPI** at the IBM PC DOS prompt, load 3270 Emulation, and restart the SRPI.

---

**923 This version of the STARTSR command does not match the version of the PSCAPI command used to load the Server-Requester Programming Interface. Copy STARTSR.COM and PSCAPI.COM from the program diskettes supplied by IBM and try again. If the problem persists stop the IBM S/370 Enhanced Connectivity program, press Ctrl + Alt + Del, and start again.**

*Cause:* The version of the SRPI supported by the PSCAPI command does not match the version used by the STARTSR command.

*Action:* Copy correct the files from your program diskette and restart the SRPI using the instructions in "Restarting the SRPI" on page 10-14. If this does not correct the problem, press Ctrl + Alt + Del and restart the SRPI.

---

**924 The Server-Requester Programming Interface is already started.**

*Cause:* The SRPI was already running when the STARTSR command was issued.

*Action:* No action is necessary.

---

**925 The IBM PC 3270 Emulation program is not loaded or is not configured to support the Server-Requester Programming Interface (SRPI). Ensure the IBM PC 3270 Emulation program is customized to support the SRPI before loading the program and starting the SRPI.**

*Cause:* PC 3270 Emulation was either not loaded, or it was not loaded with the option which supports the SRPI.

*Action:* Customize and load for Enhanced Connectivity Facilities using the steps in Chapter 10, "Using IBM Enhanced Connectivity Facilities."

---

**926 An IBM PC 3270 Emulation software error has occurred. Refer to Appendix A in the IBM PC 3270 Emulation User's Guide.**

*Cause:* A 3270 Emulation software error has occurred.

*Action:* Press Ctrl + Alt + Del and restart.

---

**927 An IBM PC 3270 Emulation software error has occurred. Refer to Appendix A in the IBM PC 3270 Emulation User's Guide.**

*Cause:* An IBM PC 3270 Emulation software error has occurred.

*Action:* STARTSR will return you to the Alternate Field without starting the SRPI. Try to start the SRPI again by using the instructions in "Restarting the SRPI" on page 10-14. If the problem persists, contact your Network Coordinator or the person responsible for maintaining your system.

---

**928 Communication cannot be established with the IBM S/370 Enhanced Connectivity program. Stop and restart the IBM S/370 Enhanced Connectivity program. Go to the Alternate Field, type STARTSR, and press Enter.**

*Cause:* The SRPI has detected a communications protocol error.

*Action:* STARTSR returns you to the Alternate Field. Stop the SRPI by typing STOPSR, then restart the SRPI by typing PSCSRPI or STARTSR. while in the Alternate Field. See "Restarting the SRPI" on page 10-14 for more details.

---

**930 The STARTSR command was cancelled. The Server-Requester Programming Interface is not started.**

*Cause:* The SRPI was processing a STARTSR command when the Ctrl + Break keys were pressed.

*Action:* No action is required unless you want to restart the SRPI. If you do want to restart the SRPI, see "Restarting the SRPI" on page 10-14.

---

**931 The Server-Requester Programming Interface cannot be used with TopView. Exit TopView and try again.**

*Cause:* The STARTSR or STOPSR command was issued from a TopView window; the SRPI does not support the use of TopView.

*Action:* Exit TopView and retry the operation.

---

**932 An IBM PC 3270 Emulation communications error has occurred. Refer to Appendix A in the IBM PC 3270 Emulation User's Guide.**

*Cause:* IBM PC 3270 Emulation detected a communications link error.

*Action:* Re-establish your 3270 session and restart your SRPI using the instructions in "Restarting the SRPI" on page 10-14. If the problem persists, contact your Network Coordinator or the person responsible for maintaining your system.

---

**933 An IBM PC 3270 Emulation software error has occurred. Refer to Appendix A in the IBM PC 3270 Emulation User's Guide.**

*Cause:* A SRPI software error occurred; it prevented the SRPI from being started or from completing its stop process.

*Action:* Re-establish your 3270 session and restart the SRPI using the instructions in "Restarting the SRPI" on page 10-14. If the problem persists, contact your Network Coordinator or the person responsible for maintaining your system.

---

**940 The Server-Requester Programming Interface is stopping. Please wait.**

*Cause:* This status message lets you know that the SRPI is about to begin its stopping process.

*Action:* Wait for message 941 or 947 to display, indicating that the SRPI has completely stopped.

---

**941 The Server-Requester Programming Interface has stopped.**

*Cause:* This status message lets you know that the SRPI has completely stopped and is no longer processing requests.

*Action:* No action is necessary.

---

**942 The Server-Requester Programming Interface is not loaded.**

*Cause:* PSCAPI.COM is not loaded as a resident extension of DOS.

*Action:* No action is necessary.

---

**943 This version of the STOPSR command does not match the version of the PSCAPI command used to load the Server-Requester Programming Interface. Copy STOPSR.COM and PSCAPI.COM from the program diskettes supplied by IBM and try again.**

*Cause:* The version of the SRPI supported by the PSCAPI command does not match the version used by the STOPSR command.

*Action:* Copy the correct file from your program diskettes and retry the operation. If the problem persists, terminate the SRPI by pressing PF3.

---



**945 An IBM PC 3270 Emulation software error has occurred. The Server-Requester Programming Interface is now stopped. Refer to Appendix A in the IBM PC 3270 Emulation User's Guide.**

*Cause:* An IBM PC 3270 Emulation software error occurred.

*Action:* The SRPI will stop processing and return you to the Alternate Field. Restart the SRPI using the instructions in "Restarting the SRPI" on page 10-14. If the problem persists, contact your Network Coordinator or the person responsible for maintaining your system.

---

**947 The Server-Requester Programming Interface is already stopped.**

*Cause:* The SRPI was not active when you attempted to stop it.

*Action:* No action is required.

---

**948 The Server-Requester Programming Interface is busy. Please try again later.**

*Cause:* The SRPI was processing a request when you attempted to stop it.

*Action:* Wait until the SRPI has processed the request and then stop the SRPI.

---

**949 The IBM PC 3270 Emulation program is not loaded or is not customized to support the Server-Requester Programming Interface (SRPI). The SRPI is not started.**

*Cause:* PC 3270 Emulation was either not loaded, or it was not loaded with the option which supports the SRPI.

*Action:* Customize and load for Enhanced Connectivity Facilities using the steps in Chapter 10, "Using IBM Enhanced Connectivity Facilities" on page 10-1.

---

**950 An IBM PC 3270 Emulation communications error has occurred. The Server-Requester Programming Interface is now stopped. Refer to Appendix A in the IBM PC 3270 Emulation User's Guide.**

*Cause:* PC 3270 Emulation detected a system error, such as an improper communications link, that is not a software problem.

*Action:* No action is required. If the problem persists, contact your Network Coordinator or the person responsible for maintaining your system.

---

# TRANS Messages

---

## **TRANS01 File transfer command being processed.**

*Cause:* This status indicator appears in the Alternate Field or in an IBM TopView 1.1 window when a SEND or RECEIVE (File Transfer) request has been made and processing of it has begun.

*Action:* No action is required. The TRANS03 or TRANS04 message will appear when the transfer is completed.

---

## **TRANS02 Number of bytes in file: (...).**

*Cause:* If you are *appending* to a file on the PC, this status indicator will replace the "TRANS01..." in the Alternate Field or in an IBM TopView 1.1 window while a RECEIVE (File Transfer) request is being processed. Updates will be provided until the File Transfer is completed.

*Action:* No action is required. The TRANS03 or TRANS04 message will appear when the transfer is completed.

---

**TRANS02 Number of bytes transferred so far:  
(...).**

*Cause:* If you are *creating or uploading* a file, this status indicator will replace the “TRANS01...” in the Alternate Field or in an IBM TopView 1.1 window while a SEND or RECEIVE (File Transfer) request is being processed. Updates will be provided until the File Transfer is completed.

*Action:* No action is required. The TRANS03 or TRANS04 message will appear when the transfer is completed.

---

**TRANS03 File transfer complete.**

*Cause:* The file transfer operation has been successfully completed.

*Action:* Proceed with your next task.

---

**TRANS04 File Transfer complete with  
records segmented.**

*Cause:* The file transfer operation has been completed, and any record greater than the logical record length (LRECL) of the file being appended will divide and become multiple records.

*Action:* Proceed with your next task.

---

**TRANS05 Personal computer filespec incorrect: file transfer canceled.**

*Cause:* You made an error in the IBM PC DOS filespec. For example, file name or extension: your specified file name and extension may be too long (maximum allowed is 44 characters if an extension is specified, 40 characters with no extension).

*Action:* Be sure the IBM PC DOS filespec in the File Transfer command conforms to the IBM PC DOS requirements for a filespec as stated in "File Transfer Command Format" on page 7-15.

---

**TRANS06 Command incomplete: file transfer canceled.**

*Cause:* You did not enter the required parameters after SEND or RECEIVE.

*Action:* Read "File Transfer Command Format" on page 7-15 for requirements of the SEND and RECEIVE commands and retry.

---

**TRANS07 Cannot link to host: file transfer canceled.**

*Cause:* There is a host connection problem.

*Action:* File transfer may not be working properly. Verify that the host is operating by contacting your host support personnel.

---

**TRANS08 Command transmit error: file transfer canceled.**

*Cause:* There is a program error, or you pressed a key that produced an invalid code. For example, one that cannot be transmitted to the host; or input was inhibited when you initiated File Transfer.

*Action:* (1) Consult your "File Transfer Command Format" on page 7-15 and retry; if unsuccessful, (2) verify that the host computer is operating by contacting your host support personnel.

---

**TRANS11 Lost contact with host: file transfer canceled.**

*Cause:* The host is inactive.

*Action:* Try to re-establish communication with the host. If unsuccessful, contact your host personnel and describe the problem to them.

---

**TRANS13 Error writing file to host: file transfer canceled.**

*Cause:* The host program has detected an error in the file data during a RECEIVE operation.

*Action:* Retry file transfer. If unsuccessful, contact your host personnel and describe the problem to them.

---

**TRANS14 Error reading file from host: file transfer canceled.**

*Cause:* The host program has detected an error in the file data during a RECEIVE operation.

*Action:* Retry file transfer. If unsuccessful, contact your host personnel and describe the problem to them.

---

**TRANS15 Required host storage unavailable; file transfer canceled.**

*Cause:* You need 30K of main storage (not disk space) for the file transfer, in addition to the host requirement.

*Action:* Contact your host support personnel so they can provide you with the additional storage capacity.

---

**TRANS16 Incorrect request code: file transfer canceled.**

*Cause:* An invalid parameter has been sent by the SEND or RECEIVE application.

*Action:* Verify that current versions of SEND, RECEIVE, and IND\$FILE MODULE are correctly installed. If they are, contact your host support personnel.

---

**TRANS17 Missing or incorrect TSO data set name: file transfer canceled.**

*Cause:* You did not specify the TSO data set name, or the specified TSO data set name is not a sequential or partitioned data set.

*Action:* Correct the TSO data set name in the command and retry.

---

**TRANS17 Missing or incorrect. CMS data set name: file transfer canceled**

*Cause:* You did not specify the CMS data set name, or the specified CMS data set name is incorrect.

*Action:* Correct the CMS data set name in the command and retry.

---

**TRANS18 Incorrect option specified: file transfer canceled.**

*Cause:* You specified an option that is not acceptable.

*Action:* Correct the command by specifying an acceptable option and retry.

---

**TRANS19 Error while reading or writing to host disk: file transfer canceled.**

*Cause:* There is not enough space available for data on the host.

*Action:* Look at the 3270 Frame for host indications and correct the problem.

---



**TRANS27 Communication sequence with host disrupted: file transfer canceled.**

*Cause:* There is a program error, or you pressed the DEV CNCL key and the host computer has not responded.

*Action:* Contact your host support personnel.

---

**TRANS28 Invalid option (...): file transfer canceled.**

*Cause:* You selected an option that is either not recognized, is specified as a positional keyword, or has an associated value that is incorrect.

*Action:* Correct the option in the command and retry.

---

**TRANS29 Invalid option (...) with RECEIVE: file transfer canceled.**

*Cause:* You selected an option that is not valid with RECEIVE, but can be used with SEND.

*Action:* Remove the option from the command and retry.

---

**TRANS30 Invalid option (...) with APPEND: file transfer canceled.**

*Cause:* You selected an option that is not valid with APPEND, but otherwise may be used.

*Action:* Remove the option from the command and retry.

---

**TRANS31 Invalid option (...) without SPACE: file transfer canceled.**

*Cause:* You selected an option that can only be used if SPACE is also specified.

*Action:* Remove the option from the command and retry.

---

**TRANS32 Invalid option (...) with PDS: file transfer canceled.**

*Cause:* You selected an option that is invalid with a host partitioned data set.

*Action:* Remove the option from the command and retry.

---

**TRANS33 Only one of TRACKS, CYLINDERS, AVBLOCK allowed: file transfer canceled.**

*Cause:* SPACE can be specified in units of TRACKS, CYLINDERS, or AVBLOCK, and only one option can be used.

*Action:* Remove the unwanted option from the command and retry.

---

**TRANS34 CMS file not found: file transfer canceled.**

*Cause:* You did not specify an existing CMS file for RECEIVE.

*Action:* Correct the CMS file specification in the command and retry.

---

**TRANS35 CMS disk is Read-Only: file transfer canceled.**

*Cause:* You specified a CMS file mode for the SEND key that does not allow write access.

*Action:* Correct the CMS file specification in the command and retry.

---

**TRANS36 CMS disk is not accessed: file transfer canceled.**

*Cause:* You specified a CMS file mode that is not in the CMS search order.

*Action:* Access the required disk in CMS or correct the CMS file specification in the command, and then retry.

---

**TRANS37 CMS disk is full: file transfer canceled.**

*Cause:* The CMS disk is full, or the maximum number of files on the minidisk (3400) has been reached, or the maximum number of data blocks per file (16060) has been reached.

*Action:* Use another disk with enough space or remove unwanted files from the specified disk. If the PC file is over 1M bytes, divide it in several pieces, and retry the command.

---

**TRANS99 Host program error code (...): file transfer cancelled.**

*Cause:* There is a host program error.

*Action:* Report the error code number to your host support personnel.

---

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