

# Software Product Description

PRODUCT NAME: InfoServer Client for ULTRIX, Version 1.1

SPD 40.78.01

## DESCRIPTION

InfoServer Client for ULTRIX software allows a system running the ULTRIX Operating System to access devices on an InfoServer.

The InfoServer Client for ULTRIX communicates with the InfoServer 100/150 and InfoServer 1000-based packaged hardware/software systems to provide remote access to SCSI storage devices connected to the InfoServer. Storage can be partitioned into virtual disks, each being part or the whole of a drive. These virtual disks are seen by the client as being local. Refer to the InfoServer Software SPD (SPD 33.20.xx) for the functional description.

The protocol stack used to communicate in the client/server relationship is LASTport/Disk. This protocol stack is designed to optimize transactions in one particular environment, a Local Area Network (LAN), that includes many clients and only a few servers. The LASTport/Disk protocol does not operate across a Wide Area Network (WAN).

The file structure is the responsibility of the ULTRIX system (client) accessing the storage connected to the InfoServer. Therefore, any file format supported by the ULTRIX system is supported by the InfoServer.

InfoServer Client for ULTRIX allows:

- ULTRIX systems and workstations to access industry-standard ISO 9660 and High Sierra formatted CDs from the Digital InfoServer CD-ROM drives (ULTRIX V4.1, at a minimum).
- ULTRIX systems and workstations to access virtual devices on the InfoServer in ULTRIX file format (UFS).
- One ULTRIX system to have write access to virtual devices. No other systems are allowed access to said devices while in this mode.

## Features

### *Supports Industry Standard Format CD-ROMs*

InfoServer Client for ULTRIX is a software product that runs on the ULTRIX Operating System. Using this product, ULTRIX clients can access ULTRIX, ISO 9660, and High Sierra formatted CD-ROMs attached to an InfoServer system.

### *Multiple READ/WRITE Virtual Disks*

ULTRIX systems running this client software can also access read/write partitions on Winchester or Magneto-optical drives. These partitions can be considered an extension of the ULTRIX user's personal storage.

While a partition is set up for write access from one ULTRIX system or workstation, no other systems are allowed until the partition is redefined to be read only. There is no interlocking at the server and the file/record structure is the responsibility of the client system (ULTRIX).

Access to the InfoServer's CD-ROM drives is transparent to the ULTRIX clients. Clients see the required information on fully shareable devices as if the devices are attached locally.

InfoServer Client for ULTRIX can access up to 64 devices in the following combinations:

- 64 CD-ROMs  
or
- Any combination of 64 CD-ROMs and LASTport/Disk drives (read only or read/write partitions)

Note: Any number of users on the ULTRIX system can access these virtual devices but only 64 devices can be mounted by the ULTRIX system at any one time.

The InfoServer eliminates the need to configure one CD-ROM reader per client; any drive attached to the InfoServer can be accessed by any supported client on the LAN.

Multiple InfoServers can be installed on the same LAN if more devices are required, but only 64 devices can be accessed simultaneously from any one ULTRIX client, as described above.

#### *Automatic Failover*

With Version 1.1, the InfoServer Client for ULTRIX now includes automatic failover to duplicate media.

#### *Load Balancing*

When the same disk is offered more than once on the network, load balancing is provided. This includes the ability to load balance connections within a single InfoServer when duplicate virtual disks are present, as well as between multiple InfoServers with duplicate media on the network.

#### *InfoServer System Overview*

The InfoServer is an Ethernet-based, high-performance virtual device server capable of making CD-ROMs, hard disks, and magneto-optical devices available to clients on the network. Refer to the InfoServer Software SPD (SPD 33.20.xx) for further information.

The InfoServer connects directly to either ThickWire or ThinWire Ethernet to provide RRD40 or RRD42 CD-ROM, RZ55, RZ56, RZ57 Winchester hard disk; RWZ01 or Alphasatronic Inspire removable magneto-optical read/write disk access to any supported client on the local area network (LAN). The InfoServer 100 /150 supports up to 100 concurrent connections. The InfoServer 1000 ships with 50 concurrent connections enabled, upgradeable to 100 connections via an upgrade license. (Refer to the InfoServer SPD, SPD 33.20.xx, for further details.) Access from multiple clients to the same or different virtual devices is simultaneous; however, only one client can have write access to a given virtual device, at which time no other clients are allowed read access. One write operation is allowed by any InfoServer client at any given time.

#### *Installation and Configuration Utility*

The InfoServer Client for ULTRIX software provides the user with utility programs to configure ULTRIX clients to connect to the virtual disks offered by an InfoServer. Manpage facilities are also provided.

#### *Restrictions and Limitations*

Note: ISL, booting, and tape support of ULTRIX systems from the InfoServer system are not supported at this time.

The InfoServer and all the clients accessing it must be on the same LAN but not necessarily on the same segment (can be bridged). Extended LANs that are connected by routers are not supported. The InfoServer Client for ULTRIX software product can only be used to access the Digital InfoServer product using Ethernet.

### **HARDWARE REQUIREMENTS**

Processor and/or hardware configurations as specified in the System Support Addendum (SSA 40.78.01-x).

### **SOFTWARE REQUIREMENTS**

ULTRIX Operating System

InfoServer Software

### **ORDERING INFORMATION**

#### License

- The right to use the InfoServer Client for ULTRIX software is included with the InfoServer Server Software License.

#### Media and Documentation

- InfoServer Client for ULTRIX (VAX/ULTRIX): QA-YSHAC-H\*
- InfoServer Client for ULTRIX (RISC/ULTRIX): QA-YSHAB-H\*

#### Software Product Services

- InfoServer Client for ULTRIX (VAX/ULTRIX): QT-YSHAC-E\*
- InfoServer Client for ULTRIX (RISC/ULTRIX): QT-YSHAB-E\*

\* Denotes variant fields. For additional information on available licenses, services, and media, refer to the appropriate price book.

### **SOFTWARE LICENSING**

The right to use the InfoServer Client for ULTRIX software is included with the InfoServer Server Software License, which is included in the base InfoServer packaged systems. The InfoServer Client for ULTRIX software is licensed only for use with Digital's InfoServer product. Refer to the InfoServer Server Software SPD (SPD 33.20.xx).

This software is furnished under the licensing provisions of Digital Equipment Corporation's Standard Terms and Conditions. The above information is valid at time of release. For more information about Digital's licensing terms and policies, contact your local Digital office.

*License Management Facility Support*

This product does not provide support for the ULTRIX License Management Facility. A Product Authorization Key (PAK) is not required for installation or use of this product.

**SOFTWARE PRODUCT SERVICES**

A variety of service options are available from Digital. For more information, contact your local Digital office.

**SOFTWARE WARRANTY**

Warranty for this software product is provided by Digital with the purchase of a license for the product as defined in the Software Warranty Addendum of this SPD.

™ The DIGITAL Logo, DECstation, DECsystem, Digital, LASTport, MicroVAX, RZ, ThinWire, TK, ULTRIX, VAX, VAXserver, and VAXstation are trademarks of Digital Equipment Corporation.

# System Support Addendum

PRODUCT NAME: InfoServer Client for ULTRIX, V1.1

SSA 40.78.01-A

## HARDWARE REQUIREMENTS

### *Processors Supported*

#### *VAX-Based Processors:*

VAX: VAX 6000 Model 200 Series,  
VAX 6000 Model 300 Series,  
VAX 6000 Model 400 Series,  
VAX 6000 Model 500 Series

VAX 8200, VAX 8250, VAX 8300, VAX 8350,  
VAX 8500, VAX 8530, VAX 8550, VAX 8600,  
VAX 8650, VAX 8700, VAX 8800, VAX 8810,  
VAX 8820, VAX 8830, VAX 8840

VAX 9000 Model 110,  
VAX 9000 Model 210,  
VAX 9000 Model 300,  
VAX 9000 Model 410 Series,  
VAX 9000 Model 420

VAX-11/750, VAX-11/780, VAX-11/785

MicroVAX: MicroVAX II, MicroVAX 2000,  
MicroVAX 3100, MicroVAX 3300,  
MicroVAX 3400, MicroVAX 3500,  
MicroVAX 3600, MicroVAX 3800,  
MicroVAX 3900

VAXstation: VAXstation II, VAXstation II/GPX,  
VAXstation 2000, VAXstation 3100,  
VAXstation 3200, VAXstation 3500,  
VAXstation 3520, VAXstation 3540

VAXserver: VAXserver 100, VAXserver 2000,  
VAXserver 3100, VAXserver 3300,  
VAXserver 3400, VAXserver 3500,  
VAXserver 3600, VAXserver 3602,  
VAXserver 3800, VAXserver 3900

VAXserver 6000 Model 210,  
VAXserver 6000 Model 220,  
VAXserver 6000 Model 310,  
VAXserver 6000 Model 320,  
VAXserver 6000 Model 410,  
VAXserver 6000 Model 420,  
VAXserver 6000 Model 510,  
VAXserver 6000 Model 520

#### *RISC-Based Processors:*

DECstation: DECstation 2100, DECstation 3100,  
DECstation 3100s

Personal DECstation 5000 Model 20/25 HX,  
Personal DECstation 5000 Model 20/25 MX,  
Personal DECstation 5000 Model 20/25 TX,  
Personal DECstation 5000 Model 20/25  
PXG+,  
Personal DECstation 5000 Model 20/25 PXG  
Turbo+

DECstation 5000 Model 120/125/133 CX,  
DECstation 5000 Model 120/125/133 HX,  
DECstation 5000 Model 120/125/133 MX,  
DECstation 5000 Model 120/125/133 PX,  
DECstation 5000 Model 120/125/133 PXG,  
DECstation 5000 Model 120/125/133 PXG+,  
DECstation 5000 Model 120/125/133 PXG  
Turbo,  
DECstation 5000 Model 120/125/133 PXG  
Turbo+

DECstation 5000 Model 200 CX,  
DECstation 5000 Model 200 HX,  
DECstation 5000 Model 200 MX,  
DECstation 5000 Model 200 PX,  
DECstation 5000 Model 200 TX,  
DECstation 5000 Model 200 PXG,  
DECstation 5000 Model 200 PXG+,

DECstation 5000 Model 200 PXG Turbo,  
DECstation 5000 Model 200 PXG Turbo+

DECstation 5000 Model 240 HX,  
DECstation 5000 Model 240 MX,  
DECstation 5000 Model 240 TX,  
DECstation 5000 Model 240 PXG+,  
DECstation 5000 Model 240 PXG Turbo+

DECsystem: DECsystem 3100,  
DECsystem 5000 Model 25,  
DECsystem 5000 Model 200,  
DECsystem 5000 Model 240,  
DECsystem 5100, DECsystem 5400,  
DECsystem 5500, DECsystem 5810,  
DECsystem 5820, DECsystem 5830,  
DECsystem 5840, DECsystem 5900

*Processors Not Supported*

MicroVAX I, VAXstation I

*Other Hardware Required*

An Ethernet Adapter supported by ULTRIX V4.0, at a minimum.

An Ethernet ThinWire or ThickWire LAN on which the ULTRIX client(s) and InfoServer are connected.

**Disk Space Requirements**

*For VAX-Based Systems:*

Disk space required for installation:

Root file system: 0 Kbytes  
Other file systems: usr 1,447 Kbytes  
var 0 Kbytes

Disk space required for use (permanent):

Root file system: 0 Kbytes  
Other file systems: usr 1,447 Kbytes  
var 0 Kbytes

*For RISC-Based Systems:*

Disk space required for installation:

Root file system: 0 Kbytes  
Other file systems: usr 5,327 Kbytes  
var 0 Kbytes

Disk space required for use (permanent):

Root file system: 0 Kbytes  
Other file systems: usr 5,327 Kbytes  
var 0 Kbytes

These counts refer to the disk space required on the system disk. The sizes are approximate; actual sizes may vary depending on the user's system environment, configuration, and software options.

**SOFTWARE REQUIREMENTS**

ULTRIX Operating System V4.0 minimum  
(V4.1 is required for ISO 9660 support)

InfoServer Software V2.0 minimum

**GROWTH CONSIDERATIONS**

The minimum hardware/software requirements for any future version of this product may be different from the requirements for the current version.

**DISTRIBUTION MEDIA**

9-track 1600 BPI Magtape, TK50 Streaming Tape

**ORDERING INFORMATION**

License

- The right to use the InfoServer Client for ULTRIX software is included with the InfoServer Server Software License.

Media and Documentation

- InfoServer Client for ULTRIX (VAX/ULTRIX): QA-YSHAC-H\*
- InfoServer Client for ULTRIX (RISC/ULTRIX): QA-YSHAB-H\*

Software Product Services

- InfoServer Client for ULTRIX (VAX/ULTRIX): QT-YSHAC-E\*
- InfoServer Client for ULTRIX (RISC/ULTRIX): QT-YSHAB-E\*

\* Denotes variant fields. For additional information on available licenses, services, and media, refer to the appropriate price book.

The above information is valid at time of release. Please contact your local Digital office for the most up-to-date information.

™ The DIGITAL Logo, DECstation, DECsystem, Digital, LASTport, MicroVAX, RZ, ThinWire, TK, ULTRIX, VAX, VAXserver, and VAXstation are trademarks of Digital Equipment Corporation.