OpenVMS Hobbyist Guide

The Alpha Kit

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This is a new manua

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OpenVMS V7.2

Montagar Software Concepts P. O. Box 260772, Plano, TX 75026-0772

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Welcome Hobbyist

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Welcome OpenVMS Hobbyist

Welcome to the OpenVMS Hobbyist Program. Compaq Computer Corporation, the U.S. Chapter DECUS, and the Dallas/Fort. Worth Compaq User Group have worked together to provide OpenVMS users the ability to inexpensively run OpenVMS at home for non-commerical uses.

In 1999, Compaq Computer Corporation expanded the program to include not only Open-VMS, but over 100 additional products, current OpenVMS releases, and Alpha Systems. Besides the U.S. Chapter DECUS, we also support about 20 DECUS Chapters as beneficiaries of the OpenVMS Hobbyist Program.

Hobbyist History

It all started at the DECUS National Event 1996, Anaheim, California. Pat Jankowiak delivered a speech to a panel of Digital Equipment Corporation Vice-Presidents at the *Digital Listens* session. Pat's proposal was applauded by many other DECUS members in attendence at the session. Digital listened, discussed it among several people within the OpenVMS organization, drafted an agreement, blessed it.

Digital offered to authorize the OpenVMS Hobbyist Program, allowing annual no-charge licenses for OpenVMS VAX V6.1 (and previous) base operating system to be distributed for non-commercial purposes. The Dallas/Fort Worth Local User Group agreed to provide support services and management for the program on behalf of the U.S. Chapter DECUS. John Wisniewski (Digital, now Compaq) and David Cathey (DECUS) worked together to put a complete program into place.

On May 18th, 1997, barely 6 months after Pat Jankowiak's proposal, the OpenVMS Hobbyist Program was announced at the DECUS National Event in Cincinnati.

At the DECUS National Event 1998, Los Angeles, California, Pat Jankowiak once again went before the *Compaq Listens* panel with another plea. The original OpenVMS Hobby

ist Program was a success, but more was needed. Given the proliferation of the Internet and the World-Wide-Web, support for TCP/IP and Motif was needed Inexpensive Alphas

where showing up on web-based auctions, and OpenVMS should be usable on those systems. Compaq listened. Several members of the OpenVMS organization attended the OpenVMS Hobbyist Session later during the event, and saw a crowded room of OpenVMS users showing their appreciation. Compaq *really* listened, and more discussions took place.

On March 1, 1999, the OpenVMS Hobbyist Program V2.0 was announced. Compaq really opened the doors and granted the OpenVMS Hobbyist Program current release OpenVMS for VAX and Alpha, plus over 100 OpenVMS layered products. Motif, Clustering, DEC-net, TCP/IP, compilers, development tools, management tools, and more.

Additionally, beside theCompaq products, Graymatter Software, Raxco Software, and Process Software have agreed to offer some of the products to OpenVMS Hobbyist systems.

At the DECUS National Event 1999, Providence, Rhode Island, we don't expect that Pat Jankowiak can really ask for anything more. Instead, we expect him to offer his sincere thanks to Compaq and the OpenVMS organization for making the OpenVMS Hobbyist Program a success.

The Original Proposal

The following is a transcript of the speech delivered to a panel of Digital Vice-Presidents at the Digital Listens Panel, DECUS National Event '96, Anaheim. This speech was prepared and delivered by Pat Jankowiak, the Newsletter Editor for the Dallas/Ft. Worth Local User Group:

As a pure hobbyist, and an afficionado of Digital's products, of which I own many, and which I believe to be the best in the world, I am dismayed by the lack of hobbyist participation in VMS and with Digital's products in general. I feel that two of the main reasons for this lack of participation are:

- The flow of old Sun, h/p, and other "evil" boxes into the homes of hobbyists, along with linux or BSD, which essentially allows the enthusiast to have a moderately powerful system complete with an o/s virtually for free.
- The flow of old VAXen and pdp's to the scrapyard, and the impossible expense for software and licenses for the same, which causes even the most ardent admirer to search elsewhere for the essentials, and gives an impression of Digital as being only slightly more friendly than IBM.

The lesson of the pdp-11 should be learned; that is, these fine computers were almost never found in a hobby scenario because of the cost-prohibitive licensing issue. Since Digital had sold the pdp software suite to Mentec, it was too late to start building a hobbyist user base for DEC on the pdp.

With the Alpha explosion, we are at an excellent point of opportunity right now with regards to the ability to radically expand the visibility and ownership of Digital platforms among the hobbyist class. I can't think of many hobbyist UNIX admins that wouldn't like to use VAX VMS. Serious computer hobbyists know that VMS is far superior to UNIX. In my living room, there is a microvax 3300 running VMS 5.0.. Got it for \$200 from Frito-Lay, where it was employed to cook corn chips. It's great! I have FORTRAN, Basic, Pascal, DECnet, and more.. (and I do have the license packs, just in case you are wondering..)

I would like to run a Free Access BBS with it, and serve news and mail, but not with 5.0. The local crackers are bored with crashing the local public access UNIX bbs and would converge on the Microvax like buzzards once it was discovered, and a couple of these guys are really knowledgeable. I could upgrade to 7.0 but then I lose most of the fun stuff, leaving me with the DCL prompt and DECNET.

I would like to see a free hobbyist license for a secure, full-featured, and recent VMS version. This would benefit Digital through increased public awareness and goodwill. Many would disuse their heathen unix boxes if VAX VMS were within reach. You can't buy this kind of goodwill. We know the score, and we want to play on your team. All you have to do is give us the chance.

- Pat Jankowiak, DECUS National Event, 1996, Anahiem

Credits

Many people have been involved in the development of the OpenVMS Hobbyist Program, and deserve some recognition for their efforts:

- Pat Jankowiak, Sony Electronics
- Nancy Strecker, Compaq, Vice-President of DECUS Relations (and sometimes rumored to be Vice-President of Hacker Relations)
- John Wisniewski, Compaq, OpenVMS Partner
- Jesse Lipcon, Compaq, Vice-President of Software Development
- Rich Marcello, Compaq, Managing Engineeer OpenVMS
- Mark Gorham, Compaq, Director Business Management OpenVMS
- Sue Skonetski, Compaq, OpenVMS Marketing
- DECUS U.S. Chapter Board of Directors
- David Cathey, Montagar Software Concepts/OpenVMS SIG Chairman/DFWCUG Chair
- David Schmidt, Management Science Associates/OpenVMS SIG Chairman (past)
- George Nicols, Compaq, Compaq-DECUS Counterpart
- Becca Parson, University of Central Florida/DECUS SIG Advocate
- Jo Ann Catcott, Pioneer Standard Electronics/DECUS LUG Advocate (past)

License Agreement

The OpenVMS Hobbyist License Agreement

COMPAQ HOBBY LICENSE AGREEMENT For OpenVMS

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Signature:

By the following signature, I agree to the above terms.

signature

type or print name

address line 1

address line 2

Hobbyist CD Contents

3

Software Provided

The Alpha Kit provides the following software products:

- OpenVMS V7.2 Distribution
 - OpenVMS V7.2 Base Operating System
 - DECWindows 1.2.5 (Motif)
 - AMDS
 - DECnet Phase IV
 - DECnet OSI Phase V
 - DCOM V1.0
 - TCP/IP V5.0
- JAVA for OpenVMS V7.2
- DEC C V6.0
- Pascal V5.7
- FORTRAN V7.1
- COBOL V2.5
- NOTES V2.5
- Netscape Navigator V3.03
- HTML Directory of interesting information...

Directory Listing

This is the directory of the top level of the OpenVMS Hobbyist CD. Note that the SYS*.DIR files have been exluded from this directory listing, since they are multiple copies of boot roots for the OpenVMS Installation Procedure.

Directory LDA1:[000000]

```
000000.DIR;1ALPHA072.DIR;1ALPHA_FORT071.DIR;1ALPHA_NOTES025.DIR;1BACKUP.SYS;1BADBLK.SYS;1BADDG.SYS;1BITMAP.SYS;1CC060.DIR;1CLEAN_SDA_HELP.COM;1COBOL025.DIR;1COM_ALPHA010.DIR;1CONTIN.SYS;1CORIMG.SYS;1DECAMDS_ALPHA072.DIR;1DECEVENT_ALPHA029.DIR;1DECNET_PHASE_IV_ALPHA072.DIR;1DECAMDS_ALPHA072.DIR;1GALAXY_FIRM_072.DIR;1DWMOTIF_ALPHA125.DIR;1INDEXF.SYS;1ISL_SCRIPT.ESS;1JAVA_072.DIR;1KITS.DIR;1NETSNAVG0303.DIR;1PASCAL057.DIR;1PCSI.DIR;1SECURITY.SYS;1TCPIP_ALPHA050.DIR;1VMS$COMMON.DIR;1VOLSET.SYS;1VOLSET.SYS;1VOLSET.SYS;1
```

Total of 32 files.

Most of these directories contains the installation kit and documentation for the product that the directory is named for.

The KITS Directory

The KITS directory is a convenient copy of all the individual product kit installation directories. For each product, there will be a <PRODUCT_NAME>_KIT.DIR, which will include the required files to install that product.

Note: Due to a production oversight, the DEC C kit directory was not properly linked into this KITS directory. The installation kits for DEC C can be found in [CC060.KIT].

The HTML Directory

The HTML Directory contains a number of items of interest to OpenVMS Hobbyists. A copy of the OpenVMS Hobbyist FAQ, messages from some primary instigators of the Hobbyist Program, and the Digital Timeline which documents 40 years of Digital computing history.

Installing Your Software

Basic Requirements

In order to install the software from the OpenVMS Alpha Hobbyist CD, you will need a base Alpha, a hard drive, a CD drive (512 byte sectored, not all CD's will do this), 32MB of memory, and either a console terminal or workstation (graphics card, monitor, keyboard, and mouse). You may wish to get a copy of the current OpenVMS SPD for a list of supported configurations and hardware products.

Additionally, you may need to go to the Compaq web site and get a copy of the latest firmware for your model of Alpha. OpenVMS has certain requirements as to the level of firmware suggested and required.

The Alpha Console

The Alpha Console is used to configure the Alpha and display the recognized hardware components currently connected, as well as boot the system for installation.

Use the SHOW DEV command in order to display the devices recognized on your system. This will show all the SCSI disks/tapes you may have installed on this system. Note that DKA500 shows a 537.60MB disk loaded. This is the OpenVMS Hobbyist Media Kit that is mounted in the RRD43 drive. Note that OpenVMS may rename disk/tape devices from the device name the Alpha Console recognizes them as. We will see an example of that as we go forward, since this system have a PMAZ (TurboChannel dual SCSI adapter) installed inside. DKA300 is a RZ28, which is plenty large enough for us to install OpenVMS onto.

Use the SHOW CONFIG command to display information about the Alpha model you have. In this case, we have a DEC 3000-300X. This display will show the firmware, PAL-code, and Console revisions levels that are installed on this system. SHOW CONFIG will show the current status of all the hardware adapters installed on the system. Again, note that a PMAZ is installed in TurboChannel slot #1.

```
>>> show config
DEC 3000 - M300X Digital Equipment Corporation
VPP PAL V5.56-80800101/OSF PAL V1.45-80800201 - Built on 28-JAN-1997 10:54:25.34
TCINFO DEVNAM DEVSTAT
 ____ _ _ _ _ _ _ _ _ _
        CPU OK KN16-CA -V7.0-S889-I21F-sV2.1 -DECchip 21064 P3.0
        OSC 175 MHz
        ASIC OK
       MEM OK
       FEROM OK
6
       CXT OK
5
       NVR OK
       SCC OK
       NI OK
        ISDN OK
        SCSI OK
1-PMAZC-AA TC1
```

Booting The Hobbyist CD

Now that we are familiar with the hardware configuration, we're ready to boot the Open-VMS Hobbyist CD and start installing the operating system.

```
>>> boot DKA500
INIT-S-CPU...
INIT-S-ASIC...
INIT-S-MEM...
INIT-S-NVR...
INIT-S-CXT...
INIT-S-SCC...
INIT-S-NI...
INIT-S-SCSI...
INIT-S-ISDN...
INIT-S-TC1...
AUDIT_BOOT_STARTS ...
AUDIT_CHECKSUM_GOOD
AUDIT_LOAD_BEGINS
AUDIT_LOAD_DONE
 OpenVMS (TM) Alpha Operating System, Version V7.2
$! Copyright (c) 1998 Digital Equipment Corporation. All rights reserved.
 Installing required known files...
 Configuring devices...
 You can install or upgrade the OpenVMS Alpha operating system or you can install or
upgrade layered products that are included on the OpenVMS Alpha operating system
CD-ROM.
You can also execute DCL commands and procedures to perform "standalone" tasks, such
as backing up the system disk.
 Please choose one of the following:
           1) Upgrade, install or reconfigure OpenVMS Alpha Version V7.2
           2) Display products and patches that this procedure can install
           3) Install or upgrade layered products and patches
```

4) Show installed products

5) Reconfigure installed products

- 6) Remove installed products
- 7) Execute DCL commands and procedures
- 8) Shut down this system

Enter CHOICE or ? for help: (1/2/3/4/5/6/7/8/?) 1

Since we are wanting to install OpenVMS, we've chosen option "1", and hit [RETURN].

Preserve -- Installs or Upgrades OpenVMS Alpha on the target disk and retains all other contents of the target disk.

* Note: You cannot use preserve to install OpenVMS Alpha on a disk on which OpenVMS VAX or any other operating system is installed.

Do you want to INITIALIZE or to PRESERVE? [PRESERVE] INITIALIZE

We want to initialize the disk, since we want to start from a clean slate. If you are upgrading a different version of OpenVMS, or want to keep the database on the disk, use PRESERVE.

At this point, the installation procedure needs to know what disk we are going to be installing OpenVMS on. A "?" was entered so the procedure will display the available disks. Note that the disks have changed from DKA to DKC. The numbers are the same, but OpenVMS has re-assigned the controller letters (DKA and DKB are now referencing the TurboChannel SCSI adapter).

You must enter the device name for the target disk on which OpenVMS Alpha will be installed.

Enter device name for target disk: (? for choices) ?

Device	Device	Error	Volume	9	Free	Trans	Mnt
Name	Status	Count	Label	Blocks	Count Cnt		
DAD0:	Online	0					
DKC0:	Online	0					
DKC100:	Online wrtl	ck		0			
DKC200:	Online	0					
DKC300:	Online	0					
DKC400:	Online wrtl	ck		0			
DKC500:	Mounted wrt	lck 0	ALPHA0	72	3483	80 1	
DKC600:	Online wrtl	ck		0			
Enter device name for target disk: (? for choices) DKC300:							

DKA300 is now DKC300, so we've chosen that as the disk to install. Since this disk already has information on it, the installation procedure will ask if we're really sure we about the label name and information on the disk. We'll have the installation procedure keep the label, but scratch the data.

DKC300: is now labeled ALPHA072.

Do you want to keep this label? (Yes/No) [Yes]

You have chosen to install OpenVMS Alpha on a new disk.

The target system disk, DKC300:, will be initialized. It will be labeled ALPHA072. Any data currently on the target system disk will be lost.

Is this OK? (Yes/No) YES

Initializing and mounting target....

Creating page and swap files....

You must enter a password for the SYSTEM account.

The password must be a minimum of 8 characters in length, and may not exceed 31 characters. It will be checked and verified. The system will not accept passwords that can be guessed easily.

The password will not be displayed as you enter it.

At the prompts, enter a password for the SYSTEM account. Note that the password will not echoed.

Password for SYSTEM account: Re-enter SYSTEM password for verification:

Next, the installation procedure will ask a series of questions about the configuration and installation options. Chose whatever options are appropriate for your uses. In this example, the system will not be a cluster member, not a Galaxy system, and will run DECnet Phase IV, TCP/IP, and DECwindows.

Will this system be a member of an OpenVMS Cluster? (Yes/No) NO Will this system be an instance in an OpenVMS Galaxy? (Yes/No) NO You can install the following products along with the OpenVMS operating system:

o DECwindows Motif for OpenVMS Alpha

o DECnet-Plus for OpenVMS Alpha

o DECnet Phase IV for OpenVMS Alpha

o Digital TCP/IP Services for OpenVMS

If you want to change your selections, you can do so later in the installation by answering "NO" to the following question:

"Do you want the defaults for all product options?"

Do you want to install DECwindows Motif for OpenVMS Alpha V1.2-5? (Yes/No) [YES] YES

Beginning with OpenVMS V7.1, the DECnet-Plus kit is provided with the OpenVMS operating system kit. Compaq strongly recommends that DECnet users install DECnet-Plus. DECnet Phase IV applications are supported by DECnet-Plus.

DECnet Phase IV is also provided as an option. Support for DECnet Phase IV is available through a Prior Version Support Contract.

If you install DECnet-Plus and TCP/IP you can run DECnet applications over a TCP/IP network. Please see the OpenVMS Management Guide for information on running DECnet over TCP/IP.

Do you want to install DECnet-Plus for OpenVMS Alpha V7.2? (Yes/No) [YES] NO

Do you want to install DECnet Phase IV for OpenVMS Alpha V7.2? (Yes/No) [YES]

Do you want to install Digital TCP/IP Services for OpenVMS V5.0-9? (Yes/No) [YES]

For your system to operate properly, you must set two parameters: SCSNODE and SC-SSYSTEMID.

SCSNODE can be from 1 to 6 letters or numbers. It must contain at least one letter.

If you plan to use DECnet, SCSNODE must be the DECnet Phase IV node name, or the DECnet-Plus (Phase V) node synonym.

If you have multiple OpenVMS systems, the SCSNODE on each system must be unique. Enter SCSNODE: HOBBY

If you plan to use DECnet, SCSSYSTEMID must be set based on the DECnet Phase IV address.

DECnet Phase IV addresses are in the format

DECnet_area_number.DECnet_node_number

DECnet_area_number is a number between 1 and 63. DECnet_node_number is a number 1 and 1023.

If you plan to use DECnet WITHOUT Phase IV compatible addresses, enter 0.0.

Enter DECnet (Phase IV) Address [1.1]:

SCSSYSTEMID will be set to 1025.

This was calculated as follows:

(DECnet_area_number * 1024) + DECnet_node_number

Configuring the Local Time Zone

TIME ZONE SPECIFICATION -- Main Time Zone Menu

 1) Australia 11) GMT
 21) Mexico
 31) Turkey

 2) Brazil
 12) Greenwich 22) NZ
 32) UCT

 3) CET
 13) Hong Kong 23) NZ-CHAT
 33) US

 4) Canada
 14) Iceland 24) Navajo
 34) UTC

 5) Chile
 15) Iran
 25) PRC
 35) Universal

 6) Cuba
 16) Israel
 26) Poland
 36) W-SU

 7) EET
 17) Jamaica 27) ROC
 37) WET

 8) Egypt
 18) Japan
 28) ROK
 38) Zulu

 9) Factory 19) Libya
 29) Singapore

 10) GB-Eire
 20) MET
 30) SystemV

0) None of the above

Select the number above that best represents the desired time zone: 33

You selected US as your time zone. Is this correct? (Yes/No) [YES]:

US Time Zone Menu

Alaska 4) Central 7) Hawaii 10) Mountain
 Aleutian 5) East-Indiana 8) Indiana-Starke 11) Pacific
 Arizona 6) Eastern 9) Michigan 12) Samoa

0) None of the above

Select the number above that best represents the desired time zone: 4

You selected US/Central as your time zone. Is this correct? (Yes/No) [YES]:

Default Time Differential Factor for standard time is -6:00. Default Time Differential Factor for daylight saving time is -5:00.

The Time Differential Factor (TDF) is the difference between your system time and Coordinated Universal Time (UTC). UTC is similar in most repects to Greenwich Mean Time (GMT).

The TDF is expressed as hours and minutes, and should be entered in the hh:mm format. TDFs for the Americas will be negative (-3:00, -4:00, etc.); TDFs for Europe, Africa, Asia and Australia will be positive (1:00, 2:00, etc.).

Is Daylight Savings time in effect? (Yes/No): YES

Enter the Time Differential Factor [-5:00]:

NEW SYSTEM TIME DIFFERENTIAL FACTOR = -5:00.

Is this correct? [Y]:

If you have Product Authorization Keys (PAKs) to register, you can register them now.

Do you want to register any Product Authorization Keys? (Yes/No) [Yes]

You may wish to install your OPENVMS-ALPHA license PAK at this time. You can register it later, however, as the system will still allow the SYSTEM account to log into the console of unlicensed systems.

VMS License Management Utility Options:

1. REGISTER a Product Authorization Key

2. AMEND an existing Product Authorization Key

- 3. CANCEL an existing Product Authorization Key
- 4. LIST the Product Authorization Keys
- 5. MODIFY an existing Product Authorization Key
- 6. DISABLE an existing Product Authorization Key
- 7. DELETE an existing Product Authorization Key
- 8. COPY an existing Product Authorization Key
- 9. MOVE an existing Product Authorization Key
- 10. ENABLE an existing Product Authorization Key

11. SHOW the licenses loaded on this node 12. SHOW the unit requirements for this node

99. EXIT this procedure

Type '?' at any prompt for a description of the information $% Z_{\rm T}^{\rm T}$ requested. Press Ctrl/Z at any prompt to return to this menu.

Enter one of the above choices [1]:

Do you have your Product Authorization Key? [YES]:

Use the REGISTER option to add a new license to a license database. A Product Authorization Key (PAK) provides the product name and information you need to register the license. You must enter all the information provided by your PAK exactly as it appears.

Type '?' at any prompt for a description of the information requested. Press Ctrl/Z at any prompt to return to the main menu.

Issuer [DEC]:DECUS Authorization Number []:USE-YOUR-OWN-PAK Product Name []:OPENVMS-ALPHA Producer [DEC]: Number of Units []:0 Version []: Product Release Date []: Key Termination Date []:17-MAY-2000 Availability Table Code []: Activity Table Code []:A Key Options []:NO_SHARE

This Product Authorization Key (PAK) has been provided with the NO_SHARE option. If it is to be used by a node in a cluster, this PAK must be restricted to a specific node. If this PAK is to be used by a standalone system, answer NO to the following question.

Is this PAK restricted to a cluster member node? [YES]:

Note: For the majority of systems, the SCS node name is the same as the DECnet node name.

Node this PAK is restricted to (SCS Node name) []:HOBBY

Product Token []: Hardware-Id []:YOURHARDWAREID Checksum []:1-YOUR-PAKS-CHEK-SUMM

Here is a list of the license information just entered:

```
Issuer: DECUS
Authorization: USE-YOUR-OWN-PAK
Product Name: OPENVMS-ALPHA
Producer: DEC
Units: 0
Release Date:
Version:
Termination Date: 17-MAY-2000
Availability:
Activity: A
Options: NO_SHARE
Token:
Hardware ID: YOURHARDWAREID
Checksum: 1-YOUR-PAKS-CHEK-SUMM
```

This authorization key is restricted to: HOBBY

Is that correct? [YES]: Registering OPENVMS-ALPHA license in DKC300:[vms\$common.sysexe]lmf\$license.ldb.. .

%LICENSE-I-MODIFIED, OPENVMS-ALPHA DECUS-USA-243848-29254 has been modified

Press RETURN to return to the main menu

VMS License Management Utility Options:

- 1. REGISTER a Product Authorization Key
- 2. AMEND an existing Product Authorization Key
- 3. CANCEL an existing Product Authorization Key
- 4. LIST the Product Authorization Keys
- 5. MODIFY an existing Product Authorization Key
- 6. DISABLE an existing Product Authorization Key
- 7. DELETE an existing Product Authorization Key
- 8. COPY an existing Product Authorization Key
- 9. MOVE an existing Product Authorization Key
- 10. ENABLE an existing Product Authorization Key
- 11. SHOW the licenses loaded on this node
- 12. SHOW the unit requirements for this node

99. EXIT this procedure

Enter one of the above choices [1]:99

The installation operation can provide brief or detailed descriptions. In either case, you can request the detailed descriptions by typing "?".

Do you always want detailed descriptions? (Yes/No) [No]

The following product has been selected: DEC AXPVMS OPENVMS V7.2 Platform (product suite)

Configuration phase starting ...

You will be asked to choose options, if any, for each selected product and for any products that may be installed to satisfy software dependency requirements.

DEC AXPVMS OPENVMS V7.2: OpenVMS and related products Platform COPYRIGHT (c) 16-DEC-1998 -- All rights reserved Digital Equipment Corporation

Do you want the defaults for all options? [YES]

DEC AXPVMS DWMOTIF V1.2-5: DECwindows Motif

Local Language Variants of DECwindows Motif must be upgraded at this time.

Do you want to continue? [YES]

DEC AXPVMS DECNET_PHASE_IV V7.2: DECNET_PHASE_IV

Do you want to continue? [YES]

Do you want to review the options? [NO]

Execution phase starting ...

The following products will be installed to destinations:

DEC AXPVMS DECNET_PHASE_IV V7.2	DISK\$ALPHA072:[VMS\$COMMON.]
DEC AXPVMS DWMOTIF V1.2-5	DISK\$ALPHA072:[VMS\$COMMON.]
DEC AXPVMS OPENVMS V7.2	DISK\$ALPHA072:[VMS\$COMMON.]
DEC AXPVMS TCPIP V5.0-9	DISK\$ALPHA072:[VMS\$COMMON.]
DEC AXPVMS VMS V7.2	DISK\$ALPHA072:[VMS\$COMMON.]

Portion done: 0%...10%...20%...30%...40%...50%...60%...70%...80%...90%

**** DECwindows Motif application and run-time support files DETECTED ****

**** DECwindows device support files DETECTED ****

%PCSI-I-PRCOUTPUT, output from subprocess follows ... % TCPIP-W-PCSI_INSTALL % - Execute SYS\$MANAGER:TCPIP\$CONFIG.COM to proceed with configuration of % Digital TCP/IP Services. % Portion done: 100%

The following products have been installed: DEC AXPVMS DECNET_PHASE_IV V7.2 Layered Product DEC AXPVMS DWMOTIF V1.2-5 DEC AXPVMS OPENVMS V7.2 DEC AXPVMS TCPIP V5.0-9 DEC AXPVMS VMS V7.2 DEC AXPVMS VMS V7.2 DEC AXPVMS OPENVMS V7.2: DEC AXPVMS DWMOTIF V1.2-5: DECwindows Motif

System reboot will be required following upgrade of language variants. Installation Verification Procedure can be run after reboot.

DEC AXPVMS TCPIP V5.0-9: DIGITAL TCP/IP Services for OpenVMS. Check the release notes for current status of the product.

The installation is now complete.

When the newly installed system is first booted, a special startup procedure will be run. This procedure will:

- o Configure the system for standalone or OPENVMS Cluster operation.
- o Run AUTOGEN to set system parameters.
- o Reboot the system with The newly set parameters.

You may shut down now or continue with other operations.

¿> Process AXPVMS_INSTALL logged out at 18-MAY-1999 17:06:15.09

Press Return to continue...

You can install or upgrade the OpenVMS Alpha operating system or you can install or upgrade layered products that are included on the OpenVMS Alpha operating system CD-ROM.

You can also execute DCL commands and procedures to perform "standalone" tasks, such as backing up the system disk.

Please choose one of the following:

- 1) Upgrade, install or reconfigure OpenVMS Alpha Version V7.2
- 2) Display products and patches that this procedure can install
- 3) Install or upgrade layered products and patches
- 4) Show installed products
- 5) Reconfigure installed products
- 6) Remove installed products

```
7) Execute DCL commands and procedures
8) Shut down this system
Enter CHOICE or ? for help: (1/2/3/4/5/6/7/8/?) 8
Shutting down the system
SYSTEM SHUTDOWN COMPLETE
?05 HLT INSTR PC= FFFFFFF.80092630 PSL= 0000000.00001F00
>>>
```

Now DKC300 has completed the basic installation of OpenVMS. Next, the new system needs to be booted, and the post-installation processing will be performed.

>>> boot dka300 INIT-S-CPU... INIT-S-ASIC... INIT-S-MEM... INIT-S-NVR... INIT-S-CXT... INIT-S-SCC... INIT-S-NI... INIT-S-SCSI... INIT-S-ISDN... INIT-S-TC1... AUDIT_BOOT_STARTS ... AUDIT CHECKSUM GOOD AUDIT_LOAD_BEGINS AUDIT_LOAD_DONE OpenVMS (TM) Alpha Operating System, Version V7.2 \$! Copyright (c) 1998 Digital Equipment Corporation. All rights reserved. Installing required known files... Configuring devices... %RUN-S-PROC_ID, identification of created process is 00000024 Operator _HOBBY\$OPA0: has been enabled, username SYSTEM Operator status for operator _HOBBY\$OPA0: CENTRAL, PRINTER, TAPES, DISKS, DEVICES, CARDS, NETWORK, CLUSTER, SECURITY, LICENSE, OPER1, OPER2, OPER3, OPER4, OPER5, OPER6, OPER7, OPER8, OPER9, OPER10, OPER11, OPER12 %SYSTEM-I-BOOTUPGRADE, security auditing disabled Logfile has been initialized by operator _HOBBY\$OPA0: Logfile is HOBBY::SYS\$SYSROOT:[SYSMGR]OPERATOR.LOG;1 Operator status for operator HOBBY::SYS\$SYSROOT:[SYSMGR]OPERATOR.LOG;1 CENTRAL, PRINTER, TAPES, DISKS, DEVICES, CARDS, NETWORK, CLUSTER, SECURITY, LICENSE, OPER1, OPER2, OPER3, OPER4, OPER5, OPER6, OPER7, OPER8, OPER9, OPER10, OPER11, OPER12 Message from user SYSTEM on HOBBY %JBC-E-OPENERR, error opening SYS\$COMMON: [SYSEXE]QMAN\$MASTER.DAT;

%%%%%%%%% OPCOM 18-MAY-1999 17:13:55.71 %%%%%%%%%%%% Message from user SYSTEM on HOBBY -RMS-E-FNF, file not found

%SYSTEM-I-BOOTUPGRADE, security server not started

%SYSTEM-I-BOOTUPGRADE, Coordinated Startup not performed

%%%%%%%%%% OPCOM 18-MAY-1999 17:14:15.96 %%%%%%%%% Message from user SYSTEM on HOBBY %SYSGEN-I-WRITECUR, CURRENT system parameters modified by process ID 00000023 in to file SYS\$SYSROOT:[SYSEXE]ALPHAVMSSYS.PAR;2

AUTOGEN will now be run to compute the new System Parameters. The system will then shut down and reboot, and the installation or upgrade will be complete.

After rebooting you can continue with such system management tasks as:

Decompressing the System Libraries Configuring DECnet Using SYS\$MANAGER:CLUSTER_CONFIG.COM to create an OpenVMS Cluster Creating FIELD, SYSTEST and SYSTEST_CLIG accounts if needed

%AUTOGEN-I-BEGIN, GETDATA phase is beginning.

%AUTOGEN-I-NEWFILE, Previous contents of SYS\$SYSTEM:CLU\$PARAMS.DAT have been copied to SYS\$SYSTEM:CLU\$PARAMS.OLD. You may wish to purge SYS\$SYSTEM:CLU\$PARAMS.OLD.

%AUTOGEN-I-NEWFILE, Previous contents of SYS\$SYSTEM:CLU\$PARAMS.DAT have been copied to SYS\$SYSTEM:CLU\$PARAMS.OLD.

You may wish to purge SYS\$SYSTEM:CLU\$PARAMS.OLD.

%AUTOGEN-I-NEWFILE, A new version of SYS\$SYSTEM:PARAMS.DAT has been created.

You may wish to purge this file. %AUTOGEN-I-END, GETDATA phase has successfully completed.

%AUTOGEN-I-BEGIN, GENPARAMS phase is beginning.

%AUTOGEN-I-NEWFILE, A new version of SYS\$MANAGER:VMSIMAGES.DAT has been created.

You may wish to purge this file.

%AUTOGEN-I-NEWFILE, A new version of SYS\$SYSTEM:SETPARAMS.DAT has been created.

You may wish to purge this file.

%AUTOGEN-I-END, GENPARAMS phase has successfully completed.

%AUTOGEN-I-BEGIN, GENFILES phase is beginning.

%SYSGEN-I-EXTENDED, SYS\$SYSROOT:[SYSEXE]PAGEFILE.SYS;1 extended

%SYSGEN-I-EXTENDED, SYS\$SYSROOT:[SYSEXE]SWAPFILE.SYS;1 extended

%SYSGEN-I-CREATED, SYS\$SYSROOT:[SYSEXE]SYSDUMP.DMP;1 created

%AUTOGEN-I-REPORT, AUTOGEN has produced some informational messages which have been stored in the file SYS\$SYSTEM:AGEN\$PARAMS.REPORT. You may wish to review the information in that file.

%AUTOGEN-I-END, GENFILES phase has successfully completed.

%AUTOGEN-I-BEGIN, SETPARAMS phase is beginning.

%%%%%%%%% OPCOM 18-MAY-1999 17:16:33.48 %%%%%%%%%% Message from user SYSTEM on HOBBY %SYSGEN-I-WRITECUR, CURRENT system parameters modified by process ID 00000023 in to file SYS\$SYSROOT:[SYSEXE]ALPHAVMSSYS.PAR;2

%AUTOGEN-I-SYSGEN, parameters modified

%AUTOGEN-I-END, SETPARAMS phase has successfully completed.

%AUTOGEN-I-BEGIN, REBOOT phase is beginning.

The system is shutting down to allow the system to boot with the generated sitespecific parameters and installed images.

The system will automatically reboot after the shutdown and the upgrade will be complete.

SHUTDOWN -- Perform an Orderly System Shutdown on node HOBBY

%SHUTDOWN-I-BOOTCHECK, performing reboot consistency check...

%SHUTDOWN-I-CHECKOK, basic reboot consistency check completed

%SHUTDOWN-I-OPERATOR, this terminal is now an operator's console

%SHUTDOWN-I-DISLOGINS, interactive logins will now be disabled

%SET-I-INTSET, login interactive limit = 0, current interactive value = 0

 $\mathrm{SHUTDOWN-I-STOPQUEUES}$, the queues on this node will now be stopped

%%%%%%%%% OPCOM 18-MAY-1999 17:16:38.85 %%%%%%%%%%% Message from user SYSTEM on HOBBY %JBC-E-OPENERR, error opening SYS\$COMMON:[SYSEXE]QMAN\$MASTER.DAT;

%%%%%%%%% OPCOM 18-MAY-1999 17:16:38.85 %%%%%%%%%%%% Message from user SYSTEM on HOBBY -RMS-E-FNF, file not found

SHUTDOWN message on HOBBY from user SYSTEM at HOBBY Batch 17:16:39 HOBBY will shut down in 0 minutes; back up soon. Please log off node HOBBY. Reboot system with AUTOGENerated parameters

%SHUTDOWN-I-SITESHUT, the site-specific shutdown procedure will now be invoked

%SHUTDOWN-I-STOPUSER, all user processes will now be stopped

%SHUTDOWN-I-REMOVE, all installed images will now be removed

%SHUTDOWN-I-DISMOUNT, all volumes will now be dismounted

%%%%%%%%% OPCOM 18-MAY-1999 17:16:42.50 %%%%%%%%%% Message from user SYSTEM on HOBBY STARTUP, HOBBY shutdown was requested by the operator.

83 BOOT SYS

INIT-S-CPU... INIT-S-ASIC... INIT-S-MEM... INIT-S-NVR... INIT-S-CXT... INIT-S-CXT... INIT-S-SCC... INIT-S-NI... INIT-S-SCSI... INIT-S-ISDN... INIT-S-TC1... AUDIT_BOOT_STARTS ... AUDIT_CHECKSUM_GOOD AUDIT_LOAD_BEGINS AUDIT_LOAD_DONE OpenVMS (TM) Alpha Operating System, Version V7.2

\$! Copyright (c) 1998 Digital Equipment Corporation. All rights reserved.

%STDRV-I-STARTUP, OpenVMS startup begun at 18-MAY-1999 17:17:32.09

%RUN-S-PROC_ID, identification of created process is 00000104

%RUN-S-PROC_ID, identification of created process is 00000105

%%%%%%%%% OPCOM 18-MAY-1999 17:17:59.58 %%%%%%%%% Operator _HOBBY\$OPA0: has been enabled, username SYSTEM

%SET-I-NEWAUDSRV, identification of new audit server process is 0000010A

%%%%%%%%% OPCOM 18-MAY-1999 17:17:59.64 %%%%%%%%%% Operator status for operator _HOBBY\$OPA0: CENTRAL, PRINTER, TAPES, DISKS, DEVICES, CARDS, NETWORK, CLUSTER, SECURITY, LICENSE, OPER1, OPER2, OPER3, OPER4, OPER5, OPER6, OPER7, OPER8, OPER9, OPER10, OPER11, OPER12

%%%%%%%%% OPCOM 18-MAY-1999 17:17:59.91 %%%%%%%%%%%% Operator status for operator HOBBY::SYS\$SYSROOT:[SYSMGR]OPERATOR.LOG;2 CENTRAL, PRINTER, TAPES, DISKS, DEVICES, CARDS, NETWORK, CLUSTER, SECURITY, LICENSE, OPER1, OPER2, OPER3, OPER4, OPER5, OPER6, OPER7, OPER8, OPER9, OPER10, OPER11, OPER12

%%%%%%%%%%% OPCOM 18-MAY-1999 17:18:00.42 %%%%%%%%%%%%

Message from user AUDIT\$SERVER on HOBBY %AUDSRV-I-NEWSERVERDB, new audit server database created

%%%%%%%%% OPCOM 18-MAY-1999 17:18:01.17 %%%%%%%%%% Message from user SYSTEM on HOBBY %JBC-E-OPENERR, error opening SYS\$COMMON:[SYSEXE]QMAN\$MASTER.DAT;

%%%%%%%%% OPCOM 18-MAY-1999 17:18:01.27 %%%%%%%%%%% Message from user SYSTEM on HOBBY -RMS-E-FNF, file not found

%%%%%%%%% OPCOM 18-MAY-1999 17:18:02.31 %%%%%%%%%% Message from user AUDIT\$SERVER on HOBBY %AUDSRV-I-REMENABLED, resource monitoring enabled for journal SECURITY

%%%%%%%%%%% OPCOM 18-MAY-1999 17:18:02.77 %%%%%%%%%%% Message from user AUDIT\$SERVER on HOBBY %AUDSRV-I-NEWOBJECTDB, new object database created

%%%%%%%%%% OPCOM 18-MAY-1999 17:18:05.74 %%%%%%%%%%%% Message from user SYSTEM on HOBBY %SECSRV-E-NOPROXYDB, cannot find proxy database file NET\$PROXY.DAT %RMS-E-FNF, file not found

%%%%%%%%%% OPCOM 18-MAY-1999 17:18:05.77 %%%%%%%%%%%%%% Message from user SYSTEM on HOBBY %SECSRV-E-NOPROXYDB, cannot find proxy database file NET\$PROXY.DAT %RMS-E-FNF, file not found

Message from user SYSTEM on HOBBY SECSRV-I-SERVERSTARTINGU, security server starting up

Message from user SYSTEM on HOBBY %SECSRV-I-CIASTARTINGUP, breakin detection and evasion processing now starting u p

%%%%%%%%%% OPCOM 18-MAY-1999 17:18:10.17 %%%%%%%%%%%

Message from user SYSTEM on HOBBY Warning: DECdtm log file not found (SYS\$JOURNAL:SYSTEM\$HOBBY.LM\$JOURNAL)

%RMS-E-FNF, file not found TP server process waiting

%%%%%%%%% OPCOM 18-MAY-1999 17:18:12.32 %%%%%%%%%% Message from user AUDIT\$SERVER on HOBBY Security alarm (SECURITY) and security audit (SECURITY) on HOBBY, system id: 102 5 Auditable event: Audit server starting up Event time: 18-MAY-1999 17:18:12.14 PID: 00000103 Username: SYSTEM

The OpenVMS Alpha system is now executing the site-specific startup commands.

Message from user AUDIT\$SERVER on HOBBY Security alarm (SECURITY) and security audit (SECURITY) on HOBBY, system id: 102 5 Auditable event: Identifier added Event time: 18-MAY-1999 17:18:15.59 PID: 00000103 Process name: STARTUP Username: SYSTEM Process owner: [SYSTEM] HOBBY\$DKC300:[SYS0.SYSCOMMON.][SYSEXE]AUTHORIZE.EXE Image name: Identifier name: SYS\$NODE_HOBBY Identifier value: %X80010000 Attributes: none

%UAF-I-RDBADDMSG, identifier SYS\$NODE_HOBBY value %X80010000 added to rights dat abase %SET-I-INTSET, login interactive limit = 64, current interactive value = 0 %RUN-S-PROC_ID, identification of created process is 0000010F SYSTEM job terminated at 18-MAY-1999 17:18:50.78 Accounting information: Buffered I/O count: 2275

Peak working set size:	6672
Direct I/O count:	1202 Peak virtual size: 180064
Page faults:	1655 Mounted volumes: 0
Charged CPU time:	0 00:00:16.68 Elapsed time: 0 00:01:19.92

The system is now ready for the first login. Simple enter the username SYSTEM, and the password you supplied earlier, and you're all set. Congratulations!

```
Welcome to OpenVMS (TM) Alpha Operating System, Version V7.2
Username: system
Password:
   Welcome to OpenVMS (TM) Alpha Operating System, Version V7.2
$
```

You have now successfully installed and logged in to your OpenVMS Hobbyist System

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Layered Product Installation

Installing Layered Products

There are two main methods for installation of Layered Products from the CD:

- VMSINSTAL
 - The VMSINSTAL kit is a series of file of <PRODUCT_NAME>.A, .B, .C, ... which comprise a series of BACKUP savesets which contain software and installation scripts.
- PRODUCT INSTALL (also known as PCSI)
 - The PRODUCT INSTALL kits are a specially packaged file with product software, scripts, etc which define the hardware architecture, operating system and have a file type of .PCSI

Some installations may fail if there is not enough system resources to run the product. Often this is global sections (GBLSECTIONS) and global pages (GBLPAGES). If so, you will need to AUTOGEN your system. See the product installation notes for more details.

Installing Using VMSINSTAL

To install using VMSINSTAL, use the command procedure provided in the SYS\$UPDATE directory of your OpenVMS system. The installation procedure can be provided the name of the product and the location of the kit, or it will prompt for them if not provided.

For example, to install NOTES V2.5, the following command would be used (substitute the device name for the device which you have the Hobbyist Kit installed):

\$ @sys\$update:vmsinstal alpha_notes025 dkc500:[kits.alpha_notes025.kit]

Installing Using PRODUCT INSTALL

To install using PRODUCT INSTALL, use the DCL command and specify the product and source directory of the kit.

For example, to install DECWindows/Motif, the following command would be used (substitute the device name for the device which you have the Hobbyist Kit installed):

\$ product install dwmotif /source=DKC500:[KITS.DWMOTIF_ALPHA125_KIT]