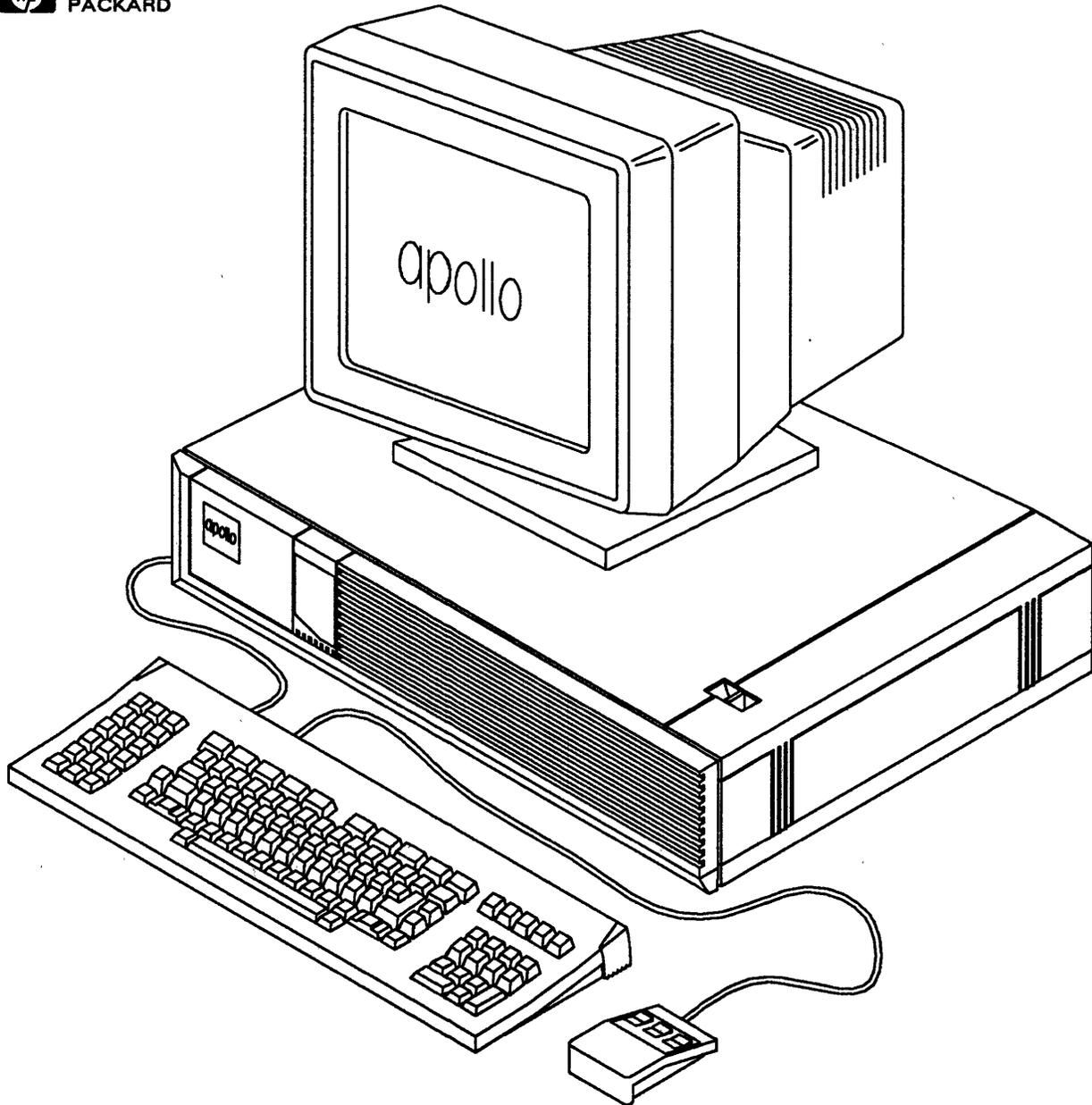


HP-APOLLO PRODUCTS

CONFIGURATION GUIDE

apollo

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PACKARD



apollo

A subsidiary of



TO: All Sales & Sales Support Personnel
SUBJECT: HP-Apollo Products Configuration Guide

The enclosed Configuration Guide was designed for the purpose of assisting Field Personnel in developing a system configuration, including the necessary software packages required to satisfy customer demand. Where possible, the *HP-Apollo Products Configuration Guide* attempts to follow the same format found in the *HP 9000 Workstations Configuration Guide*.

The *HP-Apollo Products Configuration Guide* has been divided into ten (10) major sections providing the following information:

1. Section A - OVERVIEW

A brief description of each of the HP-Apollo Workstation Families, the Operating System, Networking capabilities, Graphics and Mass Storage availability.

2. Section B - SUGGESTED CONFIGURATION PROCEDURE

A short review demonstrating how to configure a system with options using the Configuration Record Packet (CRP).

3. Section C - SOFTWARE

A complete listing of available software with Description, Part Number and available Media Options. This section has been organized by Application, Operating Systems, Windows, Development Tools, etc.

4. Section D - HARDWARE

A complete listing of the available HP-Apollo workstations with options divided by Series. It includes an introduction to each specific product and lists necessary prerequisites.

5. Section E - HARDCOPY DEVICES

This section lists the various Hardcopy Devices (Printers) available. It includes a brief description of each device.

6. Section F - PC INTEGRATED PRODUCTS

This section lists those products available for PC compatibility.

7. Section G - NETWORKING & COMMUNICATIONS

A complete listing of the available hardware networking and communications options.

8. Section H - UPGRADES

This section lists the products available to upgrade an existing system. It is organized by category such as System Upgrades, Memory Upgrades, Disk Upgrades, etc.

9. Section I - CONFIGURATION RECORD PACKET (CRP)

A reproducible copy of the CRP for designing new system configuration.

10. Section J - HP-APOLLOLINE SOFTWARE SUPPORT

A description, including examples, of available software support options.

We hope that the information provided in this Configuration guide will assist you in putting together a cost effective and efficient solution to satisfy your customer's requirements.

TABLE OF CONTENTS

A. Overview	
Introduction	A-2
HP-Domain Series Workstations	A-3
B. Configuration Procedure	
Application Drives the Configuration	B-2
Configuration Record Packet	B-3
Establishing the Overall Design	B-3
Listing the Configuration	B-3
C. Software	
Introduction and Contents	C-1
Operating System Software	
Domain/OS	C-3
Domain/IX	C-5
Aegis Operating System	C-6
Window Systems Software	
Domain/X11	C-8
Development Tools	
Domain/Ada	C-10
Domain/C++, C++ Translator and Domain/C	C-12
Domain/CommonLISP	C-17
Domain/Dialogue	C-19
Open Dialogue	C-21
Domain Performance Analysis Kit (DPAK)	C-23
Domain Software Engineering Environment (DSEE)	C-24
Fortran 77	C-26
Pascal	C-28
Data Management	
Domain Distributed Data Management (D3M)	C-30
Graphics	
Domain/CORE Graphics Software	C-32
Domain/4014 Emulator	C-33
GKS	C-35
GMR2D Development License	C-37
GMR3D Development License	C-39
GSR	C-41
Domain/PHIGS	C-42
Domain/PHIGS & GMR3D Development License (PGMR)	C-44

Technical Office Software Products	
Alis	C-46
DPSS/Mail	C-47
Knowledge Broker	C-49
System Administration Tools	
OmniBack Network Backup System	C-52
Passwd Etc	C-53
Portable Software	
Network Computing Kernal	C-54
Network License Server	C-55
NIDL Compiler	C-57
Networking and Communication	
Domain/Access	C-58
Apollo/SNA 3270/3770	C-60
Domain/LU6.2 Gateway	C-63
Apollo/X.25 Communications	C-65
TCP/IP Access Protocol	C-66
Network File System (NFS)	C-68
Apollo TECHnet	C-69
PC Integration Products	
MSDOS Operating System	C-70
DPCE (PC Emulator) - IBM PC DOS in Domain Windows	C-71
Domain/PCI-Ethernet	C-73
Domain/PCI-1	C-74
Domain/PCI-IT (IBM Token Ring)	C-76
Domain/PCI Server	C-77
Hardware Support Software	
CGM Device Driver for HP	C-79
CGM Device Driver for CALCOMP	C-80
PostScript Driver for Dot Matrix (MMP)	C-81
AT/BUS Driver (SPE)	C-82
TRANS (Translate UNIX into Postscript)	C-83
Versatec V.80	C-84
CGM Device Driver for VERSATEC (VERS1/VERS2))	C-86
Tektronix 4692 Device Driver (4692)	C-88
Other	
General Purpose I/O Software	C-89
Domain 5080 Emulator	C-91
TMLib	C-92
Software Updates (All BSU and RTU)	C-93

D. Hardware

Domain Series 2500 Personal Workstations	
Introduction	D-3
Prerequisites	D-3
Contents	
DN2500 15" Monochrome Workstation	D-3
Domain Series 3000 Personal Workstations and Servers	
Introduction	D-11
Prerequisites	D-11
Contents	
Series 3000 Add-on Options	D-12
DN3010A Monochrome Workstation	D-13
DN3010A Color Workstation	D-19
DSP3010A Server	D-26
DN3040 Color Ruggedized Workstation	D-30
DSP3040 Ruggedized Server	D-35
Domain Series 3500 Personal Workstations and Servers	
Introduction	D-39
Prerequisites	D-39
Contents	
DN3500 Monochrome Workstation	D-40
DN3500 Color Workstation	D-49
DSP3500 Server	D-58
DN3540 Color Ruggedized Workstation	D-64
DSP3540 Ruggedized Server	D-71
DN3550 Monochrome Workstation	D-77
DN3550 Color Workstation	D-86
DSP3550 Server	D-96
Domain Series 4000 Options only	
Introduction	D-103
Prerequisites	D-103
Contents	
Options	D-104
Domain Series 4500 Personal Super Workstations and Servers	
Introduction	D-107
Prerequisites	D-107
Contents	
DN4500 Monochrome Workstation	D-108
DN5500 Color Workstation	D-116
DSP4500 Server	D-126

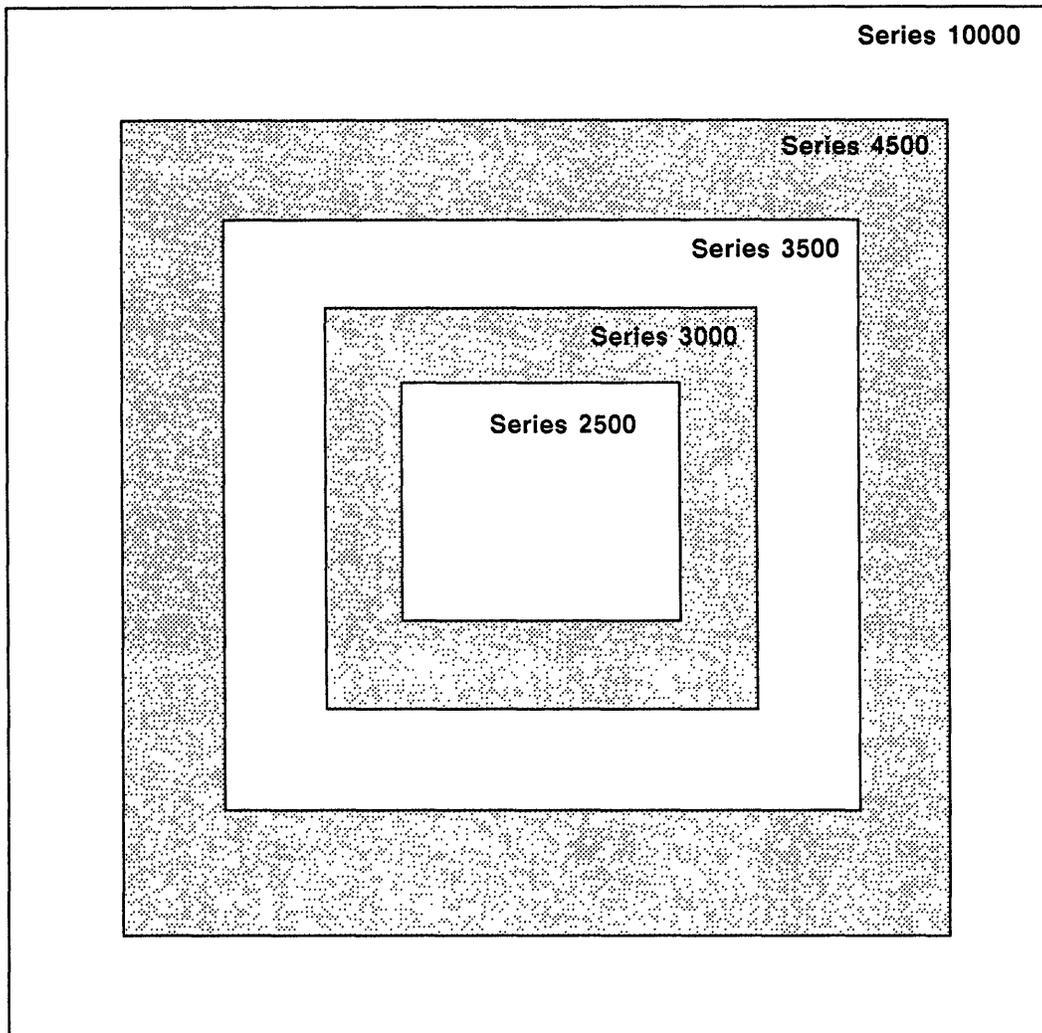
Domain Series 10000 Personal Supercomputers	
Introduction	D-133
Prerequisites	D-133
Contents	
DN10000 Color Computational Workstation	D-134
DSP10000 Server	D-142
 Mature Products	
Contents	
DSP90 Server Processors	D-149
DSP90 Fileserver Processors	D-149
Multibus Compatible Options	D-149
DFS90 Expansions	D-151
Domain 5080 Emulator	D-151
DN5XXT Building Blocks and Add-Ons	D-153
Multibus Expansion to Mature Products	D-155
 E. Hardcopy Devices	
Introduction	E-1
Contents	
Printers	
Domain/Laser 26 (LP26)	E-2
2108 Laser Printer (LP800)	E-4
Multi-Mode Dot Matrix (MMP)	E-5
ColorPrint 300 (CGP)	E-6
 F. PC Integrated Products	
Introduction	F-1
Contents	
PC Coprocessor Board	F-2
Apollo Token Ring Controller	F-2
3 Com Etherlink II Controller	F-2
 G. Networking and Communications	
Introduction	G-1
Contents	
Network Controllers	
Apollo Token Ring Controller - VME	G-3
802.3 Network Controller - VME	G-3
802.3 Network Controller - VME DN10000	G-3
Apollo Token Ring Controller - AT	G-3
802.3 Network Controller - AT	G-3
802.3 Network Controller - AT DN3500/4500	G-3
802.3 Network Controller - AT DN3000	G-3
Communication Controllers	
Domain x.25 Gateway PNA, MBUS	G-4
Com-Scat Intelligent Controller	G-4

Serial Communications Cables	
RS-232	G-5
RS-449	G-5
x.21	G-5
V.35	G-5
Bridges and Routers	
Domain/DFL Fiber Optic Link	G-6
Domain/DFL Redundant Fiber Optic Link	G-6
H. Upgrades	
Introduction	H-1
Contents	
System Upgrades	H-4
DN3000/3010 to DN3050	H-4
DN3000 to DN3550/4500	H-4
DN3000 to DN3010	H-4
DN3500/3550/4000 to DN4500	H-9
DN3000 to DN2500	H-10
Memory Upgrades	
DN3010A 4MB to 8MB	H-11
DN3550/4500 8MB to 16MB	H-11
Disk Upgrades	
DN3XXX/DN4XXX	H-11
SCSI	H-11
697MB Disk Upgrade	H-12
SCSI Tape Cartridge Upgrade	H-12
SCSI Controller Upgrade	H-13
Series DN10000 Upgrades	H-13
Graphics Upgrades	H-13
High Resolution Graphics Upgrades	H-14
Desktop Visualization Upgrades	H-15
Desktop Visualization Special Systems Upgrades	H-16
DN3XXX/4XXX Communication Upgrades	H-17
Mature Products	
System Upgrades	H-18
Memory Upgrades	H-18
DN5XX Workstation Upgrades	H-20
DN5XXT Array Processor Upgrades	H-20
Domain 5080 Emulator Upgrades	
Local Systems	H-21
T1 Remote Systems	H-21
V.35 Remote Systems	H-22
Coax Remote Systems	H-22
Communication Upgrades	H-23
Multibus Compatible Upgrades	H-23
I. Configuration Record Packet	I-1
J. HP-ApolloLine Software Support	J-1

HP-APOLLO Workstations

Configuration Guide

Effective
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OVERVIEW

Introduction

Workstations are powerful computers, usually consisting of the following components: monitor, CPU, keyboard, mouse, disk and media. These workstations are used for:

- Computer-aided mechanical, electronic, or software design and engineering.
- Development and animation of 3-dimensional images for design, research, or motion picture production.
- Automatic control of laboratory or production test instruments.
- Desktop publishing.
- Development of artificial intelligence applications.

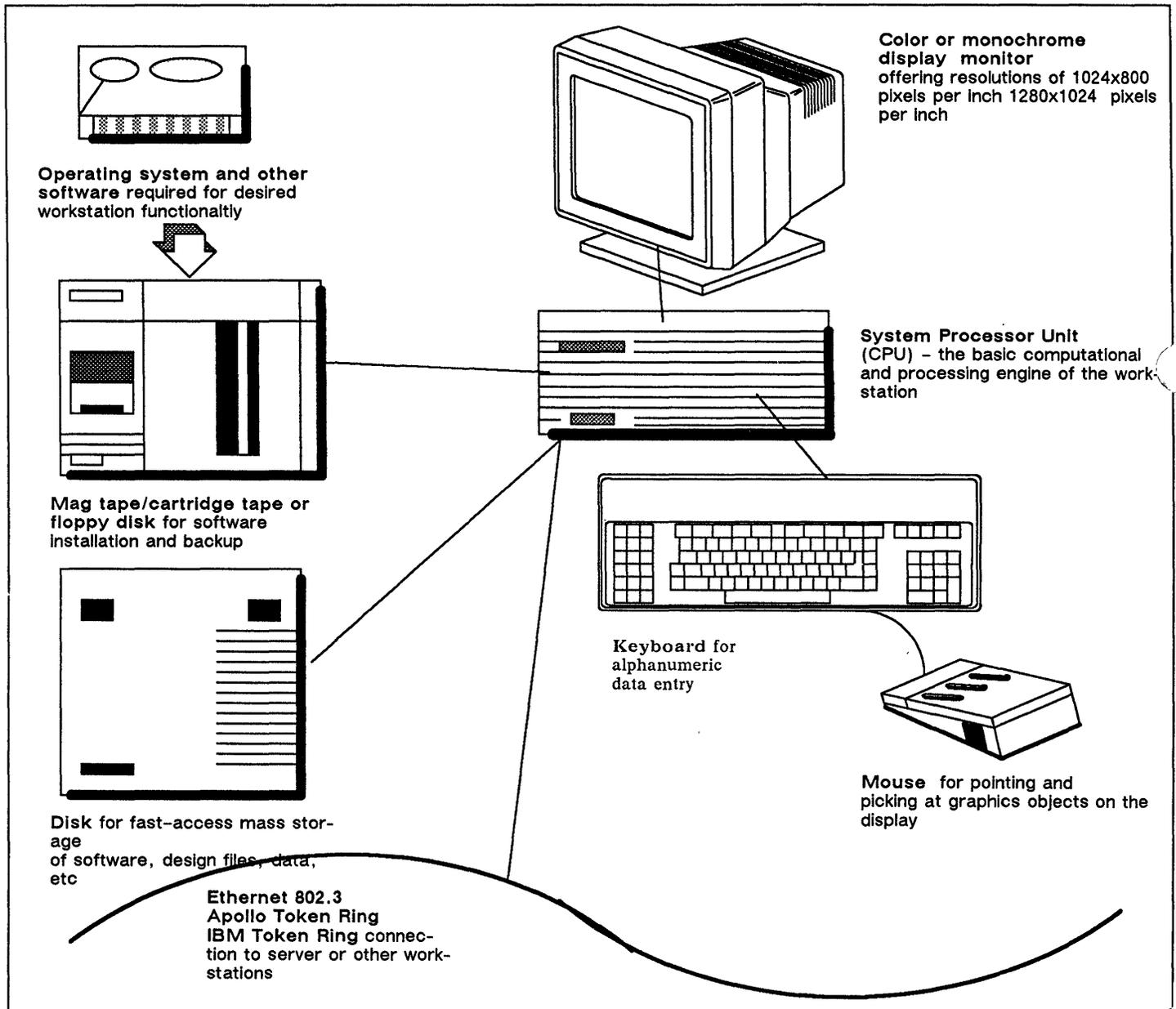


Figure A-1 Workstation Components

The HP-Apollo Workstation Product Line

With the exception of the DN10000 which has a 64-bit processor, Domain® workstations include a high performance 32-bit processor, memory management unit, a local area network interface and an integrated high resolution bit-mapped graphics display with detachable keyboard. A license, pursuant to HP-Apollo's then current applicable software license terms and conditions to use the operating system and Domain/XII is granted by HP-Apollo with each node. The operating system features three environments - System V, Berkeley 4.3 and Aegis and network-wide virtual memory with a sophisticated display manager. Also included are a font editor, the Domain/Dialogue™ and Open Dialogue Runtimes User Interface Management System, high-level language debugger, a software driver for the Apple LaserWriter™ printer, VT100® Emulator, Open System Toolkit and network management utilities. Runtime licenses for GPR, GSR, GMR2D, GMR3D and Domain/PHIGS are also included.

Workstation Families

A. The Series 2500 Personal Workstation

The Series 2500 is the entry-level member of the Apollo Personal Workstation family. It combines high-resolution monochrome graphics with an MC68030 central processor and the MC68882 floating point processor to produce a very aggressively priced UNIX®-based desktop system. The Series 2500 combines the economy and convenience of a personal computer with the functionality of a dedicated workstation: 4 MIPS performance, high-resolution graphics, and integrated networking. Ideally suited for Computer Aided Software Engineering (CASE), technical publishing, database, and office automation tasks, the Series 2500 is also an excellent entry-level monochrome system for 2-D drafting and schematic capture. In fact, the Series 2500 is priced so that nearly every business can afford to put one on every professional's desk, giving them the functionality they need to be productive and for the work group to be effective.

Like all Apollo workstations, the Series 2500 gives you unsurpassed networking, industry standards, and over 2500 of the world's most popular application solutions to choose from.

B. The Series 3000 Personal Workstation

The Series 3000™ is one of the most popular low-cost, UNIX-based HP-Apollo workstations. It combines the economy and convenience of a personal computer with the power of a 32-bit dedicated workstation. The Series 3000 workstation is available with a 15- or 19-inch color or monochrome display and is ideally suited for schematic capture, 2-D drafting, technical publishing, computer-aided software engineering (CASE), or financial processing. Despite its low cost, it offers 1.5MIPS performance and combines high-resolution integrated graphics with an MC68020 central processor. It also offers the industry-standard IBM PC AT-compatible peripheral interface.

C. The Series 3500 Personal Workstation

Based on Motorola's 25MHz MC68030 microprocessor and 25MHz MC68882 floating point coprocessor, the Series 3500™ Personal Workstation provides state-of-the-art CPU performance (5MIPS), integrated graphics, and networking capability on 19-inch color and monochrome displays. It provides higher performance for more demanding applications, such as PCB and IC design, and it offers 4- and 8-plane color configurations.

OVERVIEW

D. The Series 3540 Personal Workstation

The Series 3540 is a rack-mountable, industrialized workstation designed to withstand harsh environmental conditions, such as temperature variances, electromagnetic interference, and voltage surges. The workstation provides factory floor users with fast graphics for shop floor documentation, powerful 32-bit processing, and the industry's most advanced networking capabilities for transparent access to information across a broad range of minicomputer, mainframes, and personal computers.

E. The Series 4500 Personal Super Workstation

The Series 4500™ is an extremely powerful UNIX-based workstation, delivering a full 8 MIPS of power to your desktop. HP-Apollo delivers this level of performance through the use of the 33MHz MC68030 microprocessor and MC68882 floating point coprocessor. With up to 32MB of memory available, the Series 4500 is ready to take on the most demanding of applications, such as simulation and mechanical design.

F. The Series 10000 Personal Supercomputer

Above the class of a workstation, but offering workstation convenience, the Series 10000™ Personal Supercomputer provides 15 to 100 MIPS in an office environment. The Series 10000 is based on HP-Apollo's *PRISM* architecture (Parallel Reduced Instruction Set Multiprocessing) and delivers unsurpassed performance for an office workstation.

In addition, the Series 10000 offers high-performance graphics capabilities integrated into the CPU design, for the most demanding 3-D graphics requirements. For any users requiring sophisticated visualization -- including computational fluid dynamics, finite element analysis, molecular modeling, medical imaging, solids modeling, and more -- the Series 10000's combination of supercomputer computational power and unequalled 3-D graphics power is ideal.

Diskless Workstations and Network Servers

Cost per workstation seat can be significantly reduced and coordination of workgroup activities improved by configuring a workgroup as a set of diskless workstations connected via a supporting network, supported by built-in communication interfaces. The Network Server provides software installation and disk storage for the diskless workstations. This greatly reduces hardware costs. Moreover the network server does not have to be totally dedicated to the server function, but can itself be one of the seats in the workgroup.

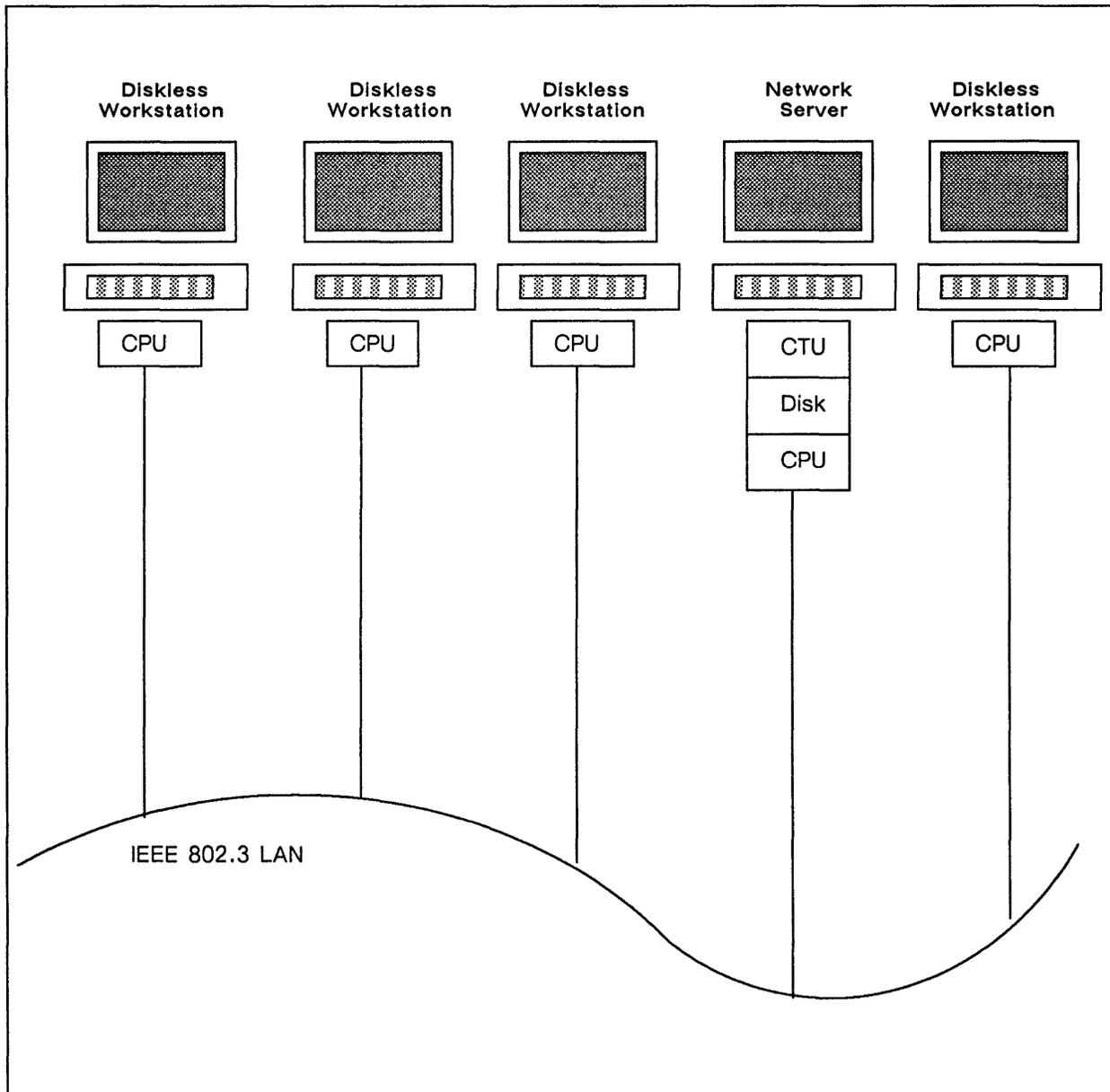


Figure A-2 Diskless Workstations and Network Server

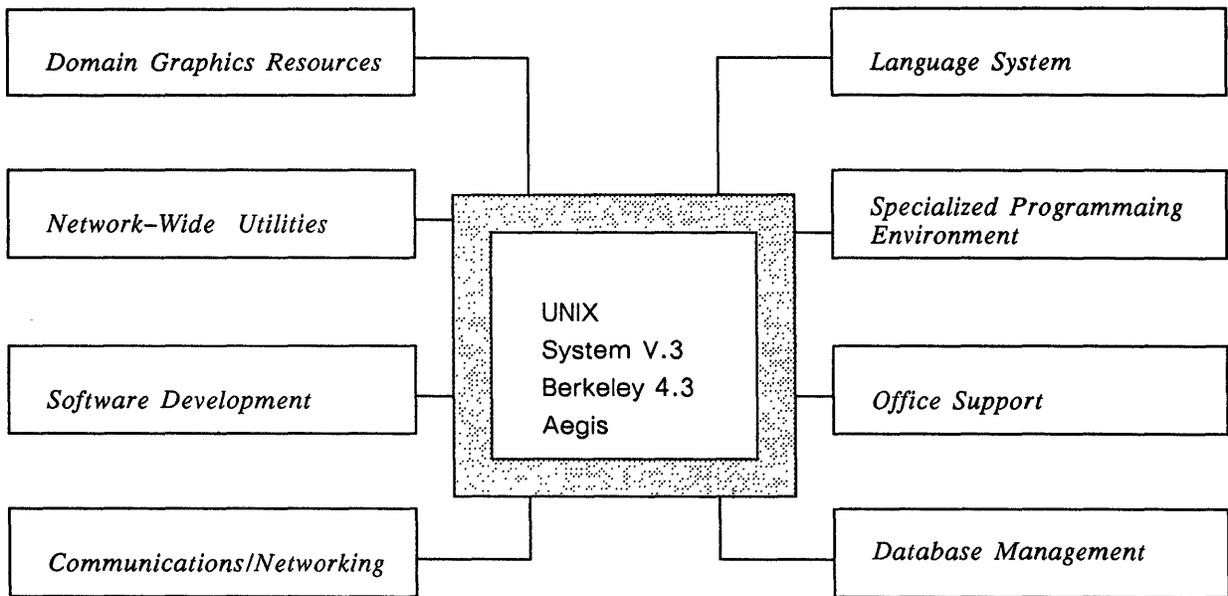
OVERVIEW

Software for HP-Apollo Workstations

The software for HP-Apollo Workstations consists principally of the Domain/OS™ operating system, the X Window System and the application packages, communications software, database management software and graphics software that the operating system and the X Windows system make accessible to the user.

Domain/OS is not just another operating system. Domain/OS is a single operating system that includes three operating environments -- UNIX System V.3., Berkeley 4.3, and HP-Apollo's Aegis™.

With Domain/OS, users can configure networks to meet their specific needs for functionality, portability, and performance.



How Fundamental Operating Software is Made Available for HP-Apollo systems.

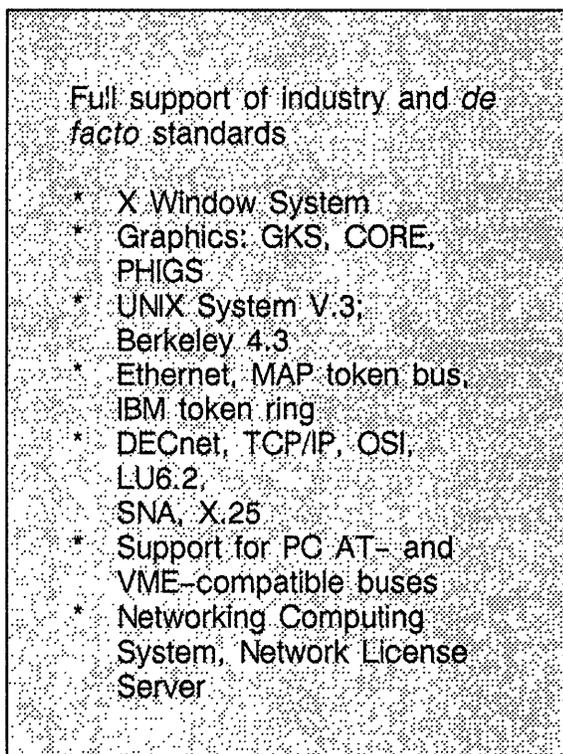
For Workstations: HP-Apollo Workstation bundles include a license to use the Domain/OS, Domain/IX, Domain/Dialogue, Open Dialogue, Open System Toolkit, GSR, GMR2D, GMR3D and Domain/PHIGS.

How Additional Software is Made Available for HP-Apollo Workstations.

Additional software is purchased separately from the bundle. This may involve the individual purchase of a license and the software and documentation, which may be separate products. If media options are listed with the software, one of the media options must be specified in order to obtain the software, since the software is encoded on the media.

Multivendor Connections

HP-Apollo is committed to providing customers with the flexibility to connect HP-Apollo's systems to other vendor's systems. Apollo creates this open computing environment by supporting all major industry and de facto communications standards, including SNA, NFS™, X.25, TCP/IP, Ethernet, MAP and others. The HP-Apollo environment can encompass IBM PCs, VAXs, IBM mainframes, Cray, and CDC computers, and a variety of other UNIX-based systems.



OVERVIEW

Sharing Information

HP-Apollo workstations are network-independent so they can be linked in a variety of ways, including the HP-Apollo or IBM token ring, Ethernet, and T-1. No matter what the transport, workgroup members can transparently share information and access all the resources on the network as easily as if the information were on their own workstations. For connections between multiple Apollo Token Ring networks, HP-Apollo offers several Domain/Bridge internet routers and the Domain/DFL™ network extender. These offer a choice of transport media including T-1 common carrier service, co-axial cable, and optical fiber cable.

Network Computing

HP-Apollo is leading the way with its Network Computing System (NCS). NCS allows applications to be separated at the subroutine level and distributed across the network. When the application is executed, the subroutines are dynamically linked together, allowing the user to take advantage of idle or specialized computation resources on the network. These specialized processors may include vector processors, database systems, or image processors.

Another example of advanced interconnectivity offered by HP-Apollo is the ability to request that one computer perform processing in addition to providing raw data. For example, users could request information and processing services from each of the large computers on the network and display the results on their screen. The workstations could then combine this information in such a way that users could make more meaningful decisions. This kind of interoperability, relating the activities of one computer to another, offers tremendous opportunity for a new class of applications that can greatly improve productivity.

The network and all its resources act as a single cooperating environment spanning real-time systems, specialized processors, transaction processors, computer servers, and mainframes. The result is higher performance, more efficient use of equipment, and higher productivity.

Open Dialogue

HP-Apollo's Open Dialogue™ User Interface Management System (UIMS) is based on the industry standard X Window System. It allows application developers to design custom-tailored user interfaces to their specific UNIX applications on other hardware platforms. With HP-Apollo's advanced multiwindow display manager, users can move back and forth between windows without waiting for a program to finish. A powerful full-screen editor allows cutting and pasting between the applications.

Network License Server

HP-Apollo offers the Network License Server (NLS™), which complements the concept of network computing by providing a unified network-wide mechanism to manage software licenses. NLS provides an alternative to expensive site licensing and CPU-lock licensing which restricts the free-flow of applications and users across the various systems in heterogeneous networks. NLS allows concurrent user licensing, controlling the number of copies simultaneously active at any one time on the network.

In this way, end users pay in accordance with their needs, and software suppliers are ensured fair compensation for software use. HP-Apollo licenses source code to both Open Dialogue and NLS.

Complete Range of Network Offerings

HP-Apollo/SNA connects HP-Apollo workstations to IBM mainframes as 3270 and 5080 terminals.

HP-Apollo/LU6.2 extends Apollo's networking capabilities to include IBM's Advanced Program-to-Program Communications (APPC) standard, LU6.2 and PU2.1.

Complete Range of Network Offerings (cont'd)

Domain/PCI™ links users of IBM and IBM-compatible PCs to the distributed HP-Apollo network environment.

HP-Apollo/TECHnet supports file transfer, file management, and remote login to DEC VAX/VMS® systems. HP-Apollo-TECHnet allows up to 255 bidirectional virtual terminal sessions between Apollo and DEC VMS or Ultrix® DECnet Phase-IV systems.

IBM token ring operates over shielded or unshielded twisted pair cable for linking HP-Apollo systems in a local area network and supports HP-Apollo's Distributed Services, TCP/IP, OSI, and LU6.2.

HP-Apollo Token Ring operates at 12Mbps and supports HP-Apollo's Distributed Services, TCP/IP, and OSI.

Ethernet provides inter-operation between HP-Apollo workstations and other vendors' systems and supports HP-Apollo's Distributed Services, TCP/IP, OSI, and TECHnet.

HP-Apollo/X.25 provides HP-Apollo workstations with the ability to communicate over packet-switched wide area networks.

HP-Apollo TCP/IP provides shared file access and remote login.

Graphics

HP-Apollo offers one of the most comprehensive sets of integrated graphics tools in the industry today. Each HP-Apollo workstation from the entry-level Series 2500 to the powerful Series 10000 Personal Supercomputer, provides superior graphics functionality.

The Series 10000VS visualization system offers a dramatically new 3-D graphics system which takes full advantage of the HP-Apollo RISC-based *PRISM* architecture. The unique combination of super-computer class processing power and high-speed 3-D graphics has unequalled capacity to rapidly generate the full range of engineering and design representations from 3-D shaded rendering and complex computer-aided design structures and near real-time analysis and graphical visualization.

By implementing specialized instructions directly into the CPUs, programmers are not constrained to proprietary microcoded graphics accelerators. Users can choose from a wide selection of graphics interfaces such as GKS, PHIGS, GSR™, GPR™, GMR™, or program to the raw drawing hardware, integrating graphics in accordance with application needs.

OVERVIEW

	Description	Standard/Innovation
User Interface	OSF/Motif Guidelines used to develop the "look and feel" of the user interface; includes buttons, icons, menus, and scrollbars with 3-D appearances.	OSF Standard
	Benefits Common interface among different manufacturers' computers. Portable across platforms and applications, built upon X Window System.	
	Display Manager Text and mouse driven window interface to the operating system	HP-Apollo Innovation
Benefits Input and output to multiple processes simultaneously.		
Graphics Languages	Domain/IX™ Complete Implementation of X Window System; 2-D graphics library, window system primitives, and toolkits.	MIT Standard & HP-Apollo Innovation
	Benefits Greater performance and functionality for applications that go beyond X 2-D	
	GKS (Graphics Kernel System) High-performance implementation of GKS; retained, non-hierarchical floating point 2-D graphics, input models, and CGM output	ANSI/ISO Standard
Benefits International standard 2-D interface; portable across multiple platforms		
	GPRt (Graphics Primitives Resource) High-level, integer-coordinate 2-D graphics, rich set of graphics I/O functions	HP-Apollo Innovation
Benefits Easy-to-use, with extensive error-handling capabilities		
	GSR™ (Graphics Service Routines) Low-level, integer-coordinate display-list oriented graphics interface, optimized for 2-D performance	HP-Apollo Innovation
Benefits, Applications are portable across entire HP-Apollo workstation line at maximum 2-D performance		
	PHIGS/PHIGS+ (Programmers Hierarchical Interactive Graphics System) Hierarchical, floating point, 3-D, retained graphics system provides lighting, shading, and higher-order geometry	ANSI/ISO Standard
Benefits, Applications are easier to port to other hardware platforms		
	2DGMR™ Higher-level, hierarchical, retained, integer or floating point 2-D graphics programming language	HP-Apollo Innovation
Benefits, High performance for 2-D applications on HP-Apollo graphics systems.		
	3DGMR™ Hierarchical, floating point 3-D, retained and immediate mode-graphics language; advanced rendering features include texture mapping and transparency	HP-Apollo Innovation
Benefits, High performance and advanced rendering functions for 3-D applications		

**Programming
Tools**

Description

Standard/Innovation

DSEE™ (Domain Software Engineering Environment)
Software for managing large-scale application development projects

HP-Apollo innovation

Benefits

Unequaled support for source code tracking, system building and release

DDE™ (Distributed Debugging Environment)
Powerful debugging program compatible with HP-Apollo's graphics tools

HP-Apollo Innovation

Benefits

Remotely debug any process on any workstation on the network

Open Dialogue™
Interface development and management program, built upon X Win-
dow System, utilizes Motif

HP-Apollo Innovation

Benefits

Easy creation of portable user interfaces

OVERVIEW

HP-Apollo Workstation Specifications and Graphics Options

	Series 2500	Series 3500	Series 3550
	Motif-User Interface		
System Specifications	MC68030@20MHZ MC68882 4 MIPS 4-16MB RAM Floating Point Accelerator Up to 2.3 GB storage capacity	MC68030@25MHZ MC68882 5 MIPS 4-32MB RAM Floating Point Accelerator Up to 2.8 GB storage capacity	MC68030@25MHZ MC68882 5 MIPS 4-32MB RAM Floating Point Accelerator Up to 2.8 GB storage capacity
Display Graphics	19" monochrome 1280x1024 15" monochrome 1024x800	19" color 1280x1024 19" color 1024x800 19" mono 1280x1024	19" color 1280x1024 19" color 1024x800 19" mono 1280x1024 15" color 1024x800
Graphics Accelerators	2-D Graphics Accelerators: - 8-bit color - 95,000 2-D vectors/sec - 10,000 2-D polygons/sec		
Graphics Interfaces: PHIGS, GKS, GSR, GPR, 2DGMR, 3DGMR			
Domain/OS: UNIX System V.3, Berkeley 4.3 Aegis			

	Series 4500	Series 10000
	Motif-User Interface	
System Specifications	MC68030@30MHZ MC68882 8 MIPS 4-32MB RAM Floating Point Accelerator Up to 2.8 GB storage capacity	<i>PRISM</i> @18.2 MHZ (up to 4) Dual 64-bit FPUs-cpu 15-34 MIPS/cpu 8-128MB RAM Up to 5.6 GB external storage capacity
Display Graphics	19" color 1280x1024 19" color 1024x800 19" mono 1280x1024 15" color 1024x800	19" color 1280x1024 19" color 1024x800
Graphics Accelerators	2-D Graphics Accelerators: - 8-bit color - 95,000 2-D vectors/sec - 10,000 2-D polygons/sec	
Graphics Interfaces: PHIGS, GKS, GSR, GPR, 2DGMR, 3DGMR		
Domain/OS: UNIX System V.3, Berkeley 4.3 Aegis		

Applications Software

HP-Apollo offers the most extensive and complete selection of applications software of any workstation company. Nearly 2000 application solutions are available worldwide right now to meet your application requirements, whatever they might be. These software solutions cover the gamut of established technical markets, such as electronic design automation (EDA), mechanical computer-aided design and engineering (MCAD/CAE), computer-aided software engineering (CASE), symbolic computing (AI), electronic publishing, and office support. HP-Apollo's solution suppliers also offer a broad selection of software for other markets like finance, image-processing, molecular modeling, earth resources, and architecture, engineering and construction.

MASS STORAGE OPTIONS

Description

HP-Apollo's wide variety of mass-storage options helps users meet the demands for high data throughput, system backup, and network growth. These mass-storage options can be configured in a broad range of capacity and performance levels.

HP-Apollo offers three type of storage options:

- a) Disk Drives
- b) Tape Drives
- c) Floppy Disks

The Winchester disks are based on the high-performance ESDI interface and provide a range of storage capacity. Winchester disks on the DN2500 are SCSI-based. HP-Apollo's tape drives adhere to the Small Computer System Interface (SCSI). This industry-standard SCSI bus lets users connect one of three HP-Apollo backup tape options, or users can choose from literally thousands of SCSI-based peripherals available from other vendors.

To ensure the highest levels of reliability and performance, HP-Apollo has performed system integration tests on all mass-storage peripherals.

Disk Storage Options

HP-Apollo's disk drives are available in a variety of sizes, performance levels, and packages. For high-capacity, high-performance storage, HP-Apollo offers up to 2.8 gigabytes of storage capacity and extremely fast 15 Mbit/sec data transfer rates. These disk storage options can accomodate most standalone systems and file servers including internal, rack-mount, tabletop, and floorstand designs.

For disk-intensive applications such as artificial intelligence, computer-aided design, molecular modeling, and electronic publishing, HP-Apollo offers a 5 1/4 inch 697MB Winchester disk. This ESDI disk uses the latest in disk technology, offering an impressive 18 milliseconds average-access time, and a 15 Mbit/sec data transfer rate. The disk drives are available in standard workstation and server configurations, or as an add-on option.

Multiple disk drives are available for applications that require even larger data capacity. By combining four 697MB disks, users can have up to 2.8 gigabytes of storage on the Series 3500, Series 3550, and Series 4500 personal workstations, and up to 5.6 gigabytes of storage on the Series 10000 Personal Supercomputer.

OVERVIEW

In addition, the Series 10000's optional disk striping enables files to span multiple drives, allowing high bandwidth access to a file via multiple controllers. The Series 10000 allows up to eight 700MB disks drives to be connected directly to any single system. With four or more drivers, users can achieve up to 60 Mbit/sec data transfer rates.

For low-cost storage requirements, HP-Apollo offers 100MB, 200MB, and 400MB (2x200) disk drive configurations on the Series 2500 or 72MB, 155MB or 348MB on the Series 3000. The 72MB disk has an average access time of 28 milliseconds and a 5 Mbit/sec data transfer rate. The 155MB disk has an average access time of 28 milliseconds and a 10 Mbit/sec data transfer rate. And the 348MB disk has an average access time of 18 milliseconds and a 15 Mbit/sec transfer rate.

Tape Drive Options

For network backup and archiving, HP-Apollo offers two high-capacity, high-performance tape options. These options include the 6250bpi magnetic tape drive, which is based on the SCSI bus. It provides 150MB of data storage on a single reel of tape. The 6250bpi tape drive is available on all HP-Apollo MC68030-based personal workstations, except the DN2500, and as a storage option for the powerful Series 10000 Personal Supercomputers.

For the latest in high-capacity tape drive technology for network backup, HP-Apollo offers a compact and powerful 8mm cassette tape drive that can store up to an impressive 2.3 gigabytes of data on a package the size of a video cassette. This represents a quantum leap over previously available backup devices. The 8mm drive can be configured in its own 5 1/4 inch compact enclosure or mounted into a convenient tabletop or side enclosure designed for multiple disks. This very small format reduces physical storage requirements while it provides a big boost to network backup software. Used with HP-Apollo's OmniBack network backup software, the 8mm tape drive dramatically reduces network backup time, and lowers operator and media costs. It also provides tape backup capability for AT bus-based systems.

For local backup on stand-alone workstations, HP-Apollo offers an SCSI-based 1/4 inch cartridge tape. It can store up to 60MB of data on one cartridge tape. The 1/4 inch drive is available for the full range of HP-Apollo workstations and servers.

Configurations

	Series 2500	Series 3000	Series 3500	Series 3550	Series 4000	Series 4500	Series 10000
DISKS							
72MB		x					
100MB	x						
155MB		x	x	x	x	x	
200MB	x						
348MB		x	x	x	x	x	x
400MB(2 x 200)	x						
697MB			x	x	x	x	
700MB							x
ADD-ON DISKS							
Dual (1 or 2 200MB)	x						
Single (348MB or 697MB)		x	x	x	x	x	x
Multiple (1, 2, or 3 697MB disks)			x	x	x	x	
Single (660MB)	x						
Multiple (3 660MB)	x						
Multiple (up to 8 700MB drives)							x
BACKUP DEVICES							
1/4 inch cartridge		x	x	x	x	x	x
1/2 inch mag-tape			x	x	x	x	x
1/4 inch external tape	x		x	x	x	x	
8mm external tape	x		x	x	x	x	x
FLOPPY DISK DRIVE							
(external)	x	x	x	x	x	x	

APOLLO DIRECT CHANNEL

An HP-Apollo system configuration is not complete without cables, supplies and accessories. *APOLLO DIRECT CHANNEL* provides all system cabling and networking needs from BNC Connectors to Fiber Optic Cabling. Also offered are a variety of input and output devices to enhance your workstation and network flexibility. *APOLLO DIRECT CHANNEL*, located in Chelmsford, MA, is staffed with five regional telemarketing specialists eager to provide assistance. In the USA call **1-800-225-5290**. Outside the USA call your local sales office.

Note: UNIX is a registered trademark of AT&T.

Suggested Configuration Procedure

Contents

This section contains an example of a completed Configuration Packet for a customer who is ordering a 19" color DN4500.

The Application Drives the Configuration

Workstation configuration is driven by the application, especially the applications software, as outlined in Figure B-2, below. If the application involves support of diskless workstation by a network server, it dictates the provision of communications software and communications links. Since a particular applications software package may run on only one operating system, that application dictates the choice of operating system.

Regardless of the application, a cartridge, magnetic tape unit or floppy drive must be provided for installation and backup of the software and user-generated design and data files and databases.

Enough RAM must be provided to support all software modules that have to be resident in order to provide adequate responsiveness.

Enough disk capacity must be provided to hold all the software on the system, plus swap space for virtual memory operations, plus space for design and data files and databases. A network server must provide enough swap space to support the virtual memory operations of all of the diskless workstations it supports.

The other requirements outline in Figure B-2 also depend on the application. For example, the application package may require a particular type of graphics input device. The fact that the application drives the configuration is reflected in the order of performance of the suggested configuration procedure.

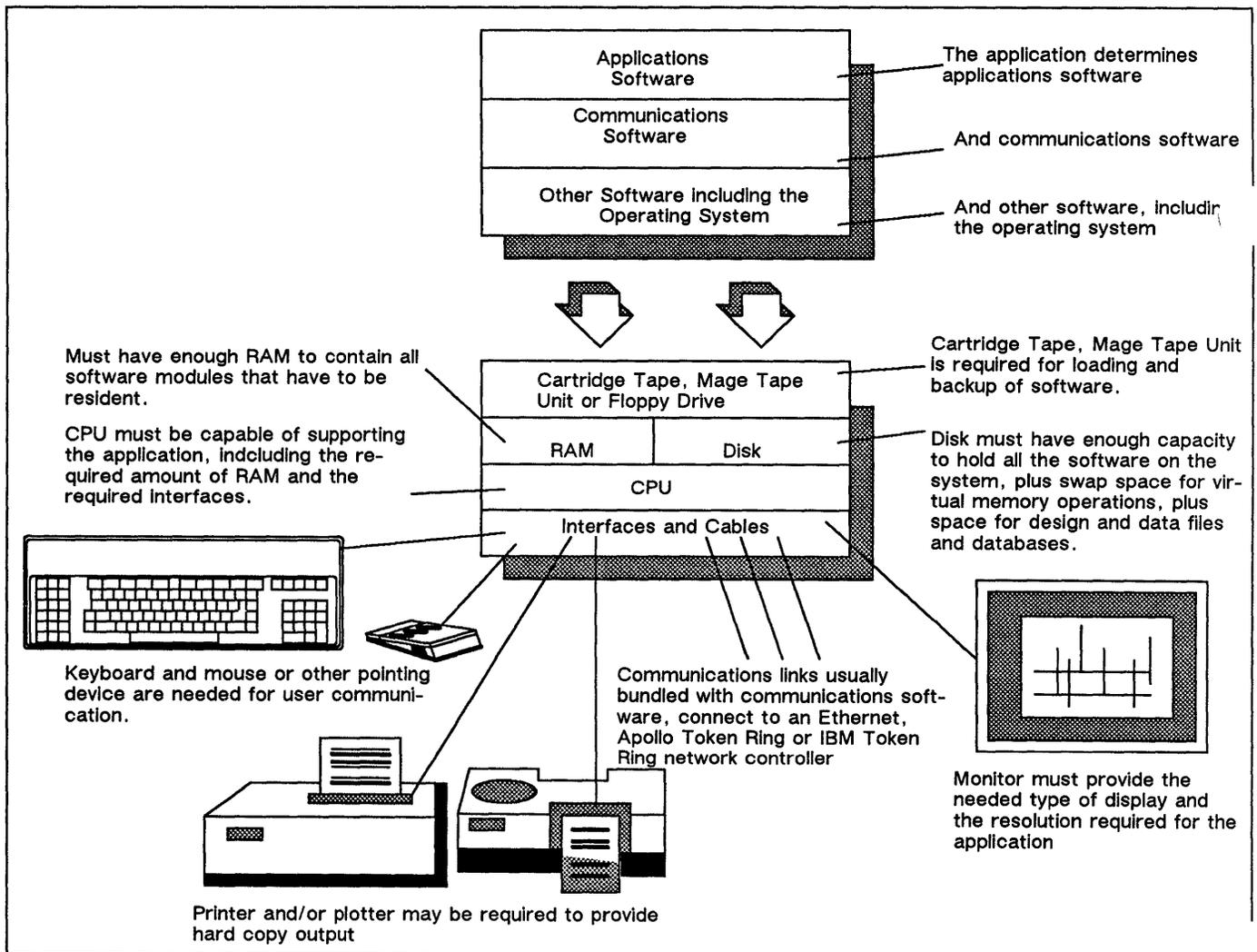


Figure B-2. Configuration Relationships

The Configuration Record Packet

This configuration guide is designed to be used with the HP-Apollo Workstations Configuration Record Packet. The Configuration Record Packet (CRP) closely matches the application-driven model discussed on the previous page. It consists of the following sections:

- A configuration summary for preparing a superficial overview of an individual network server or workstation (Page B-5)
- A configuration list (Pages B-6 through B-20), as follows:
 - 8 Pages of records for entry of software and communications components information, including product number, quantity, name/description, requirements for RAM, Disk, and Swap Space, and price.
 - 3 Pages of records for entry of CPU and peripherals information, including product number, quantity, name/description, and price.

During the configuration procedure outlined here, please have a copy of the packet available for entering your configuration information as you determine it. If a separate packet is not available, pages I-2 through I-17 of this guide can be duplicated on a copier to provide a records for entry of your configuration. Before actually starting your configuration you should glance through the CRP to familiarize yourself with it.

1. Establish the Overall Design

Before getting bogged down in the details of your configuration, you may find it helpful to use Page I-2 of the CRP to outline the overall design. See example on page B-5. The configuration Summary can help keep you on track as you go through your configuration.

2. List the Configuration

Starting with the outline in your Configuration Summary, go through the various pertinent sections of this guide to determine the products and options that must be specified to flesh out the outline and provide all needed functions. Enter the appropriate product and option numbers, names, descriptions, and prices into the Configuration List record. Pages B-6 through B-20 provide a complete configuration list of the system outlined in the facing Configuration Summary example. The product and option numbers and descriptions come from later sections in this guide. Price information comes from the HP-Apollo Corporate Price List, except for non-HP-Apollo hardware or software, in which instance pricing information is obtained from the other manufacturer(s).

a) Configuration Summary

The Configuration Summary is used to develop an overview of the system and application. It should be completed as follows:

System For: Enter the name of the customer and the customer location.

Application: Enter a brief description of planned usage.

Application Software: List the required software from the software section of this Configuration Guide to meet customer needs.

Workstation – Server – No. of Seats: Select workstation or server. If server is selected, how many seats will it serve?

System Definition: Configure the basic system requirements to meet customer needs.

Network & Communications: Define any special customer needs for Networking and Communications. Refer to the Networking and Communications section of this Configuration Guide.

Hardcopy Devices: Define any hard copy (printer) device(s) required.

System Upgrades: If customer is upgrading an existing system, the upgrade information would be applied here and other sections would not need to be completed.

Other: Use this section to define any requirements not covered in other section. An example would be a PC Integration requirement.

b) Enter Workstation Information

Based on the system requirements, fill in the appropriate product number with options and accessories on the worksheet, as shown in the example below. The product information can be found in Section D of this configuration guide.

Workstations and Network Servers, options and accessories

Product, Option or Part Number	Qty	Name/Description	Price
Totals Forward			9998.00

DN4500	1	DN4500 Color Workstation	N/C
DN3CK-ABA	1	U.S. Version Country Kit	N/C
Opt. DBO	1	1280x1024 40 Plane Color Graphics Controller	9600.00
Opt. E8F	1	697MB Winchester Disk and 1.2MB Floppy	28250.00
Opt. G02	1	Ethernet IEEE/802.3 Network Controller	N/C
Opt. H04	1	16MB Main Memory	12100.00
A-16MB-B	1	16MB ADD-ON Memory (2-8MB Boards)	12100.00
Opt. FC4	1	19" Color High Resolution 70HZ	7070.00
		Note: SR10.2 required with option DB0	
Totals			79118.00

c) Enter Information for Remaining Selections

The remaining sections of the Configuration Guide contained in this release are for use in selecting peripherals, additional networking and upgrades. The worksheet is used in the same manner as the previous examples and should be filled out completely.

Peripheral Devices, options, add-ons and accessories

Product, Option or Part Number	Qty	Name/Description	Price
Totals Forward			79118.00

Printers (printers, printer options, and cables)

LP26S-B	1	Domain Laser 26 Graphics Printer	25250.00
Totals			104368.00

C. Software

Introduction

This section contains configuration information on Apollo's software, as listed below. These packages are provided to show examples of the type of software information that is needed to obtain a complete and accurate system configuration.

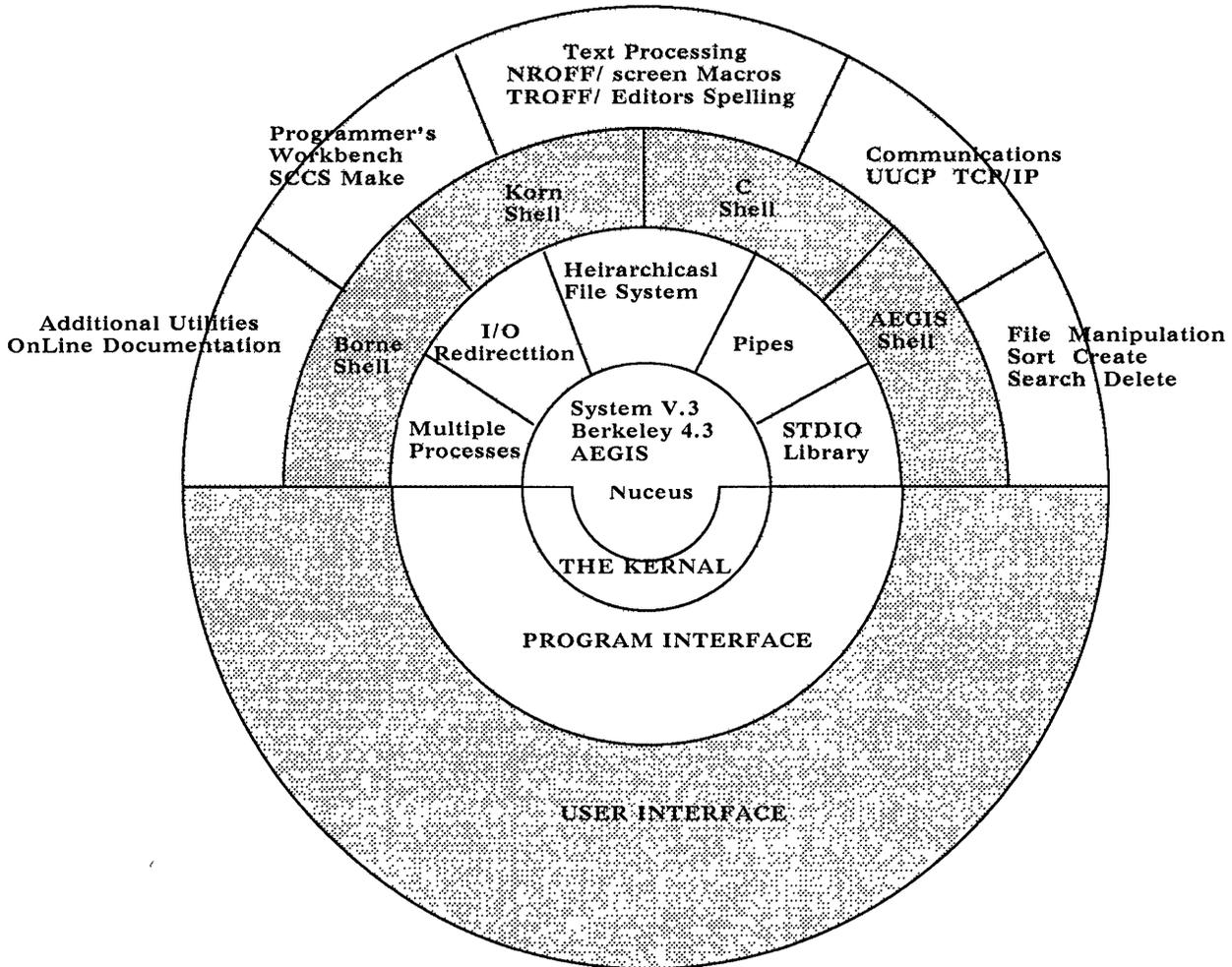
When using the software section, you must first select the software product required and then select the type of media to be used. This provides a configured part number with media. Example: PHIGS with 5 1/4" floppy for SR9.7 or 9.7.1 would be LA51BAAB.

Contents

Operating System Software	
Domain/OS	C-3
Domain/IX	C-5
Aegis Operating System	C-6
Window Systems Software	
Domain/X11	C-8
Development Tools	
Domain/Ada	C-10
Domain/C++, C++ Translator and Domain/C	C-12
Domain/CommonLISP	C-17
Domain/Dialogue	C-19
Open Dialogue	C-21
Domain Performance Analysis Kit (DPAK)	C-23
Domain Software Engineering Environment (DSEE)	C-24
Fortran 77	C-26
Pascal	C-28
Data Management	
Domain Distributed Data Management (D3M)	C-30
Graphics Software	
Domain/CORE	C-32
Domain/4014 Emulator	C-33
GKS	C-35
GMR2D Development License	C-37
GMR3D Development License	C-39
GSR	C-41
Domain/PHIGS	C-42
Domain/PHIGS & GMR3D	C-44
Technical Office Software Products	
Alis	C-46
DPSS/Mail	C-47
Knowledge Broker	C-49

System Administration Tools	
OmniBack Network Backup System	C-52
Passwd Etc	C-53
Portable Software	
Network Computing Kernal	C-54
Network License Server	C-55
NIDL Compiler	C-57
Networking and Communication	
Domain/Access	C-58
Apollo/SNA 3270/3770	C-60
Domain/LU6.2 Gateway	C-63
Apollo/X.25 Communications	C-65
TCP/IP Access Protocol	C-66
Network File System (NFS)	C-68
Apollo TECHnet	C-69
PC Integration Products	
MSDOS Operating System	C-70
DPCE (PC Emulator) – IBM PC DOS in Domain Windows	C-71
Domain/PCI-Ethernet	C-73
Domain/PCI-1	C-74
Domain/PCI-IT (IBM Token Ring)	C-76
Domain/PCI Server	C-77
Hardware Support Software	
CGM Device Driver for HP	C-79
CGM Device Driver for CALCOMP	C-80
PostScript Driver for Dot Matrix (MMP)	C-81
AT/BUS Driver (SPE)	C-82
TRANS (Translate UNIX into Postscript)	C-83
Versatec V.80	C-84
CGM Device Driver for VERSATEC (VERS1/VERS2))	C-86
Tektronix 4692 Device Driver (4692)	C-88
Other	
General Purpose I/O Software	C-89
Domain 5080 Emulator	C-91
TMLib	C-92
Basic Software Updates (All BSU and RTU)	C-93

Domain/OS



Description

Domain/OS is a single operating system that provides users a choice of three operating environments – UNIX System V Release 3, 4.3BSD, and Aegis. Domain/OS complies with AT&T's System V Interface Definition (SVID), the *de facto* UNIX standard. Domain/OS is also on a migration path to become compliant with IEEE's POSIX.

A license to use the operating system is granted with every node purchased. The licensee must purchase the initial distribution media and documentation for the operating system. One media set can be used for multiple nodes for these bundled software programs, however additional media and/or documentation can be purchased separately.

Product Summary

Product/ Opt. No.	Description
LD450	Domain/OS (SR10) Replacement Media
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LF450	Domain/OS (SR10) Media and User & System Administrator Documentation
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Domain/IX Operating System

Description

A license to use the operating system is granted with every node purchased. The licensee must purchase the initial distribution media and documentation for the operating system. One media set can be used for multiple nodes for these bundled software programs, however additional media and/or documentation can be purchased separately.

Product Summary

Product/ Opt. No.	Description
LD300	Replacement Media for Domain/IX
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LF300	Domain/IX Media and Documentation. SR9.7; Twin port of UNIX System V and Berkeley 4.2 operating systems. Includes media and Starter and Advanced Documentation Set
AAA	Software on 8" Floppy
AAB	Software on 5 1/4" Floppy
AAC	Software on Mag Tape
AAD	Software on Cartridge Tape
LF310	Upgrade Domain/IX Node License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)

Aegis Operating System

Description

Aegis Operating System

A license to use the operating system is granted with every node purchased. The licensee must purchase the initial distribution media and documentation for the operating system. One media set can be used for multiple nodes for these bundled software programs, however additional media and/or documentation can be purchased separately.

Product Summary

Product/ Opt. No.	Description
LD020	Replacement Media for AEGIS
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LF020	AEGIS (SR9.7.1) Media and Documentation. Includes media and Starter & Advanced Documentation Set
AAA	Software on 8" Floppy
AAB	Software on 5 1/4" Floppy
AAC	Software on Mag Tape
AAD	Software on Cartridge Tape
LF030	AEGIS Media and Documentation for DN4000
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LF040	AEGIS (9.6) Media and Documentation
AAA	Software on 8" Floppy
AAB	Software on 5 1/4" Floppy
AAC	Software on Mag Tape
AAD	Software on Cartridge Tape

Product Summary continued

Product/ Opt. No.	Description
LF050	AEGIS Upgrade (SR9.6) Media and Documentation
AAA	Software on 8" Floppy
AAB	Software on 5 1/4" Floppy
AAC	Software on Mag Tape
AAD	Software on Cartridge Tape
LF580	AEGIS (SR9.6.1) Software License
AAB	Software on 5 1/4" Floppy
AAD	Software on Cartridge Tape

X-Window System

Description

This is a supported release of the X Window System, based on X.V11R2 from MIT. It includes most MIT client programs, libraries, and documentation. Special features include:

- X and Display Manager cooperate to share input events and screen real-estate
 - All existing programs work unchanged, whether or not an X server is running
 - Window management can be provided by either X or DM
 - X clients and native Apollo programs can be launched from either a DM pad or an xterm window

Apollo native graphics usable in X windows

- Local case only
- GPR, GSR, 2DGMR, 3DGMR, PHIGS, ...
- Xlib and protocol extensions provided

X.V11R3 font support (SR10.1 and SR10.1.p only)

- Full support for X.V11R3 fonts and font-handling

Product Summary

Product/ Opt. No.	Description
LD660	Replacement Media for X-Window System
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Product Summary continued

Product/ Opt. No.	Description
LF660	X-Window Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Operational Requirements

Description	Requirements	
RAM and Disk Space minimum recommended:	RAM <u>8</u> MB	Disk Space <u> </u> MB
Other Requirements:	Domain IX and TCP/IP are required for SR9.7 version of Domain/XII.	
Supported Printers for hard copy output		
Supported Video (Display Monitor) Interfaces:	Domain/XII supports all controller types supported in SR9.7, SR10.1 and SR10.1.P, with the exception of VS Graphics under SR10.1.P	
Supported Disks:		

Domain/Ada

Description

The Domain/Ada Development System is a set of high-performance, production-quality software tools for the development of Ada programs. Domain/Ada, based on the Verdex Ada Development System, combines all the features of the Ada language with Apollo-specific enhancements. These enhancements help teams of software engineers develop large-scale applications within a distributed environment. Users can take advantage of interfaces to Apollo's many system facilities, such as graphics, file I/O, process control, and window management. Domain/Ada also works with Apollo's Domain Software Engineering Environment (DSEE) and Domain Performance Analysis Kit (DPAK).

Product Summary

Product/ Opt. No.	Description
LA010	Domain/Ada License, Media & Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LB0100A0	Corporate License for Domain/Ada
LD010	Replacement Media for Domain/Ada
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)

Product Summary continued

Product/ Opt. No.	Description
LF010	Domain/Ada Media & Documentation
AAA	Software on 8" Floppy (SR9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7.1)
AAC	Software on Mag Tape (SR9.7.1)
AAD	Software on Cartridge Tape (SR9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)

Domain/C++ and Domain/C

Description

Domain C++ is a general purpose programming language designed by AT&T Bell Laboratories. Based on the C language, C++ retains C's efficiency and flexibility, but offers additional facilities for designing better interfaces between and within program modules. These facilities include strong type checking and support for *data abstraction* and *object-oriented programming*.

Domain/C++ consists of a tightly integrated C++ translator, based on the AT&T C++ translator, and the Domain/C compiler, and provides the functional equivalent of a C++ compiler. One command invokes Domain/C++, first calling the translator, then the compiler. Domain/C++ accepts Domain/C-specific directives and attributes that control compilation; through the use of these directives, users can take full advantage of the Aegis or Domain/IX operating systems.

Domain/C: The C language is a systems programming language designed to be both high-level enough to make programs readable and portable, yet simple enough to map easily onto the underlying machine architecture. To this end, C provides types, operators and other facilities that can be used to manipulate bits and use register variables. C also lets compilers write extremely efficient executable code.

Domain/C supports the porting of existing C and UNIX applications to Apollo workstations. Domain/C also contains extensions that let users take full advantage of Apollo's extensive distributed processing capabilities. Most Domain/C features are available to the C++ user as well.

Prerequisites:

Domain C++ Translator (LA120xxx) must be used with Domain C or PRISM C Compiler (LA070xxx) .

Product Summary

Product/ Opt. No.	Description
LA120	Domain/C++ Translator (only) License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Product Summary continued

Product/ Opt. No.	Description
LA130	Domain/C++ License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB120000	C++ Translator Corporate License
LB1300A0	Domain/C++ Corporate License
LB1300B0	C++/PRISM Corporate License
LD120	Replacement Media for Domain/C++ Translator
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Product Summary continued

Product/ Opt. No.	Description
LD130	Replacement Media for Domain/C++
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LF120	Domain/C++ Translator Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LF130	Domain/C++ Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Product Summary continued

Product/ Opt. No.	Description
LA070	Domain/C License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB0700A0	Domain/C Corporate License
LB0700B0	PRISM/C Corporate License
LD070	Replacement Media for Domain/C
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Product Summary continued

Product/ Opt. No.	Description
LF070	Domain/C Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Domain/CommonLISP

Description

Domain CommonLISP combines advanced compiler technology with powerful software development tools to deliver speed and functionality. Specifically designed to manipulate symbols, Domain/CommonLISP is widely used in expert systems, robotics, vision and voice systems, and natural language processing. It is ideally suited for exploratory programming, rapid prototyping of large systems, and ongoing program maintenance. As a compiled language it is excellent for generating highly efficient production code.

Apollo is committed to future support of the Common LISP standard when it is defined by the ANSI X3J123 Common LISP Committee and the Advanced Research Projects Agency of the Department of Defense.

Prerequisites

Domain Series 330, 3000, 3500,4000, 4500 and 5xxT for V3.0

Domain Series 330, 460, 660, 3000, 3500, 4000, 4500 and 5xxT for V2.2

Product Summary

Product/ Opt. No.	Description
LA09A	Domain/CommonLISP V3.0 Runtime License
CAA	Software on 8" Floppy
CAB	Software on 5 1/4" Floppy
CAC	Software on Mag Tape
CAD	Software on Cartridge Tape
LA09B	Domain/CommonLISP V3.0 Development License
CAA	Software on 8" Floppy
CAB	Software on 5 1/4" Floppy
CAC	Software on Mag Tape
CAD	Software on Cartridge Tape
LA10A	Domain/CommonLISP V2.2 Runtime License
CAA	Software on 8" Floppy
CAB	Software on 5 1/4" Floppy
CAC	Software on Mag Tape
CAD	Software on Cartridge Tape
LA10B	Domain/CommonLISP V2.2 Development License
CAA	Software on 8" Floppy (SR 9.7 or 9.7.1)
CAB	Software on 5 1/4" Floppy (SR 9.7 or 9.7.1)
CAC	Software on Mag Tape (SR 9.7 or 9.7.1)
CAD	Software on Cartridge Tape (SR 9.7 or 9.7.1)

Product Summary

Product/ Opt. No.	Description
LB09B0A0	CommonLISP Corporate License
LD09B	Replacement Media for CommonLISP
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
LF09B	Domain/CommonLISP Media and Documentation
CAA	Software on 8" Floppy
CAB	Software on 5 1/4" Floppy
CAC	Software on Mag Tape
CAD	Software on Cartridge Tape

Domain/Dialogue

Description

Domain/Dialogue is a User Interface Management System (UIMS) that runs only on Apollo platforms. With Domain/Dialogue, programmers and non-technical interface designers can create and maintain graphical user interfaces that are composed of buttons, menus, scrollbars, type-in fields, and popups. These interfaces, in turn, are executable across all Apollo platforms.

Domain/Dialogue encourages separation of user interface and application. As a result, a user interface can be designed, prototyped, and tested independently from the application. Several variations of a user interface can be created to match the skills, preferences, or local language requirements of different groups of users across a network of Apollo nodes. Applications can be written in either Pascal, C, Fortran, or Lisp.

The Domain/Dialogue runtime library, which is necessary to execute the user interface, is shipped on all Apollo platforms. The Domain/Dialogue translator, which is used to create user interfaces, is sold separately.

Product Summary

Product/ Opt. No.	Description
LA14B	Domain/Dialogue License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB14BC00	Domain/Dialogue Corporate License

Product Summary continued

Product/ Opt. No.	Description
LD140	Replacement Media for Domain/Dialogue
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LF14B	Domain/Dialogue Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Apollo Open Dialogue

Description

Apollo's Open Dialogue® makes it easy for software developers and non-technical users to create and maintain graphical user interfaces for application software programs.

Open Dialogue offers a user interface management system (UIMS) that builds on the traditional toolkit approach to developing user interfaces. More than a toolkit, however, it allows complete separation of user interface from application. As a result, a user interface can be designed and prototyped in a few hours, field tested, and perfected without the need to write any application code. Open Dialogue also allows creation of several variations of a user interface to match the skills, preferences, or local language requirements of different groups of users.

Open Dialogue make it possible to standardize on any user interface style that is chosen. A common look and feel can be established for applications networkwide.

Open Dialogue user interfaces for programs can be easily ported to other systems. Open Dialogue is based on the *de facto* standard X Window System and is available on a variety of standard hardware platforms.

Prerequisites:

Open Dialogue Developer's Kit requires purchase of an individual (LA44ADAD) or corporate (LB44AD00) runtime license for each additional workstation using Open Dialogue Runtime on a Sun System.

Execution of a *Source Code License Agreement* is required when ordering Source Code.

Product Summary

Product/ Opt. No.	Description
LA44B	Open Dialogue Developer's Kit License (Apollo Hardware)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LB44BCA0	Corporate License for Open Dialogue Developer's Kit - Apollo
LB44BDA0	Corporate License for Open Dialogue Developer's Kit - Sun
LD44B	Replacement Media for Open Dialogue Developer's Kit
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)

Product Summary continued

Product/ Opt. No.	Description
LF44B	Open Dialogue Developer's Kit Media and Documentation
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LA44BDAD	Open Dialogue Developers Kit License (Sun-3 type workstation) Cartridge Tape; Requires LA44ADAD or LB44AD00 for Runtime Licenses redistributed by developers.
LF44BDAD	Open Dialogue Developer's Kit Media and Documentation, Sun-3 type workstation, Cartridge Tape.
LA44ADAD	Open Dialogue Runtime Environment License (Sun-3 type workstation) Cartridge Tape; Requires LA44BDAD or LB44BD00
LB44AD00	Corporate License for Open Dialogue Runtime – Sun-3 type hardware Requires LA44BDAD or LB44BD00 and license to distribute Open Dialogue Runtime environment to additional Sun workstations.
LA44D00C	Open Dialogue Development Kit Source Code. Includes remarketing rights to Open Dialogue. Execution of a <i>Source Code License Agreement</i> is required when ordering Source Code.
LA44E00C	Open Dialogue Runtime Source. Compile only rights for porting existing Open Dialogue applications to additional platforms. Execution of a <i>Source Code License Agreement</i> is required when ordering Source Code.
LB44F000	License to Duplicate Open Dialogue Source on one additional machine. Execution of a <i>Source Code License Agreement</i> is required when ordering Source Code.
LB44G000	License to Duplicate Open Dialogue Runtime Source on one additional machine. Execution of a <i>Source Code License Agreement</i> is required when ordering Source Code.

Domain Performance Analysis Kit (DPAK)

Description

Domain Performance Analysis Kit (DPAK) consists of three tools, DPAT (Domain Performance Analysis Tool), DSPST (Display Process Status), and HPC (Histogram Program Counter). DPAT monitors the execution of a program and produces reports showing the percentage of time spent in each procedure, the number of page faults caused by each procedure, and several other pieces of information. HPC is complementary to DPAT in that it provides a good overall picture of the performance of a program. HPC is capable of providing finer grained detail. DSPST provides information on CPU and I/O resource consumption of all processes on a node.

Product Summary

Product/ Opt. No.	Description
LA150	DPAK License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAD	Software on Cartridge Tape (SR10)
BBD	Software on Cartridge Tape (PRISM)
LB150000	Domain/PAK Corporate License
LD150	Replacement Media for DPAK
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0D	Software on Cartridge Tape (SR10)
BBD	Software on Cartridge Tape (PRISM)
LF150	DPAK Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAD	Software on Cartridge Tape (SR10)
BBD	Software on Cartridge Tape (PRISM)

Domain Software Engineering Environment (DSEE)

Description

DSEE is a software package for managing large-scale development projects involving teams of managers, engineers and technical writers. Software developed and managed under DSEE can be written to run on a limitless variety of target systems including Apollo and other workstations, PCs, minicomputers, mainframes and embedded microprocessor systems.

DSEE manages source code, object files, database records as one logically centralized system, yet allows these shared resources to be physically distributed throughout any Apollo networked configuration. DSEE is composed of four sophisticated, integrated modules – History Manager, Configuration Manager, Task Manager, and Monitor Manager.

Product Summary

Product/ Opt. No.	Description
LA180	Domain/DSEE License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB180000	DSEE Corporate License

Product Summary continued

Product/ Opt. No.	Description
LD180	Replacement Media for Domain/DSEE
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LF180	Domain/DSEE Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Fortran 77

Description

The DOMAIN FORTRAN compiler is a fully compliant ANSI (American National Standards Institute) X3.9-1978 compiler. It also provides support for a list of extensions. The compiler can produce object files which can execute on all of the currently supported Apollo machines. Included is a native compiler and Motorola 68K to PRISM compiler. The PRISM compiler selection includes a native compiler and a PRISM to Motorola 68K compiler.

Product Summary

Product/ Opt. No.	Description
LA210	Fortran License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB2100A0	Fortran 77 Corporate License
LB2100B0	PRISM/Fortran 77 Corporate License

Product Summary continued

Product/ Opt. No.	Description
LD210	Replacement Media for Fortran 77
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LF210	Fortran Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Pascal

Description

Pascal is a strongly typed, procedure-oriented language that supports structured programming. Apollo's Pascal is a compatible superset of the ISO 7185/ANSI x3.97-1983, level 0 standard, with extremely powerful extensions for systems programming, as well as extensions for compatibility with VAX/VMS Pascal. As with Apollo's other core languages, Pascal compilers and cross compilers are provided for all Apollo architectures. Cross compilers let developers work on one workstation, such as a DN4500 and generate applications for a different architecture, such as the Series 10000. ISO Pascal is used for software development in many Apollo markets including CASE and EDA. Included is a native compiler and Motorola 68K to PRISM compiler. The PRISM compiler selection includes a native compiler and a PRISM to Motorola 68K compiler.

Product Summary

Product/ Opt. No.	Description
LA460	Pascal License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB4600A0	Corporate License for Pascal
LB4600B0	Corporate License for PRISM/Pascal

Product Summary continued

Product/ Opt. No.	Description
LD460	Replacement Media for Pascal
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LF460	Pascal Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Domain Distributed Data Management (D3M)

Description

D3M is a database management system based on the CODASYL network database model. D3M extends the CODASYL model to support distributed databases and transparent data access on a Domain network. The core set of run-time libraries support application programs written in C, Pascal, and Fortran. Development and administration tools include schema compilers, an interactive query/update processor, a report generator, and a database restructuring tool.

Product Summary

Product/ Opt. No.	Description
LA190	D3M License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB190000	D3M Corporate License
LD190	Replacement Media for D3M
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Product Summary continued

Product/ Opt. No.	Description
LF190	D3M Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Domain/CORE

Description

A graphics subroutine package based on the SIGGRAPH GSPC CORE Standard. Domain/CORE provides for the display of 2D and 3D world coordinate primitives using a retained graphics display list database. Domain/CORE is still used in some application areas, but newer standards such as GKS and PHIGS are generally replacing it.

Product Summary

Product/ Opt. No.	Description
LA110	Domain/CORE License plus Media & Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LB11B000	Corporate License for Domain/CORE
LD110	Replacement Media for Domain/CORE
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
LF110	Domain/CORE Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)

Domain/4014 EMULATOR

Description

The Domain 4014 emulator permits the domain system to function as a Tektronics 4014 graphics terminal. It conforms closely to the Tektronics Plot-10 protocol. The emulator allows display of the full range of 4014 graphics.

Serial line connections: A remote computer system communicates through one of the serial ports. This makes the node appear as a Tek 4014 terminal to the remote computer.

File Communication: Domain 4014 accesses a file of Plot-10 text and graphic commands to interpret and display the graphics application.

Local Communication: You can directly enter data/commands to the emulator.

Domain 4014 operates in two modes: direct and borrow. It also supports features such as multiple character fonts, several line styles, replace option for text, focused and unfocused writing, and full printing capabilities.

Product Summary

Product/ Opt. No.	Description
LA720	Domain/4014 EMULATOR License plus Media & Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB720000	Domain/4014 EMULATOR Corporate License

Product Summary continued

Product/ Opt. No.	Description
LD720	Replacement Media for Domain/4014 EMULATOR
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LF720	Domain/4014 EMULATOR Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

GKS

Description

GKS (Graphics Kernel System) is an industry standard 2D graphics programming language allowing portability of applications across many vendor platforms. GKS supports more than 300 graphics functions. In addition to source code portability, GKS provides device-independent graphics input, output and storage.

GKS has widespread acceptance in the Energy and 2D MCAD markets and government-related industries, where procurement requirements specify adherence to graphics standards.

The Apollo version of GKS is a native and full-level 2B implementation of the international standard GKS 7.4.

Product Summary

Product/ Opt. No.	Description
LA22A	GKS Runtime License plus media & documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB22A000	GKS Runtime Corporate License
LD22A	Replacement Media for GKS Runtime
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Product Summary continued

Product/ Opt. No.	Description
LA22B	GKS Development License plus media & documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB22B000	GKS Development Corporate License
LD22B	Replacement Media for GKS Development License
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

GMR2D

Description

GMR2D (2 dimensional Graphics Metafile Resource) is a world coordinate, device independent, 2D graphics package. It provides for the storing, modeling and viewing of 2D objects comprised of graphics primitives. GMR2D stores primitives and attributes in retained hierarchical segments. This hierarchical structure permits editing, local modeling and viewing of the 2D objects.

Product Summary

Product/ Opt. No.	Description
LA23B	GMR2D Development License plus media & documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB23B000	GMR2D Development Corporate License
LD23A	Replacement Media for GMR2D Runtime
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Product Summary continued

Product/ Opt. No.	Description
LD23B	Replacement Media for GMR2D Development
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LF23A	GMR2D Runtime Media & Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

GMR3D

Description

GMR3D (3 dimensional Graphics Metafile Resource) is a world coordinate, device independent, 3D graphics package providing for the storage, modeling and viewing of 3D primitives. GMR3D delivers high performance with advanced lighting, shading and rendering functions. Two interfaces are provided: primitives and attributes can be stored in retained hierarchical segments by the graphics package, or commands can be stored in display list buffers, maintained by the application for immediate mode display.

Product Summary

Product/ Opt. No.	Description
LA24B	GMR3D Development License plus media & documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB24B000	GMR3D Development Corporate License
LD24A	Replacement Media for GMR3D Runtime
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Product Summary continued

Product/ Opt. No.	Description
LD24B	Replacement Media for GMR3D Development
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LF24A	GMR3D Runtime Media & Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

GSR

Description

GSR (Graphics Service Routines) provides immediate mode 2D graphics through the specification of low level commands. These commands can be stored in display list buffers that are kept by the application. GSR does not perform error checking or maintain a graphics context. It is designed for displaying 2D, integer device coordinate primitives at maximum performance.

Product Summary

Product/ Opt. No.	Description
LA26B	GSR Development License plus media & documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB26B000	GSR Development Corporate License
LD26B	Replacement Media for GSR Development
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Domain/PHIGS

Description

Domain/PHIGS (Programmers Hierarchical Interactive Graphics System) is a native implementation of the ANSI/ISO Standard for 3D Graphics. Domain/PHIGS allows the definition of 3D floating point, world coordinate, device independent, primitives and attributes in retained hierarchical structures. Domain/PHIGS supports standard PHIGS viewing and "posting to views", CGM output, and other extensions. Domain/PHIGS is integrated with GMR3D and allows access to GMR3D's lighting and shading features.

Product Summary

Product/ Opt. No.	Description
LA51B	Domain/PHIGS Development License plus media & documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB51B000	Domain/PHIGS Development Corporate License
LD51B	Replacement Media for PHIGS Development
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Product Summary continued

Product/ Opt. No.	Description
LD51A	Replacement Media for PHIGS Runtime
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LF51A	PHIGS Runtime Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Domain/PHIGS and GMR3D

Description

A combination of both Domain/PHIGS and GMR3D in one cost effective package:

Domain/PHIGS (Programmers Hierarchical Interactive Graphics System) is a native implementation of the ANSI/ISO Standard for 3D Graphics. Domain/PHIGS allows the definition of 3D floating point, world coordinate, device independent, primitives and attributes in retained hierarchical structures. Domain/PHIGS supports standard PHIGS viewing and "posting to views", CGM output, and other extensions. Domain/PHIGS is integrated with GMR3D and allows access to GMR3D's lighting and shading features.

GMR3D (3 dimensional Graphics Metafile Resource) is a world coordinate, device independent, 3D graphics package providing for the storage, modeling and viewing of 3D primitives. GMR3D delivers high performance with advanced lighting, shading and rendering functions. Two interfaces are provided: primitives and attributes can be stored in retained hierarchical segments by the graphics package, or commands can be stored in display list buffers, maintained by the application for immediate mode display.

Product Summary

Product/ Opt. No.	Description
LA52B	Domain/PHIGS & GMR3D Development License plus media & documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB52B000	PHIGS & GMR3D Development Corporate License

Product Summary continued

Product/ Opt. No.	Description
LD52B	Replacement Media for PHIGS & GMR3D Development
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LD52A	Replacement Media for PHIGS & GMR3D Runtime
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LF52A	PHIGS & GMR3D Runtime Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Alis

Description

Alis is an integrated office software system designed to meet the needs of technical professionals and support personnel. Alis includes a set of office tools which can be completely integrated in compound documents. These tools include multi-font word processing, spreadsheet, business graphics and personal database. In addition to these tools, Alis provides calendar and time management, and electronic mail over a network. The Alis networking facilities provide easy electronic communication and flexible information sharing in a distributed workstation setting.

Prerequisites

Runs on SR9 only

Product Summary

Product/ Opt. No.	Description
LA060	Alis License plus media & documentation
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LB0600A0	Corporate License for Alis
LD060	Replacement Media for Alis
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
LF060	Alis Media and Documentation
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)

DPSS/MAIL

Description

DPSS/Mail is a proprietary email product that provides fairly robust email services for Apollo workstations. It includes a command based user interface (/com/mail) and a point and click user interface (/com/bmail). All versions of the product on SR10, and successor releases, also provide gatewaying facility to allow interchange of email between DPSS/Mail and Unix mail systems. The unique features, currently not supported by any alternative product, are:

1. relatively easy to administer (much easier than standard Unix mail).
2. contains the only point and click mail user interface
3. only email product that supports true 8-bit transparent message content

Product Summary

Product/ Opt. No.	Description
LA370	DPSS/MAIL License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB370000	DPSS/MAIL Corporate License
LD370	Replacement Media for DPSS/MAIL
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Product Summary continued

Product/ Opt. No.	Description
LF370	DPSS/MAIL Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Knowledge Broker

Description

Knowledge Broker is an online documentation delivery and retrieval system that gives fast access to published information from anywhere in a network. Three products are currently available:

Knowledge Broker Publisher: The publishing kit contains all the tools necessary to make information available through Knowledge Broker. Documents prepared with Interleaf's TPS 3.0, troff, and plain ASCII may be published.

Knowledge Broker Reader: The reader gives access to information published for the Knowledge Broker. It features an easy-to-use mouse-driven interface and takes advantage of Apollo's Networking Computing System (NCS) for fast searches. Documents are displayed just as they would appear in hard copy, including multiple fonts and graphics.

Knowledge Broker Intro Kit: Offers some of Apollo's most popular manuals bundled with a Knowledge Broker Reader.

Prerequisite

TRANSCRIPT (LA630) is required for Knowledge Broker Publisher Kit (LA33A) to work with "troff".

Product Summary

Product/ Opt. No.	Description
LA32A	Knowledge Broker Readers License
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB32AC00	Knowledge Broker Reader Corporate License
LF32A	Knowledge Broker Reader License Media and Documentation
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

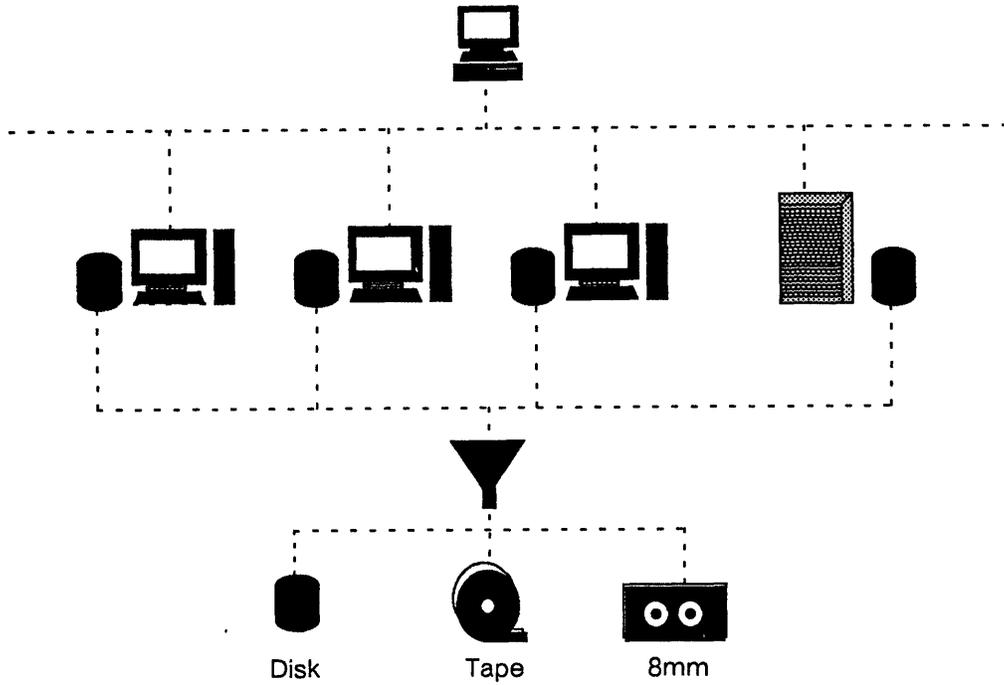
Product Summary continued

Product/ Opt. No.	Description
LA33A	Knowledge Broker Publisher's Kit License
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB33AC00	Knowledge Broker Publisher's Kit Corporate License
LF33A	Knowledge Broker Publisher's Kit Media and Documentation
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Product Summary continued

Product/ Opt. No.	Description
LA81A	Knowledge Broker Introductory Pak License
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB81AC00	Corporate License for Knowledge Broker Introductory Pak License
LF81A	Knowledge Broker Introductory Pak Media and Documentation
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

OmniBack Network Backup System



Description

Apollo's OmniBack Network Backup System offers a high-performance, network oriented approach to the process of file system backup and restore. OmniBack supports automatic unattended filesystem backup and simple, rapid file restore.

OmniBack operates across a distributed computing environment. Built on Apollo's Network Computing System (NCS), OmniBack exploits the functionality of network computing and uses it to operate on resources located across the network.

Prerequisites

Domain/OS 10.1

Product Summary

Product/ Opt. No.	Description
LA43A	OmniBack Backup System Base Product LB430000 required for each node backed up.
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB43AB00	Corporate License for OmniBack

Passwd Etc

Description

Apollo's Passwd Etc is a user account management system that manages login and password information for a heterogeneous distributed network. It ensures the assignment of unique user identifiers across the entire network and ensures that all associated information is accurate, consistent and up-to-date around the network.

Passwd Etc is built on the Network Computing System (NCS) which supports distributed computing across a multi-vendor network.

Prerequisites

At least one Apollo machine running Domain SR10 to provide server capabilities.

Product Summary

Product/ Opt. No.	Description
LA75A	Passwd Etc Client Software
DDD	Sun, Cartridge Tape. Requires Sun/OS 3.4, 3.5, or 4.0
FEC	VAX/ULTRIX, Mag Tape. Requires Ultrix 2.0 or 2.2
LD75A	Replacement Media for Passwd Etc
DAD	Sun
FEC	VAX/ULTRIX

Network Computing Kernal (NCK)

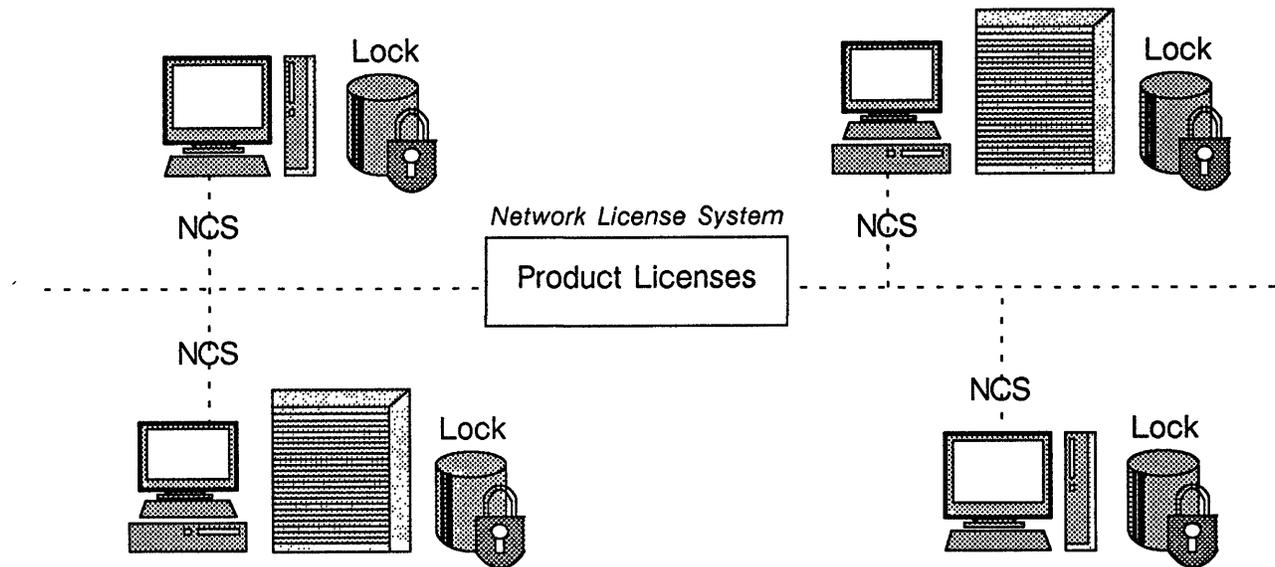
Description

NCK is the Network Computing Kernel, the portable implementation of the runtime portion of the Network Computing Architecture. NCK enables transparent, heterogeneous distributed computing by providing interoperability among a wide range of Unix and non-Unix systems. It consists of library functions that implement the NCS remote procedure call facility, along with global and local location brokers, and related administrative tools. It provides the base functionality required by many of Apollo's portable software products, such as the License Server, PasswdEtc, anmd OmniBack. A source version is available to qualified OEMs and academic institutions.

Product Summary

Product/ Opt. No.	Description
LA380	Network Computing Kernal License
AAD	Apollo - Software on Cartridge Tape (SR9.7 or 9.7.1)
BAD	Apollo - Software on Cartridge Tape (SR10)
BBD	Apollo - Software on Cartridge Tape (PRISM)
DAD	Sun/OS, Rev 3.4 Object Code Software & License, Cartridge Tape
FEC	VAX/ULTRIX, Rev 1.2 Object Code Software & License, Mag Tape
GEC	VAX/VMS, Rev 4.7 Object Code Software & License, Mag Tape
HOE	HP-UX, Cartridge Tape
LA38C00C	Network Computing Kernal Source Code
LB380	Corporate License for Network Computing Kernal
DAD	Sun/OS
FEC	VAX/ULTRIX
GEC	VAX/VMS
HOE	HP-UX
LF380	Network Computing Kernal Media and Documentation
DAD	Sun/OS
FEC	VAX/ULTRIX
GEC	VAX/VMS
HOE	HP-UX

Network License System



Description

The Network License System, built on Apollo's open Network Computing System (NCS), allows a fixed number of end-users to access an application concurrently from any system on the network. The licenses can now "float" to any computer in the network. The Network License System gives users the ability to purchase software applications at prices based on actual or projected usage and it also ensures that the software vendor receive payment based on use of the applications. Apollo's Network License System is compliant with the interface definition standard proposed by the Network Computing Forum.

Prerequisites

LA350AAD, BAD, BBD requires license LB35xxxx

LA350BBD (Sun) requires selection of license LB35xxxx.

LA350BGC (VAX/VMS) requires selection of license LB35xxxx.

Product Summary

Product/ Opt. No.	Description
LA350	LSLock License with Media and Documentation
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAD	Software on Cartridge Tape (SR10)
BBD	Software on Cartridge Tape (PRISM)
DDD	Sun/OS
FEC	VAX/ULTRIX
HOE	HP
GEC	VAX/VMS
LA39CC0C	LSLock Source Code, Mag Tape
LA420	Network License Server
DAD	For Sun/OS, Version 3.3, Cartridge Tape
GEC	For VAX/VMS, Version 4.7, Mag Tape
LA42C00C	License Server Source Code
LB42	NLS Corporate License
J000	100 Additional Licenses
K000	500 Additional Licenses
L000	1,000 Additional Licenses
M000	2,000 Additional Licenses
R000	Commercial Licenses – Annual Buyout per Developer Application
S000	Commercial Licenses – Lifetime Buyout per Developer Application
LB420	NLS Corporate License
0D0	For Sun/OS
0G0	For VAX/VMS
LD420	Replacement Media for NLS Server Software
A0D	SR9.7 or 9.7.1
B0D	SR10
BBD	PRISM

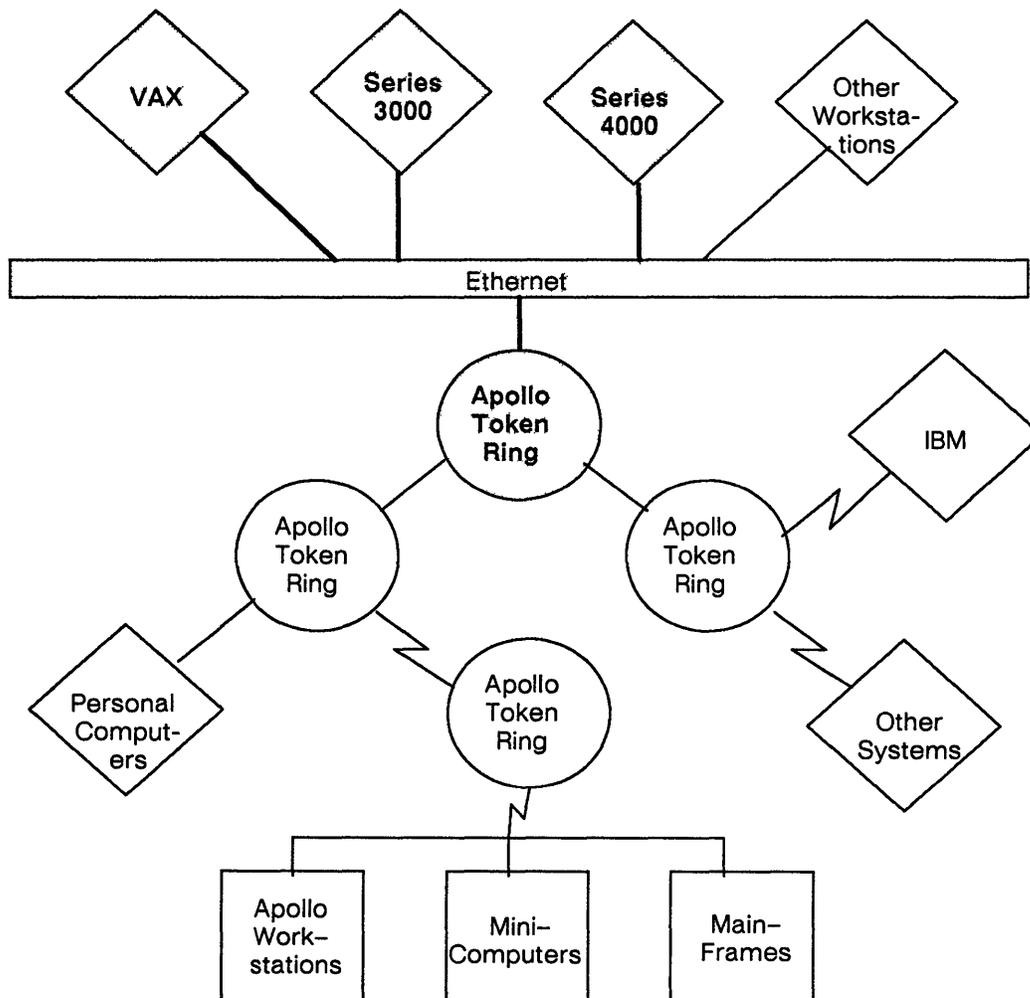
NIDL Compiler

Network Interface Definition Language (NIDL) consists of all the layered software that goes into NCS, the Network Computing System, Apollo's implementation of NCA. The NIDL product contains the NIDL compiler, standard NCS interface definitions in NIDL, and examples of NCS use. The NIDL compiler translates NIDL into stubs and header files which provide the interface specific glue between user client and server code and the NCS remote procedure call runtime. The functions of this glue include marshalling and unmarshalling parameter values into and out of network packets, error checking, and data conversion.

Product Summary

Product/ Opt. No.	Description
LA400	NIDL Compiler License
AAD	Apollo - Software on Cartridge Tape (SR9.7 or 9.7.1)
BAD	Apollo - Software on Cartridge Tape (SR10)
BBD	Apollo - Software on Cartridge Tape (PRISM)
DAD	Sun/OS, Object Code Software & License, Cartridge Tape
FEC	VAX/ULTRIX, Object Code Software & License, Mag Tape
GEC	VAX/VMS, Object Code Software & License, Mag Tape
HOE	HP-UX, Cartridge Tape
LA40CC0C	NIDL Compiler Source Code Requires special source code license and SR9.5.1. Mag Tape only.
LB400	Corporate License for NIDL Compiler
AAD	Apollo
DAD	Sun/OS
FEC	VAX/ULTRIX
GEC	VAX/VMS
HOE	HP-UX
LD400	Replacement Media for NIDL
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0D	Software on Cartridge Tape (SR10)
BBD	Software on Cartridge Tape (PRISM)
LF400	NIDL Compiler Media and Documentation
AAD	Apollo - Cartridge Tape (SR9.7 or 9.7.1)
BAD	Apollo - Cartridge Tape (SR10)
BBD	Apollo - Cartridge Tape (PRISM)
DAD	Sun/OS, Cartridge Tape
FEC	VAX/ULTRIX, Mag Tape
GEC	VAX/VMS, Mag Tape

Domain/Access



Description

Domain/Access provides transparent file access, file transfer and file management to DEC VAX/VMS systems using an Ethernet Local Area Network (LAN) and TCP/IP software. It provides a rich set of shell commands and system level I/O calls that lets both users and application software manipulate files stored on VAX/VMS systems. Users can access multiple files simultaneously.

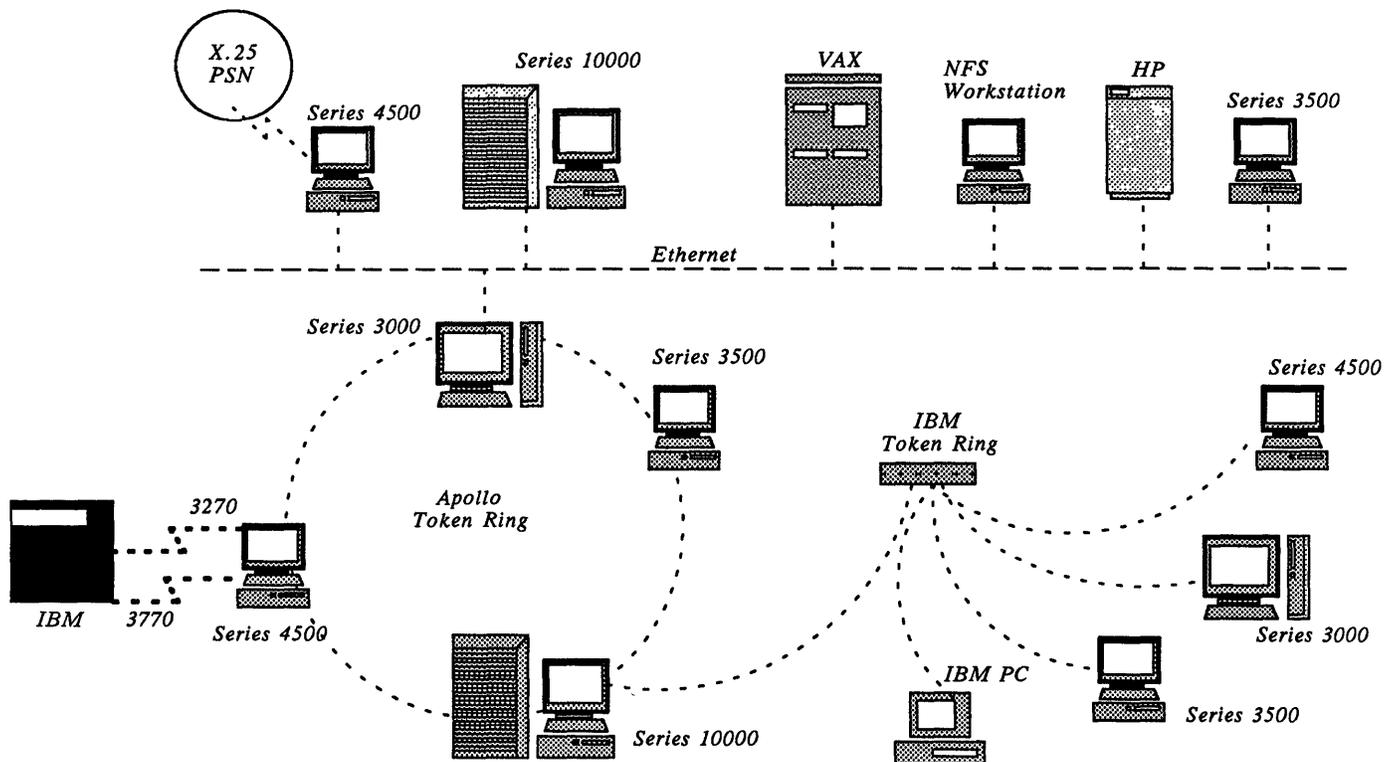
Prerequisites

Ethernet Controller and TCP/IP (LA590xxx)

Product Summary

Product/ Opt. No.	Description
LA000	Domain/Access Software
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LD000	Replacement Media for Domain/Access
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)

Apollo/SNA



Description

The multifunctional Apollo/SNA software gives Apollo workstation users IBM and IBM-compatible mainframe connectivity in a System Network Architecture (SNA) environment. Apollo/SNA consists of two separate products: Apollo/SNA-3270 (Emulates IBM 3274 Mod 1C Control Unit, 3278 Mod 2 Display Stations and 3287 Mod 2 Printers) and Apollo/SNA-3770 (Emulates IBM 3776 Mod 3 RJE Station).

Apollo/SNA allows Apollo workstation users to instantly and simultaneously connect to IBM SNA host computers, access applications and databases, and perform file transfers – all while efficiently and effectively working on local Apollo resident files. Apollo/SNA operates in either an interactive or batch mode at speeds up to 64Kb per second. The connection to the communications front-end processor (FEP) can be through a local cable connection or through such data communications products as line drivers and modems.

Prerequisites

Requires SCAT

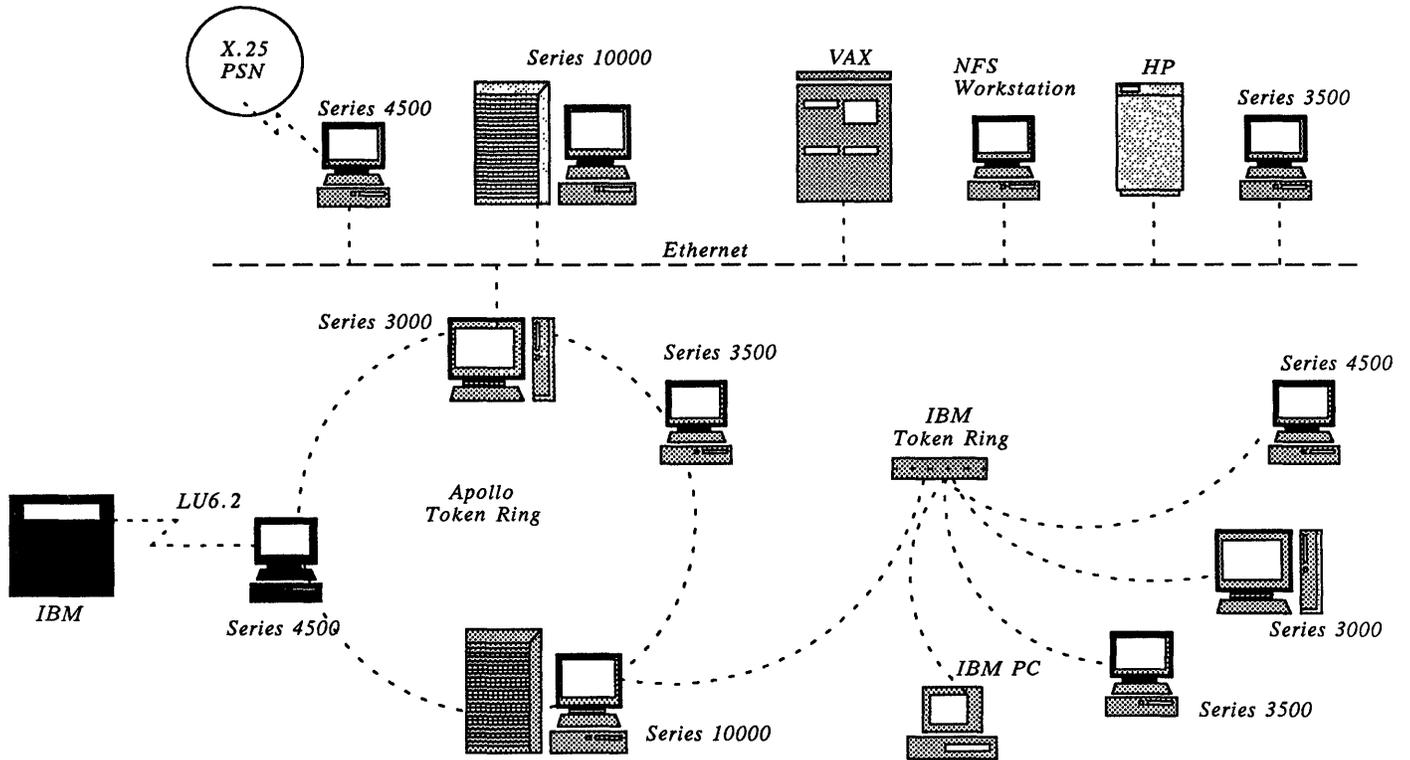
Product Summary

Product/ Opt. No.	Description
LA70A	Apollo/SNA-3270 Software
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LD700	Replacement Media for Apollo/SNA-3270
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Product Summary continued

Product/ Opt. No.	Description
LA71A	Apollo/SNA-3770 Software
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LD710	Replacement Media for Apollo/SNA-3770
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Domain/LU6.2 Gateway



Description

Apollo/LU 6.2 is a Systems Network Architecture (SNA) communications product that extends Apollo's networking capabilities to include IBM's Advanced Program-to-Program Communications (APPC) standard - LU 6.2 and PU 2.1.

Apollo/LU 6.2 is ideal for OEMs, third parties, and end users looking for a long-term investment in an applications development platform.

Prerequisites:

Requires SCAT

Product Summary

Product/ Opt. No.	Description
LA36A	Domain/LU6.2 Gateway License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LD360	Replacement Media for LU6.2 Gateway
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Apollo/X.25

Description

Apollo/X.25 enables Apollo workstations to communicate over packet-switched wide area networks (WAN). Since X.25 is an international standard, the Apollo/X.25 protocol allows Apollo systems to communicate with a wide variety of products from other vendors, including mainframes, minis, workstations, and PCs. Apollo/X.25 users are able to conduct long distance communications for file transfer, electronic mail, remote log in, and remote program execution.

The Apollo/X.25 applications will run on a dedicated server or directly on a single workstation using a PC AT-bus card. Any Apollo workstation attached to a LAN running Domain Distributed Services (DDS) is able to use the server/workstation's X.25 capabilities.

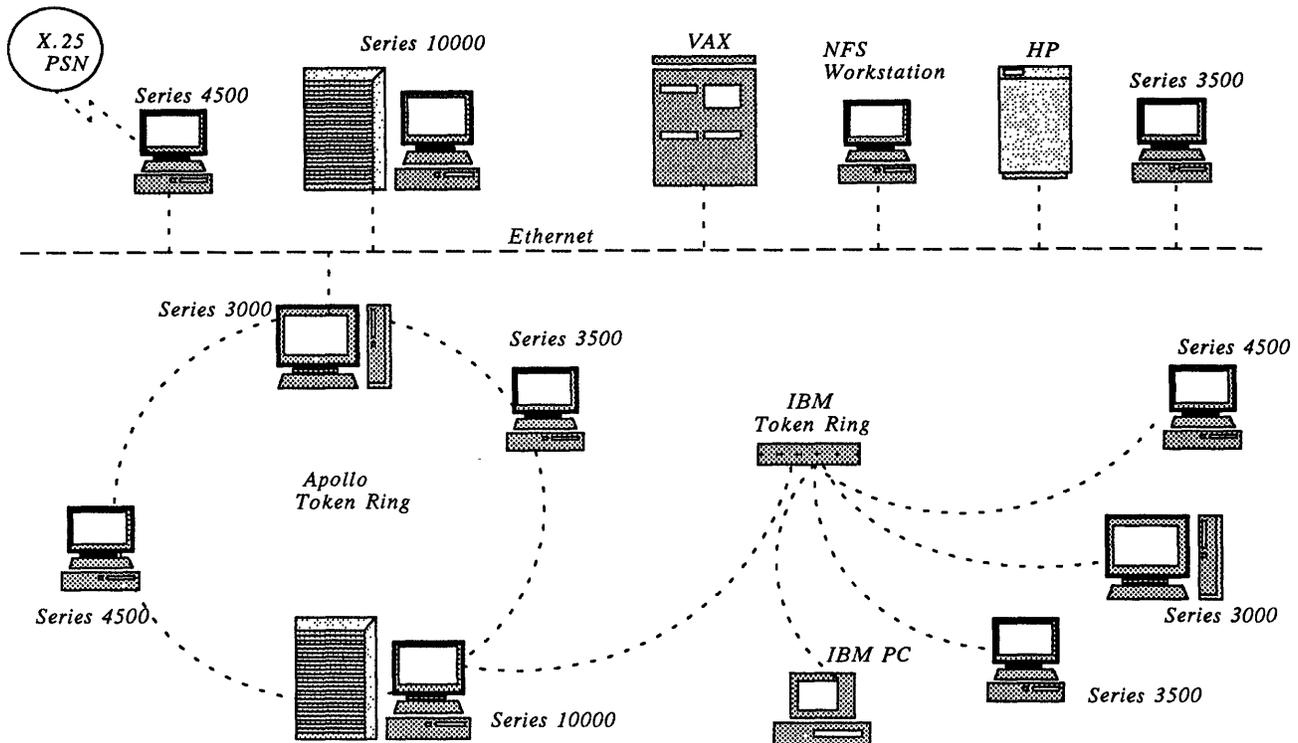
Prerequisites

Requires SCAT

Product Summary

Product/ Opt. No.	Description
LA67A	Apollo/X.25 Software
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LD670	Replacement Media for Apollo/X.25
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)

Domain TCP/IP



Description

Domain® TCP/IP provides Apollo workstation users with shared access to a large number of heterogeneous computing systems attached to a TCP/IP internetwork. Such systems include mainframes, minicomputers, superminicomputers, personal computers, as well as other workstations. Apollo systems utilize Domain TCP/IP in conjunction with either the Apollo Token Ring or one of a variety of Ethernet® cable-plants, including thick-wire, thin-wire, fiber optics, twisted pair, and broadband. In addition, Domain TCP/IP services can be run in a single gateway node which can serve an entire community of Apollo workstations locally running Apollo's Domain/OS distributed operating system.

The communications protocols provided by Domain TCP/IP include the Internet Protocol (IP) at the Network Layer, and Transport Control Protocol (TCP) and/or the User Datagram Protocol (UDP) at the Transport Layer.

Application Layer services provided in Domain TCP/IP include File Transfer Protocol (FTP) for highly reliable bidirectional file transfer, Telnet for bidirectional virtual terminal services, and Simple Mail Transfer Protocol (SMTP) using Domain sendmail. All of these services are based on industry standards and hence are able to operate with systems from multiple vendors.

Prerequisites

TCP/IP is for user with SR9.7 or SR9.7.1 only. (TCP/IP is bundled with SR10 or later.)

Product Summary

Product/ Opt. No.	Description
LA590	TCP/IP Access Protocol License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LB590A00	Corporate License for TCP/IP Access Protocol
LD590	Replacement Media for TCP/IP Access Protocol
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)

Network File System (NFS)

Description

Apollo's NFS is a layered product that allows complete interoperability of the Domain Distributed File System and NFS machines (both as a client and a server). It is available for the entire range of Apollo workstations. With a single mount of our network-wide root, a foreign NFS machine can access every single machine in the Apollo network.

Product Summary

Product/ Opt. No.	Description
LA390	Network File System License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB390000	Corporate License for Network File System
LD390	Replacement Media for Network File System
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Apollo TECHnet

Description

Apollo/TECHnet supports the bidirectional transfer of ASCII and sequential binary files between Apollo workstations and DEC VAX/VMS systems running DECnet Phase-IV. As a Phase-IV end node, Apollo TECHnet is capable of utilizing DECnet routing facilities to establish links to remote DECnet systems using the customer's DEC-to-DEC local or wide-area connections.

Apollo TECHnet allows multiple virtual terminal sessions in either direction between Apollo and DEC VMS systems running DECnet Phase-IV. Apollo users running Apollo/TECHnet can 'set host' to DEC systems, and DEC users can 'set host to Apollo workstations running Apollo/TECHnet.

Apollo/TECHnet provides both a command-driven and a menu-driven network management interface for monitoring network traffic and configurations. And it provides a programming interface, enabling applications on Apollo workstations to exchange data with programs running on VAX/VMS systems.

Product Summary

Product/ Opt. No.	Description
LA620	Apollo/TECHnet Software
BAA	Software on 8" Floppy, SR10
BAB	Software on 5 1/4" Floppy, SR10
BAC	Software on Mag Tape, SR10
BAD	Software on Cartridge Tape, SR10
LB620B00	Corporate License for Apollo/TECHnet
LD620	Apollo/TECHnet Replacement Media
B0B	Software on 5 1/4" Floppy, SR10
B0C	Software on Mag Tape, SR10
B0D	Software on Cartridge Tape, SR10

MSDOS Operating System Software

Description

Microsoft Disk Operating System version 3.3, operating system utilities, GW-Basic interpreter, license, media, MS-DOS and GW-Basic manuals.

Prerequisites:

DPCC coprocessor board installed in workstation or IBM PC or compatible.

Product Summary

Product/ Opt. No.	Description
LA8200CB	MSDOS Operating System Software License 5 1/4" Diskette only

Operational Requirements

Description	Requirements	
RAM and Disk Space	RAM <u>.02</u> MB	Disk Space <u>.72</u> MB
Other Requirements:		
Supported Printers for hard copy output	Depends on application	
Supported Video (Display Monitor) Interfaces:	Depends on hardware configuration	
Supported Disks:	Maximum 32 MB	

PC Emulator

Description

Optional software license that provides an IBM PC compatible DOS environment in a workstation window. Emulates monochrome, Hercules, and CGA graphics.

Prerequisites

Requires 68020 & 68030 based workstations with 4MB memory and SR9.5.1 or later (SR9 & SR10).

Product Summary

Product/ Opt. No.	Description
LA170	PC Emulator License
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LB1700A0	DPCE Corporate License
LD170	Replacement Media for PC Emulator
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
LF170	PC Emulator Media and Documentation
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)

Operational Requirements

Description	Requirements	
RAM and Disk Space	RAM <u> 1 </u> MB	Disk Space <u> 1.5 </u> MB
Other Requirements:		
Supported Printers for hard copy output		
Supported Video (Display Monitor) Interfaces:		
Supported Disks:		

Domain/PCI-Ethernet

Description

Client software only for direct connection of IBM PC/AT and other compatible to Apollo's Ethernet network. Software and documentation only.

Prerequisites

IBM PC/XT, PC/AT, or compatible personal computer.

MS-DOS version 3.1 or greater.

3Com Etherlink I (3C501), Etherlink II (3C503), or Etherlink MC (3C523) network controller card, cables.

Domain/PCI-Server software (LA490xxx) running on Apollo workstation or server.

Product Summary

Product/ Opt. No.	Description
LA4700CB	PCI-Ethernet License Software on 5 1/4" Floppy)
LB4700C0	Corporate License for PCI-Ethernet
LD470	Replacement Media for Domain/PCI-1
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
B0B	Software on 5 1/4" Floppy (SR10)
LF4700CB	PCI-Ethernet Media and Documentation

Operational Requirements

Description	Requirements	
RAM and Disk Space	RAM <u>112</u> KB	Disk Space <u>1</u> MB
Other Requirements:		
Supported Printers for hard copy output		
Supported Video (Display Monitor) Interfaces:		
Supported Disks:		

Domain/PCI-1

Description

Direct connection between one PC and one Domain workstation or server via RS-232 serial cable or modem. Provides transparent file access, resource sharing and virtual terminal emulation to PC users. Software and documentation only.

Prerequisites

Requires SR9.5 or later (SR9 & SR10), 4MB memory on workstation or server.
IBM PC/XT, PC/AT, or compatible personal computer with serial I/O card.
MS-DOS version 3.1 or greater.

Product Summary

Product/ Opt. No.	Description
LA500	Domain/PCI-1 License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LB5000A0	Corporate License for Domain/PCI-1
LD500	Replacement Media for Domain/PCI-1
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)

Product Summary continued

Product/ Opt. No.	Description
LF500	Domain/PCI-1 Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)

Operational Requirements

Description	Requirements	
RAM and Disk Space	RAM <u>112</u> KB	Disk Space <u>4</u> MB
Other Requirements:	360 KB on PC disk	
Supported Printers for hard copy output	N/A	
Supported Video (Display Monitor) Interfaces:	N/A	
Supported Disks:	N/A	

Domain/PCI-IBM Token Ring

Description

Client software only for direct connection of IBM PC/XT, PC/AT, or compatible personal computers to Apollo's IBM Token Ring network.

Prerequisites

- IBM PC/XT, PC/AT, or compatible personal computer.
- MS-DOS version 3.1 or greater.
- 3Com Tokenlink (3C603) network controller card, cables.
- Domain/PCI-Server software (LA490xxx) running on Apollo workstation or server.

Product Summary

Product/ Opt. No.	Description
LA8300CB	PCI-IBM Token Ring License Software on 5 1/4" Floppy)
LB8300C0	Corporate License for PCI-IBM Token Ring
LD830	Replacement Media for PCI-IBM Token Ring
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
B0B	Software on 5 1/4" Floppy (SR10)
LF8300CB	PCI-IBM Token Ring Media and Documentation

Operational Requirements

Description	Requirements	
RAM and Disk Space	RAM <u>112</u> KB	Disk Space <u>1</u> MB
Other Requirements:		
Supported Printers for hard copy output		
Supported Video (Display Monitor) Interfaces:		
Supported Disks:		

PCI Server Software

Description

PCI server software for Apollo workstations. Will support clients on either Apollo Token Ring or Apollo Ethernet. Serves up to 50 client PCs with recommended range of 1–14.

Prerequisites

Requires SR9.5 or later, 4MB memory on workstation or server.

DPCI client products include bundled packages COM-PCI-RGH and COM-PCI-ETH, and software products LA4700CB and LA8300CB.

Product Summary

Product/ Opt. No.	Description
LA490	PCI Server License
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LB4900A0	Corporate License for PCI Server License
LD490	Replacement Media for PCI Server
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
LF490	PCI Server Media and Documentation
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)

Operational Requirements

Description	Requirements	
RAM and Disk Space	RAM <u> 1 </u> MB	Disk Space <u> 3 </u> MB
Other Requirements:		
Supported Printers for hard copy output	All Domain printers	
Supported Video (Display Monitor) Interfaces:	N/A	
Supported Disks:	N/A	

CGM Device Driver for HP

Description

CGM Device Drivers for HP family of plotters. Translates Apollo/PHIGS generated CGM metafiles in HPGL data format.

Prerequisites:

Available to CADAM customers only.
The current version only supports Apollo/PHIGS generated CGM metafiles.

Product Summary

Product/ Opt. No.	Description
LA780	CGM Device Driver for HP License – CADAM customers only.
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LA7800A0	Corporate License for CGM Device Driver for HP – CADAM customers only

Operational Requirements

Requires serial RS232C port on Apollo workstation.

Supported Plotters/Printers for hard copy output:	HP7475A, 7550, 7580A. 7585A, 7585B, 7586B.
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CGM Device Driver for CALCOMP

Description

CGM Device Driver for CALCOMP family of plotters. Translates Apollo/PHIGS generated CGM metafiles into CALCOMP plotter data format.

Prerequisites:

Available to CADAM customers only.

The current version only supports Apollo/PHIGS generated CGM metafiles.

Product Summary

Product/ Opt. No.	Description
LA770	CGM Device Driver for CALCOMP License (CADAM customers only)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LB7700A0	Corporate License for CGM Device Driver for CALCOMP (CADAM customers only)

Operational Requirements

Description	Requirements
Other Requirements:	The CGM driver code needs to be linked with CALCOMP HCBS software libraries. Requires RS 232C port on Apollo workstations.
Supported Plotters/Printers for hard copy output	CALCOMP 1012, 1024, 1044, 1073, 1075 and other CALCOMP pin/electrostatic plotters equipped with 906, 907 and 908 controller boards.

PostScript Drivers

Description

The LA530 and LA540 products translate PostScript(C) input from application programs into low level commands for driving the HCD-MMP dot matrix printer and Versatec V.80 plotters, respectively.

Product Summary

Product/ Opt. No.	Description
LA530	PostScript Driver License for HCD-MMP Dot Matrix Printer *
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LA540	PostScript Driver License for VERSATEC V.80 Plotter *
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LE540	Basic Software Update for PostScript Driver for VERSATEC
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)

Operational Requirements

Description	Requirements	
	RAM	Disk Space
RAM and Disk Space	____ MB	____ MB
Other Requirements:		
Supported Printers for hard copy output	Genicon HCD-MMP printer; Versatec V.80 plotter (SR9.2 to SR9.7 only)	

* LA530, PostScript Driver License for HCD-MMP Dot Matrix Printer and LA540, PostScript Driver License for VERSATEC V.80 Plotter work on SR9.2 through 9.7.1.

SPE License

Description

Driver software for the SPE serial/parallel expansion board. Software controls two additional serial and one additional Centronics parallel I/O ports supplied by the board.

Product Summary

Product/ Opt. No.	Description
LA570	SPE License
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAB	Software on 5 1/4" Floppy (SR10)
BAD	Software on Cartridge Tape (SR10)
LB570000	Corporate License for SPE
LD570	Replacement Media for SPE
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0B	Software on 5 1/4" Floppy (SR10)
B0D	Software on Cartridge Tape (SR10)
LF570	Media and Documentation for SPE
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAB	Software on 5 1/4" Floppy (SR10)
BAD	Software on Cartridge Tape (SR10)

Operational Requirements

Description	Requirements	
RAM and Disk Space	RAM _____ MB	Disk Space _____ MB
Other Requirements:	SPE board, AT-bus-based node	
Supported Printers for hard copy output	LP800, LP26, MMP	

TRANS Software Filter Program

Description

Software filter program that translates UNIX's device independent *TROFF* print commands into PostScript (c) print commands.

Product Summary

Product/ Opt. No.	Description
LA630	TRANS License
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LB630BAD	Corporate License for TRANS
LD630	Replacement Media for TRANS
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
LF630	TRANS Media and Documentation
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)

VERSATEC V.80

Description

Driver Software for Versatec V.80 plotter environment. Supports monochrome electrostatic Versatec plotters from "A" size to "E" size.

Product Summary

Product/ Opt. No.	Description
LA640	VERSATEC V.80 License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LB640000	Corporate License for VERSATEC V.80
LD640	Replacement Media for VERSATEC V.80
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)

Product Summary continued

Product/ Opt. No.	Description
LF640	VERSATEC V.80 Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)

CGM Device Drivers for VERSATEC

Description

CGM Device Drivers for Versatec family of plotters. Translates Apollo/PHIGS generated CGM metafiles in Versatec raster data or Versatec Random Format (VRF).
 CGM Device Driver for V9 is intended for Versatec plotters that connect to Apollo workstations via parallel interface and perform rasterization of graphics data on the workstation.
 CGM Device Driver for Versatec Random is intended for Versatec plotters that utilize a Versatec Raster Processing Machine for rasterization of graphics data.

Prerequisites:

Available to CADAM customers only.
 The current version only supports Apollo/PHIGS generated CGM metafiles.

Product Summary

Product/ Opt. No.	Description
LA790	CGM Device Driver for VERSATEC V9 (CADAM customers only)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LB7900A0	Corporate License for CGM Device Driver for VERSATEC V9 (CADAM customers only)

Operational Requirements

The CGM Device Driver code needs to be linked with Versatec Versaplot version 9 software libraries.
 Requires parallel Versatec differential port (KIT-ATBUS-CENTP) on the Apollo workstation.

Supported Plotters/Printers for hard copy output:	V80, 8124, 8224, 8242, 2700 Series, 8228, 9242 and CE3236.
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Product Summary continued

Product/ Opt. No.	Description
LA800	CGM Device Driver for VERSATEC Random (CADAM customers only)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LB8000A0	Corporate License for CGM Device Driver for VERSATEC Random (CADAM customers only)
LE800	Basic Software Update for CGM Device Driver for VERSATEC Random
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LH80	RTU for CGM Device Driver for VERSATEC Random (SR9.7 or 9.7.1) Requires LE800-xxx.

Operational Requirements

The CGM Device Driver code needs to be linked with Versatec Random version 2 software libraries.
Requires parallel Versatec differential port (KIT-ATBUS-CENTP) on the Apollo workstation.

Supported Plotters/Printers for hard copy output:	V80, 8124, 8224, 8242, 2700 Series, 8228, 9242 and CE3236.
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Tektronix Driver

Description

Software driver for Tektronix 4692 color printer.

Product Summary

Product/ Opt. No.	Description
LA730	Tektronix Driver Software License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LB730000	Corporate License for Tektronix Driver
LD730	Replacement Media for Tektronix Driver
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LF730	Tektronix Driver Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)

Operational Requirements

Description	Requirements	
RAM and Disk Space	RAM _____ MB	Disk Space _____ MB
Other Requirements:	Centronix parallel interface (KIT-CENT-DP, KIT-CENT-MB) and 3rd-party-supplied Tektronix 4692 printer.	
Supported Printers for hard copy output	Tek 4692	

General Purpose I/O Software (GPI/O)

Description

GPI/O supports system calls which allow customers to write device drivers for peripheral devices attached to our various peripheral buses. At the present we support the Multibus (both 16 and 20 bit), the VME bus, the PC/AT bus, and the SCSI bus. Full support is provided for both user written call and interrupt routines. Existing customers have written a wide range of drivers, some of which are available as third party products.

Prerequisites

Requires PNA, DSP80(A), DSP90, Multibus, Series 3000 or Series 4000.

Product Summary

Product/ Opt. No.	Description
LA250	General Purpose I/O Software License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LB250000	General Purpose I/O Corporate License
LD250	Replacement Media for General Purpose I/O Software
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Product Summary continued

Product/ Opt. No.	Description
LF250	General Purpose I/O Software Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Domain 5080 Emulator

Description

The Domain/5080 layered product is an emulation of the IBM 5080 graphics terminal. The IBM 5080 graphics terminal is a "Host based" CAD applications workstation. Domain/5080 emulates the functionality of the IBM 5080 Model-I. A current project will soon emulate the IBM 5080 model-II, which provides increased graphical functionality and performance as well as a procedural processor capable of offloading some of the more computational work from the Host. Domain/5080 ver 4.0, scheduled for release in June 1990, will also have a slick user interface based on "Motif". The Domain/5080 product currently communicates to the Host (IBM Mainframe) using a third party solution. Release 4.0 will use the CHAT Channel Controller - AT as it's IPC.

Product Summary

Product/ Opt. No.	Description
LA74J000	Add 4 Users to Domain 5080 Emulator Requires 5080-Lx, 5080-TRx, 5080-VRx or 5080-CRx.
LA74K000	Add 8 Users to Domain 5080 Emulator Requires 5080-Lx, 5080-TRx, 5080-VRx or 5080-CRx.
LA74L000	Add 12 Users to Domain 5080 Emulator Requires 5080-Lx, 5080-TRx, 5080-VRx or 5080-CRx.
LD740	Replacement Media for Domian 5080 Emulator
A0A	Software on 8" Floppy (SR9.7 or 9.7.1)
A0B	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
A0C	Software on Mag Tape (SR9.7 or 9.7.1)
A0D	Software on Cartridge Tape (SR9.7 or 9.7.1)
B0A	Software on 8" Floppy (SR10)
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
LF740	Domain 5080 Emulator Media and Documentation
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)

Text Management Library (TMLib)

Description

Apollo's Text Management Library (TMLib) is an object-oriented, portable toolkit that speeds the development of interactive text-intensive applications, and provides developers with more control over the application than conventional text manipulation tools. TMLib increases productivity because application developers spend less time on graphics environments and operating system calls and can focus on functionality. Products are developed easier and faster, reducing time-to-market.

With TMLib developers can create a wide range of applications – from relatively simple text viewers and directory browsers, to more complex applications such as electronic publishing editors, and CASE tools. Application developers can build applications that mix fonts and character sets and can control the format and presentation of the text on the screen and on the hardcopy, or output device. Developers can also extend the set of objects within the application, without modifying source code.

TMLib supports all national languages, is consistent with the National Language Support standard, and lets developers incorporate specialized needs. With all these capabilities developers can quickly create a portable, basic editor for multiple text applications.

TMLib is written in the object-oriented C++ programming language; it supports applications developed in C, C++, and Pascal.

Product Summary

Product/ Opt. No.	Description
LD610	Replacement Media for TML
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
LF61C	Media and Documentation for TML
B0B	Software on 5 1/4" Floppy (SR10)
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)

Basic Software Updates

Product/ Opt. No.	Description
LE000	Basic Software Update for Domain/Access <i>Requires TCP/IP</i>
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LH00	RTU for Domain/Access

Product/ Opt. No.	Description
LE010	Basic Software Update for Domain/Ada
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
ABB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LH01	RTU for Domain/Ada (SR10) 8" Floppy. Requires LE010xxx

Product/ Opt. No.	Description
LE020	AEGIS Basic Software Update Media and Documentation. Includes: media and Starter & Advanced Documentation Set
AAA	Software on 8" Floppy
AAB	Software on 5 1/4" Floppy
AAC	Software on Mag Tape
AAD	Software on Cartridge Tape
LH02	AEGIS RTU 8" Floppy. Requires LE020xxx

Basic Software Updates

Product/ Opt. No.	Description
LE060	Basic Software Update for Alis
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LH06	RTU for Alis (SR9.7 or 9.7.1) Requires LE060-xxx.

Product/ Opt. No.	Description
LE070	Basic Software Update for Domain/C
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH07	RTU for Domain/C (SR9.7 or SR9.7.1) 8" Floppy. Requires LE070xxx

Product/ Opt. No.	Description
LE09A	Domain/CommonLISP Runtime Basic Software Update
CAA	Software on 8" Floppy
CAB	Software on 5 1/4" Floppy
CAC	Software on Mag Tape
CAD	Software on Cartridge Tape
LE09B	Domain/CommonLISP Basic Software Update
CAA	Software on 8" Floppy
CAB	Software on 5 1/4" Floppy
CAC	Software on Mag Tape
CAD	Software on Cartridge Tape
LH09	RTU for Domain/CommonLISP Requires LE1009B.

Basic Software Updates

Product/ Opt. No.	Description
LE10A	Domain/CommonLISP V2.2 Runtime Basic Software Update
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH10A	RTU for Domain/CommonLISP Requires LE10Axxx.

Product/ Opt. No.	Description
LE10B	Domain/CommonLISP V2.2 Development Basic Software Update
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH10B	RTU for Domain/CommonLISP Requires LE10Bxxx.

Basic Software Updates

Product/ Opt. No.	Description
LE110	Basic Software Update for Domain/CORE
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LH11	RTU for Domain/CORE (SR9.7 or 9.7.1) 8" Floppy. Requires LE110-xxx.

Product/ Opt. No.	Description
LE120	Basic Software Update for Domain/C++ Translator
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH12	RTU for Domain/C++Translator, 8" Floppy. Requires LE120xxx

Basic Software Updates

LE130	Basic Software Update for Comain/C++
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH13	RTU for Domain/C++ (SR9.7 or 9.7.1) 8" Floppy. Requires LE130xxx

Product/ Opt. No.	Description
LE14B	Basic Software Update for Domain/Dialogue
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH14	RTU for Domain/Dialogue (SR9.7 or 9.7.1) 8" Floppy. Requires LE14B-xxx.

Basic Software Updates

Product/ Opt. No.	Description
LE150	Basic Software Update for DPAK
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAD	Software on Cartridge Tape (SR10)
BBD	Software on Cartridge Tape (PRISM)
LH15	RTU for DPAK (SR9.7 or 9.7.1) 8" Floppy. Requires LE190-xxx.

Product/ Opt. No.	Description
LE160	Basic Software Update for DPCC
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAB	Software on 5 1/4" Floppy (SR10)
BAD	Software on Cartridge Tape (SR10)
LH16	RTU for DPCC Requires LE160-xxx.

Product/ Opt. No.	Description
LE170	Basic Software Update for PC Emulator
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LH17	RTU for PC Emulator Requires LE170-xxx.

Basic Software Updates

Product/ Opt. No.	Description
LE180	Basic Software Update for Domain/DSEE
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH18	RTU for Domain/DSEE (SR9.7 or 9.7.1) 8" Floppy. Requires LE10180.

Product/ Opt. No.	Description
LE190	Basic Software Update for D3M
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH19	RTU for D3M (SR9.7 or 9.7.1) 8" Floppy. Requires LE190-xxx.

Basic Software Updates

Product/ Opt. No.	Description
LE210	Basic Software Update for Fortran
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH21	RTU for Fortran (SR9.7 or 9.7.1) 8" Floppy. Requires LE210-xxx.

Product/ Opt. No.	Description
LE22A	Basic Software Update for GKS Runtime
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH22A	RTU for GKS Runtime (SR9.7 or 9.7.1) 8" Floppy. Requires LE22A-xxx.

Basic Software Updates

Product/ Opt. No.	Description
LE22B	Basic Software Update for GKS Development License
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH22B	RTU for GKS Development License (SR9.7 or 9.7.1) 8" Floppy. Requires LE22B-xxx.

Product/ Opt. No.	Description
LE24B	Basic Software Update for GMR3D Development
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH24B	RTU for GMR3D Development Requires LE24B-xxx.

Basic Software Updates

Product/ Opt. No.	Description
LE250	Basic Software Update for General Purpose I/O Software
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH25	RTU for General Purpose I/O Software (SR9.7 or 9.7.1) 8" Floppy. Requires LE250-xxx.

Product/ Opt. No.	Description
LE26B	Basic Software Update for GSR
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH26	RTU for GSR (SR9.7 or 9.7.1) 8" Floppy. Requires LE190-xxx.

Basic Software Updates

Product/ Opt. No.	Description
LE300	Basic System Update for Domain/IX. Includes: media and Starter & Advanced Documentation Sets.
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LH30	Domain/IX RTU

Product/ Opt. No.	Description
LE32A	Basic Software Update for Knowledge Broker Readers License
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH32	RTU for D3M (SR9.7 or 9.7.1) Requires LE32A-xxx.

Product/ Opt. No.	Description
LE33A	Basic Software Update for Knowledge Broker Publisher's Kit
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH33	RTU for Knowledge Broker Publisher's Kit (SR9.7 or 9.7.1) Requires LE33A-xxx.

Basic Software Updates

Product/ Opt. No.	Description
LE350	Basic Software Update for LSLock Includes LA420.
AAD	Apollo Lock, Cartridge Tape, SR9.7 or 9.7.1
BAD	Apollo Lock, Cartridge Tape, SR10
BBD	Apollo Lock, Cartridge Tape, PRISM
DDD	Sun/OS Lock
GEC	VAX/VMS Lock
LH35	LSLock Right to Use

Product/ Opt. No.	Description
LE36A	Basic Software Update for LU6.2 Gateway
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH36	RTU for LU6.2 Gateway Requires LE36A-xxx.

Basic Software Updates

Product/ Opt. No.	Description
LE370	Basic Software Update for DPSS/MAIL
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH37	RTU for DPSS/MAIL (SR9.7 or 9.7.1) 8" Floppy. Requires LE370-xxx.

Product/ Opt. No.	Description
LE380	Basic Software Update for Network Computing Kernal
AAD	Apollo - Software on Cartridge Tape (SR9.7 or 9.7.1)
BAD	Apollo - Software on Cartridge Tape (SR10)
BBD	Apollo - Software on Cartridge Tape (PRISM)
DAD	Sun/OS, Rev 3.4, Cartridge Tape
FEC	VAX/ULTRIX, Rev 1.2, Mag Tape
GEC	VAX/VMS, Rev 4.7, Mag Tape
HOE	HP, Cartridge Tape
LH38	RTU for Network Computing Kernal - Apollo (SR9.7 or 9.7.1) Requires LE380-xxx.

Basic Software Updates

Product/ Opt. No.	Description
LE390	Basic Software Update for Network File System
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH39	RTU for Network File System (SR9.7 or 9.7.1) Requires LE390-xxx.

Product/ Opt. No.	Description
LE400	Basic Software Update for NIDL Compiler
AAD	Apollo – Software on Cartridge Tape (SR9.7 or 9.7.1)
BAD	Apollo – Software on Cartridge Tape (SR10)
BBD	Apollo – Software on Cartridge Tape (PRISM)
DAD	Sun/OS, Cartridge Tape
FEC	VAX/ULTRIX, Mag Tape
GEC	VAX/VMS, Mag Tape
HOE	HP, Cartridge Tape
LH40	RTU for Network Computing Kernal – Apollo (SR9.7 or 9.7.1) Requires LE380-xxx.

LE420	NLS Basic Software Update
AAD	SR9.7 or 9.7.1
BAD	SR10
BBD	PRISM
DAD	Network Basic Software Update for Sun
GEC	Network Basic Software Update Server for VAX/VMS
LH42	NLS Right to Use

Basic Software Updates

Product/ Opt. No.	Description
LE430	Basic Software Update for OmniBack
B0C	Software on Mag Tape (SR10)
B0D	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH43	RTU for OmniBack (SR10) Requires LE43A-xxx.

Product/ Opt. No.	Description
LE44B	Basic Software Update for Open Dialogue Developer's Kit
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LH44	RTU for Open Dialogue Developer's Kit Requires LE44Bxxx
LE44BDAD	Basic Software Update for Open Dialogue Developer's Kit (Sun-3 type workstation) Cartridge Tape; Requires LA44ADAD or LB44AD00
LH44B	RTU for Open Dialogue Developer's Kit Sun-3 type workstation Requires LE44Bxxx.
LE44AK00	Basic Software Update for Open Dialogue Runtime – Sun-3 type hdwr
LH44A	RTU for Open Dialogue Runtime (Sun-3 type workstation) Requires LE44ADAD

Basic Software Updates

Product/ Opt. No.	Description
LE450	Basic System Update for Domain/OS (SR10) Media and User & System Administrator Documentation.
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH45	RTU for Domain/OS (SR10) 8" Floppy

Product/ Opt. No.	Description
LE460	Basic Software Update for Pascal
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH46	RTU for Pascal (SR9.7 or 9.7.1) 8" Floppy. Requires LE460-xxx.

Basic Software Updates

Product/ Opt. No.	Description
LE4700CB	Basic Software Update for PCI-Ethernet
LH47	RTU for PCI-Ethernet Requires LE4700CB.

Product/ Opt. No.	Description
LE480CAB	Basic Software Update for PCI Ring
LH48	RTU for PCI Ring Requires LE480CAB.

Product/ Opt. No.	Description
LE490	Basic Software Update for PCI Server
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LH49	RTU for PCI Server Requires LE490xxx.

Product/ Opt. No.	Description
LE500	Basic Software Update for Domain/PCI-1
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LH50	RTU for Domain/PCI-1 Requires LE500xxx.

Basic Software Updates

Product/ Opt. No.	Description
LE52A	Basic Software Update for PHIGS & GMR3D Runtime
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH52A	RTU for PHIGS & GMR3D Runtime (SR9.7 or 9.7.1) Requires LE51B-xxx.

Product/ Opt. No.	Description
LE52B	Basic Software Update for PHIGS & GMR3D
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH52B	RTU for PHIGS & GMR3D (SR9.7 or 9.7.1) Requires LE52B-xxx.

Product/ Opt. No.	Description
LE530	Basic Software Update for PostScript Driver for HCD-MMP
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LH53	RTU for PostScript Driver for HCD-MMP Requires LE530-xxx.

Basic Software Updates

LE540	Basic Software Update for PostScript Driver for VERSATEC
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LH54	RTU for PostScript Driver for VERSATEC Requires LE540-xxx.

Product/ Opt. No.	Description
LE560	Basic Software Update for RJE
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LH56	RTU for RJE Requires LE560-xxx.

Product/ Opt. No.	Description
LE570	Basic Software Update for SPE
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAB	Software on 5 1/4" Floppy (SR10)
BAD	Software on Cartridge Tape (SR10)
LH57	RTU for SPE Requires LE570-xxx.

Product/ Opt. No.	Description
LE590	Basic Software Update for TCP/IP Access Protocol
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LH59	RTU for TCP/IP Access Protocol Requires LE590-xxx.

Basic Software Updates

LE620	Apollo/TECHnet Basic Software Update
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LH62	RTU for Apollo TECHnet

Product/ Opt. No.	Description
LE630	Basic Software Update for TRANS
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LH63	RTU for TRANS (SR9.7 or 9.7.1) 8" Floppy. Requires LE630-xxx.

Product/ Opt. No.	Description
LE640	Basic Software Update for VERSATEC V.80
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LH64	RTU for VERSATEC (SR9.7 or 9.7.1) Requires LE640-xxx.

Basic Software Updates

Product/ Opt. No.	Description
LE660	Basic Software Update for X-Window System
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAC	Software on Cartridge Tape (SR10)
LH66	RTU for X-Window Requires LE660-xxx.

Product/ Opt. No.	Description
LE67A	Basic Software Update for Apollo/X.25
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
LH67	RTU for Apollo/X.25

Product/ Opt. No.	Description
LE70A	Basic Software Update for Apollo/SNA-3270
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH70	Apollo/SNA-3270 Right to Use (RTU)

Basic Software Updates

Product/ Opt. No.	Description
LE71A	Basic Software Update for Apollo/SNA-3770
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH71	Apollo/SNA-3770 Right to Use (RTU)

Product/ Opt. No.	Description
LE720	Basic Software Update for Domain/4014 EMULATOR
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
BAA	Software on 8" Floppy (SR10)
BAB	Software on 5 1/4" Floppy (SR10)
BAC	Software on Mag Tape (SR10)
BAD	Software on Cartridge Tape (SR10)
BBC	Software on Mag Tape (PRISM)
BBD	Software on Cartridge Tape (PRISM)
LH72	RTU for Domain/4014 EMULATOR (SR9.7 or 9.7.1) 8" Floppy. Requires LE190-xxx.

Basic Software Updates

LE730	Basic Software Update for Tektronix Driver
AAA	Software on 8" Floppy (SR9.7 or 9.7.1)
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAC	Software on Mag Tape (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LH73	RTU for Tektronix Driver (SR9.7 or 9.7.1) 8" Floppy. Requires LE730-xxx.

Product/ Opt. No.	Description
LE75AFEC	Basic Software Update for Passwd Etc VAX/ULTRIX, Mag Tape
LH75	RTU for Passwd Etc Requires LE75AFEC.

Product/ Opt. No.	Description
LE770	Basic Software Update for CGM Device Driver for CALCOMP
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LH77	RTU for CGM Device Driver for CALCOMP (SR9.7 or 9.7.1) Requires LE770-xxx.

Product/ Opt. No.	Description
LE780	Basic Software Update for CGM Device Driver for H-P
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LH78	RTU for CGM Device Driver for H-P (SR9.7 or 9.7.1) Requires LE780-xxx.

Basic Software Updates

Product/ Opt. No.	Description
LE790	Basic Software Update for CGM Device Driver for VERSATEC V9
AAB	Software on 5 1/4" Floppy (SR9.7 or 9.7.1)
AAD	Software on Cartridge Tape (SR9.7 or 9.7.1)
LH79	RTU for CGM Device Driver for VERSATEC V9 (SR9.7 or 9.7.1) Requires LE790-xxx.

Product/ Opt. No.	Description
LE8300CB	Basic Software Update for PCI-IBM Token Ring
LH83	RTU for PCI-IBM Token Ring Requires LE4700CB.

HP-Apollo Workstations

This section contains configuration information for the HP-Apollo family of workstations and servers.

Add-On options for the Series 2500 may be installed by computer knowledgeable customers who carefully read and follow the instructions in the installation manuals. The customer may elect to have Add-On options installed by HP/Apollo field representatives at the applicable field installation charge.

Add-On options for the Model 3010A, Series 3500, Series 4000, and Series 4500 may be installed, at customer's option, by computer knowledgeable customers who carefully read and follow the instructions in the installation manual. The only exceptions are those Add-On options for additional storage space (tape drives, floppy drives, 155-MB, 348-MB and 697-MB drives). These items must be installed by an HP/Apollo-trained field representative. The customer may elect to have all Add-On options installed by HP/Apollo field representatives at the applicable field installation charge.

The Domain Series 10000 requires all Add-On options, except those installed on the ATBUS, to be installed by an HP/Apollo field representative.

Contents

National Versions	D - 2
Series 2500	D - 3
Series 3000	D - 11
Series 3500	D - 39
Series 4000 Options	D - 103
Series 4500	D - 107
Series 10000	D - 133
Mature Products	D - 149

National Versions

Introduction

For convenient use in various nations throughout the world, Apollo products are offered in specific national versions called Country Kits. Each national version provides appropriate keyboard, keyboard cable, mouse, country specific power cord and keyboard cover.

Option	National Version
ABA	North America *
ABD	Germany*
ABF	France*
ABG	Australia
ABH	Netherlands
ABJ	Japan (available on DN2500 only)
ABN	Norway*
ABP	Switzerland*
ABS	Sweden/Finland*
ABT	Israel
ABU	United Kingdom*
ABY	Denmark*
ABZ	Italy

* Indicates available with Multinational Keyboard

Domain Series 2500 Personal Workstations

Introduction

This section contains configuration information for the HP-Apollo Series 2500 workstations. To configure the system, you select the appropriate workstation with options for your applications. With each system is a license to use the Domain/OS, Domain/X11, Domain/Dialogue, Open Dialogue Runtimes User Interface Management system, Open System Toolkit, GSR, GMR2D, GMR3D, and Domain/PHIGS. The system is not shipped with the listed software licensed unless specifically called for on the configuration worksheet and order (see the Software section of this book for selection).

Prerequisites

Every Series 2500 workstation configuration requires operating system release LF890BAD or SR10.2 or a later release.

The 100-MB Winchester disk drive is available as a factory installed option only.

The operating systems for Series 2500 systems are loaded via cartridge tape; you must have an Apollo cartridge tape drive connected to a system running Domain/OS LF890BAD or SR10.2 or later.

Every Series 2500 workstation configured with AADDSFLP, A-EX, A-200EF, A-660E, and/or AADDESTC requires the product support kit LFBB0BAD.

With every Series 2500 workstation you must order a country kit, which includes a keyboard with cable, mouse, and country specific power cord. See Page D-2 for selection of National Version required.

Network cabling must be ordered separately.

The Series 2500 incorporates 3 serial ports into one 25-pin connector. To take advantage of the second and third ports, you must order an adapter cable separately.

Series 2500 Monochrome Workstation

Description

The Domain Series 2500 is a UNIX-based desktop workstation, offering 4 MIPS performance, high-resolution integrated graphics with an MC68030 CPU with an industry standard SCSI peripheral interface.

CPU: MC68030, clocked at 20 MHz.

Bus Types: 32-bit memory and Direct I/O buses.

RAM: 4-MB parity, expandable to 16-MB.

Built-in Interfaces: 3 RS-232C ports (using optional break-out cable), SCSI port, and monochrome graphics.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Floating Point Processor: MC68882 clocked at 20 MHz, is standard.

Monitor: 15-inch 1024 by 800 or 19-inch 1280 by 1024 inch, Monochrome Monitor.

Operating System: Includes all environments: System V, BSD, and Aegis.

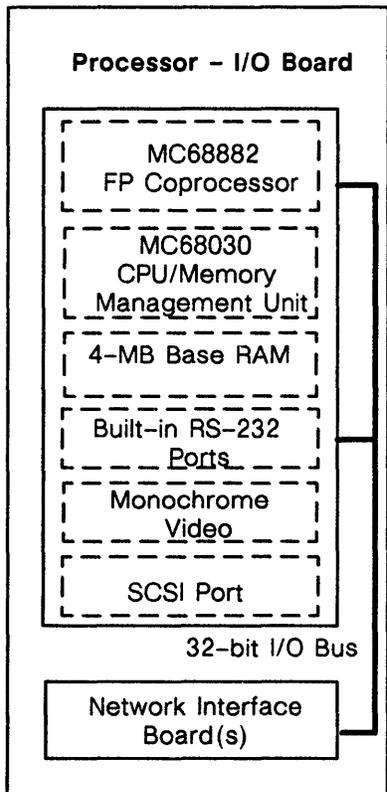


Figure D-1. Series 2500 Functions

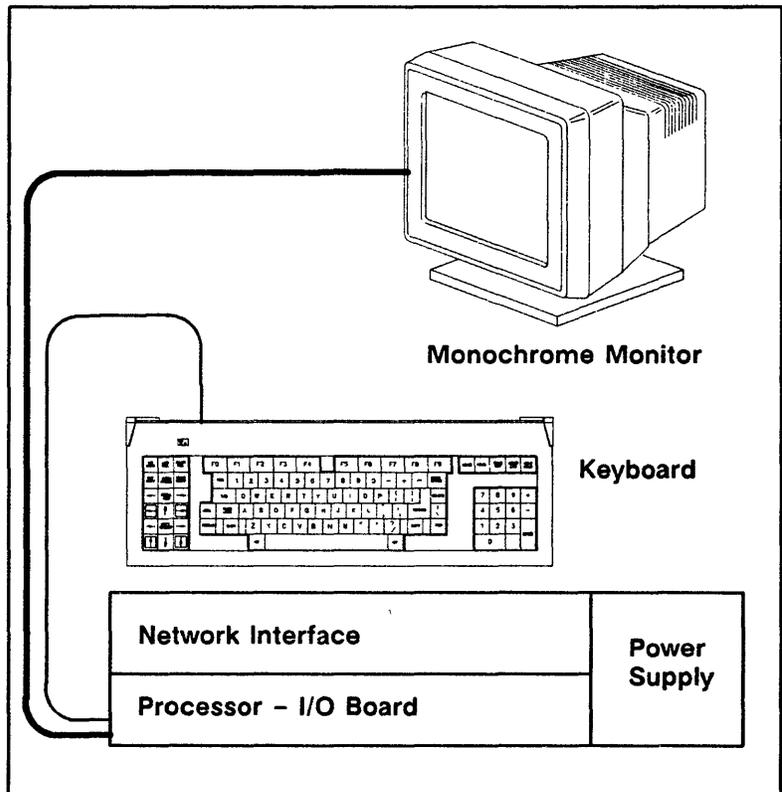


Figure D-2. Series 2500 Usage & Interconnections

Product Summary

Product/ Opt. No	Description
DN2500	<p>DN2500 Monochrome Workstation, consisting of:</p> <p>A. Processor with:</p> <ol style="list-style-type: none"> 1. 32-bit MC68030 20 MHz CPU with MC68882 20 MHz Floating Point Processor. 2. RS232 serial interface (3 asynchronous ports). 3. SCSI Bus supporting up to 7 devices. 4. On-board monochrome graphics 5. Power supply with logic sensing 120V/240V operation. <p>B. Country Kit (DN2CK-*). Includes keyboard with cable, mouse, and country-specific power cord. (DN2CK-*-1) Includes multinational keyboard with cable, mouse, and country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis,</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Series 2500 Options

DN2CK-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table.) If multinational country kit is required, order DN2CK-*-1.
Opt. DL0	1024 x 800 monochrome controller.
Opt. DM0	1280 x 1024 monochrome controller.
Opt. E01	Diskless.
Opt. E10	100-MB Winchester disk.
Opt. E20	200-MB Winchester disk.
Opt. E40	400-MB disks (Dual 200-MB Winchester disks).
Opt. FM1	15" monochrome graphics display, swivel and tilt.
Opt. FM3	19" monochrome graphics display, swivel and tilt.
Opt. G01	Apollo Token Ring network controller.

Series 2500 Monochrome Workstation, continued

Product Summary continued

Product/ Opt. No.	Description
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Series 2500 Options, continued

Opt. G02	ETHERNET IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H01	4-MB main memory.
Opt. H02	8-MB main memory.
Opt. H03	12-MB main memory.
Opt. H04	16-MB main memory.

Series 2500 Add-on Options

Prerequisites

Series 2500 Add-on Options	Prerequisites
A-ADD-4MB-C	4-MB Add-on memory. DN2500
A-ADD-8MB-C	8-MB Add-on memory. DN2500
A-ADD-200I	Internal 200-MB SCSI Winchester disk drive. DN2500
AADDSFLP * †	External 1.2-MB 5-1/4" floppy disk drive. DN2500
AADDESTC * †	External SCSI Cartridge tape drive. DN2500
A-EX- * †	External 8mm drive in single disk expansion module. DN2500
A-660E- * †	External 660-MB SCSI Disk Expansion Module. DN2500
A-200EF- * †	External 200-MB Disk Expansion Module with 1.2-MB 5-1/4" Floppy drive. DN2500
A-DN2CK-*	Keyboard, keyboard cable, mouse and country, specific power cord. N/A
A-LPFK-*	Lighted programmable function keyboard. Includes power supply, power signal cable, and country specific power cord. Domain/PHIGS application software
LFBB0BAD	This Product Support Kit is required to support all external mass storage devices. DN2500
LF890BAD	SR10 Product Support Kit: Adds additional functionality and is required fo all DN2500s. DN2500

* Country Code must be specified. See Page D-2 for selection.

† Requires Product Support Kit LFBB0BAD.

Series 2500 Monochrome Workstation, continued

Notes about SCSI add-on devices:

According to SCSI specifications, up to seven devices may be added to the system unit. However, there are limiting factors you must be aware of.

1. If the Series 2500 system has internal disk drives, you must count them as SCSI devices.
2. Only one Apollo Cartridge tape drive may be connected.
3. Only one Apollo floppy diskette drive may be connected.
4. There is a limit of five mountable disk drives per system.
5. There is a limit of two 8mm drives per system.
6. SCSI specifications dictate that cable length must not exceed 6 meters. However, total cable length includes internal device cables as well as the external cables connecting devices; also to be considered is cable and connector impedance mismatching. We recommend that total cable length external to the Series 2500 system unit be limited to 4.6 m (15 ft). The following table lists the cable lengths for Apollo SCSI devices for the Series 2500 system. Use the table to determine your applicable cable lengths.

SCSI Device Drives	Cable Lengths	
	Internal meters (feet)	External meters (feet)
Apollo SCSI Devices: (all devices ship with a 1.5 m (5 ft) cable.)		
200MB Disk Drive with 5 1/4-Inch Floppy Diskette Drive (A-200EF-)	0.6 (2.0)	_____
660MB SCSI Disk Drive (A-660E-)	0.6 (2.0)	_____
5 1/4-Inch Floppy Diskette Drive (AADDSLFP)	0.6 (2.0)	_____
1/4-Inch Cartridge Tape Drive (AADDESTC)	0.6 (2.0)	_____
8-mm Cartridge Tape Drive (A-EX-)	0.6 (2.0)	_____
<div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="text-align: right;">Sub-totals:</div> <div style="text-align: center;">_____ + _____</div> </div> <div style="display: flex; justify-content: space-between; align-items: flex-end; margin-top: 5px;"> <div style="text-align: right;">Internal + External not to exceed Total of 4.6 meters (15 feet)</div> <div style="text-align: center;">Total = _____</div> </div>		

Cable lengths available for purchase from Apollo Direct Channel are:
 0.4 meter (1.5 feet) – used to connect multiple devices either stacked, or side-by-side
 0.9 meter (3 feet)
 1.5 meter (5 feet)
 2.6 meter (8.5 feet)
 3.0 meter (10 feet)

Series 2500 Monochrome Workstation, continued

System Unit Site Requirements

Power Requirements

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
90 to 132 V ac ¹	2.55 A	88 W	50 to 60 Hz
187 to 264 V ac ¹	1.25 A	88 W	50 to 60 Hz

Heat Output

478 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.0	6.6
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
110 to 120	NEMA Type 5-15P	NEMA Type 5-15R
220 to 240	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

<i>Connector Type</i>	A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)
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Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0
<i>Rear</i>	30.5	12.0
<i>Sides</i>	5.0	2.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	11.8	26.0
<i>Shipping Weight</i>	13.6	30.0

¹ Voltages are not switch selectable; the power supply senses input voltage and adjusts accordingly.

Series 2500 Monochrome Workstation, continued

Monitor Site Requirements

15" Monitor Power Requirements (Switch Selectable at Rear Panel)

100 to 120 V ac	0.50 A	55 W	50 to 60 Hz (± 3 Hz)
220 to 240 V ac	0.25 A	55 W	50 to 60 Hz (± 3 Hz)

Heat Output

188 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Meters</i>	<i>Feet</i>
2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Meters</i>	<i>Feet</i>
2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	35.5	14.0
<i>Width</i>	36.0	14.2
<i>Depth</i>	37.5	14.75

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	12.0	26.5
<i>Shipping Weight</i>	14.75	32.5

Series 2500 Monochrome Workstation, continued

Monitor Site Requirements

19" Monitor Power Requirements

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
90 to 132 V ac ¹	1.6 A	100 W	50 to 60 Hz (3 Hz)
187 to 264 V ac ¹	0.8 A	100 W	50 to 60 Hz (3 Hz)

Heat Output

441 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Meters</i>	<i>Feet</i>
2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Meters</i>	<i>Feet</i>
2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	46.5	18.3
<i>Width</i>	46.2	18.2
<i>Depth</i>	39.1	15.4

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	22.5	49.5
<i>Shipping Weight</i>	25.0	55.0

Voltages are not switch selectable; the power supply senses input voltage and adjusts accordingly.

Domain Series 3000

Personal Workstations and Servers

Introduction

This section contains configuration information for the HP-Apollo Series 3000 workstations and servers. To configure the system, you select the appropriate workstation or server with options for your applications. With each system is a license to use the Domain/OS, Domain/X11, Domain/Dialogue, Open Dialogue Runtimes User Interface Management system, Open System Toolkit, GSR, GMR2D, GMR3D, and Domain/PHIGS. The system is not shipped with the listed software licensed unless specifically called for on the configuration worksheet and order (see the Software section of this book for selection).

Prerequisites

Every Series 3000 Model 3010A and 3040 system requires operating system release SR9.5 or later.

Every Series 3000 workstation configured with option G02 or DE0 requires operating system release SR9.6 or later.

Every Series 3000 workstation configured with option DL0 requires operating system release SR9.7 or later.

SR9.7 or later is required on Model 3010A or 3040 for support of 256MB virtual address space.

With every Series 3000 workstation you must order a country kit, which includes a keyboard with cable, mouse, and country specific power cord. See Page D-2 for selection of National Version required.

With every Series 3000 server you must order a country kit, which includes a country specific power cord. See Page D-2 for selection of National Version required.

Network cabling must be ordered separately.

Series 3000

Add-on Options

The following options are available for the Series 3000 workstations and servers.

Series 3000 Add-on Options		Prerequisites
A-ADD-2MB	2-MB Add-on memory board. (For use in Series 3000 systems which have four memory slots, and where the limit is 8-MB main memory.)	Series 3000

Model 3010A Monochrome Workstation

Description

The Domain Series 3000 Model 3010A is a UNIX-based desktop workstation, offering 1.5 MIPS performance, high-resolution integrated graphics with an MC68020 CPU and the industry-standard IBM PC AT compatible peripheral interface.

CPU: MC68020, clocked at 12 MHz.

Bus Types: 32-bit memory and Direct I/O buses.

RAM: 4-MB parity, expandable to 8-MB. System supports only one memory board.

Built-in Interfaces: RS-232C and monochrome graphics.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Floating Point Processor: MC68881 clocked at 12MHz, is standard.

Monitor: 15-inch 1024 by 800 or 19-inch 1280 by 1024 inch, Monochrome Monitor.

Operating System: Includes all environments: System V, BSD, and Aegis.

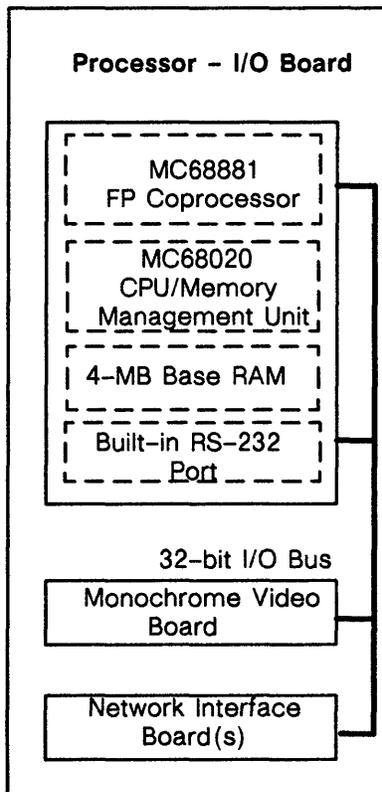


Figure D-3. Model 3010A Functions

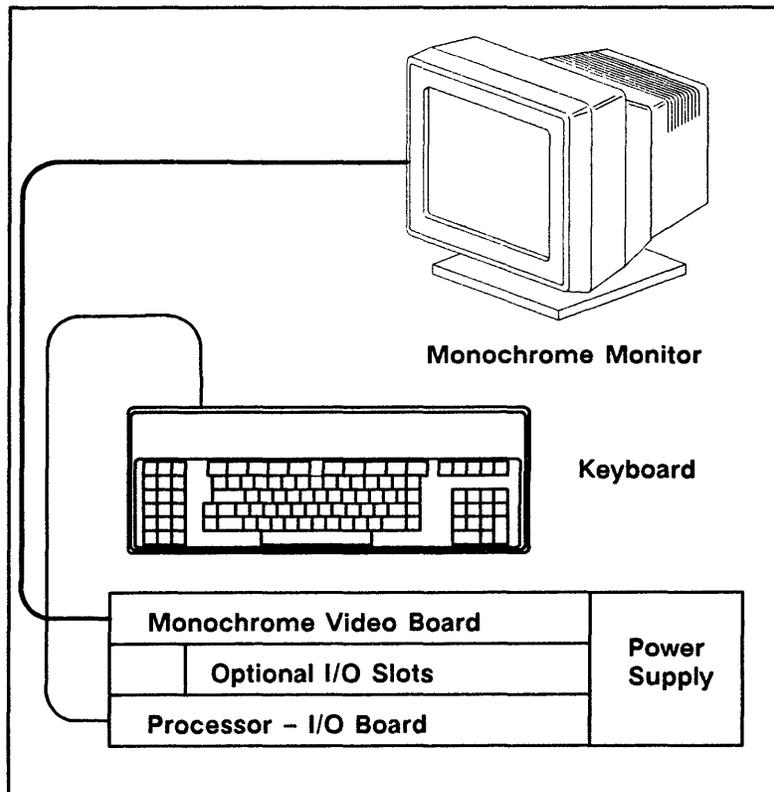


Figure D-4. Model 3010A Usage & Interconnections

Model 3010A Monochrome Workstation, continued

Product Summary

Product/ Opt. No	Description
DN3010A	<p>DN3010A Monochrome Workstation, consisting of:</p> <p>A. Processor – I/O board with:</p> <ol style="list-style-type: none"> 1. 32-bit MC68020 12 MHz CPU with MC68881 12 MHz Floating Point Processor. 2. MC68851 Paged Memory Management Unit. 3. 8 slot IBM PC AT/XT compatible bus. 4. RS232 serial interface (1 asychronous port). 5. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DN3CK-*). Includes keyboard, keyboard cable and country-specific power cord. (DN3CK-*-1) Includes multinational keyboard, keyboard cable, mouse and country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Model 3010A Options

DN3CK-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DN3CK-*-1.
Opt. DL0	1024 by 800 bit monochrome graphics controller.
Opt. DM0	1280 by 1024 bit monochrome graphics controller.
Opt. E01	Diskless.
Opt. E2A	72-MB Winchester disk.
Opt. E02	72-MB Winchester disk and 1.2-MB floppy disk (5.25").
Opt. E03	72-MB Winchester disk and 60-MB cartridge tape.
Opt. E4A	155-MB Winchester disk.
Opt. E04	155-MB Winchester disk and 1.2-MB floppy disk .
Opt. E05	155-MB Winchester disk and 60-MB cartridge tape.

Model 3010A Monochrome Workstation, continued

Product Summary continued

Product/ Opt. No.	Description
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Model 3010A Options, continued

Opt. E6A	348-MB Winchester disk.
Opt. E06	348-MB Winchester disk and 1.2-MB floppy disk.
Opt. E07	348-MB Winchester disk and 60-MB cartridge tape.
Opt. FM1	15" monochrome graphics display, swivel and tilt. (Requires option DL0)
Opt. FM2	19" monochrome graphics display, swivel and tilt. (Requires option DM0)
Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H01	4-MB main memory.
Opt. H02	8-MB main memory.

Model 3010A Add-on Options

Prerequisites

A-ADD-8MB-A	8-MB Add-on memory board. This board replaces the 4-MB board. The DN3010A has only 1 slot for memory.	DN3010A or DSP3010A
A-ADD-WFC-D	Winchester/floppy controller which supports 72-MB, 155-MB and 348-MB disks.	DN3000, DSP3000, DN3010A or DSP3010A
A-ADD-72M	72-MB Winchester disk drive, formatted capacity.	A-ADD-WFC-D
A-ADD-155M	155-MB Winchester disk drive, formatted capacity.	A-ADD-WFC-D
A-ADD-348FA	348-MB Winchester disk drive, formatted capacity.	A-ADD-WFC-D
A-ADD-FLP	1.2-MB 5.25" floppy disk drive.	A-ADD-WFC-D
ADD-TC	60-MB Cartridge tape drive and controller.	DN3000, DSP3000, DN3010A or DSP3010A
A-DN3CK*	Keyboard, keyboard cable, mouse and country, specific power cord.	N/A
A-LPFK-*	Lighted programmable function keyboard. Includes power supply, power signal cable, and country specific power cord.	Domain/PHIGS application software

* Country Code must be specified. See Page D-2 for selection.

Model 3010A Monochrome Workstation, continued

System Unit Site Requirements

Power Requirements

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac ¹	5.4 A	350 W	50 to 60 Hz (±1 Hz)
220 to 240 V ac ¹	2.7 A	350 W	50 to 60 Hz (±1 Hz)

Heat Output

1200 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.0	6.6
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
110 to 120	NEMA Type 5-15P	NEMA Type 5-15R
220 to 240	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

<i>Connector Type</i>	A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)
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Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0
<i>Rear</i>	30.5	12.0
<i>Sides</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	21.4	47.0
<i>Shipping Weight</i>	25.0	55.0

¹ Switch selectable. All systems are shipped at 110 V ac. To run your system at 220 V ac, you must change the voltage select switch setting.

Model 3010A Monochrome Workstation, continued

15" Monitor Power Requirements (Switch Selectable at Rear Panel)

100 to 120 V ac	0.50 A	55 W	50 to 60 Hz (± 3 Hz)
220 to 240 V ac	0.25 A	55 W	50 to 60 Hz (± 3 Hz)

Heat Output
188 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Meters</i>	<i>Feet</i>
2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Meters</i>	<i>Feet</i>
2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	35.5	14.0
<i>Width</i>	36.0	14.2
<i>Depth</i>	37.5	14.75

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	12.0	26.5
<i>Shipping Weight</i>	14.75	32.5

**Model 3010A Monochrome
Workstation, continued**

19" Monitor Power Requirements (Switch Selectable at Rear Panel)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac	1.0 A	85 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac	0.5 A	85 W	50 to 60 Hz (± 1 Hz)

Heat Output

478 Btu/hr

Operating Environment

Temperature 15° C to 32° C (60° F to 90° F)

Relative Humidity 20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
All Locales	2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Meters</i>	<i>Feet</i>
2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	46.6	18.3
<i>Width</i>	46.2	18.2
<i>Depth</i>	39.1	15.4

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	22.5	49.5
<i>Shipping Weight</i>	26.0	57.8

Model 3010A Color Workstation

Description

The Domain Series 3000 Model 3010A is a UNIX-based desktop workstation, offering 1.5 MIPS performance, high-resolution integrated graphics with an MC68020 CPU and the industry-standard IBM PC AT-compatible peripheral interface.

CPU: MC68020, clocked at 12 MHz.

Bus Types: 32-bit memory and Direct I/O buses.

RAM: 4-MB parity, expandable to 8-MB. System supports only one memory board.

Built-in Interfaces: RS-232C and color graphics.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Floating Point Processor: MC68881 clocked at 12MHz, is standard.

Monitor: 15-inch, 4 or 8 plane, 1024 by 800, or 19-inch, 4 or 8 plane, 1280 by 1024, Color Monitor.

Operating System: Includes all environments: System V, BSD, and Aegis.

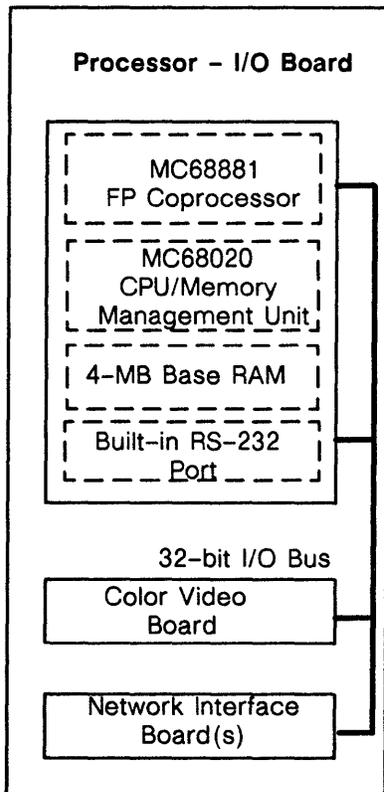


Figure D-5. Model 3010A Functions

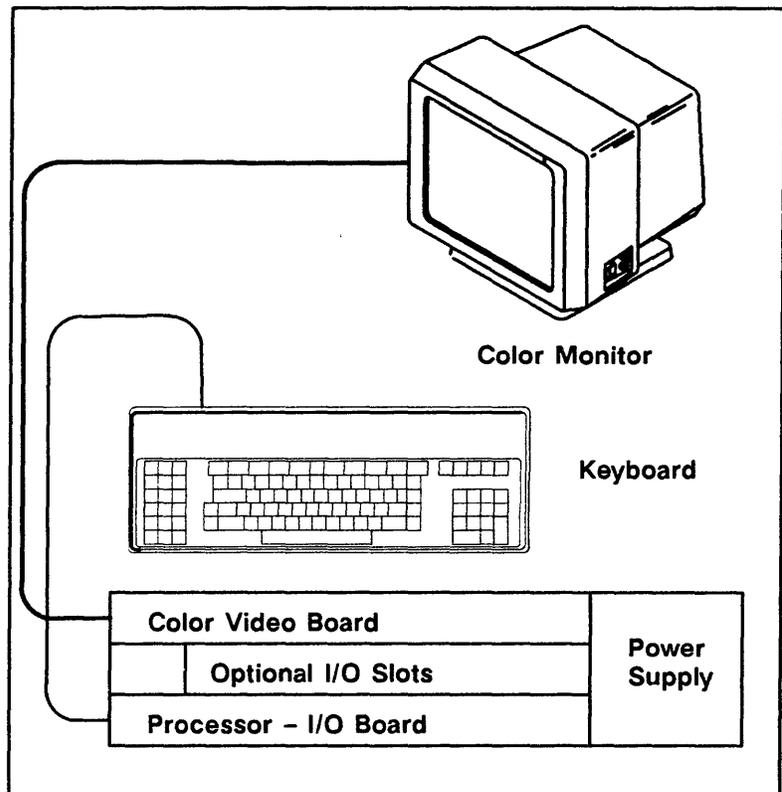


Figure D-6. Model 3010A Usage & Interconnections

Model 3010A Color
Workstation, continued

Product Summary

Product/ Opt. No	Description
DN3010A	<p>DN3010A Color Workstation, consisting of:</p> <p>A. Processor – I/O board with:</p> <ol style="list-style-type: none"> 1. 32-bit MC68020 12 MHz CPU with MC68881 12 MHz Floating Point Processor. 2. MC68851 Paged Memory Management Unit. 3. 8 slot IBM PC AT/XT compatible bus. 4. RS232 serial interface (1 asynchronus port). 5. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DN3CK-*). Includes keyboard, keyboard cable and country-specific power cord. (DN3CK-*-1) Includes multinational keyboard, keyboard cable, mouse and country specific power cord. <small>*Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</small></p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Model 3010A Options

DN3CK-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DN3CK-*-1.
Opt. DC0	1024 by 800, 4-plane, color graphics controller.
Opt. DE0	1024 by 800, 8-plane, color graphics controller.
Opt. E01	Diskless.
Opt. E2A	72-MB Winchester disk.
Opt. E02	72-MB Winchester disk and 1.2-MB floppy disk (5.25").
Opt. E03	72-MB Winchester disk and 60-MB cartridge tape.
Opt. E4A	155-MB Winchester disk.
Opt. E04	155-MB Winchester disk and 1.2-MB floppy disk .
Opt. E05	155-MB Winchester disk and 60-MB cartridge tape.

Model 3010A Color
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description
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Model 3010A Options, continued

Opt. E6A	348-MB Winchester disk.
Opt. E06	348-MB Winchester disk and 1.2-MB floppy disk.
Opt. E07	348-MB Winchester disk and 60-MB cartridge tape.
Opt. FC1	15" color graphics display, swivel and tilt.
Opt. FC2	19" color graphics display, swivel and tilt.
Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H01	4-MB main memory.
Opt. H02	8-MB main memory.

Model 3010A Add-on Options

Prerequisites

A-ADD-8MB-A	8-MB Add-on memory board. This board replaces the 4-MB board. The DN3010A has only 1 slot for memory.	DN3010A or DSP3010A
A-ADD-WFC-D	Winchester/floppy controller which supports 72-MB, 155-MB and 348-MB disks.	DN3000, DSP3000, DN3010A or DSP3010A
A-ADD-72M	72-MB Winchester disk drive, formatted capacity.	A-ADD-WFC-D
A-ADD-155M	155-MB Winchester disk drive, formatted capacity.	A-ADD-WFC-D
A-ADD-348FA	348-MB Winchester disk drive, formatted capacity.	A-ADD-WFC-D
A-ADD-FLP	1.2-MB 5.25" floppy disk drive.	A-ADD-WFC-D
ADD-TC	60-MB Cartridge tape drive and controller.	DN3000, DSP3000, DN3010A or DSP3010A

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Model 3010A Add-on Options, continued		
A-DN3CK*	Keyboard, keyboard cable, mouse and country, specific power cord.	N/A
A-LPFK-*	Lighted programmable function keyboard. Includes power supply, power signal cable, and country specific power cord.	Domain/PHIGS application software

* Country Code must be specified. See Page D-2 for selection.

Model 3010A Color Workstation, continued

System Unit Site Requirements

Power Requirements

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac ¹	5.4 A	350 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac ¹	2.7 A	350 W	50 to 60 Hz (± 1 Hz)

Heat Output

1200 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.0	6.6
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
110 to 120	NEMA Type 5-15P	NEMA Type 5-15R
220 to 240	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

Connector Type A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0
<i>Rear</i>	30.5	12.0
<i>Sides</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	21.4	47.0
<i>Shipping Weight</i>	25.0	55.0

¹ Switch selectable. All systems are shipped at 110 V ac. To run your system at 220 V ac, you must change the voltage select switch setting.

Model 3010A Color Workstation, continued

Monitor Site Requirements

15" Monitor Power Requirements (Switch Selectable at Rear Panel)

100 to 120 V ac	1.8 A	140 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac	0.9 A	140 W	50 to 60 Hz (± 1 Hz)

Heat Output

478 Btu/hr

Operating Environment

Temperature	15° C to 32° C (60° F to 90° F)
Relative Humidity	20% to 80% (noncondensing)

Power Cord Length

Location	Meters	Feet
All Locales	2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

Type	Meters	Feet
RGB coaxial cable	2.4	8.0

Air Flow Clearance

	Centimeters	Inches
Top	15	6
Rear	8	3
Sides	8	3

Service Clearance

	Centimeters	Inches
All Sides	60	24

Dimensions

	Centimeters	Inches
Height	40.6	16.0
Width	39.3	15.5
Depth	42.7	16.8

Weight

	Kilograms	Pounds
Weight of Unit	23.6	52.0
Shipping Weight	27.3	60.0

Model 3010A Color Workstation, continued

Monitor Site Requirements

19" Monitor Power Requirements (Switch Selectable at Rear Panel)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac	1.8 A	140 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac	0.9 A	140 W	50 to 60 Hz (± 1 Hz)

Heat Output

478 Btu/hr

Operating Environment

Temperature 15° C to 32° C (60° F to 90° F)

Relative Humidity 20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
All Locales	2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Type</i>	<i>Meters</i>	<i>Feet</i>
RGB coaxial cable	2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	40.6	16.0
<i>Width</i>	39.3	15.5
<i>Depth</i>	42.7	16.8

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	29.5	65.0
<i>Shipping Weight</i>	38.6	85.0

Model 3010A Server

Description

The Domain Series 3000 Model 3010A is a UNIX-based server, offering 1.5 MIPS performance, with an MC68020 CPU and the industry-standard IBM PC AT compatible peripheral interface.

CPU: MC68020, clocked at 12 MHz.

Bus Types: 32-bit memory and Direct I/O buses.

RAM: 4-MB parity, expandable to 8-MB. System supports only one memory board.

Built-in Interfaces: RS-232C.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Floating Point Processor: MC68881 clocked at 12MHz, is standard.

Operating System: Includes all environments: System V, BSD, and Aegis.

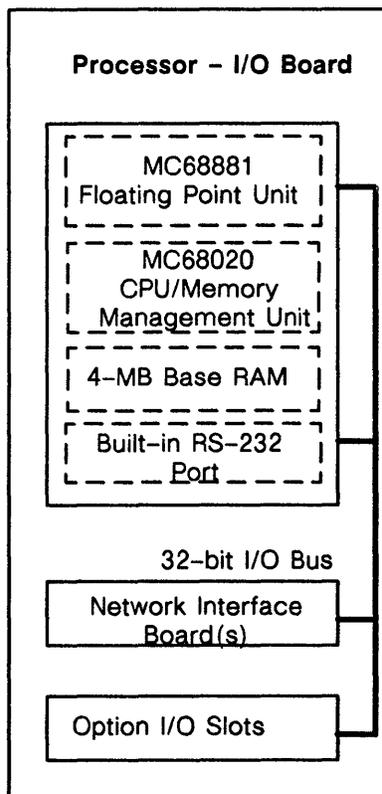


Figure D-7. Model 3010A Functions

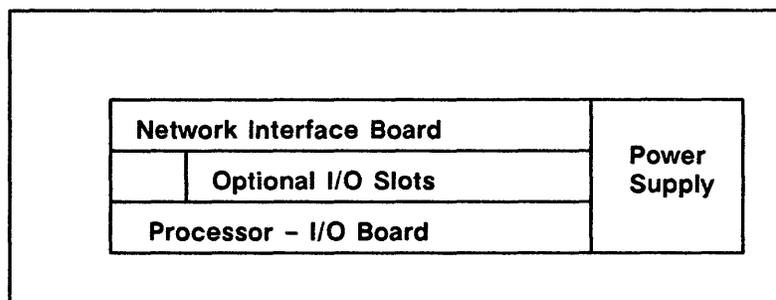


Figure D-8. Model 3010A Usage

Model 3010A
Server, continued

Product Summary

Product/ Opt. No	Description
DSP3010A	<p>DSP3010A Server, consisting of:</p> <p>A. Processor – I/O board with:</p> <ol style="list-style-type: none"> 1. 32-bit MC68020 12 MHz CPU with MC68881 12 MHz Floating Point Processor. 2. MC68851 Paged Memory Management Unit. 3. 8 slot IBM PC AT/XT compatible bus. 4. RS232 serial interface (1 asynchronous port). 5. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DSPCK-*). Includes country-specific power cord. (DSPCK-*-1) Includes country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR (LA1026B), GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Model 3010A Options

DSPCK-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DSPCK-*-1.
Opt. E05	155-MB Winchester disk and 60-MB cartridge tape.
Opt. E07	348-MB Winchester disk and 60-MB cartridge tape.
Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H01	4-MB main memory.
Opt. H02	8-MB main memory.

Product Summary continued

Product/ Opt. No.	Description
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Model 3010A Add-on Options		Prerequisites
A-ADD-8MB-A	8-MB Add-on memory board. This board replaces the 4-MB board. The DN3010A has only 1 slot for memory.	DN3010A or DSP3010A
A-ADD-WFC-D	Winchester/floppy controller which supports 72-MB, 155-MB and 348-MB disks.	DN3000, DSP3000, DN3010A or DSP3010A
A-ADD-72M	72-MB Winchester disk drive, formatted capacity.	A-ADD-WFC-D
A-ADD-155M	155-MB Winchester disk drive, formatted capacity.	A-ADD-WFC-D
A-ADD-348FA	348-MB Winchester disk drive, formatted capacity.	A-ADD-WFC-D
A-ADD-FLP	1.2-MB 5.25" floppy disk drive.	A-ADD-WFC-D
ADD-TC	60-MB Cartridge tape drive and controller.	DN3000, DSP3000, DN3010A or DSP3010A
A-DN3CK*	Keyboard, keyboard cable, mouse and country, specific power cord.	N/A

* Country Code must be specified. See Page D-2 for selection.

Model 3010A Server, continued

System Unit Power Requirements

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac ¹	5.4 A	350 W	50 to 60 Hz (±1 Hz)
220 to 240 V ac ¹	2.7 A	350 W	50 to 60 Hz (±1 Hz)

Heat Output

1200 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.0	6.6
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
110 to 120	NEMA Type 5-15P	NEMA Type 5-15R
220 to 240	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

<i>Connector Type</i>	A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)
-----------------------	--

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0
<i>Rear</i>	30.5	12.0
<i>Sides</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	21.4	47.0
<i>Shipping Weight</i>	25.0	55.0

¹ Switch selectable. All systems are shipped at 110 V ac. To run your system at 220 V ac, you must change the voltage select switch setting.

Model 3040 Color Workstation

Description

The Domain Series 3000 Model 3040 is a rack-mountable, UNIX-based workstation, offering 1.5 MIPS performance, high-resolution integrated graphics with an MC68020 CPU and the industry-standard IBM PC AT compatible peripheral interface. The Model 3040 is designed for factory floor users and withstands harsh environmental conditions such as temperature variances, electromagnetic interference, and voltage surges.

CPU: MC68020, clocked at 12 MHz.

Bus Types: 32-bit memory and Direct I/O buses.

RAM: 4-MB parity, expandable to 8-MB. System supports only one memory board.

Built-in Interfaces: RS-232C and color graphics.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Floating Point Processor: MC68881 clocked at 12MHz, is standard.

Monitor: 15-inch, 4-plane, 1024 by 800 Color Monitor.

Operating System: Includes all environments: System V, BSD, and Aegis.

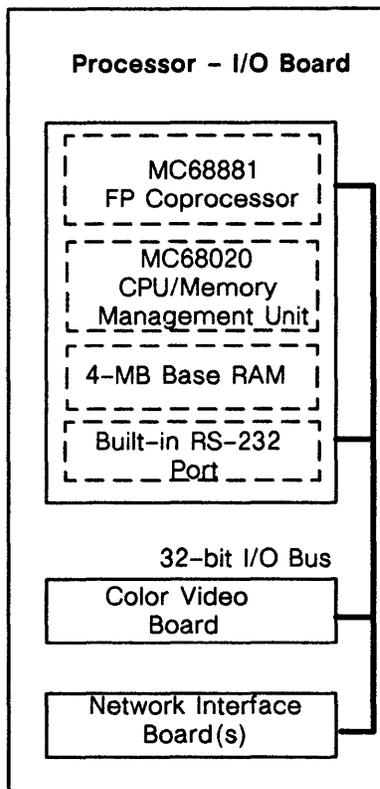


Figure D-9. Model 3040 Functions

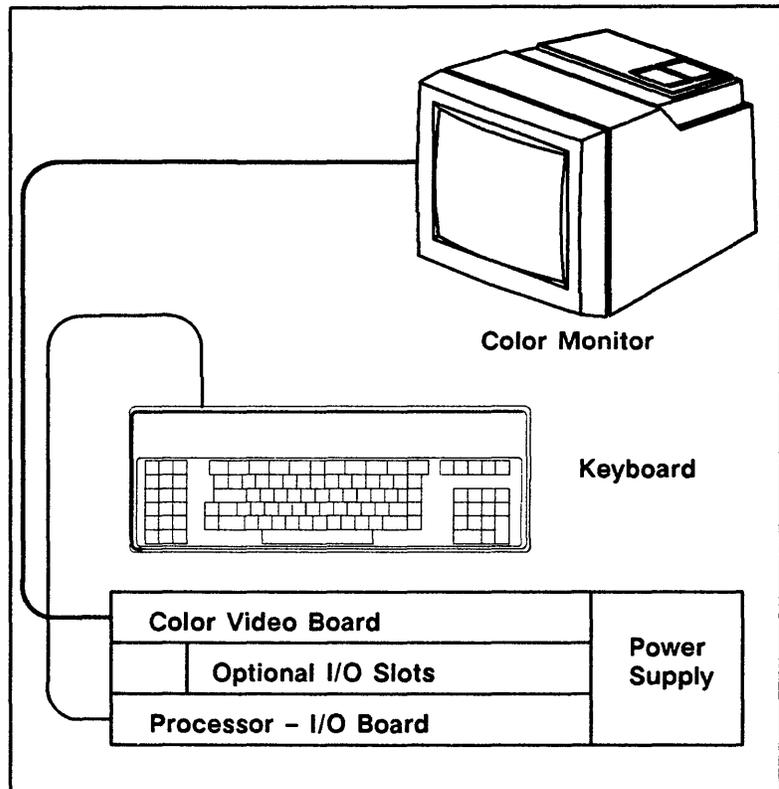


Figure D-10. Model 3040 Usage & Interconnections

Model 3040 Color Workstation, continued

Product Summary

Product/ Opt. No	Description
DN3040	<p>DN3040 Color Workstation, consisting of:</p> <p>A. Processor – I/O board with:</p> <ol style="list-style-type: none"> 1. 32-bit MC68020 12 MHz CPU with MC68881 12 MHz Floating Point Processor. 2. MC68851 Paged Memory Management Unit. 3. 8 slot IBM PC AT/XT compatible bus. 4. RS232 serial interface (1 asynchronus port). 5. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DN3CKR-*). Includes keyboard, keyboard cable and country-specific power cord. (DN3CKR*-1) Includes multinational keyboard, keyboard cable, mouse and country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Model 3040 Options

DN3CKR-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DN3CKR*-1.
Opt. DC0	1024 by 800 bit, 4-plane, color graphics controller.
Opt. E01	Diskless.
Opt. E4A	155-MB Winchester disk.
Opt. E04	155-MB Winchester disk and 1.2-MB floppy disk .
Opt. E05	155-MB Winchester disk and 60-MB cartridge tape.
Opt. E6A	348-MB Winchester disk.
Opt. E06	348-MB Winchester disk and 1.2-MB floppy disk.
Opt. E07	348-MB Winchester disk and 60-MB cartridge tap.e
Opt. FC1	15" color graphics display, swivel and tilt.

Product Summary continued

Product/ Opt. No.	Description
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Model 3040 Options, continued

Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H01	4-MB main memory.

Model 3040 Add-on Options

		Prerequisites
A-ADD-2MBR	2-MB Add-on memory board.	DN3040
A-WFCR-D	Winchester/floppy controller which supports 155-MB and 348-MB disks.	DN3040
A-ADD-155MR	155-MB Winchester disk drive, formatted capacity.	A-WFCR-D
A-ADD-348MR	348-MB Winchester disk drive, formatted capacity.	A-WFCR-D
A-ADD-FLPR	1.2-MB 5.25" floppy disk drive.	A-WFCR-D
A-ADD-TCR	60-MB Cartridge tape drive and controller.	DN3040
A-DN3CKR*	Keyboard, keyboard cable, mouse and country, specific power cord.	N/A
A-DN3RM	Rack mount kit for system unit, graphic display, and keyboard.	DN3040

* Country Code must be specified. See Page D-2 for selection.

Model 3040 Color Workstation, continued

System Unit Power Requirements (switch selectable)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac	5.0 A	300 W	47 to 63 Hz
220 to 240 V ac	2.5 A	300 W	47 to 63 Hz

Heat Output

1025 Btu/hr

Operating Environment

<i>Temperature</i>	5° C to 50° C (41° F to 122° F) Derate for altitude
<i>Relative Humidity</i>	10% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.0	6.6
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
100 to 120	NEMA Type 5-15P	NEMA Type 5-15R
220 to 240	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

Connector Type A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0
<i>Rear</i>	30.5	12.0
<i>Sides</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	34	75
<i>Shipping Weight</i>	38	83

Rack Standard

The rack must meet the EIA Standard RS-310-B (December 1972) for a 19-inch panel width and a side panel depth of 30-inches or more. Rack height and additional depth are optional. The rack should have stabilizing feet.

Model 3040 Color Workstation, continued

15" Monitor Power Requirements (Switch Selectable at Rear Panel)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
90 to 132 V ac	1.9 A @ 100 V ac	120 watts	47 to 63 Hz
187 to 264 V ac	0.9 A @ 220 V ac	120 watts	47 to 63 Hz

Heat Output

410 Btu/hr

Operating Environment

<i>Temperature</i>	5° C to 50° C (41° F to 122° F) (Derate for altitude)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Processor</i>	<i>Location</i>	<i>Meters</i>	<i>Feet</i>
DN3040	All Locales	2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Processor</i>	<i>Type</i>	<i>Meters</i>	<i>Feet</i>
DN3040	RGB coaxial cable	2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	40.6	16.0
<i>Width</i>	39.3	15.5
<i>Depth</i>	42.7	16.8

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	23.6	52.0
<i>Shipping Weight</i>	27.3	60.0

Model 3040 Server

Description

The Domain Series 3000 Model 3040 is a rack-mountable, UNIX-based server, offering 1.5 MIPS performance, with an MC68020 CPU and the industry-standard IBM PC AT compatible peripheral interface. The Model 3040 is designed for factory floor users and withstands harsh environmental conditions such as temperature variances, electromagnetic interference, and voltage surges.

CPU: MC68020, clocked at 12 MHz.

Bus Types: 32-bit memory and Direct I/O buses.

RAM: 4 or 8-MB parity. System supports only one memory board.

Built-in Interfaces: RS-232C.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Floating Point Processor: MC68881 clocked at 12MHz, is standard.

Operating System: Includes all environments: System V, BSD, and Aegis.

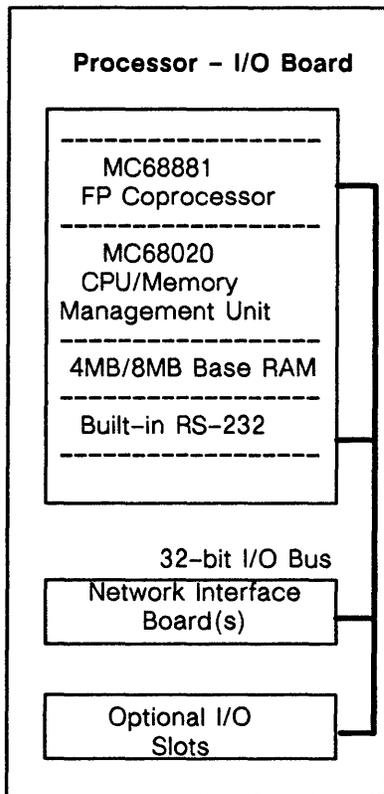


Figure D-11. Model 3040 Functions

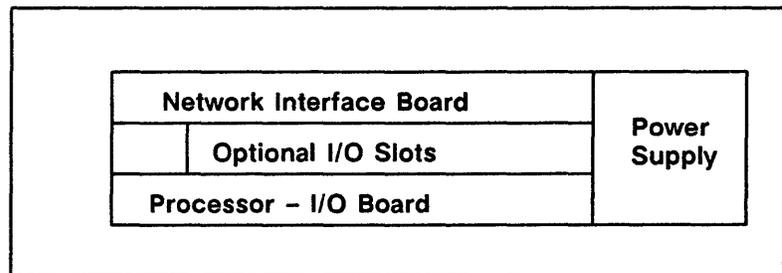


Figure D-12. Model 3040 Usage

Product Summary

Product/ Opt. No	Description
DSP3040	<p>DSP3040 Server, consisting of:</p> <p>A. Processor – I/O board with:</p> <ol style="list-style-type: none"> 1. 32-bit MC68020 12 MHz CPU with MC68881 12 MHz Floating Point Processor. 2. MC68851 Paged Memory Management Unit. 3. 8 slot IBM PC AT/XT compatible bus. 4. RS232 serial interface (1 asychronus port). 5. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DSPCK-*). Includes country-specific power cord. (DSPCK*-1) Includes country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Model 3040 Options

DSPCK-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DSPCK*-1.
Opt. E05	155-MB Winchester disk and 60-MB cartridge tape.
Opt. E07	348-MB Winchester disk and 60-MB cartridge tape.
Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H01	4-MB main memory.

Model 3040
Server, continued

Product Summary continued

Product/ Opt. No.	Description	
Model 3040 Add-on Options		Prerequisites
A-DSPRM	Rack mount kit for system unit	DSP3040
A-ADD-2MBR	2-MB Add-on memory board.	DSP3040
A-WFCR-D	Winchester/floppy controller which supports 155-MB and 348-MB disks.	DSP3040
A-ADD-155M	155-MB Winchester disk drive, formatted capacity.	A-WFCR-D
A-ADD-348FA	348-MB Winchester disk drive, formatted capacity.	A-WFCR-D
A-ADD-FLPR	1.2-MB 5.25" floppy disk drive.	A-WFCR-D
A-ADD-TCR	60-MB Cartridge tape drive and controller.	DSP3040
A-DN3CKR*	Keyboard, keyboard cable, mouse and country, specific power cord.	N/A

* Country Code must be specified. See Page D-2 for selection.

System Unit Power Requirements (switch selectable)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac	5.0 A	300 W	47 to 63 Hz
220 to 240 V ac	2.5 A	300 W	47 to 63 Hz

Heat Output

1025 Btu/hr

Operating Environment

<i>Temperature</i>	5° C to 50° C (41° F to 122° F) Derate for altitude
<i>Relative Humidity</i>	10% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.0	6.6
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
100 to 120	NEMA Type 5-15P	NEMA Type 5-15R
220 to 240	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

Connector Type A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0
<i>Rear</i>	30.5	12.0
<i>Sides</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	34	75
<i>Shipping Weight</i>	38	83

Rack Standard

The rack must meet the EIA Standard RS-310-B (December 1972) for a 19-inch panel width and a side panel depth of 30-inches or more. Rack height and additional depth are optional. The rack should have stabilizing feet.

Domain Series 3500

Personal Workstations and Servers

Introduction

This section contains configuration information for the HP-Apollo Series 3500 workstations and servers. To configure the system, you select the appropriate workstation or server with options for your applications. With each system is a license to use the Domain/OS, Domain/X11, Domain/Dialogue, Open Dialogue Runtimes User Interface Management system, Open System Toolkit, GSR, GMR2D, GMR3D, and Domain/PHIGS. The system is not shipped with the listed software licensed unless specifically called for on the configuration worksheet and order (see the Software section of this book for selection).

Prerequisites

Every Series 3500 system requires operating system release SR9.7.1 or SR10.1 or later.

Every Series 3500 workstation configured with option DA0 requires operating system release SR10.2 or later.

Every Series 3500 workstation configured with SR9.7.1 and a Winchester disk requires operating system product support kit LFZ20 or later.

Every Series 3500 workstation configured with SR9.7.1 and option DF0 requires operating system product support kit LFZ20 or later.

Every Series 3500 workstation configured with SR10.1 with an external 697-MB Winchester requires operating system product support kit LFZ30 or later.

To obtain the SR9.7.1 operating system you must order LA020.

To obtain the SR10.1 operating system you must order LA450.

With every Series 3500 workstation you must order a country kit, which includes a keyboard with cable, mouse, and country specific power cord. See Page D-2 for selection of National Version required.

With every Series 3500 server you must order a country kit, which includes a country specific power cord. See Page D-2 for selection of National Version required.

Network cabling must be ordered separately.

The Series 3500 incorporates 3 serial ports into one 25-pin connector. To take advantage of the second and third ports, you must order an adapter cable separately.

Series 3500 Monochrome Workstation

Description

The Domain Series 3500 is a UNIX-based desktop workstation, offering 5 MIPS performance, high-resolution integrated graphics with an MC68030 CPU and the industry-standard IBM PC AT compatible peripheral interface.

CPU: MC68030, clocked at 25 MHz.

Bus Types: 32-bit memory and Direct I/O buses.

RAM: 4-MB or 8-MB parity, expandable to 32-MB.

Built-in Interfaces: 3 RS-232C ports, and monochrome graphics.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Floating Point Processor: MC68882 clocked at 25 MHz, is standard.

Monitor: 19-inch, 1280 by 1024, 64-Hz Monochrome Monitor.

Operating System: Includes all environments: System V, BSD, and Aegis.

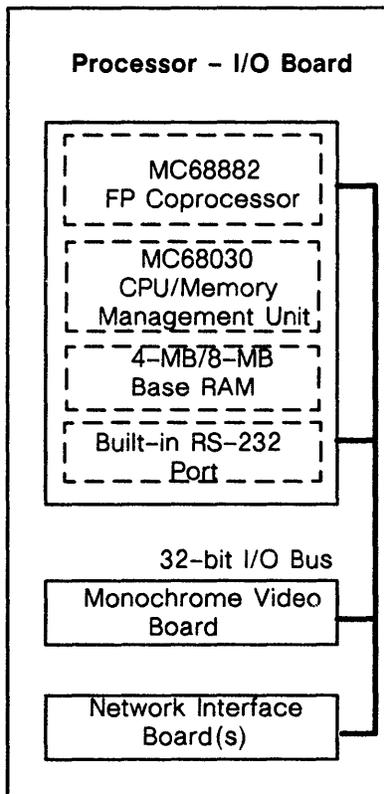


Figure D-13. Series 3500 Functions

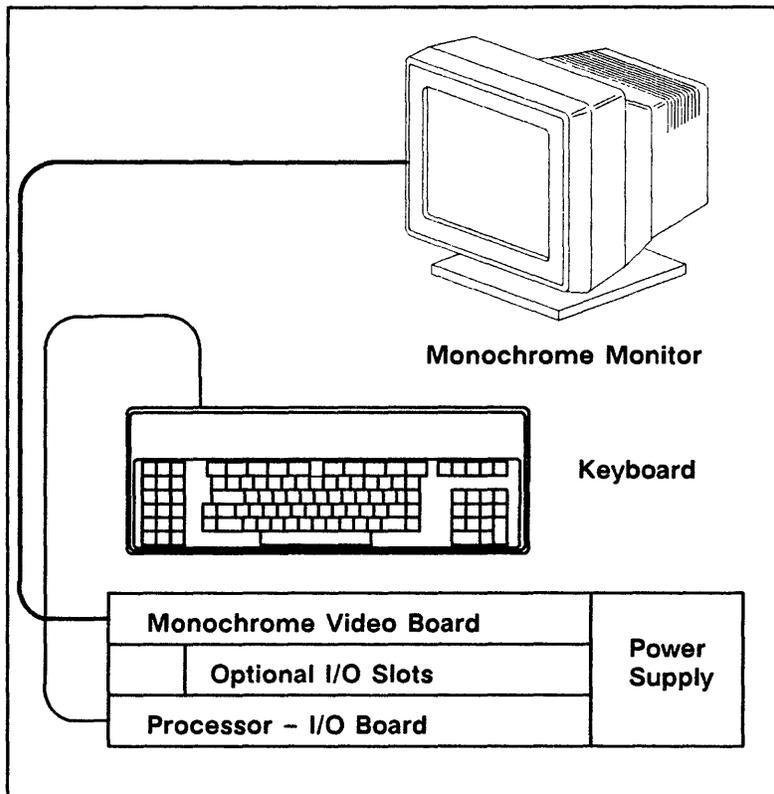


Figure D-14. Series 3500 Usage & Interconnections

Series 3500 Monochrome
Workstation, continued

Product Summary

Product/ Opt. No	Description
DN3500	<p>DN3500 Monochrome Workstation, consisting of:</p> <p>A. Processor – I/O board with:</p> <ol style="list-style-type: none"> 1. 32-bit MC68030 25 MHz CPU with MC68882 25 MHz Floating Point Processor. 2. 7 slot IBM PC AT/XT compatible bus (6 AT, 1 XT). 3. RS232 serial interface (3 asynchronous ports). 4. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DN3CK-*). Includes keyboard, keyboard cable and country-specific power cord. (DN3CK-*-1) Includes multinational keyboard, keyboard cable, mouse and country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Series 3500 Options

DN3CK-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DN3CK-*-1.
Opt. DM0	1280 by 1024 monochrome graphics controller.
Opt. E01	Diskless.
Opt. E4D	155-MB Winchester disk.
Opt. E4F	155-MB Winchester disk and 1.2-MB floppy disk.
Opt. E4C	155-MB Winchester disk and 60-MB cartridge tape.
Opt. E6D	348-MB Winchester disk.
Opt. E6F	348-MB Winchester disk and 1.2-MB floppy disk.
Opt. E6C	348-MB Winchester disk and 60-MB cartridge tape.

Series 3500 Monochrome
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description
------------------------------	--------------------

Series 3500 Options, continued

Opt. E8D	697-MB Winchester disk.
Opt. E8F	697-MB Winchester disk and 1.2-MB floppy disk.
Opt. E8C	697-MB Winchester disk and 60-MB cartridge tape.
Opt. FM2	19" monochrome graphics display, swivel and tilt. (Requires option DM0)
Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H01	4-MB main memory.
Opt. H02	8-MB main memory.

Series 3500 Monochrome Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 3500 Add-on Options		
A-DN3CK-*	Keyboard, keyboard cable, mouse and country, specific power cord.	N/A
A-ADD-4MB-A	4-MB Add-on memory board.	DN3500
A-ADD-8MB-A	8-MB Add-on memory board.	DN3500
A-ADD-SWFC #	SCSI/Winchester/floppy multi-function peripheral controller.	DN3500 with rev 9 (or greater) CPU
A-ADD-155M	155-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC (not required if system has A-ADD-WFC)
A-ADD-348FA	348-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC (not required if system has A-ADD-WFC)
A-ADD-FLP	1.2-MB 5.25" floppy disk drive.	A-ADD-SWFC (not required if system has A-ADD-WFC)
ADD-TC	60-MB Cartridge tape drive and controller.	DN3500
A-ADD-STC	SCSI 60-MB Cartridge tape drive.	A-ADD-SWFC
A-ADD-FPA **	Floating-point accelerator board.	DN3500
A-697FA	697-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC
A-348E-*	348-MB Disk Expansion Module.	DN3500 with internal 348-MB disk
A-697E-* #	External 697-MB Disk Expansion Module.	DN3500 with internal 697-MB disk
A-ETC-*	External SCSI Cartridge Tape Expansion Module.	A-ADD-SWFC and 155-, 348-, or 697-MB disk
A-697S-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk.	DN3500 with internal 697-MB disk
A-697SC-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk and 1 Cartridge Tape	DN3500 with internal 697-MB disk

Series 3500 Monochrome
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 3500 Add-on Options, continued		
A-697D-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks.	DN3500 with internal 697-MB disk
A-697DC-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks and 1 Cartridge Tape.	DN3500 with internal 697-MB disk
A-697T-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks.	DN3500 with internal 697-MB disk
A-697TC-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks and 1 Cartridge Tape.	DN3500 with internal 697-MB disk
A-6250-*	1600/6250 bpi 1/2" tape drive.	DN3500 with A-ADD-SWFC and 155-, 348, or 697-MB disk
A-XT-* †	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Only one 8mm drive per MDEM.	MDEM with 1, 2, or 3 697-MB disk and OmniBack network backup system
A-EX-* †	8mm drive in a single Disk Expansion Module.	DN3500 and OmniBack network backup system
A-697SX-* †	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk.	DN3500 with a 697-MB disk and OmniBack network backup system
A-697DX-* †	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks.	DN3500 with a 697-MB disk and OmniBack network backup system
A-697TX-* †	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks.	DN3500 with a 697-MB disk and OmniBack network backup system
A-OBXT-*+ † ‡	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Includes LA430.	MDEM with 1, 2, or 3 697-MB disk

Series 3500 Monochrome Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 3500 Add-on Options, continued		
A-OBEX-* + † ‡	8mm drive in a single Disk Expansion Module. Includes LA430.	DN3500
A-OBSX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk. Includes LA430.	DN3500 with internal 697-MB disk
A-OBDX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks. Includes LA430.	DN3500 with internal 697-MB disk
A-OBTX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks. Includes LA430.	DN3500 with internal 697-MB disk
A-697FAA	Add-on 697-MB disk for A-697S, A-697SC, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697SC, or A-697D, or A-697DC
A-ADD-STCA	Add-on SCSI Cartridge Tape for A-697S, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697D, or A-697T
A-LPFK-*	Lighted programmable function keyboard. Includes power supply, power signal cable, and country specific power cord.	Domain/PHIGS application software
LFZ20 AAB AAC AAD	SR9.7.1 Product Support Kit. Required to support the Multifunction Peripheral Controller and 70 Hz monitor. Also required for -F graphics and FPA. 5-1/4" Floppy Mag tape Cartridge tape	Series 3500
LFZ30 BAB BAC BAD	SR10.1 Product Support Kit. Required to support the Multifunction Peripheral Controller. Also supports for 697-MB single and multiple disk expansion modules and the SCSI 1/2" tape drive. 5-1/4" Floppy Mag tape Cartridge tape	Series 3500

* Country Code must be specified. See Page D-2 for selection.

** Requires Product Support Kit LFZ20 with SR9.7.1

+ Selection of media required (C = mag tape, or D = cartridge tape).

† Requires SR10.1 with PSK LFZ30.

SR10.1 requires Product Support Kit LFZ30, SR9.7.1 requires PSK LFZ20.

‡ OmniBack corporate license (LB43AB00) must be purchased separately.

Series 3500 Monochrome Workstation, continued

System Unit Power Requirements

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac ¹	5.0 A	325 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac ¹	2.5 A	325 W	50 to 60 Hz (± 1 Hz)

Heat Output

1110 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.0	6.6
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
110 to 120	NEMA Type 5-15P	NEMA Type 5-15R
220 to 240	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

Connector Type A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0
<i>Rear</i>	30.5	12.0
<i>Sides</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	21.4	47.0
<i>Shipping Weight</i>	25.0	55.0

Switch selectable. All systems are shipped at 110 V ac. To run your system at 220 V ac, you must change the voltage select switch setting.

Series 3500 Monochrome Workstation, continued

15" Monitor Power Requirements (Switch Selectable at Rear Panel)

100 to 120 V ac	0.50 A	55 W	50 to 60 Hz (± 3 Hz)
220 to 240 V ac	0.25 A	55 W	50 to 60 Hz (± 3 Hz)

Heat Output

188 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Meters</i>	<i>Feet</i>
2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Meters</i>	<i>Feet</i>
2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	35.5	14.0
<i>Width</i>	36.0	14.2
<i>Depth</i>	37.5	14.75

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	12.0	26.5
<i>Shipping Weight</i>	14.75	32.5

Series 3500 Monochrome Workstation, continued

19" Monitor Power Requirements (Switch Selectable at Rear Panel)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac	1.0 A	85 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac	0.5 A	85 W	50 to 60 Hz (± 1 Hz)

Heat Output

478 Btu/hr

Operating Environment

Temperature 15° C to 32° C (60° F to 90° F)
Relative Humidity 20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
All Locales	2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Meters</i>	<i>Feet</i>
2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	46.6	18.3
<i>Width</i>	46.2	18.2
<i>Depth</i>	39.1	15.4

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	22.5	49.5
<i>Shipping Weight</i>	26.0	57.8

Series 3500 Color Workstation

Description

The Domain Series 3500 is a UNIX-based desktop workstation, offering 5 MIPS performance, high-resolution integrated graphics with an MC68030 CPU and the industry-standard IBM PC AT compatible peripheral interface.

CPU: MC68030, clocked at 25 MHz.

Bus Types: 32-bit memory and Direct I/O buses.

RAM: 4-MB or 8-MB parity, expandable to 32-MB.

Built-in Interfaces: 3 RS-232 ports and color graphics.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Floating Point Processor: MC68882 clocked at 25 MHz, is standard.

Monitor: 15-inch, 4 or 8 plane, 1024 by 800, or 19-inch, 4 or 8 plane, 1280 by 1024, Color Monitor.

Operating System: Includes all environments: System V, BSD, and Aegis.

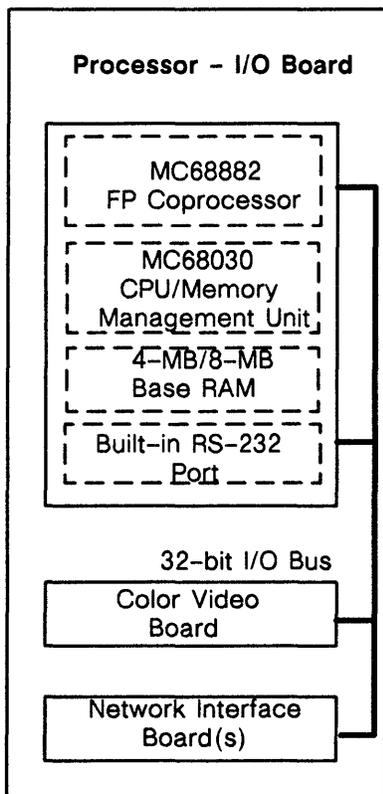


Figure D-15. Series 3500 Functions

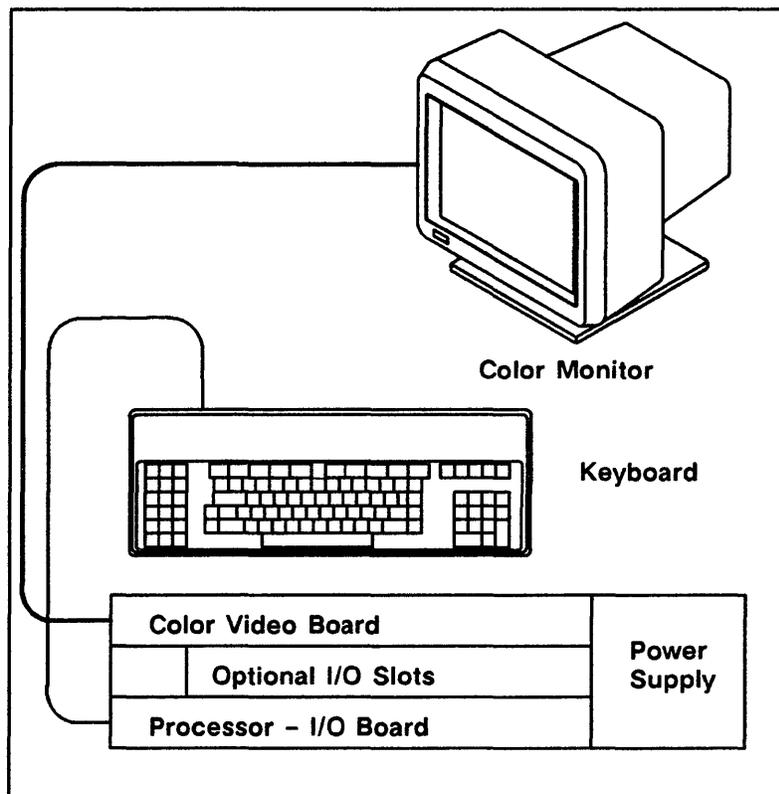


Figure D-16. Series 3500 Usage & Interconnections

Series 3500 Color
Workstation, continued
Product Summary

Product/ Opt. No	Description
DN3500	<p>DN3500 Color Workstation, consisting of:</p> <p>A. Processor – I/O board with:</p> <ol style="list-style-type: none"> 1. 32-bit MC68030 25 MHz CPU with MC68882 25 MHz Floating Point Processor. 2. 7 slot IBM PC AT/XT compatible bus (6 AT, 1 XT). 4. RS232 serial interface (3 asynchronous ports). 5. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DN3CK-*). Includes keyboard, keyboard cable and country-specific power cord. (DN3CK*-1) Includes multinational keyboard, keyboard cable, mouse and country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Series 3500 Options

DN3CK-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DN3CK*-1.
Opt. DA0	1280 by 1024, 8-plane, Desktop Visualization color graphics controller. (Requires SR10.2)
Opt. DC0	1024 by 800, 4-plane, color graphics controller.
Opt. DE0	1024 by 800, 8-plane, color graphics controller.
Opt. DF0	1280 by 1024, 8-plane, accelerated color graphics controller.
Opt. E01	Diskless.
Opt. E4D	155-MB Winchester disk.
Opt. E4F	155-MB Winchester disk and 1.2-MB floppy disk.
Opt. E4C	155-MB Winchester disk and 60-MB cartridge tape.
Opt. E6D	348-MB Winchester disk.
Opt. E6F	348-MB Winchester disk and 1.2-MB floppy disk.
Opt. E6C	348-MB Winchester disk and 60-MB cartridge tape.

Series 3500 Color
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description
Series 3500 Options, continued	
Opt. E8D	697-MB Winchester disk.
Opt. E8F	697-MB Winchester disk and 1.2-MB floppy disk.
Opt. E8C	697-MB Winchester disk and 60-MB cartridge tape
Opt. FC1	15" color graphics display, swivel and tilt. (Requires option DC0 or DE0)
Opt. FC2	19" color medium resolution graphics display, swivel and tilt. (Requires option DC0 or DE0)
Opt. FC3	19" color high resolution 68-Hz graphics display, swivel and tilt. (Requires option DF0)
Opt. FC4	19" color high resolution 70-Hz graphics display, swivel and tilt. (Requires option DA0)
Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H01	4-MB main memory.
Opt. H02	8-MB main memory.
Opt. H03	12-MB main memory. (Available with option DC0 or DE0 only)
Opt. H04	16-MB main memory. (Available with option DC0 or DE0 only)
Opt. K01	Special credit - 4-MB memory with DC0 or DE0
Opt. K02	Special credit - 8-MB memory with DC0 or DE0
Opt. K03	Special credit - 12-MB memory with DC0 or DE0
Opt. K04	Special credit - 16-MB memory with DC0 or DE0
Opt. K05	Special credit - 155-MB disk with DC0 or DE0
Opt. K06	Special credit - 348-MB disk with DC0 or DE0
Opt. K07	Special credit - 697-MB disk with DC0 or DE0

Series 3500 Color
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 3500 Add-on Options		
A-DN3CK-*	Keyboard, keyboard cable, mouse and country, specific power cord.	N/A
A-ADD-4MB-A	4-MB Add-on memory board.	DN3500
A-ADD-8MB-A	8-MB Add-on memory board.	DN3500
A-ADD-SWFC #	SCSI/Winchester/floppy multi-function peripheral controller.	DN3500 with rev 9 (or greater) CPU
A-ADD-155M	155-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC (not required if system has A-ADD-WFC)
A-ADD-348FA	348-MB fast actuator Winchester disk drive, formatted capacity.	A-ADD-SWFC (not required if system has A-ADD-WFC)
A-ADD-FLP	1.2-MB 5.25" floppy disk drive.	A-ADD-SWFC (not required if system has A-ADD-WFC)
ADD-TC	60-MB Cartridge tape drive and controller.	DN3500
A-ADD-STC	SCSI Cartridge tape drive.	A-ADD-SWFC
A-ADD-FPA **	Floating-point accelerator board.	DN3500
A-697FA	697-MB fast actuator Winchester disk drive, formatted capacity.	A-ADD-SWFC
A-348E-*	348-MB Disk Expansion Module.	DN3500 with internal 348-MB disk
A-697E-* #	External 697-MB Disk Expansion Module.	DN3500 with internal 697-MB disk
A-ETC-*	External SCSI Cartridge Tape Expansion Module.	A--SFWC and 155-, 348, or 697-MB disk
A-697S-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk.	DN3500 with internal 697-MB disk
A-697SC-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk and 1 Cartridge Tape	DN3500 with internal 697-MB disk

Series 3500 Color
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 3500 Add-on Options, continued		
A-697D-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks.	DN3500 with internal 697-MB disk
A-697DC-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks and 1 Cartridge Tape.	DN3500 with internal 697-MB disk
A-697T-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks.	DN3500 with internal 697-MB disk
A-697TC-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks and 1 Cartridge Tape.	DN3500 with internal 697-MB disk
A-6250-*	1600/625 bpi 1/2" tape drive.	DN3500 with A-ADD-SWFC and 155-, 348, or 697-MB disk
A-XT-* †	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Only one 8mm drive per MDEM.	MDEM with 1, 2, or 3 697-MB disk and OmniBack network backup system
A-EX-* †	8mm drive in a single Disk Expansion Module.	DN3500 and OmniBack network backup system
A-697SX-* †	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk.	DN3500 with a 697-MB disk and OmniBack network backup system
A-697DX-* †	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks.	DN3500 with a 697-MB disk and OmniBack network backup system
A-697TX-* †	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks.	DN3500 with a 697-MB disk and OmniBack network backup system
A-OBXT-* + † ‡	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Includes LA430.	MDEM with 1, 2, or 3 697-MB disk
A-OBEX-* + † ‡	8mm drive in a single Disk Expansion Module. Includes LA430.	DN3500

Series 3500 Color
Workstation, continued
Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 3500 Add-on Options, continued		
A-OBSX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk. Includes LA430.	DN3500 with internal 697-MB disk
A-OBDX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks. Includes LA430.	DN3500 with internal 697-MB disk
A-OBTX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks. Includes LA430.	DN3500 with internal 697-MB disk
A-697FAA	Add-on 697-MB disk for A-697S, A-697SC, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697SC, or A-697D, or A-697DC
A-ADD-STCA	Add-on SCSI Cartridge Tape for A-697S, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697D, or A-697T
A-LPFK-*	Lighted programmable function keyboard. Includes power supply, power signal cable, and country specific power cord.	Domain/PHIGS application software
LFZ20 AAB AAC AAD	SR9.7.1 Product Support Kit. Required to support the Multifunction Peripheral Controller and 70 Hz monitor. Also required for -F graphics and FPA. 5-1/4" Floppy Mag tape Cartridge tape	Series 3500
LFZ30 BAB BAC BAD	SR10.1 Product Support Kit. Required to support the Multifunction Peripheral Controller. Also supports for 697-MB single and multiple disk expansion modules and the SCSI 1/2" tape drive. 5-1/4" Floppy Mag tape Cartridge tape	Series 3500

* Country Code must be specified. See Page D-2 for selection.

** Requires Product Support Kit LFZ20 with SR9.7.1

+ Selection of media required (C = mag tape, or D = cartridge tape).

† Requires SR10.1 with PSK LFZ30.

SR10.1 requires Product Support Kit LFZ30, SR9.7.1 requires PSK LFZ20.

‡ OmniBack corporate license (LB43AB00) must be purchased separately.

Series 3500 Color Workstation, continued

System Unit Power Requirements

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac ¹	5.4 A	350 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac ¹	2.7 A	350 W	50 to 60 Hz (± 1 Hz)

Heat Output

1200 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.0	6.6
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
110 to 120	NEMA Type 5-15P	NEMA Type 5-15R
220 to 240	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

<i>Connector Type</i>	A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)
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Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0
<i>Rear</i>	30.5	12.0
<i>Sides</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	21.4	47.0
<i>Shipping Weight</i>	25.0	55.0

¹ Switch selectable. All systems are shipped at 110 V ac. To run your system at 220 V ac, you must change the voltage select switch setting.

Series 3500 Color Workstation, continued

15" Monitor Power Requirements (Switch Selectable at Rear Panel)

100 to 120 V ac	1.8 A	140 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac	0.9 A	140 W	50 to 60 Hz (± 1 Hz)

Heat Output

478 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
All Locales	2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Type</i>	<i>Meters</i>	<i>Feet</i>
RGB coaxial cable	2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	40.6	16.0
<i>Width</i>	39.3	15.5
<i>Depth</i>	42.7	16.8

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	23.6	52.0
<i>Shipping Weight</i>	27.3	60.0

Series 3500 Color Workstation, continued

19" Monitor Power Requirements (Switch Selectable at Rear Panel)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac	1.8 A	140 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac	0.9 A	140 W	50 to 60 Hz (± 1 Hz)

Heat Output

478 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
All Locales	2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Type</i>	<i>Meters</i>	<i>Feet</i>
RGB coaxial cable	2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	40.6	16.0
<i>Width</i>	39.3	15.5
<i>Depth</i>	42.7	16.8

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	29.5	65.0
<i>Shipping Weight</i>	38.6	85.0

Series 3500 Server

Description

The Domain Series 3500 is a UNIX-based server, offering 5 MIPS performance, high-resolution integrated graphics with an MC68030 CPU and the industry-standard IBM PC AT compatible peripheral interface.

CPU: MC68030, clocked at 25 MHz.

Bus Types: 32-bit memory and Direct I/O buses.

RAM: 4-MB or 8-MB parity, expandable to 32-MB.

Built-in Interfaces: 3 RS-232C ports.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Floating Point Processor: MC68882 clocked at 25 MHz, is standard.

Operating System: Includes all environments: System V, BSD, and Aegis.

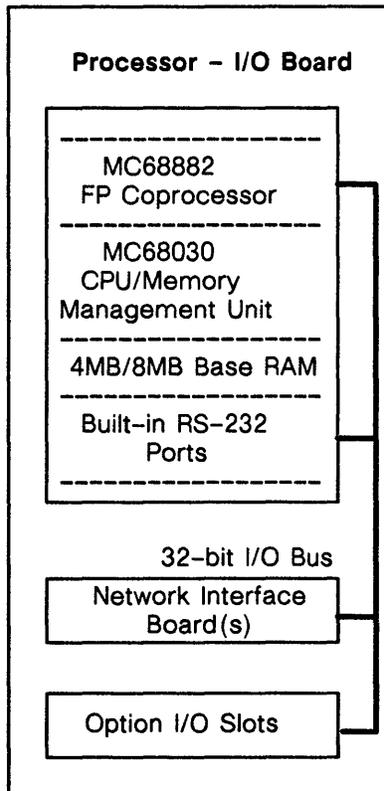


Figure D-17. Series 3500 Functions

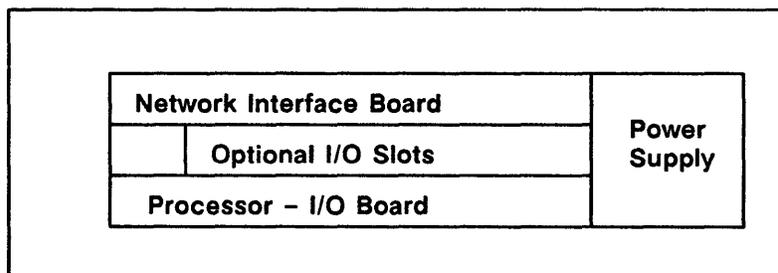


Figure D-18. Series 3500 Usage & Interconnections

Product Summary

Product/ Opt. No	Description
DSP3500	<p>DSP3500 Server, consisting of:</p> <p>A. Processor – I/O board with:</p> <ol style="list-style-type: none"> 1. 32-bit MC68030 25 MHz CPU with MC68882 25 MHz Floating Point Processor. 2. 7 slot IBM PC AT/XT compatible bus (6 AT, 1 XT). 3. RS232 serial interface (3 asynchronous ports). 4. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DSPCK-*). Includes country-specific power cord. (DSPCK-*-1) Includes country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Series 3500 Options

DSPCK-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DSPCK-*-1.
Opt. E4C	155-MB Winchester disk and 60-MB cartridge tape.
Opt. E6C	348-MB Winchester disk and 60-MB cartridge tape.
Opt. E8C	697-MB Winchester disk and 60-MB cartridge tape.
Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H01	4-MB main memory.
Opt. H02	8-MB main memory.

Series 3500
Server, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 3500 Add-on Options		
A-DN3CK-*	Keyboard, keyboard cable, mouse and country, specific power cord.	N/A
A-ADD-4MB-A	4-MB Add-on memory board.	DSP3500
A-ADD-8MB-A	8-MB Add-on memory board.	DSP3500
A-ADD-SWFC #	SCSI/Winchester/floppy multi-function controller.	DSP3500 with rev 9 (or greater) CPU
A-ADD-155M	155-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC (not required if system has A-ADD-WFC)
A-ADD-348FA	348-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC (not required if system has A-ADD-WFC)
A-ADD-FLP	1.2-MB 5.25" floppy disk drive.	A-ADD-SWFC (not required if system has A-ADD-WFC)
ADD-TC	60-MB Cartridge tape drive and controller.	DSP3500
A-ADD-STC	SCSI Cartridge tape drive.	A-ADD-SWFC
A-ADD-FPA **	Floating-point accelerator board.	DSP3500
A-697FA	697-MB fast actuator Winchester disk drive, formatted capacity.	A-ADD-SWFC
A-348E-*	348-MB Disk Expansion Module.	DSP3500 with internal 348-MB disk
A-697E-* #	External 697-MB Disk Expansion Module.	DSP3500 with internal 697-MB disk
A-ETC-*	External SCSI Cartridge Tape Expansion Module.	A-ADD-SFWC and 155-, 348, or 697-MB disk
A-697S-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk.	DSP3500 with internal 697-MB disk
A-697SC-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk and 1 Cartridge Tape	DSP3500 with internal 697-MB disk

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 3500 Add-on Options, continued		
A-697D-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks.	DSP3500 with internal 697-MB disk
A-697DC-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks and 1 Cartridge Tape.	DSP3500 with internal 697-MB disk
A-697T-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks.	DSP3500 with internal 697-MB disk
A-697TC-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks and 1 Cartridge Tape.	DSP3500 with internal 697-MB disk
A-6250-*	1600/625 bpi 1/2" tape drive.	DSP3500 with A-ADD-SWFC and 155-, 348, or 697-MB disk
A-XT-* †	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Only one 8mm drive per MDEM.	MDEM with 1, 2, or 3 697-MB disk and OmniBack network backup system
A-EX-* †	8mm drive in a single Disk Expansion Module.	DSP3500 and OmniBack network backup system
A-697SX-* †	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk.	DSP3500 with a 697-MB disk and OmniBack network backup system
A-697DX-* †	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks.	DSP3500 with a 697-MB disk and OmniBack network backup system
A-697TX-* †	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks.	DSP3500 with a 697-MB disk and OmniBack network backup system
A-OBXT-* + † ‡	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Includes LA430.	MDEM with 1, 2, or 3 697-MB disk

Series 3500
Server, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 3500 Add-on Options, continued		
A-OBEX-* + † ‡	8mm drive in a single Disk Expansion Module. Includes LA430.	DSP3500
A-OBSX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk. Includes LA430.	DSP3500 with internal 697-MB disk
A-OBDX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks. Includes LA430.	DSP3500 with internal 697-MB disk
A-OBTX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks. Includes LA430.	DSP3500 with internal 697-MB disk
A-697FAA	Add-on 697-MB disk for A-697S, A-697SC, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S, or A-697SC, or A-697D, or A-697DC
A-ADD-STCA	Add-on SCSI Cartridge Tape for A-697S, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S, or A-697D, or A-697T
LFZ20 AAB AAC AAD	SR9.7.1 Product Support Kit. Required to support the Multifunction Peripheral Controller and 70 Hz monitor. Also required for -F graphics and FPA. 5-1/4" Floppy Mag tape Cartridge tape	Series 3500
LFZ30 BAB BAC BAD	SR10.1 Product Support Kit. Required to support the Multifunction Peripheral Controller. Also supports for 697-MB single and multiple disk expansion modules and the SCSI 1/2" tape drive. 5-1/4" Floppy Mag tape Cartridge tape	Series 3500

* Country Code must be specified. See Page D-2 for selection.

** Requires Product Support Kit LFZ20 with SR9.7.1

+ Selection of media required (C = mag tape, or D = cartridge tape).

† Requires SR10.1 with PSK LFZ30.

SR10.1 requires Product Support Kit LFZ30, SR9.7.1 requires PSK LFZ20.

‡ OmniBack corporate license (LB43AB00) must be purchased separately.

Series 3500 Server, continued

System Unit Power Requirements

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac ¹	5.0 A	325 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac ¹	2.5 A	325 W	50 to 60 Hz (± 1 Hz)

Heat Output

1110 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.0	6.6
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles ²

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
110 to 120	NEMA Type 5–15P	NEMA Type 5–15R
220 to 240	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

Connector Type A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0
<i>Rear</i>	30.5	12.0
<i>Sides</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	21.4	47.0
<i>Shipping Weight</i>	25.0	55.0

¹ Switch selectable. All systems are shipped at 110 V ac. To run your system at 220 V ac, you must change the voltage select switch setting.

² All outlets must be grounded.

Model 3540 Color Workstation

Description

The Domain Series 3500 Model 3540 is a rack-mountable, UNIX-based workstation, offering 5 MIPS performance, high-resolution integrated graphics with an MC68030 CPU and the industry-standard IBM PC AT compatible peripheral interface. The Model 3540 is designed for factory floor users and withstands harsh environmental conditions such as temperature variances, electromagnetic interference, and voltage surges.

CPU: MC68030, clocked at 25 MHz.

Bus Types: 32-bit memory and Direct I/O buses.

RAM: 4-MB or 8-MB parity, expandable to 32-MB.

Built-in Interfaces: 3 RS-232 ports and color graphics.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Floating Point Processor: MC68882 clocked at 25 MHz, is standard.

Monitor: 15-inch, 4-plane or 8-plane, 1024 by 800 Color Monitor.

Operating System: Includes all environments: System V, BSD, and Aegis.

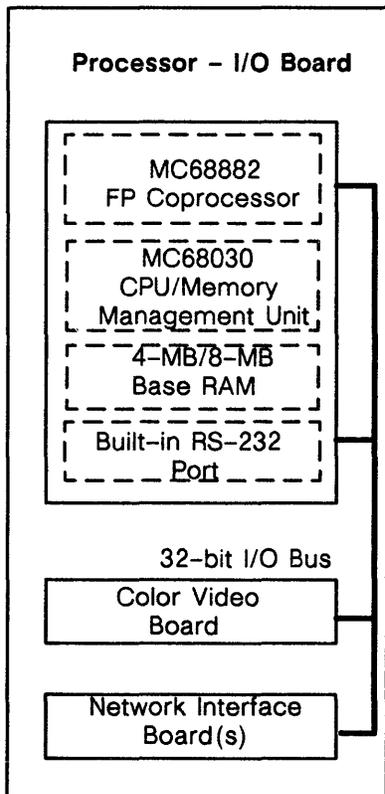


Figure D-19. Model 3540 Functions

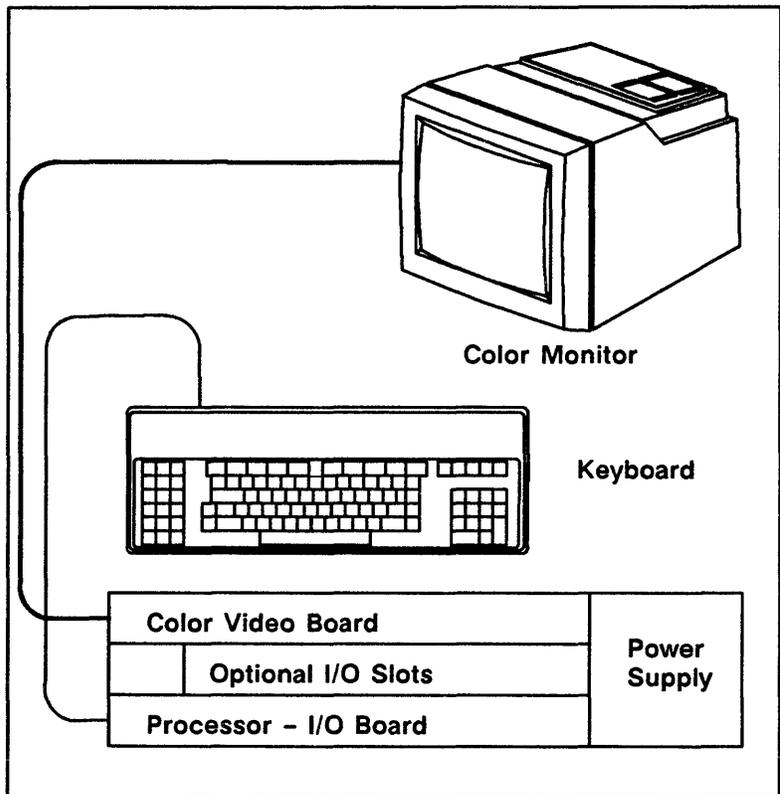


Figure D-20. Model 3540 Usage & Interconnections

Model 3540 Color
Workstation, continued

Product Summary

Product/ Opt. No	Description
DN3540	<p>DN3540 Color Workstation, consisting of:</p> <p>A. Processor – I/O board with:</p> <ol style="list-style-type: none"> 1. 32-bit MC68030 25 MHz CPU with MC68882 25 MHz Floating Point Processor. 2. 7 slot IBM PC AT/XT compatible bus (6 AT, 1 XT). 3. RS232 serial interface (3 asynchronus ports). 4. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DN3CKR-*). Includes keyboard, keyboard cable and country-specific power cord. (DN3CKR*-1) Includes multinational keyboard, keyboard cable, mouse and country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Model 3540 Options

DN3CKR-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DN3CKR*-1.
Opt. DC0	1024 by 800 bit, 4-plane, color graphics controller.
Opt. DE0	1024 by 800 bit, 8-plane, color graphics controller.
Opt. E01	Diskless.
Opt. E4D	155-MB Winchester disk.
Opt. E4F	155-MB Winchester disk and 1.2-MB floppy disk.
Opt. E4C	155-MB Winchester disk and 60-MB cartridge tape.
Opt. E6D	348-MB Winchester disk.
Opt. E6F	348-MB Winchester disk and 1.2-MB floppy disk.
Opt. E6C	348-MB Winchester disk and 60-MB cartridge tape.

Model 3540 Color
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description
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Model 3540 Options, continued

Opt. E8D	697-MB Winchester disk.
Opt. E8F	697-MB Winchester disk and 1.2-MB floppy disk.
Opt. E8C	697-MB Winchester disk and 60-MB cartridge tape.
Opt. FC1	15" color graphics display, swivel and tilt.
Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H01	4-MB main memory.
Opt. H02	8-MB main memory.

Model 3540 Add-on Options

Prerequisites

Model 3540 Add-on Options	Prerequisites
A-ADD-4MB-A	4-MB Add-on memory board. DN3540
A-ADD-8MB-A	8-MB Add-on memory board. DN3540
A-ADD-FPA	Floating-point accelerator board. DN3540
A-ADD-SWFCR#	SCSI/Winchester/floppy multi-function controller. DN3540 with rev 9 (or greater) CPU
A-ADD-FLPR	1.2-MB 5.25" floppy disk drive. A-WFCR-D or A-ADD-SWFCR
A-ADD-TCR	60-MB Cartridge tape drive and controller. DN3540
A-DN3CKR*	Keyboard, keyboard cable, mouse and country, specific power cord. N/A
A-DN3RM	Rack mount kit for system unit, graphic display, and keyboard. DN3540
A-ADD-155MR	155-MB Winchester disk drive, formatted capacity. A-WFCR-D
A-348FAR	348-MB Winchester disk drive, formatted capacity. A-WFCR-D
A-697FAR	697-MB fast actuator Winchester disk drive, formatted capacity. A-SWFCR
A-ADD-STCR	SCSI Cartridge tape drive. DN3540 with 697-MB disk
A-697SR-* †	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk. DN3540 with internal 697-MB disk

Model 3540 Color
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Model 3540 Add-on Options, continued		
A-697SCR-* †	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk and 1 Cartridge Tape	DN3540 with internal 697-MB disk
A-697DR-* †	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks.	DN3540 with internal 697-MB disk
A-697DCR-* †	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks and 1 Cartridge Tape.	DN3540 with internal 697-MB disk
A-697TR-* †	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks.	DN3540 with internal 697-MB disk
A-697TCR-* †	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks and 1 Cartridge Tape.	DN3540 with internal 697-MB disk
A-6250-* †	1600/625 bpi 1/2" tape drive.	DN3540 with internal 697-MB disk
A-XTR-* †	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Only one 8mm drive per MDEM.	MDEM with 1, 2, or 3 697-MB disk and OmniBack network backup system
A-EXR-* †	8mm drive in a single Disk Expansion Module.	DN3540 with 697-MB disk and OmniBack network backup system
A-WFCR-D	Winchester/Floppy controller which supports 155-MB and 348-MB disks	DN3540
A-697FAA	Add-on 697-MB disk for A-697S, A-697SC, A-697D or A-697T Disk Expansion Modules.	A-SWFC plus A-697S or A-697SC, or A-697D, or A-697DC
A-ADD-STCA	Add-on SCSI Cartridge Tape for A-697S, A-697D or A-697T Disk Expansion Modules.	A-SWFC plus A-697S or A-697D, or A-697T
A-697SXR-* †	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk.	DN3540 with a 697-MB disk and OmniBack network backup system

Model 3540 Color
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Model 3540 Add-on Options, continued		
A-697DXR-* †	8mm drive in a Multiple Disk Expansion Module (MDEM) with 2 697-MB disks.	DN3540 with a 697-MB disk and OmniBack network backup system
A-697TXR-* †	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks.	DN3540 with a 697-MB disk and OmniBack network backup system
A-OBXTR* + ‡	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Includes LA430.	MDEM with 1, 2, or 3 697-MB disk
A-OBEXR* + ‡	8mm drive in a single Disk Expansion Module. Includes LA430.	DN3540 with internal 697-MB disk
A-OBSXR* + ‡	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk. Includes LA430.	DN3540 with internal 697-MB disk
A-OBDXR* + ‡	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks. Includes LA430.	DN3540 with internal 697-MB disk
A-OBTXR* + ‡	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks. Includes LA430.	DN3540 with internal 697-MB disk
LFZ20 AAB AAC AAD	SR9.7.1 Product Support Kit. Required to support the Multifunction Peripheral Controller and 70 Hz monitor. Also required for -F graphics and FPA. 5-1/4" Floppy Mag tape Cartridge tape	Series 3500
LFZ30 BAB BAC BAD	SR10.1 Product Support Kit. Required to support the Multifunction Peripheral Controller. Also supports for 697-MB single and multiple disk expansion modules and the SCSI 1/2" tape drive. 5-1/4" Floppy Mag tape Cartridge tape	Series 3500

- * Country Code must be specified. See Page D-2 for selection.
- + Media type must be selected (C = mag tape, or D = cartridge tape).
- † SR10.1 requires Product Support Kit LFZ30 BAB, BAC, or BAD.
- # SR10.1 requires Product Support Kit LFZ30, SR9.7.1 requires PSK LFZ20.
- ‡ OmniBack corporate license (LB43AB00) must be purchased separately.

Model 3540 Color Workstation, continued

System Unit Power Requirements (switch selectable)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac	5.0 A	300 W	47 to 63 Hz
220 to 240 V ac	2.5 A	300 W	47 to 63 Hz

Heat Output

1025 Btu/hr

Operating Environment

Temperature 5° C to 50° C (41° F to 122° F) Derate for altitude
Relative Humidity 10% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.0	6.6
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
100 to 120	NEMA Type 5-15P	NEMA Type 5-15R
220 to 240	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

Connector Type A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0
<i>Rear</i>	30.5	12.0
<i>Sides</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	34	75
<i>Shipping Weight</i>	38	83

Rack Standard

The rack must meet the EIA Standard RS-310-B (December 1972) for a 19-inch panel width and a side panel depth of 30-inches or more. Rack height and additional depth are optional. The rack should have stabilizing feet.

Model 3540 Color Workstation, continued

15" Monitor Power Requirements (Switch Selectable at Rear Panel)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>	
90 63 Hz	to 132 V ac	1.9 A @ 100 V ac	120 watts	47 to
187 63 Hz	to 264 V ac	0.9 A @ 220 V ac	120 watts	47 to

Heat Output

410 Btu/hr

Operating Environment

Temperature 5° C to 50° C (41° F to 122° F) (Derate for altitude)
Relative Humidity 20% to 80% (noncondensing)

Power Cord Length

<i>Processor</i>	<i>Location</i>	<i>Meters</i>	<i>Feet</i>
DN3040	All Locales	2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Processor</i>	<i>Type</i>	<i>Meters</i>	<i>Feet</i>
DN3040	RGB coaxial cable	2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	40.6	16.0
<i>Width</i>	39.3	15.5
<i>Depth</i>	42.7	16.8

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	23.6	52.0
<i>Shipping Weight</i>	27.3	60.0

Model 3540 Server

Description

The Domain Series 3500 Model 3540 is a rack-mountable, UNIX-based server, offering 5 MIPS performance, high-resolution integrated graphics with an MC68030 CPU and the industry-standard IBM PC AT compatible peripheral interface. The Model 3540 is designed for factory floor users and withstands harsh environmental conditions such as temperature variances, electromagnetic interference, and voltage surges.

CPU: MC68030, clocked at 25 MHz.

Bus Types: 32-bit memory and Direct I/O buses.

RAM: 4-MB or 8-MB parity, expandable to 32-MB.

Built-in Interfaces: 3 RS-232 ports.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Floating Point Processor: MC68882 clocked at 25 MHz, is standard.

Operating System: Includes all environments: System V, BSD, and Aegis.

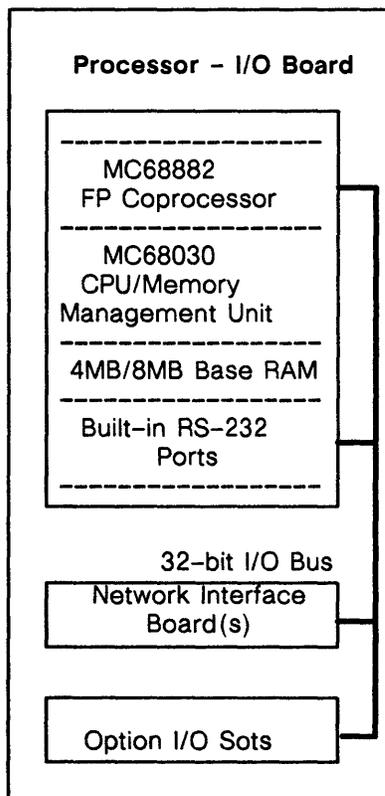


Figure D-21. Model 3540 Functions

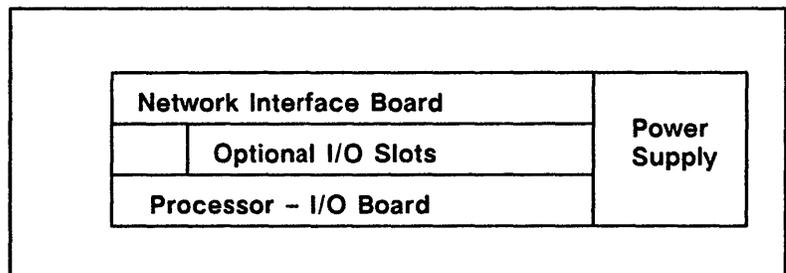


Figure D-22. Model 3540 Usage & Interconnections

Model 3540
Server, continued

Product Summary

Product/ Opt. No	Description
DSP3540	<p>DSP3540 Server, consisting of:</p> <p>A. Processor – I/O board with:</p> <ol style="list-style-type: none"> 1. 32-bit MC68030 25 MHz CPU with MC68882 25 MHz Floating Point Processor. 2. 7 slot IBM PC AT/XT compatible bus (6 AT, 1 XT). 3. RS232 serial interface (3 asynchronus ports). 4. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DSPCK-*). Includes country-specific power cord. (DSP3CK-*-1) Includes country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Model 3540 Options

DSPCK-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DSPCK-*-1.
Opt. E4C	155-MB Winchester disk and 60-MB cartridge tape.
Opt. E6C	348-MB Winchester disk and 60-MB cartridge tape.
Opt. E8C	697-MB Winchester disk and 60-MB cartridge tape.
Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H01	4-MB main memory.
Opt. H02	8-MB main memory.

Product Summary continued

Product/ Opt. No.	Description	
Model 3540 Add-on Options		
		Prerequisites
A-ADD-4MB-A	4-MB Add-on memory board.	DSP3540
A-ADD-8MB-A	8-MB Add-on memory board.	DSP3540
A-ADD-FPA	Floating-point accelerator board.	DSP3540
A-ADD-SWFCR#	SCSI/Winchester/floppy multi-function controller.	DSP3540 with rev 9 (or greater) CPU
A-ADD-FLPR	1.2-MB 5.25" floppy disk drive.	A-WFCR-D or A-ADD-SWFCR
A-ADD-TCR	60-MB Cartridge tape drive and controller.	DSP3540
A-DN3CKR*	Keyboard, keyboard cable, mouse and country, specific power cord.	N/A
A-DN3RM	Rack mount kit for system unit, graphic display, and keyboard.	DSP3540
A-ADD-155MR	155-MB Winchester disk drive, formatted capacity.	A-WFCR-D
A-348FAR	348-MB Winchester disk drive, formatted capacity.	A-WFCR-D
A-697FAR	697-MB fast actuator Winchester disk drive, formatted capacity.	A-ADD-SWFCR
A-ADD-STCR	SCSI Cartridge tape drive.	DSP3540 with 697-MB disk
A-697SR-* †	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk.	DSP3540 with internal 697-MB disk
A-697SCR-* †	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk and 1 Cartridge Tape	DSP3540 with internal 697-MB disk
A-697DR-* †	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks.	DSP3540 with internal 697-MB disk
A-697DCR-* †	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks and 1 Cartridge Tape.	DSP3540 with internal 697-MB disk
A-697TR-* †	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks.	DSP3540 with internal 697-MB disk

Model 3540
Server, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Model 3540 Add-on Options, continued		
A-697TCR-* †	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks and 1 Cartridge Tape.	DSP3540 with internal 697-MB disk
A-6250-* †	1600/625 bpi 1/2" tape drive.	DSP3540 with internal 697-MB disk
A-XTR-* †	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Only one 8mm drive per MDEM.	MDEM with 1, 2, or 3 697-MB disk and OmniBack network backup system
A-697SXR-* †	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk.	DSP3540 with a 697-MB disk and OmniBack network backup system
A-WFCR-D	Winchester/Floppy controller which supports 155-MB and 348-MB disks	DSP3540
A-697FAA	Add-on 697-MB disk for A-697S, A-697SC, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697SC or A-697D, or A-697DC
A-ADD-STCA	Add-on SCSI Cartridge Tape for A-697S, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697D, or A-697T
A-697DXR-* †	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks.	DSP3540 with a 697-MB disk and OmniBack network backup system
A-697TXR-* †	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks.	DSP3540 with a 697-MB disk and OmniBack network backup system
A-OBXTR* + ‡	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Includes LA430.	MDEM with 1, 2, or 3 697-MB disk

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Model 3540 Add-on Options, continued		
A-OBSXR* + ‡	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk. Includes LA430.	DSP3540 with internal 697-MB disk
A-OBDXR* + ‡	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks. Includes LA430.	DSP3540 with internal 697-MB disk
A-OBTXR* + ‡	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks. Includes LA430.	DSP3540 with internal 697-MB disk
LFZ20 AAB AAC AAD	SR9.7.1 Product Support Kit. Required to support the Multifunction Peripheral Controller and 70 Hz monitor. Also required for -F graphics and FPA. 5-1/4" Floppy Mag tape Cartridge tape	Series 3500
LFZ30 BAB BAC BAD	SR10.1 Product Support Kit. Required to support the Multifunction Peripheral Controller. Also supports for 697-MB single and multiple disk expansion modules and the SCSI 1/2" tape drive. 5-1/4" Floppy Mag tape Cartridge tape	Series 3500

* Country Code must be specified. See D-2 for selection.

+ Media type must be selected (C = mag tape, or D = cartridge tape).

† SR10.1 requires Product Support Kit LFZ30 BAB, BAC, or BAD.

SR10.1 requires Product Support Kit LFZ30, SR9.7.1 requires PSK LFZ20.

‡ OmniBack corporate license (LB43AB00) must be purchased separately.

Model 3540 Server, continued

System Unit Power Requirements (switch selectable)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac	5.0 A	300 W	47 to 63 Hz
220 to 240 V ac	2.5 A	300 W	47 to 63 Hz

Heat Output

1025 Btu/hr

Operating Environment

Temperature 5° C to 50° C (41° F to 122° F) Derate for altitude
Relative Humidity 10% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.0	6.6
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
100 to 120	NEMA Type 5-15P	NEMA Type 5-15R
220 to 240	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

Connector Type A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0
<i>Rear</i>	30.5	12.0
<i>Sides</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	34	75
<i>Shipping Weight</i>	38	83

Rack Standard

The rack must meet the EIA Standard RS-310-B (December 1972) for a 19-inch panel width and a side panel depth of 30-inches or more. Rack height and additional depth are optional. The rack should have stabilizing feet.

Model 3550 Monochrome Workstation

Description

The Domain Series 3500 Model 3550 is a UNIX-based desktop workstation, offering 5 MIPS performance, high-resolution integrated graphics with an MC68030 CPU and the industry-standard IBM PC AT compatible peripheral interface.

The Model 3550 can be upgraded to a Series 4500 by installing a CPU board upgrade kit.

CPU: MC68030, clocked at 25 MHz.

Bus Types: 32-bit memory and Direct I/O buses.

RAM: 8-MB or 16-MB parity, expandable to 32-MB.

Built-in Interfaces: 3 RS-232C ports, and monochrome graphics.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Floating Point Processor: MC68882 clocked at 25 MHz, is standard.

Monitor: 19-inch 1280 by 1024 inch, Monochrome Monitor.

Operating System: Includes all environments: System V, BSD, and Aegis.

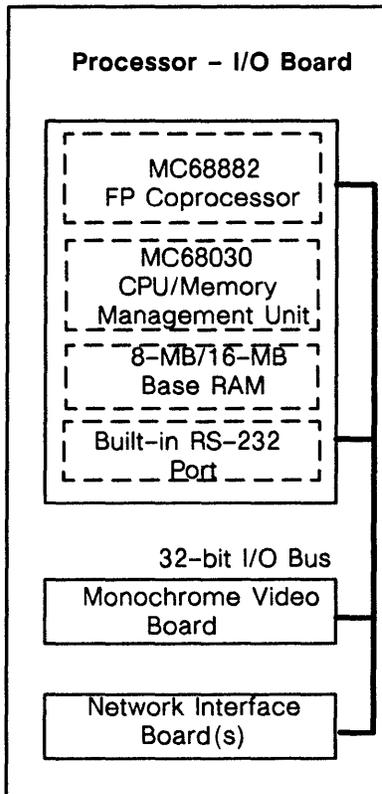


Figure D-23. Model 3550 Functions

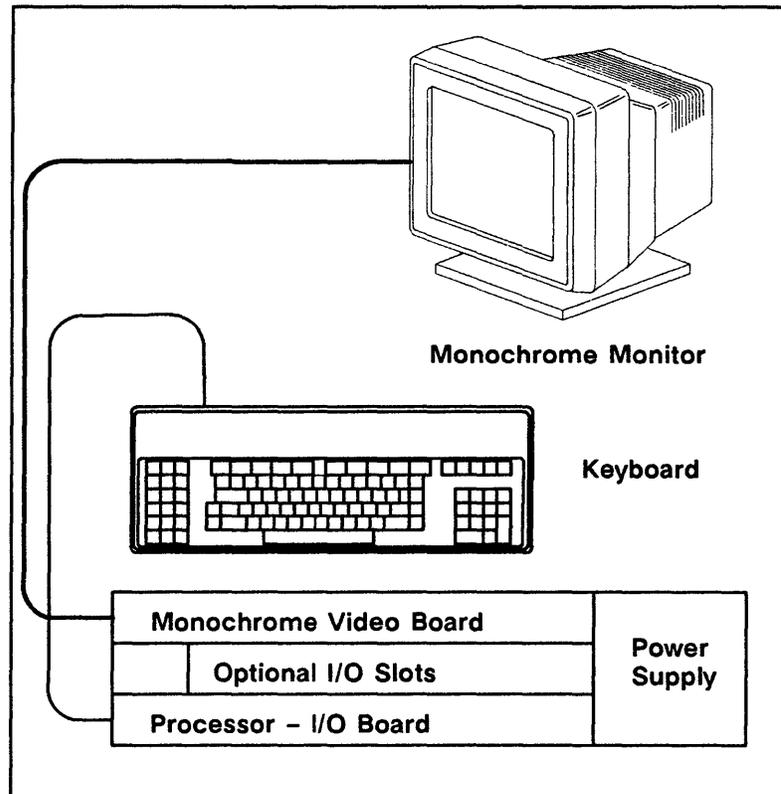


Figure D-24. Model 3550 Usage & Interconnections

Model 3550 Monochrome Workstation, continued

Product Summary

Product/ Opt. No	Description
DN3550	<p>DN3550 Monochrome Workstation, consisting of:</p> <p>A. Processor – I/O board with:</p> <ol style="list-style-type: none"> 1. 32-bit MC68030 25 MHz CPU with MC68882 25 MHz Floating Point Processor. 2. 7 slot IBM PC AT/XT compatible bus (6 AT, 1 XT). 3. RS232 serial interface (3 asynchronous ports). 4. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DN3CK-*). Includes keyboard, keyboard cable and country-specific power cord. (DN3CK-*-1) Includes multinational keyboard, keyboard cable, mouse and country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Model 3550 Options

DN3CK-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DN3CK-*-1.
Opt. DM0	1280 by 1024 monochrome graphics controller.
Opt. E01	Diskless.
Opt. E4D	155-MB Winchester disk.
Opt. E4F	155-MB Winchester disk and 1.2-MB floppy disk.
Opt. E4C	155-MB Winchester disk and 60-MB cartridge tape.
Opt. E6D	348-MB Winchester disk.
Opt. E6F	348-MB Winchester disk and 1.2-MB floppy disk.
Opt. E6C	348-MB Winchester disk and 60-MB cartridge tape.

Model 3550 Monochrome
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description
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Model 3550 Options, continued

Opt. E8D	697-MB Winchester disk.
Opt. E8F	697-MB Winchester disk and 1.2-MB floppy disk.
Opt. E8C	697-MB Winchester disk and 60-MB cartridge tape
Opt. FM2	19" monochrome graphics display, swivel and tilt.
Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H02	8-MB main memory.
Opt. H04	16-MB main memory.

Model 3550 Monochrome Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Model 3550 Add-on Options		
A-ADD-8MB-B	8-MB Add-on memory boards (2 4-MB boards).	DN3550
A-16MB-B	16-MB Add-on memory boards (2 8-MB boards).	DN3550
A-DN3CK-*	Keyboard, keyboard cable, mouse and country, specific power cord.	N/A
A-ADD-SWFC #	SCSI/Winchester/floppy multi-function controller.	DN3550 with rev 9 (or greater) CPU
A-ADD-155M	155-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC (not required if system has A-ADD-WFC)
A-ADD-348FA	348-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC (not required if system has A-ADD-WFC)
A-ADD-FLP	1.2-MB 5.25" floppy disk drive.	A-ADD-SWFC (not required if system has A-ADD-WFC)
ADD-TC	60-MB Cartridge tape drive and controller.	DN3550
A-ADD-STC	SCSI Cartridge tape drive.	A-ADD-SWFC
A-ADD-FPA **	Floating-point accelerator board.	DN3550
A-697FA	697-MB fast actuator Winchester disk drive, formatted capacity.	A-ADD-SWFC
A-348E-*	348-MB Disk Expansion Module.	DN3550 with internal 348-MB disk
A-697E-* #	External 697-MB Disk Expansion Module.	DN3550 with internal 697-MB disk
A-ETC-*	External SCSI Cartridge Tape Expansion Module.	A-ADD-SWFC and 155-, 348, or 697-MB disk
A-697S-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk.	DN3550 with internal 697-MB disk
A-697SC-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk and 1 Cartridge Tape	DN3550 with internal 697-MB disk

Model 3550 Monochrome
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Model 3550 Add-on Options, continued		
A-697D-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks.	DN3550 with internal 697-MB disk
A-697DC-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks and 1 Cartridge Tape.	DN3550 with internal 697-MB disk
A-697T-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks.	DN3550 with internal 697-MB disk
A-697TC-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks and 1 Cartridge Tape.	DN3550 with internal 697-MB disk
A-6250-*	1600/625 bpi 1/2" tape drive.	DN3550 with A-ADD-SWFC and 155-, 348, or 697-MB disk
A-XT-* †	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Only one 8mm drive per MDEM.	MDEM with 1, 2, or 3 697-MB disk and OmniBack network backup system
A-EX-* †	8mm drive in a single Disk Expansion Module.	DN3550 and OmniBack network backup system
A-697SX-* †	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk.	DN3550 with a 697-MB disk and OmniBack network backup system
A-697DX-* †	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks.	DN3550 with a 697-MB disk and OmniBack network backup system
A-697TX-* †	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks.	DN3550 with a 697-MB disk and OmniBack network backup system
A-OBXT-*+ † ‡	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Includes LA430.	MDEM with 1, 2, or 3 697-MB disk

Model 3550 Monochrome
Workstation, continued
Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Model 3550 Add-on Options, continued		
A-OBEX-* + † ‡	8mm drive in a single Disk Expansion Module. Includes LA430.	DN3550
A-OBSX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk. Includes LA430.	DN3550 with internal 697-MB disk
A-OBDX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks. Includes LA430.	DN3550 with internal 697-MB disk
A-OBTX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks. Includes LA430.	DN3550 with internal 697-MB disk
A-697FAA	Add-on 697-MB disk for A-697S, A-697SC, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697SC, or A-697D, or A-697DC
A-ADD-STCA	Add-on SCSI Cartridge Tape for A-697S, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697D, or A-697T
A-LPFK-*	Lighted programmable function keyboard. Includes power supply, power signal cable, and country specific power cord.	Domain/PHIGS application software
LFZ20 AAB AAC AAD	SR9.7.1 Product Support Kit. Required to support the Multifunction Peripheral Controller and 70 Hz monitor. Also required for -F graphics and FPA. 5-1/4" Floppy Mag tape Cartridge tape	Series 3500
LFZ30 BAB BAC BAD	SR10.1 Product Support Kit. Required to support the Multifunction Peripheral Controller. Also supports for 697-MB single and multiple disk expansion modules and the SCSI 1/2" tape drive. 5-1/4" Floppy Mag tape Cartridge tape	Series 3500

* Country Code must be specified. See Page D-2 for selection.

** Requires Product Support Kit LFZ20 with SR9.7.1

+ Selection of media required (C = mag tape, or D = cartridge tape).

† Requires SR10.1 with PSK LFZ30.

SR10.1 requires Product Support Kit LFZ30, SR9.7.1 requires PSK LFZ20.

‡ OmniBack corporate license (LB43AB00) must be purchased separately.

Model 3550 Monochrome Workstation, continued

System Unit Power Requirements

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac ¹	5.0 A	325 W	50 to 60 Hz (±1 Hz)
220 to 240 V ac ¹	2.5 A	325 W	50 to 60 Hz (±1 Hz)

Heat Output

1110 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.0	6.6
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
110 to 120	NEMA Type 5-15P	NEMA Type 5-15R
220 to 240	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

<i>Connector Type</i>	A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)
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Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0
<i>Rear</i>	30.5	12.0
<i>Sides</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	21.4	47.0
<i>Shipping Weight</i>	25.0	55.0

¹ Switch selectable. All systems are shipped at 110 V ac. To run your system at 220 V ac, you must change the voltage select switch setting.

Model 3550 Monochrome Workstation, continued

15" Monitor Power Requirements (Switch Selectable at Rear Panel)

100 to 120 V ac	0.50 A	55 W	50 to 60 Hz (± 3 Hz)
220 to 240 V ac	0.25 A	55 W	50 to 60 Hz (± 3 Hz)

Heat Output

188 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Meters</i>	<i>Feet</i>
2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Meters</i>	<i>Feet</i>
2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	35.5	14.0
<i>Width</i>	36.0	14.2
<i>Depth</i>	37.5	14.75

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	12.0	26.5
<i>Shipping Weight</i>	14.75	32.5

Model 3550 Monochrome
Workstation, continued

19" Monitor Power Requirements (Switch Selectable at Rear Panel)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac	1.0 A	85 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac	0.5 A	85 W	50 to 60 Hz (± 1 Hz)

Heat Output
478 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
All Locales	2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Meters</i>	<i>Feet</i>
2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	46.6	18.3
<i>Width</i>	46.2	18.2
<i>Depth</i>	39.1	15.4

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	22.5	49.5
<i>Shipping Weight</i>	26.0	57.8

Model 3550 Color Workstation

Description

The Domain Series 3500 Model 3550 is a UNIX-based desktop workstation, offering 5 MIPS performance, high-resolution integrated graphics with an MC68030 CPU and the industry-standard IBM PC AT compatible peripheral interface.

CPU: MC68030, clocked at 25 MHz.

Bus Types: 32-bit memory and Direct I/O buses.

RAM: 8-MB or 16-MB parity, expandable to 32-MB.

Built-in Interfaces: 3 RS-232 ports and color graphics.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Floating Point Processor: MC68882 clocked at 25 MHz, is standard.

Monitor: 15-inch, 8-plane, 1024 by 800, or 19-inch, 8- or 40-plane, 1280 by 1024, Color Monitor.

Operating System: Includes all environments: System V, BSD, and Aegis.

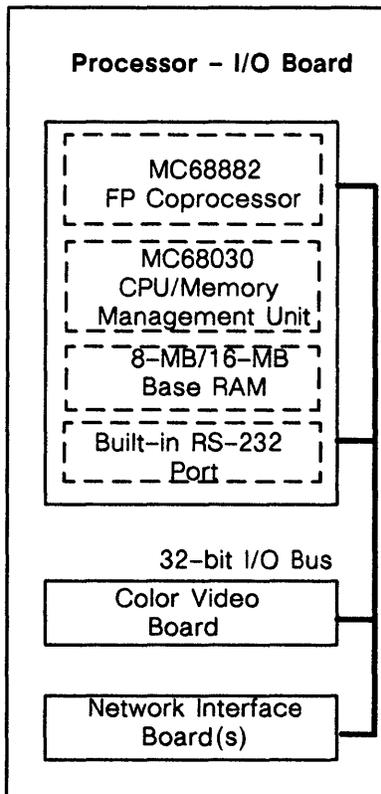


Figure D-25. Model 3550 Functions

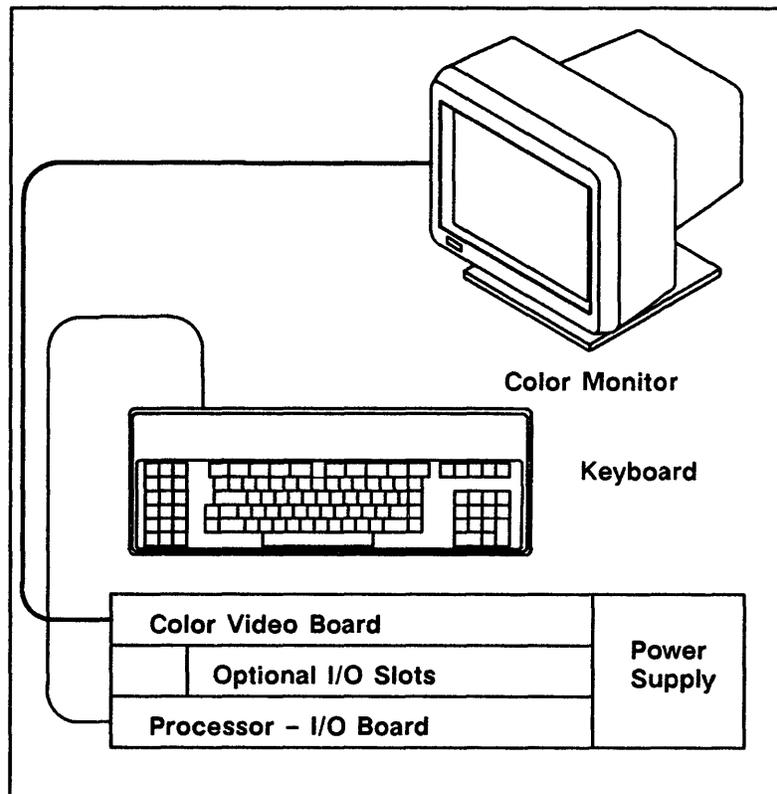


Figure D-26. Model 3550 Usage & Interconnections

Product Summary

Product/ Opt. No	Description
DN3550	<p>DN3550 Color Workstation, consisting of:</p> <p>A. Processor – I/O board with:</p> <ol style="list-style-type: none"> 1. 32-bit MC68030 25 MHz CPU with MC68882 25 MHz Floating Point Processor. 2. 7 slot IBM PC AT/XT compatible bus (6 AT, 1 XT). 4. RS232 serial interface (3 asynchronous ports). 5. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DN3CK-*). Includes keyboard, keyboard cable and country-specific power cord. (DN3CK-*-1) Includes multinational keyboard, keyboard cable, mouse and country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Model 3550 Options

DN3CK-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DN3CK-*-1.
Opt. DA0	1280 by 1024, 8-plane, Desktop Visualization color graphics controller. (Requires PSK LFAA0)
Opt. DB0	1280 by 1024, 40-plane, color graphics controller.
Opt. DE0	1024 by 800, 8-plane, color graphics controller.
Opt. DF0	1280 by 1024, 8-plane, accelerated color graphics controller.
Opt. E01	Diskless.
Opt. E4D	155-MB Winchester disk.
Opt. E4F	155-MB Winchester disk and 1.2-MB floppy disk.
Opt. E4C	155-MB Winchester disk and 60-MB cartridge tape.
Opt. E6D	348-MB Winchester disk.
Opt. E6F	348-MB Winchester disk and 1.2-MB floppy disk.
Opt. E6C	348-MB Winchester disk and 60-MB cartridge tape.

Model 3550 Color
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description
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Model 3550 Options, continued

Opt. E8D	697-MB Winchester disk.
Opt. E8F	697-MB Winchester disk and 1.2-MB floppy disk.
Opt. E8C	697-MB Winchester disk and 60-MB cartridge tape.
Opt. FC1	15" color graphics display, swivel and tilt. (Requires option DE0)
Opt. FC2	19" color medium resolution graphics display, swivel and tilt. (Requires option DE0)
Opt. FC3	19" color high resolution graphics display, swivel and tilt. (Requires option DF0)
Opt. FC4	19" color high resolution 70 Hz graphics display, swivel and tilt. (Requires option DA0 or DB0)
Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H02	8-MB main memory.
Opt. H04	16-MB main memory.
Opt. K02	Special credit - 8-MB memory with DE0
Opt. K04	Special credit - 16-MB memory with DE0
Opt. K05	Special credit - 155-MB disk with DE0
Opt. K06	Special credit - 348-MB disk with DE0
Opt. K07	Special credit - 697-MB disk with DE0

Model 3550 Color
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Model 3550 Add-on Options		
A-ADD-8MB-B	8-MB Add-on memory boards (2 4-MB boards).	DN3550
A-16MB-B	16-MB Add-on memory boards (2 8-MB boards).	DN3550
A-DN3CK-*	Keyboard, keyboard cable, mouse and country, specific power cord.	N/A
A-ADD-SWFC #	SCSI/Winchester/floppy multi-function controller.	DN3550 with rev 9 (or greater) CPU
A-ADD-155M	155-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC (not required if system has A-ADD-WFC)
A-ADD-348FA	348-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC (not required if system has A-ADD-WFC)
A-ADD-FLP	1.2-MB 5.25" floppy disk drive.	A-ADD-SWFC (not required if system has A-ADD-WFC)
ADD-TC	60-MB Cartridge tape drive and controller.	DN3550
A-ADD-STC	SCSI Cartridge tape drive.	A-ADD-SWFC
A-ADD-FPA **	Floating-point accelerator board.	DN3550
A-697FA	697-MB fast actuator Winchester disk drive, formatted capacity.	A-ADD-SWFC
A-348E-*	348-MB Disk Expansion Module.	DN3550 with internal 348-MB disk
A-697E-* #	External 697-MB Disk Expansion Module.	DN3550 with internal 697-MB disk
A-ETC-*	External SCSI Cartridge Tape Expansion Module.	A-ADD-SWFC and 155-, 348, or 697-MB disk
A-697S-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk.	DN3550 with internal 697-MB disk
A-697SC-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk and 1 Cartridge Tape	DN3550 with internal 697-MB disk

Model 3550 Color
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Model 3550 Add-on Options, continued		
A-697D-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks.	DN3550 with internal 697-MB disk
A-697DC-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks and 1 Cartridge Tape.	DN3550 with internal 697-MB disk
A-697T-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks.	DN3550 with internal 697-MB disk
A-697TC-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks and 1 Cartridge Tape.	DN3550 with internal 697-MB disk
A-6250-*	1600/625 bpi 1/2" tape drive.	DN3550 with A-ADD-SWFC and 155-, 348, or 697-MB disk
A-XT-* †	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Only one 8mm drive per MDEM.	MDEM with 1, 2, or 3 697-MB disk and OmniBack network backup system
A-EX-* †	8mm drive in a single Disk Expansion Module.	DN3550 and OmniBack network backup system
A-697SX-* †	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk.	DN3550 with a 697-MB disk and OmniBack network backup system
A-697DX-* †	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks.	DN3550 with a 697-MB disk and OmniBack network backup system
A-697TX-* †	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks.	DN3550 with a 697-MB disk and OmniBack network backup system
A-OBXT-*+ † ‡	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Includes LA430.	MDEM with 1, 2, or 3 697-MB disk

Model 3550 Color
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Model 3550 Add-on Options, continued		
A-OBEX-* + † ‡	8mm drive in a single Disk Expansion Module. Includes LA430.	DN3550
A-OBSX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk. Includes LA430.	DN3550 with internal 697-MB disk
A-OBDX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks. Includes LA430.	DN3550 with internal 697-MB disk
A-OBTX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks. Includes LA430.	DN3550 with internal 697-MB disk
A-697FAA	Add-on 697-MB disk for A-697S, A-697SC, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697SC, or A-697D, or A-697DC
A-ADD-STCA	Add-on SCSI Cartridge Tape for A-697S, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697D, or A-697T
A-LPFK-*	Lighted programmable function keyboard. Includes power supply, power signal cable, and country specific power cord.	Domain/PHIGS application software
LFZ20 AAB AAC AAD	SR9.7.1 Product Support Kit. Required to support the Multifunction Peripheral Controller and 70 Hz monitor. Also required for -F graphics and FPA. 5-1/4" Floppy Mag tape Cartridge tape	Series 3500
LFZ30 BAB BAC BAD	SR10.1 Product Support Kit. Required to support the Multifunction Peripheral Controller. Also supports for 697-MB single and multiple disk expansion modules and the SCSI 1/2" tape drive. 5-1/4" Floppy Mag tape Cartridge tape	Series 3500
LFAA0 BAC BAD	SR10 Product Support Kit, required with option DA0. Mag tape Cartridge tape	Series 3500

* Country Code must be specified. See Page D-2 for selection.

** Requires Product Support Kit LFZ20 with SR9.7.1

+ Selection of media required (C = mag tape, or D = cartridge tape).

† Requires SR10.1 with PSK LFZ30.

SR10.1 requires Product Support Kit LFZ30, SR9.7.1 requires PSK LFZ20.

‡ OmniBack corporate license (LB43AB00) must be ordered separately.

Model 3550 Color Workstation, continued

System Unit Power Requirements

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac ¹	5.4 A	350 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac ¹	2.7 A	350 W	50 to 60 Hz (± 1 Hz)

Heat Output

1200 Btu/hr

Operating Environment

Temperature 15° C to 32° C (60° F to 90° F)

Relative Humidity 20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.0	6.6
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
110 to 120	NEMA Type 5-15P	NEMA Type 5-15R
220 to 240	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

Connector Type A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0
<i>Rear</i>	30.5	12.0
<i>Sides</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	21.4	47.0
<i>Shipping Weight</i>	25.0	55.0

¹ Switch selectable. All systems are shipped at 110 V ac. To run your system at 220 V ac, you must change the voltage select switch setting.

Model 3550 Color Workstation, continued

15" Monitor Power Requirements (Switch Selectable at Rear Panel)

100 to 120 V ac	1.8 A	140 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac	0.9 A	140 W	50 to 60 Hz (± 1 Hz)

Heat Output

478 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
All Locales	2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Type</i>	<i>Meters</i>	<i>Feet</i>
RGB coaxial cable	2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	40.6	16.0
<i>Width</i>	39.3	15.5
<i>Depth</i>	42.7	16.8

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	23.6	52.0
<i>Shipping Weight</i>	27.3	60.0

Model 3550 Color Workstation, continued

19" Monitor Medium Resolution Power Requirements (Switch Selectable at Rear Panel)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac	1.8 A	140 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac	0.9 A	140 W	50 to 60 Hz (± 1 Hz)

Heat Output

478 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
All Locales	2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Type</i>	<i>Meters</i>	<i>Feet</i>
RGB coaxial cable	2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	40.6	16.0
<i>Width</i>	39.3	15.5
<i>Depth</i>	42.7	16.8

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	29.5	65.0
<i>Shipping Weight</i>	38.6	85.0

Model 3550 Color Workstation, continued

Power Requirements 19" High Resolution Monitor (no switch selection required)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
@115 V ac	2.0 A	150 W	47 to 63 Hz
@220 V ac	1.5 A	150 W	47 to 63 Hz

Heat Output

683 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

To obtain optimum performance from the 19-inch color monitor (010700), please observe the following:

- Do not place the monitor in close proximity to equipment that contains strong permanent magnets.
- Do not position the monitor near alternating current (ac) devices (for example, distribution transformers or high current ac bus bars).

Power Cord Length

<i>Meters</i>	<i>Feet</i>
2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Type</i>	<i>Meters</i>	<i>Feet</i>
Shielded cable; captive to monitor	2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	47.5	18.7
<i>Width</i>	48.5	19.0
<i>Depth</i>	49.0	19.3

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	28.0	61.6
<i>Shipping Weight</i>	32.0	70.4

Model 3550 Server

Description

The Domain Series 3500 Model 3550 is a UNIX-based server, offering 5 MIPS performance, high-resolution integrated graphics with an MC68030 CPU and the industry-standard IBM PC AT compatible peripheral interface.

CPU: MC68030, clocked at 25 MHz.

Bus Types: 32-bit memory and Direct I/O buses.

RAM: 8-MB or 16-MB parity, expandable to 32-MB.

Built-in Interfaces: 3 RS-232C ports.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Floating Point Processor: MC68882 clocked at 25 MHz, is standard.

Operating System: Includes all environments: System V, BSD, and Aegis.

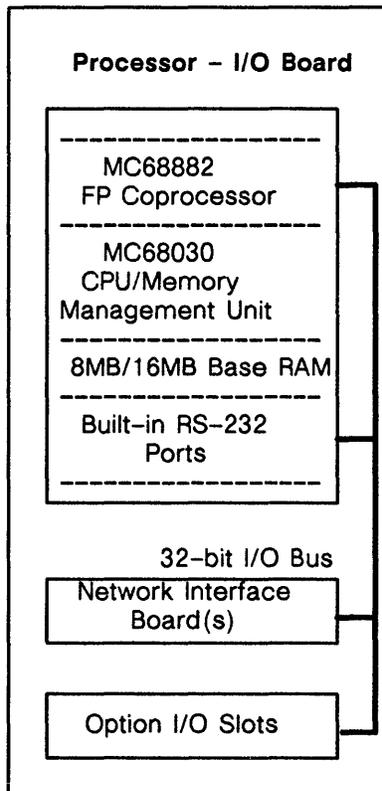


Figure D-27. Model 3550 Functions

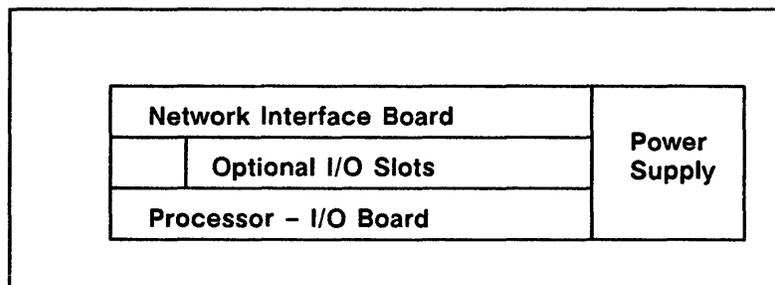


Figure D-28. Model 3550 Usage

Product Summary

Product/ Opt. No	Description
DSP3550	<p>DSP3550 Server, consisting of:</p> <p>A. Processor – I/O board with:</p> <ol style="list-style-type: none"> 1. 32-bit MC68030 25 MHz CPU with MC68882 25 MHz Floating Point Processor. 2. 7 slot IBM PC AT/XT compatible bus (6 AT, 1 XT). 3. RS232 serial interface (3 asynchronous ports). 4. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DSPCK-*). Includes country-specific power cord. (DSPCK-*-1) Includes country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Model 3550 Options

DSPCK-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DSPCK-*-1.
Opt. E4C	155-MB Winchester disk and 60-MB cartridge tape.
Opt. E6C	348-MB Winchester disk and 60-MB cartridge tape.
Opt. E8C	697-MB Winchester disk and 60-MB cartridge tap.e
Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H02	8-MB main memory.
Opt. H04	16-MB main memory.

Model 3550
Server, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Model 3550 Add-on Options		
A-ADD-8MB-B	8-MB Add-on memory boards (2 4-MB boards).	DSP3550
A-16MB-B	16-MB Add-on memory boards (2 8-MB boards).	DSP3550
A-ADD-SWFC #	SCSI/Winchester/floppy multi-function controller.	DSP3550 with rev 9 (or greater) CPU
A-ADD-155M	155-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC (not required if system has A-ADD-WFC)
A-ADD-348FA	348-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC (not required if system has A-ADD-WFC)
A-ADD-FLP	1.2-MB 5.25" floppy disk drive.	A-ADD-SWFC (not required if system has A-ADD-WFC)
ADD-TC	60-MB Cartridge tape drive and controller.	DSP3550
A-ADD-STC	SCSI Cartridge tape drive.	A-ADD-SWFC
A-ADD-FPA **	Floating-point accelerator board.	DSP3550
A-697FA	697-MB fast actuator Winchester disk drive, formatted capacity.	A-ADD-SWFC
A-348E-*	348-MB Disk Expansion Module.	DSP3550 with internal 348-MB disk
A-697E-* #	External 697-MB Disk Expansion Module.	DSP3550 with internal 697-MB disk
A-ETC-*	External SCSI Cartridge Tape Expansion Module.	A-ADD-SWFC and 155-, 348, or 697-MB disk
A-697S-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk.	DSP3550 with internal 697-MB disk
A-697SC-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk and 1 Cartridge Tape	DSP3550 with internal 697-MB disk
A-DN3CK-*	Keyboard, keyboard cable, mouse and country, specific power cord.	N/A

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Model 3550 Add-on Options, continued		
A-697D-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks.	DSP3550 with internal 697-MB disk
A-697DC-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks and 1 Cartridge Tape.	DSP3550 with internal 697-MB disk
A-697T-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks.	DSP3550 with internal 697-MB disk
A-697TC-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks and 1 Cartridge Tape.	DSP3550 with internal 697-MB disk
A-6250-*	1600/625 bpi 1/2" tape drive.	DSP3550 with A-ADD-SWFC and 155-, 348, or 697-MB disk
A-XT-* †	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Only one 8mm drive per MDEM.	MDEM with 1, 2, or 3 697-MB disk and OmniBack network backup system
A-EX-* †	8mm drive in a single Disk Expansion Module.	DSP3550 and OmniBack network backup system
A-697SX-* †	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk.	DSP3550 with a 697-MB disk and OmniBack network backup system
A-697DX-* †	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks.	DSP3550 with a 697-MB disk and OmniBack network backup system
A-697TX-* †	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks.	DSP3550 with a 697-MB disk and OmniBack network backup system
A-OBXT-* + † ‡	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Includes LA430.	MDEM with 1, 2, or 3 697-MB disk

Model 3550
Server, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Model 3550 Add-on Options, continued		
A-OBEX-* + † ‡	8mm drive in a single Disk Expansion Module. Includes LA430.	DSP3550
A-OBSX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk. Includes LA430.	DSP3550 with internal 697-MB disk
A-OBDX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks. Includes LA430.	DSP3550 with internal 697-MB disk
A-OBTX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks. Includes LA430.	DSP3550 with internal 697-MB disk
A-697FAA	Add-on 697-MB disk for A-697S, A-697SC, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697SC, or A-697D, or A-697DC
A-ADD-STCA	Add-on SCSI Cartridge Tape for A-697S, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697D, or A-697T
LFZ20 AAB AAC AAD	SR9.7.1 Product Support Kit. Required to support the Multifunction Peripheral Controller and 70 Hz monitor. Also required for -F graphics and FPA. 5-1/4" Floppy Mag tape Cartridge tape	Series 3500
LFZ30 BAB BAC BAD	SR10.1 Product Support Kit. Required to support the Multifunction Peripheral Controller. Also supports for 697-MB single and multiple disk expansion modules and the SCSI 1/2" tape drive. 5-1/4" Floppy Mag tape Cartridge tape	Series 3500

* Country Code must be specified. See Page D-2 for selection.

** Requires Product Support Kit LFZ20 with SR9.7.1

+ Selection of media required (C = mag tape, or D = cartridge tape).

† Requires SR10.1 with PSK LFZ30.

SR10.1 requires Product Support Kit LFZ30, SR9.7.1 requires PSK LFZ20.

‡ OmniBack corporate license (LB43AB00) must be ordered separately.

System Unit Power Requirements

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac ¹	5.0 A	325 W	50 to 60 Hz (±1 Hz)
220 to 240 V ac ¹	2.5 A	325 W	50 to 60 Hz (±1 Hz)

Heat Output

1110 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.0	6.6
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
110 to 120	NEMA Type 5-15P	NEMA Type 5-15R
220 to 240	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

<i>Connector Type</i>	A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)
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Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0
<i>Rear</i>	30.5	12.0
<i>Sides</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	21.4	47.0
<i>Shipping Weight</i>	25.0	55.0

¹ Switch selectable. All systems are shipped at 110 V ac. To run your system at 220 V ac, you must change the voltage select switch setting.

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Domain Series 4000 Options

Introduction

This section contains configuration information for the HP-Apollo Series 4000 add-on options.

Prerequisites

Series 4000 systems with add-on option A-ADD-SWFC require operating system product support kit LFZ30 or later.

Series 4000 systems with add-on option A-ADD-FPA running SR9.7.1 require operating system product support kit LFZ20 or later.

Series 4000 systems with add-on option A-ADD-FPA running SR10 require operating system release SR10.1 or later.

Series 4000 systems with add-on option A-ADD-FPA require new compilers. Non-maintenance customers must order LA460 and/or LA210 and/or LA130.

Series 4000 Options

Product Summary

Product/ Opt. No.	Description	Prerequisites
Series 4000 Add-on Options		
A-DN3CK-*	Keyboard, keyboard cable, mouse and country, specific power cord.	N/A
A-ADD-4MB-A	4-MB Add-on memory board.	Series 4000
A-ADD-8MB-A	8-MB Add-on memory board.	Series 4000
A-ADD-SWFC †	SCSI/Winchester/floppy multi-function controller.	Series 4000 with rev 25 (or greater) CPU
A-ADD-155M	155-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC
A-ADD-348FA	348-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC
A-ADD-FLP	1.2-MB 5.25" floppy disk drive.	A-ADD-SWFC
ADD-TC	60-MB Cartridge tape drive and controller.	Series 4000
A-ADD-STC	SCSI Cartridge tape drive.	A-ADD-SWFC
A-ADD-FPA #	Floating-point accelerator board.	Series 4000
A-697FA	697-MB fast actuator Winchester disk drive, formatted capacity.	A-ADD-SWFC
A-348E-*	348-MB Disk Expansion Module.	Series 4000 with internal 348-MB disk
A-697E-*	External 697-MB Disk Expansion Module.	Series 4000 with internal 697-MB disk
A-ETC-*	External SCSI Cartridge Tape Expansion Module.	Series 4000 with internal 697-MB disk
A-6250-* †	1600/625 bpi 1/2" tape drive.	Series 4000 with internal 697-MB disk

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 4000 Add-on Options, continued		
A-XT-* †	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Only one 8mm drive per MDEM.	MDEM with 1, 2, or 3 697-MB disk and OmniBack network backup system
A-EX-* †	8mm drive in a single Disk Expansion Module.	Series 4000 and OmniBack network backup system
A-OBXT-* + †	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Includes SFW-OB-N10.	MDEM with 1, 2, or 3 697-MB disk
A-OBEX-* + †	8mm drive in a single Disk Expansion Module. Includes SFW-OB-N10.	Series 4000 with 697-MB disk.
A-LPFK-*	Lighted programmable function keyboard. Includes power supply, power signal cable, and country specific power cord.	Domain/PHIGS application software
LFZ20 AAB AAC AAD	SR9.7.1 Product Support Kit. Required for FPA. 5-1/4" Floppy Mag tape Cartridge tape	Series 4000
LFZ30 BAB BAC BAD	SR10.1 Product Support Kit. Required to support the Multifunction Peripheral Controller. Also supports for 697-MB single and multiple disk expansion modules and the SCSI 1/2" tape drive. 5-1/4" Floppy Mag tape Cartridge tape	Series 4000

* Country Code must be specified. See Page D-2 for selection.

† SR10.1 requires Product Support Kit LFZ30.

+ Selection of media required (C = mag tape, D = cartridge tape).

SR9.7.1 requires PSK LFZ20.

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Domain Series 4500

Personal Workstations and Servers

Introduction

This section contains configuration information for the HP-Apollo Series 4500 workstations and servers. To configure the system, you select the appropriate workstation or server with options for your applications. With each system is a license to use the Domain/OS, Domain/X11, Domain/Dialogue, Open Dialogue Runtimes User Interface Management system, Open System Toolkit, GSR, GMR2D, GMR3D, and Domain/PHIGS. The system is not shipped with the listed software licensed unless specifically called for on the configuration worksheet and order (see the Software section of this book for selection).

Prerequisites

Every Series 4500 system requires operating system release SR9.7.1 or SR10.1 or later.

Every Series 4500 workstation configured with option DA0 or DB0 requires operating system release SR10.2 or later.

Every Series 4500 workstation configured with SR9.7.1 and a Winchester disk requires operating system product support kit LFZ20 or later.

Every Series 4500 workstation configured with SR9.7.1 and option DF0 requires operating system product support kit LFZ20 or later.

Every Series 4500 workstation configured with SR10.1 with an external 697-MB Winchester requires operating system product support kit LFZ30 or later.

To obtain the SR9.7.1 operating system you must order LA020.

To obtain the SR10.1 operating system you must order LA450.

With every Series 4500 workstation you must order a country kit, which includes a keyboard with cable, mouse, and country specific power cord. See Page D-2 for selection of National Version required.

With every Series 4500 server you must order a country kit, which includes a country specific power cord. See Page D-2 for selection of National Version required.

Network cabling must be ordered separately.

The Series 4500 incorporates 3 serial ports into one 25-pin connector. To take advantage of the second and third ports, you must order an adapter cable separately.

Series 4500 Monochrome Workstation

Description

The Domain Series 4500 is a UNIX-based desktop workstation, offering 8 MIPS performance, high-resolution integrated graphics with an MC68030 CPU and the industry-standard IBM PC AT compatible peripheral interface.

CPU: MC68030, clocked at 33 MHz.

Bus Types: 32-bit memory and Direct I/O buses.

RAM: 8-MB or 16-MB parity, expandable to 32-MB.

Built-in Interfaces: 3 RS-232C ports, and monochrome graphics.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Floating Point Processor: MC68882 clocked at 33 MHz, is standard.

Monitor: 19-inch 1280 by 1024 inch, Monochrome Monitor.

Operating System: Includes all environments: System V, BSD, and Aegis.

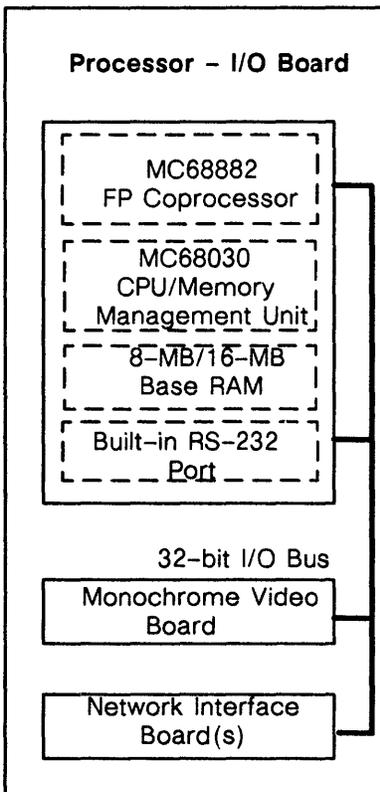


Figure D-29. Series 4500 Functions

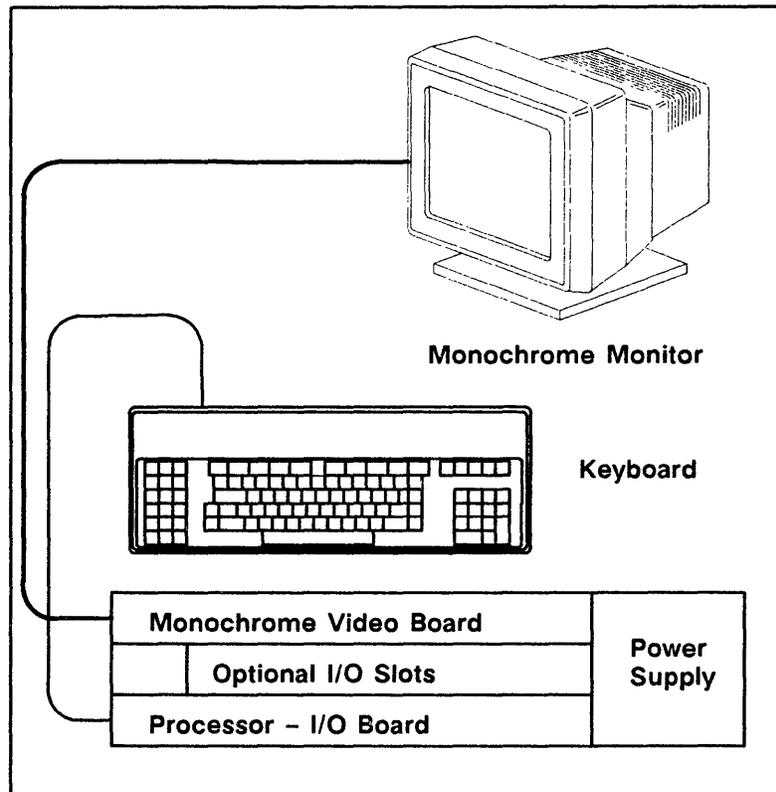


Figure D-30. Series 4500 Usage & Interconnections

Series 4500 Monochrome
Workstation, continued

Product Summary

Product/ Opt. No	Description
DN4500	<p>DN4500 Monochrome Workstation, consisting of:</p> <p>A. Processor – I/O board with:</p> <ol style="list-style-type: none"> 1. 32-bit MC68030 33 MHz CPU with MC68882 33 MHz Floating Point Processor. 2. 7 slot IBM PC AT/XT compatible bus (6 AT, 1 XT). 3. RS232 serial interface (3 asynchronous ports). 4. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DN3CK-*). Includes keyboard, keyboard cable and country-specific power cord. (DN3CK-*-1) Includes multinational keyboard, keyboard cable, mouse and country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Series 4500 Options

DN3CK-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DN3CK-*-1.
Opt. DM0	1280 by 1024 monochrome graphics controller.
Opt. E01	Diskless.
Opt. E4D	155-MB Winchester disk.
Opt. E4F	155-MB Winchester disk and 1.2-MB floppy disk.
Opt. E4C	155-MB Winchester disk and 60-MB cartridge tape.
Opt. E6D	348-MB Winchester disk.
Opt. E6F	348-MB Winchester disk and 1.2-MB floppy disk.
Opt. E6C	348-MB Winchester disk and 60-MB cartridge tape.

Series 4500 Monochrome Workstation, continued

Product Summary continued

Product/ Opt. No.	Description
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Series 4500 Options, continued

Opt. E8D	697-MB Winchester disk.
Opt. E8F	697-MB Winchester disk and 1.2-MB floppy disk.
Opt. E8C	697-MB Winchester disk and 60-MB cartridge tape.
Opt. FM2	19" monochrome graphics display, swivel and tilt.
Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H02	8-MB main memory.
Opt. H04	16-MB main memory.

Series 4500 Monochrome
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 4500 Add-on Options		
A-ADD-8MB-B	8-MB Add-on memory boards (2 4-MB boards).	DN4500
A-16MB-B	16-MB Add-on memory boards (2 8-MB boards).	DN4500
A-DN3CK-*	Keyboard, keyboard cable, mouse and country, specific power cord.	N/A
A-ADD-SWFC #	SCSI/Winchester/floppy multi-function controller.	DN4500 with rev 5 (or greater) CPU
A-ADD-155M	155-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC (not required if system has A-ADD-WFC)
A-ADD-348FA	348-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC (not required if system has A-ADD-WFC)
A-ADD-FLP	1.2-MB 5.25" floppy disk drive.	A-ADD-SWFC (not required if system has A-ADD-WFC)
ADD-TC	60-MB Cartridge tape drive and controller.	DN4500
A-ADD-STC	SCSI Cartridge tape drive.	A-ADD-SWFC
A-ADD-FPA **	Floating-point accelerator board.	DN4500
A-697FA	697-MB fast actuator Winchester disk drive, formatted capacity.	A-ADD-SWFC
A-348E-*	348-MB Disk Expansion Module.	DN4500 with internal 348-MB disk
A-697E-* #	External 697-MB Disk Expansion Module.	DN4500 with internal 697-MB disk
A-ETC-* †	External SCSI Cartridge Tape Expansion Module.	A-ADD-SFWC and 155-, 348, or 697-MB disk
A-697S-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk.	DN4500 with internal 697-MB disk
A-697SC-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk and 1 Cartridge Tape	DN4500 with internal 697-MB disk

Series 4500 Monochrome
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 4500 Add-on Options, continued		
A-697D-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks.	DN4500 with internal 697-MB disk
A-697DC-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks and 1 Cartridge Tape.	DN4500 with internal 697-MB disk
A-697T-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks.	DN4500 with internal 697-MB disk
A-697TC-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks and 1 Cartridge Tape.	DN4500 with internal 697-MB disk
A-6250-*	1600/625 bpi 1/2" tape drive.	DN4500 with A-ADD-SWFC and 155-, 348, or 697-MB disk
A-XT-* †	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Only one 8mm drive per MDEM.	MDEM with 1, 2, or 3 697-MB disk and OmniBack network backup system
A-EX-* †	8mm drive in a single Disk Expansion Module.	DN4500 and OmniBack network backup system
A-697SX-* †	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk.	DN4500 with a 697-MB disk and OmniBack network backup system
A-697DX-* †	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks.	DN4500 with a 697-MB disk and OmniBack network backup system
A-697TX-* †	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks.	DN4500 with a 697-MB disk and OmniBack network backup system
A-OBXT-* + † ‡	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Includes LA430.	MDEM with 1, 2, or 3 697-MB disk

Series 4500 Monochrome
Workstation, continued
Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 4500 Add-on Options, continued		
A-OBEX-* + † ‡	8mm drive in a single Disk Expansion Module. Includes LA430.	DN4500
A-OBSX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk. Includes LA430.	DN4500 with internal 697-MB disk
A-OBDX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks. Includes LA430.	DN4500 with internal 697-MB disk
A-OBTX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks. Includes LA430.	DN4500 with internal 697-MB disk
A-697FAA	Add-on 697-MB disk for A-697S, A-697SC, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697SC, or A-697D, or A-697DC
A-ADD-STCA	Add-on SCSI Cartridge Tape for A-697S, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697D, or A-697T
A-LPFK-*	Lighted programmable function keyboard. Includes power supply, power signal cable, and country specific power cord.	Domain/PHIGS application software
LFZ20 AAB AAC AAD	SR9.7.1 Product Support Kit. Required to support the Multifunction Peripheral Controller and 70 Hz monitor. Also required for -F graphics and FPA. 5-1/4" Floppy Mag tape Cartridge tape	Series 4500
LFZ30 BAB BAC BAD	SR10.1 Product Support Kit. Required to support the Multifunction Peripheral Controller. Also supports for 697-MB single and multiple disk expansion modules and the SCSI 1/2" tape drive. 5-1/4" Floppy Mag tape Cartridge tape	Series 4500

* Country Code must be specified. See Page D-2 for selection.

** Requires Product Support Kit LFZ20 with SR9.7.1, or SR10.1 or later.

+ Selection of media required (C = mag tape, or D = cartridge tape).

† Requires SR10.1 with PSK LFZ30.

SR10.1 requires Product Support Kit LFZ30, SR9.7.1 requires PSK LFZ20.

‡ OmniBack corporate license (LB43AB00) must be purchased separately.

Series 4500 Monochrome Workstation, continued

System Unit Power Requirements

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac ¹	6.5 A	350 W	50 to 60 Hz (±1 Hz)
220 to 240 V ac ¹	3.4 A	350 W	50 to 60 Hz (±1 Hz)

Heat Output

1200 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.0	6.6
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
110 to 120	NEMA Type 5-15P	NEMA Type 5-15R
220 to 240	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

<i>Connector Type</i>	A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)
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Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0
<i>Rear</i>	30.5	12.0
<i>Sides</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	21.4	47.0
<i>Shipping Weight</i>	25.0	55.0

¹ Switch selectable. All systems are shipped at 110 V ac. To run your system at 220 V ac, you must change the voltage select switch setting.

Series 4500 Monochrome Workstation, continued

19" Monitor Power Requirements (Switch Selectable at Rear Panel)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac	1.0 A	85 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac	0.5 A	85 W	50 to 60 Hz (± 1 Hz)

Heat Output

478 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
All Locales	2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Meters</i>	<i>Feet</i>
2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	46.6	18.3
<i>Width</i>	46.2	18.2
<i>Depth</i>	39.1	15.4

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	22.5	49.5
<i>Shipping Weight</i>	26.0	57.8

Series 4500 Color Workstation

Description

The Domain Series 4500 is a UNIX-based desktop workstation, offering 8 MIPS performance, high-resolution integrated graphics with an MC68030 CPU and the industry-standard IBM PC AT compatible peripheral interface.

CPU: MC68030, clocked at 33 MHz.

Bus Types: 32-bit memory and Direct I/O buses.

RAM: 8-MB or 16-MB parity, expandable to 32-MB.

Built-in Interfaces: 3 RS-232 ports and color graphics.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Floating Point Processor: MC68882 clocked at 33 MHz, is standard.

Monitor: 15-inch, 8-plane, 1024 by 800, or 19-inch, 8- or 40-plane, 1280 by 1024, Color Monitor.

Operating System: Includes all environments: System V, BSD, and Aegis.

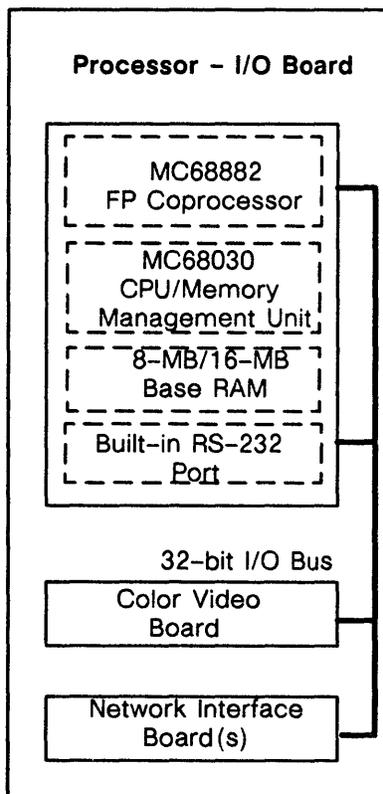


Figure D-31. Series 4500 Functions

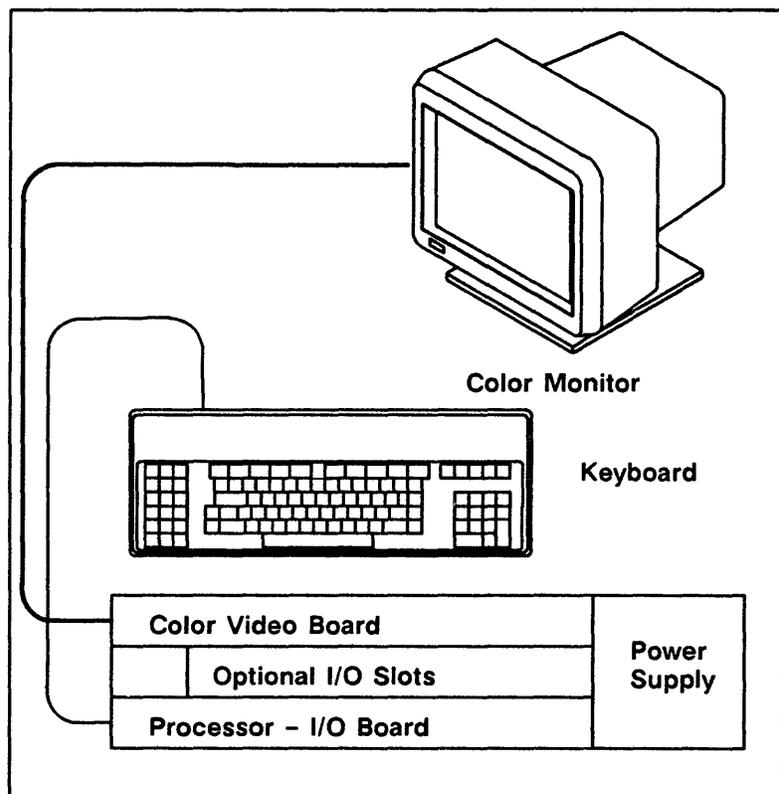


Figure D-32. Series 4500 Usage & Interconnections

Product Summary

Product/ Opt. No	Description
DN4500	<p>DN4500 Color Workstation, consisting of:</p> <p>A. Processor – I/O board with:</p> <ol style="list-style-type: none"> 1. 32-bit MC68030 33 MHz CPU with MC68882 33 MHz Floating Point Processor. 2. 7 slot IBM PC AT/XT compatible bus (6 AT, 1 XT). 3. RS232 serial interface (3 asynchronous ports). 4. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DN3CK-*). Includes keyboard, keyboard cable and country-specific power cord. (DN3CK-*-1) Includes multinational keyboard, keyboard cable, mouse and country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Series 4500 Options

DN3CK-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DN3CK-*-1.
Opt. DA0	1280 by 1024, 8-plane, Desktop Visualization color graphics controller. (Requires SR10.2)
Opt. DB0	1280 by 1024, 40-plane, color graphics controller. (Requires SR10.2)
Opt. DE0	1024 by 800, 8-plane, color graphics controller.
Opt. DF0	1280 by 1024, 8-plane, accelerated color graphics controller.
Opt. E01	Diskless.
Opt. E4D	155-MB Winchester disk.
Opt. E4F	155-MB Winchester disk and 1.2-MB floppy disk.
Opt. E4C	155-MB Winchester disk and 60-MB cartridge tape.
Opt. E6D	348-MB Winchester disk.
Opt. E6F	348-MB Winchester disk and 1.2-MB floppy disk.
Opt. E6C	348-MB Winchester disk and 60-MB cartridge tape.

Series 4500 Color
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description
Series 4500 Options, continued	
Opt. E8D	697-MB Winchester disk.
Opt. E8F	697-MB Winchester disk and 1.2-MB floppy disk.
Opt. E8C	697-MB Winchester disk and 60-MB cartridge tape.
Opt. FC1	15" color graphics display, swivel and tilt. (Requires option DE0)
Opt. FC2	19" color medium resolution 60-Hz graphics display, swivel and tilt. (Requires option DE0)
Opt. FC3	19" color high resolution 68-Hz graphics display, swivel and tilt. (Requires option DF0)
Opt. FC4	19" color high resolution 70-Hz graphics display, swivel and tilt. (Requires option DA0 or DB0)
Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H02	8-MB main memory.
Opt. H04	16-MB main memory.
Opt. K02	Special credit - 8-MB memory with DE0
Opt. K04	Special credit - 16-MB memory with DE0
Opt. K05	Special credit - 155-MB disk with DE0
Opt. K06	Special credit - 348-MB disk with DE0
Opt. K07	Special credit - 697-MB disk with DE0
Opt. K08	Special credit - 348-MB or 697-MB disk with DA0 or DB0

Series 4500 Color
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 4500 Add-on Options		
A-ADD-8MB-B	8-MB Add-on memory boards (2 4-MB boards).	DN4500
A-16MB-B	16-MB Add-on memory boards (2 8-MB boards).	DN4500
A-DN3CK-*	Keyboard, keyboard cable, mouse and country, specific power cord.	N/A
A-ADD-SWFC #	SCSI/Winchester/floppy multi-function controller.	DN4500 with rev 5 (or greater) CPU
A-ADD-155M	155-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC
A-ADD-348FA	348-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC
A-ADD-FLP	1.2-MB 5.25" floppy disk drive.	A-ADD-SWFC
ADD-TC	60-MB Cartridge tape drive and controller.	DN4500
A-ADD-STC	SCSI Cartridge tape drive.	A-ADD-SWFC
A-ADD-FPA **	Floating-point accelerator board.	DN4500
A-697FA	697-MB fast actuator Winchester disk drive, formatted capacity.	A-ADD-SWFC
A-348E-*	348-MB Disk Expansion Module.	DN4500 with internal 348-MB disk
A-697E-* #	External 697-MB Disk Expansion Module.	DN4500 with internal 697-MB disk
A-ETC-* †	External SCSI Cartridge Tape Expansion Module.	A-ADD-SWFC and 155-, 348, or 697-MB disk
A-697S-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk.	DN4500 with internal 697-MB disk
A-697SC-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk and 1 Cartridge Tape	DN4500 with internal 697-MB disk

Series 4500 Color
Workstation, continued
Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 4500 Add-on Options, continued		
A-697D-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks.	DN4500 with internal 697-MB disk
A-697DC-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks and 1 Cartridge Tape.	DN4500 with internal 697-MB disk
A-697T-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks.	DN4500 with internal 697-MB disk
A-697TC-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks and 1 Cartridge Tape.	DN4500 with internal 697-MB disk
A-6250-*	1600/625 bpi 1/2" tape drive.	DN4500 with A-ADD-SWFC and 155-, 348, or 697-MB disk
A-XT-* †	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Only one 8mm drive per MDEM.	MDEM with 1, 2, or 3 697-MB disk and OmniBack network backup system
A-EX-* †	8mm drive in a single Disk Expansion Module.	DN4500 and OmniBack network backup system
A-697SX-* †	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk.	DN4500 with a 697-MB disk and OmniBack network backup system
A-697DX-* †	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks.	DN4500 with a 697-MB disk and OmniBack network backup system
A-697TX-* †	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks.	DN4500 with a 697-MB disk and OmniBack network backup system
A-OBXT-* + † ‡	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Includes LA430.	MDEM with 1, 2, or 3 697-MB disk
A-OBEX-* + † ‡	8mm drive in a single Disk Expansion Module. Includes LA430.	DN4500
A-OBSX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk. Includes LA430.	DN4500 with internal 697-MB disk

Series 4500 Color
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 4500 Add-on Options, continued		
A-OBDX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks. Includes LA430.	DN4500 with internal 697-MB disk
A-OBTX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks. Includes LA430.	DN4500 with internal 697-MB disk
A-697FAA	Add-on 697-MB disk for A-697S, A-697SC, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697SC, or A-697D, or A-697DC
A-ADD-STCA	Add-on SCSI Cartridge Tape for A-697S, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697D, or A-697T
A-LPFK-*	Lighted programmable function keyboard. Includes power supply, power signal cable, and country specific power cord.	Domain/PHIGS application software
LFZ20 AAB AAC AAD	SR9.7.1 Product Support Kit. Required to support the Multifunction Peripheral Controller and 70 Hz monitor. Also required for -F graphics and FPA. 5-1/4" Floppy Mag tape Cartridge tape	Series 4500
LFZ30 BAB BAC BAD	SR10.1 Product Support Kit. Required to support the Multifunction Peripheral Controller. Also supports for 697-MB single and multiple disk expansion modules and the SCSI 1/2" tape drive. 5-1/4" Floppy Mag tape Cartridge tape	Series 4500

* Country Code must be specified. See Page D-2 for selection.

** Requires Product Support Kit LFZ20 with SR9.7.1

+ Selection of media required (C = mag tape, or D = cartridge tape).

† Requires SR10.1 with PSK LFZ30.

SR10.1 requires Product Support Kit LFZ30, SR9.7.1 requires PSK LFZ20.

‡ OmniBack corporate license (LB43AB00) must be purchased separately.

Series 4500 Color Workstation, continued

System Unit Power Requirements

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac ¹	5.4 A	350 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac ¹	2.7 A	350 W	50 to 60 Hz (± 1 Hz)

Heat Output

1200 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.0	6.6
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
110 to 120	NEMA Type 5-15P	NEMA Type 5-15R
220 to 240	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

Connector Type A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0
<i>Rear</i>	30.5	12.0
<i>Sides</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	21.4	47.0
<i>Shipping Weight</i>	25.0	55.0

¹ Switch selectable. All systems are shipped at 110 V ac. To run your system at 220 V ac, you must change the voltage select switch setting.

Series 4500 Color Workstation, continued

15" Monitor Power Requirements (Switch Selectable at Rear Panel)

100 to 120 V ac	1.8 A	140 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac	0.9 A	140 W	50 to 60 Hz (± 1 Hz)

Heat Output

478 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
All Locales	2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Type</i>	<i>Meters</i>	<i>Feet</i>
RGB coaxial cable	2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	40.6	16.0
<i>Width</i>	39.3	15.5
<i>Depth</i>	42.7	16.8

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	23.6	52.0
<i>Shipping Weight</i>	27.3	60.0

Series 4500 Color Workstation, continued

19" Monitor Medium Resolution Power Requirements (Switch Selectable at Rear Panel)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac	1.8 A	140 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac	0.9 A	140 W	50 to 60 Hz (± 1 Hz)

Heat Output

478 Btu/hr

Operating Environment

Temperature 15° C to 32° C (60° F to 90° F)

Relative Humidity 20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
All Locales	2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Type</i>	<i>Meters</i>	<i>Feet</i>
RGB coaxial cable	2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	40.6	16.0
<i>Width</i>	39.3	15.5
<i>Depth</i>	42.7	16.8

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	29.5	65.0
<i>Shipping Weight</i>	38.6	85.0

Series 4500 Color Workstation, continued

Power Requirements 19" High Resloution Monitor (no switch selection required)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
@115 V ac	2.0 A	150 W	47 to 63 Hz
@220 V ac	1.5 A	150 W	47 to 63 Hz

Heat Output

683 Btu/hr

Operating Environment

Temperature 15° C to 32° C (60° F to 90° F)

Relative Humidity 20% to 80% (noncondensing)

To obtain optimum performance from the 19-inch color monitor (010700), please observe the following:

- Do not place the monitor in close proximity to equipment that contains strong permanent magnets.
- Do not position the monitor near alternating current (ac) devices (for example, distribution transformers or high current ac bus bars).

Power Cord Length

<i>Meters</i>	<i>Feet</i>
2.4	8.0

Power Cord Plugs and Receptacles

The monitor draws ac voltage from the convenience outlet on the system unit via a power cord supplied with the system.

Video Cable (Monitor to Processor)

<i>Type</i>	<i>Meters</i>	<i>Feet</i>
Shielded cable; captive to monitor	2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	47.5	18.7
<i>Width</i>	48.5	19.0
<i>Depth</i>	49.0	19.3

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	28.0	61.6
<i>Shipping Weight</i>	32.0	70.4

Series 4500 Server

Description

The Domain Series 4500 is a UNIX-based server, offering 8 MIPS performance, high-resolution integrated graphics with an MC68030 CPU and the industry-standard IBM PC AT compatible peripheral interface.

CPU: MC68030, clocked at 33 MHz.

Bus Types: 32-bit memory and Direct I/O buses.

RAM: 8-MB or 16-MB parity, expandable to 32-MB.

Built-in Interfaces: 3 RS-232C ports.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Floating Point Processor: MC68882 clocked at 33 MHz, is standard.

Operating System: Includes all environments: System V, BSD, and Aegis.

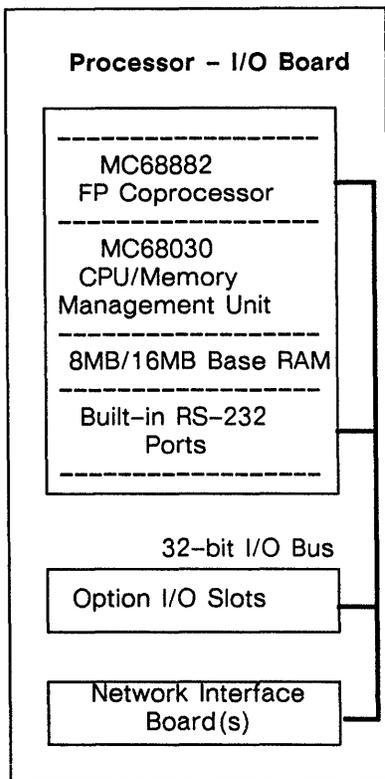


Figure D-33. Series 4500 Functions

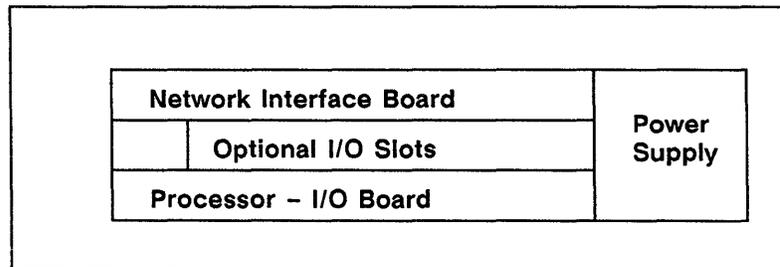


Figure D-34. Series 4500 Usage & Interconnections

Product Summary

Product/ Opt. No	Description
DSP4500	<p>DSP4500 Monochrome Workstation, consisting of:</p> <p>A. Processor – I/O board with:</p> <ol style="list-style-type: none"> 1. 32-bit MC68030 33 MHz CPU with MC68882 33 MHz Floating Point Processor. 2. 7 slot IBM PC AT/XT compatible bus (6 AT, 1 XT). 3. RS232 serial interface (3 asychronous ports). 4. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DSPCK-*). Includes country-specific power cord. (DSPCK-*-1) Includes country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Series 4500 Options

DSPCK-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DSPCK-*-1.
Opt. E4C	155-MB Winchester disk and 60-MB cartridge tape.
Opt. E6C	348-MB Winchester disk and 60-MB cartridge tape.
Opt. E8C	697-MB Winchester disk and 60-MB cartridge tape.
Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H02	8-MB main memory.
Opt. H04	16-MB main memory.

Series 4500
Server, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 4500 Add-on Options		
A-ADD-8MB-B	8-MB Add-on memory boards (2 4-MB boards).	DSP4500
A-16MB-B	16-MB Add-on memory boards (2 8-MB boards).	DSP4500
A-DN3CK-*	Keyboard, keyboard cable, mouse and country, specific power cord.	N/A
A-ADD-SWFC #	SCSI/Winchester/floppy multi-function controller.	DSP4500 with rev 5 (or greater) CPU
A-ADD-155M	155-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC
A-ADD-348FA	348-MB Winchester disk drive, formatted capacity.	A-ADD-SWFC
A-ADD-FLP	1.2-MB 5.25" floppy disk drive.	A-ADD-SWFC
ADD-TC	60-MB Cartridge tape drive and controller.	DSP4500
A-ADD-STC	SCSI Cartridge tape drive.	A-ADD-SWFC
A-ADD-FPA **	Floating-point accelerator board.	DSP4500
A-697FA	697-MB fast actuator Winchester disk drive, formatted capacity.	A-ADD-SWFC
A-348E-*	348-MB Disk Expansion Module.	DSP4500 with internal 348-MB disk
A-697E-* #	External 697-MB Disk Expansion Module.	DSP4500 with internal 697-MB disk
A-ETC-* †	External SCSI Cartridge Tape Expansion Module.	A-ADD-SFWC and 155-, 348, or 697-MB disk
A-697S-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk.	DSP4500 with internal 697-MB disk
A-697SC-* #	Multiple Disk Expansion Module, floor mounted, with 1 697-MB disk and 1 Cartridge Tape	DSP4500 with internal 697-MB disk

Series 4500
Server, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 4500 Add-on Options, continued		
A-697D-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks.	DSP4500 with internal 697-MB disk
A-697DC-* #	Multiple Disk Expansion Module, floor mounted, with 2 697-MB disks and 1 Cartridge Tape.	DSP4500 with internal 697-MB disk
A-697T-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks.	DSP4500 with internal 697-MB disk
A-697TC-* #	Multiple Disk Expansion Module, floor mounted, with 3 697-MB disks and 1 Cartridge Tape.	DSP4500 with internal 697-MB disk
A-6250-*	1600/625 bpi 1/2" tape drive.	DSP4500 with A-ADD-SWFC and 155-, 348, or 697-MB disk
A-XT-* †	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Only one 8mm drive per MDEM.	MDEM with 1, 2, or 3 697-MB disk and OmniBack network backup system
A-EX-* †	8mm drive in a single Disk Expansion Module.	DSP4500 and OmniBack network backup system
A-697SX-* †	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk.	DSP4500 with a 697-MB disk and OmniBack network backup system
A-697DX-* †	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks.	DSP4500 with a 697-MB disk and OmniBack network backup system
A-697TX-* †	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks.	DSP4500 with a 697-MB disk and OmniBack network backup system
A-OBXT-* + † ‡	Add-on 8mm drive for an installed Multiple Disk Expansion Module. Includes LA430.	MDEM with 1, 2, or 3 697-MB disk

Series 4500
 Server, continued
 Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 4500 Add-on Options, continued		
A-OBEX-* + † ‡	8mm drive in a single Disk Expansion Module. Includes LA430.	DSP4500
A-OBSX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 1 697-MB disk. Includes LA430.	DSP4500 with internal 697-MB disk
A-OBDX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 2 697-MB disks. Includes LA430.	DSP4500 with internal 697-MB disk
A-OBTX-* + † ‡	8mm drive in a Multiple Disk Expansion Module with 3 697-MB disks. Includes LA430.	DNSP500 with internal 697-MB disk
A-697FAA	Add-on 697-MB disk for A-697S, A-697SC, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697SC, or A-697D, or A-697DC
A-ADD-STCA	Add-on SCSI Cartridge Tape for A-697S, A-697D or A-697T Disk Expansion Modules.	A-ADD-SWFC plus A-697S or A-697D, or A-697T
LFZ20 AAB AAC AAD	SR9.7.1 Product Support Kit. Required to support the Multifunction Peripheral Controller and 70 Hz monitor. Also required for -F graphics and FPA. 5-1/4" Floppy Mag tape Cartridge tape	Series 4500
LFZ30 BAB BAC BAD	SR10.1 Product Support Kit. Required to support the Multifunction Peripheral Controller. Also supports for 697-MB single and multiple disk expansion modules and the SCSI 1/2" tape drive. 5-1/4" Floppy Mag tape Cartridge tape	Series 4500

* Country Code must be specified. See Page D-2 for selection.

** Requires Product Support Kit LFZ20 with SR9.7.1

+ Selection of media required (C = mag tape, or D = cartridge tape).

† Requires SR10.1 with PSK LFZ30.

SR10.1 requires Product Support Kit LFZ30, SR9.7.1 requires PSK LFZ20.

‡ OmniBack corporate license (LB43AB00) must be purchased separately.

System Unit Power Requirements

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac ¹	6.5 A	350 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac ¹	3.4 A	350 W	50 to 60 Hz (± 1 Hz)

Heat Output

1200 Btu/hr

Operating Environment

<i>Temperature</i>	15° C to 32° C (60° F to 90° F)
<i>Relative Humidity</i>	20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.0	6.6
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
110 to 120	NEMA Type 5-15P	NEMA Type 5-15R
220 to 240	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

<i>Connector Type</i>	A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)
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Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0
<i>Rear</i>	30.5	12.0
<i>Sides</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	21.4	47.0
<i>Shipping Weight</i>	25.0	55.0

¹ Switch selectable. All systems are shipped at 110 V ac. To run your system at 220 V ac, you must change the voltage select switch setting.

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Domain Series 10000 Personal Supercomputers

Introduction

This section contains configuration information for the HP-Apollo Series 10000 computational workstations and servers. To configure the system, you select the appropriate workstation or server with options for your applications. With each system is a license to use the Domain/OS, Domain/X11, Domain/Dialogue, Open Dialogue Runtimes User Interface Management system, Open System Toolkit, GSR, GMR2D, GMR3D, and Domain/PHIGS. The system is not shipped with the listed software licensed unless specifically called for on the configuration worksheet and order (see the Software section of this book for selection).

Prerequisites

Every Series 10000 system requires operating system release SR10.0.P or later.

The operating systems for Series 10000 systems are loaded via cartridge tape; you must have an Apollo cartridge tape drive connected to a system running Domain/OS SR10.0 or later.

Every Series 10000 system requires a dedicated 100–120 V ac 20–amp line, or a 220–240 V ac 10–amp line.

With every Series 10000 computational workstation you must order a country kit, which includes a keyboard with cable, mouse, and country specific power cord. See Page D–2 for selection of National Version required.

With every Series 10000 server you must order a country kit, which includes a country specific power cord. See Page D–2 for selection of National Version required.

Network cabling must be ordered separately.

Series 10000 Color Workstation

Description

The Domain Series 10000 is a UNIX-based deskside workstation, offering up to 100 MIPS performance, high-resolution integrated graphics with a RISC based CPU, and the industry-standard IBM PC AT compatible and VMEbus peripheral interfaces.

CPU: 1 to 4 *PRISM*-based central processing units.

Bus Types: 64-bit memory and Direct I/O buses.

RAM: 8-MB to 128-MB parity.

Built-in Interfaces: 3 RS-232 ports.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Service Processor: MC68020 is standard.

Monitor: 19-inch, 8-, 40-, or 80-plane, 1280 by 1024, Color Monitor.

Operating System: Includes all environments: System V, BSD, and Aegis.

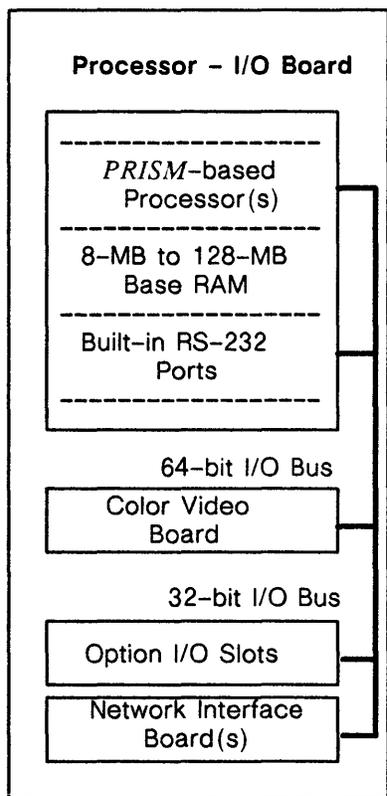


Figure D-35. Series 10000 Functions

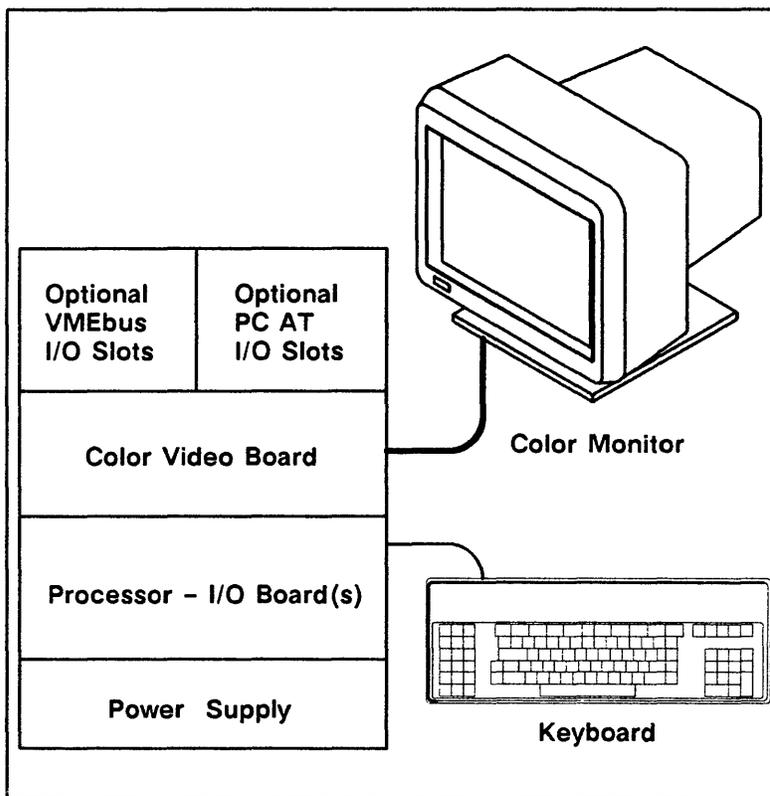


Figure D-36. Series 10000 Usage & Interconnections

Product Summary

Product/ Opt. No	Description
DN10000	<p>DN10000 Color Workstation, consisting of:</p> <p>A. Processor with:</p> <ol style="list-style-type: none"> 1. 1 to 4 <i>PRISM</i>-based 64-bit processors. 2. 4 slot IBM PC AT compatible bus. 3. 6 slot VMEbus 2x2 Eurocard interface. 4. RS232 serial interface (3 asynchronous ports). 5. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DN10CK-*). Includes keyboard, keyboard cable and country-specific power cord. (DN10CK*-1) Includes multinational keyboard, keyboard cable, mouse and country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Series 10000 Options

DN10CK-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DN10CK*-1.
Opt. C01	1 Processor (Model 10010).
Opt. C02	2 Processors (Model 10020).
Opt. C03	3 Processors (Model 10030).
Opt. C04	4 Processors (Model 10040).
Opt. DE0	1024 by 800, 8-plane, color graphics controller.
Opt. DG0	1280 by 1024, 40-plane, color graphics controller.
Opt. DH0	1280 by 1024, 80-plane, color graphics controller.
Opt. E6A	348-MB Winchester disk.
Opt. E8A	700-MB Winchester disk.
Opt. FC2	19" color medium resolution graphics display, swivel and tilt. (Requires option DE0)
Opt. FC3	19" color high resolution graphics display, swivel and tilt. (Requires option DG0 or DH0)

Series 10000 Color
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description
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Series 10000 Options, continued

Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H02	8-MB main memory.
Opt. H04	16-MB main memory.
Opt. H05	32-MB main memory.
Opt. H06	64-MB main memory.
Opt. H07	96-MB main memory. (Not available with option C04 if option DG0 or DH0 selected)
Opt. H08	128-MB main memory. (Not available with option C03 if option DH0 selected, or with option C04 if option DG0 or DH0 selected.)
Opt. J01	348-MB fast actuator Winchester disk (max. 4 drives w/2 per controller).
Opt. J02	348-MB fast actuator Winchester disk and controller (max. 2 controllers).
Opt. J03	700-MB fast actuator Winchester disk (max. 4 drives w/2 per controller).
Opt. J04	700-MB fast actuator Winchester disk and controller (max. 2 controllers).
Opt. J05	Cartridge Tape drive (requires Opt. J06).
Opt. J06	Cartridge Tape drive controller.

Series 10000 Color
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 10000 Add-on Options (Field Installed)		
X-ADD-16MB	16-MB Add-on memory (upgrades 16-MB to 32-MB).	Series 10000
X-ADD-32MB	32-MB Add-on memory (upgrades 32-MB to 64-MB or 96-MB to 128-MB).	Series 10000
X-A-32MB-EXT	32-MB Add-on memory w/extension board (upgrades 64-MB to 92-MB).	Series 10000
X-ADD-64MB	64-MB Add-on memory w/extension board (upgrades 32-MB to 96-MB or 64-MB to 128-MB).	Series 10000
X-ADD-96MB	96-MB Add-on memory w/extension board (upgrades 32-MB to 128-MB).	Series 10000
X-ADD-TFC	SCSI Controller.	Series 10000
X-ADD-TC	SCSI Cartridge tape drive.	X-ADD-TFC or X-TFC
X-A-348FA	348-MB Winchester disk drive, formatted capacity (max. 2 controllers/system, 2 drives/controller).	Series 10000
X-MSD348FA	348-MB Winchester disk drive and controller. (max. 2 controllers/system, 2 drives/controller)	Series 10000
X-A-700FA	700-MB Winchester disk drive, formatted capacity (max. 2 controllers/system, 2 drives/controller).	Series 10000
XMSD700FA	700-MB Winchester disk drive and controller. (max. 2 controllers/system, 2 drives/controller)	Series 10000
V-NET-ATR	Apollo Token Ring Controller-VME (includes controller, cable, and documentation. Max. 2 controllers per system).	Series 10000
VNETETHPLUS	802.3 Network Controller-VME (includes controller, cable, and documentation. Max. 2 controllers per system)	Series 10000
V-NET-ITR	802.5 Network Controller-VME (includes controller, cable, and documentation. Max. 2 controllers per system)	Series 10000
X-COM-SCAT	Intelligent communications controller, provides 2 serial, high-speed ports for SNA and X.25. Supports 4 physical interfaces for each port. Includes 2 cables	Series 10000
X-ADD-PROC	Add-on processor (up to 4 per system).	Series 10000

Series 10000 Color
Workstation, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 10000 Add-on Options, continued		
X-A-700D*	Multiple Disk Expansion Module, floor mounted, with 2 700-MB disks (max. 1 per system)	Series 10000
XMSD700*	Multiple Disk Expansion Module, floor mounted, with 2 700-MB disks and 2 VMEbus-based controllers (max. 1 per system).	Series 10000
X-A-6250*	1600/625 bpi 1/2" tape drive (max. 2 per system).	X-ADD-TFC or X-TFC
X-ADD-EX*	8mm drive in a single Disk Expansion Module (max. 2 per system).	X-ADD-TFC or X-TFC
KIT-CENT-PC	Parallel interface kit. Has 1 each: Centronics parallel; Versatec differential; Versatec TTL. Max. 56-KB throughput.	Series 10000
X-A-700Q*	Multiple Disk Expansion Module, floor mounted, with 4 700-MB disks (max. 1 per system)	Series 10000
XMSD700Q*	Multiple Disk Expansion Module, floor mounted, with 4 700-MB disks and 2 VMEbus-based controllers (max. 1 per system).	Series 10000
X-OBEXP* +	8mm drive in single Disk Expansion Module. Includes SFW-OB-NP.	X-ADD-TFC or X-TFC
A-LPFK-*	Lighted programmable function keyboard. Includes power supply, power signal cable, and country specific power cord.	Domain/PHIGS application software

* Country Code must be specified. See Page D-2 for selection.
+ Selection of media required (C = mag tape, or D = cartridge tape).

Series 10000 Color Workstation, continued

System Unit Power Requirements

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
120 V ac ¹	16.0 A	1600 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac ¹	9.4 A	1600 W	50 to 60 Hz (± 1 Hz)
100 V ac ¹	16.0 A	1280 W	50 to 60 Hz (± 1 Hz) (Japan only)

Heat Output

5242 Btu/hr
4370 Btu/hr (Japan only)

Operating Environment

Temperature 15° C to 32° C (60° F to 90° F)
Relative Humidity 20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.5	8.3
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
120	NEMA Type 5-20P	NEMA Type 5-20R
220 to 240	Varies	Varies (check with your local Apollo office)
100	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

Connector Type A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24
<i>Top</i>	30	12

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	127.0	280.0 (with one Winchester disk drive; each additional disk is 9 pounds)
<i>Shipping Weight</i>	140.6	310.0 (with one Winchester disk drive)

¹ Switch selectable. All systems are shipped at 120 V ac. To run your system at 220 V ac, you must change the voltage select switch setting by repositioning the voltage selection bracket on the system's lower rear panel.

Series 10000 Color Workstation, continued

19" Monitor Medium Resolution Power Requirements (Switch Selectable at Rear Panel)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
100 to 120 V ac	1.8 A	140 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac	0.9 A	140 W	50 to 60 Hz (± 1 Hz)

Heat Output

478 Btu/hr

Operating Environment

Temperature 15° C to 32° C (60° F to 90° F)

Relative Humidity 20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
All Locales	2.4	8.0

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
110 to 120	NEMA Type 5-15P	NEMA Type 5-15R
220 to 240	Varies	Varies (check with your local Apollo office)

Video Cable (Monitor to Processor)

<i>Type</i>	<i>Meters</i>	<i>Feet</i>
RGB coaxial cable	2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	40.6	16.0
<i>Width</i>	39.3	15.5
<i>Depth</i>	42.7	16.8

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	29.5	65.0
<i>Shipping Weight</i>	38.6	85.0

Series 10000 Color Workstation, continued

Power Requirements 19" High Resloution Monitor (no switch selection required)

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
@115 V ac	2.0 A	150 W	47 to 63 Hz
@220 V ac	1.5 A	150 W	47 to 63 Hz

Heat Output

683 Btu/hr

Operating Environment

Temperature 15° C to 32° C (60° F to 90° F)

Relative Humidity 20% to 80% (noncondensing)

To obtain optimum performance from the 19-inch color monitor (010700), please observe the following:
 D Do not place the monitor in close proximity to equipment that contains strong permanent magnets.
 D Do not position the monitor near alternating current (ac) devices (for example, distribution transformers or high current ac bus bars).

Power Cord Length

<i>Meters</i>	<i>Feet</i>
2.4	8.0

Power Cord Plugs and Receptacles ¹

<i>Volts</i>	<i>Plug ²</i>	<i>Receptacle ²</i>
120 V ac	NEMA Type 5-15P	NEMA Type 5-15R
240 V ac	Varies	Varies (check with your local Apollo office)

Video Cable (Monitor to Processor)

<i>Type</i>	<i>Meters</i>	<i>Feet</i>
Shielded cable; captive to monitor	2.4	8.0

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Top</i>	15	6
<i>Rear</i>	8	3
<i>Sides</i>	8	3

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24

Dimensions

	<i>Centimeters</i>	<i>Inches</i>
<i>Height</i>	47.5	18.7
<i>Width</i>	48.5	19.0
<i>Depth</i>	49.0	19.3

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	28.0	61.6
<i>Shipping Weight</i>	32.0	70.4

Series 10000 Server

Description

The Domain Series 10000 is a UNIX-based deskside server, offering up to 100 MIPS performance, with a RISC based CPU, and the industry-standard IBM PC AT compatible and VMEbus peripheral interfaces.

CPU: 1 to 4 *PRISM*-based central processing units.

Bus Types: 64-bit memory and Direct I/O buses.

RAM: 8-MB to 128-MB parity.

Built-in Interfaces: 3 RS-232 ports.

Available Network Interfaces: Apollo Token Ring, Ethernet IEEE or IBM Token Ring network controller.

Service Processor: MC68020 is standard.

Operating System: Includes all environments: System V, BSD, and Aegis.

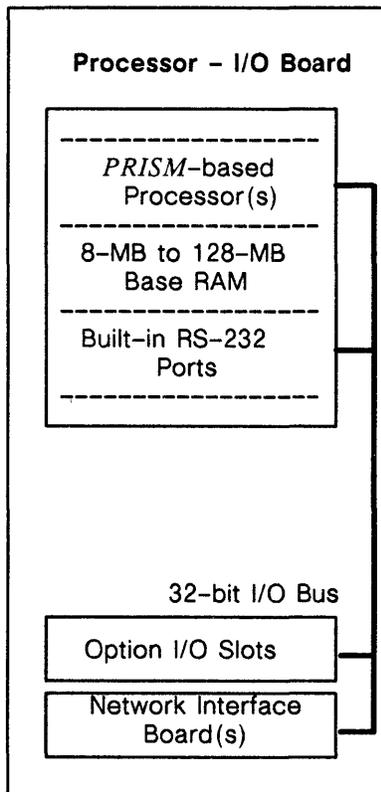


Figure D-37. Series 10000 Functions

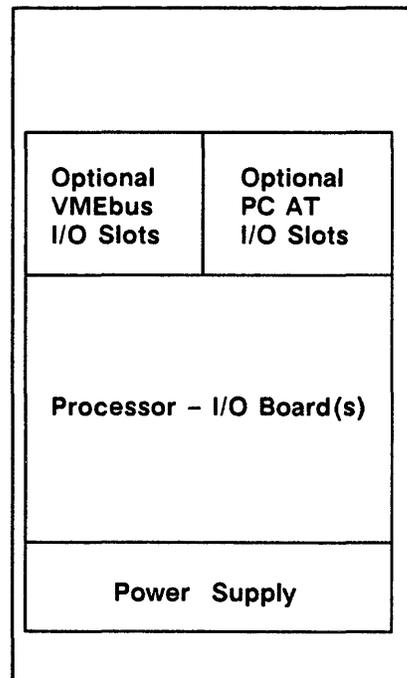


Figure D-38. Series 10000 Usage & Interconnections

Product Summary

Product/ Opt. No	Description
DSP10000	<p>DSP10000 Server, consisting of:</p> <p>A. Processor with:</p> <ol style="list-style-type: none"> 1. 1 to 4 <i>PRISM</i>-based 64-bit processors. 2. 4 slot IBM PC AT compatible bus. 3. 6 slot VMEbus 2x2 Eurocard interface. 4. RS232 serial interface (3 asynchronous ports). 5. Switch selectable power supply for 120V/240V operation. <p>B. Country Kit (DSP10CK-*). Includes country-specific power cord. (DSP10CK*1) Includes country specific power cord. *Localization which must be specific by National Version option ABA in the U.S. (see page D-2 for other countries.)</p> <p>C. Operating System License. Includes all environments: System V, BSD, and Aegis.</p> <p>D. Installation Manuals.</p> <p>E. Technical Publications Overview.</p> <p>F. License for:</p> <ol style="list-style-type: none"> 1. Domain/Dialogue. 2. Open Dialogue Runtimes User Interface Management system. 3. Open System Toolkit. 4. GSR, GMR2D, GMR3D, and Domain/PHIGS. 5. Domain/X11.

Series 10000 Options

DSP10CK-ABA	U.S. Version Country Kit (See Page D-2 for National Version options for other countries. Replace ABA with selection from table). If multinational country kit is required, order DSP10CK*1.
Opt. C01	1 Processor (Model 10010).
Opt. C02	2 Processors (Model 10020).
Opt. C03	3 Processors (Model 10030).
Opt. C04	4 Processors (Model 10040).
Opt. DS0	Server.
Opt. E6A	348-MB Winchester disk.
Opt. E8A	700-MB Winchester disk.

Series 10000
Server, continued

Product Summary continued

Product/ Opt. No.	Description
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Series 10000 Options, continued

Opt. G01	Apollo Token Ring network controller.
Opt. G02	Ethernet IEEE 802.3 network controller.
Opt. G03	IBM Token Ring IEEE 802.5 network controller, 14Mbit/sec.
Opt. H02	8-MB main memory.
Opt. H04	16-MB main memory.
Opt. H05	32-MB main memory.
Opt. H06	64-MB main memory.
Opt. H07	96-MB main memory. (Not available with option C04 if option DG0 or DH0 selected)
Opt. H08	128-MB main memory. (Not available with option C03 if option DH0 selected, or with option C04 if option DG0 or DH0 selected.)
Opt. J01	348-MB fast actuator Winchester disk (max. 4 drives w/2 per controller).
Opt. J02	348-MB fast actuator Winchester disk and controller (max. 2 controllers).
Opt. J03	700-MB fast actuator Winchester disk (max. 4 drives w/2 per controller).
Opt. J04	700-MB fast actuator Winchester disk and controller (max. 2 controllers).
Opt. J05	Cartridge Tape drive. (Requires option J06)
Opt. J06	Cartridge Tape drive and controller.

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 10000 Add-on Options (Field Installed)		
X-ADD-16MB	16-MB Add-on memory (upgrades 16-MB to 32-MB).	Series 10000
X-ADD-32MB	32-MB Add-on memory (upgrades 32-MB to 64-MB or 96-MB to 128-MB).	Series 10000
X-A-32MB-EXT	32-MB Add-on memory w/extension board (upgrades 64-MB to 92-MB).	Series 10000
X-ADD-64MB	64-MB Add-on memory w/extension board (upgrades 32-MB to 96-MB or 64-MB to 128-MB).	Series 10000
X-ADD-96MB	96-MB Add-on memory w/extension board (upgrades 32-MB to 128-MB).	Series 10000
X-ADD-TFC	SCSI Controller.	Series 10000
X-ADD-TC	SCSI Cartridge tape drive.	X-ADD-TFC or X-TFC
X-A-348FA	348-MB Winchester disk drive, formatted capacity (max. 2 controllers/system, 2 drives/controller).	Series 10000
X-MSD348FA	348-MB Winchester disk drive and controller. (max. 2 controllers/system, 2 drives/controller)	Series 10000
X-A-700FA	700-MB Winchester disk drive, formatted capacity (max. 2 controllers/system, 2 drives/controller).	Series 10000
XMSD700FA	700-MB Winchester disk drive and controller. (max. 2 controllers/system, 2 drives/controller)	Series 10000
V-NET-ATR	Apollo Token Ring Controller-VME (includes controller, cable, and documentation. Max. 2 controllers per system).	Series 10000
VNETETHPLUS	802.3 Network Controller-VME (includes controller, cable, and documentation. Max. 2 controllers per system)	Series 10000
V-NET-ITR	802.5 Network Controller-VME (includes controller, cable, and documentation. Max. 2 controllers per system)	Series 10000
X-COM-SCAT	Intelligent communications controller, provides 2 serial, high-speed ports for SNA and X.25. Supports 4 physical interfaces for each port. Includes 2 cables	Series 10000
X-ADD-PROC	Add-on processor (up to 4 per system).	Series 10000

Series 10000
Server, continued

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
Series 10000 Add-on Options, continued		
X-A-700D*	Multiple Disk Expansion Module, floor mounted, with 2 700-MB disks (max. 1 per system)	Series 10000
XMSD700*	Multiple Disk Expansion Module, floor mounted, with 2 700-MB disks and 2 VMEbus-based controllers (max. 1 per system).	Series 10000
X-A-6250*	1600/625 bpi 1/2" tape drive (max. 2 per system).	X-ADD-TFC or X-TFC
X-ADD-EX*	8mm drive in a single Disk Expansion Module (max. 2 per system).	X-ADD-TFC or X-TFC
KIT-CENT-PC	Parallel interface kit. Has 1 each: Centronics parallel; Versatec differential; Versatec TTL. Max. 56-KB throughput.	Series 10000
X-A-700Q*	Multiple Disk Expansion Module, floor mounted, with 4 700-MB disks (max. 1 per system)	Series 10000
XMSD700Q*	Multiple Disk Expansion Module, floor mounted, with 4 700-MB disks and 2 VMEbus-based controllers (max. 1 per system).	Series 10000
X-OBEXP* +	8mm drive in single Disk Expansion Module. Includes SFW-OB-NP.	X-ADD-TFC or X-TFC
X-GRA-E-* X-GRA-E*1	Low Cost Graphics subsystem, 1024x800 resolution, 8-plane graphics, 19" monitor and country kit.	DSP10000
X-GRA-G-* X-GRA-G*1	VS-40 High Performance Graphics subsystem, 1280x1024 resolution, 40-plane graphics, 19" monitor and country kit.	DSP10000
X-GRA-H-* X-GRA-H*1	VS-80 High Performance Graphics subsystem, 1280x1024 resolution, 80-plane graphics, 19" monitor and country kit.	DSP10000

* Country Code must be specified. See Page D-2 for selection.

+ Selection of media required (C = mag tape, or D = cartridge tape).

Series 10000 Server, continued

System Unit Power Requirements

<i>Voltage</i>	<i>Max. Current</i>	<i>Power</i>	<i>Frequency</i>
120 V ac ¹	16.0 A	1600 W	50 to 60 Hz (± 1 Hz)
220 to 240 V ac ¹	9.4 A	1600 W	50 to 60 Hz (± 1 Hz)
100 V ac ¹	16.0 A	1280 W	50 to 60 Hz (± 1 Hz) (Japan only)

Heat Output

5242 Btu/hr
4370 Btu/hr (Japan only)

Operating Environment

Temperature 15° C to 32° C (60° F to 90° F)
Relative Humidity 20% to 80% (noncondensing)

Power Cord Length

<i>Location</i>	<i>Meters</i>	<i>Feet</i>
North America	2.5	8.3
Other Locales	2.5	8.3

Power Cord Plugs and Receptacles

<i>Volts</i>	<i>Plug</i>	<i>Receptacle</i>
120	NEMA Type 5-20P	NEMA Type 5-20R
220 to 240	Varies	Varies (check with your local Apollo office)
100	Varies	Varies (check with your local Apollo office)

Network Cable (System Unit to the Network)

Connector Type A D-shell connector that attaches to the system unit network interface board and terminates with the Domain Quick-Connect (DQC-100) network plug. The DQC-100 network plug connects to the wall outlet. (This cable and connector ship with your system unit.)

Air Flow Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>Front</i>	15.2	6.0

Service Clearance

	<i>Centimeters</i>	<i>Inches</i>
<i>All Sides</i>	60	24
<i>Top</i>	30	12

Weight

	<i>Kilograms</i>	<i>Pounds</i>
<i>Weight of Unit</i>	127.0	280.0 (with one Winchester disk drive; each additional disk is 9 pounds)
<i>Shipping Weight</i>	140.6	310.0 (with one Winchester disk drive)

¹ Switch selectable. All systems are shipped at 120 V ac. To run your system at 220 V ac, you must change the voltage select switch setting by repositioning the voltage selection bracket on the system's lower rear panel.

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MATURE PRODUCTS

DSP90 DOMAIN SERVER PROCESSORS

Product/ Opt. No.	Description	Prerequisites/Notes
DSP90-2MB	Domain Computational Server Processor. Includes: License to use both Domain IX and Aegis OS, dedicated 32bit 68020 VLSI processor and 68881 floating point coprocessor, 2MB, 5 IEEE-796 (Multibus) slots, 2 asynchronous RS232-C Ports, DATA PRODUCTS Parallel Interface Printer Port, power supply, Domain ring interface.	Any DN Node
DSP90-3MB	DSP90 with 3MB Main Memory	
DSP90R-2MB	DSP90 2MB Rack Mountable	
DSP90R-3MB	DSP90 3MB Rack Mountable	

DFS90 DOMAIN FILESERVER PROCESSORS

DFS-90-2MB	Domain Fileserver with 500MB fixed storage capacity. Includes: License to use both Domain IX and Aegis OS; 500MB disk storage (442MB formatted) and Controller DSP90 Server Processor with 2MB Memory and a 68020 CPU, 68881 FPA, 5 slot IEEE (Multibus) Card Cage, 2 RS232-C Ports, Domain ring interface, power distribution unit.	Any DN Node
DFS-90-3MB	DSP90 with 3MB Main Memory	

MULTIBUS-COMPATIBLE OPTIONS

Product/ Opt. No.	Description	Prerequisites/Notes
MSD-500M	Domain Fixed Storage Disk with 500MB capacity. (442MB Formatted) Includes: Cabinet, controller and cables. Controller supports up to 4 Drives.	PNA, MBUS, DSP80, DSP80A or DSP90.
MSD-1000M	Domain Fixed Storage Disk with 1000MB capacity. (884MB Formatted) MSD-500M with second 500MB fixed disk.	

MATURE PRODUCTS

MULTIBUS-COMPATIBLE OPTIONS

Product/ Opt. No.	Description	Prerequisites/Notes
MSD-2000M	Domain Fixed Storage Disk with 2000MB capacity. (1768 Formatted) Includes: 2 cabinets, configured with four 500MB fixed disks.	PNA, MBUS, DSP80, DSP80A or DSP90.
MSD-300M	300 Mbyte Storage Module Disk Drive with removable pack (281 Formatted). First drive with controller.	
MSD-300M-A	Additional 300MB Storage Module Disk Drive with removable pack (281 Formatted). Second Drive, up to two Drives per Node.	PNA, MBUS, DSP80, DSP80A, DSP90 OR MSD-300M.
MSD-1600	Magnetic Tape Drive and Controller-1600 BPI, 25 IPS, 9 track Tape Drive mounted in a cabinet.	PNA, MBUS, DSP80, DSP80A, DSP90 or DFS.
MSD-6250	Magnetic Tape Drive and Controller -6250/1600 BPI, 25 IPS, 9 trace Tape Drive mounted in a cabinet.	
COM-X259-B COM-X259-D	Domain X.25 Gateway PNA, MBUS, synchronous hardware controller. Mounts in a DSP80, DSP80A, DSP90, PNA or MBUS.	PNA, MBUS DSP80, DSP80A, DSP90.
COM-X2510-B COM-X2510-D	Includes: Dual synchronous lines, full X.25 software with extensions, 2 modem cables.	Note: Incompatible with SFW-X25 and Serial Controller AT.
COM-BRG-A	Domain/Bridge-A(T1) Internetwork Router is an intelligent communications controller that provides a 1.544 Mbps connection between Apollo networks over T1 facilities. Mounts in a dedicated DSP80A or DSP90. Provides a single RS-449 interface to T1 channel access equipment. 25' router to channel access unit cable is included.	DSP80, DSP80A or DSP90. Note: One COM-BRG-A is required in each network.
COM-BRG-B	Domain/Bridge (Coax) Internetwork Router is an intelligent communications controller that provides a 2.0 Mbps connection between Apollo networks over coax cable. Mounts in a dedicated DSP80A or DSP90.	DSP80, DSP80A or DSP90. Note: One COM-BRG-B is required in each network.

MATURE PRODUCTS

DFS90 Expansions

Product/ Opt. No.	Description	Prerequisites/Notes
ADD-DFS-500M	Expansion 500MB disk for DFS fileserver. Includes: Additional storage (442MB formatted).	
ADD-DFS-1500M	Expansion 1500MB disk for DFS fileserver. Includes: Additional storage (1.326MB formatted).	

DOMAIN 5080 EMULATOR

LOCAL SYSTEMS

Product/ Opt. No.	Description	Prerequisites/Notes
5080-L4 5080-L8 5080-L12 5080-L16	Domain 5080 Emulator, local, Packaged system for 5080 emulation on Domain workstations, 4, 8, 12 or 16 users. Includes: Spectrographics DSCC Channel Interface Dedicated DSP90-2MB Server Processor, Bus & Tag cables, 25 ', Interface boards and cables, Site License for Domain 5080 Emulation.	

MATURE PRODUCTS

DOMAIN 5080 EMULATOR (cont'd)

T1 REMOTE SYSTEMS

Product/ Opt. No.	Description	Prerequisites/Notes
5080-TR4 5080-TR8 5080-TR12 5080-TR16	<p>Domain 5080 Emulator, T1 Remote, Packaged system for 5080 emulation on Domain workstations, 4, 8, 12 or 16 users. For installations where remote communication between mainframe and workstations is required.</p> <p>Includes: Spectragraphics DSCC Channel Interface Bus & Tag cables, 25', Communications Processor with T1 output, Spectragraphics DSCC configured for T1 input, dedicated DSP90 2MB Server Processor, Interface boards and cables, Site License for Domain 5080 Emulation.</p>	

V.35 REMOTE SYSTEMS

Product/ Opt. No.	Description	Prerequisites/Notes
5080-VR4 5080-VR8 5080-VR12 5080-VR16	<p>Domain 5080 Emulator, V.35 Remote, Packaged system for 5080 emulation on Domain workstations, 4, 8, 12 or 16 users. For installations where remote communication between mainframe and workstations is required.</p> <p>Includes: Spectragraphics DSCC Channel Interface Bus & Tag cables, 25', Communications Processor with V.35 output, Spectragraphics DSCC configured for V.35 input, dedicated DSP90 2MB Server Processor, Interface boards and cables, Site License for Domain 5080 Emulation.</p>	

MATURE PRODUCTS

COAX REMOTE SYSTEMS

Product/ Opt. No.	Description	Prerequisites/Notes
5080-CR4 5080-CR8 5080-CR12 5080-CR16	<p>Domain 5080 Emulator, Coax Remote, Packaged system for 5080 emulation on Domain workstations, 4, 8, 12 or 16 users. For installations where remote communication between mainframe and workstations is required.</p> <p>Includes: Spectrographics DSCC Channel Interface Bus & Tag cables, 25', Communications Processor with Coax output, Spectrographics DSCC configured for Coax input, dedicated DSP90 2MB Server Processor, Interface boards and cables, Site License for Domain 5080 Emulation.</p>	

Hard Copy Devices

Section E

Hard Copy Devices (Printers)

This section provides information on the hardcopy devices (printers) currently offered by and supported by HP-Apollo. These products are all available through Apollo Direct Channel (ADC) 1-800-225-5290.

Contents

Domain/Laser-26	E-2
Laser 800 Graphics Printer	E-4
Multi-Mode Printer	E-5
Color Print 300	E-6
National Version	E-9

Hard Copy Devices

Domain/Laser-26 Graphics Printer

Description

Apollo's Domain/Laser-26 printer brings 300 X 300 dots per inch (dpi) laser printing a maximum of 26 pages per minute and Postscript compatibility to the workstation user. The Domain/Laser-26 provides excellent letter quality text and high resolution graphics to satisfy the full range of professional printing needs. With the Domain/Laser-26 users can print graphics, schematics, solids images and even scanned images. Documentation, illustrations for reports and presentations, overhead transparencies, forms and newsletters look professionally done. The Domain/Laser-26 also prints technical and mechanical drawings on B sized (11 x 17 inches) paper.

Note: A page is defined as a maximum of 2500 characters in 4 fonts or maximum of 4000 characters in 1 font.

Product Summary

Product/ Opt. No.	Description	Prerequisites
LP26C-D LP26C-C LP26C-B LP26C-A	<p>Domain/Laser-26 high quality laser printer with MULTIBUS Parallel Interface Kit bundled as part of the configuration. PostScript Interpreter is integrated into the printer's controller.</p> <p>Paper Size A, A4, B and A3</p> <p>NOTE: Media type must be specified: D = Cartridge Tape; C = Mag Tape; B = 5.25" Floppy or A = 8" Floppy Disk.</p>	Any MULTIBUS-based Apollo node.
LP26S-D LP26S-C LP26S-B LP26S-A	<p>Domain/Laser-26 high quality laser printer. Post-Script Interpreter is integrated into the printer's controller.</p> <p>Paper Size A, A4, B and A3</p> <p>Note: For parallel operation use the appropriate parallel interface kit (KIT-CENT*). Must be installed by customer service. (See below, Page E-2)</p> <p>NOTE: Media type must be specified: D = Cartridge Tape; C = Mag Tape; B = 5.25" Floppy or A = 8" Floppy Disk.</p>	Any Apollo node with Serial RS232-C or Parallel port.
LP26-SPE9-D LP26-SPE9-B	<p>Domain/Laser-26 high quality laser printer with PC/AT Parallel Interface Kit. Post Script Interpreter is integrated into the printer's controller. Includes A-ADD-SPE, A-CBL-SPE and SPE software. Available on 5.25" floppy or cartridge tape.</p>	Any ATbus-based Apollo node except the DN10000.

Hard Copy Devices

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
KIT-CENT-PC KIT-CENT10B KIT-CENT10D KIT-CENT9-B KIT-CENT9-D	Parallel Interface Kit for ATBUS-based nodes. Will support Centronics Parallel, or Versatec differential or Versatec TTL output port. Kit includes a Centronics parallel cable and an ATbus controller board with the software driver. Available on 5.25" floppy or cartridge tape. NOTE: P = PRISM (available on cartridge tape only). 10 = SR10, 9 = SR9.7 or SR9.7.1	Any ATbus-based Apollo node.
KIT-CENT-MB	Parallel Interface Kit for MULTIBUS-based systems. Will support Centronics Parallel or Versatec differential or Versatec TTL output port. Kit includes a Centronics parallel cable and a MULTIBUS controller board with software driver.	Any MULTIBUS-based Apollo node.
A-ADD-SPE	SERIAL/PARALLEL EXPANSION board for PC/AT bus systems. Adds 2 serial and 1 Centronics parallel port. Interface Kit includes SPE controller board, 9 to 25 pin RS232-C serial adapter cable and user documentation.	Any ATbus-based Apollo node except the DN10000
A-CBL-SPE	Centronics parallel adapter cable for use with Serial/Parallel expansion board. (A-ADD-SPE)	A-ADD-SPE

Hard Copy Devices

LaserPrint 800 Graphics Printer

Description

Apollo's LaserPrint 800 printer brings 300 X 300 dots per inch (dpi) laser printing a maximum of 8 pages per minute and Postscript-compatibility to the workstation user. The LaserPrint 800 provides excellent letter quality text & high resolution graphics to satisfy the full range of professional printing needs. With the LaserPrint 800 users can print graphics generated on their Apollo workstations - including graphs, schematics, slides, images and scanned images. Documentation, illustrations for reports and presentations, overhead transparencies, forms and newsletters look professionally done.

Note: A page is defined as a maximum of 2500 characters with 4 fonts or maximum of 4000 characters in 1 font.

Product Summary

Product/ Opt. No.	Description	Prerequisites
LP8009ABA-D* LP8009ABA-B*	2108 Laser Printer with country-specific power cord, Serial cable and Release Notes. Available on 5.25" floppy or cartridge tape. NOTE: For parallel operation use KIT-CENT-AT. Must be installed by customer service.	SR9.7.1, Any Apollo based node with serial RS-232.
LP80010-ABA*	2108 Laser Printer with country-specific power cord, Serial cable and Release Notes. No media included. NOTE: For parallel operation use the appropriate interface kit for ATBUS-based nodes (KIT-CENT*). Must be installed by customer service.	SR10.
KIT-CENT-PC KIT-CENT10B KIT-CENT10D KIT-CENT9-B KIT-CENT9-D	Parallel Interface Kit for ATBUS-based nodes. Will support Centronics Parallel, or Versatec differential or Versatec TTL output port. Kit includes a Centronics parallel cable and an ATbus controller board with the software driver. Available on 5.25" floppy or cartridge tape. NOTE: P = PRISM (available on cartridge tape only) 10 - SR10, 9 = SR9.7 or SR9.7.1	Any ATbus-based Apollo node. SR10 SR9.7
KIT-CENT-MB	Parallel Interface Kit for MULTIBUS-based systems. Will support Centronics Parallel or Versatec differential or Versatec TTL output port. Kit includes a Centronics parallel cable and a MULTIBUS controller board with software driver.	Any MULTIBUS-based Apollo node.

*Localization which must be specific by National Version option ABA in the U.S. See Page E-9 for other countries.

Hard Copy Devices

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
A-ADD-SPE	SERIAL/PARALLEL EXPANSION board for PC/AT bus systems. Adds 2 serial and 1 Centronics parallel port. Interface Kit includes SPE controller board, 9 to 25 pin RS232-C serial adapter cable and user documentation.	Any ATbus-based Apollo node except the DN10000
A-CBL-SPE	Centronics parallel adapter cable for use with Serial/Parallel expansion board (A-ADD-SPE).	A-ADD-SPE

Multi-Mode Printer

Description

The Multi-Mode Printer is a dot-matrix printer providing near letter quality, draft and graphics (plot) printing modes. Resolution ranges from 72 to 144 dpi, at speeds ranging from 400 cps (draft) to 100 cps (letter quality). This printer handles fan fold paper from 8 inches to 14 7/8 inches wide. It can be utilized with any Apollo node that has an available RS-232 Serial port.

Product Summary

Product/ Opt. No.	Description	Prerequisites
HCD-MMP	Multi-Mode dot matrix printer which prints in near letter quality, draft, and graphics (plot) modes. It uses one asynchronous RS232-C port.	RS-232 serial port.

Hard Copy Devices

Color Print 300 Graphics Printer

Description

Apollo's ColorPrint 300 color image printer marries thermal-wax transfer print technology and sophisticated graphics rasterizing techniques to provide, unparalleled performance and image processing features in a single, compact desktop package. The ColorPrint 300 serves the hardcopy needs of an entire spectrum of graphics applications, including smooth shaded solids modeling, graphics arts/animation, process control, mapping, business graphics, econometric modeling, medical imaging, printed circuit board design and the many forms of computer imaging, including overhead transparencies.

Product Summary

Product/ Opt. No.	Description	Prerequisites
CGP-ABA*	ColorPrint 300 color graphics printer. U.S. Version. Does not include interface kit. NOTE: Not recommended for use on DSP80 or DSP90.	Any ATBus based-node with KIT-CENT-AT or any DN5xt with KIT-CENT-MB SR9.7.1, SR10
CGP9-MBABAD* CGP9-MBABAB*	Color Print 300 color graphics printer and MultiBus Parallel Interface Kit. Includes documentation and power cord. KIT-CENT-MB is bundled into system. NOTE: Not recommended for use on DSP80 or DSP90. Must be installed by customer service.	SR9.7.1, Any MULTBUS based Apollo node.
CGP10-MBABA*	Color Print 300 color graphics printer and MultiBus Parallel Interface Kit. Includes documentation and power cord. KIT-CENT-MB is bundled into system. NOTE: Not recommended for use on DSP80 or DSP90. Must be installed by customer service.	SR10 Any MULTBUS based Apollo node.
CGP9-ATABAD* CGP9-ATABAB* CGP10ATABAD* CGP10ATABAB* CGPP-ATABAC*	Color Print 300 color graphics printer and ATbus Parallel Interface Kit. Includes documentation and power cord. KIT-CENT-AT is bundled into system. NOTE: 9 = SR9 or SR9.7.1, 10 = SR10. P = PRISM	Any ATBUS-based node SR9.7.1, SR10 or above.

*Localization which must be specific by National Version option ABA in the U.S. See Page E-9 for other countries.

Hard Copy Devices

Product Summary continued

Product/ Opt. No.	Description	Prerequisites
KIT-CENT-PC KIT-CENT10B KIT-CENT10D KIT-CENT9-B KIT-CENT9-D	Parallel Interface Kit for ATBUS-based nodes. Will support Centronics Parallel, or Versatec differential or Versatec TTL output port. Kit includes a Centronics parallel cable and an ATbus controller board with the software driver. Available on 5.25" floppy or cartridge tape. NOTE: P = PRISM (available on cartridge tape only) 10 = SR10, 9 = SR9.7 or SR9.7.1	Any ATbus-based Apollo node. SR10 SR9.7
KIT-CENT-MB	Parallel Interface Kit for MULTIBUS-based systems. Will support Centronics Parallel or Versatec differential or Versatec TTL output port. Kit includes a Centronics parallel cable and a MULTIBUS controller board with software driver.	Any MULTIBUS-based Apollo node. SR10 SR9.7
ADD-CGPMEM	4MB Add-on memory for ColorPrint 300 which can have a total of 12MB of memory. Note: Available through Apollo Direct Channel (ADC) only on a lead time basis. Must be installed by Customer Service.	CGP, CGP-AT or CGP-MB.
KT4692AT9B KT4692AT9D	TEKTRONIX 4692 Driver with SPE PC/AT Parallel Interface kit. Includes A-ADD-SPE, A-CLB-SPE cable and SPE software. Available on either 5.25" or cartridge tape.	Any ATbus-based Apollo node except the DN10000. SR9.7 Tek 4692
KT4692MB9A KT4692MB9B KT4692MB9D	TEKTRONIX 4692 Driver for MULTIBUS-based systems. Kit includes MULTIBUS controller board, parallel cable, and Tektronix 4692 software driver. Available on either 5.25" or 8" floppy or cartridge tape.	Any MULTIBUS-based Apollo node. SR9.7
A-ADD-SPE	SERIAL/PARALLEL EXPANSION board for PC/AT bus systems. Adds 2 serial and 1 Centronics parallel port. Interface Kit includes SPE controller board, 9 to 25 pin RS232-C serial adapter cable and user documentation.	Any ATbus-based Apollo node except the DN10000 Tek 4692
A-CBL-SPE	Centronics parallel adapter cable for use with Serial/Parallel expansion board (A-ADD-SPE).	A-ADD-SPE

Hard Copy Devices

HP-Apollo Supported Hardcopy Printers

Price Listed, Software in SR10, & Fully Supported by Customer Service

Make/Model	Printer Type	Interface	Device Speed	Resolution
Apollo CP300 Tek 4693DX	Thermal wax Color	Parallel	1 1/2 minutes per page	300 dpi
Apollo-LP800 TI 2108	Laser	RS232 Parallel	8 ppm*	300 dpi
Apollo-LP26 DP 2665LZR	Laser	RS232 Parallel	26 ppm* 400 cps draft	300 dpi 72/144 dpi
Apollo -MMP	Dot matrix impact	RS232	400 cps draft 100 cps LQ	72/144 dpi

Make/Model	Paper Size	File Type	Device Name
Apollo CP300 Tek 4693DX	8 1/2 x 11 8 1/2 x 14	Bitmap	Tektrnx - SR10
Apollo-LP800 TI 2108	8 1/2 x 11	Text, Bitmap	TI-2108**
Apollo-LP26 DP 2665LZR	8 1/2 x 11	Text, Bitmap	Laser-26**
Apollo - MMP Genicom	8-14 7/8 inch fan fold	Text, Bitmap	ge-SR9.7 Genicom - SR10

NOTE:

* A page is define as a maximum of 2500 characters with 4 fonts or a maximum of 4000 characters with one font.

** All laser printers device names should be postscript with model as shown for the configuration file for SR10.

Hard Copy Devices

National Versions

Introduction

For convenient use in various nations throughout the world, Apollo products are offered in specific national versions called Country Kits. Each national version provides appropriate keyboard, keyboard cable, mouse, country specific power cord and keyboard cover.

Option	National Version
ABA	North America *
ABD	Germany*
ABF	France*
ABG	Australia
ABH	Netherlands
ABN	Norway*
ABP	Switzerland*
ABS	Sweden/Finland*
ABT	Israel
ABU	United Kingdom*
ABY	Denmark*
ABZ	Italy

* Indicates available with Multinational Keyboard

PC Integration Products

Section F

PC Integration Products

This section provides information on hardware PC Integration products currently offered by HP-Apollo. These products are available through Apollo Direct Channel (ADC) 1-800-225-5290.

Contents

PC Coprocessor Board with Media & Documentation	F-2
PCI-Ring Client: Apollo Token Ring Controller with Documentation and PC Software	F-2
PCI-Ethernet Client: 3 Com Etherlink II Controller with Documentation and PC Software	F-2

PC Integration Products

PC Coprocessor

Product/ Opt. No.	Description	Prerequisites/Notes
A-ADD-PCC	<p>PC Coprocessor Board which provides an IBM PC/AT compatible MS-DOS environment, in a window.</p> <p>Includes: controller board, software license, media and documentation.</p>	<p>Series 3XXX or Series 4XXX with one free AT bus slot</p> <p>SR9.7 or later (SR9 and SR 10) Available only on 5.25" floppy.</p>

PC Interconnect

Product/ Opt. No.	Description	Prerequisites/Notes
COM-PCI-RGB	<p>PCI-Ring client: Apollo Token Ring Controller and client software for direct connection of IBM PC/XT, PC/AT or compatible personal computers to Apollo Token Ring network.</p> <p>Includes: controller board, documentation and PC software.</p>	<p>PC/XT, PC/AT or compatible running MS-DOS 3.1 or greater.</p> <p>Available only on 5.25" floppy.</p> <p>Also requires PCI-Server software LA490xxxx on Apollo workstation or server</p>
COM-PCI-ETB	<p>PCI-Ethernet client: 3 Com Etherlink II Controller board and client software for direct connection of IBM PC/XT or PC/AT and other compatible personal computers to Apollo's ETHERNET network.</p> <p>Includes: controller board, documentation and PC software.</p>	

Networking & Communications Products

Section G

Networking & Communications Products

This section provides information on the various hardware networking and communications products offered by HP-Apollo, all of which are available through Apollo Direct Channel (ADC) 1-800-225-5290.

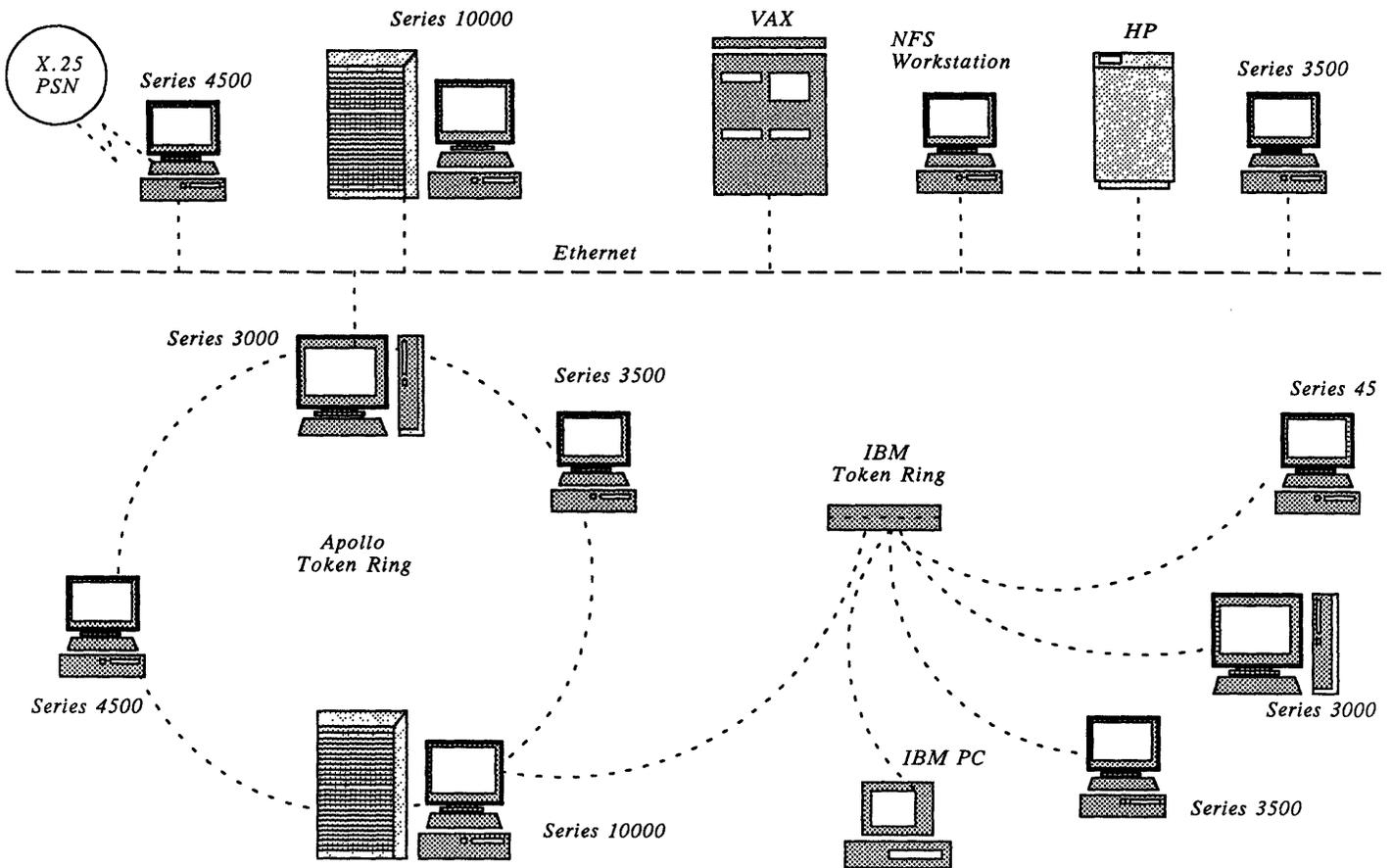
Contents

Network & Communications Controllers	G-3
Communications Cables	G-5
Bridges & Routers	G-6

DOMAIN

NETWORKING & COMMUNICATIONS

PRODUCTS



Networking & Communications Products

Network Controllers

Product/ Opt. No.	Description	Prerequisites/Notes
V-NET-ATR	Add-on Apollo Token Ring Controller-VME for, the DN100X0. Includes: Network controller board, cable and installation documentation.	DN100X0
V-NET-ETH	Add-on 802.3 Network Controller-VME for the DN5XXT workstations and servers. Includes: Network controller board, cable and installation documentation.	9.7 or later VME and DN570T, DN580T and DN590T or DSP500T.
VNETETHPLUS	Add-on 802.3 Network Controller-VME for the DN100X0. Includes: Network controller board, cable and installation documentation.	DN100X0
A-NET-ATR	Add-on Apollo Token Ring network controller for all AT-BUS nodes. Includes: Network controller board and installation documentation.	Series 3XXX, Series 4XXX Series 2XXX
A-NET-ETH	Add-on ETHERNET/IEEE 802.3 network controller for all AT-BUS nodes. Includes: Network controller board and installation documentation.	SR9.6 or later Series 3XXX, Series 4XXX Series 2XXX
A-NET-ITR	Add-on IBM Token Ring network controller for AT-BUS nodes. Includes: Network controller and documentation	SR10.1 or later DN/DSP3500 DN/DSP3550 DN/DSP4000 DN/DSP4500 Series 2XXX Note: DN35XX and DN40XX purchased before 1/1/89 may require hardware modifications prior to being upgraded.
ANETITR3K-B ANETITR3K-C	Add-on IBM Token Ring network controller for AT-BUS nodes. Includes: Network controller, documentation and software. Available on 5.25" floppy or cartridge tape.	SR10.1 DN/DSP3000 DN/DSP3010 DN/DSP3010A (Supported at SR10.2 only) Note: DN3000's may require boot prom.

NOTE: Call the Apollo Direct Channel 1-800-225-5290 for the appropriate wall to workstation cable information.

Communications Controllers

Product/ Opt. No.	Description	Prerequisites/Notes
COM-X259-B COM-X259-D COM-X2510-B COM-X2510-D	Domain X.25 Gateway, PNA, MBUS. Synchronous Hardware controller, mounts in a DSP80, DSP80A, DSP90, PNA or MBUS. Includes: dual synchronous lines, full X.25 software with extensions, and 2 modem cables.	DSP80, DSP80A, and DSP90. Note: Incompatible with SFW-X25 and SC-AT.
SCAT See Below	Intelligent communications controller that mounts in a DN3XXX or DN4XXX series node. It provides 2 serial, high speed ports for SNA or X.25 communications. It supports one of 4 physical interfaces for each port. Includes: 2 interface cables which must be specified from the list below. Available only with 5.25" floppy or cartridge tape.	SR9.7 or SR9.7.1 or SR10 DN3XXX or DN4XXX Note: If additional cables are required after board receipt, they must be ordered through ADC.

		CABLE 1	CABLE 2
SCAT9-N-N-B	SCAT10-N-N-B	No Cable	No Cable
SCAT9-N-N-D	SCAT10-N-N-D	No Cable	No Cable
-----	-----	-----	-----
SCAT9-N-B	SCAT102N-B	RS232	RS232
SCAT9-N-D	SCAT102N-D	RS232	RS232
SCAT9R2R2-B	SCAT102R2B	RS232	RS232
SCAT9R2R2-D	SCAT102R4D	RS232	RS232
SCAT9R2R4-D	SCAT10R2R4B	RS232	RS232
SCAT9R2R4-D	SCAT10R2R4D	RS232	RS232
SCAT9R2-V-B	SCAT10R2V-B	RS232	RS232
SCAT9R2-V-D	SCAT10R2V-D	RS232	RS232
SCAT9R2-X-B	SCAT10R2X-B	RS232	RS232
SCAT9R2-X-D	SCAT10R2X-D	RS232	RS232
-----	-----	-----	-----
SCAT9R4-N-B	SCAT10R4N-B	RS422	No Cable
SCAT9R4-N-D	SCAT10R4N-D	RS422	No Cable
SCAT9R4R4-B	SCAT10R4R4B	RS422	RS422
SCAT9R4R4-D	SCAT10R4R4D	RS422	RS422

Networking & Communications Products

Communications Controllers (cont'd)

Product/ Opt. No.	Description	CABLE 1	CABLE 2
SCAT9R2-V-B SCAT9R2-V-D	SCAT10R2V-B SCAT10R2V-D	RS232 RS232	V.35 V.35
SCAT9R2-X-B SCAT9R2-X-D	SCAT10R2X-B SCAT10R2X-D	RS232 RS232	X.21 X.21
SCAT9R4-N-B SCAT9R4-N-D	SCAT10R4N-B SCAT10R4N-D	RS 422 RS 422	No Cable No Cable
SCAT9R4R4-B SCAT9R4R4-D	SCAT10R4R4B SCAT10R4R4D	RS 422 RS 422	RS422 RS422
SCAT9R4-V-B SCAT9R4-V-D	SCAT10R4V-B SCAT10R4V-D	RS 422 RS 422	V.35 V.35
SCAT9R4-X-B SCAT9R4-X-D	SCAT10R4X-B SCAT10R4X-D	RS 422 RS 422	X.21 X.21
SCAT9-V-N-B SCAT9-V-N-D	SCAT10V-N-B SCAT10V-N-D	V.35 V.35	No Cable No Cable
SCAT9-V-V-B SCAT9-V-V-D	SCAT10V-V-B SCAT10V-V-D	V.35 V.35	V.35 V.35
SCAT9-V-X-B SCAT9-V-X-D	SCAT10V-X-B SCAT10V-X-D	V.35 V.35	X.21 X.21
SCAT9-X-N-B SCAT9-X-N-D	SCAT10X-N-B SCAT10X-N-D	X.21 X.21	No Cable No Cable
SCAT9-X-X-B SCAT9-X-X-D	SCAT10X-X-B SCAT10X-X-D	X.21 X.21	X.21 X.21

Serial Communication Cables

Product/ Opt. No.	Description	Prerequisites/Notes
CB-SYNC-232	RS-232 replacement cable.	SCAT Note: Replacement Cables for Serial Controller-AT.
CB-SYNC-449	RS-449 replacement cable.	
CB-SYNC-X21	X.21 replacement cable.	
CB-SYNC-V35	V.35 replacement cable.	

Bridges & Routers

Product/ Opt. No.	Description	Prerequisites/Notes
COM-DFL	Domain/DFL – 100 Fiber Optics Line which links Apollo Token Rings together using fiber optics.	Note: 2 are required for complete link.
COM-DFL-R	Domain/DFL-100-R Redundant Fiber Optics Link which links Apollo Token Rings together using fiber optics. Used as part of a redundant Domain/DFL-100 link. Also contains a connector cable to connect to a primary Domain/DFL link.	Note: 2 are required for a complete redundant link.
COM-BRG-A	<p>Domain/Bridge-A(T1) Internetwork Router is an intelligent communications controller that provides a 1544 Mbps connection between Apollo networks over T1 facilities. It mounts in a dedicated DSP80A or DSP90 and provides a single RS-449 interface to T1 channel access equipment.</p> <p>Includes: 25' Router to channel access unit cable.</p>	Note: 1 is required in each network.
COM-BRG-B	Domain/Bridge-B(Coax) Internetwork Router is an intelligent communications controller that provides a connection between Apollo networks over coax cable. It mounts in a dedicated DSP80A or DSP90.	Note: 1 is required in each network.

HARDWARE UPGRADES

Section H

Hardware Upgrades

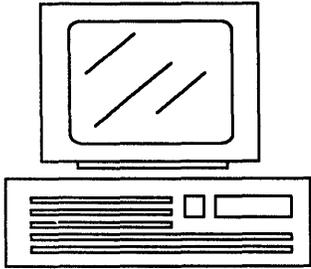
This section provides information on system hardware required for upgrading system performance and functionality.

Contents

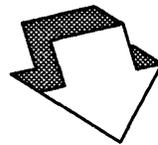
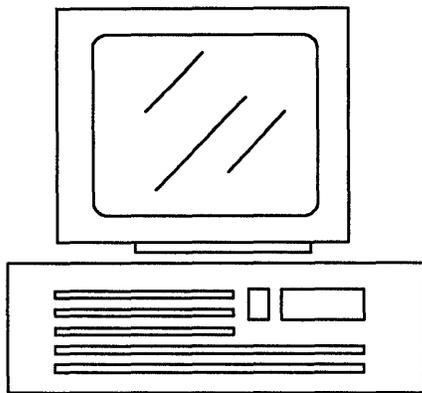
System Upgrades	H-4
Memory & Disk Upgrades	H-12
Graphics Upgrades	H-13
Desktop Visualization System Upgrades	H-15
DN3xxx and DN4xxx Communications Upgrades	H-16
Mature Products Upgrades	H-18
National Versions	H-24
Product Upgrade Matrix	H-25

HARDWARE UPGRADES

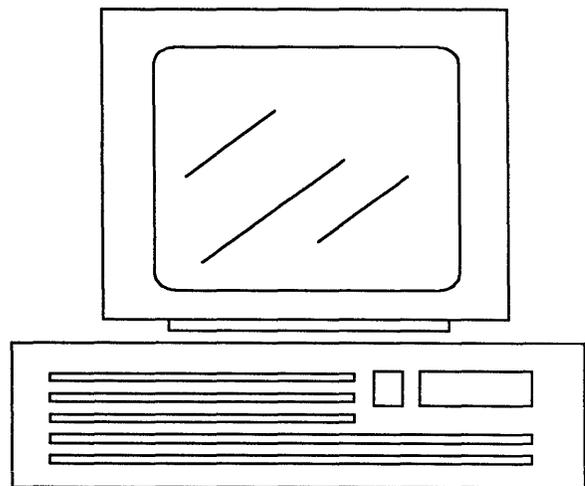
DN3000 4MB



DN3550 8MB



DN4500 16MB



HARDWARE UPGRADES

.Customers ordering upgrades must update their systems according to the prerequisites described in the then-current Configuration Guide, sales note, or technical bulletin. Customers agree to return all parts removed to Apollo. For end-users parts must be returned within 30 days of installation of upgrade. For OEMs parts must be returned within 90 days of shipment to OEM. Billing for non-returned parts will be done monthly for end-users and quarterly for OEMs.

NOTE: Upgrades with “**N**” suffixes exclude installation and customers may keep part(s) removed. These upgrades can also be ordered through the *Apollo Direct Channel (ADC)* by calling 1-800-225-5290.

HARDWARE UPGRADES

A. System Upgrades

Product Summary

DN3000 to DN3010

Product/ Opt. No.	Description	Prerequisites/Notes
U33010	Upgrades a DN3000 to a DN3010	Minimum operating sys revision SR9.5 or SR9.7 to utilize 256K virtual memory.

DN3000/DN3010 to DN3500

U335-4-4	Upgrades a DN3000, DN3010 or 3010A with 2MB or 4MB to a DN3500 with 4MB.	SR9.7.1, SR10 or later. Single Apollo Token Ring board or ETHERNET controller;
U335-4-8	Upgrades a DN3000, DN3010 or 3010A with 2MB or 4MB to a DN3500 with 8MB.	NOTE: An A-ADD-WFC-D disk controller is included with these upgrade products. To order two ring to single Apollo Network Ring Board, order UETH-R for native Ethernet upgrade.
U335-8-8	Upgrades a DN3000, DN3010 or 3010A with 8MB to a DN3500 with 8MB.	72MB will work in the upgrade or a 348MB disk will operate as a slow actuator disk in the upgrade. See the Service Plan for optional board revision required. Contact Customer Services for rework charges for optional boards.

HARDWARE UPGRADES

A. System Upgrades (cont'd)

DN3000/DN3010/DN3010A to DN4500

Product/ Opt. No.	Description	Prerequisites/Notes
U3K45E1E48 U3K45E1R48 U3K45M1E48 U3K45M1R48	Upgrades a DN3000, DN3010 or DN3010A with 2MB or 4MB to a DN4500 with 8MB.	Apollo Token Ring or ETHERNET controller; SR9.7.1 plus the appropriate PSK, SR10.1 or later; diskless or 155MB disk drive; 19" Mono (DMO) or 15"/19" 8 plane color (DEO) graphics only may upgrade.
U3K45E1E416 U3K45E1R416 U3K45M1E416 U3K45M1R416	Upgrades a DN3000, a DN3010 or DN3010A with 2MB or 4MB to a DN4500 with 16MB.	Kit includes: A-ADD-SWFC disk controller NOTE: 155MB or 348FA drives on the DN3010A are transferable.
U3K45E1E88 U3K45E1R88 U3K45M1E88 U3K45M1R88	Upgrades a DN3000, a DN3010 or DN3010A with 8MB to a DN4500 with 8MB.	72MB or 348MB slow actuator disk do not work. See Service Plan for optional board revision requirements. All system disks, floppy, cartridge tapes, monitors, optional boards, video controllers, keyboards and mice will be transferred to the new system. The old system box must be returned to Apollo unless the customer purchases U35545. If returned equipment is not in good working order, Apollo will restore it to spec on a T&M basis chargeable to the customer.
U3K45E1E816 U3K45E1R816 U3K45M1E816 U3K45M1R816	Upgrades a DN3000, a DN3010 or DN3010A with 8MB to a DN4500 with 16MB. NOTE: An A-ADD-SWFC disk controller is included with these upgrade products.	Contact Customer Services for rework charges for optional boards.

Note: In the above product model numbers:

- M = 19" Mono graphics
- E = 19" 8 Plane Color Graphics (1024 x 800)
- R = Apollo Token Ring
- E = 802.3 Ethernet

HARDWARE UPGRADES

A. System Upgrades (cont'd)

DN3000/DN3010/DN3010A to DN3550

Product/ Opt. No.	Description	Prerequisites/Notes
U3355E1E48 U3355E1R48 U3355M1E48 U3355M1R48	Upgrades a DN3000, DN3010 or DN3010A with 2MB or 4MB to a DN3550 with 8MB.	Apollo Token Ring or ETHERNET controller; SR9.7.1 plus the appropriate PSK, SR10.1 or later; diskless or 155MB disk drive; 19" Mono (DMO) or 15"/19" 8 plane color (DEO) graphics.
U3355E1E416 U3355E1R416 U3355M1E416 U3355M1R416	Upgrades a DN3000, a DN3010 or DN3010A with 2MB or 4MB to a DN3550 with 16MB.	Kit includes: A-ADD-SWFC disk controller NOTE: 155MB or 348FA drives on the DN3010A are transferable.
U3355E1E88 U3355E1R88 U3355M1E88 U3355M1R88	Upgrades a DN3000, a DN3010 or DN3010A with 8MB to a DN3550 with 8MB.	72MB or 348MB slow actuator disk to not work. See Service Plan for optional board revision requirements.
U3355E1E816 U3355E1R816 U3355M1E816 U3355M1R816	Upgrades a DN3000, a DN3010 or DN3010A with 8MB to a DN3550 with 16MB.	All system disks, floppy, cartridge tapes, monitors, optional boards, video controllers, keyboards and mice will be transferred to the new system. The old system box must be returned to Apollo. If returned equipment is not in good working order, Apollo will restore it to spec on a T&M basis chargeable to the customer.

Note: In the above product model numbers:

M = 19" Mono graphics
 E = 19" 8 Plane Color Graphics (1024 x 800)

R = Apollo Token Ring
 E = 802.3 Ethernet

HARDWARE UPGRADES

A. System Upgrades (cont'd)

DN3000/DN3010/3010A to DN4500 (348M to 348MFA)

Product/ Opt. No.	Description	Prerequisites/Notes
U3K45E6E48 U3K45E6R48 U3K45M6E48 U3K45M6R48	Upgrades a 2MB or 4MB DN3000 or DN3010 with 348MB to a DN4500 with 8MB + 348FA disk.	Apollo Token Ring or ETHERNET controller; SR9.7.1 plus the appropriate PSK, SR10.1 or later; upgrades 348M to 348MFA; 19" Mono (DMO) or 15"/19" 8 plane color (DEO) graphics. Kit includes: A-ADD-SWFC disk controller Note: All system floppy, cartridge tapes, monitors, optional boards, video controllers, keyboards and mice will be transferred to the new system. The old system box with 348 disk must be returned to Apollo. If returned equipment is not in good working order, Apollo will restore it to spec on a T&M basis chargeable to the customer. Contact Customer Services for rework charges for optional boards.
U3K45E6E416 U3K45E6R416 U3K45M6E416 U3K45M6R416	Upgrades a 2MB or 4MB DN3000 or DN3010 with 348MB to a DN4500 with 16MB + 348FA disk.	
U3K45E6E88 U3K45E6R88 U3K45M6E88 U3K45M6R88	Upgrades a 8MB DN3000 or DN3010 with 348MB to a DN4500 with 8MB + 348FA disk.	
U3K45E6E816 U3K45E6R816 U3K45M6E816 U3K45M6R816	Upgrades a 8MB DN3000 or DN3010 with 348MB to a DN4500 with 16MB + 348FA disk.	

Note: In the above product model numbers:

M = 19" Mono graphics
 E = 19" 8 Plane Color Graphics (1024 x 800)

R = Apollo Token Ring
 E = 802.3 Ethern

HARDWARE UPGRADES

A. System Upgrades (cont'd)

DN3000/DN3010/DN3010A to DN3550

Product/ Opt. No.	Description	Prerequisites/Notes
U3355E6E48 U3355E6R48 U3355M6E48 U3355M6R48	Upgrades a DN3000 or DN3010 with 2MB or 4MB and 348MB disk to a DN3550 with 8MB and 348MB disk.	Apollo Token Ring or ETHERNET controller; SR9.7.1 plus the appropriate PSK, SR10.1 or later; upgrades 348M to 348MFA; 19" Mono (DMO) or 15"/19" 8 plane color (DEO) graphics.
U3355E6E416 U3355E6R416 U3355M6E416 U3355M6R416	Upgrades a DN3000 or DN3010 with 2MB or 4MB with 348MB disk to a DN3550 with 16MB and 348MB disk.	Kit includes: A-ADD-SWFC disk controller
U3355E6E88 U3355E6R88 U3355M6E88 U3355M6R88	Upgrades a DN3000 or DN3010 with 8MB and 348MB disk to a DN3550 with 8MB and 348MB disk.	Note: All system floppy, cartridge tapes, monitors, optional boards, video controllers, keyboards and mice will be transferred to the new system. The old system box with 348MB must be returned to Apollo. If returned equipment is not in good working order, Apollo will restore it to spec on a T&M basis chargeable to the customer.
U3355E6E816 U3355E6R816 U3355M6E816 U3355M6R816	Upgrades a DN3000 or DN3010 with 8MB and 348MB disk to a DN3550 with 16MB and 348MB disk.	Contact Customer Services for rework charges for optional boards.

Note: In the above product model numbers:

M = 19" Mono graphics
E = 19" 8 Plane Color Graphics (1024 x 800)

R = Apollo Token Ring
E = 802.3 Ethernet

HARDWARE UPGRADES

A. System Upgrades (cont'd)

DN3500/DN3550/DN400 to DN4500

Product/ Opt. No.	Description	Prerequisites/Notes
U35545	Upgrades a DN3550 to a DN4500.	
U44548	Upgrades a 4MB DN4000 to a DN4500 with 8MB. A-ADD-WFC-D disk controller included.	Apollo Token Ring network board must be at Rev. 6 or greater; SR10.1 or SR9.7.1 plus the appropriate PSK; 19" mono (DMO) or 15" or 19" 8 plane color (DEO) or (DFO) versions. Slow actuator 348MB disks are not supported.
U445416	Upgrades a 4MB DN4000 to a DN4500 with 16MB. A-ADD-WFC-D disk controller included.	
U44588	Upgrades a 8MB DN4000 to a DN4500 with 8MB. A-ADD-WFC-D disk controller included.	
U445816	Upgrades a 8MB DN4000 to a DN4500 with 16MB. A-ADD-WFC-D disk controller included.	NOTE: All system disks, floppy, cartridge tapes, monitors, optional boards, video controllers, keyboards and mice will be transferred to the new system. The old system box must be returned to Apollo unless the customer purchases U35545. If returned equipment is not in good working order, Apollo will restore it to spec on a T&M basis chargeable to the customer.
U4451616	Upgrades a 16MB DN4000 to a DN4500 with 16MB. A-ADD-WFC-D disk controller included.	
U3500-4500	Upgrades a 4MB or 8MB DN3500 to a DN4500 with 8MB (Non SCSI). Only 15" or 19" DEO graphics or 19" DMO graphics are supported.	Contact Customer Services for rework charges for optional boards.

HARDWARE UPGRADES

A. System Upgrades (cont'd)

DN3000 to a DN2500

Product/ Opt. No.	Description	Prerequisites/Notes
U25L1R8ABA* U25L1E8ABA U25L1I8ABA	Upgrades a DN3000 to a DN2500 15" diskless with 8MB.	<p style="text-align: center;">Non-Applicable</p> <p>Note: These are complete system swaps. Total systems with graphics, CPU, disks, memory, keyboards etc. are returned to Apollo. Customer may keep any optional boards installed by customer.</p>
U25M1R8ABA U25M1E8ABA U25M1I8ABA	Upgrades a DN3000 to a DN2500 19" diskless with 8MB.	
U25L10R8ABA U25L10E8ABA U25L10I8ABA	Upgrades a DN3000 to a DN2500 15" monochrome, 100MB with 8MB.	
U25M10R8ABA U25M10E8ABA U25M10I8ABA	Upgrades a DN3000 to a DN2500 19" monochrome, 100MB with 8MB.	
U25L20R8ABA U25L20E8ABA U25L20I8ABA	Upgrades a DN3000 to a DN2500 15" monochrome, 200MB with 8MB.	
U25M20R8ABA U25M20E8ABA M25M20I8ABA	Upgrades a DN3000 to a DN2500 19" monochrome, 200MB with 8MB.	
U25L40R4ABA U25L40E4ABA U25L40I4ABA	Upgrades a DN3000 to a DN2500 15" monochrome, 400MB with 4MB.	
U25M40R4ABA U25M40E4ABA U25M40I4ABA	Upgrades a DN3000 to a DN2500 19" monochrome, 400MB with 4MB.	
U25L40R8ABA U25L40E8ABA U25L40I8ABA	Upgrades a DN3000 to a DN2500 15" monochrome, 400MB with 8MB.	
U25M40R8ABA U25M40E8ABA U25M40I8ABA	Upgrades a DN3000 to a DN2500 19" monochrome, 400MB with 8MB.	
U200IS	Upgrades a 100MB internal disk in a DN2500 to a 200MB disk.	
U25MONL-M	Upgrades a 15" to a 19" monochrome in a DN2500.	

Note: In the above product model numbers:

R = Apollo Token Ring

E = 802.3 Ethernet

I = 802.5 IBM Token Ring

* Localization which must be specific by National Version option ABA in the U.S.
(See Page H-23 for other countries.)

HARDWARE UPGRADES

B. Memory Upgrades

DN3010A, DN3550 and DN4500

Product/ Opt. No.	Description	Prerequisites/Notes
U3010A8M-A	Upgrades a DN3010A 4MB memory to 8MB board. Note: 4MB board must be returned to Apollo.	Non-Applicable
U458M16M-B	Upgrades a DN3550 or DN4500 8MB memory to 16MB (2-8MB boards). Note: 2-4MB boards must be returned to Apollo.	

C. Disk Upgrades

Series 3000 and Series 4000 EDSI Disk Upgrades

Product/ Opt. No.	Description	Prerequisites/Notes
U155DM	Upgrades a DN3000 or DN3010 72MB disk to a 155MB disk. KIT includes: disk A-ADD-WFC-D and documentation	DN3000/3010 OS Rev. 9.6 or later. CPU minimum Rev 25.
U348DM	Upgrades a DN3000 or DN3010 72MB or 155MB disk to a 348MB disk.	Note: Kit includes disk A-ADD-WFC-D and documentation.
U348FDM	Upgrades a 155MB disk in a DN3010A, DN3500, DN3550, DN4000 or DN4500 to a 348 fast actuator drive. Includes a disk controller.	
U348FD	Upgrades a 72MB or 155MB disk in a DN3010A, DN3500, DN3550 or DN4500 to a 348MB fast actuator drive (Disk only).	DN3010A must have A-ADD-WFC-D. DN35XX, DN4500 must have A-ADD-SWFC or ADD-WFC-D.

Note: If Apollo installs the upgrade, the SSE will uprev the CPU board on a DN3000 at no charge for all of the above products. .

ESDI SCSI Disk Upgrades Only*

Product/ Opt. No.	Description	Prerequisites/Notes
U348FDS-35	Upgrades a 155MB DN3500 or DN3550 to a 348MB disk fast actuator. Kit includes disk, A-ADD-SFWC, documentation.	SR10.1 or later DN3500 and DN3550 require CPU Rev. 9.
U348FDS-4	Upgrades a 155MB DN4000 to a 348disk fast actuator. Kit includes disk, A-ADD-SFWC, documentation.	DN4000 requires minimum CPU Rev. 25.
U348FDS-45	Upgrades a 155MB DN4500 to a 348MB fast actuator. Kit includes disk, A-ADD-SFWC, documentation.	DN4500 requires minimum Rev. 5 CPU.

Note: If Apollo installs the upgrade, the SSE will uprev the CPU board on at no additional charge for all of the above products. .

HARDWARE UPGRADES

ESDI SCSI Disk Upgrades Only (cont'd)*

Product/ Opt. No.	Description	Prerequisites/Notes
U697FDS-35	Upgrades a 155MB DN3500 or DN3550 with SCSI disk/floppy controller to a 697MB fast actuator disk. Kit includes disk, A-ADD-SFWC, documentation.	SR10.1 or later; needs the appropriate PSK for use with external disks.
U697FDS-4	Upgrades a 155MB or 348MB DN4000 with SCSI disk/floppy controller to a 697MB fast actuator disk. Kit includes disk, A-ADD-SFWC, documentation.	DN3500 and DN3550 require CPU Rev. 9. DN4000 requires minimum CPU Rev. 25.
U697FDS-45	Upgrades a 155MB or 348MB DN4500 with SCSI disk/floppy controller to a 697MB fast actuator disk. Kit includes disk, A-ADD-SFWC, documentation.	DN4500 requires Rev. 5 CPU.
<p>Note: If Apollo installs the upgrade, the SSE will uprev the CPU board on at no additional charge for all of the above products. .</p>		
U697FD	Upgrades a 155MB or 348MB DN3500, DN3550, or DN4500 with SCSI/disk/floppy A-ADD-SWFC to a 697MB fast actuator disk. Disk Only.	Note: System must have A-ADD-SWFC

* If a customer wants to add external disks or tape drives, the appropriate PSK must be ordered.

697 Disk Upgrade for Single Disk Expansion Module

Product/ Opt. No.	Description	Prerequisites/Notes
U697ED	Upgrades a 348MB single disk expansion module to a 697MB single disk expansion module.	SR10.1 or later Appropriate PSK. 697MB disk with ESDI SCSI disk controller in system.

SCSI System Tape Cartridge Upgrade

Product/ Opt. No.	Description	Prerequisites/Notes
UTCSTC	Upgrades Tape Cartridge in a DN3500, DN3550 DN4000 or DN4500 to a SCSI tape cartridge.	SR10.1 or later
UFLPSTC	Upgrades a floppy in a DN3500, DN3550, DN4000 or DN4500 to a SCSI tape cartridge.	348MB or 697MB disk drive with ESDI SCSI Disk/Floppy controller A-ADD-SWFC.

HARDWARE UPGRADES

SCSI Controller Conversion

Product/ Opt. No.	Description	Prerequisites/Notes
USWFC-35	Upgrades a DN3500 with A-ADD-WFC-D to an A-ADD-SWFC.	DN3500 and DN3550 require CPU Rev. 9. DN4000 requires minimum CPU Rev. 25. DN4500 requires CPU Rev. 5.
USWFC-4	Upgrades a DN4000 with A-ADD-WFC-D to an A-ADD-SWFC.	
USWFC-45	Upgrades a DN4500 with A-ADD-WFC-D to an A-ADD-SWFC.	

Note: If Apollo installs the upgrade, the SSE will uprev the CPU board on a DN3000 at no charge for all of the above products.

DN10000 Upgrade

Product/ Opt. No.	Description	Prerequisites/Notes
U700FD-10	Upgrades a 348MB disk to a 700MB disk in a DN10000.	SR10.0. PRISM Requires CPU minimum Rev. 14; Server Processor requires minimum Rev.13 or later. Contact Customer Services for rework charges.
U1000016M	Upgrades a DN10000 8MB to a DN10000 16MB.	
UGRAE-G	Upgrades a DN100x0-E to a DN100x0-G VS-40 system.	
UGRAE-H	Upgrades a DN100x0-E to a DN100x0-H VS-80 system.	
UGRAG-H	Upgrades a DN100x0-G VS-40 system to a DN100x0-H VS-80 system.	

D. Graphics Upgrades

Product/ Opt. No.	Description	Prerequisites/Notes
UMON19	Upgrades a DN3000, DN3010, DN3010A or DN3500, DN4000 or DN4500 15" 4 plane Color (DCO) to a 19" Color (DCO) or 15" Color 8 plane (DEO) to a 19" Color (DEO).	SR9.6 or later for E graphics
U15L-19C-3	Upgrades a DN3000, DN3010 or DN3010A 15" Monochrome (DLO) to a 19" 4 plane color (DCO).	
U15L-19E-3	Upgrades a DN3000, DN3010 or DN3010A 15" Monochrome (DLO) to a 19" 8 plane color (DEO).	

HARDWARE UPGRADES

Graphics Upgrades (cont'd)

Product/ Opt. No.	Description	Prerequisites/Notes
U19M-19C-3	Upgrades a DN3000, DN3010 or DN3010A 19" Monochrome (DMO) to a 19" 4 plane color (DCO).	SR9.6 or later for E graphics
U19M-19E-3	Upgrades a DN3000, DN3010 or DN3010A 19" Monochrome (DMO) to a 19" 8 plane color (DEO).	
UMON19M	Upgrades a DN3000, DN3010, DN3010A or DN3500 15" Monochrome (DLO) to a 19" Monochrome (DMO). Upgrades a DN3000, DN3010, DN3500, DN4000 or DN4500 15" Color 4 plane (DCO) to a 19" Monochrome (DCO).	
U-8-3000	Upgrades a 4 plane Color (DCO) DN3XXX to 8 plane (DEO).	
U15L-19E-35	Upgrades a DN3500 15" Monochrome (DLO) to a 19" 8 plane Color (DEO).	
UMON19C	Upgrades a DN3000, DN3010 or DN3500 19" Monochrome (DMO) to a 19" Color 4 plane (DCO) or a 15" Monochrome (DLO) to a 19" 4 plane Color (DCO).	
UMON19E	Upgrades a 19" Monochrome (DMO) to a 19" 8 plane Color (DEO).	

E. High Resolution Graphics Upgrades

Product/ Opt. No.	Description	Prerequisites/Notes
UMONE-F-4	Upgrades a DN4000 or DN4500 Color system 15" (DEO) or 19" (DEO) to 1280 x1024 graphics subsystem (DFO).	SR9.7.1 plus the appropriate PSK Note: Controller Board Uses 2 System Board Slots.

HARDWARE UPGRADES

High Resolution Graphics Upgrades (cont'd)

Product/ Opt. No.	Description	Prerequisites/Notes
UMONM-F-4	Upgrades a DN4000 or DN4500 Monochrome system (DMO) to a 19" 1280 x 1024 graphics subsystem (DFO).	SR9.7.1 plus the appropriate PSK Note: Controller Board Uses 2 System Board Slots.
UMONE-F-35	Upgrades a DN3500 or DN3550 Color system to a 19" (DCO or DEO) 1280 x 1024 graphics subsystem (DFO).	
UGMONM-F-35	Upgrades a DN3500 or DN3550 Monochrome system (DMO) to a 19" 1280 x 1024 graphics subsystem (DFO) or a 15" Monochrome (DLO) to a 19" 8 plane high resolution color (DFO).	

F. Desktop Visualization System Upgrades

Product/ Opt. No.	Description	Prerequisites/Notes
UMONF-A	Upgrades a DN3500, DN3550 or DN4500 (DFO) option, color system to the 8 plane Desktop Visualization System.	SR10.2
UMONF-B	Upgrades a DN3550 or DN4500 (DFO) option, color system to the 40 plane Desktop Visualization System.	
UMONA-B	Upgrades a DN3550 or DN4500 8 plane Desktop Visualization System to the 40 plane Desktop Visualization System.	Note: Controller Board Uses 2 System Board Slots.
UMONE-A	Upgrades a DN3500, DN3550 or DN4500 8 plane Color system to the 8 plane Desktop Visualization System (DEO).	
UMONE-B	Upgrades a DN3550 or DN4500 8 plane Color System (DEO) to the 40 plane Desktop Visualization System.	
UMONC-A	Upgrades a DN3500 4 plane Color system (DCO) to the 8 plane Desktop Visualization System.	
UMONM-A	Upgrades a DN3500, DN3550 or DN4500 15" or 19" Monochrome system (DLO) or (DMO) to the 8 plane Desktop Visualization System.	
UMONM-B	Upgrades a DN3550 or DN4500 Monochrome system (DMO) to the 40 plane Desktop Visualization System.	

HARDWARE UPGRADES

G. Desktop Visualization Special System Upgrades

Product/ Opt. No.	Description	Prerequisites/Notes
UMONF-A-S	Upgrades a DN3550 or DN4500 (DFO) option Color system to the 8 plane Desktop Visualization System.	SR10.2 Note: Controller Board Uses 2 System Board Slots.
UMONF-B-S	Upgrades a DN3550 or DN4550 (DFO) option Color system to the 40 plane Desktop Visualization System. Note: These two special systems can only be ordered with the -F node. Orders for the special program will only be accepted until October 1, 1989.	

H. DN3xxx & DN4xxx Communications Upgrades

Product/ Opt. No.	Description	Prerequisites/Notes
UETH-R	Upgrades both Domain Series 3000 & 4000 to native ETHERNET. Note: Ring board set must be returned to Apollo.	DN3010 requires minimum Rev. 9.6 for Ethernet. DN4000 requires minimum Rev. 9.6.1 for Ethernet.
UETH-N	Upgrades both Domain Series 3000 & 4000 to native ETHERNET. Note: Ring board set is not returned to Apollo.	
UETH-BP	Upgrades both Domain Series 3000 & 4000 with A-ADD-ETH option to native ETHERNET (A-NET-ETH).	IBM token ring requires SR10.1 or later. (For IBM token ring, minimum rev. CPUs are required. DN3500 at CPU Rev 9 or greater and DN4000 at CPU Rev. 25 or greater or DN3000 at Rev. 25 or greater.
UETHATR	Upgrades a Domain Series 3000 with a dual board Apollo Token Ring controller to a Domain Series 3000 with a single board Apollo Token Ring controller and native ETHERNET controller.	
UETHATRBP	Upgrades a Domain Series 3000 with a dual board Apollo Token Ring controller and an A-NET-ETH to a Domain Series 3000 with a single board Apollo Token Ring controller and a native ETHERNET controller (A-NET-ETH).	

HARDWARE UPGRADES

DN3XXX & DN4XXX COMMUNICATION UPGRADES (cont'd)

Product/ Opt. No.	Description	Prerequisites/Notes
UATR	Upgrades a 2 ring board Apollo Token Ring set to a single board Apollo Token Ring (A-NET-ATR).	DN3010 requires minimum Rev. 9.6 for Ethernet.
UITR-3-B UITR-3-D	Upgrades a DN3000 or DSP3000 to IBM Token Ring (4MBPS). Kit includes ANETITR3K and 4.2 boot prom. Available on 5.25" floppy or Cartridge Tape. Note: Ring board must be returned to Apollo.	DN4000 requires minimum Rev. 9.6.1 for Ethernet. IBM token ring upgrades SR10.1 or later.
UITR-4	Upgrades a DN4000 or DSP4000 to IBM Token Ring (4MBPS). Kit includes A-NET-ITR. Note: Ring board must be returned to Apollo.	For IBM Token Ring upgrtade DN3500 at CPU Rev 9 or greater and DN4000 at CPU Rev. 25 or DN3000 at Rev. 25 or greater can order.
UITR-35	Upgrades a DN35XXX or DSP35XXX to IBM Token Ring (4MBPS). Kit includes A-NET-ITR. Note: Ring board must be returned to Apollo.	DN4500 customers or customers with the correct CPU revision should order A-NET-ITR.

Note: If Apollo installs these upgrades, the SSE will uprev the CPU at no charge.

UITR-10-N	Upgrades a DN100X0 to IBM Token Ring (4MBPS). Note: Ring board set is not returned to Apollo.	DN3000 must be at Rev. 25 or greater. DN3010 requires minimum Rev. 9.6 for Ethernet.
UITR-3-B-N UITR-3-D-N	Upgrades a DN3000 or DSP3000 to IBM Token Ring (4MBPS). Note: Ring board set is not returned to Apollo.	DN4000 requires minimum Rev. 9.6.1 for Ethernet.
UITR-4-N	Upgrades a DN4000 or DSP4000 to IBM Token Ring (4MBPS). Note: Ring board set is not returned to Apollo.	IBM token ring upgrades SR10.1 or later.
UITR-35-N	Upgrades a DN3500 or DSP35XX to IBM Token Ring (4MBPS). Note: Ring board set is not returned to Apollo.	For IBM token ring upgrades DN3500 at CPU Rev 9 or greater and DN4000 at CPU Rev. 25 or greater and DN3000 at Rev. 25 or later.

HARDWARE UPGRADES

MATURE PRODUCTS

System Upgrades

Product/ Opt. No.	Description	Prerequisites/Notes
U330R-2M-4S	Upgrades a DN300 or DN320 HMB, 1MB, 1.5MB or 2MB to a DN330 2MB.	4 slot upgrade
U330R-2M	Upgrades a DN300 or DN320 1MB or 1.5MB to a DN330 2MB.	5 slot upgrades
U330R-3M	Upgrades a DN300 or DN320 1MB, 1.5MB, 2MB or 3MB to a DN330 3MB.	
U-560R2(28)	Upgrades a DN550 1MB or 1.5MB to a DN560 2MB.	
U-560R3(28)	Upgrades a DN550 1MB, 1.5MB, 2MB or 3MB to a DN560 3MB.	
U90R-2M	Upgrades a DSP80A .5MB, 1MB or 1.5MB to a DSP90 2MB.	
U90R-3M	Upgrades a DSP80A .5MB, 1MB, 1.5MB or 3MB to a DSP90 3MB.	

Memory Upgrades

Product/ Opt. No.	Description	Prerequisites/Notes
UDN300-H-3N UDN300-H-3R	Upgrades a DN300 HMB to a DN300 3MB.	
UDN300-1-3N UDN300-1-3R	Upgrades a DN300 1MB to a DN300 3MB.	
UD3001.5-3N UD3001.5-3R	Upgrades a DN300 1.5MB to a DN300 3MB.	
UDN300-2-3N UDN300-2-3R	Upgrades a DN300 2MB to a DN300 3MB.	
UDN330-2-3N UDN330-2-3R	Upgrades a DN330 2MB to a DN330 3MB.	
UDN550-1-3N UDN550-1-3R	Upgrades a DN550 1MB to a DN550 3MB.	
UD5501.5-3N UD5501.5-3R	Upgrades a DN550 1.5MB to a DN550 3MB.	

HARDWARE UPGRADES

Memory Upgrades (cont'd)

Product/ Opt. No.	Description	Prerequisites/Notes
UDN550-2-3N UDN550-2-3R	Upgrades a DN550 2MB to a DN550 3MB	
UDN560-2-3N UDN560-2-3R	Upgrades a DN560 2MB to a DN560 3MB.	
UDNX60-1-4N UDNX60-1-4R	Upgrades a DN460, DN660, DN660A or a DSP160 from 1MB to 8MB.	
UDNX60-1-8N UDNX60-1-8R	Upgrades a DN460, DN660, DN660A or DSP160 from 1MB to 8MB.	
UD460-1-16N UD460-1-16R	Upgrades a DN460 1MB to a DN460 16MB.	
UDNX60-2-4N UDNX60-2-4R	Upgrades a DN460, DN660, DN660A or a DSP160 from 2MB to 4MB.	<p>Note: 16MB upgrades are available for the DN460 and DSP160 only.</p> <p>A 4 slot DN300 is not upgradeable to more than 1.5MB of memory.</p> <p>All DSP80's are not upgradeable to more than 1.5MB of memory.</p> <p>DSP80 1.5MB systems have 1 less AMP available for multibus peripherals.</p> <p>N suffix customer keeps the removed boards. Installation is performed by customer.</p>
UDNX60-2-8N UDNX60-2-8R	Upgrades a DN460, DN660, DN660A or a DSP160 from 2MB to 8MB.	
UD460-2-16N UD460-2-16R	Upgrades a DN460 2MB to a DN460 16MB.	
UDP1602-16N UDP1602-16R	Upgrades a DSP160 2MB to a DSP160 16MB.	
UDNX60-4-8N UDNX60-4-8R	Upgrades a DN460, DN660, DN660A or a DSP160 from 4MB to 8MB.	
UD460-4-16N UD460-4-16R	Upgrades a DN460 4MB to a DN460 16MB.	
UDP1604-16N UDP1604-16R	Upgrades a DSP160 4MB to a DSP160 16MB.	
UD460-8-16N UD460-8-16R	Upgrades a DN460 8MB to a DN460 16MB.	
UDP1608-16N UDP1608-16R	Upgrades a DSP160 8MB to a DSP160 16MB.	
UDP80A-H-3N UDP80A-H-3R	Upgrades a DSP80A HMB to a DSP80A 3MB.	
UDP80A-1-3N UDP80A-1-3R	Upgrades a DSP80A 1MB to a DSP80A 3MB.	
UDP80A1.53N UDP80A1.53R	Upgrades a DSP80A 1.5MB to a DSP80A 3MB.	
UDP80A-2-3N UDP80A-2-3R	Upgrades a DSP80A 2MB to a DSP80A 3MB.	
UDSP90-2-3N UDSP90-2-3R	Upgrades a DSP90 2MB to a DSP90 3MB.	
UDP1601-16N UDP1601-16R	Upgrades a DSP160 1MB to a DSP160 16MB	

HARDWARE UPGRADES

DN5xx Workstation Upgrades

DN570, DN570A and DN580

Product/ Opt. No.	Description	Prerequisites/Notes
UTURBO2-8	Upgrades a DN570, DN570A or DN580 2MB to high performance MC68020 VLSI CPU and 68881 VLSI Floating Point Coprocessor with 8MB of ECC memory.	Note: All Turbo Upgrades require the return to Apollo of the removed materials.
UTURBO2-16	Upgrades a DN570, DN570A or DN580 2MB to high performance MC68020 VLSI CPU and 68881 VLSI Floating Point Coprocessor with 16MB of ECC memory.	
UTURBO3-8	Upgrades a DN570, DN570A or DN580 3MB to high performance MC68020 VLSI CPU and 68881 VLSI Floating Point Coprocessor with 8MB of ECC memory.	
UTURBO3-16	Upgrades a DN570, DN570A or DN580 3MB to high performance MC68020 VLSI CPU and 68881 VLSI Floating Point Coprocessor with 16MB of ECC memory.	

DN5xxT Array Processor Upgrade

Product/ Opt. No.	Description	Prerequisites/Notes
U-24-580T	Upgrades a DN580T to a DN590T. Graphics only.	SR9.6 or greater.

HARDWARE UPGRADES

Domain 5080 Emulator

LOCAL SYSTEM UPGRADES

Product/ Opt. No.	Description	Prerequisites/Notes
U5080L4 U5080L8 U5080L12 U5080L16	<p>Domain 5080 Emulator Upgrade, local, Packaged system for 5080 emulation on Domain workstations, 4, 8, 12 or 16 users.</p> <p>Includes: Spectragraphics DSCC Channel Interface Bus & Tag cables, 25', Communications Processor with T1 output, Spectragraphics DSCC configured for T1 input, dedicated DSP90 2MB Server Processor, Interface boards and cables, Site License for Domain 5080 Emulation.</p>	PK5080-XXX

T1 REMOTE SYSTEM UPGRADES

Product/ Opt. No.	Description	Prerequisites/Notes
U5080TR4 U5080TR8 U5080TR12 U5080TR16	<p>Domain 5080 Emulator Upgrade, T1 remote, Packaged system expansion for 5080 emulation on Domain workstations, 4, 8, 12, or 16 users. Can be utilized in two ways:</p> <ol style="list-style-type: none"> 1) Adds a second remote Domain 5080 gateway to existing PK5080-XXX or 2) Adds a Domain gateway to an existing Spectragraphics DSCC. <p>Includes: Communications Processor with T1 output Spectragraphics DSCC configured for T1 input, Dedicated DSP90 2MB Server Processor, Interface boards and cables. Site License for Domain 5080 Emulation.</p>	PK5080-XXX

HARDWARE UPGRADES

Domain 5080 Emulator (cont'd)

V.35 REMOTE SYSTEM UPGRADES

Product/ Opt. No.	Description	Prerequisites/Notes
U5080VR4 U5080VR8 U5080VR12 U5080VR16	Domain 5080 Emulator Upgrade, V.35 remote, Packaged system expansion for 5080 emulation on Domain workstations, 4, 8, 12, or 16 users. Can be utilized in two ways: 1) Adds a second remote Domain 5080 gateway to existing Pk5080-XXX or 2) Adds a Domain 5080 gateway to an existing Spectragraphics DSCC. Includes: Communications Processor with V.35 output, Spectragraphics DSCC configured for V.35 input, Dedicated DSP90 2MB Server Processor, Interface boards and cables, Site License for Domain 5080 Emulation.	PK5080-XXX

COAX REMOTE SYSTEM UPGRADES

Product/ Opt. No.	Description	Prerequisites/Notes
U5080CR4 U5080CR8 U5080CR12 U5080CR16	Domain 5080 Emulator Upgrade, Coax remote, Packaged system expansion for 5080 emulation on Domain workstations, 4, 8, 12, or 16 users. Can be utilized in two ways: 1) Adds a second remote Domain 5080 gateway to existing PK5080-XXX or 2) Adds a Domain gateway to an existing Spectragraphics DSCC. Includes: Communications Processor with Coax output Spectragraphics DSCC configured for Coax input, Dedicated DSP90 2MB Server Processor, Interface boards and cables, Site License for Domain 5080 Emulation.	PK5080-XXX

HARDWARE UPGRADES

Domain 5080 Emulator (cont'd)

Longer Cables for Domain 5080 Emulator Channel Interface

Product/ Opt. No.	Description	Prerequisites/Notes
CB5080UG50	50 ft Bus & Tag cable	Note: Standard Cable for Domain 5080 Emulator Channel Interface is 25 ft.
CB5080UG75	75 ft Bus & Tag cable	
CB5080UG100	100 ft Bus & Tag Cable	
CB5080UG125	125 ft Bus & Tag Cable	
CB5080UG150	150 ft Bus & Tag Cable	
CB5080UG175	175 ft Bus & Tag Cable	
CB5080UG200	200 ft Bus & Tag Cable	

Communication Upgrades

Product/ Opt. No.	Description	Prerequisites/Notes
U-V-NET-ETH	Upgrades a DN5XXT with VME to native ETHERNET.	SR9.6 or greater. VME

Multibus Compatible Upgrades

Product/ Opt. No.	Description	Prerequisites/Notes
U300DM500DM	Upgrades a 300MB removable storage module to a 500MB fixed module.	See prerequisites for 500MB disk module.
U300DS3000E U300DS3000R	Upgrades a 300MB removable storage module to a Domain Series 3000 Series Server 4MB disk and 60MB tape cartridge.	
UDP3500348E UDP3500348R	Upgrades a 500MB removable storage module to a Domain Series 3500 Server 4MB with 348MB disk and 60MB tape cartridge.	Note: Country Kit must be ordered separately. (Refer to the Prerequisites for the DSP35000.)
UDP3500697E UDP3500697R	Upgrades a 500MB removable storage module to a Domain Series 3500 Server 4MB with 697MB disk and 60MB tape cartridge.	

HARDWARE UPGRADES

National Versions

Introduction

For convenient use in various nations throughout the world, Apollo products are offered in specific national versions called Country Kits. Each national version provides appropriate keyboard, keyboard cable, mouse, country specific power cord and keyboard cover.

Option	National Version
ABA	North America *
ABD	Germany*
ABF	France*
ABG	Australia
ABH	Netherlands
ABN	Norway*
ABP	Switzerland*
ABS	Sweden/Finland*
ABT	Israel
ABU	United Kingdom*
ABY	Denmark*
ABZ	Italy

* Indicates available with Multinational Keyboard

HARDWARE UPGRADES

UPGRADE PRODUCT MATRIX

GRADE TYPE	SYSTEM	FROM	TO	ORDER MODEL #
CPU	DN300	DN300	DN330-2MB	U330R-2M
CPU	DN300	DN300	DN330-3MB	U330R-3M
CPU	DN3000	DN3000 CPU	DN3010 CPU	U33010
CPU	DN3000	DN3000-2/4MB	DN3500-4MB	U335-4-4
CPU	DN3000	DN3000-8MB	DN3500-8MB	U335-8-8
CPU	DN3000	DN3000-2/4MB	DN3500-8MB	U335-4-8
CPU	DN3000	DN3000-2/4MB	DN3550-8MB	U3355#1*48
CPU	DN3000	DN3000-8MB	DN3550-8MB	U3355#1*88
CPU	DN3000	DN3000-2/4MB	DN3550-16MB	U3355#1*416
CPU	DN3000	DN3000-8MB	DN3550-16MB	U3355#1*816
CPU	DN3000	DN3000-2/4MB/348MB	DN3550-8MB/348MB	U3355#6*48
CPU	DN3000	DN3000-8MB/348MB	DN3550-8MB/348/MB	U3355#6*88
CPU	DN3000	DN3000-2/4MB/348MB	DN3550-16MB/348MB	U3355#6*416
CPU	DN3000	DN3000-8MB/348MB	DN3550-16MB/348MB	U3355#6*816
CPU	DN3000	DN3000-8MB	DN4500-8MB	U3K45#1*88
CPU	DN3000	DN3000-2/4MB	DN4500-8MB	U3K45#1*48
CPU	DN3000	DN3000-8MB	DN4500-16MB	U3K45#1*816
CPU	DN3000	DN3000-2/4MB	DN4500-16MB	U3K45#1*416
CPU	DN3000	DN3000-8MB/348MB	DN4500-8MB/348MB	U3K45#6*88
CPU	DN3000	DN3000-2/4MB/348MB	DN4500-8MB/348MB	U3K45#6*48
CPU	DN3000	DN3000-8MB/348MB	DN4500-16MB/348MB	U3K45#6*816
CPU	DN3000	DN3000-2/4MB/348MB	DN4500-16MB/348MB	U3K45#6*416
CPU	DN3000	DN3000	DN2500 15" L,DISKLESS,8MB	U25L1*8ABA
CPU	DN3000	DN3000	DN2500 19"M,DISKLESS,8MB	U25M1*8ABA
CPU	DN3000	DN3000	DN2500 15" L,100MB,8MB	U25L10*8ABA
CPU	DN3000	DN3000	DN2500 19" M,100MB,8MB	U25M10*8ABA
CPU	DN3000	DN3000	DN2500 15"L,200MB,8MB	U25L20*8ABA
CPU	DN3000	DN3000	DN2500 19" M,200MB,8MB	U25M20*8ABA
CPU	DN3000	DN3000	DN2500 15" L,400MB,4MB	U25L40*4ABA
CPU	DN3000	DN3000	DN2500 19"M,400MB,4MB	U25M40*4ABA
CPU	DN3000	DN3000	DN2500 15" L,400MB,8MB	U25L40*8ABA
CPU	DN3000	DN3000	DN2500 19"M,400MB,8MB	U25M40*8ABA
CPU	DN3010(A)	DN3010(A)-2/4MB	DN3500-4MB	U335-4-4
CPU	DN3010(A)	DN3010(A)-2MB/4MB	DN3500-8MB	U335-4-8
CPU	DN3010(A)	DN3010(A)-8MB	DN3500-8MB	U335-8-8
CPU	DN3010(A)	DN3010(A)-2/4MB	DN3550-8MB	U3355#1*48
CPU	DN3010(A)	DN3010(A)-8MB	DN3550-8MB	U3355#1*88
CPU	DN3010(A)	DN3010(A)-2/4MB	DN3550-16MB	U3355#1*416
CPU	DN3010(A)	DN3010(A)-8MB	DN3550-16MB	U3355#1*816
CPU	DN3010(A)	DN3010(A)	DN2500 15" L,DISKLESS,8MB	U25L1*8ABA
CPU	DN3010(A)	DN3010(A)	DN2500 19"M,DISKLESS,8MB	U25M1*8ABA
CPU	DN3010(A)	DN3010(A)	DN2500 15" L,100MB,8MB	U25L10*8ABA
CPU	DN3010(A)	DN3010(A)	DN2500 19" M,100MB,8MB	U25M10*8ABA
CPU	DN3010(A)	DN3010(A)	DN2500 15"L,200MB,8MB	U25L20*8ABA
CPU	DN3010(A)	DN3010(A)	DN2500 19" M,200MB,8MB	U25M20*8ABA
CPU	DN3010(A)	DN3010(A)	DN2500 15" L,400MB,4MB	U25L40*4ABA
CPU	DN3010(A)	DN3010(A)	DN2500 19"M,400MB,4MB	U25M40*4ABA
CPU	DN3010(A)	DN3010(A)	DN2500 15" L,400MB,8MB	U25L40*8ABA
CPU	DN3010(A)	DN3010(A)	DN2500 19"M,400MB,8MB	U25M40*8ABA
CPU	DN3010	DN3010-2/4MB/348MB	DN3550-8MB/348MB	U3355#6*48
CPU	DN3010	DN3010-8MB/348MB	DN3550-8MB/348/MB	U3355#6*88
CPU	DN3010	DN3010-2/4MB/348MB	DN3550-16MB/348MB	U3355#6*416

HARDWARE UPGRADES

UPGRADE PRODUCT MATRIX

UPGRADE TYPE	SYSTEM	FROM	TO	ORDER MODEL #
CPU	DN3010	DN3010-8MB/348MB	DN3550-16MB/348MB	U3355#6*816
CPU	DN3010(A)	DN3010(A)-8MB	DN4500-8MB	U3K45#1*88
CPU	DN3010(A)	DN3010(A)-2/4MB	DN4500-8MB	U3K45#1*48
CPU	DN3010(A)	DN3010(A)-8MB	DN4500-16MB	U3K45#1*816
CPU	DN3010(A)	DN3010(A)-2/4MB	DN4500-16MB	U3K45#1*416
CPU	DN3010	DN3010-8MB/348MB	DN4500-8MB/348MB	U3K45#6*88
CPU	DN3010	DN3010-2/4MB/348MB	DN4500-8MB/348MB	U3K45#6*48
CPU	DN3010	DN3010-8MB/348MB	DN4500-16MB/348MB	U3K45#6*816
CPU	DN3010	DN3010-2/4MB/348MB	DN4500-16MB/348MB	U3K45#6*416
CPU	DN320	DN320	DN330-2MB	U330R-2M
CPU	DN320	DN320	DN330-3MB	U330R-3M
CPU	DN3500	DN3500-4MB/8MB	DN4500-8MB	U3500-4500
CPU	DN3550	DN3550 (CPU)	DN4500(CPU)	U35545
CPU	DN4000	DN4000-4MB	DN4500-8MB	U44548
CPU	DN4000	DN4000-4MB	DN4500-16MB	U445416
CPU	DN4000	DN4000-8MB	DN4500-8MB	U44588
CPU	DN4000	DN4000-8MB	DN4500-16MB	U445816
CPU	DN4000	DN4000-16MB	DN4500-16MB	U4451616
CPU	DN550	DN550	DN560-2MB	U560R2(28)
CPU	DN550	DN550	DN560-3MB	U560R3(28)
CPU	DN570	DN570-2MB	DN570T-16MB	UTURB02-16
CPU	DN570	DN570-3MB	DN570T-16MB	UTURB03-16
CPU	DN570	DN570-3MB	DN570T-8MB	UTURB03-8
CPU	DN570	DN570-2MB	DN570T-8MB	UTURB02-8
CPU	DN580	DN570-2MB	DN570T-8MB	UTURB02-8
CPU	DN580	DN580-2MB	DN580T-16MB	UTURBO2-16
CPU	DN580	DN580-3MB	DN580T-16MB	UTURBO3-16
CPU	DN580	DN580-3MB	DN580T-8MB	UTURBO3-8
CPU	DSP80A	DSP80A	DSP90-2MB	U90R-2M
CPU	DSP80A	DSP80A	DSP90-3MB	U90R-3M
CTLR ESDI-SCSI	DN35XX	ESDI CTLR	ESDI-SCSI CTLR	USWFC-35
CTLR ESDI-SCSI	DN4000	ESDI CTLR	ESDI-SCSI CTLR	USWFC-4
CTLR ESDI-SCSI	DN4500	ESDI CTLR	ESDI-SCSI CTLR	USWFC-45
DISK/ESDI CTLR	DN3000	72MB/ESDI	155MB/ESDI	U155DM
DISK/ESDI CTLR	DN3010(A)	72MB/ESDI	155MB/ESDI	U155DM
DISK/ESDI CTLR	DN3000	72MB/155MB ESDI	348MB/ESDI	U348FDM
DISK/ESDI CTLR	DN3010	72MB/155MB ESDI	348MB/ESDI	U348FDM
DISK	DN2500	100MB	200MB	U200IS
DISK	DN3010A	155MB	348MB (DISK ONLY)	U348FD
DISK	DN35XX	155MB	348MB (DISK ONLY)	U348FD
DISK	DN4500	155MB	348MB (DISK ONLY)	U348FD
DISK/ESDI-SCSI	DN35XX	155MB WITH ESDI CTLR	348MB ESDI-SCSI	U348FDS-35
DISK/ESDI-SCSI	DN4000	155MB WITH ESDI CTLR	348MB ESDI-SCSI	U348FDS-4
DISK/ESDI-SCSI	DN4500	155MB WITH ESDI CTLR	348MB ESDI-SCSI	U348FDS-45
DISK/ESDI CTLR	DN3010A	155MB/ESDI	348MB/ESDI	U348FDM
DISK/ESDI CTLR	DN35XX	155MB/ESDI	348MB/ESDI	U348FDM

HARDWARE UPGRADES

UPGRADE PRODUCT MATRIX

UPGRADE TYPE	SYSTEM	FROM	TO	ORDER MODEL #
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DISK/ESDI CTLR	DN4XXX	155MB/ESDI	348MB/ESDI	U348FDM
DISK	DN35XX	155/348MB ESDI-SCSI	697MB (DISK ONLY)	U697FD
DISK	DN4500	155/348MB ESDI-SCSI	697MB (DISK ONLY)	U697FD
DISK/ESDI-SCSI	DN35XX	155/348MB WITH ESDI	697MB ESDI-SCSI	U697FDS-35
DISK/ESDI-SCSI	DN4000	155/348MB WITH ESDI	697MB ESDI-SCSI	U697FDS-4
DISK/ESDI-SCSI	DN4500	155/348MB WITH ESDI	697MB ESDI-SCSI	U697FDS-45
DISK	DN10000	348MB	700MB (DISK ONLY)	U700FD-10
DISK-EXTERNAL	SDEM	348MB DISK	697MB DISK	U697ED
EXTERNAL DISK	MSD300	MSD300	DS3000	U300DM500DM
EXTERNAL DISK	MSD300	MSD300	MSD500	U300DS3000*
EXTERNAL DISK	MSD500	MSD500	DSP3500/348MB	UDP3500348*
EXTERNAL DISK	MSD500	MSD500	DSP3500/697MB	UDP3500697*
GRAPHICS	DN10000	E GRAPHICS	H GRAPHICS	UGRAE-H
GRAPHICS	DN10000	E GRAPHICS	G GRAPHICS	UGRAE-G
GRAPHICS	DN10000	G GRAPHICS	H GRAPHICS	UGRAG-H
GRAPHICS	DN3000	15°C GRAPHICS	19"M GRAPHICS	UMON19M
GRAPHICS	DN3000	15°C GRAPHICS	15"E GRAPHICS	U-8-3000
GRAPHICS	DN3000	15°C GRAPHICS	19°C GRAPHICS	UMON19
GRAPHICS	DN3000	15°C GRAPHICS	19"E GRAPHICS	UMON19,U-8-3000
GRAPHICS	DN3000	15"E GRAPHICS	19"E GRAPHICS	UMON19
GRAPHICS	DN3000	15"L GRAPHICS	19"M GRAPHICS	UMON19M
GRAPHICS	DN3000	15"L GRAPHICS	19"E GRAPHICS	U15L-19E-3
GRAPHICS	DN3000	15"L GRAPHICS	19°C GRAPHICS	U15L-19C-3
GRAPHICS	DN3000	19°C GRAPHICS	19"E GRAPHICS	U-8-3000
GRAPHICS	DN3000	19"M GRAPHICS	19°C GRAPHICS	UMON19C
GRAPHICS	DN3000	19"M GRAPHICS	19"E GRAPHICS	U19M-19C-3
GRAPHICS	DN3000	19"M GRAPHICS	19°C GRAPHICS	U19M-19E-3
GRAPHICS	DN3010(A)	15°C GRAPHICS	19°C GRAPHICS	UMON19
GRAPHICS	DN3010(A)	15°C GRAPHICS	15"E GRAPHICS	U-8-3000
GRAPHICS	DN3010(A)	15°C GRAPHICS	19"M GRAPHICS	UMON19M
GRAPHICS	DN3010(A)	15°C GRAPHICS	19"E GRAPHICS	UMON19,U-8-3000
GRAPHICS	DN3010(A)	15"E GRAPHICS	19"E GRAPHICS	UMON19
GRAPHICS	DN3010(A)	15"L GRAPHICS	19"E GRAPHICS	U15L-19E-3
GRAPHICS	DN3010(A)	15"L GRAPHICS	19°C GRAPHICS	U15L-19C-3
GRAPHICS	DN3010(A)	15"L GRAPHICS	19"M GRAPHICS	UMON19M
GRAPHICS	DN3010(A)	19°C GRAPHICS	19"E GRAPHICS	U-8-3000
GRAPHICS	DN3010(A)	19"M GRAPHICS	19"E GRAPHICS	U19M-19E-3
GRAPHICS	DN3010(A)	19"M GRAPHICS	19°C GRAPHICS	U19M-19C-3
GRAPHICS	DN3010(A)	19"M GRAPHICS	19°C GRAPHICS	UMON19C
GRAPHICS	DN3500	15°C GRAPHICS	19"E GRAPHICS	UMON19,U-8-3000
GRAPHICS	DN3500	15°C GRAPHICS	19"M GRAPHICS	UMON19M
GRAPHICS	DN3500	15°C GRAPHICS	19°C GRAPHICS	UMON19
GRAPHICS	DN3500	15°C GRAPHICS	15"E GRAPHICS	U-8-3000
GRAPHICS	DN3500	15"E GRAPHICS	19"E GRAPHICS	UMON19
GRAPHICS	DN3500	15"L GRAPHICS	19°C GRAPHICS	UMON19C
GRAPHICS	DN3500	15"L GRAPHICS	19"E GRAPHICS	U15L-19E-35
GRAPHICS	DN3500	15"L GRAPHICS	19"M GRAPHICS	UMON19M
GRAPHICS	DN3500	19°C GRAPHICS	19"E GRAPHICS	U-8-3000
GRAPHICS	DN3500	19"M GRAPHICS	19°C GRAPHICS	UMON19C
GRAPHICS	DN3500	19"F GRAPHICS	19"A GRAPHICS	UMONF-A
GRAPHICS	DN3500	19"E GRAPHICS	19"A GRAPHICS	UMONE-A

HARDWARE UPGRADES

UPGRADE PRODUCT MATRIX

UPGRADE TYPE	SYSTEM	FROM	TO	ORDER MODEL #
GRAPHICS	DN3500	19"C GRAPHICS	19"A GRAPHICS	UMONC-A
GRAPHICS	DN3500	19"M GRAPHICS	19"A GRAPHICS	UMONM-A
GRAPHICS	DN35XX	19"E GRAPHICS	19"F GRAPHICS	UMONE-F-35
GRAPHICS	DN35XX	19"M GRAPHICS	19"E GRAPHICS	UMON19E
GRAPHICS	DN35XX	19"M GRAPHICS	19"F GRAPHICS	UMONM-F-35
GRAPHICS	DN3550	19"F GRAPHICS	19"A GRAPHICS	UMONF-A
GRAPHICS	DN3550	19"E GRAPHICS	19"A GRAPHICS	UMONE-A
GRAPHICS	DN3550	19"M GRAPHICS	19"A GRAPHICS	UMONM-A
GRAPHICS	DN3550	19"F GRAPHICS	19"B GRAPHICS	UMONF-B
GRAPHICS	DN3550	19"E GRAPHICS	19"B GRAPHICS	UMONE-B
GRAPHICS	DN3550	19"M GRAPHICS	19"B GRAPHICS	UMONM-B
GRAPHICS	DN3550	19"A GRAPHICS	19"B GRAPHICS	UMONA-B
GRAPHICS	DN4000	19"E GRAPHICS	19"F GRAPHICS	UMONE-F-4
GRAPHICS	DN4000	19"M GRAPHICS	19"F GRAPHICS	UMONM-F-4
GRAPHICS	DN4000	19"M GRAPHICS	19"E GRAPHICS	UMON19E
GRAPHICS	DN4500	19"E GRAPHICS	19"F GRAPHICS	UMONE-F-4
GRAPHICS	DN4500	19"M GRAPHICS	19"E GRAPHICS	UMON19E
GRAPHICS	DN4500	19"M GRAPHICS	19"F GRAPHICS	UMONM-F
GRAPHICS	DN4500	19"F GRAPHICS	19"A GRAPHICS	UMONF-A
GRAPHICS	DN4500	19"E GRAPHICS	19"A GRAPHICS	UMONE-A
GRAPHICS	DN4500	19"M GRAPHICS	19"A GRAPHICS	UMONM-A
GRAPHICS	DN4500	19"F GRAPHICS	19"B GRAPHICS	UMONF-B
GRAPHICS	DN4500	19"E GRAPHICS	19"B GRAPHICS	UMONE-B
GRAPHICS	DN4500	19"M GRAPHICS	19"B GRAPHICS	UMONM-B
GRAPHICS	DN4500	19"A GRAPHICS	19"B GRAPHICS	UMONA-B
GRAPHICS	DN2500	15"L GRAPHICS	19"M GRAPHICS	U25MONL-M
GRAPHICS	DN580T	DN580T(8 PLANE)	DN590T(24 PLANE)	U-24-580T
MEMORY	DN10000	8MB	16MB	U1000016M
MEMORY	DN300/320	DN300-1.5MB	DN300-3MB	UD3001.5-3R
MEMORY	DN300/320	DN300-2MB	DN300-3MB	UDN300-2-3R
MEMORY	DN300/320	DN300-1MB	DN300-3MB	UDN300-1-3R
MEMORY	DN300/320	DN300-HMB	DN300-3MB	UDN300H-3R
MEMORY	DN3010A	DN3010A-4MB	DN3010A-8MB	U3010A8M-A
MEMORY	DN330	DN330-2MB	DN330-3MB	UDN330-2-3R
MEMORY	DN3550	DN3550/8MB	DN3550/16MB	U458M16M-B
MEMORY	DN4500	DN4500-8MB	DN4500/16MB	U458M16M-B
MEMORY	DN460	DN460-2MB	DN460-16MB	UD460-2-16R
MEMORY	DN460	DN460-1MB	DN460-16MB	UDNX60-1-16R
MEMORY	DN460	DN460-4MB	DN460-16MB	UD460-4-16R
MEMORY	DN460	DN460-8MB	DN460-16MB	UD460-8-16R
MEMORY	DN550	DN550-1MB	DN550-3MB	UD550-1-3R
MEMORY	DN550	DN550-1.5MB	DN550-3MB	UD550-1.5-3R
MEMORY	DN550	DN550-2MB	DN550-3MB	UDN550-2-3R
MEMORY	DN560	DN560-2MB	DN560-3MB	UDN560-2-3R
MEMORY	DNX60	DNX60-2MB	DNX60-8MB	UDNX60-2-8R
MEMORY	DNX60	DNX60-1MB	DNX60-8MB	UDNX60-1-8R
MEMORY	DNX60	DNX60-1MB	DNX60-4MB	UDNX60-1-4R
MEMORY	DNX60	DNX60-4MB	DNX60-8MB	UDNX60-4-8R

HARDWARE UPGRADES

UPGRADE PRODUCT MATRIX

GRADE TYPE	SYSTEM	FROM	TO	ORDER MODEL #
MEMORY	DNX60	DNX60-2MB	DNX60-4MB	UDNX60-2-4R
MEMORY	DSP160	DSP160-4MB	DSP160-16MB	UDP1604-16R
MEMORY	DSP160	DSP160-8MB	DSP160-16MB	UDP1608-16R
MEMORY	DSP160	DSP160-1MB	DSP160-16MB	UDP1601-16R
MEMORY	DSP160	DSP160-2MB	DSP160-16MB	UDP1602-16R
MEMORY	DSP80A	DSP80A-2MB	DSP80A-3MB	UDP80A-2-3R
MEMORY	DSP80A	DSP80A-1.5MB	DSP80A-3MB	UDP80A1.53R
MEMORY	DSP80A	DSP80A-HMB	DN300-3MB	UDN300-H-3R
MEMORY	DSP80A	DSP80A-1MB	DSP80A-3MB	UD300-1-3R
MEMORY	DSP90	DSP90-2MB	DSP90-3MB	UDN330-2-3R
NETWORKING	AT BUS	ATR(2 BOARD)	APOLLO TOKEN RING (1 BD)	UATR
NETWORKING	AT BUS	ATR (2 BD/1 BD)	NATIVE ETH(A-NET-ETH)	UETH-R
NETWORKING	AT BUS	ATR (2 BOARD)	NATIVE ETH AND A-NET-ATR	UETHATR
NETWORKING	AT BUS	A-ADD-ETH	NATIVE ETH(A-NET-ETH)	UETH-BP
NETWORKING	AT BUS	ATR (2 BOARD)	A-NET-ETH AND A-NET-ATR	UETHATRBP
NETWORKING	DN10000	DN10000	DN10000 IBM TOKEN RING	UITR-10-N
NETWORKING	DN3000	ATR/NATIVE ETH	IBM TOKEN RING(4MBPS)	UITR-3-(B,D)
NETWORKING	DN3010	ATR/NATIVE ETH	IBM TOKEN RING(4MBPS)	UITR-3-(B,D)
NETWORKING	DN3500	ATR/NATIVE ETH	IBM TOKEN RING(4MBPS)	UITR-35
NETWORKING	DN4000	ATR/NATIVE ETH	IBM TOKEN RING(4MBPS)	UITR-4
NETWORKING	DN5XXT	DN5XXT WITH VME	DN5XXT WITH NATIVE ETH	U-V-NET-ETH
CSI TAPE	FLPY	FLOPPY	SCSI TAPE CARTRIDGE	UFLPSTC
CSI TAPE	TC	ST506 TAPE CARTRIDGE	SCSI TAPE CARTRIDGE	UTCSTC

Configuration Record Packet

Introduction

This section contains blank forms for the DOMAIN System Configuration Record Packet that can be duplicated on a copying machine and used to fill out a configuration if a separate Configuration Record Packet is not available.

Contents

Configuration Summary I-2

Configuration List

Operating System/Operating System Bundle I-3

Other Software including License Product and Media Option I-4

Workstation & Networking Servers, options and accessories I-11

Peripheral Devices, options, add-ons and accessories I-12

Upgrades – CPU, Memory, Disk, Graphics, Networking, etc. I-14

Configuration Summary

System For: _____
(Customer's name and location)

Application: _____
(type of application, such as mechanical design, PC design, desktop publishing, etc.)

Application Software Package(s): _____

(name(s) and supplier(s) of software package(s) to be used to implement application.)

Workstation: _____ **Server** _____ **No. of Seats Served** _____

System Definition:

System	_____
Monitor	_____
Memory	_____
Disksize	_____
Country	_____
O/S	_____
Options	_____
Media	_____

Networking & Communications: _____

Hardcopy Devices: _____

System Upgrades: _____

Other: _____

HP–ApolloLine

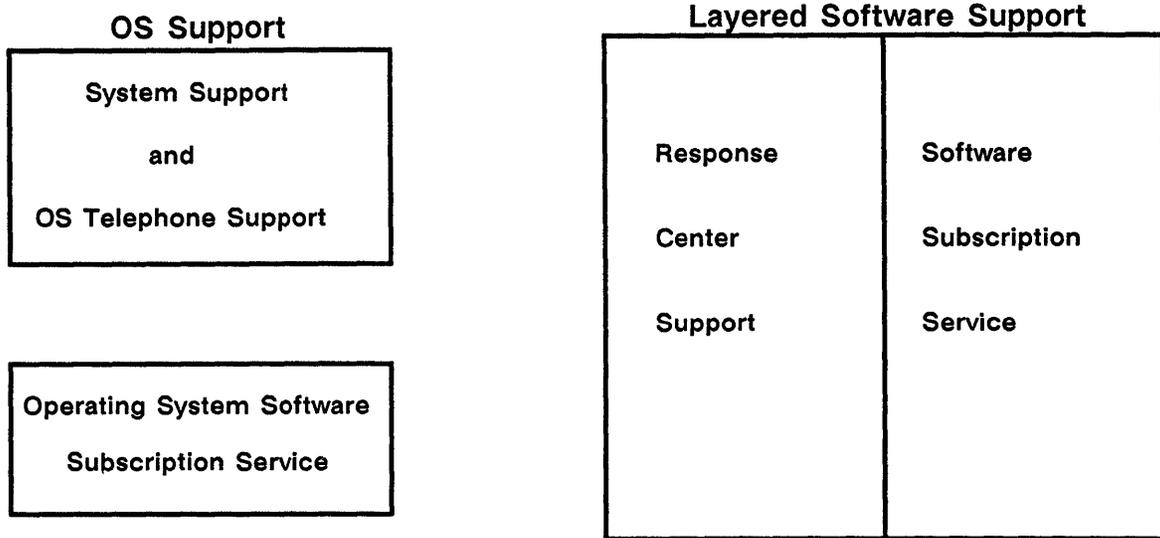
SOFTWARE SUPPORT

HP-ApolloLine Software Support

Description:

HP-ApolloLine Software Support for HP-Apollo Systems provides telephone problem assistance for HP-Apollo software as well as updates to software and documentation. Software support will help customers to become more productive by more quickly solving problems and by ensuring that customers are using the latest software releases.

Support must be ordered individually for the Operating System and for each "layered" non-operating system product which the customer wants to support. Support for the Operating System is configured differently than support for the layered software products.



A. Operating System Support

Telephone assistance for the Operating System is bundled into the HP-ApolloLine System (Hardware) Support. System Support is therefore a prerequisite to software support. Although System support provides OS telephone assistance, it does not provide any software updates. Because the HP Response Center will only support the two most current revisions of software, customers must subscribe to software updates. Operating System Software Subscription Service provides updates to operating system software and documentation.

B. Layered Software Support

Customers may choose between two (2) levels of support for each of their layered software products. For each layered software product requiring support, an appropriate support product must be ordered.

1) Response Center Support (RCS) is available for optional software programs previously licensed on the Node/Server at the site and covered under an HP ApolloLine System Support Agreement. RCS must be purchased on a site basis.

Response Center support features the following:

- * Telephone assistance to the Response Center contacts designated in the System Support Agreement.
- * One set of media and documentation updates
- * Right-to-Copy the updates onto other supported nodes at the site, based on the volume level purchased.

- * Choice of media
- * RCS pricing is non-discountable.
- * RCS and SSS pricing for the same optional software product cannot be mixed within a site.

Software support is sold on a site basis, rather than a system basis. For each product ordered, choose the option corresponding to the number of nodes requiring support for that product at that site. All nodes at a site must be supported.

Software products running on different architecture nodes are supported through different support products using different support product numbers. However, the level of support for identical products running on different architectures must be the same.

Note: A Site is defined as a group of Nodes/Servers located within a one-half (1/2) mile radius, and interconnected on a single network.

2) Software Subscription Service (SSS) provides only update materials and documentation for each corresponding software product. SSS must be purchased on a site basis. Software Subscription Service features the following:

- * One set of media and documentation updates
- * Right-to-Copy the updates onto other supported nodes at the site, based on the volume level purchased.
- * Choice of media
- * SSS pricing is non-discountable.
- * RCS and SSS pricing for the same optional software product cannot be mixed within a site.
- * For System Support Customers, the operating system SSS is required. Purchase must encompass all nodes/servers under support at the site.

Software support is sold on a site basis, rather than a system basis. For each product ordered, choose the option corresponding to the number of nodes requiring support for that product at that site. All nodes at site must be supported.

Software products running on different architecture nodes are supported through different support products using different support product numbers. However, the level of support for identical products running on different architectures must be the same.

Note: A Site is defined as a group of Nodes/Servers located within a one-half (1/2) mile radius, and interconnected on a single network.

C. Right-to-Execute Support:

Right-to-Execute Support provides the right to copy updates to the covered software program on the designated node/server plus the right to funnel questions for that program through the central site contact or alternate contact. This service is not site based. Each product covers a single node. To support multiple nodes, order multiple quantities of the RTE products.

RTE support may be less expensive for supporting remote sites which are small and can be supported through a central site. As sites become larger, RCS and SSS support is more economical. RTE support provides no materials, so customers must have a central site covered with RCS or SSS support. Customers must also funnel questions on RTE supported software through an RCS supported site.

RTE charges are non-discountable.

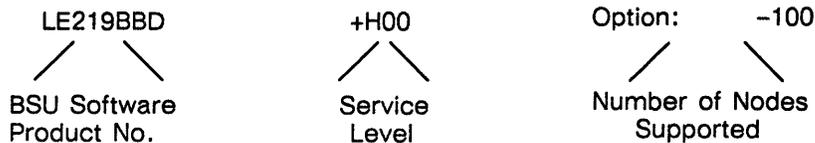
D. Other Support Products

Additional Documentation Service provides one copy of documentation updates for supported software products.

Additional Media Service provides one additional copy of software update media for supported software products. Customers may only copy the software to nodes covered by RCS, SSS or RTE support. Customers may only order additional media if desired software product is supported through SSS or RCS support at that site.

Product Summary

Software Support Products are ordered by appending a support suffix and option to a base software product number. The base software product number corresponds to the latest revision Basic Software Update (BSU) product. The support suffix identifies the support level, and the option identifies the number of nodes supported at the site. The basic form of the support product number will be:



The following table lists the base product numbers used in support product numbers:

Note: ? indicates media type where:

- A = 8" Floppy
- B = 5 1/4" Floppy
- C = Mag Tape
- D = Cartridge Tape (Apollo)
- E = HP Cartridge Tape for HP 9000

For RTE and ADS products the media type is not applicable. Use media type 'D' for these products.

Software Product	Apollo Motorola Architecture	Apollo PRISM Architecture	Other Non-Apollo Architectures
DOMAIN/ACCESS	LE000BA?		
DOMAIN/ADA	LE010BA?		
AEGIS	LE020AA?		
ALIS	LE060AA?		
DOMAIN C	LE070BA?	LE070BB?	
COMMONLISP	LE09ACA?		
COMMONLISP DEV.	LE09BCA?		
CORE GRAPHICS	LE110BA?		
DOMAIN/C++	LE130BA?	LE130BB?	
DIALOGUE PROG KIT	LE14BBA?	LE14BBB?	
DOMAIN/PAK	LE150BA?	LE150BB?	
DPCC	LE160BA?		
PC EMULATOR	LE170BA?		
DOMAIN/DSEE	LE180BA?	LE180BB?	

(cont'd)	Apollo Motorola Architecture	Apollo PRISM Architecture	Other Non-Apollo Architectures
Software Product			
D3M	LE190BA?	LE190BB?	
FORTRAN	LE210BA?	LE210BB?	
GKS RUNTIME PACK	LE22ABA?	LE22ABB?	
GKS DEVELOPMENT	LE22BBA?	LE22BBB?	
GMR2 RUNTIME	LE23ABA?	LE23ABB?	
GMR2D DEVELOPMENT	LE23BBA?	LE23BBB?	
GMR3 RUNTIME KIT	LE24ABA?	LE24ABB?	
GMR3D DEVELOPMENT	LE24BBA?	LE24BBB?	
I/O SOFTWARE	LE250BA?	LE250BB?	
GSR DEVELOPMENT	LE26BBA?	LE26BBB?	
DOMAIN/IX	LE300AA?		
KNOW BROKER READ	LE32ABA?	LE32ABB?	
KB PUB KIT	LE33ABA?	LE33ABB?	
NLS LOCK	LE350BA?	LE350BB?	
SUNOS LSLOCK			LE350DDD
VAX/VMS LSLOCK			LE350GEC
LU6.2 GW NODE	LE36ABA?	LE36ABB?	
DPSS/MAIL	LE370BA?	LE370BB?	
NCK (APOLLO)	LE380BA?		
NCK SUN/OS			LE380DAD
NCK VAX/VMS			LE380GEC
NFS	LE390BA?	LE390BB?	
NIDL COMPILER	LE400BA?	LE400BB?	
NIDL SUN/OS			LE400DAD
NIDL VAX/VMS			LE400GEC
NLS APOLLO	LE420BA?	LE420BB?	
NLS SUN			LE420DAD
NLS VAX/VMS			LE420GEC
OMNIBACK	LE430BA?		
OPEN DIALOGUE	LE44BBA?		
OPEN DIAL SUN			LE44BDAD
DOMAIN OS	LE450BA?	LE450BB?	
PASCAL	LE460BA?	LE460BB?	
PCI-ETHERNET	LE4700C?		
PCI RING	LE480CA?		
PCI SERVER	LE490BA?		
DOMAIN/PCI-1	LE500BA?		
PHIGS RUNTIME	LE51ABA?	LE51ABB?	
PHIGS DEV	LE51BBA?	LE51BBB?	
PGMR RUNTIME	LE52ABA?	LE52ABB?	
PGMR DEV	LE52BBA?	LE52BBB?	
POSTSCRIPT DRV	LE530AA?		
PSTSCRPT VERSATEC	LE540AA?		
RTE	LE56AAA?		
SPE SOFTWARE	LE570BA?		
TCP/IP	LE590AA?		
APOLLO TECHNET	LE620BA?		
TRANSCRIPT	LE630BA?		
VERSATEC	LE640BA?		
X WINDOW	LE660BA?	LE660BB?	
X.25 COMM	LE67ABA?		
SNA 3270	LE70ABA?	LE70ABB?	
SNA 3770	LE71ABA?	LE71ABB?	
4014 EMULATOR	LE720BA?	LE720BB?	
TEKTRONIX DRV	LE730AA?		
CGM CALCOMP	LE770AA?		
CGM HP PLOT	LE780AA?		
CGM VERSATEC	LE790AA?		

The following table lists the support suffixes and their corresponding service levels:

Support Suffix	Service Level
+H00	Response Center Support
+S00	Software Subscription Service (layered software)
+B00	Pre-Oct 88 Support (DO NOT ORDER)
+Q00	Additional Documentation Service
+Z00	Additional Media Service
+X00	Right-to-Execute Support
+S23	OS SSS--Cartridge Media
+S41	OS SSS--8 in. Floppy Media
+S43	OS SSS--5 1/4 in. Floppy Media
+S62	OS SSS--Mag Tape

The following table lists the support product options and the corresponding number of nodes supported:

Option	Number of Nodes Supported
001	1 Node
005	Up to 5 Nodes
010	Up to 10 Nodes
025	Up to 25 Nodes
050	Up to 50 Nodes
100	Up to 100 Nodes
200	Up to 200 Nodes
300	Up to 300 Nodes

Example 1: Single Site, Single Architecture

For a 16 node site with the following software products:

Software Product	Service Level Desired	Number of Nodes
Domain/OS	System (Telephone)	16
Fortran	RCS	5
C	SSS	13

Notice not all nodes have a license for every product. Also, RCS and SSS support may be mixed within a site. However, support level may not be mixed for a single software product.

Order the following support:

Support Product	Option	Quantity
System Support	N/A	16
OS SSS	LE450BAD+S23	#025
RCS FORTRAN	LE210BAD+H00	#005
SSS C	LE070BAD+S00	#025

Example 2: Single Site, Mixed Architecture

For a 5 node site with 2 Motorola nodes and 3 PRISM nodes running the following:

Software Product	Service Level Desired	Number of Nodes
Domain/OS	System (Telephone)	2
PRISM Domain/OS	System (Telephone)	3
Fortran	RCS	2
PRISM Fortran	RCS	3

Order the following support:

Support Product	Option	Quantity
System Support	N/A	5
OS SSS	LE450BAD+S23	#005
PRISM OS SSS	LE450BBD+S23	#005
RCS FORTRAN	LE210BAD+H00	#005
RCS FTN PRISM	LE210BAD+H00	#005

Example 3: Additional Site--RTE Support

For an additional site which can be supported through a central site, it may be economical to use RTE support. Consider the following additional site:

Software Product	Service Level Desired	Number of Nodes
Domain/OS	System (Telephone)	2
Fortran	RTE	2

Assume this site can be supported through the central site of example 1. Questions can be funneled through the central site, and the updates can be copied as well from the central site.

RTE OS is priced according to processor. Assume DN3000's in this example.

Order the following support:

Support Product	Option	Quantity
System Support	N/A	2
RTE OS	LK010A+X00	2
RTE FORTRAN	LE210BAD+X00	2

Note: RTE OS products are priced according to processor and therefore cannot be constructed using the BSU product. LK010A is a dummy base number used only for RTE OS for a DN3000. Refer to the price guide for a complete list of RTE products for Operating System products.