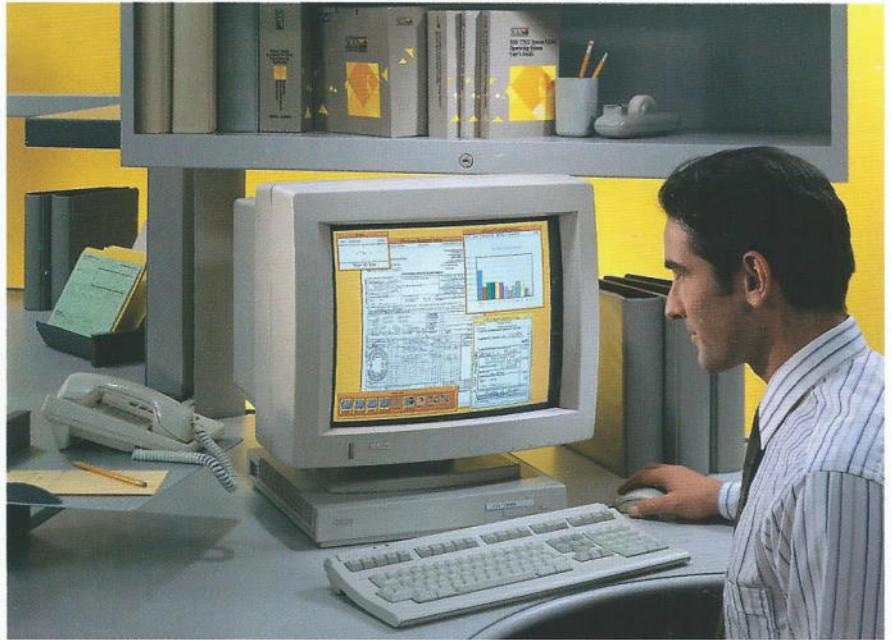## DECimage Option for VXT 2000

Offering Low-Cost, High-Performance
Document Image Display Solutions

d|i|g|i|t|a|l

One of the promises of the information age was a transition to the "paperless office." But, for a vast majority of office workers, the proliferation of paperwork continues at an unabated pace. Each work day, countless hours are spent creating, processing, filing and retrieving paper documents. Fortunately, emerging technology now provides more streamlined, electronic means of handling the onslaught of forms, memos, and other paper-based documents.

Document imaging technology allows any information that appears on paper — typed or handwritten text, graphics, pictures, photocopies, facsimile output — to be mechanically scanned into a computer. Once captured as electronic images, that information can then be displayed, processed, distributed, stored and retrieved using computerized methods.

By taking advantage of ongoing advancements in computer processing and storage capabilities, imaging solutions now make it possible for paper to be managed as efficiently as electronic data. To accomplish this, imaging solutions utilize high-performance CPUs, large-capacity mass storage, high-speed networks, and sophisticated software along with image scanners and image-capable printers. At workers' desktops, high-resolution display devices support imaging applications with powerful video displays that can call up and render detailed images within a second. These display stations need to be versatile enough to manage text and data as well as images, and most importantly, they must be cost-effective.

Digital's commitment to providing innovative imaging hardware and software solutions is reinforced with the introduction of the DECimage Option for VXT 2000. As the leader in video terminals, Digital has enhanced the functionality of the VXT 2000 windowing terminal family with this low-cost imaging option. The DECimage Option for VXT 2000 now makes it affordable to put the productivity-boosting power of imaging technology at everyone's fingertips.

Highlights

- Offers a high-performance bi-tonal image display solution

- Includes all the productivity enhancing characteristics inherent to the VXT 2000 family of windowing terminals

- Features the lowest cost-per-user for a high-resolution, image-capable windowing terminal

- Installs easily as an option board in any two-box VXT 2000 windowing terminal model (not available as an option for the 15-inch single-box model)

- Displays images at 100 dots per inch (dpi) resolution, with the perceived sharpness of 150 dpi resolution on 8-plane VXT grayscale and color monitors

- Minimizes the time required for image decompression, zooming, scaling, and rotating to less than one second

- Allows for the windowed display of bi-tonal images on color monitors

- Provides full integration with the X Window System environment

- Integrates easily and seamlessly into VMS, ULTRIX, and heterogeneous UNIX® environments

- Incorporates three levels of applications development software support: Image Utilities Library, DECimage Application Services, and DECimage EXpress system software

- Adheres to the major industry standards for imaging technology: X11 , OSF/Motif® Graphical User Interface, CCITT Group III and Group IV, and X Image Extensions (XIE)

- Protects existing investments in DECimage 1200 and VT1200 terminals by offering cost-effective, modular upgrade options

The DECimage Option lets VXT 2000 terminal users work with intricate bi-tonal images.

Exceptional Performance for the Price

It wasn't long ago, if businesses required machines capable of displaying high-resolution image data, they had to pay a high price. Imaging applications demand the power and speed that were once only available on dedicated workstations or specially configured personal computers.

Today, all members of the VXT 2000 family come with software that permits the display of bi-tonal images, by utilizing XIE. For higher performance imaging capabilities, Digital now offers the affordable DECimage Option for VXT 2000. This easy-to-install "plug-in" board turns any modular VXT 2000 terminal into a high-performance image display system that matches or exceeds the image-handling features of competitors' workstations and PCs, at a substantially lower cost.

The DECimage Option for VXT 2000 adds leading-edge image display functionality to the industry's most extensive family of windowing terminals. This image option allows VXT 2000 terminals to decompress and "paint" image data — even complex technical diagrams — on the monitor screen within one second after being called up from the host computer. That's three to ten times faster than access times when using decompression software alone.
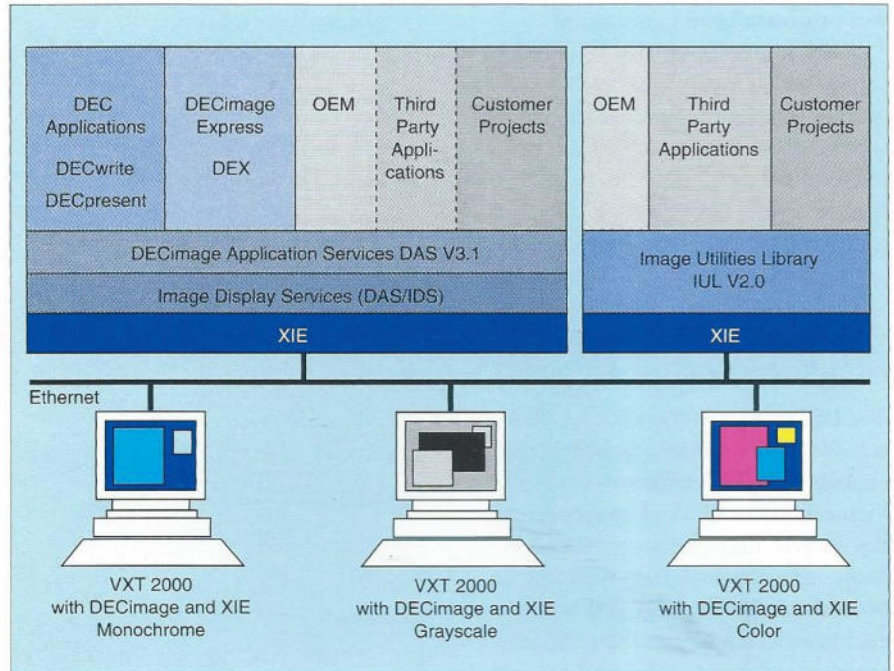
The DECimage Option for VXT 2000 enables instantaneous display of images because it decompresses and scales images locally right at the video terminal. With the click of a mouse button, any image can be reduced or enlarged, viewed close-up or at a different angle, in less than a second. The DECimage Option allows images to be zoomed, scaled, or rotated in 90-degree increments right before the user's eyes.

All the Advantages of the VXT 2000 Family of Terminals

The DECimage Option for VXT 2000 is not a special terminal for imaging. It's built on Digital's mainstream windowing product family that combines high-resolution windowing with connectivity to multiple systems. The option capitalizes on VXT 2000 terminals' many unique features, making these terminals well-suited for imaging applications. Key advantages of the VXT 2000 family include outstanding performance, ease of use, simplified desktop system management, and a wide choice of terminal configurations.

Since the VXT 2000 family members are X Window System terminals, users can work with imaging applications running on VMS, ULTRIX, or UNIX host systems. These multi-tasking terminals also offer a choice of network interface connections — twisted-pair, thick wire, or ThinWire Ethernet — making it painless to integrate image-capable VXT 2000 video terminals into existing networks.

VXT 2000 terminals provide 100 dpi display with a 72 hertz "flicker-free" refresh rate. On models supporting 8-plane grayscale or monochrome monitors, the DECimage Option employs techniques to increase the perceived resolution quality up to 150 dpi for image display. That translates into sharper, easier to view images for long periods of time. And, unlike most workstations and personal computers, the DECimage Option for VXT 2000 permits the windowed display of bi-tonal images on monochrome, grayscale and color monitors.

Software applications interface options for VMS and ULTRIX host systems.

A Prolific Development Platform for Software Application Engineers

As a rapidly emerging and evolving technology, imaging is a new frontier wide open for applications developers to explore. In addition to the VXT 2000 model's many hardware features which make these terminals conducive to creating image applications, Digital provides three levels of software support to aid developers.

The Image Utilities Library (IUL) is a set of subroutines for the application developer. Integrated with the X library, IUL provides the capability to transport and display compressed bi-tonal images between client and server in the X computing model. IUL offers programmers high-level language callable capabilities, which operate directly in VMS, ULTRIX, and UNIX environments.

DECimage Application Services (DAS) is a more comprehensive image manipulation software package. Like IUL, DAS enables image transport and display functions, but it also provides support for continuous tone (grayscale and color) imaging.

DECimage EXpress (DEX) is a complete image management software system that includes an indexed document storage and retrieval facility. DEX complies with Digital's Network Application Support (NAS) strategy for creating standards-based application platforms. DEX supports a wide range of network protocols, including CCITT X.400 and Group IV, as well as JPEG.

DECimage EXpress delivers faster performance and response time to increase productivity in paper-intensive activities such as processing forms and creating technical documentation.

Easy-to-Install and Economical

The DECimage Option for VXT 2000 can be added to any two-box VXT 2000 terminal configuration, allowing users to select from literally dozens of imaging terminal possibilities to meet their specific needs. Because each VXT 2000 terminal offers a choice of monitor, keyboard, network interface connection, and additional single in-line memory modules, an entry-level terminal can be expanded easily and cost-effectively.

The DECimage Option for VXT 2000 consists of a hardware accelerator that enables VXT 2000 terminals to display high-resolution bi-tonal images at very fast speeds. This customer-installable image option board plugs right into an open slot inside the VXT 2000 system enclosure which houses the terminal's memory, video controller, and network interface electronics.

Working with Images Has Been Simplified for End Users

Fast response time is important, but speed is insignificant if the image data is difficult to manipulate. Video terminal users can rest assured that the DECimage Option for VXT 2000 will not compromise the ease of use and productivity features built into every VXT 2000 family member.

As true X Window System terminals, VXT 2000s' OSF/Motif graphical user interface (GUI) offers a user-friendly working environment. Workers can seamlessly manipulate and move images among applications displayed in windows on their terminal screens. VXT 2000 terminals support VMS, ULTRIX, and UNIX operating systems, so hundreds of X-based applications are readily available from Digital and prominent third-party software vendors.

VXT 2000 terminals incorporate the X Image Extensions (XIE) which permit images to be transported over the

Hardware Requirements

The DECimage Option for VXT 2000 is installable on any 2-box VXT 2000 terminal.

Memory Requirements

6 MB if in server-based VXT 2000 mode; 12 MB if in host-based VXT 2000 mode.

Software Prerequisites

VXT 2000 software V1.1 or higher

Ordering Information

DECimage Option for VXT 2000	VX20A-OP
DEC IUL/VMS V1.0 VAX-based system license	QL-GL9A9-AA
DEC IUL/VMS Kit	QA-GL9AA-H#
DEC IUL/VMS Documentation	QL-GL9AA-GZ
DEC IUL/ULTRIX V1.0 VAX-based system license	QL-GM1A9-AA
DEC IUL/ULTRIX Kit (VAX)	QA-GM1AA-H#
DEC IUL/ULTRIX Documentation (VAX)	QA-GM1AA-GZ
DEC IUL/ULTRIX V1.0 RISC-based system license	QL-GN1A8-AA
DEC IUL/ULTRIX Kit (RISC)	QA-GN1AA-H#
DEC IUL/ULTRIX Documentation (RISC)	QA-GN1AA-GZ

network in compressed form and provide "behind the scene" instructions for the display of images. These capabilities reduce network loading and relieve the host from compute-intensive operations. The advantage is a highly efficient system architecture.

Since VXT 2000s are video terminals, end users are freed from the system management responsibilities often associated with PCs and workstations. Workers can then optimize their time interacting with image data. The end result is higher employee productivity.

Commitment to World-Class Service

Digital provides a complete portfolio of services ranging from basic hardware repairs to complex systems integration projects. With one of the largest service and support organizations in the world, Digital has the resources to help businesses maximize their investments in information systems.

Warranty and service plans can be tailored to meet each customer's unique

requirements. It's all part of Digital's commitment to offer the highest quality products backed by the most comprehensive service in the industry.

For More Information

Please contact your local Digital sales representative or Digital Authorized Reseller to learn more or to order the DECimage Option for VXT 2000 and VXT 2000 windowing terminals. For immediate pre-purchase technical assistance and direct ordering in the U.S., call 1-800-DIGITAL (1-800-344-4825.) In Canada, call 1-800-267-6215. In Australia, call 008 021 393.