# CONVEX FDDI V1.1
# Installation Procedure

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# Installing CONVEX FDDI V1.1

# 1

This document contains instructions for installing the CONVEX FDDI V1.1 release. The installation performs a sysgen of your system and requires a reboot of your system to take effect. Please refer to the *CONVEX FDDI V1.1 Release Notice* for more information about this software release, prior to installation of this upgrade.

## Installing this Release

The installation procedure displays informative messages about the progress of the installation. If the procedure encounters a problem and cannot continue, you are notified with an error message (usually punctuated by a terminal bell). If it is obvious how to correct the problem (e.g., you are not logged in as root), make the correction and restart the installation procedure. Otherwise, contact the CONVEX Technical Assistance Center (TAC) for further information.

## Note

**Only local installations are supported in this release. If your installation requires the use of a remote tape drive, you should contact the TAC for assistance.**

## Preparation for Installation

There are a number of steps which you must take before attempting an installation on the local system. Execute the following steps on the system on which CONVEX FDDI V1.1 is being installed.

1. Login as root on the system on which CONVEX FDDI V1.1 is being installed.
2. Verify that you have sufficient free space in the /sys file system. CONVEX FDDI V1.1 requires 4200 kilobytes of disk space. The example below shows how to use the `df` command:

```
# df /sys
Filesystem    kbytes    used    avail capacity  Mounted on
/dev/du0e     275970    235564  12808    95%    /sys
```

3. Verify that you have sufficient free space in the /tmp file system. CONVEX FDDI V1.1 requires 9000 kilobytes of diskspace. The example below shows how to use the df command:

```
# df /tmp
Filesystem    kbytes    used    avail capacity  Mounted on
/dev/du2d     45408     1546    39320    4%     /tmp
```

4. Verify that you have sufficient free space in the /mnt file system on the SPU. The df command on the SPU can be used to obtain this information. CONVEX

FDDI V1.1 requires 2800 kilobytes of disk space on the SPU. The example below shows how to use the df command:

```
# spucmd df /mnt
+ df /mnt
Filesystem    Mounted on    kbytes    used  free  % used
/dev/dk0d     /mnt          81174    44242 36932    54%
# ▮
```

5. Verify that you are running CONVEX SPU OS Version 5.2 or later. Execute the command in the following example to determine the version of CONVEX SPU OS you are running

```
# spucmd cat /UNIX_REV
+ cat /UNIX_REV
!<installsw>

Copyright 1990 CONVEX Computer Corp.
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CREATED ON Fri Jan 12 14:36:22 1990
Product: SPU UNIX, Version: V5.2
Release date: Jan 8, 1990
Installation date: Tue Aug 7 15:53:40 CDT 1990
# ▮
```

## Performing the Installation

To install CONVEX FDDI V1.1, perform the steps listed below.

1. Login as root on the system on which CONVEX FDDI is being installed.
2. Make sure the tape system is idle before beginning the installation by entering the following command:

```
# tpqueue
Drive     Tape Device   User      VSN
# ▮
```

3. Mount the release tape on a system tape unit. Use the tpmount command to allocate the tape device you desire to use. The examples in this document use /dev/rmt20.

```
# tpmount -R -a /dev/rmt20
Tape device /dev/rmt20 allocated.
# ▮
```

4. Start the installation procedure by entering the following commands:

```
# cd /
# /etc/installsw -i -d /dev/rmt20

** Installsw Header File From Tape **

Copyright 1992 CONVEX Computer Corp.
All rights are reserved.
CREATED ON Fri Feb 28 13:05:35 CST 1992

081-006115-004 CONVEX FDDI Interface, release 1.1 3
```

5. After printing messages to the screen, the installation procedure prompts you for the type of installation. Enter the appropriate choice as shown in the next screen example.

```
Choose the type of installation you want to do:

LOCAL      --> install on this system
REMOTE     --> install on a remote system.
ABORT      --> abort installation.

Enter your selection now. --> local
```

6. The installation procedure will now ask you if you wish to install or de-install the product. Enter **install** as shown in the next screen example.:

```
Setting up installation environment. Hang on...
tar: blocksize = 65536 blocking = 84
This tape contains only release 1.1 of CONVEX FDDI.

Do you wish to install or de-install it? install
```

7. The installation next prompts you what part of the FDDI product you wish to install. Enter **1** to install all of the FDDI software as shown in the next screen exmple..

```
--- Enter the installation phase(s) to perform. Choices
are:

    1) Install all of FDDI
    2) Install FDDI device drivers only
    3) Install FDDI utility and documentation only
    4) Abort this installation

--- Enter a number: 1
```

8. If the installation program determines that you are upgrading existing FDDI device drivers, it asks you to verify that you want to replace the existing software. Enter **yes** as shown in the following screen example.

```
**** WARNING!
**** FDDI device drivers already exist.

**** IMPORTANT!
**** You are about to overwrite the existing product.
**** Are you sure you want to continue? Enter YES or NO: yes
```

9. When the installation prompts you for the input configuration file, press return to accept the default, or enter the configuration file to use.

```
--- Enter the configuration file to use.
--- Press return alone to use REL_C2: REL_C2.SECURE
```

10. When the installation prompts you for the output configuration file, press return to accept the default, or enter the output configuration file to use:

```
--- Enter the output configuration file name to use.
--- Press return alone to use FDDI:
```

First, `installsw` verifies that the local system is running ConvexOS V9.1. Then, the CONVEX FDDI V1.1 distribution is loaded from the tape and a message announcing the installation is appended to /etc/motd. See the section "Example Local Installation" for a complete listing of the system responses.

11. Release the tape drive you have allocated by entering tpunmount as shown in the following screen example.

```
# tpunmount
# ▮
```

12. Once the installation has been completed, you should add a line similar to the following to /etc/rc.local. Your site might require different options for the ifconfig command. See the *ifconfig(8c)* man page for more information.

```
/etc/ifconfig fd0 `/bin/hostname`-f up arp netmask \
                                              0xffffff00
```

13. You must reboot your machine for the FDDI changes to the kernel to take effect. Execute the shutdown command as shown in the following screen example:

```
# /etc/shutdown -h now
# ▮
```

14. You should add lines similar to the following to the file /ioconfig on the SPU. See the *CONVEX FDDI Service Guide* for more information on selecting the proper address and interrupt values.

```
ctlr LAN-208 csr 0x6000 int 6
  unit 0 type fd
```

15. The CONVEX FDDI V1.1 installation is now complete. You should now reboot your machine as shown in the following screen example.

```
(spu)> /mnt/os/boot
```

16. After the system has booted, you should log in as root and enter the following commands:

```
# /usr/lib/makewhatis
# ▮
```

## Example Installation

The following is a sample of the output from a local installation of CONVEX FDDI V1.1.

```
# installsw -i -d /dev/rmt20
Tape device is /dev/rmt20

** Installsw Header File From Tape **

Copyright 1992 CONVEX Computer Corp.
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CREATED ON Wed Feb 19 14:26:52 CST 1992
730-003015-206 CONVEX FDDI, release 1.1 3

Choose the type of installation you want to perform:

 LOCAL --> install on this machine
 REMOTE --> install on a remote machine
 ABORT --> abort installation

Enter your selection now --> local

Setting up installation environment. Hang on...
tar: blocksize = 65536 blocking = 84
This tape contains only release 1.1 of CONVEX FDDI.

Do you wish to install or de-install it? install
[Installing CONVEX FDDI v1.1]

------------------------------------------------------------
---
--- CONVEX Computer Corporation
--- FDDI
---
```

```
------------------------------------------------------------
--- Mounting the file systems.
--- Extracting FDDI image from /dev/rmt20 into /tmp/FDDI.
--- Verifying version of /vmunix.
--- Enter the installation phase(s) to perform. Choices are:

 1) Install all of FDDI
 2) Install FDDI device drivers only
 3) Install FDDI utility and documentation only
 4) Abort this installation

--- Enter a number: 1
--- Checking free space in /sys.
--- FDDI Device Driver Installation Started Wed Feb 19
15:34:21 CST 1992.
--- Enter the configuration file to use.
--- Press return alone to use REL_C3:
--- Enter the output configuration file name to use.
--- Enter the output configuration file name to use.
--- Press return alone to use FDDI:
--- Checking for the existence of 68K tools.
--- Loading device driver software.
--- Adding CCU object files to /sys/CCU_OBJ/libviop.b.
ar: warning - filename
/tmp/FDDI/sys/CCU_OBJ/viop/C3/viop_dev.b matched when tru
ncated to /tmp/FDDI/sys/C
--- Adding CPU object files to /sys/CPU_OBJ libs.
--- Loading sysgen tools.
--- Copying files.REL_C3 to files.FDDI.
--- Checking for LAN-208 in /sys/sysgen/controllers.
--- LAN-208 not found, editing file.
--- Checking for fd in /sys/sysgen/units.
--- fd not found, editing file.
--- Checking for fd_max_recv in /sys/convex/tunables.d.
--- fd_max_recv not found, editing file.
--- Checking source feature in FDDI
--- LAN-208 not found, editing file.
--- Editing ident in FDDI
--- Performing sysgen.
--- make: FDDI(depend) FDDI.
--- make FDDI_viop(depend) FDDI_viop.
--- make install: FDDI FDDI_viop.
--- Backing up old system on the SPU.
+ cp vmunix vmunix.save
+ cp viop viop.save
+ cp autoconf autoconf.save
+ cp iosysload iosysload.save
+ cp tunables tunables.save
+ test -f drvfsd
+ test -f readobj
+ test -f drvfsd.conf
+ test -f fddi.x00
--- Moving the new system to the SPU.
+ test -f drvfsd.cf.save
--- Moving the new system to /vmunix.
--- Moving the FDDI diagnostics to the SPU.
+ rm -f /mnt/test/dev_vfddi.t
```

```
+ rm -f /mnt/test/dev_vfddix.t
+ ln /mnt/test/dev_vfddi.t /mnt/test/dev_vfddix.t
--- FDDI Device Driver Installation Finished Wed Feb 19
15:38:10 CST 1992.
--- Checking free space in /usr.
--- FDDI Software Installation Phase Started Wed Feb 19
15:38:10 CST 1992.
--- Transferring FDDI software to /usr.
--- Installing V10.0 software
--- FDDI Software Installation Phase Completed Wed Feb 19
15:38:11 CST 1992.
--- Cleaning up /tmp/FDDI.

Done processing install tape

# tpunmount
```