Manage Many Terminals as Easily as One

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The VXT 2000 handles a wide range of business applications requiring simultaneous display of multiple screens of information. Shown here is the low-cost 15" monochrome system, ideal as an alternative to text terminals.

Improve the Productivity of a Broad Base of Users

- One device on your desk
- Easy access to applications anywhere on the network
- Elimination of desktop management tasks
- Simultaneous display of X, text and image applications
- Open, for mixed vendor environments
- True text terminal alternative

Today, many enterprises rely on their network to deliver the computing power necessary for their business operations. These computer networks have emerged as the quickest, most effective way to share information by allowing instant access to a wide range of applications and databases. Users are much more productive when they can interact at the same time with multiple, rather than single, applications and databases.

If you need to access, share, and visually integrate data and applications from any number of hosts on the network, the VXT 2000 windowing terminal will get the job done. And it will do it quickly, easily, and cost effectively, without disrupting your environment.

VXT 2000 Family Provides

- Full range of color, monochrome, and gray scale models

- Ease of use of a text terminal

- Local clients that dramatically reduce network and host loading

- Simultaneous access to multiple hosts and applications

- Easy management of groups of windowing terminals

- Full Motif ™ Window Manager

- Efficient font management/ access

- Enhanced control and security

- Virtual memory access

- DECimage Option for document imaging

Fifteen-inch single box VXT 2000, with multiple windows on screen.

The VXT 2000 Family Delivers Outstanding Performance

Digital's VXT 2000 family of windowing terminals combines superior graphics capability, exceptional ease of use, and easy application access—all in a windowing terminal. So there's no need for different display devices for different applications on your desk! You can run not only X sessions, but also multiple terminal sessions, all at the same time on the same screen. You can access data from heterogeneous hosts and operating systems no matter where that data is located on the network. You can copy and paste information from one application window to another, making it easier to share information among applications and databases. The VXT 2000 is as easy to use as an ordinary text terminal. Simply turn it on and go to work.
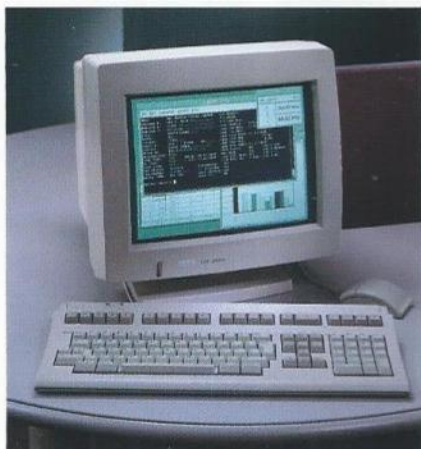
As the number of devices in a network increases, the management becomes increasingly complex. Network loading becomes an important concern—too many devices sending data across a network can result in frustratingly slow response times. Digital has taken these important system management issues into account in the design of the VXT 2000 family. The easy-to-use Configuration Manager lets system managers manage a hundred windowing terminals as easily as one! Network and host loading is minimized using local clients and the unique features of the VXT 2000 software.

A Wide Range of Models Designed for Flexibility, Performance, and Cost-Effectiveness

The VXT 2000 family of windowing terminals includes nine members— monochrome, gray scale, and color models. This gives you the flexibility to select the right windowing terminal to meet your requirements.

The single box 15-inch monochrome VXT 2000 is a low-cost windowing terminal that supports all VXT 2000 software functionality, but has a much smaller footprint. This is an ideal text terminal alternative.
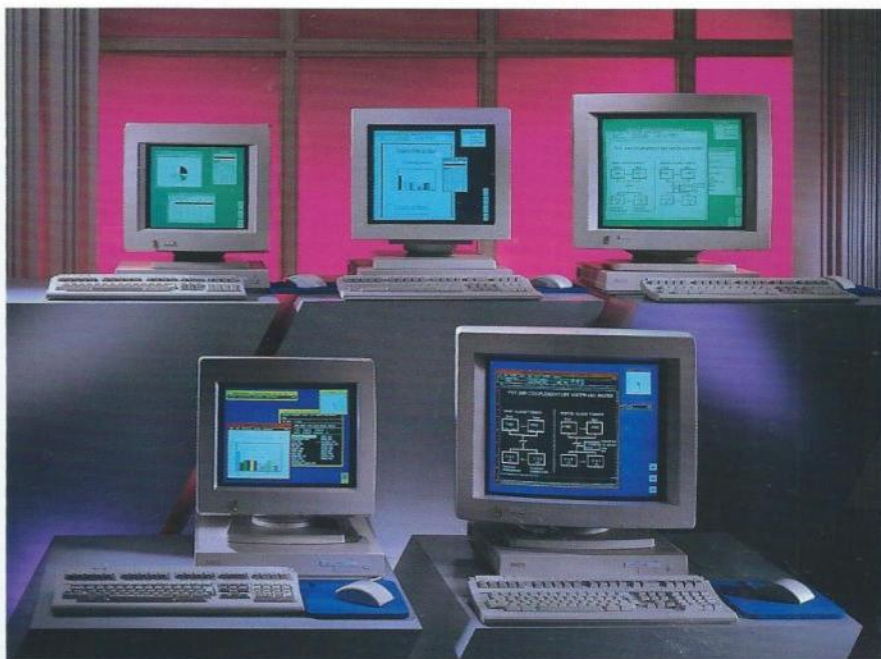
If your business applications include document imaging, the DECimage option for the VXT 2000 provides a low-cost, high-performance accelerator for image processing. XIE (X Image Extensions) software is included *free* with the VXT 2000 software for casual users of imaging applications.

VXT 2000 Family Highlights

- Choice of server-based and host-based modes of operation for optimum flexibility in different computing environments

- Runs multiple terminal and X Window System applications simultaneously—under UNIX, ULTRIX, and VMS operating systems

- Industry-standard Motif creates a common user interface (GUI) for applications; other user interfaces can operate remotely

- Menu-driven Configuration Manager provides easy management of multiple VXT 2000 terminals

- Easy access and management of a wide selection of fonts; access to customized fonts for all your application needs

- X11 Server compliance lets you run the latest X applications

- Local clients reduce network and host loading

- Local clients include: Motif Window Manager, Terminal Manager, XIE, Configuration Manager and DECterm Virtual Terminal Emulator (VT300 text, ReGIS, Sixel graphics, TELNET)

- TCP/IP and LAT communications protocols are supported over thick wire, ThinWire, or twisted pair Ethernet

- Booting flexibility: Digital, IBM, SUN, HP and Santa Cruz Operations (SCO) UNIX platforms—using their media!

- Choose from nine members of the VXT 2000 family—monochrome, color, and gray scale

Five members of the VXT 2000 family: a powerful line-up to handle a wide variety of jobs

- XIE (X Image Extensions) standard with VXT 2000 software

- DECimage hardware option provides low-cost, high-performance accelerator for document imaging display

- Four megabytes of DRAM standard memory, expandable to 16 megabytes

- A choice of keyboards includes one tailored to the UNIX computing environment

- Autostart capability provides quick access to frequently used hosts and applications

- Fully international product family

- VXT 2000 software is consistent across the family - you don't need to use different versions for different VXT 2000 terminals

Choice of Operating Modes: Server or Host

The VXT 2000 offers a choice of operating modes - giving you the flexibility to choose the one that best meets your needs. And you can easily move from one to the other if your requirements change.

- Host-based mode—a windowing terminal with local physical memory that boots from a UNIX, ULTRIX, or VMS host system on the network

- Server-based mode—a VXT 2000 Windowing Terminal Server with virtual memory access, font management and configuration management
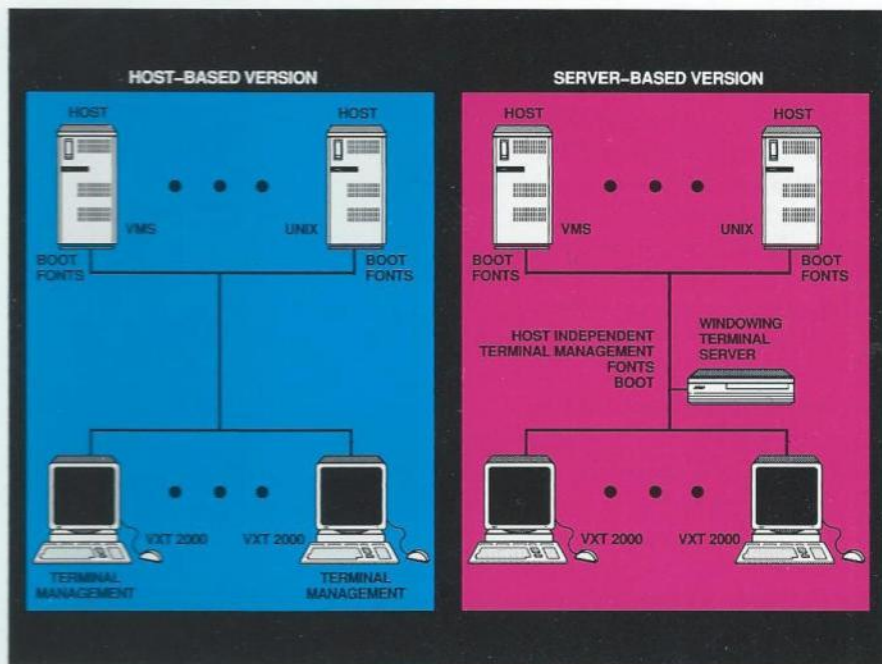
Host-based Mode: Enhanced X Terminal Capability

The host-based mode of operation is consistent with standard X terminal execution modes, but offers increased capability. In this mode, the VXT 2000 terminal is booted from a host—UNIX, ULTRIX, or VMS (see diagram) —which loads VXT 2000 software into the terminal's physical memory.

Local client applications are loaded into the VXT 2000 windowing terminal, where they run locally. These local clients perform routine tasks in the terminal, rather than on the host, so network and host loading are reduced. These local clients are a DECwindows/Motif

This diagram shows the host-based and server-based modes of operation.

Highlights of Server-Based Mode of Operation

- Configuration management services for remote customization of multiple VXT 2000 terminals by work group

- Simplified font management

- Host systems are offloaded from booting and font access

- Virtual memory support eliminates out of memory conditions

- Password access for work group control, security, and user convenience

- Host-independent connectivity

- Stand-alone X display system

- Localizes windowing terminal services network traffic

Window Manager; a DECterm Terminal Emulator for LAT or TELNET terminal sessions; a Terminal Manager for customizing the user environment and connecting to hosts on the network; and XIE, which provides software acceleration for imaging.

In addition to local clients, fonts are loaded into the VXT 2000 windowing terminal. Access to additional fonts is made using the Terminal Manager.

Server-based Mode: A Unique New Approach

Server-based mode of operation offers capabilities not available in X environments until now. The server-based mode incorporates all the functionality of host-based mode, and then goes a step beyond, simplifying the management and

control of groups of windowing terminals, making the system manager's job much easier, and providing faster, more convenient support to users.

A unique new approach, the Windowing Terminal Server (Digital's InfoServer 150 VXT) localizes the access to booting, terminal management, and fonts This serves to localize and reduce network traffic and reduce host loading.

The Windowing Terminal Server, functioning as a shared storage device for one or more groups of X terminals on a network, provides true host-independent connectivity through its booting capability, in conjunction with VXT 2000 software. This makes it possible to run VXT 2000 terminals in any network— *that's open!*

*Manage Many X Terminals
as Easily as One!*
With Server-based mode, it's as easy
to manage many VXT 2000 terminals
as it is to manage one. VXT 2000
system management features include
boot, configuration management,
and font management/access
services.

The Configuration Manager provides
simplified, menu-driven custom-
ization capabilities that let you add
terminals to a work group easily and
efficiently, configure them, and
manage them remotely. The Font
Manager lets you select and load
standard and customized fonts into
the Windowing Terminal Server's
font storage area. This local font
storage and caching gives individual
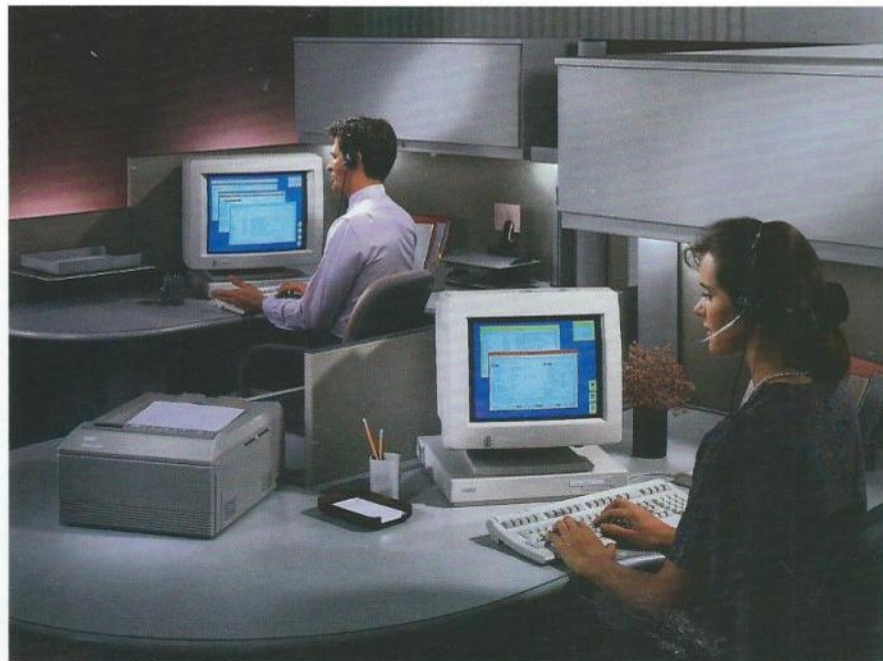users the fonts they need—when
they need them.

*The Advantage of Virtual
Memory Access*
The Windowing Terminal Server
provides fast, unlimited memory
access. It operates as a shared
memory resource, transparent to the
user or application. Users are freed
from worrying about whether there's
enough memory to run several
applications.

This adds greatly to the robustness
of the windowing terminal environ-
ment, allowing for more active appli-
cations and local clients, now or in
the future, without the need for
additional physical memory.

*High Performance, Lightning-Fast
Windowing Terminal Services*
The Windowing Terminal Server
uses LASTport, a high-performance
protocol for communications with
VXT 2000 terminals. Digital devel-
oped this protocol to answer the

*In a telemarketing environment, the VXT 2000 terminal's ability to access
multiple data sources and display information in multiple windows helps
provide fast response to customers.*

need for faster protocols to support
virtual memory operation and
windowing terminal services.

Powerful Document
Imaging Capabilities
The VXT 2000 family comes with
software that provides for the display
of bitonal images, using XIE. XIE
supports scaling, rotation, zooming,
and decompression of images.
Because the image processing is
carried out locally, rather than at the
host, you get much faster response
time and minimized host and
network loading. The XIE software
client is adequate for the occasional
display of document images.

For higher performance imaging,
Digital recommends adding the
DECimage hardware accelerator
option to your VXT 2000. The
DECimage Option allows VXT 2000

terminals to decompress and paint
image data on the screen within a
second of being called up from the
host. The DECimage option is
customer installable on all two-box
VXT 2000 terminals—color and gray
scale included. In fact, Digital's
"scale to gray" process is used in the
DECimage option to enhance image
quality on gray scale and color VXT
2000 windowing terminals.

For more information on the
DECimage option, refer to the
DECimage Option for VXT 2000
information sheet, part number
EC-F1779-56.

The VXT 2000 Family at Work
The VXT 2000 family is ideally suited
to a broad range of functions and
applications—in all kinds of busi-
nesses. From offices to laboratories,
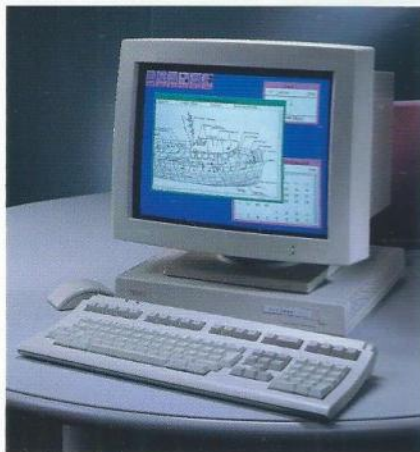from the factory floor to the

customer service desk, the versatile VXT 2000 terminal provides superior performance and ease of use.

Multiple Tasks, Multiple Windows
As a cost-effective means to run applications that require the display of multiple windows on one screen, the VXT 2000 is hard to beat. For instance, office jobs often include desktop publishing, spreadsheets, and electronic mail; information is created, merged with other data, and sent throughout an organization.

Online transaction processing requires access to multiple databases—as in telemarketing applications, where a customer service representative must provide a price quote, check product inventory levels, create shipping instructions, perform a credit check, and take an order—all during the course of a brief telephone conversation.

The VXT 2000 can manage such complex transactions easily and effectively, making it an invaluable productivity tool.

Seventeen-inch color monitor, with DECimage option, displaying multiple windows—image and text—on screen.

Part Number	Description
	VXT 2000 X Window terminal, Ethernet interface, system box, keyboard, documentation, US/UK, 120 V, with:
VX215-*A	monochrome, color or gray scale 15-inch monitor
VX217-*A	monochrome, color or gray scale 17-inch monitor
VX219-*A	monochrome, color or gray scale 19-inch monitor
VX225-*A	VXT 2000 windowing terminal, monochrome 15-inch single box, thick/twisted Ethernet interface, keyboard, documentation, US/UK 120 V

Note: The asterisk (*) in the part number indicates that there is a choice of keyboard and connector options. The appropriate letter for your option choice replaces the * when you place your order.

Part Number	Description
VX20X-MA	2 Mbyte memory, with controller
MS200-AA	2 Mbyte memory, without controller
MS200-BA	4 Mbyte memory, without controller
VX20A-OP	DECimage option for VXT 2000
SEACV-AA	InfoServer 150VXT with 1 CD Reader
SEACW-AA	InfoServer 150VXT with 2 CD Readers
QL-XNGA9-AA	VXT 2000 Terminal Software License— one for each terminal
QA-XNGAF-HM	VXT 2000 Server Software kit
QAXNGAB-HM	VXT 2000 Host Software kit
VX20D-AA	Thick wire/ThinWire NI Card with pkg
VX20D-BA	Thick wire/Twisted Pair NI Card with pkg
DW29-AA	Thick wire/ThinWire Ethernet adapter
DESTA-BA	ThinWire Ethernet station adapter
VSXXX-HA/HB	DECwand bar code reader, 6 or 8 mil aperture, for accurate data entry

A Partner in the Workstation Environment

The VXT 2000 can work alongside the workstations on your network. It can take workstation output and use it to perform ancillary tasks such as testing, project planning, administration, and technical documentation.

By limiting the need for additional workstations, you're able to reduce cost per seat and enhance the work group expense/performance ratio simultaneously.

Ordering Information

The VXT 2000 family consists of nine members, all with resolution of 100 dots per inch and a flicker free refresh rate of 72 hertz. For communications, the two-box VXT 2000 terminals provide a choice of Ethernet connectors: Thick Wire and ThinWire or Thick Wire and Twisted (10BaseT).

Three keyboards are available: the Digital standard keyboard, the Digital WPS keyboard, and a new keyboard that can respond to the needs of those accustomed to working in a UNIX environment.

The VXT 2000 family is a fully international set of products, available worldwide. Consult your local Digital sales office or Authorized Reseller for international ordering numbers.

A Commitment to World-Class Service

Digital supports your investment. When you purchase Digital products, you're backed by one of the largest support and service organizations in the world. We offer a high level of quality and dedication to all our customers, large and small. And we've developed flexible warranty and service plans to meet your needs.

Specifications

Hardware Prerequisites

A VMS, UNIX and/or ULTRIX system connected to an Ethernet network

Software Prerequisites

VMS Version 5.4.2 or later
ULTRIX Version 4.2
HP-UX Version 8.05
IBM Version RS6000 AIX 3.1
SunOS Version 4.1.1
SCO UNIX Version 3.3.2
InfoServer software Version 2.0 (forserver-based mode)
VXT 2000 software Version 1.0

Network Protocols

VMS systems: LAT

UNIX/ULTRIX systems: TCP/IP

Windowing Terminal Server: LASTport

Memory

4 Mbyte standard, expandable to 16 Mbyte in 2 or 4 Mbyte increments

Power Requirements

Line Voltage	120 V/240 V
Voltage tolerance—RMS	88-132 V/176-264 V
Frequency tolerance	50-60 Hz
Power consumption	80 watts

Operating Environment

Temperature	10°C to 40°C (50°F to 104°F)
Relative humidity	10% to 90% noncondensing
Max. operating altitude	2.4 km (8,000 ft)

Physical Characteristics

System box	Height: 6.1 cm (2.4 in) Width: 39.1 cm (15.45 in)
	Depth: 36.8 cm (14.50 in) Weight: 4.6 kg (10.15 lb)

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Display Monitors

15-inch monochrome (VR315)	Height: 38.2 cm (15 in) Depth: 39.6 cm (15.6 in) Resolution: 1024 x 768	Width: 38.2 cm (15 in) Weight: 13.4 kg (29.5 lb)
15-inch monochrome single box (VR325)	Height: 36.9 cm (14.5 in) Depth: 38.2 cm (15 in) Resolution: 1024 x 768	Width: 36.2 cm (14.75 in) Weight: 14.6 kg. (32 lb.)
17-inch monochrome or gray scale (VRM17)	Height: 41.9 cm (16.5 in) Depth: 37.6 cm (14.8 in) Resolution: 1280 x 1024	Width: 40.6 cm (16 in) Weight: 16.8 kg (37 lb)
19-inch monochrome or gray scale (VR319)	Height: 46 cm (18 in) Depth: 40.1 cm (15.8 in) Resolution:1280 x 1024	Width: 49.5 cm (19.5 in) Weight: 21.8 kg (48 lb)
15-inch color (VR326)	Height: 38.2 cm (15 in) Depth: 39.6 cm (15.6 in) Resolution: 1024 x 768	Width: 38.2 cm (15 in) Weight: 17.2 kg (38 lb)
17-inch color (VRC16)	Height: 43.3 cm (17 in.) Depth: 43.6 cm (17.1 in) Resolution: 1024 x 768	Width: 41.3 cm (16.2 in) Weight: 25 kg. (55 lb.)
19-inch color (VR320)	Height: 46.0 cm (18 in) Depth: 45.2 cm (17.8 in) Resolution: 1280 x 1024	Width: 49.5 cm (19.5 in) Weight: 29 kg (64 lb)
DPI (dots per inch)	100 dpi	
Video Attributes	Reverse video, underline, bold, and blinking (can be used individually or in any combination); 2-plane monochrome or 8-plane color/gray scale capability	

Input Devices

Keyboards	DEC standard (LK401) DEC WPS (Gold Key) UNIX (LK421)
Mouse	Three-button mouse, 200 pulses per linear inch

The Next Step Is Easy

To learn more about the VXT 200 family of windowing terminals or to place an order, contact your local Digital sales representative or your Digital Authorized Reseller. For immediate pre-purchase assistance and direct ordering in the United States, call 1-800-DIGITAL (1-800-344-4825). In Canada, call 1-800-267-6215 and in Australia, call 008-021-393.