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Last saved on: Mon, Sep 20, 1993 12:06:37
Document: chap2
Last saved on: Mon, Sep 20, 1993 12:06:55
Document: chap3
Last saved on: Mon, Sep 20, 1993 12:07:22
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DECndu Plus

Using DECndu Plus (MS-DOS)

Order Number: AA-PYVVA-TE

September 1993

This manual explains how to set up the DECndu Plus utility for MS-DOS. It also explains how to update the microcode for selected network devices and modules.

Supersession/Update Information: This is a new manual.

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DECbridge	DECndu
DECconcentrator	DECndu Plus
DECdirect	GIGAswitch

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Contents

Preface

1   Overview

2   Preparing for the Update

3   Setting Up DECndu Plus on MS-DOS

4   Updating the DECbridge 90 and the DECbridge 90FL Microcode

5 Updating the DECbridge 500/600 Series Microcode

6 Updating the DECconcentrator 500 Microcode

7 Updating the DEChub and GIGAswitch Module Microcode

A Examples

B Related Documentation

Index

Examples

Tables

Preface

This manual explains the following:

- MS-DOS system requirements

- Setting up the DECndu Plus utility for the MS-DOS load host

- Accessing the DECndu Plus help information

- Printing the following documentation:

  – DECndu Plus release notes

  – DECndu Plus error message file

- Updating the network device and the module microcode using DECndu Plus

- Verifying the microcode update

Intended Audience

This manual is for the system/network manager who is responsible for updating network devices from an MS-DOS-based personal computer.

Conventions Used in This Manual

Convention	Meaning
lowercase	If a prompt appears in lowercase, type your response in lowercase.
[ ]	Brackets indicate that the enclosed value is optional. Default values are shown within the brackets. Do not type the brackets.
bold type	Indicates file names, commands, directories, or answers to prompts. In command formats, bold type indicates text that you must enter exactly as shown.
special type	Indicates system output or user input.
Key	Indicates a specific key. For example, Return means to press the Return key.
Ctrl/*x*	Hold down the Ctrl key and simultaneously press the key specified by *x*.

Structure of This Manual

This manual has seven chapters and two appendixes:

Chapter 1	Provides an overview of DECndu Plus and the update package.
Chapter 2	Describes the MS-DOS system requirements.
Chapter 3	Explains how to set up the DECndu Plus utility on the MS-DOS load host.
Chapter 4	Explains how to update the DECbridge 90 and the DECbridge 90FL microcode.
Chapter 5	Explains how to update the DECbridge 500/600 series microcode.
Chapter 6	Explains how to update the DECconcentrator 500 microcode.
Chapter 7	Explains how to update the DEChub 900 MultiSwitch Hub Manager microcode, DEChub module microcode, and the GIGAswitch module microcode.
Appendix A	Provides examples of the microcode update and verification procedures.
Appendix B	Lists related documentation.

Please fill out and return the postage-paid Reader's Comments form on the last page of this document to assist us in preparing for future documentation.

1

Overview

The Digital Network Device Upgrade (DECndu) Plus Utility, Version 1.0, updates selected devices and modules that support Remote Bridge Management Software (RBMS), Maintenance Operations Protocol (MOP), Simple Network Management Protocol (SNMP), and Trivial File Transfer Protocol (TFTP). DECndu Plus determines which protocols to use based on the type of address that it receives from the command line. You load the microcode to the network device or the module on the MS-DOS-based personal computer. Then you use the DECndu Plus utility to update the network device or module by downline loading the updated microcode to the device or module.

The update consists of the following procedures:

1. Setting up the DECndu Plus utility for the MS-DOS load host.

2. Installing the microcode for the network device or the module onto the MS-DOS load host.

3. Downline loading the microcode to the network device or module using the DECndu Plus utility.

DECndu Plus supports the following network devices and modules:

- DECbridge 90 and DECbridge 90FL

- DECbridge 500/600 series

- DECconcentrator 500

- DEChub 900 MultiSwitch Hub Manager

- DEChub modules

- GIGAswitch modules

After you set up the DECndu Plus utility on the MS-DOS load host, refer to the appropriate chapter (listed at the end of Chapter 3) to perform the microcode update.

2

Preparing for the Update

This chapter lists the requirements for setting up the DECndu Plus utility.

Specific network device and module requirements are listed in the appropriate chapters and in the release notes.

2.1 Update Package

Verify that the update package includes the following:

- DECndu Plus for MS-DOS license letter

- *Using DECndu Plus (MS-DOS)* manual

- DECndu Plus on a 3.5-inch floppy diskette

- Network device microcode or module microcode on a 3.5-inch floppy diskette

2.2 System Requirements

Verify that your PC is configured as follows:

- MS-DOS Version 5.0 or higher is installed.

- An Intel 386 or compatible processor is installed.

- 640 kB RAM is available.

- A 3.5-inch high density floppy diskette drive is installed.

- An Ethernet card with an NDIS driver is installed.

- A hard disk is available.

- At least 152 kB of free disk space.

3

Setting Up DECndu Plus on MS-DOS

This chapter explains how to set up DECndu Plus. Refer to Chapter 2 for the system prerequisites.

This chapter also explains the following tasks:

- Accessing DECndu Plus help

- Printing the following documentation:

  - DECndu Plus Version 1.0 release notes

  - DECndu Plus error message file

3.1 Setting Up DECndu Plus

The procedure takes from 10 to 20 minutes.

NOTE

Digital Equipment Corporation recommends making a backup copy of the floppy diskette and using the backup copy to set up DECndu Plus.

3.1.1 Set Up Procedure

To set up DECndu Plus on the MS-DOS load host, perform the following steps:

1. Inset the DECndu Plus floppy diskette into the appropriate drive.

2. Copy DECndu Plus onto a bootable floppy diskette.

3. Use the bootable floppy diskette.

4. Read the DECndu Plus release notes by typing the following and then pressing Return :

    ```
    type readmedn.txt |more
    ```

5. Copy the NDIS driver for your ethernet card onto the bootable floppy diskette.

6. If you are using the DEPCA card, go to step 7. Otherwise, add the name of the driver that you are using to the **config.sys** file.

7. Edit the **protocol.ini** file to include the name of your driver.

8. Edit the section of the **sddf.stp** section titled "**DEVICE IP SETTINGS**" as follows:

    a. Change the IP address labeled "**HOSTIP**" to your IP address.

    b. Change the IP address labeled **"ROUTERIP"** to your router's default IP address.

    c. Change the subnet mask labeled "**SUBNETMASK**" to your network's subnet mask.

9. Reboot the system by holding down the Ctrl and Alt keys and pressing the Del key.

NOTE

If you experience errors, check the **config.sys** and the **protocol.ini** files that you edited for typographical errors.

3.2 DECndu Plus Files

Table 3–1 lists the image files and the text files that you receive with DECndu Plus. It also lists the bytes used for each file.

Table 3–1: DECndu Plus Files

File Name	Description	Bytes
AUTOEXEC.BAT	Batch file that runs at boot time	84
DECNDUP.EXE	DECndu Plus executable file	49422
CONFIG.SYS	System configuration file	363
SDDF.STP	SNMP script file	14151
IPNDU.TRL	NDU IP application string	882
DECNDU.HLP	DECndu Plus help file	4771
DEPCA.DOS	Digital ethernet card NDIS driver	15577
DLLNDIS.EXE	TSR used by DECndu Plus to interface with the NDIS driver	8915
ERRMSG.TXT	Error message help file	16638
NDU_DEV.DAT	Application strings	1236
NDUMAN.BAT	Batch file for loading a DEChub 900 Multi-Switch Hub Manager	235
NDUMODUL.BAT	Batch file for loading a DEChub 900 module	316
NDURPTR.BAT	Batch file for loading a DECrepeater	236
NETBIND.EXE	Bind driver to protocol manager	15639
PROTMAN.SYS	NDIS protocol manager	10657
PROTOCOL.INI	NDIS protocol manager initialization file	1313
READMEDN.TXT	DECndu Plus release notes	12482

3.3 Printing the Documentation

The DECndu Plus software contains the following ASCII text files, which can be displayed on the screen. Use the MS-DOS print facility to print the ASCII files from the floppy diskette.

- DECndu Plus release notes – readmedn.txt

- DECndu Plus error message file – errmsg.txt

3.4 Accessing DECndu Plus Help

For help on DECndu Plus, type **decndup/?** and press Return . Refer to Example 3–1.

Example 3–1:   DECndu Plus Help

```
A:\decndup/? Return

Name:  decndup - updates the software in selected network devices.

Syntax:  decndup [options] target [path] image

Description          The DECndu Plus utility downline loads devices that
                     implement the RBMS and MOP protocols and SNMP and TFTP
                     protocols.

                     DECndu Plus also displays device information such as type
                     and firmware version.

***************************************
NOTE: DECndu Plus is case sensitive.
***************************************

Options:

/V                   Displays the version of the DECndu Plus utility.

/l                   Displays a list of devices supported by DECndu Plus.

/s                   Shows device information about the target. The target
                     must be entered as a MAC address (08-00-2bxx-xx-xx) or as
                     an IP address (16.21.16.21).

/i                   Used only when a MAC/etherent address is used. Displays
                     informational messages during the update.
```

(continued on next page)

Example 3–1 (Cont.): DECndu Plus Help

```
/v                    Used only when a MAC/etherent address is used. Provides
                      an opportunity to stop the installation procedure. DEcndu
                      Plus prompts you to continue after displaying device
                      information.

/n                    Used only when a MAC/etherent address is used.
                      The No management option is used to stop DECndu Plus from
                      using RBMS management protocol requests and to use MOP to
                      execute the update. The /n qualifier is necessary for
                      remote devices which do not support RBMS management
                      protocol.

/p passwword          Specifies the box product RBMS password or the SNMP
                      community string to use when setting the parameters on
                      the target during the update.


/u                    Updates the target with the specified image.

/m SlotNumber         Only effective when an IP address is specified.
                      Specifies the slot number in the DEChub 900 MultiSwitch
                      and the GIGAswitch Systems where DECndu Plus operations
                      will effect.

/f DeviceName         Only effective when an IP address is specified. Forces
                      DECndu Plus to go to the section of the SDDF.STP file
                      which matches the device name.
```

```
Restrictions
─────────────
One or more of the following options must be used: /s /u /V. Otherwise, no
operations are performed.
```

```
Examples
─────────
```

decndup /V
```
          Displays the version of DECndu Plus utility.
```

decndup /l
```
          Displays a list of devices supported by DECndu Plus:
```

decndup /s 08-00-2b-14-14-1C
```
          Sends an RBMS show device request if an MAC address is used.
```

Example 3–1 (Cont.): DECndu Plus Help

```
decndup /s 16.21.16.21
          Sends an SNMP get sysDescr if an IP address is used.


decndup /s /f chasdescr /m 5 -s 16.20.217.130
          Sends an SNMP get chasSlotModuleDescr and displays a
          description of slot 5. The IP address should be the IP address
          of the DEChub 900 Multiswtich.

decndup /s /f gigdescr /m 7 -s 16.20.36.100
          Shows GIGAswitch slot 7 status, type, hardware rev, and software
          rev.

decndup /u 08-00-2B-14-14-1C c:\decndu\defcn220.sys
          Updates a device which supports RBMS and MOP protocols because
          the MAC address is specified as the target.


decndup /u 08-00-2B-14-14-1C c:\decndu\defcn220.sys
          Updates a device which supports RBMS and MOP protocols because
          the MAC address is specified as the target.


decndup /u /v /i /p defebpass 08-00-2B-14-14-1C c:\decndu\defcn220.sys
          Updates a remote device with a password, verifies and displays
          informational messages.


decndup /u /f pcommon 16.21.16.22 c:\firmware\nirep.bin
          Updates a stand alone device which supports SNMP and TFTP
          protocols and supports the DEChub common MIB.


decndup /u /f hubmanv2 /m 9 16.21.16.22 c:\firmware\mam2.bin
          Updates the DEChub 900 Hub Manager.


decndup /u /f hubmanv2 /m 9 /p setcommunity c:\firmware\mamv2.bin
          Updates the DEChub 900 Hub Manager with a community
          string other than public.

decndup /u /f hubmodule /m 5 16.20.16.13 c:\firmware\newfw.bin
          Updates the DEChub 900 module in slot 5 of the hub.


decndup /u /m 4 /p 08002bc00100 16.21.37.100 c:\firmware\fglop043.rsx
          Updates an FGL in slot 4 of a GIGAswitch with the password
          "09002bc0100"
```

3.5 Updating the Microcode

To update the microcode for the network device or the module, refer to the release notes and the appropriate chapter listed below:

- DECbridge 90 and DECbridge 90FL – Chapter 4

- DECbridge 500/600 series – Chapter 5

- DECconcentrator 500 – Chapter 6

- DEChub and GIGAswitch – Chapter 7

4

Updating the DECbridge 90 and the DECbridge 90FL Microcode

This chapter explains how to update the DECbridge 90 and the DECbridge 90FL microcode. The update procedure takes from 3 to 5 minutes. Refer to the DECbridge 90 release notes for the correct file names and disk space requirements. Appendix A provides examples of the update procedure.

Refer to Example 3–1 for a description of the DECndu Plus command qualifiers.

NOTES

Ensure that you meet the preinstallation requirements in Chapter 2 and that DECndu Plus Version 1.0 is set up correctly on a bootable floppy diskette.

The update procedure applies to both the DECbridge 90 and the DECbridge 90FL units.

4.1 DECbridge 90 Requirements

Before you update the DECbridge 90 microcode, perform the following four steps:

1. Read the release notes.

2. Record the DECbridge 90 file name from the DECbridge 90 release notes.

3. Verify and record the DECbridge 90 hardware address, which is located on the bezel.

4. Change the password to eight or fewer characters. Refer to the *DECbridge 90 Owner's Manual* and the *DECbridge 90FL Owner's Manual*.

4.2 Updating the DECbridge 90 Microcode on MS-DOS

For help on DECndu Plus, type **decndup/?** at the prompt and press ⎡Return⎤ .

4.2.1 DECbridge 90 Update Files

Refer to the DECbridge 90 release notes for the file names and a description of the files that you receive with the update.

4.2.2 Update Procedure

NOTES

You must use the **/n** (NO MANAGEMENT) qualifier to update the DECbridge 90 and the DECbridge 90FL microcode.

The examples in this chapter use `bridge_1` for the password, `dewgbnnn.sys` for the device file name version number, and `08-00-2b-11-22-33` for the hardware address.

To update the the DECbridge 90 microcode, perform the following seven steps:

1. Insert the DECbridge 90 floppy diskette into the appropriate drive.

2. Copy the update files, to your hard disk, by typing the following and then pressing ⎡Return⎤ :

    ```
    copy a:*.*
    ```

3. Print and read the DECbridge 90 release notes.

4. Remove the DECbridge 90 floppy diskette.

5. Insert the DECndu Plus boot floppy diskette. DECndu Plus must be run from drive A.

6. Reboot the system by holding down the ⌈Ctrl⌉ and ⌈Alt⌉ keys and pressing the ⌈Del⌉ key.

NOTE

If you experience errors, check the **config.sys** and the **protocol.ini** files that you edited for typographical errors.

7. Start the update procedure, from the A drive, by typing the following and pressing ⌈Return⌉:

If the DECbridge unit does not have a password, type:

```
decndup /u /n 08-00-2b-11-22-33 c:\decndu\dewgbnnn.sys
```

If the DECbridge unit has a password, type:

```
decndup /u /n /p bridge_1 08-00-2b-11-22-33 c:\decndu\dewgbnnn.sys
```

NOTE

The DECbridge unit resets during the software down-line load and shuts down for approximately 2 minutes.

4.2.3 Update Verification Procedure

If the firmware version supports the RBMS protocol, you can verify the update by typing the **/s** command and the hardware address as follows and pressing ⌈Return⌉:

```
decndup /s 08-00-2B-11-22-33
```

5

Updating the DECbridge 500/600 Series Microcode

This chapter explains how to update the DECbridge 500/600 series microcode. The update procedure takes from 3 to 5 minutes. Refer to the DECbridge 500/600 series release notes for the correct file names and disk space requirements. Appendix A provides examples of the update procedure.

Refer to Example 3–1 for a description of the DECndu Plus command qualifiers.

NOTE

Ensure that you meet the preinstallation requirements in Chapter 2 and that DECndu Plus Version 1.0 is set up correctly on a bootable floppy diskette.

5.1 DECbridge 500/600 Series Requirements

Before you update the DECbridge 500/600 series microcode, perform the following four steps:

1. Read the release notes.

2. Record the DECbridge 500/600 series file name from the DECbridge 500/600 series release notes.

3. Verify and record the DECbridge 500/600 series hardware address, which is located on the AP board.

4. Ensure that the configuration switches 3, 4, 5, and 6 are enabled (ON). Refer to the *DECbridge 500/600 Series Installation and Upgrade* manual for more information about the switches.

NOTE

> When the AP board reset-to-defaults switch is set to ON (down position), the password and other settings are lost. Previous settings are also lost if the firmware's nonvolatile settings are changed. Refer to the DECbridge 500/600 series release notes for more information.

5.2 Updating the DECbridge 500/600 Series Microcode on MS-DOS

For help on DECndu Plus, type **decndup/?** at the prompt and press Return .

5.2.1 DECbridge 500/600 Series Update Files

Refer to the DECbridge 500/600 series release notes for the file names and a description of the files that you receive with the update.

5.2.2 Update Procedure

NOTE

> The examples in this chapter use `fddi_mdt` for the password, `08-00-2b-11-22-33` for the hardware address, and `defeb_5xx_nnn.sys` for the file name.

To update the the DECbridge 500/600 series microcode, perform the following seven steps:

1. Insert the DECbridge 500/600 series floppy diskette into the appropriate drive.

2. Copy the update files onto your hard disk by typing the following and then pressing Return :

   ```
   copy a:*.*
   ```

3. Print and read the release notes.

4. Remove the DECbridge 500/600 series floppy diskette.

5. Insert the DECndu Plus boot floppy diskette. DECndu Plus must be run from drive A.

6. Reboot the system by holding down the `Ctrl` and `Alt` keys and pressing the `Del` key.

NOTE

> If you experience errors, check the **config.sys** and the **protocol.ini** files that you edited for typographical errors.

7. Start the update procedure, from the A drive, by typing the following and press `Return`:

If the DECbridge unit does not have a password, type:

```
decndup /u /v /i 08-00-2B-11-22-33 c:\decndu\defeb_5xx_nnn.sys
```

If the DECbridge unit has a password, type:

```
decndup /u /v /i /p fddi_mdt 08-00-2b-11-22-33 c:\decndu\defeb_5xx_nnn.sys
```

NOTE

> The DECbridge unit resets during the software down-line load and shuts down for approximately 2 minutes.

5.2.3 Update Verification Procedure

To verify the device and firmware version, enter the **/s** command and the hardware address by typing the following and pressing `Return`:

```
decndup /s 08-00-2B-11-22-33
```

6

Updating the DECconcentrator 500 Microcode

This chapter explains how to update the DECconcentrator 500 microcode. The update procedure takes from 3 to 5 minutes. Refer to the DECconcentrator 500 release notes for the correct file names and disk space requirements. Appendix A provides examples of the update procedure.

Refer to Example 3–1 for the descriptions of the DECndu Plus command qualifiers.

NOTE

Ensure that you meet the preinstallation requirements in Chapter 2 and that DECndu Plus Version 1.0 is set up correctly on a bootable floppy diskette.

6.1 DECconcentrator 500 Requirements

Before you update the DECconcentrator 500 microcode, perform the following four steps:

1. Read the release notes.

2. Record the DECconcentrator 500 file name from the DECconcentrator 500 release notes.

3. Verify and record the DECconcentrator 500 hardware address, which is located on the Network Management Card.

4. Ensure that the network management write access enable switch is enabled
   (ON). Refer to the DECconcentrator 500 option card installation manuals for
   more information about the switches.

NOTE

> When the Network Management Card reset-to-
> defaults switch is set to ON (down position), the pass-
> word and other settings are lost. Previous settings are
> also lost if the firmware's nonvolatile settings are
> changed. Refer to the DECconcentrator 500 release
> notes for more information.

6.2 Updating the DECconcentrator 500 Microcode on MS-DOS

For help on DECndu Plus, type **decndup/?** at the prompt and press Return .

6.2.1 DECconcentrator 500 Update files

Refer to the DECconcentrator 500 release notes for the file names and a description
of the files that you receive with the update.

6.2.2 Update Procedure

NOTE

> The examples in this chapter use `fddi_mdt` for the
> password, `08-00-2b-11-22-33` for the hardware
> address, and `defcnnnn.sys` for the file name.

To update the DECconcentrator 500 microcode, perform the following seven steps:

1. Insert the DECconcentrator 500 floppy diskette into the appropriate drive.

2. Copy the update files onto your hard disk by typing the following and then
   pressing Return :

   ```
   copy a:*.*
   ```

3. Print and read the DECconcentrator 500 release notes.

4. Remove the DECconcentrator 500 floppy diskette.

5. Insert the DECndu Plus boot floppy diskette. DECndu Plus must be run from drive A.

6. Reboot the system by holding down the [Ctrl] and [Alt] keys and pressing the [Del] key.

NOTE

If you experience errors, check the **config.sys** and the **protocol.ini** files that you edited for typographical errors.

7. Start the update procedure, from the A drive, by typing the following and pressing [Return]:

If the DECconcentrator unit does not have a password type:

```
decndup /u /v /i 08-00-2b-11-22-33 c:\decndu\defcnnnn.sys
```

If the DECconcentrator unit has a password, type:

```
decndup /u /v /i /p fddi_mdt 08-00-2b-11-22-33 c:\decndu\defcnnnn.sys
```

NOTE

The DECconcentrator unit resets during the software downline load and shuts down for approximately 2 minutes.

6.2.3 Update Verification Procedure

To verify the device and firmware version, enter the **/s** command and the hardware address as follows and press [Return]:

```
decndup /s 08-00-2B-11-22-33
```

7

Updating the DEChub and GIGAswitch Module Microcode

This chapter explains how to update the DEChub 900 Hub Manager, DEChub modules, and the GIGAswitch module microcode. The microcode update takes from 3 to 5 minutes. Refer to the release notes for update preinstallation requirements, correct file names, and disk space requirements. Appendix A provides examples of the update procedure.

Refer to Example 3–1 for the descriptions of the DECndu Plus command qualifiers.

NOTE

Ensure that you meet the installation requirements in Chapter 2 and that DECndu Version 1.0 is set up correctly on a bootable floppy diskette.

7.1 Requirements

Before you update the microcode, perform the following steps:

1. Read the release notes.

2. Record the file name from the release notes.

3. Verify and record the IP address.

7.2 Updating the Microcode on MS-DOS

For help on DECndu Plus, type **decndup/?** at the prompt and press Return .

7.2.1 DEChub Hub Manager, DEChub Module and GIGAswitch Module Update Files

Refer to the release notes for the file names and a description of the files that you receive with the update.

7.2.2 Update Procedure

NOTE

> The update procedure uses `mam.bin`, `module.bin`, and `nirep.bin`, for the file names and version numbers. Refer to the module release notes for the current file name and version number.

To update the microcode perform the following seven steps:

1. Insert the floppy diskette into the load host floppy diskette drive A.

2. Copy the update files, to your hard disk, by typing the following and then pressing Return :

    `copy a:*.*`

3. Print and read the release notes.

4. Remove the network device or module microcode floppy diskette.

5. Insert the DECndu Plus boot floppy diskette. DECndu Plus must be run from drive A.

6. Reboot the system by holding down the Ctrl and Alt keys and pressing the Del key.

NOTE

> If you experience errors, check the **config.sys** and the **protocol.ini** files that you edited for typographical errors.

7. Refer to the command line for the network device or the module that you are updating (specify the full pathname of the microcode) and press $\boxed{\text{Return}}$:

<div align="center">

NOTE
</div>

> Substitute the file name, drive, module slot number, and the IP address as appropriate to your network configuration.

For the DEChub 900 MultiSwitch Hub Manager, type the following:

```
decndup /u /f hubmanv2 /m 9 16.21.16.22 c:\firmware\mam.bin
```

For the DEChub module (installed in slot 5, with a community string default to public), type the following:

```
decndup /u /f hubmodule /m 5 16.20.16.13 c:\firmware\module.bin
```

For the DEChub 900TM 32 Port Repeater, or a standalone module which supports SNMP and TFTP protocols and supports the DEChub common MIB, type the following:

```
decndup /u /f pcommon 16.21.16.21 c:\firmware\repb1111.bin
```

For the GIGAswitch module (slot 4 with a community string of "08002bc00100"), type the following:

```
decndup /u /m 11 /p 08002bc00100 16.21.37.100 c:\firmware\fglop043.rsx
```

7.2.3 Update Verification Procedure

To show device information, verify the device and firmware version, refer to the correct command line (include the IP address, and slot number if applicable), and press Return :

For the DEChub 900 MultiSwitch Hub Manager and standalone modules type the following:

```
decndup /s 16.20.40.64
```

For the DEChub module (installed in slot 5, with a community string default to public), type the following:

```
decndup /s /f chasdescr /m 5 16.20.16.13
```

For the DEChub 900TM 32 Port Repeater, or a standalone module which supports SNMP and TFTP protocols and supports the DEChub common MIB, type the following:

```
decndup /s 16.21.16.21
```

For the GIGAswitch module (slot 4, with a community string of "08002bc00100"), type the following:

```
decndup /s /f gigdescr /m 11 16.21.37.100
```

A

Examples

This appendix provides examples of the microcode update and verification procedures. Your command line will differ from those shown in the examples, depending on the qualifiers and device that you are updating. Refer to the following list for examples of the procedures for the microcode that you are updating:

- Example A–1 and Example A–2 – DECbridge 90

- Example A–3 and Example A–4 – DECbridge 500/600 series

- Example A–5 and Example A–6 – DECconcentrator 500

- Example A–7 and Example A–8 – DEChub 900 MultiSwitch Hub Manager

- Example A–9 and Example A–10 – DEChub module

- Example A–11 and Example A–12 – DEChub module 900TM 32 Port Repeater or a standalone module

- Example A–13 and Example A–14 – GIGAswitch module

Example A–1:   DECbridge 90 Microcode Update

```
A:\> decndup /u /n /p bridge_1 08-00-2b-11-22-33 c:\decndu\dewgbnnn.sys
Return

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Block 278            Byte_offset 42736

A:\>
```

Example A–2:   DECbridge 90 Microcode Update Verification

```
A:\> decndup /s 08-00-2B-11-22-33  Return

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Name                 DEWGB
Firmware Rev         Vn.n
A:\>
```

Example A–3:   DECbridge 500/600 Series Microcode Update

```
A:\> decndup /u /v /i 08-00-2b-11-22-33 c:\decndu\defeb_5xx_nnn.sys  Return

   (c) Digital Equipment Corporation. 1993. All Rights Reserved.

DECnduPlus: Sending RBMS read device message
DECnduPlus: Target is a DEFEB version n.n

Do you want to continue? (y/n) y  Return

DECnduPlus: Setting RBMS DLU switch to TRUE
DECndu: Beginning MOP downline load

Block 278            Byte_offset 42736

DECnduPlus: MOP downline load completed
DECndu: Waiting for device to come back on-line
<119>
DECnduPlus: Sending RBMS read device message
DECnduPlus: Device back on-line
DECnduPlus: Target is a DEFEB version n.n
DECnduPlus: Setting RBMS DLU switch to FALSE
A:\>
```

Example A–4:   DECbridge 500/600 Series Microcode Update Verification

---

```
A:\> decndup /s 08-00-2B-11-22-33  Return

(C) Digital Equipment Corporation. 1993. All Rights Reserved.

Name                 DEFEB
Firmware Rev         Vn.n
A:\>
```

Example A–5: DECconcentrator 500 Microcode Update

```
A:\> decndup /u /v /i 08-00-2b-11-22-33 c:\decndu\defcnnnn.sys  Return

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DECnduPlus: Sending RBMS read device message
DECnduPlus: Target Device is a DEFCN Version n.n

Do you want to continue? (y/n) y  Return

DECnduPlus: Setting RBMS DLU switch to TRUE
DECnduPlus: Beginning MOP downline load

Block 278              Byte_offset 42736

DECnduPlus: MOP downline load completed
DECnduPlus: Waiting for device to come back on-line
<119>
DECnduPlus: Sending RBMS read device message
DECnduPlus: Device back on-line
DECnduPlus: Target is a DEFCN Version n.n
DECnduPlus: Setting RBMS DLU switch to FALSE
A:\>
```

Example A–6: DECconcentrator 500 Microcode Update Verification

```
A:\> decndup /s 08-00-2B-11-22-33  Return

(c) Digital Equipment Corporation. 1993. All Rights Reserved.

Name               DEFCN
Firmware Rev       Vn.n

A:\>
```

Example A–7:   DEChub 900 MultiSwitch Hub Manager Microcode Update

```
A:\> decndup /u /f hubmanv2 /m 9 16.20.16.22 c:\firmware\mam.bin  [Return]

(C) Digital Equipment Corporation. 1993. All Rights Reserved.

[HUBMANV2] Getting sysDescr
  Hub900MultiSwitch, DEChub 900 MultiSwitch, HW=E,RO=V1.1.6,SW=T2.0.22.2
[HUBMANV2] Setting (ChasLoadEntryStatus) to CreateRequest (2)
[HUBMANV2] Set load host IP address  (ChasLoadIpHostAddr)
  16.20.216.200
[HUBMANV2] Setting load filename
  man.bin
[HUBMANV2] Setting ChasLoadEntryStatus) Valid (1)
[HUBMANV2] Setting (ChasLoadAdminStatus) Start-write (2)
[HUBMANV2] STARTING TFTP SERVER
BLOCKNo = 769         BYTES = 393216
[HUBMANV2] TFTP DOWNLOAD COMPLETED
DECnduPlus: SUCCESS
A:\>
```

**Example A–8:   DEChub 900 MultiSwitch Hub Manager Microcode Update
                  Verification**

```
A:\> decndup /s 9 16.20.16.22  [Return]

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[SYSDESCR] Getting Device INFO (sysDescr)
Hub900MultiSwitch, DEChub 900 MultiSwitch, HW=E,RO=V1.1.6,SW=T2.0.22.2
DECnduPlus: SUCCESS

A:\>
```

Example A–9: DEChub Module (installed in slot 5) Microcode Update

```
A:\> decndup /u /f hubmodule /m 5 16.20.16.13 c:\firmware\module.bin  [Return]

(C) Digital Equipment Corporation. 1993. All Rights Reserved.
[HUBMODULE] Getting Device chassis module info (ChasSlotModuleDescr)
   DECrepeater 900TL, Token Ring In/Ring Out Rptr,HW=0.3,RP=0.F,SW=1.1
[HUBMODULE] Set load host IP address (ChasLoadIpHostAddr)
   16.20.36.30
[HUBMODULE] Setting load filename
   c:\firmware\module.bin
[HUBMODULE] Setting (ChasLoadEntryStatus) Valid (1)
[HUBMODULE] Setting (ChasLoadAdminStatus) Start-write (3)
[HUBMODULE] STARTING TFTP SERVER
BLOCKNo = 9           BYTES = 4464
[HUBMODULE] TFTP DOWNLOAD COMPLETED or TIMED OUT
[HUBMODULE] Polling for chasLoadOperStatus
2- SUCCESS

[HUBMODULE] Getting Device specific load status
  1
DECnduPlus: SUCCESS
A:\>
```

**Example A–10: DEChub Module (installed in Slot 5) Microcode Update
Verification**

```
A:\> decndup /s /f chasdescr /m 5 16.20.16.13  [Return]

(C) Digital Equipment Corporation. 1993. All Rights Reserved.
[CHASDESCR] Getting Device chassis module info (ChasSlotModuleDescr)
 DECrepeater 900TL, Token Ring In/Ring Out Rptr,HW=0.3,RP=0.F,SW=1.1
DECnduPlus: SUCCESS
A:\>
```

Example A–11: DEChub 900TM 32 Port DECrepeater, or a Standalone (which supports SNMP and TFTP protocols and the DEChub common MIB) Microcode Update

```
A:\>decndup /u /f pcommon 16.21.16.21 c:\firmware\repb1111.bin  Return

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DECrepeater 900TM 32 Port TP Etherent Rptr SNMP,HW=v0,RO=v0,SW=v0.0b1.11.1
[DECrepeater 900] Setting server IP address (pcomLoadIpHostAddr).
[DECrepeater 900] Getting Server IP Address
   16.20.36.30
[DECrepeater 900] Setting filename (pcomLoadFilename).
[DECrepeater 900] Get filename.
   c:repb1111.bin
[DECrepeater 900] Setting AdminStatus/trigger (pcomLoadAdminStatus)
[DECrepeater 900] TFTP server
BLOCKNo = 810 BYTES = 415232
[DECrepeater 900] TFTP server completed.
[DECrepeater 900] Polling for sysDescr
<9>
<9>
<9>
<9>
<9>
[DECrepeater 900] Getting sysDescr
DECrepeater 900TM 32 Port TP Ethernet Rptr SNMP,HW=v0,RO=v0,SW=v0.0b1.11.1
DECnduPlus – SUCCESS
```

Example A–12: DEChub 900TM 32 Port DECrepeater, or a Standalone (which supports SNMP and TFTP protocols and the DEChub common MIB) Microcode Update Verification

```
A:\> decndup /s 16.21.16.21  Return

(C) Digital Equipment Corporation. 1993. All Rights Reserved.
[SYSDESCR] Getting Device INFO (sysDescr)

DECrepeater 900TM 32 Port TP Etherent Rptr SNMP,HW=v0,RO=v0,SW=v0.0b1.11.1
DECnduPlus: SUCCESS
A:\>
```

Example A–13: GIGAswitch Module (slot 11, with a community string of "08002bc00100") Microcode Update

```
A:\> decndup /u /m 11 /p 08002bc00100 16.21.37.100 c:\firm-
ware\fglop043.rsx  Return

(C) Digital Equipment Corporation. 1993. All Rights Reserved.

            GIGASwitch Network Platform
[GIGAswitch] Getting TFTP Server IP Address.
   16.20.36.30
[GIGAswitch] Setting TFTP Server IP Address.
[GIGAswitch] Getting TFTP Server IP Address.
   16.20.36.30
[GIGAswitch] Getting firmware image file name.
   fglop043.rsx
[GIGAswitch] Setting firmware image file name.
   fglop043.rsx
[GIGAswitch] Getting firmware image file name.
   fglop043.rsx
[GIGAswitch] Triggering image file transfer.
[GIGAswitch] Starting TFTP Server
BLOCKNo = 419          BYTES = 214017
[GIGAswitch] Polling for file transfer completion.
3 - IN_PROGRESS
<4>
5 - SUCCESS
[GIGAswitch] Getting slot number.
   11
[GIGAswitch] Setting slot number.
   11
[GIGAswitch] Getting copyType.
3 - FGL-2
[GIGAswitch] Triggering flash update.
[GIGAswitch] Polling for load completion.
3 - IN_PROGRESS
<4>
3 - IN_PROGRESS
<4>
3 - IN_PROGRESS
<4>
5 - SUCCESS
DECnduPlus: SUCCESS
```

Example A–14: GIGAswitch Module (slot 11, with a community string of "08002bc00100") Microcode Update Verification

```
A:\> decndup /s /f gigdescr /m 11 16.21.37.100

(C) Digital Equipment Corporation. 1993. All Rights Reserved.
[GIGDESCR] Getting GIGAswitch module Status.
3 - POWERUP
[GIGDESCR] Getting GIGAswitch module Type.
2 - FGL
[GIGDESCR] Getting GIGAswitch module Hardware Rev.
   B
[GIGDESCR] Getting GIGAswitch module Firmware Rev.
   0.43
DECnduPlus: SUCCESS

A:\>
```

B

Related Documentation

Additional information can be found in the following documents. Refer to the back of this manual for ordering information.

- *DECbridge 90 Owners' Manual*
  (Order No. EK-DEWGB-OM)

  This manual explains how to install, configure, operate, and manage the DECbridge 90 units.

- *DECbridge 90FL Owners' Manual*
  (Order No. EK-DEWGF-OM)

  This manual explains how to install, configure, operate, and manage the DECbridge 90FL unit.

- *DECbridge 500/600 Series Installation and Upgrade*
  (Order No. EK-DEFEB-IN)

  This manual explains how to install, configure, operate, and manage the DECbridge 500/600 series units.

- *DECconcentrator 500 Installation*
  (Order No. EK-DEFCN-IN)

  This manual explains how to install and operate the DECconcentrator 500 unit.

- *DECconcentrator 500 Multimode Option Card Installation*
  (Order No. EK-DEFCN-MM)

  This manual explains how to install and check the DECconcentrator 500 multimode option card.

- *DECconcentrator 500 Single-Mode Option Card Installation*
  (Order No. EK-DEFCN-SM)

  This manual explains how to install and check the DECconcentrator 500 single-mode option card.

- *Networks and Communications Product Documentation*
  (Order No. EK-NACPD-RE)

  This manual lists the title and order number for each publication associated with Digital's networks and communications products.

- *Networks Buyer's Guide*

  This guide describes Digital's networking products. Contact your local sales office to receive a copy.

- *PC User's Guide*

Index

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(1-800-344-4825)		call 1-603-884-6660

ELECTRONIC ORDERS (U.S. ONLY)

Dial 1-800-DEC-DEMO with any VT100 or VT200
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If you need assistance, call 1-800-DIGITAL (1-800-344-4825)

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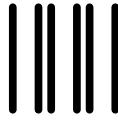
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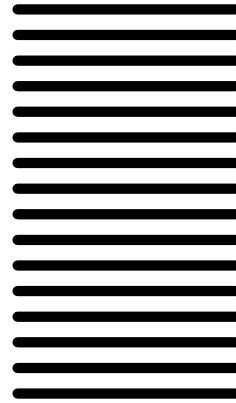
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