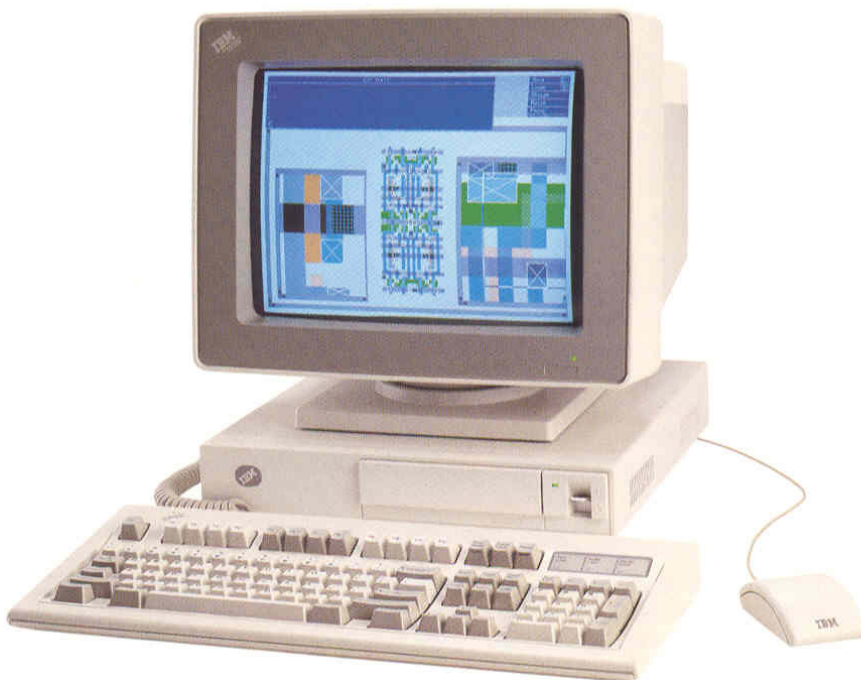


For the Power Seeker

Xstations 120 and 130



Bring bit-mapped windowing to your local area networks

Add workstation-quality graphics anywhere on your network when you choose IBM's Xstations: the Xstation 120 or the higher-performance Xstation 130. With their dual processors and support for a growing family of all-points-addressable monitors, they give users

new graphics and windowing capabilities—and faster response—all at affordable prices.

IBM Xstations attach to your Ethernet and Token-Ring LANs and use MIT's X Window System,[™] allowing users to work with graphics applications that run remotely on your AIX[®] systems, selected UNIX[®] servers, and other hosts, such as MVS and VM. The Xstation 120 has a 16-bit Texas Instruments TMS34010 graphics processor to execute display and windowing functions, plus keyboard and mouse commands, so you can work with impressive speed. And the Xstation 130—with its higher-performance 32-bit TMS34020 graphics processor and advanced logic—lets you work even faster.

Select the Xstation 120 for entry-level users of applications like 2-D design and viewing, desktop publishing or CASE. Or select the Xstation 130 for 3-D shaded imaging and viewing, image-based map rendering, or off-screen pixel caching for CAD scanning. With either Xstation, you can make your applications as colorful as they are fast. That's because each allows you to choose up to 256 display colors from a 16.7 million color palette.

The IBM logo, consisting of the letters 'IBM' in a bold, sans-serif font with horizontal stripes through the letters.

Take advantage of X Window programming tools. When you attach the Xstation 120 or 130 to a POWERstation or POWERserver that has the AIX-windows™ Environment/6000 installed, your programmers can be more productive, too. They'll have the full X Window command set—along with tools and support for X.11 windows and graphics programming and OSF™/Motif™ functions—to create customized applications for all your Xstations.

Add new capabilities with the assurance of complete investment protection. Choose either the Xstation 120 or 130 and you'll have a low-cost entry point for sharing sophisticated text and graphics applications or adding new users to your network. You can team either Xstation with an array of readily available displays and printers, or a tablet, so you'll have the flexibility to tailor a configuration that meets your users' needs exactly. With the appropriate software, you can also attach plotters, bar code readers, modems or other serial devices for special applications. And since the Xstations support both Ethernet and Token-Ring LANs, you can be confident they'll fit into almost any multiuser technical and business computing environments.

Highlights

The Xstations 120 and 130 offer a host of features and functions that extend powerful graphical applications to LAN-attached servers.

Texas Instruments TMS34010 and TMS34020 graphics processors, on the Xstation 120 and Xstation 130 respectively, support bit-mapped windowing and rapid graphics processing for all-points-addressable monitors.

512KB video memory on the Xstation 120—1MB on the Xstation 130—expands to 2MB to support high-resolution graphics monitors and up to 256 colors.

Xstations 120 and 130 features

Feature	Function	Benefit
Dual LAN capability	Connect to either Ethernet or IBM Token-Ring LANs—or both simultaneously	Increased LAN availability; easy fit into industry-standard environments
Dual processors	Provide dedicated processing for graphics and I/O	Improved throughput and overall performance; lower network overhead
AIX Xstation Manager/6000 software	Furnishes a system compatible with X Window System Version 11 Release 3 and 4	Investment protection; application sharing with AIX, non-AIX and non-IBM systems via LAN
Support for a wide range of displays	Tailors display capability to user needs	Cost-effective display usage; compatibility of applications and displays
Built-in serial and parallel ports	Attach printers locally; serial fan-out capability (Xstation 130 only)	Convenient local output capability; extended LAN connectivity and asynchronous communications
Save Under and Backing Store functions	Allow users to retain window data locally, even when windows are covered	Potential for higher productivity; less LAN traffic
Up to 16.5MB system memory on Xstation 130	Supports Local Font Caching, Save Under and Backing Store functions; allows a large number of windows	Rapid access to windows stored in memory, thanks to high-performance design; local storage of most recently used fonts
Support for RISC System/6000 devices and interfaces	Connect displays, printers, cables and a mouse that are compatible with RISC System/6000 product line	Lower peripheral costs; readily available components; reduced operator training
Worldwide availability	Provides support for all major national languages, international keyboards and fonts	Worldwide use of Xstations; no specialized equipment required for different countries
Remote software downloading	Makes Xstation software upgrades easy to implement at the host and Xstation; helps to assure efficient central software management	Investment protection; easier maintenance and updates; simultaneous upgrading of all Xstations
Extensive ROM-resident diagnostics	Provide complete verification of system without need to connect to LAN	Quick fault isolation for problem resolution
IBM quality	Provides nationwide parts and service; 12-month limited warranty	Durable products backed by responsive IBM service; high productivity

It provides support for a wide range of grayscale and color displays with resolutions of up to 1,600 x 1,200 pixels.

A single display adapter supports all Xstation monitors. If your application display needs change, you simply add the new monitor—and keep your original base, keyboard and mouse. System and video memory are also easy to upgrade should your application needs change.

Intel® 80186 (Xstation 120) or 80C186 (Xstation 130) processors handle I/O functions and LAN buffering. Both allow Xstations to operate efficiently on either Ethernet or Token-Ring LANs—or on both types of LANs simultaneously.

1MB of system and I/O memory on the Xstation 120 expands to a maximum of 9MB—2.5MB on the Xstation 130 expands to 16.5MB—in 1MB, 2MB or 4MB (Xstation 130 only) increments to support local storage of fonts, LAN buffering and off-screen image functions.

30MB fixed-disk option (Xstation 130 only) provides additional system memory for applications requiring significant off-screen pixel resources, such as map rendering, 3-D shaded image viewing, and seismic data rendering. This capacity further reduces host dependency for window manipulation or font service.

Local Caching, Save Under and Backing Store functions of the AIX Xstation Manager/6000 program use system memory to store graphics, data and X Window code locally. These features improve terminal performance, provide windowing flexibility, and reduce LAN and host interaction.

Compatibility with X Window System Version 11 Release 3 and 4, furnished by the AIX Xstation Manager/6000 software, lets users interact with other systems running compatible X.11 Release 3 or 4 software on the same LAN. So users can work with applications and files on your AIX and UNIX hosts—or even VM and MVS machines.

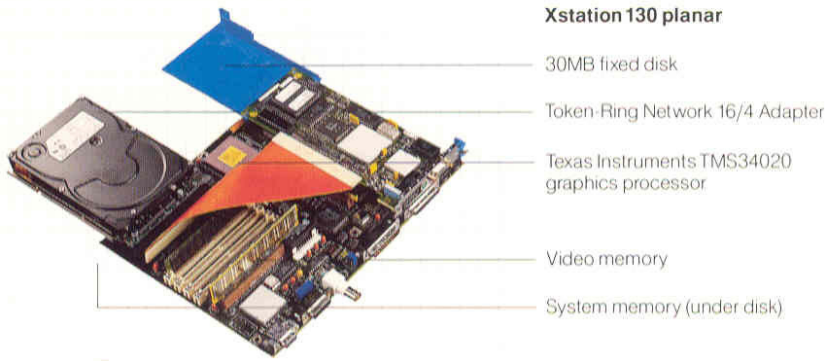


8512, 14" color,
640 x 480 pixels



8513, 12" color,
640 x 480 pixels

Xstation 130 planar



Complementing the Xstations' graphics processors are separate 8 MHz (120) and 12.5 MHz (130) input/output processors that provide impressive throughput for the keyboard, mouse, LAN and other I/O functions. Dedicated I/O control means higher productivity and reduced impact on windowing performance due to LAN traffic. Plus, you can connect either Xstation to your Ethernet or Token-Ring LAN—or both LANs simultaneously—for improved network flexibility.

Thanks to functions that come with the AIX Xstation Manager™/6000 licensed program product, each Xstation can add even more performance by using its system memory intelligently. For example, once an Xstation downloads its Xserver code from any RISC System/6000,™ it can use its available system memory to implement functions like Save Under and Backing Store for pop-up and overlapped windows. And fonts can be stored locally for faster display manipulation. Users can work with client applications residing in other LAN-attached AIX, non-AIX and non-IBM computers that are running the X Window System Version 11 Release 3 or 4.

Gain workstation performance for the cost of a terminal. Whether you connect your Xstation to an Ethernet or Token-Ring LAN—or both—you get high-

quality color and grayscale graphics support for multiple graphics or text windows. And you get these benefits at a cost that can be lower than that of most standalone graphics workstations.

Increase productivity while reducing LAN traffic. Because of AIX Xstation Manager/6000 functions like Local Caching, Save Under and Backing Store, Xstation users have more freedom to work the way they want—and with greater productivity. They can run multiple applications from different hosts, even when those hosts are located on different LANs. And they can resize windows—or overlap them completely—while keeping important data and fonts intact in their Xstation's memory.

Users also can benefit from reduced LAN traffic, since local data and font storage means fewer trips to your servers. Memory expansion options and an internal 30MB fixed disk drive for the Xstation 130 help keep LAN availability high. And even when LAN usage is heavy, the Xstations 120 and 130 I/O processors' dedication to receiving and buffering LAN data can minimize the possibility of packet retransmissions and waiting time.



6091, 19" color,
1,280 x 1,024 pixels



8503, 12" monochrome,
640 x 480 pixels



8514, 16" color,
1,024 x 768 pixels



8507/8, 19" monochrome,
up to 1,280 x 1,024 pixels



8515, 14" color,
1,024 x 768 pixels

Xstation 120 and 130 supported displays

Built-in serial and parallel printer ports—one each on the Xstation 120 and 130—allow easy attachment of printers. An extra serial port is standard on the Xstation 130 to provide additional asynchronous communications.

Built-in Ethernet ports make attachment of the Xstations to either "thick" or "thin" Ethernet LANs easier. Dual Ethernet network attachment is available as an option on Xstation 130.

Adapter slot on the Xstations 120 and 130 accommodates an optional Token-Ring Network 16/4 Adapter for added LAN connectivity. On the Xstation 130, this slot also accommodates a second Ethernet adapter or a Dual Async Adapter.

What you get

The standard shipping group for the Xstation 120 and Xstation 130 contains:

- System unit with built-in Ethernet, serial (two for the 130), parallel, three-button mouse, keyboard and display ports
- Keyboard and cable
- Power cable
- Three-button mouse
- Setup and operator guide

Optional products

The Xstations 120 and 130 support an array of optional devices and upgrades, including:

- 512KB Video Memory Upgrade Kit (Xstation 120 only)
- PS/2[®] 1MB Memory Expansion Kit
- PS/2 2MB Memory Expansion Kit
- Token-Ring Network 16/4 Adapter/A
- Printer Adapter cable
- PC Serial Attachment cable
- Token-Ring PC Adapter cable
- 6091 Attachment cable
- Ethernet Connector Converter

Optional products for the Xstation 130 only include:

- 1MB Video Memory Upgrade Kit
- PS/2 4MB Memory Expansion Kit
- 30MB Direct-Attached Disk Drive Option Kit

Xstations 120 and 130 at a glance

Processors	120: 50 MHz TMS34010 text/graphics processor; 8 MHz Intel 80186 I/O processor 130: 32 MHz TMS34020 text/graphics processor; 12.5 MHz Intel 80C186 I/O processor
Memory	120: 512KB video memory, expandable to 2MB; 512KB system memory, expandable to 8.5MB; 512KB I/O DRAM 130: 1MB video memory, expandable to 2MB; 2MB system memory, expandable to 16.0MB; 512KB I/O DRAM (30MB fixed disk optional)
Host software requirements	POWERstations/POWERservers: AIX Version 3 for RISC System/6000; AIX Xstation Manager/6000; AIXwindows Environment/6000 Non-AIX hosts: compatible Xstation Manager program (when available for OEM machines); software to implement TCP/IP and X Window System Version 11 Release 3 and/or 4
Integrated functions	Concurrent functioning of graphics and I/O processors; sufficient logic on planar for one Ethernet port, one serial port (two on the Xstation 130), one parallel printer port, a mouse port, a keyboard port, and a display port
Display modes	Built-in support for 640 x 480, 1,024 x 768, 1,280 x 1,024, and 1,600 x 1,200 pixel grayscale and color displays; 4 or 16 grayscales and 16 to 256 colors, depending on video memory 130 supports single color mode, B/W, selectable from configuration screen for higher performance
Supported IBM displays	Grayscale: 8503 12" 640 x 480; 8507 19" 1,024 x 768; 8508 19" 1,280 x 1,024 or 1,600 x 1,200 Color: 8513 12" 640 x 480; 8512 14" 640 x 480; 8515 14" 1,024 x 768; 8514 16" 1,024 x 768; 5081 16" 1,280 x 1,024; 6091 19" 1,280 x 1,024
Keyboard	U.S., 101 keys, including 12 function keys, 3 lighted mode indicators; 6-foot coiled cable
Supported IBM printers	3816-01S, 3812-002 and 3816-01D Page Printers; 4019-001 LaserPrinter; 4019-01E LaserPrinter E; 4072-001 ExecJet; [™] 4201-002 and 4201-003 Proprinter [®] II and III; 4202-002 and 4202-003 Proprinter II XL and III XL; 4207-002 Proprinter X24E; 4208-002 Proprinter XL24E; 4224-301, 4224-302, 4224-3C2 and 4224-3E3 Serial Printers; 4234-013 Dot Band Printer; 5202-001 Quietwriter [®] III; 5204-001 Quickwriter [®]
Communications support	Ethernet (IEEE 802.3 with 10BASE2 or 10BASE5 connector); 16/4Mbps Token-Ring (with optional Token-Ring Adapter); support for both LAN types simultaneously; support for second Ethernet network
Power supply	45 watts (Xstation 120); 65 watts (Xstation 130)
Dimensions	2.9"H x 14.8"W x 15.0"D (72mm x 375mm x 380mm); 16-19 lbs. (7.3-8.6 kg), depending on configuration

- PS/2 Dual Async Adapter/A
- Serial Adapter cable
- Serial Port Fan-out cable
- Serial Adapter Connector
- PS/2 Adapter/A for Ethernet Networks

Warranty/Service

Every IBM product is built to meet high standards of quality and reliability.

The Xstation 120 and Xstation 130 are backed by a one-year warranty.

Extended service terms are available from IBM and IBM Business Partners. With an IBM Maintenance Agreement, you can arrange for onsite service.

[™]Xstation Manager, RISC System/6000, AIXwindows and ExecJet are trademarks of International Business Machines Corporation. X Window System is a trademark of the Massachusetts Institute of Technology. OSF and Motif are trademarks of the Open Software Foundation, Inc.

[®]IBM, AIX, PS/2, Proprinter, Quietwriter and Quickwriter are registered trademarks of International Business Machines Corporation. UNIX is a registered trademark of UNIX System Laboratories, Inc. Intel is a registered trademark of Intel Corporation.



© IBM Corporation 1991

International Business Machines Corporation
IBM United States
Department EU6
1133 Westchester Avenue
White Plains, NY 10604

Printed in the United States of America
3-91
All Rights Reserved

References in this publication to IBM products or services do not imply that IBM intends to make them available outside the United States.

This equipment is subject to FCC rules. It will comply with the appropriate FCC rules before final delivery to the buyer.



G221-2800-01