

**Updating the DECagent 90  
Microcode (ULTRIX RISC)**

Order Number: AA-PXP1B-TE

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This manual explains how to install the  
DECagent 90 microcode and perform the  
update.

Supersession/Update Information: This is a  
revised manual.

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# Updating the DECagent 90

This manual explains how to install the DECagent 90 microcode onto your ULTRIX RISC load host using **setld** and how to update the microcode in the DECagent 90 module from Version 1.0 to the latest available version.

If your DECagent 90 contains microcode Version 1.1 or higher, refer to *Using DECndu Plus* documentation to install the DECagent 90 microcode.

## Intended Audience

This manual is for the system or network manager responsible for updating network devices on an ULTRIX RISC operating system.

## Documentation

The update documentation contains the following items:

- Updating the *DECagent 90 Microcode (ULTRIX RISC)* manual (this manual)
- DECagent 90 release notes

## Structure of This Manual

This manual contains five sections, as follows:

- ① Lists the steps to take before installing the DECagent 90 microcode. page 2
- ② Explains how to install the DECagent 90 microcode onto the load host using **setld**. page 2
- ③ Lists the steps to take before updating the DECagent 90 microcode. page 4
- ④ Explains how to update the DECagent 90 microcode. page 8
- ⑤ Lists the DECagent 90 update files you receive with the DECagent 90 microcode update. page 9

## Installation Time

The installation time is 10 to 20 minutes.

### ① Preparing for Installation

Before installing the DECagent 90 microcode, do the following:

1. Determine which systems are designated as load hosts.
2. Ensure that you are running ULTRIX Version 4.0 or higher.
3. Ensure that you have superuser privileges on the ULTRIX load host.
4. Ensure that you have the following subsets installed on the system:
  - UDTBASE 4xx
  - UDTMAN 4xx
  - UDTMOP 4xx
5. Verify that the load host has at least 300 kilobytes of free disk space.
6. Record the DECagent 90 hardware address.
7. Back up the system disk.

### ② Installing the DECagent 90 Microcode

To install the DECagent 90 microcode onto the ULTRIX RISC load host, do the following:

#### NOTE

In this manual where *nn* appears in the file name, replace with the current microcode version number.

1. Insert the DECagent 90 update distribution media into the load device. Ensure that the drive is on-line.
2. Start the installation by typing the following (substitute *rmt0h* as appropriate to your tape drive) and then press :  

```
setld -l /dev/rmt0h
```
3. Respond to the prompts. Example 1 contains the installation procedure.

## Example 1: Installing the DECagent 90 Microcode

---

```
# setld -1 /dev/rmt0h 

Please make sure your installation tape is
mounted and on-line.
Are you ready (y/n) y 

Positioning Tape
***Enter Subset Selections***
The subsets listed below are optional:

1) DECagent 90
2) All of the above
3) None of the above
4) Exit without installing subsets

Enter your choice(s): 1 

You are installing the following subsets:
DECagent 90
Is this correct? (y/n) y 

Beginning installation of DECagent 90 Vn.n

Copying from . (disk)
Verifying

Successful installation of DECagent 90 Vn.n

Would you like to run the IVP after the instal-
lation? (Y/N) y 

Beginning DECagent 90 Vn.n IVP

Successfully found ./usr/lib/mop/
denmall0.release_notes
Successfully found ./usr/lib/mop/denmann0.sys
Successfully found ./usr/lib/mop/denma_load.sys
Successful completion of DECagent 90 IVP

#
```

---

### 3 Preparing to Update the DECagent 90 Microcode

This section explains how to set up the ULTRIX RISC load host. It also explains how to enable the DECagent 90 Console Command Interpreter (CCI).

You perform the downline load and the update procedures using an ULTRIX RISC load host and the DECagent 90 CCI through two separate terminals.

#### NOTE

To update the DECagent 90 microcode you must be on a quiet network. Perform the update when there is little or no traffic on the network.

The examples in the procedures use qna-0 for the Ethernet circuit. Substitute as appropriate to your configuration.

Before performing the update procedure, set up the load host by doing the following 13 steps:

#### Use the terminal connected to the ULTRIX RISC load host to perform steps 1 to 10.

1. Verify that the ULTRIX RISC load host is set up to allow the downline load. The mop\_mom process must be running. To verify the host node setup, type the following command line and then press :

```
ps -ax |grep mop_mom
```

2. Verify that the mop\_mom process is displayed.
3. If the mop\_mom process is not running, type the following and then press :

```
/etc/mop_mom
```

#### NOTE

You cannot update the DECagent 90 without the mop\_mom process running on the system. Contact the system manager if the mop\_mom process is not available on the system.

4. Start NCP by typing the following and then press :

```
ncp
```

5. Define the node address by typing the following. Substitute *55.001* and *agent* to an unused node name and address or as appropriate to your system configuration and then press :

```
set node 55.001 name agent
```

6. Set the hardware address of the node *agent* by typing the following (substitute *08-00-2b-00-00-00* with the DECagent 90's hardware address) and then press :

```
set node agent hardware address 08-00-2b-00-00-00
```

7. Check the circuit name available on the system by typing the following and then press :

```
show known circuits
```

8. Set the service circuit that will be used to downline load the microcode by typing the following and then press :

```
SET NODE AGENT SERVICE CIRCUIT QNA-0
```

9. Set the filename of the new DECagent 90 microcode to be downline loaded by typing the following and then press :

```
SET NODE AGENT LOAD FILE /usr/lib/mop/DENMAnn0.SYS
```

10. Verify that the hardware address, circuit service, and load file were entered correctly by typing the following and then press :

```
SHOW NODE AGENT CHARACTERISTICS
```

#### NOTE

If any of the parameters are incorrect, reenter them using the NCP SET commands starting at step 5.

**Use the terminal connected to the DECagent 90 console to perform steps 11 to 13.**

11. Enable the DECagent 90 Console Command Interface (CCI) by doing the following:
  - a. Connect a terminal to the dB-25 connector located on the front panel of the DECagent 90 module.
  - b. Set the terminal to 9600 baud, 8 bits, no parity, 1-bit stop.
  - c. Turn off the power to the DECagent 90 module. If the DECagent 90 module is in the DEChub, remove it and then place it back into the slot.
  - d. Turn on the power to the DECagent 90 and press **Ctrl-I** within 10 seconds or before the second LED comes on (when self-test ends).

**NOTE**

If you did not press **Ctrl-I** before self-test ended, repeat steps c. and d.

12. At the CCI prompt, type the following and then press **Return**:

```
load denma_load.sys
```

Example 2 shows the file load to the DECagent 90 using the DECagent 90 CCI.



## Example 2: Loading the Microcode Using the DECagent 90 CCI

---

```
CCI> Load denma_load.sys 
DENMA -901- Initializing DECagent 90
DENMA -953- Attempting to locate load host
[IS08802]
DENMA -953- Attempting to locate load host
[ETHERNET]
DENMA -955- Host AA-00-04-00-E3-DF located
[ETHERNET]
DENMA -956- Requesting load from host
AA-00-04-00-E3-DF
DENMA -903- Loading from host AA-00-04-00-
E3-DF
DENMA -904- Image verification in progress.
DENMA -905- Image load completed.
%CCI-I-CRCCHK. attempting CRC check on
image loaded
CCI>
```

---

13. Start the image loader by typing the following at the DECagent 90 CCI prompt and then press :

```
start 200000
```

### NOTE

If the image loader is operating properly, the first three LEDs are on and the fourth LED (closest to the console port) flashes.

## 4 Updating the DECagent 90 Microcode

You perform the update from the ULTRIX RISC load host and the DECagent 90 console. To update the DECagent 90 with the microcode perform the following five steps:

### Use the terminal connected to the ULTRIX RISC load host to perform steps 1 and 2.

1. Start the update by typing the following at the NCP prompt and then press :

```
load node agent
```

If the image loads successfully, the DECagent 90 unit resets and starts the image file. The LEDs sequence during the reset. After the reset is completed, the first three LEDs are on and the fourth LED is off.

#### NOTE

If a failure occurs during loading, use the TRIGGER command by typing *trigger node agent* and then press .

2. Exit NCP by typing **EXIT** and then press .

### Use the terminal connected to the DECagent 90 console to perform steps 3 to 5.

3. From the DECagent 90 CCI prompt, press  until you get the password (#) prompt.
4. Enter your password at the DECagent 90 CCI prompt.
5. Verify the update by checking the version number located at the top right corner of the screen display.

#### NOTE

If the version number is not correct, perform steps 11, 12, and 13 in Section 3, then perform steps 1 to 5 in Section 4.

## 5 DECagent 90 Update Files

Table 1 lists the DECagent 90 image files and text file that you receive with the DECagent 90 microcode update.

**Table 1: DECagent 90 Update Files**

File Name	Description
denmann0.sys	DECagent 90 image file in the /usr/lib/mop directory
denma_load.sys	DECagent 90 firmware load image file in the /usr/lib/mop directory.
denmann0.release_notes	DECagent 90 release notes in the /usr/lib/mop directory

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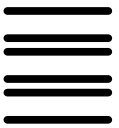
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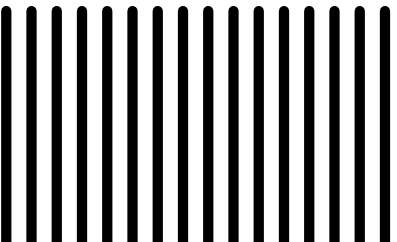
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