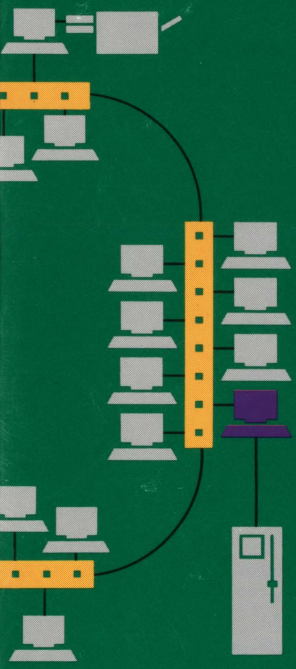
The next generation in personal computing

IBM 3270 Communications Family

IBM Personal System/2 and Personal Computer Reference Guide



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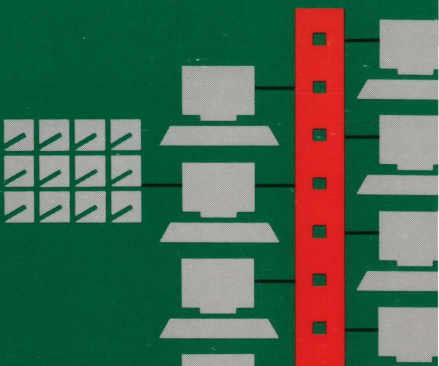

Second Edition (January 1988)

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Explore new worlds of 3270 connectivity

This brochure introduces you to the IBM 3270 Communications Family for IBM Personal Computers and IBM Personal System/2.™

Three offerings provide you with a family of affordable choices to meet your organization's needs:

- IBM PC 3270 Emulation Program Entry Level Version 1.2—a low-memory-requirement emulation tool
- IBM PC 3270 Emulation Program Version 3.0—a powerful local/remote connectivity/gateway offering
- IBM 3270 Workstation Program Version 1.1—a high-function, multihost session, multi-DOS session program

Supported with IBM DOS, these products provide solutions that run on the IBM Personal Computer, Personal Computer XT,™ Personal Computer AT,® IBM 3270 PC, and IBM Personal System/2 Models 25, 30, 50, 60 and 80. They also set the stage for smooth migration to IBM Operating System/2™ Extended Edition.

Together, the three programs in the 3270 Communications Family provide a common base for:

- IBM Personal System/2 and Personal Computer systems
- DOS
- Strategic Applications Support
- Enhanced Connectivity Facilities (ECF)
- Fast host-file transfer
- Casual-use host graphics
- Local area network (LAN) compatibility

IBM PC 3270 Emulation Program Entry Level Version 1.2

As a basic solution to emulation needs, IBM PC 3270 Emulation Program Entry Level offers individuals and organizations a basic tool for accessing host mainframes.

The Entry Level program requires as little as 26KB of memory and works through a coaxial cable attachment to a 3174 or 3274 control unit. This attachment, called CUT (Control Unit Terminal), operates in a mode that makes a PC or PS/2™ function like an IBM 3278 or 3279 display terminal.

Dual-task support available with the Entry Level program allows a user to run a standard IBM DOS program and access an IBM System/370 host application at the same time. And it makes switching back and forth between the sessions easy.

The Entry Level program can support up to four host sessions using the multiple logical terminal feature of the IBM 3174. And, this program also provides support for connectivity applications using the Entry Emulator High Level Language Application Program Interface (EEHLLAPI) function.

Highlights

- IBM PC, PC XT, PC AT and PS/2 Models 25, 30, 50, 60 and 80 support
- 3278/3279 emulation (CUT mode)
- Dual-tasking and suspend/resume function
- Entry Emulator High Level Language Application Program Interface (subset of HLLAPI)
- Casual host graphics (via GDDM-PCLK)
- Enhanced Connectivity Facilities (ECF) support
- National Language Support (NLS)

IBM PC 3270 Emulation Program Version 3.0

An enhanced connectivity option with gateway facility, IBM PC 3270 Emulation Program Version 3.0 provides a wide variety of physical connectivity options to access IBM System/370 host applications. It can support single-station communications or provide a gateway function for a number of LAN-attached PS/2 models and/or PCs.

IBM PC 3270 Emulation Program Version 3.0 works through a coaxial cable attachment to a 3174 or 3274 control unit in Distributed Function Terminal (DFT) mode. It will also connect from an SDLC adapter card to a communications line, from an IBM Token-Ring Adapter card to a 3720, 3725, 3174 gateway or 9370, or from IBM LAN adapter cards to a PC or PS/2 model acting as a gateway device. Because the program provides for both gateway support and terminal emulation, it can be run on different PS/2s or PCs with different function and physical attachment. Its emulation mode makes a PC or PS/2 function as though it were an IBM 3278 or 3279 display terminal and/or a 3287 printer.

The IBM PC 3270 Emulation Program Version 3.0 allows the user to run a DOS program, access an IBM System/370 host application, and switch easily back and forth between the sessions. The DOS program is suspended while the user is communicating with the host computer. Communications are active, even while the user is working with the DOS application.

Highlights

- IBM PC, PC XT, PC AT, and PS/2 Models 30, 50, 60 and 80 support
- 3278/3279/3287 emulation
- Host-initiated print
- Dual-tasking and auto-key function
- Local/remote LAN gateway and network station support
- Local/remote stand-alone support
- IBM Token-Ring 3720/3725/3174/9370 attachment support
- Presentation space API
- Enhanced Connectivity Facilities (ECF) support
- Casual host graphics (via GDDM-PCLK)

IBM 3270 Workstation Program Version 1.1

A high-function connectivity option for multiple communications and/or IBM DOS sessions, the 3270 Workstation Program offers powerful multisession/multitasking support for selected IBM PC, Personal System/2 and 3270 PC workstations. It addresses the need for multiple concurrent host sessions and/or multiple DOS sessions while accessing IBM System/370 applications.

IBM 3270 Workstation Program memory requirements are based on the number of sessions and level of functions required. The program works through a coaxial cable attachment to a 3174 or 3274 control unit or through an IBM Token-Ring Network Adapter card.

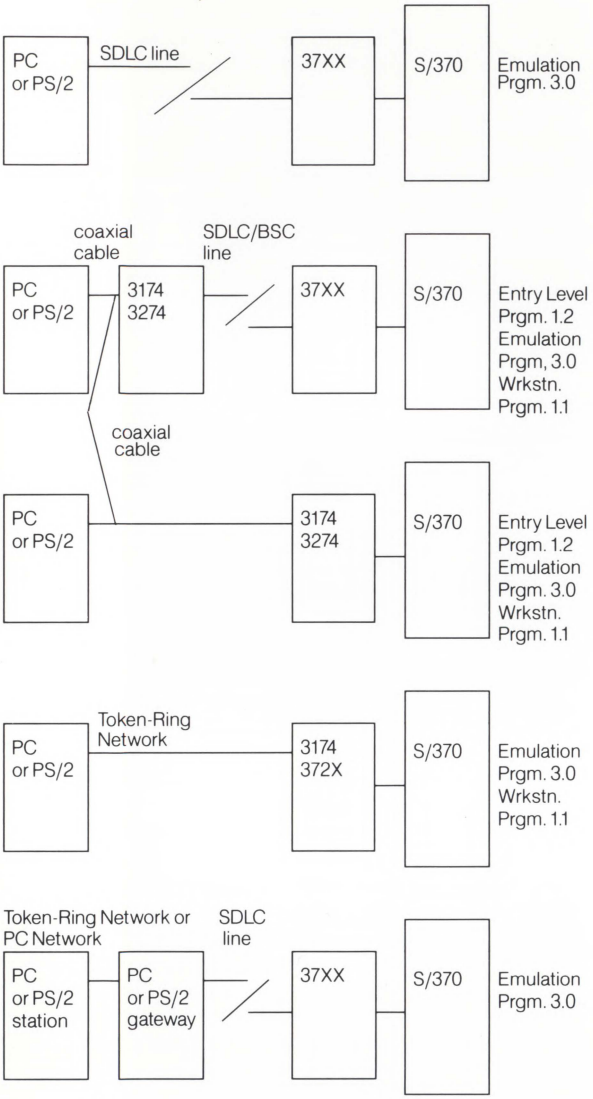
When operating in a LAN-attached personal computer, the Workstation Program allows access to System/370 host applications via a LAN-attached 3720, 3725, 3174 (using the gateway feature) or 9370.

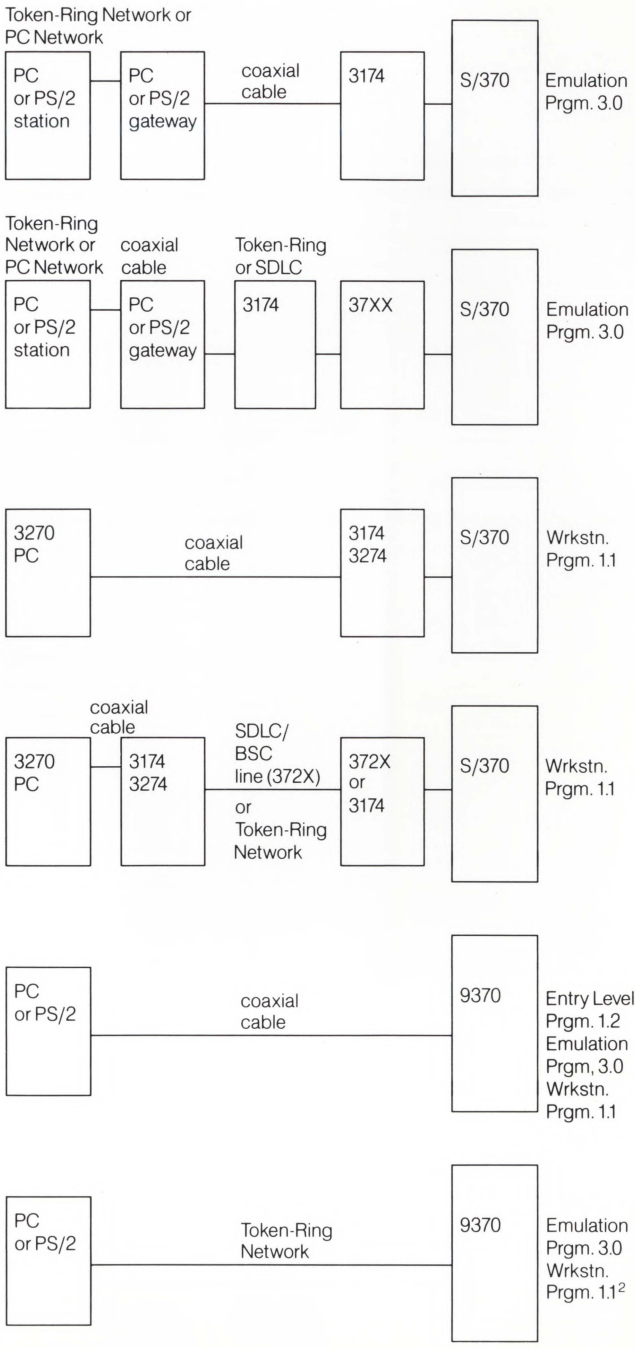
With the IBM 3270 Workstation Program, a user can run up to six DOS programs concurrently with up to four host sessions and up to two notepad sessions. The program supports windowing and permits both PC sessions and communications sessions to continue running while a user switches between them.

Highlights

- IBM PC XT, PC AT, PS/2 Models 30, 50, 60, 80 and 3270 PC support
- Multiple host sessions (up to four)
- Multiple notepad sessions (up to two)
- Windowing
- Multitasking
- 3278/3279 emulation (CUT or DFT mode)
- IBM Token-Ring 3720/3725/3174/9370[1] attachment support
- Multiple DOS sessions (up to six)
- API and High Level Language API (HLLAPI)
- Enhanced Connectivity Facilities (ECF) support
- Casual host graphics (via GDDM-PCLK)
- Integrated host graphics (using 3270 PC hardware)
- Expanded memory support for PC XTs, PC ATs and PS/2 Models 30, 50, 60 (via Expanded Memory Adapters)
- IBM Personal System/2 Model 80 expanded memory emulation (no Expanded Memory Adapter required)
- National Language Support[1] (NLS)

IBM 3270 Communications Family: Quick reference for attachment capability




Token-Ring Network or PC Network
PC or PS/2 station
PC or PS/2 gateway
coaxial cable
3174
S/370
Emulation Prgm. 3.0
Token-Ring Network or PC Network
coaxial cable
Token-Ring or SDLC
PC or PS/2 station
PC or PS/2 gateway
3174
37XX
S/370
Emulation Prgm. 3.0
3270 PC
coaxial cable
3174 3274
S/370
Wrkstn. Prgm. 1.1
coaxial cable
3270 PC
3174 3274
SDLC/ BSC line (372X)
or Token-Ring Network
372X or 3174
S/370
Wrkstn. Prgm. 1.1
PC or PS/2
coaxial cable
9370
Entry Level Prgm. 1.2 Emulation Prgm, 3.0 Wrkstn. Prgm. 1.1
PC or PS/2
Token-Ring Network
9370
Emulation Prgm. 3.0 Wrkstn. Prgm. 1.1[2]

IBM 3270 Communications Family: Quick reference for product function

	Entry Level Prgm. 1.2	**Emulation Prgm. 3.0**	**Workstation Prgm. 1.1**
3278/3279 emulation	mod. 2	mod. 2	mod. 2, 3, 4, 5
3287 printer emulation		X	
3274/3174 coaxial attachment	X	X	X
3720/3725/3174/9370 Token-Ring attachment		X	X[1]
PC LAN gateway function		X	
LAN compatible	X	X	X
SDLC line attachment		X	
Number of host display sessions	up to four (using 3174 MLT)	one	up to four
Number of DOS sessions	one	one	up to six
Number of notepad sessions			up to two
HLLAPI interface	entry		X
ECF interface	X	X	X
Presentation space API interface		subset	X
Multitasking			X
Expanded memory support (IBM Personal System/2 Model 80)			X
Casual-use host graphics (GDDM-PCLK)	X	X	X
Windowing			X
IBM Personal System/2 Model 25 support	X		
IBM Personal System/2 Models 30, 50, 60 and 80 (041, 071, 111) support	X	X	X
IBM PC and PC XT 286 support	X	X	
IBM PC AT and PC XT support	X	X	X[3]
3270 PC hardware support, including integrated graphics			X

3270 Family migration

The IBM 3270 Communications Family can be an interim solution for customers who require the functions of IBM Operating System/2 Extended Edition. These enhanced functions include increased communications network management and greater connectivity to a wider range of mid-range and host processors.

Customers with 3270 emulation requirements will be able to migrate from the 3270 Communications Family DOS software to Operating System/2 Extended Edition.

Customers who require high-level language interfaces should use the Enhanced Connectivity Facilities interface, which is available in all three programs, or use the Entry Emulator subset of the High Level Language API, which is available for both the entry-level product and the workstation product.

For further information on this or any other topic described in this brochure, please contact your local IBM representative or your IBM Authorized Dealer.

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[1]*Available March 1988.*
[2]*Available March 1988 for Workstation Program Version 1.1.*
[3]*Except PC AT Model 239.*

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