

SONY[®]

NETWORK INTERFACE BOARD

BKMW-E3000

OPERATION MANUAL English
1st Edition (Revised 1)

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

For the customers in the USA

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

All interface cables used to connect peripherals must be shielded in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For customers in Canada

This Class A digital apparatus complies with Canadian ICES-003.

For the customers in Europe

This product with the CE marking complies with the EMC Directive issued by the Commission of the European Community.

Compliance with this directive implies conformity to the following European standards:

- EN55103-1: Electromagnetic Interference (Emission)
- EN55103-2: Electromagnetic Susceptibility (Immunity)

This product is intended for use in the following Electromagnetic Environments: E1 (residential), E2 (commercial and light industrial), E3 (urban outdoors), E4 (controlled EMC environment, ex. TV studio).

The manufacturer of this product is Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japan.

The Authorized Representative for EMC and product safety is Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany.

Warning

This unit must be installed by qualified service personnel only. Incorrect installation may cause a fire, electrical shock, or other accident, resulting in personal injury or property damage.

Note to service personnel installing the board

Refer to the installation manual supplied with the BKMW-E3000 for installation instructions.

NOTICE TO USERS

© 2004 Sony Corporation. All rights reserved. This manual or the software described herein, in whole or in part, may not be reproduced, translated or reduced to any machine readable form without prior written approval from Sony Corporation.

SONY CORPORATION PROVIDES NO WARRANTY WITH REGARD TO THIS MANUAL, THE SOFTWARE OR OTHER INFORMATION CONTAINED HEREIN AND HEREBY EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WITH REGARD TO THIS MANUAL, THE SOFTWARE OR SUCH OTHER INFORMATION. IN NO EVENT SHALL SONY CORPORATION BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES, WHETHER BASED ON TORT, CONTRACT, OR OTHERWISE, ARISING OUT OF OR IN CONNECTION WITH THIS MANUAL, THE SOFTWARE OR OTHER INFORMATION CONTAINED HEREIN OR THE USE THEREOF.

Sony Corporation reserves the right to make any modification to this manual or the information contained herein at any time without notice.

The software described herein may also be governed by the terms of a separate user license agreement.

Table of Contents

Overview	5
e-VTR Functions	5
e-VTR Manager Application Software Functions	6
System Configuration	7
Preparations	9
For Using a Computer	9
Basic Network Settings.....	9
Setting the Tape Top and the Beginning of the File.....	11
Viewing the Network Settings.....	11
Enabling File Reception when Using a Cassette without a Memory Label	12
Enabling the REC Command via a Network for a Cassette with a Memory Label	13
Enabling File Creation Exceeding the Capacity of a Memory Label.....	13
Applying Changes to Basic Network Settings.....	14
Resetting User Names and Passwords	15
Setting the Maximum Transfer Rate.....	15
Setting the Transfer Processing for Nonrecorded Sections	16
Copying the Timecode Recorded in the Source Cassette	16
Selecting the Output Audio Channel of e-Monitor.....	16
Enabling File Transfer Through Control Panel Operation	17
Starting e-VTR Manager.....	19
e-VTR Manager Window Menus	20
e-VTR Manager Window Tool Buttons	20
Registering e-VTRs	21
Outputting Device Register Information to a File	21
Registering the Device Information at a Time by Reading a File	22
Accessing e-VTRs From the Computer.....	22
VTR Window Configuration.....	24
Entering the Title and ID of a Cassette (under Superuser Privilege)	26
Setting the Directory Path on the External Metadata Server (under Superuser Privilege).....	26
Manipulating the File System Data on an External Server (under Superuser Privilege)	27
Creating Files (under Superuser Privilege).....	28
Creating Record Entries.....	28
Importing/Exporting File List.....	29
Automatically Creating Files from Tape or Memory Label Information.....	30

Backing Up the Menu Settings	30
Saving the Files with a Different Name	30
Monitoring File Contents	31
Displaying File Top Pictures	31
Monitoring the Video and Audio of Files (e-monitor)	31
Storing JPEG Data	31
Storing/Playing Files Using a PC	32
Storing an MXF Proxy AV File on the PC Local Disk	32
Playing Back a MXF Proxy AV File on the PC Local Disk	32
Transferring Files	33
File Transfer Progress Window Operations	33
If the Receiving Side Has a File of the Same Name With the File Being Transferred.....	34
Changing File Attributes (Change Attribute)	34
Web Application Operations	35
Displaying the Web Application	35
Information in the Top Page	36
File Page Operations.....	37
Displaying and Modifying Attributes of Existing Files	38
Updating the Content of File and Entry Record Lists	38
Capturing Images.....	38
Creating Files.....	38
Creating Record Entries.....	38
Maintenance Page Operations	39
Hours Meter Page	40
Error Logger Page.....	41
User Registration Page	42
SNMP Variable Settings Page.....	44
Network Information Page	45
MENU Information for Network Page	45
MXF D10 Transfer Destination Page	46
MXF Proxy AV Transfer Destination Page.....	47
DNS Server & HTTP Proxy Server Page	48

Overview

The BKMW-E3000 is a network interface board for installation in an MSW-2000 series digital videocassette recorder. With this board installed, the VTR can be added to a 10/100/1000Base-T network to transfer video, audio, and metadata as MXF files. You can use MXF data received over the network to record video, audio, and metadata to cassettes. MXF (Material Exchange Format) is a file format that stores video, audio, and metadata in a single package. It enables communications between network devices such as VTRs and servers.

e-VTR Functions

A VTR with this board installed (called an e-VTR below) provides the following functions in addition to functions provided by standard MSW-2000 series VTR.

MXF file transfer and reception (file management)

MXF files containing video, audio, and metadata can be sent and received over a network (using FTP protocol).

MXF Proxy AV file transfer

You can store low-resolution video, audio, and metadata as an MXF file and handle the file at a low transfer rate. Files that contain such low-resolution video and audio data are called “MXF Proxy AV files.” MXF Proxy AV files are played back using the supplied Windows application software e-VTR Manager.

Copying of timecode from the source material

Timecode (LTC) from the source tape in the transmitting VTR can be copied as is to the cassette tape in the receiving VTR. The Setup menu of the receiving VTR (ITEM-252: TCG NETWORK REGEN MODE) can be used to specify whether the timecode is regenerated or copied as is from the source tape.

Web server network services

Internet browsers such as Internet Explorer and Netscape Navigator can be used for the following operations:

- File operations
- Displaying the hours meter
- Displaying the error logger list
- SNMP (Simple Network Management Protocol) settings
- Displaying network information
- Displaying menus for network operations

Windows application network services

Installing e-VTR Manager, the supplied Windows application, allows FTP file transfer and monitoring of video and audio from the application.

Using the e-VTR control panel to transfer FTP/HTTP files

You can use the control panel operation of the e-VTR instead of the supplied Windows application e-VTR Manager to transfer FTP or HTTP files. If you specify IN and OUT points in advance, you can then transfer the section between the points as a file. Up to 5 servers can be registered as transfer destinations. These destination settings are saved even after the power to the VTR is turned off.

e-monitor functions

Video and audio can be monitored on a computer screen. Video is sent from the e-VTR using JPEG compression, and audio is sent using A-Law compression.

Network transmission data rate limitations

Limitations can be placed on data transmission rates for transmissions from the e-VTR to the network. This can prevent congestion and severe degradation in performance when the network is busy.

Automatic acquisition of IP addresses and other network settings

Network settings for the e-VTR (IP address, subnet mask, default gateway) can be automatically acquired from a DHCP server when the VTR is turned on and the VTR set according to the information. In order to utilize this function, it is necessary to install a DHCP server or a DHCP relay agent on the same network as the e-VTR.

Network operation using a host name (DNS client function)

When connecting with external devices via network, operations can be achieved using the host names as well as the IP addresses. Specifying a server to be connected by its host name permits the server to be easily identified.

File jump function

When the tape already contains data defined as MXF files, you can jump between neighboring files and play the files back.

Automatic creation of MXF files from tape or memory label information

MXF files can be automatically created from information in the timecode (LTC) on the tape (rec start marks, shot marks, post marks) or from information recorded on the

memory label (rec start marks, shot marks, cue points, IN/OUT points).

User registration

Up to 5 users can be registered for one e-VTR. One of the registered users is “superuser,” and the other users are “general users,” registered by the superuser. The privileges of the users are as follows:

Superuser

- Can register general users.
- Can view video and audio recorded at any location on cassette tapes.
- Can create files at any location on cassette tapes.
- Can change the properties of files owned by all users.

General users

- Can change own password.
- Can view file segments in files to which the user has access privileges.
- Can modify attributes of files for which the user has attribute modification privileges.

The superuser registers general users on the user registration page of the Web application (*see page 42*). General users can use the same page to change their own passwords.

Backing up Setup menu settings

Setup menu settings of the e-VTR can be saved to the computer via a network. The saved file can then be used to recover settings or copied to other e-VTRs.

SNMP (Simple Network Management Protocol) function

The SNMP function allows management information on network devices (i.e., the e-VTR) to be monitored from external monitoring software. SNMP settings for each e-VTR on the network can be made through the maintenance screen of the Web browser.

External server link of metadata

A meta-data file in an external server can be downloaded and stored with video and audio data as a single MXF file enabling file transmission. You can thus operate metadata under external control and video/audio data recorded on tapes in collaboration.

Automatic file-system data operations with an external server

Information regarding the file system is normally stored in the Tele-File. You can set your e-VTR to write and automatically read these data to/from an external server. This permits you to specify many files regardless of the Tele-File capacity.

e-VTR Manager Application Software Functions

The supplied e-VTR Manager application software can be installed on a computer connected to the e-VTR to enable control of the e-VTR from the computer. The software provides the following functions.

MXF file transfers between FTP servers, including the e-VTR

The application can control MXF file transfers between e-VTRs and between e-VTRs and servers. You can register multiple network devices on a single computer and control the devices individually.

e-VTR file creation, modification, and deletion

Files can be created by defining the top and end of previously recorded sections on the tape. These files can be modified and deleted.

e-VTR video and audio monitoring

The contents of video and audio files on the e-VTR can be monitored in real time on the computer. You can create files while checking video and audio.

Storage and playback of MXF Proxy AV files

You can load MXF Proxy AV files from an e-VTR to a local disk of your PC. It is also possible to play back MXF Proxy AV files stored on the local disk.

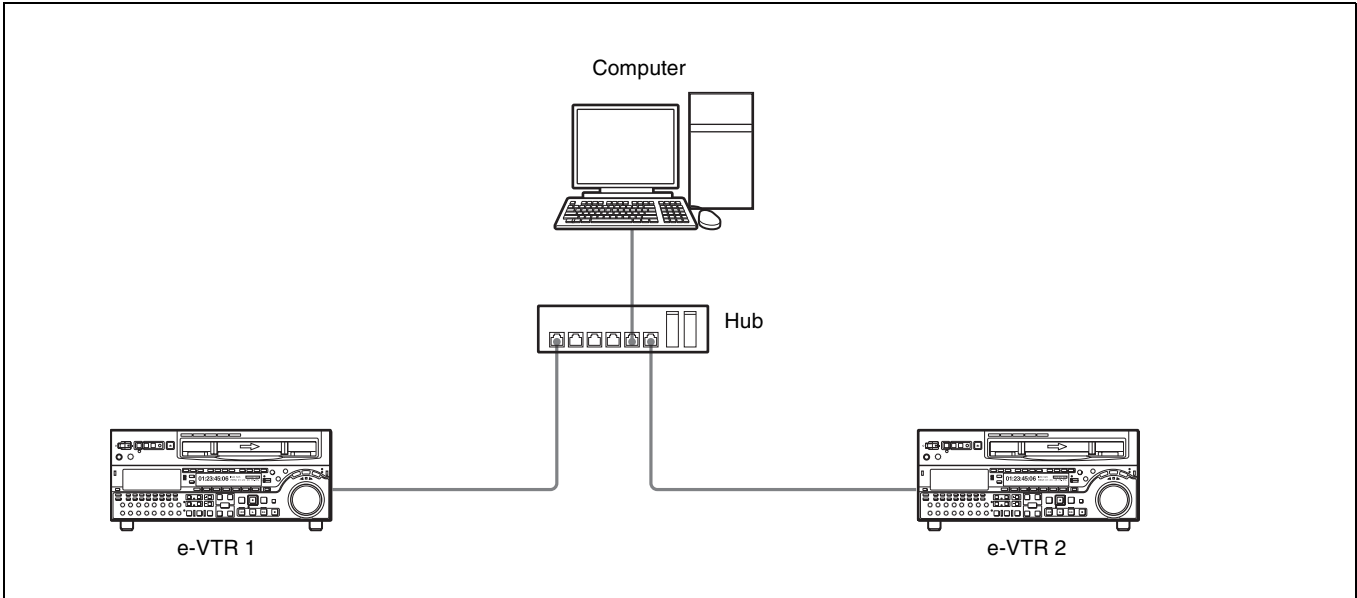
Trademarks

- Windows is a registered trademark of Microsoft Corporation in the United States and/or other countries.
- Netscape is a registered trademark of Netscape Communications Corporation in the United States and/or other countries.

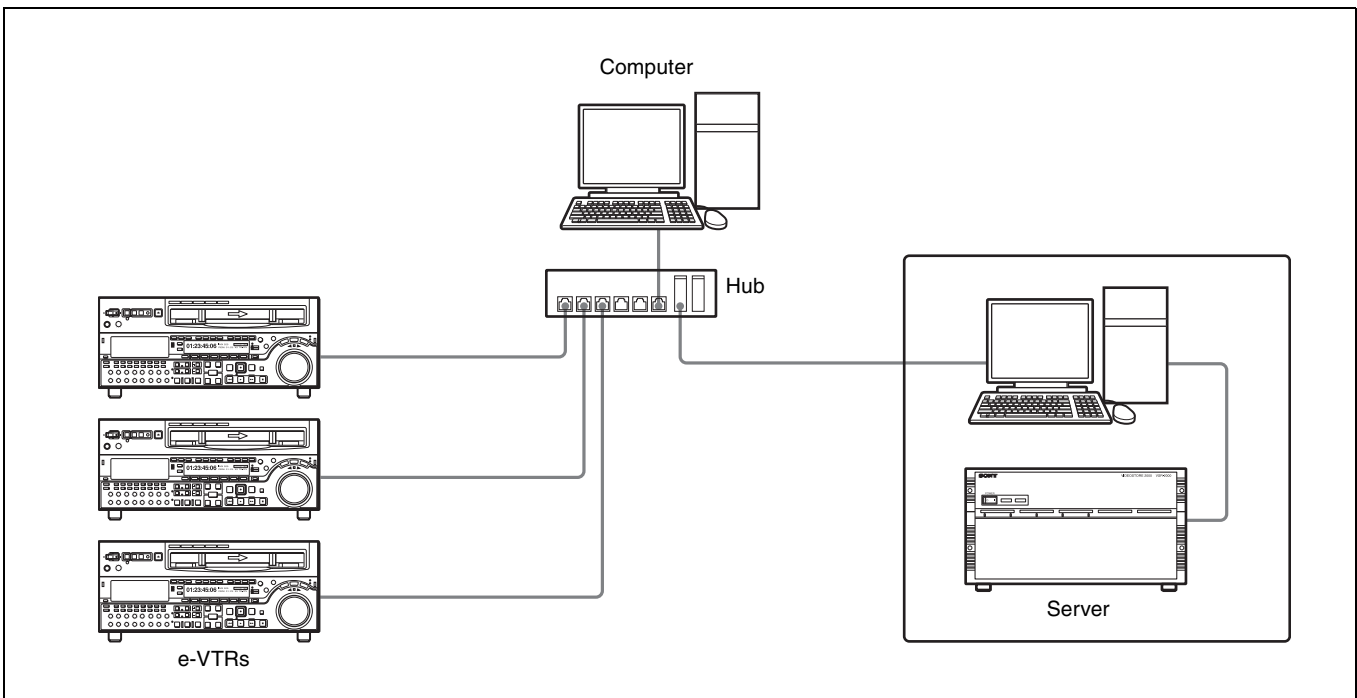
System Configuration

The following figures show examples of network systems using e-VTRs.

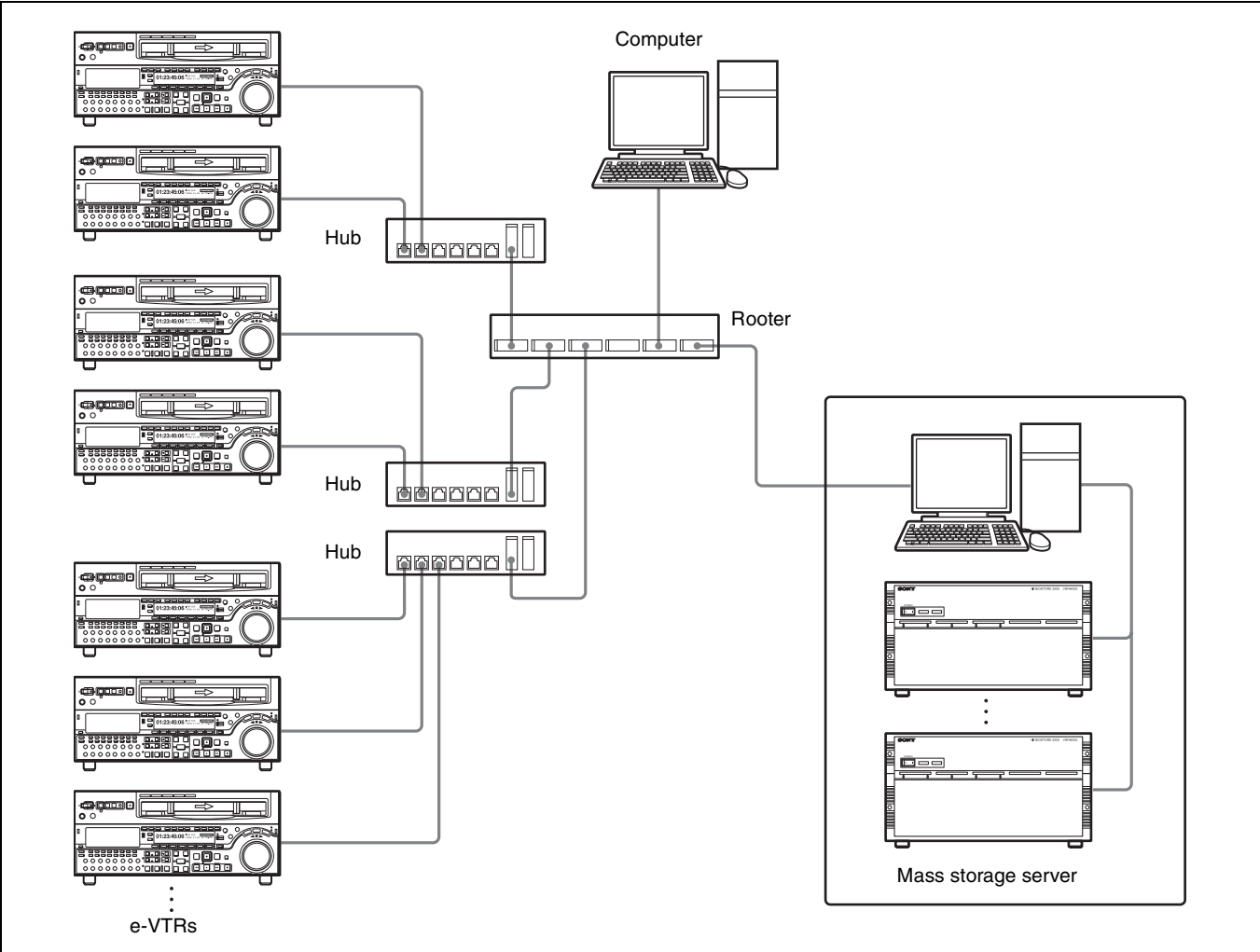
Connecting two e-VTRs



Connecting multiple e-VTRs and a server



Connecting multiple e-VTRs and a mass storage server



Preparations

For Using a Computer

Install e-VTR Manager on a computer meeting the following requirements.

e-VTR Manager may not perform normally if installed on a computer that does not meet these requirements.

CPU: 1 GHz or higher

Memory: 256 MB or greater

OS: Windows XP/2000

DirectX 8.1b or higher

Language: English

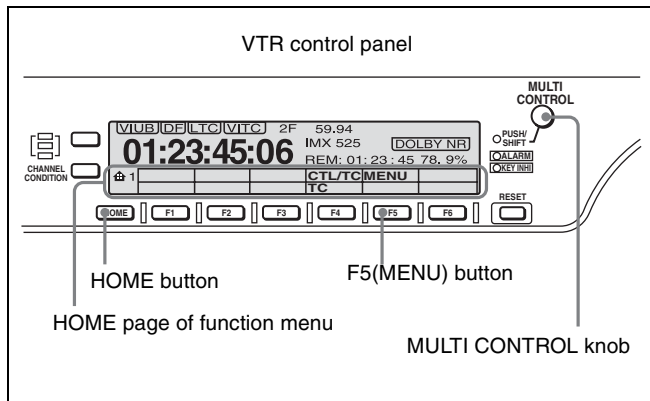
Available hard disk space: 5 MB or more

Monitor resolution: XGA (1024 × 768) or more recommended

Basic Network Settings

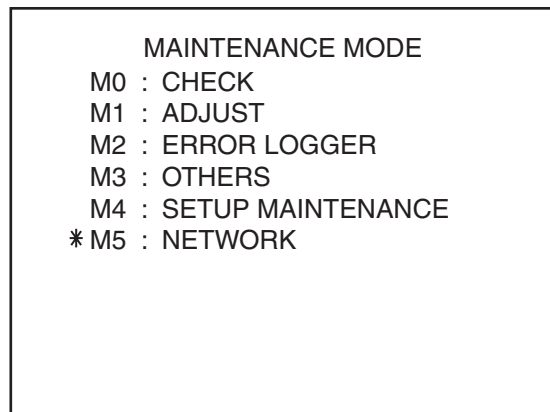
Use the VTR maintenance menu to make basic network settings.

Use the following procedure to set the IP address, subnet mask, and default gateway.



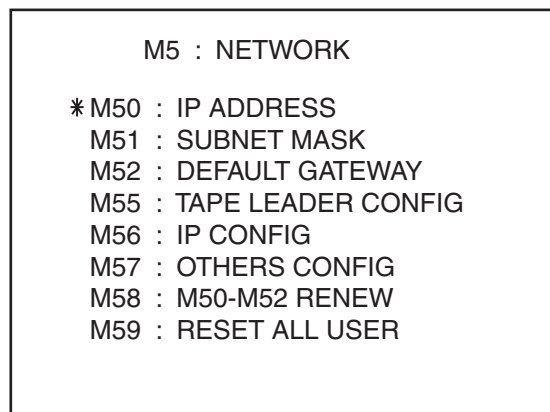
- 1 On the VTR control panel, display the HOME page of the function menu.
- 2 With the HOME button pressed, press the F5 (MENU) button to open the MAINTENANCE MODE page.

- 3 Rotate the MULTI CONTROL knob to bring the cursor (*) to M5: NETWORK and press the F5 (SET) button.



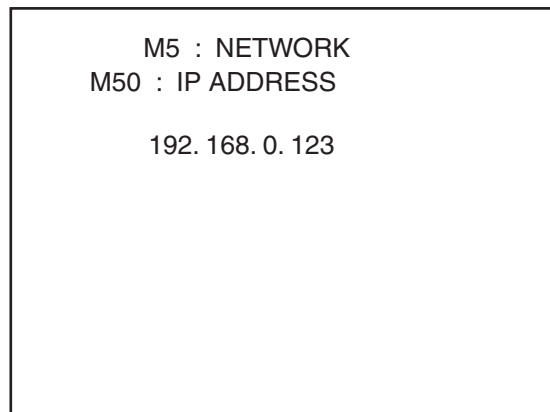
The M5: NETWORK page appears.

- 4 Rotate the MULTI CONTROL knob to bring the cursor to M50: IP ADDRESS and press the F5 (SET) button.



The M50: IP ADDRESS setting page appears.

- 5 Enter a new value or change the present value.



To bring the cursor to the value you want to change
Rotate the MULTI CONTROL knob.

To change a value

Rotate the MULTI CONTROL knob while holding the HOME button down.

For automatic assignment of network settings (such as IP address)

Set the IP address to “000.000.000.000” or “255.255.255.255.”

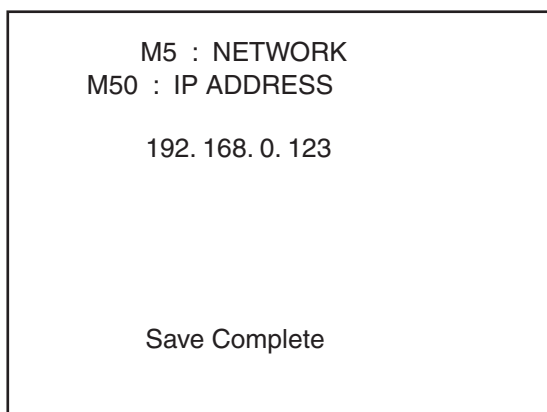
When the e-VTR is turned on, the network settings are automatically assigned.

Notes

- If the IP address is set to “000.000.000.000” or “255.255.255.255,” the IP address, subnet mask, and default gateway are automatically assigned. In this case, step 7 below is unnecessary.
- If automatic assignment is active, M51: SUBNET MASK and M52: DEFAULT GATEWAY are not displayed.
- For automatic assignment of network settings, a DHCP server or a DHCP relay agent must be installed on the same network as the e-VTR.
- If network settings are automatically assigned, the IP address may change whenever the e-VTR is restarted. To prevent this, the IP address for the hardware address of the e-VTR should be defined in advance on the DHCP server. The hardware address can be confirmed on the Network Interface page (see page 45) of the Web application.

- 6** When you have set the value, press the F5 (SET) button.

The message “Save Complete” appears.



- 7** Set the subnet mask and default gateway in the manner which is explained in steps 4 to 6.

To set the subnet mask

Bring the cursor to M51: SUBNET MASK in step 4.

To set the default gateway

Bring the cursor to M52: DEFAULT GATEWAY in step 4.

- 8** Restart the e-VTR, or operate M58: M50-M52 RENEW to apply the changes to the network settings.

Checking the state of the network

The network indicator lights or goes out as follows, according to the state of the network.

Not lit: No FTP connection

Lit: FTP control connection

Blink: FTP data connection

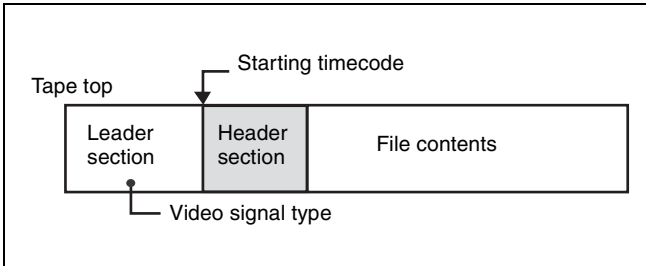
NETWORK button

Full access to the network is possible when the NETWORK button is lit. When the NETWORK button is not lit, limited network access is permitted for the functions indicated below.

- Access via link layer (ping response, etc.)
- Web browsing

Setting the Tape Top and the Beginning of the File

You can specify the length of the leader section at tape top, the timecode at the start of the recordable portion, and the type of video signal recorded on the leader section.



- 1 Do steps **1** to **3** of “Basic Network Settings” (*see page 9*) to display the M5: NETWORK page of the maintenance menu.
- 2 Rotate the MULTI CONTROL knob to bring the cursor (*) to M55: TAPE LEADER CONFIG, and then press the F5 (SET) button.

```

M5 : NETWORK

M50 : IP ADDRESS
M51 : SUBNET MASK
M52 : DEFAULT GATEWAY
*M55 : TAPE LEADER CONFIG
M56 : IP CONFIG
M57 : OTHERS CONFIG
M58 : M50-M52 RENEW
M59 : RESET ALL USER
  
```

The sub-page for M55: TAPE LEADER CONFIG appears.

```

M5 : NETWORK

*M550: LEADER LENGTH
M551: LEADER TC
M552: LEADER SIGNAL
  
```

- M550: LEADER LENGTH:** Sets the length of the leader section at tape top. The default setting is 10 seconds.
- M551: LEADER TC:** Sets the timecode at the start of the recordable portion of the tape. The default setting is “00:00:00:00.”
- M552: LEADER SIGNAL:** Sets the type of signal recorded on the leader section of the tape and the start of each file. The default setting is “OFF” (black burst).

- 3 Rotate the MULTI CONTROL knob to bring the cursor (*) to the item to be set, and then press the F5 (SET) button.
 - 4 Rotate the MULTI CONTROL knob to change the setting, and then press the F5 (SET) button.
- The message “Save Complete” appears.

Viewing the Network Settings

You can use the maintenance menu to list the following network settings.

- Setting for automatic acquisition of IP address
- Whether the internet proxy is used or not
- IP address assigned to the e-VTR
- Subnet mask for the connected network
- IP address of the default gateway of the connected network
- IP address of the DNS server

- 1 Do steps **1** to **3** of “Basic Network Settings” (*see page 9*) to display the M5: NETWORK page of the maintenance menu.
- 2 Rotate the MULTI CONTROL knob to bring the cursor (*) to M56: IP CONFIG, and then press the F5 (SET) button.

```

M5 : NETWORK

M50 : IP ADDRESS
M51 : SUBNET MASK
M52 : DEFAULT GATEWAY
M55 : TAPE LEADER CONFIG
*M56 : IP CONFIG
M57 : OTHERS CONFIG
M58 : M50-M52 RENEW
M59 : RESET ALL USER
  
```

A list of network-related settings appears.

```

M5 : NETWORK
M56 : IP CONFIG

DHCP:disable
IP ADDRESS:
  192.168.000.001
SUBNET MASK:
  255.255.255.000
DEFAULT GATEWAY:
  192.168.000.254
DNS SERVER ADDRESS:
  192.168.000.254

```

Enabling File Reception when Using a Cassette without a Memory Label

It is normally necessary to attach a memory label to a cassette to enable FTP file reception. Follow the procedure to below enable FTP file reception when using a cassette without a memory label.

Note

In the case of a cassette without a memory label, recording of a file by the e-VTR begins from the tape position at the time the FTP command is received. Keep in mind that all material after that point will be overwritten by the received file.

- 1 Do steps 1 to 3 of “Basic Network Settings” (see page 9) to display the M5: NETWORK page of the maintenance menu.
- 2 Rotate the MULTI CONTROL knob to bring the cursor (*) to M57: OTHERS CONFIG, and then press the F5 (SET) button.

```

M5 : NETWORK

M50 : IP ADDRESS
M51 : SUBNET MASK
M52 : DEFAULT GATEWAY
M55 : TAPE LEADER CONFIG
M56 : IP CONFIG
* M57 : OTHERS CONFIG
M58 : M50-M52 RENEW
M59 : RESET ALL USER

```

The sub-page for M57: OTHERS CONFIG appears.

- 3 Rotate the MULTI CONTROL knob to bring the cursor (*) to M570: REC WITHOUT TELE-F, and then press the F5 (SET) button.

```

OTHERS CONFIG

* M570: REC WITHOUT TELE-F
M571: REC WITH TELE-F
M572: TEMP FILE CREATE

```

The M570: REC WITHOUT TELE-F setting page appears.

- 4 Rotate the MULTI CONTROL knob to change the setting.

```

OTHERS CONFIG

M570: REC WITHOUT TELE-F

        disable

        Push SET button

```

enable: Recording of transferred files is enabled even when cassettes inserted in the e-VTR have no memory labels.

disable (default setting): Recording of transferred files is disabled for cassettes inserted in the e-VTR with no memory labels.

- 5 Press the F5 (SET) button.

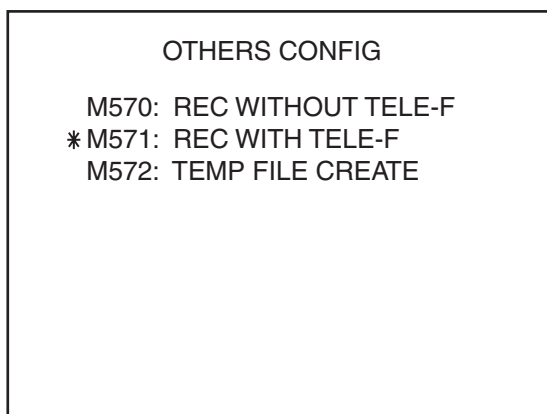
The message “Save Complete” appears.

Enabling the REC Command via a Network for a Cassette with a Memory Label

Execution of the REC command via a network when using a cassette with a memory label attached is normally disabled to prevent overwriting of a file that has been already received.

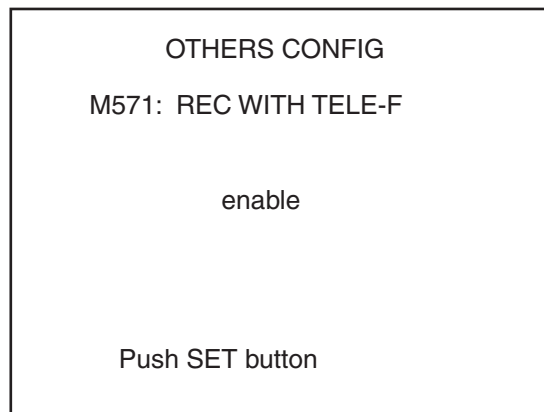
However, you can execute the REC command via a network for a cassette with a memory label in a case in which no file has been created by any user.

- 1 Do steps **1** to **3** of “Basic Network Settings” (*see page 9*) to display the M5: NETWORK page of the maintenance menu.
- 2 Rotate the MULTI CONTROL knob to bring the cursor (*) to M57: OTHERS CONFIG, and then press the F5 (SET) button to display the sub-page.
- 3 Rotate the MULTI CONTROL knob to bring the cursor (*) to M571 REC WITH TELE-F, and then press the F5 (SET) button.



The M571: REC WITH TELE-F setting page appears.

- 4 Rotate the MULTI CONTROL knob to change the setting.



enable: If no file has been created, execution of the REC command execution is enabled even if the cassette inserted in the e-VTR has a memory label.
disable (default setting): REC command execution is disabled for any cassette inserted in the e-VTR that has a memory label.

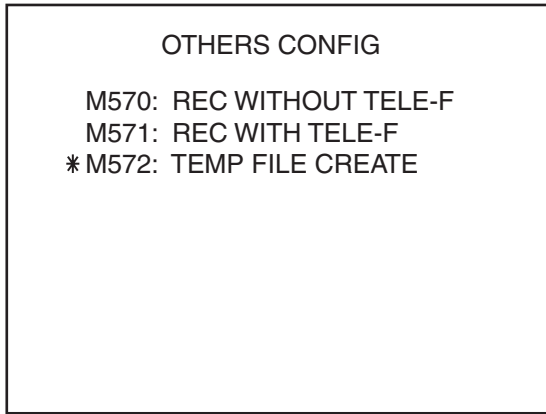
- 5 Press the F5 (SET) button.
The message “Save Complete” appears.

Enabling File Creation Exceeding the Capacity of a Memory Label

Creation of a file exceeding the capacity of the memory label attached to the cassette is normally disabled. With the following menu operation, you can enable continuous file creation even after the capacity of the memory label is exceeded. Note that the files to be created after the capacity of the memory label is exceeded will be temporary files.

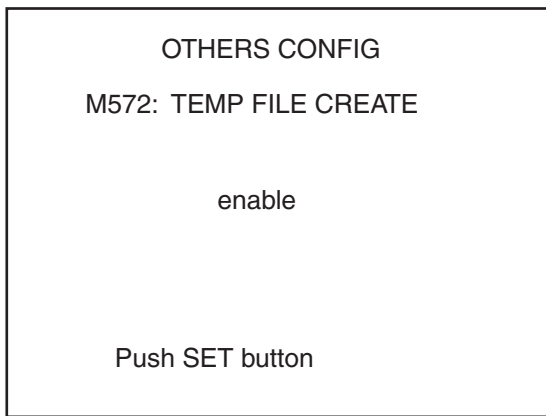
For the temporary files, see the description under “File list” on page 25

- 1 Do steps **1** to **3** of “Basic Network Settings” (*see page 9*) to display the M5: NETWORK page of the maintenance menu.
- 2 Rotate the MULTI CONTROL knob to bring the cursor (*) to M57: OTHERS CONFIG, and then press the F5 (SET) button to display the sub-page
- 3 Rotate the MULTI CONTROL knob to bring the cursor (*) to M572: TEMP FILE CREATE, and then press the F5 (SET) button.



The M572: TEMP FILE CREATE setting page appears.

- 4 Rotate the MULTI CONTROL knob to change the setting.



enable: You can create files even after the capacity of the memory label is exceeded. Files to be created after the capacity of the memory label is exceeded are temporary files.

disable (default setting): File creation is disabled after the capacity of the memory label is exceeded.

- 5 Press the F5 (SET) button.

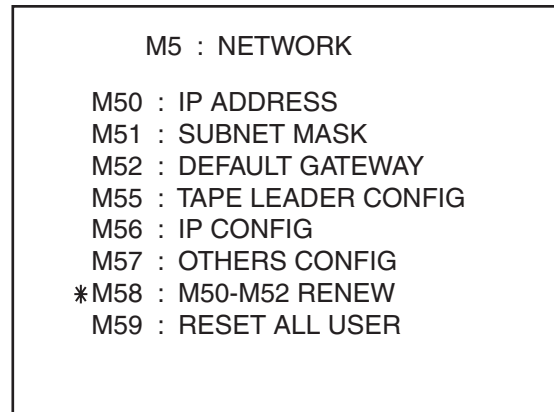
The message “Save Complete” appears.

Applying Changes to Basic Network Settings

After changing basic network settings, you can use M58: M50-M52 RENEW to apply the changes without restarting the e-VTR. Proceed as follows.

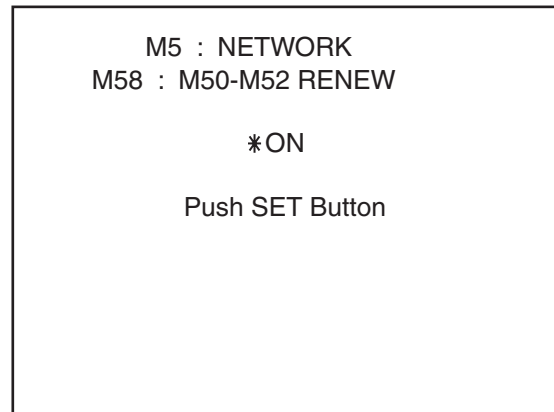
- 1 Do steps 1 to 3 of “Basic Network Settings” (see page 9) to display the M5: NETWORK page of the maintenance menu.

- 2 Rotate the MULTI CONTROL knob to bring the cursor (*) to M58: M50-M52 RENEW and press the F5 (SET) button.



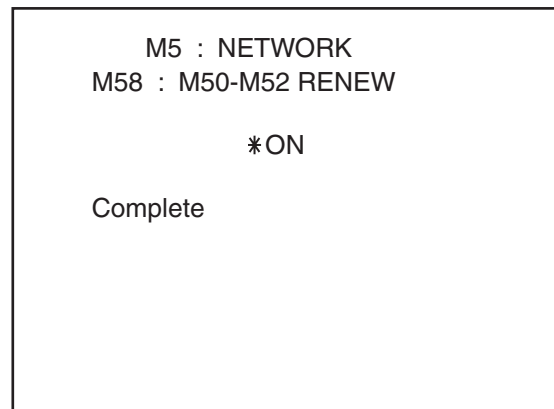
The M58: M50-M52 RENEW page appears.

- 3 Rotate the MULTI CONTROL knob to set the setting to ON.



- 4 Press the F5 (SET) button.

The message “Complete” appears.



Resetting User Names and Passwords

Use the VTR maintenance menu to reset registered user names and passwords to the default.

Note

This procedure resets the names and passwords of all registered users.

- 1 Do steps **1** to **3** in the procedure of “Basic Network Settings” (see page 9) to display the M5: NETWORK page of the maintenance menu.
- 2 With the HOME button pressed, rotate the MULTI CONTROL knob to bring the cursor (*) to M59: RESET ALL USER and press the F5 (SET) button.

```
M5 : NETWORK
M50 : IP ADDRESS
M51 : SUBNET MASK
M52 : DEFAULT GATEWAY
M55 : TAPE LEADER CONFIG
M56 : IP CONFIG
M57 : OTHERS CONFIG
M58 : M50-M52 RENEW
*M59 : RESET ALL USER
```

The M59: RESET ALL USER page appears.

- 3 Rotate the MULTI CONTROL knob while holding the HOME button down to change the setting to ON.

```
M5 : NETWORK
M59 : RESET ALL USER

*ON

Push SET Button

----- Caution -----
All the user name and
password settings will be
changed to factory default.
```

- 4 Press the F5 (SET) button.

The message “Complete Turn off/on POWER !!” appears.

```
M5 : NETWORK
M59 : RESET ALL USER

*ON

Complete

Turn off/on POWER !!
```

- 5 Restart the e-VTR.

Setting the Maximum Transfer Rate

You can reduce the load on the network by setting the maximum transfer rate to the network by the sending side e-VTR.

When required, change the setting using the Setup menu ITEM-250: MAXIMUM RATE on the transmitting VTR.

For details on setup operation, refer to the Operation Manual supplied with the VTR.

```
ITEM-250
MAXIMUM RATE

best effort
```

best effort (default setting): Send data at the maximum possible transfer rate.

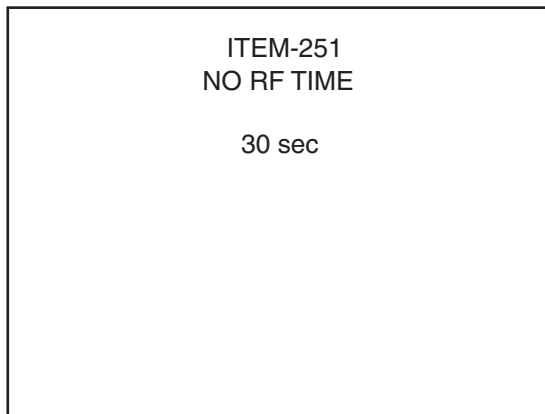
1 Mbps to 50 Mbps: Limit the data transfer rate to the selected value.

Setting the Transfer Processing for Nonrecorded Sections

When the material transfer range is from the tape top to the tape end (transfer of the virtual file &whole.mxf), or from the current position to the tape end (transfer of the virtual file ¤t.mxf), you can stop the transfer automatically when a nonrecorded section is played back continuously for a specific length of time. This setting is effective when you do not know the length of the material but want to transmit from a specific position to the last point where signals are recorded.

When required, change the setting using the Setup menu ITEM-251: NO RF TIME on the transmitting VTR.

For details on setup operation, refer to the Operation Manual supplied with the VTR.

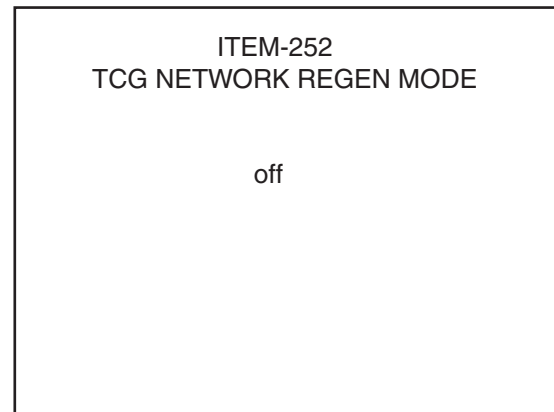


The setting range is from **5 sec to 30 sec**. The default value is 30 sec.

Copying the Timecode Recorded in the Source Cassette

To enable the timecode (LTC) on the source cassette in the transmitting VTR to be recorded as-is to the cassette in the receiving VTR, this must be set on the Setup menu ITEM-252: TCG NETWORK REGEN MODE.

For details on setup operation, refer to the Operation Manual supplied with the VTR.



- off (default setting):** The recorded timecode is regenerated by the timecode generator during recording of video/audio signals transferred through the network.
- on:** The timecode generator locks to the timecode of the transmitting VTR and the timecode on the source tape is copied as-is during recording of video/audio signals transferred through the network.

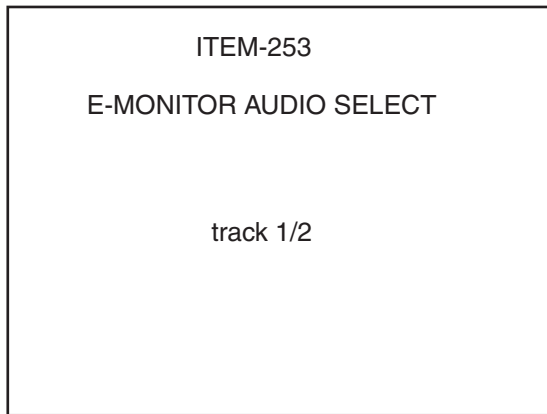
Notes

- When recording signals through an interface external to the network to which the VTR is connected, the recorded timecode is generated on the receiving VTR in accordance with the Function menu setting.
- When receiving files, files with regenerated timecode and files for which original timecode is copied cannot be recorded on the same tape.

Selecting the Output Audio Channel of e-Monitor

To change the output audio channel of e-monitor, a setting must be made on the Setup menu ITEM-253: E-MONITOR AUDIO SELECT on the VTR.

For details on setup operation, refer to the Operation Manual supplied with the VTR.



track 1/2 (default setting): Audio track channels 1 and 2 are output.

track 3/4: Audio track channels 3 and 4 are output.

track 5/6: Audio track channels 5 and 6 are output.

track 7/8: Audio track channels 7 and 8 are output.

Enabling File Transfer Through Control Panel Operation

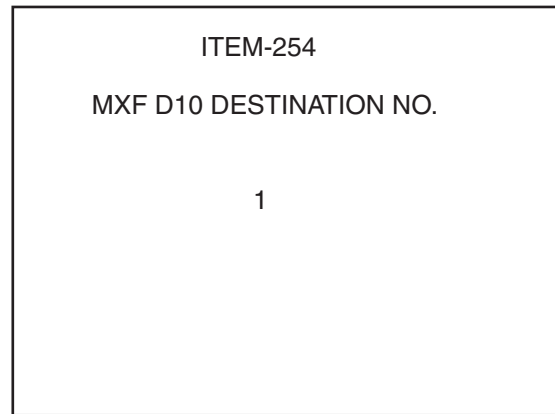
To enable FTP or HTTP file transfer using the control panel of the e-VTR without using the supplied Windows application, e-VTR Manager, the information on the transfer destination servers must be registered with the Web pages.

For the Web pages, see “MXF D10 Transfer Destination Page” on page 46 and “MXF Proxy AV Transfer Destination Page” on page 47.

After registration on the Web pages, select the registration numbers of the destination servers of MXF D10 and MXF Proxy AV transfers by operating the Setup menu from the control panel.

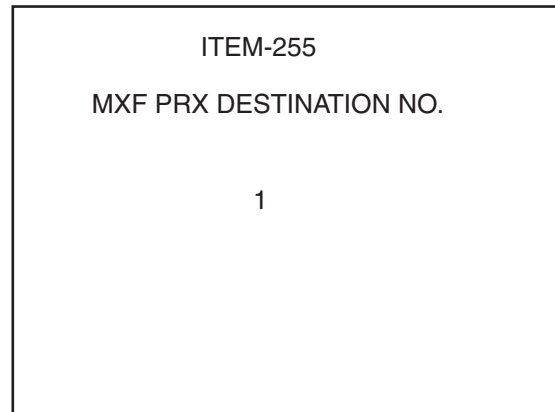
For details on setup operation, refer to the Operation Manual supplied with the VTR.

The registration number of the destination server for MXF D10 materials is to be selected using the Setup menu ITEM-254: MXF D10 DESTINATION NO. on the transmitting VTR.



1 to 5: Registration number of the server you registered in the Web window (default setting: 1)

The registration number of the destination server for MXF Proxy AV materials is to be selected using the Setup menu ITEM-255: MXF PRX DESTINATION NO. on the transmitting VTR.



1 to 5: Registration number of the server you registered on the Web page (default setting: 1)

To transfer files through the control panel

To transfer a file while playing back the tape or while recording the input signal on the tape using the control panel of the e-VTR, proceed as follows:

- 1** Display page 5 of the function menu on the menu display section of the control panel, and press the F6 (TR_SEL) button repeatedly to select the type of files to be transmitted.

OFF (default setting): No file transfer is executed.

D10: To send MXF D10 materials

Proxy: To send MXF Proxy AV materials

BOTH: To send both MXF D10 and MXF Proxy AV materials (This is valid only if you specified an FTP server for the destination.)

- 2 To send a file while playing back the tape**, cue to the position from where you wish the transfer to start then press the PLAY button while holding the ENTRY button pressed.

To send a file while recording the input signal on the tape, simultaneously press the REC and PLAY buttons while holding the ENTRY button pressed.

The e-VTR starts to transfer data.

- 3 When the destination is an FTP server**, press the STOP button when playback or recording of the portion to be transferred ends,

The file transmission operation is completed after the portion stored in the buffer memory on the network board has been completely transferred.

When the destination is an HTTP server, transmission automatically ends when the duration specified using the Setup menu ITEM-256: HTTP TRANSFER DURATION has elapsed. If you press the STOP button during transmission, transmission is terminated, and the file created on the destination server is erased.

To transfer a specified portion on the tape as a file

- 1** Play back the tape and register the IN and OUT points for the portion to be transferred.
- 2** Press the PLAY button while holding the ENTRY button pressed.

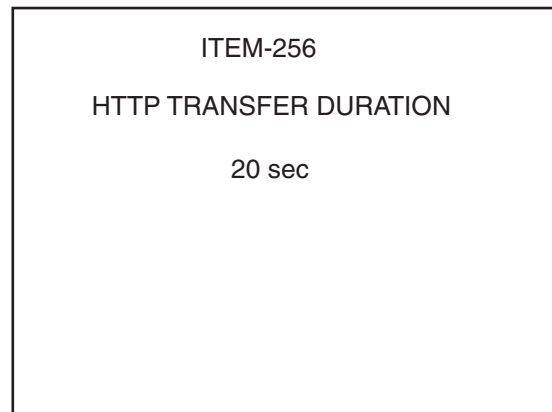
The portion between the IN and OUT points is transferred as a file.
Note that this operation is not possible if F6 (TR_SEL) has been set to BOTH.

Notes

- When sending both MXF D10 and MXF Proxy AV while playing back the tape or sending an MXF D10 or MXF Proxy AV signal while recording the input signal on the tape, it must be guaranteed that the destination server and the network are in sufficient conditions to send each of material files in the actual time allotted. If the bandwidth of the network is insufficient, and transfer of the material is jammed, parts of data may be lost, and the file may not conform to the MXF file standards.
- MXF Proxy AV transmission is not possible if the Setup menu ITEM-111: TSO/PLAY has been set to FEED. Therefore, if you set F6 (TR_SEL) to Proxy or BOTH, file transmission is disabled.


To specify the transmission size (duration) for the HTTP server

When the destination is an HTTP server, it is necessary to specify the duration of the material to be sent, using the Setup menu ITEM-256: : HTTP TRANSFER DURATION in advance.

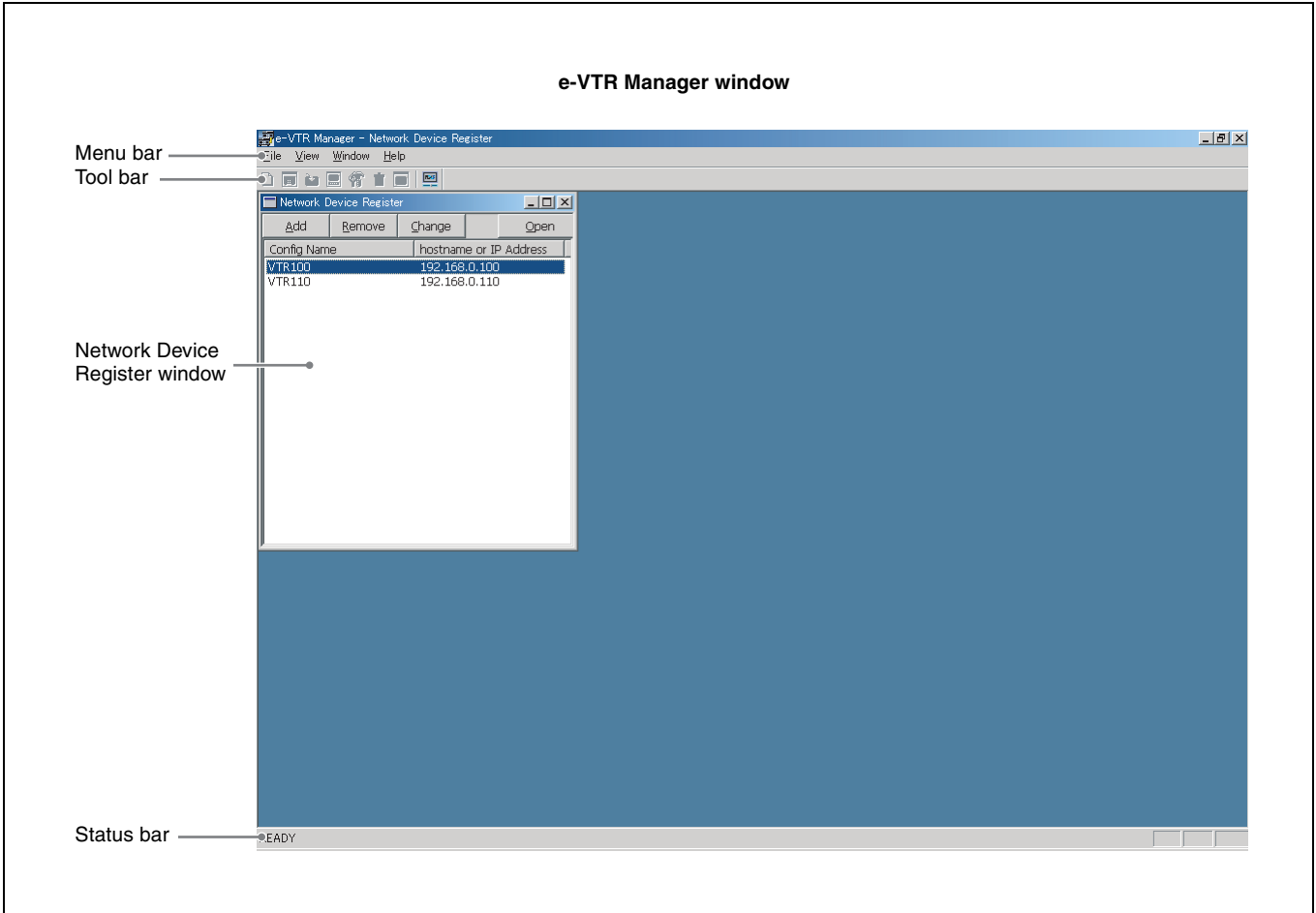


20 sec, 40 sec, 60 sec, 90 sec, 120 sec, 150 sec, 180 sec:
Size (duration) of the material to be sent in seconds
(default setting: 20 sec)

Starting e-VTR Manager

Start e-VTR Manager by double clicking on  (e-VTR Manager icon).

The e-VTR Manager window shown below appears.



The Network Device Register window also appears when e-VTR Manager is started.

Use the Network Device Register to manage the devices controlled by e-VTR Manager (*see page 21*).

e-VTR Manager Window Menus

The menu bar in the e-VTR Manager window contains the following menus.

File menu

Setup command: Allows settings to be made for file list import and export and file transfer cancellation.

Exit commnd: Select to exit from e-VTR Manager.

View menu

Provides the following four commands.

Status Bar: Hides or displays the status bar.

Toolbar: Hides or displays the toolbar.

Device Register: Closes or opens the Network Device Register window.

Refresh: Refreshes the VTR window (*see page 24*).

Window menu

Provides the following three commands.

Cascade: Arranges windows in cascade fashion.

Tile: Arranges windows without overlap.

Arrange icon: Neatly arranges minimized icons.

Help menu

Provides command about e-VTR Manager which displays version information in a popup window.

Edit Entry

Opens the File Entry window to modify the file selected in the VTR window or the record entry settings of the file. You can change the top/end points of the file, add/delete the record entries, and change the record entry positions.

Get Top Thumbnail Picture

In the VTR window, captures the thumbnail picture for the selected file or record entry.

Preview Monitor

Opens the Preview Monitor window to monitor the contents of the file or record entry selected in the VTR window.

Change Attribute

Opens the File Attribute window to change file attributes.

Delete File

In the VTR window, deletes the selected file.

Simple Monitor

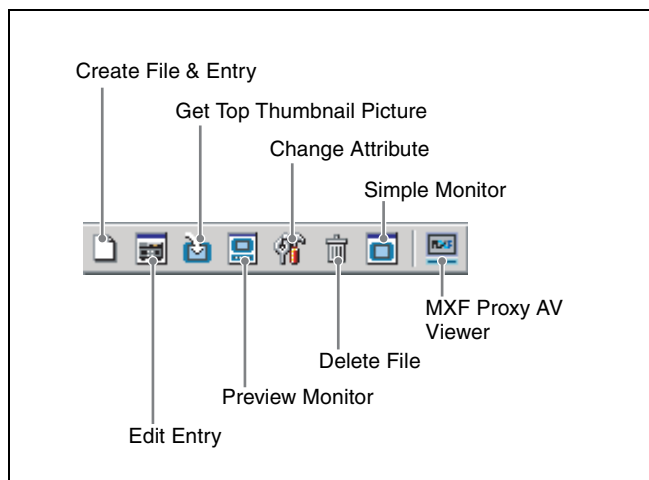
Opens the e-monitor (Simple Monitor) window to monitor output from the e-VTR's Video/Audio Output connector.

MXF Proxy AV Viewer

Opens the MXF Proxy AV Viewer window to monitor video and audio of an MXF Proxy AV file stored on a local disk of a PC.

e-VTR Manager Window Tool Buttons

The following tool buttons are available on the toolbar.



Create File & Entry

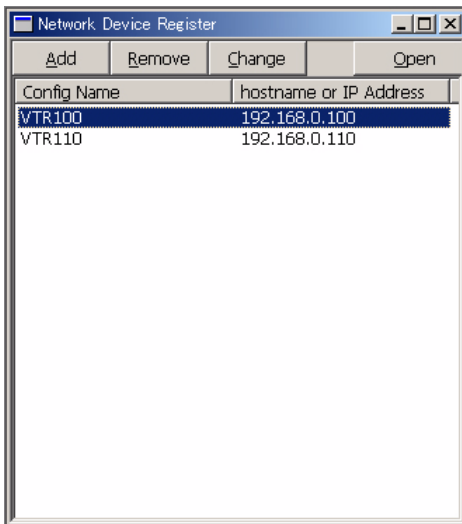
Opens the Input Filename window and File Entry window at the same time to create a new file and record entry.

Registering e-VTRs

In the Network Device Register window, register e-VTRs to operate on by entering their names and host names or IP addresses.

The system saves registered names and host names or IP addresses and displays them again in the Network Device Register window the next time you start e-VTR Manager.

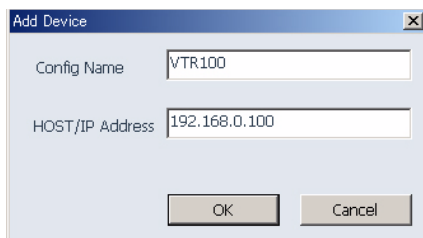
Network Device Register window



If the Network Device Register window is not open
Select Device Register in the View menu.

Registration procedure

- 1 Click on the Add button in the Network Device Register window to display the Add Device window.

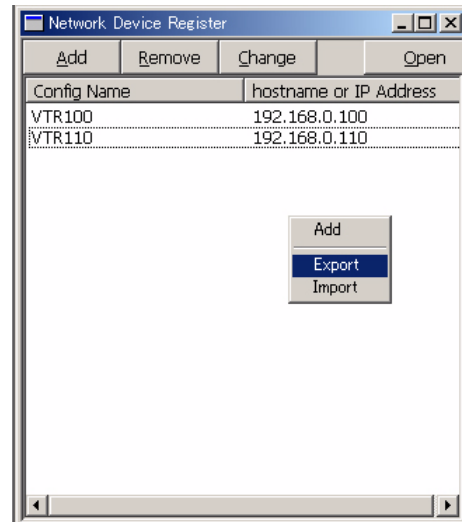


- 2 In the Config Name field, enter the name of the e-VTR. In the HOST/IP Address field, enter the host name or an IP address, then click on the OK button.

The newly entered name and host name or IP address appear in the Network Device Register window. You do not necessarily have to enter a name in Config Name field. If you do not enter a name, the system uses the name entered as the host name or the IP address.

Outputting Device Register Information to a File

Information you have registered in the Network Device Register window can be output to a file on a local disk of the PC.



- 1 Right-click in an empty area of the Network Device Register window, and select Export from the popup menu.

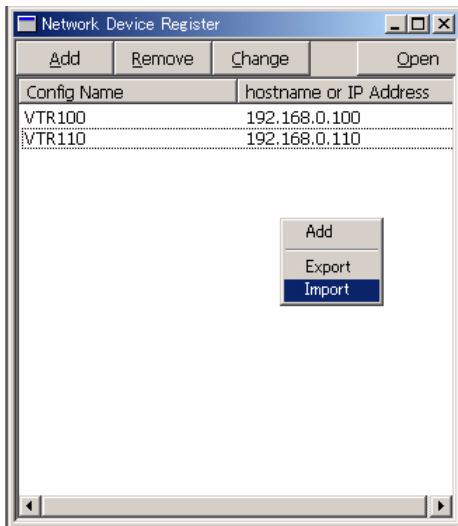
The filename entry window opens.

- 2 Enter the filename under which data to be stored, then click on the Save button.

Information registered by the Network Device Register is stored on a local file of the PC.

Registering the Device Information at a Time by Reading a File

By reading a file from the PC local disk, you can make registration of device information at a time.



- 1 Right-click in an empty area of the Network Device Register window, and select Import from the popup menu.

The file selection window opens.

- 2 Select the desired file, then click on the Open button.

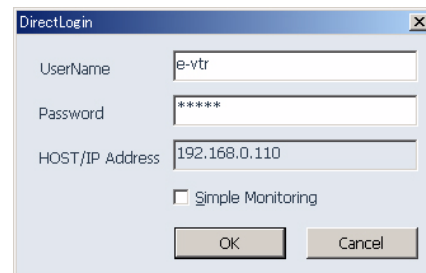
Information is loaded to the Network Device Register from the PC local file.

Accessing e-VTRs From the Computer

Use the following procedure to initiate communications with an e-VTR to be controlled from the computer.

- 1 Select the e-VTR that you want to access from among the e-VTRs in the Network Device Register window, and double click it or click on the OPEN button.

The DirectLogin window appears.



- 2 If you want to use files on the VTR or operate the VTR, enter your user name and password.

If you do not need to use files or operate the VTR but simply want to use e-monitor functions, check the Simple Monitoring check box. The Simple Monitoring function is available only to a superuser. General users do not have the authorization to use this function.

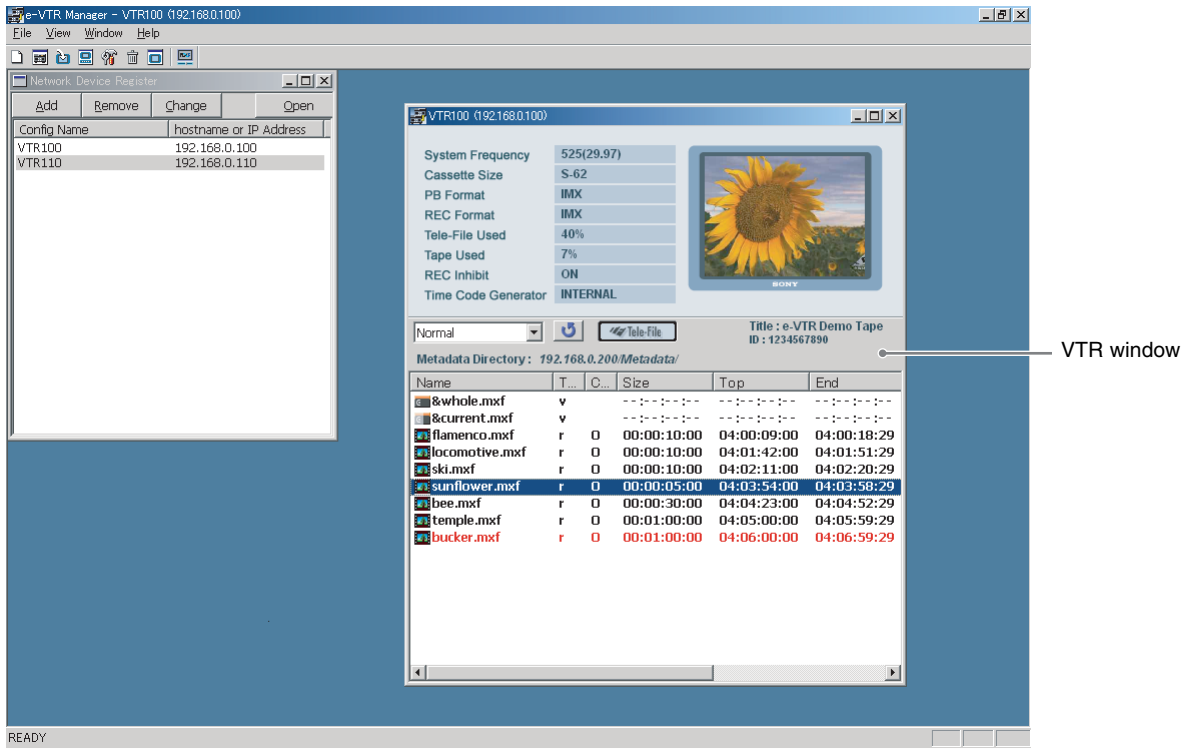
To register a user name and password

Register a user name on the registration Web page (*see page 42*).

- 3 Click on the OK button.

The user is verified, and the e-VTR Manager window opens (*see next page*). The window's title is the name of the selected e-VTR.

e-VTR Manager window



VTR window

If you checked Simple Monitoring, the Simple Monitor window appears. In the Simple Monitor window, you can monitor the video output from the e-VTR's Video Output connector. You cannot control the VTR or do any file operations.

Simple Monitor window



VTR Window Configuration

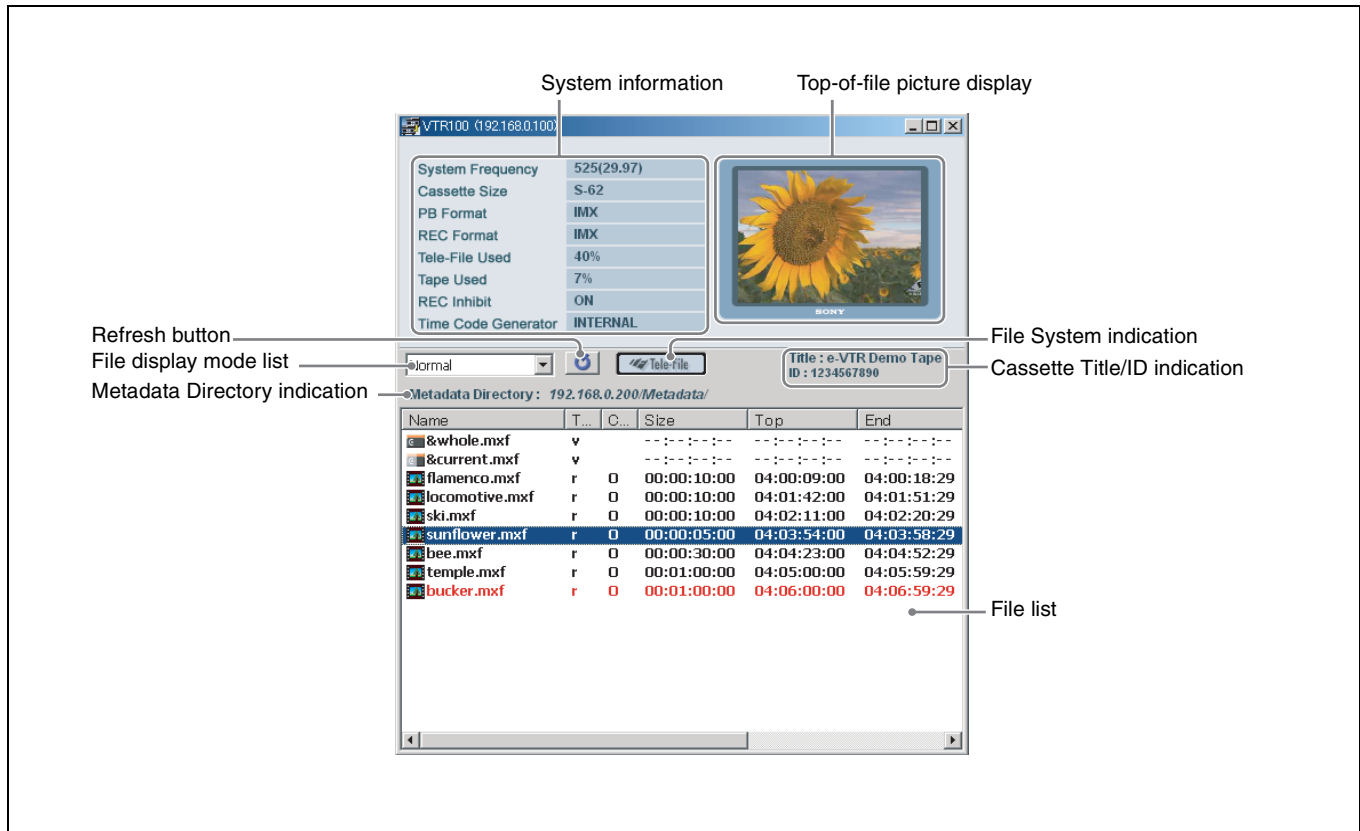
The VTR window displays system information for the e-VTR currently being controlled, and the data contents of the cassette loaded in the e-VTR.

Notes

- The cassette data contents displayed in this window is for data defined as files.

- The only files displayed are those which can be manipulated by users. Files which cannot be viewed or transferred do not appear.
- When the user is a superuser, the virtual files &whole and ¤t are displayed in addition to normal files.

The following figure shows the VTR window.



System information

This section displays the following information about the e-VTR being controlled.

Item	Display example
System Frequency	525 (29.97): 525 lines/29.97 Hz 625 (25): 625 lines/25 Hz
Cassette Size	S-32: S cassette 32 min. L-124: L cassette 124 min.
PB Format (cassette playback format)	Analog: Analog Betacam SX: Betacam SX IMX: MPEG IMX Digi-β: Digital Betacam
Rec Format	MX: MPEG IMX
Tele-File Used (percent usage of Tele-File)	25%
Tape Use (percent usage of tape)	48%

Item	Display example
Rec Inhibit (on or off)	ON: RECINH ON OFF: RECINH OFF
Time Code Generator (operation mode of the timecode generator)	INTERNAL: The timecodes on the tape are regenerated. NETWORK: The original timecodes of received materials are copied.

Top-of-file picture display

This area shows a top-of-file picture for the file currently selected in the file list. The picture is stored on the computer as a temporary JPEG file until you exit the application or eject the tape that contains the data for the file.

Refresh button

Click on this button to refresh the VTR window.

File display mode list

Select the type of files shown in the file list.

Normal (default): Display MXF file for which the user has access privileges and which can be transferred between e-VTRs. (Files whose names do not begin with &.) Among virtual files, &whole and ¤t.)

Total: Displays all files for which the user has access privileges.

Proxy : Displays MXF Proxy AV files for which the user has access privileges.

Metadata Directory indication


Displays the path of the directory under which metadata have been accumulated.

The superuser can change the path.

For details, see “Setting the Directory Path on the External Metadata Server (under Superuser Privilege)” on page 26.

File system indication

Displays where the file system data (file list) to be manipulated.

 : Memory labels on the cassettes

 : External server

For details, see “Manipulating the File System Data on an External Server (under Superuser Privilege)” on page 27.

CassetteTitle/ID indication

Displays the title and ID of the cassette, which can be changed by the superuser.

For details, see “Entering the Title and ID of a Cassette (under Superuser Privilege)” on page 26.

File list

Displays the files in the tape, in the order in which they are recorded. The last file (data closest to the end of the tape) is displayed in red. Another file can be appended after this file.

There are 4 types of files: real files, temporary files, import files, and virtual files.

Real files: These are files with information stored in a Tele-File. They are permanent files which remain after the power is turned off and after the tape is ejected.

Temporary files: These are files without information stored in a Tele-File. They are discarded when the power is turned off or the tape is ejected.

Import files: These are files temporarily created to hold imported file information. They are discarded when the power is turned off or the tape is ejected.

Virtual files: These are files created automatically whenever the power is turned on and whenever a cassette is loaded.

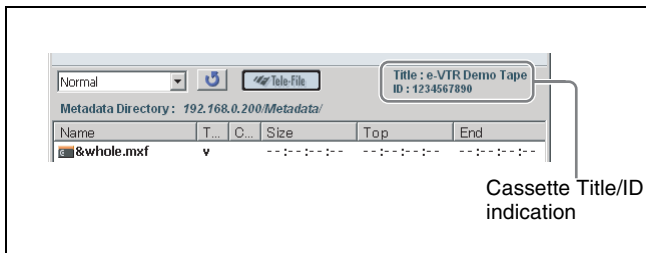
Virtual files are classified as follows:

File name	Definition	Operation in VTR window
&whole.mxf	MXF file over the range from tape top to tape end	Shown only to superuser. Can be transferred to e-VTR or FTP server.
¤t.mxf	MXF file over the range from current tape position to tape end	Shown only to superuser. Can be transferred to e-VTR or FTP server.
&xxxx_s.mxf	MXF file consisting of first frame in file.	Shown only to user with access privileges. Can be transferred to e-VTR or FTP server.
&xxxx_e.mxf	MXF file consisting of last frame in file.	Shown only to user with access privileges. Can be transferred to e-VTR or FTP server.
img.jpg	File containing JPEG picture corresponding to one frame of signals output from e-VTR's VIDEO OUTPUT connector.	Can be transferred to FTP server only.
&menu	File containing the contents of the e-VTR Setup menu.	Shown only to superusers. Can be saved to the PC or transferred to another FTP server.
&wholeS01.mxf	MXF Proxy AV file over the range from tape top to tape end	Shown only to superuser. Can be transferred to FTP server only.
¤tS01.mxf	MXF Proxy AV file over the range from current tape position to tape end	Shown only to superuser. Can be transferred to FTP server only.
&xxxxS01.mxf	MXF Proxy AV file that handle low-resolution video and audio of a real file	Shown only to user with access privileges. Can be transferred to FTP server only.
&monitorM.mxf	MXF D10 file containing signal output from e-VTR's VIDEO/AUDIO OUTPUT connector in an MXF file maintaining high resolution	Shown only to superuser. Can be transferred to e-VTR and FTP server.

File name	Definition	Operation in VTR window
&monitorS01.mxf	MXF Proxy AV file containing signal output from e-VTR's VIDEO/AUDIO OUTUT connector in an MXF file after converting to low resolution	Shown only to superuser. Can be transferred to FTP server only.

Entering the Title and ID of a Cassette (under Superuser Privilege)

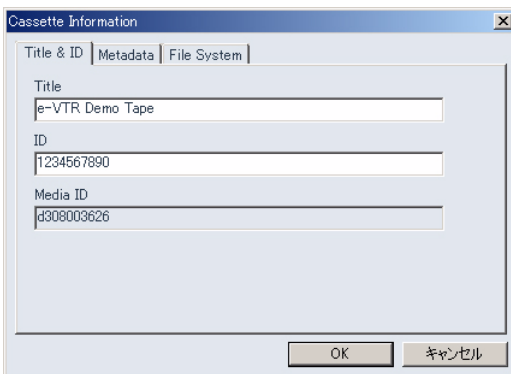
When the cassette in the e-VTR has a memory label, a title and an ID can be assigned to the cassette and registered. The title and ID are displayed under the top-of-the file display in the VTR window.



The superuser can change the title and ID.

Changing procedure

- 1 Double-click on the Cassette Title/ID indication field to open the Cassette Information window. (The window can also be opened by right-clicking in an empty area of the file list and selecting Cassette Information from the popup menu.)
- 2 Select the Title&ID tab and enter the desired title and ID.



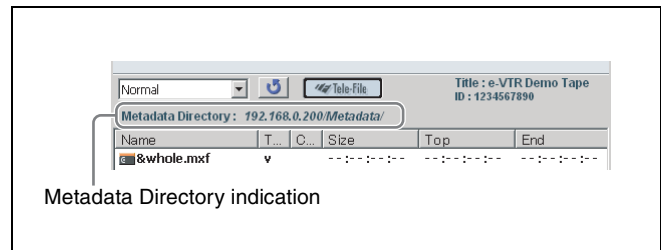
Up to 24 alphanumeric characters can be entered for the title, and up to 20 alphanumeric characters can be entered for the ID.

- 3 Click on the OK button.

Setting the Directory Path on the External Metadata Server (under Superuser Privilege)

The e-VTR permits metadata to be stored on an external server, read from the server and inserted in an MXF file to send with video and audio data when executing file transmission.

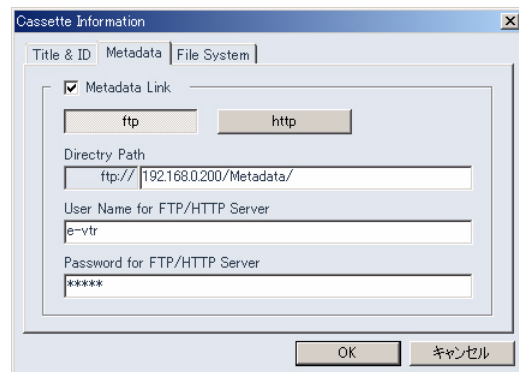
The path of the directory under which the metadata have been stored is displayed in the Metadata Directory indication field in the VTR window.



The superuser can change the directory setting.

Changing procedure

- 1 Double-click on the Metadata Directory indication field to open the Cassette Information window. (The window can also be opened by right-clicking in an empty area of the file list and selecting Cassette Information from the popup menu.)
- 2 Select the Metadata tab and set the data.



Metadata Link: Check this check box to use the metadata link with an external server.

ftp/http: Click on either button to select the protocol (FTP or HTTP) for accessing to the server.

Directory Path: Specify the directory path starting with the host name.

User Name for FTP/HTTP Server, Password for FTP/HTTP Server: When recognition with a user name and a password is required when accessing to

the server, enter the appropriate user name and password.

- 3 Click on the OK button.

On this tab, enter the path for the directory under which the metadata have been stored. To connect metadata files with a video/audio file, use Change Attribute (see page 34).

Manipulating the File System Data on an External Server (under Superuser Privilege)


When you attach a new memory label to a cassette and load the cassette into an e-VTR, information on the file system will be stored on the memory label.

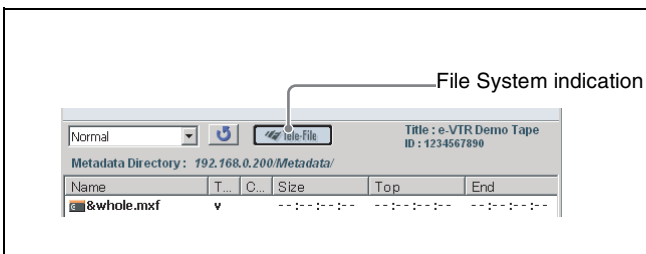
When manipulating the file system data on a memory label, the number of files to be created is limited by the capacity of the memory label. It may depend on the lengths of filenames, but approximately 40 files can be created on average.

By manipulating these file system data on an external server that can have much larger amounts data than the capacity of a memory label, 125 files at maximum can be created regardless of the lengths of filenames.

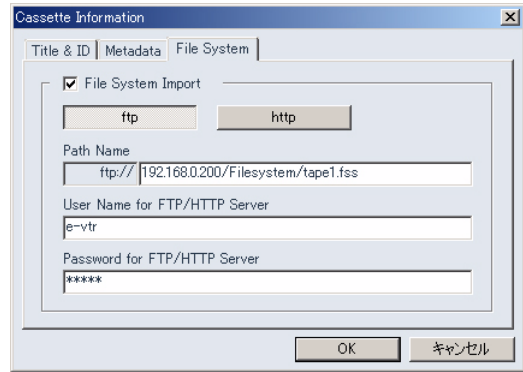
To manipulate the file system data on an external server, log on as a superuser and proceed as follows:

Setting procedure

- 1 Double-click on  of the File system indication to open the Cassette Information window. (The window can also be opened by right-clicking in an empty area of the file list and selecting Cassette Information from the popup menu.)



- 2 Select the File System tab and set the data.




File System Import: Check this check box to manipulate the file system data on an external server.

ftp/http: Click on either button to select the protocol (FTP or HTTP) for accessing to the server.

Directory Path: Specify the directory path starting with the host name.

User Name for FTP/HTTP Server, Password for FTP/HTTP Server: When recognition with a user name and a password is required when accessing to the server, enter the appropriate user name and password.

- 3 Click on the OK button.

The File system indication changes to . (The indication flashes while the file list is being updated.)

Creating Files (under Superuser Privilege)

This procedure allows the superuser to create a file by specifying a segment on an already recorded tape. Use the following procedure to create a file.

- 1 Right-click in an empty section of the file list and select Create File & Entry from the popup menu which appears. Or click on the Create File & Entry button on the toolbar.

The Input Filename window and the File Entry window appear.



- 2 Enter the name of the new file in Input Filename window and click on the OK button.

The Input Filename window closes and a new file is created. The file consists of one frame at the current tape position.

To cancel the file creation operation, click on the Cancel button. This closes the Input Filename window and the File Entry window.

Note

Filenames can be up to 23 characters long. Filenames can contain letters, digits, and symbols (.~@_).

- 3 Use the VTR control buttons or the shuttle control slider at the bottom of the File Entry window to cue up the position that you want to make the top of the file.
- 4 click on the TOP button in the File Entry window.
The file top is defined.
- 5 In the same way, cue up the position that you want to make the end of the file and click on the END button in the File Entry window.

The file end is defined.

Creating Record Entries

A record entry is a section of the tape for which a start and end timecode pair has been defined. There must be at least one record entry in a file (file top and file end). Up to 64 record entry pairs (including the file top and end) can be defined for a single file. When you transfer a file containing multiple record entries, the record entries are transferred in the order in which they are defined in the file. Use the following procedure to create record entries.

- 1 In the File Entry window, click on the Add button.

A record entry is created with the current tape position as the entry top. A currently unused number is assigned to the record entry.

- 2 Execute steps 3 to 5 for creating files to set the entry top and entry end.

Modifying record entries

- 1 In the record entries list, activate the record entry that you want to modify by clicking its number.
- 2 Cue up the desired position on the tape and click on the TOP or END button.

That position is set as the entry top or end.

Deleting record entries

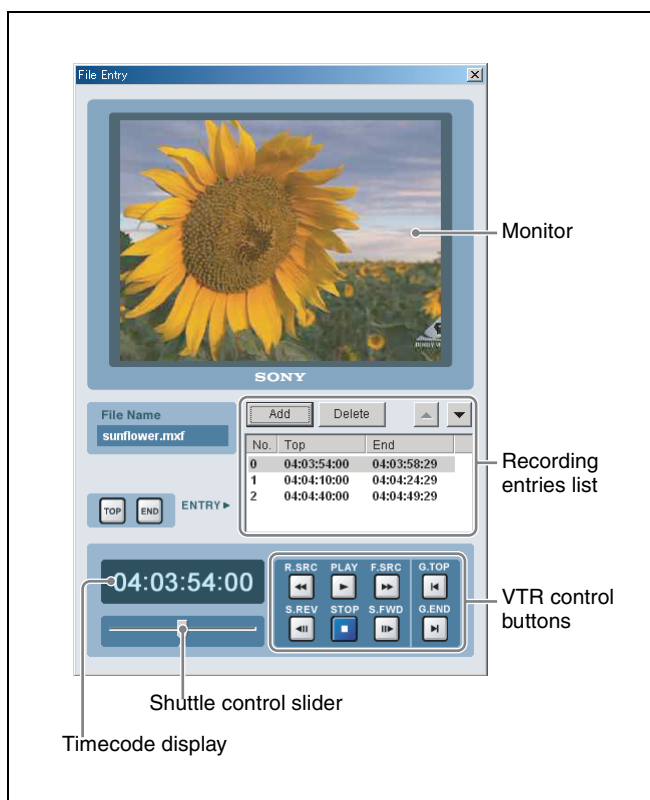
- 1 In the recording entries list, activate the record entry that you want to delete by clicking its number.
- 2 Click on the Delete button.

Changing record entry positions in the list

- 1 In the recording entries list, activate the record entry whose position you want to change by clicking its number.
- 2 Click on the up or down arrow button next to the recording entries list to move the selected entry ▲ (up) or ▼ (down) in the list.

Note

With the factory settings, files can be received only on cassettes which have a Tele-File label attached (*see page 12*).



Importing/Exporting File List

Entry information in MXF files on the e-VTR can be exported to, named and saved on the PC.

When file information saved on the computer is imported to another e-VTR, a new MXF file will be created on the e-VTR.

Files created during import are referred to as “import files” to distinguish them from other file formats (real file, temporary file, and virtual file). Since information in import files is not saved to the memory labels attached to cassettes, they are discarded when the power is turned off or the tape is ejected.

There are 2 levels for file import and export.

Full: All file-related data are imported and exported. This data is binary and thus cannot be viewed in the editor window or by other applications.

Simple: Only file names and the starting and ending timecodes of files are imported and exported. This data consist of alphanumeric characters and can be viewed in the editor window or by other applications. Please note that the existence of identical timecodes on the cassette to may lead to cueing failures.

- 1 Select File in the main window of the e-VTR Manager, and then select Setup to select the import/export level.

To select Full level, check the Full Style File Import checkbox. To select Simple level, remove the check from the checkbox.

- 2 Right-click in an empty area in the file list, and then select Export File or Import File from the popup menu.

When Export File is selected, the Input File Name window appears.

When Import File is selected, the Select File Name window appears.

- 3 Enter the file name or the select files to be imported, and then click on OK.

Notes

- Only real files, temporary files, and import files are exportable. Virtual files cannot be exported.
- Make sure the import/export level settings are the same on the transmitting and receiving VTRs. For example, file data exported with a Full setting cannot be imported with a Simple setting.
- If the cassette tape in the e-VTR contains even a single file that was imported with a Simple setting, then file reception will be disabled since it is impossible to specify the recording range on the tape.

Automatically Creating Files from Tape or Memory Label Information

MXF files can be automatically created from information recorded in the timecode (LTC) (rec start mark, a shot mark, a post mark) or information recorded on memory labels (rec start mark, shot mark, cue point, IN/OUT points).

In the case of files created from tape information, the data between marks is treated as a real file. In the case of files created from memory labels information, data between marks is treated as a temporary file.

When a file is created from the information on the memory label, data between the marks is treated as a temporary file. Do the procedure below to enable automatic file creation.

- 1 Right-click in an empty area in the file list and select Create File List from the popup menu.

The Create File List window appears.

- 2 Select the source (Tape or Tele-File) for which files will be automatically created.

The information recorded on the tape or Tele-File (memory label) is displayed.

- 3 Select the information for which files will be automatically created.

When Tape is selected

The following items can be selected:

- Rec Start Mark
- Shot Mark1
- Shot Mark2
- Post Mark

When Tele-File is selected

The following items can be selected:

- Rec Start Mark
- Cue Point
- IN/OUT Mark

Note

To prevent the misreading of timecodes at the boundary between recorded items, the recording of timecodes for the start and end of each file is delayed by 2 frames.

Backing Up the Menu Settings

The Setup menu settings of the e-VTR can be saved as a file to the computer. The saved file can be later imported to the same e-VTR for the recovery of settings or copied to another e-VTR.

- 1 Select Total in the file display mode list in the VTR window.

The virtual file (&menu) appears in the file list.

- 2 Select the virtual file and right click to select Export Menu or Import Menu from the popup menu.

When Export Menu is selected, the Input File Name window appears.

When Import Menu is selected, the Select File Name window appears.

- 3 Enter the file name or select the file to be backed up, and then click on the OK button.

Saving the Files with a Different Name

Copies of MXF files in the e-VTR can be saved with a different name. This function is convenient for making backup files and when editing the top or end position of a file.

- 1 Select the file to be saved with a different name from the file list in the VTR window, and then right click to select "Save as ...".

The Input File Name window appears.

- 2 Enter the filename and click on the OK button.

Monitoring File Contents

You can check file contents in the top-of-file picture display of the VTR window.

Displaying File Top Pictures

Select the file that you want to monitor from the file list of the VTR window. Right-click on the file and select Get TOP Thumbnail Picture from the popup menu that appears, or click on the top-of-file picture display. Or click on the thumbnail picture button on the toolbar.

The e-VTR is cued up to the file top, and the first picture in the file appears in the top-of-file picture display. The Get TOP Thumbnail Picture window appears while the img.jpg file is being acquired. You can cancel the picture acquisition while the Get TOP Thumbnail Picture is open. However, if you cancel while the VTR is cuing up, the cancellation takes effect after the top picture is acquired. After the thumbnail picture is saved on the computer, the top picture display changes every time the file selection changes. The captured picture data is discarded when you exit the application or when you eject the cassette.

Monitoring the Video and Audio of Files (e-monitor)

Select the file that you want to monitor from the file list of the VTR window. Right-click on the file and select Preview Monitor from the popup menu that appears. Or click on the Preview Monitor button on the toolbar.

An Preview Monitor window opens with the file name and record entry in its title bar.

Use the VTR control buttons or the shuttle control slider to check the contents of the file.

Notes

- You need to have access privileges for the file to use this command.
- The range which users can monitor is limited to the file range. Video and audio cannot be monitored beyond the file range.

Storing JPEG Data

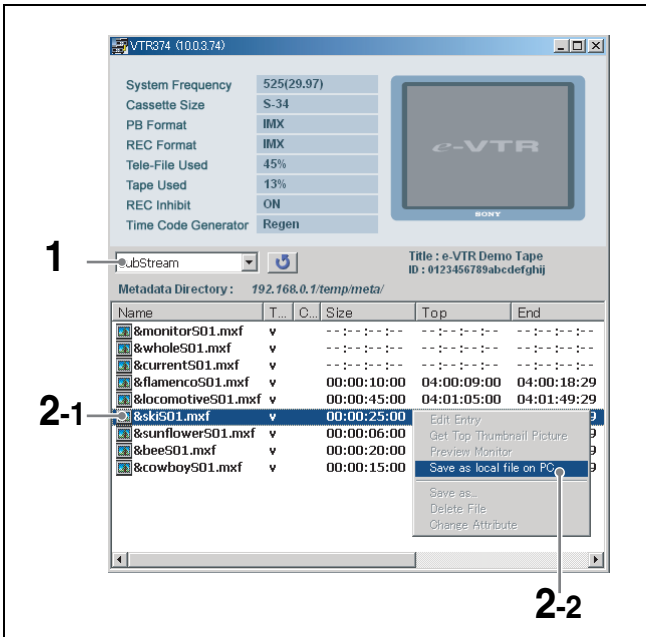
Thumbnails in the VTR window or pictures displayed on the e-monitor can be saved to the computer as JPEG files. Saved files can then be copied and pasted to other documents, etc.

Right-click on the picture and the Input File Name window appears. Enter the filename and click on OK.

Storing/Playing Files Using a PC

MXF Proxy AV files can be stored on a PC local disk and those on a PC local disk can be played back on a terminal.

Storing an MXF Proxy AV File on the PC Local Disk



- 1 Select Proxy from the File display mode list in the VTR window to list the MXF Proxy AV files.
- 2 Right-click on the desired file, and select Save as local file on PC from the popup menu.

The Filename Entry window opens.

- 3 Enter the filename and click on the Save button.

The MXF Proxy AV file is stored as a local file on the PC.

If you click on the Preview button in Progress window during file transmission, the MXF Proxy AV Viewer is activated, permitting you to play a desired portion to check the contents while transmitting the file.

Playing Back a MXF Proxy AV File on the PC Local Disk

Click on the right-most button (MXF Proxy AV Viewer) on the toolbar (page 20) of the e-VTR Manager window. The MXF Proxy AV Viewer is activated.



Specify the desired file in the file select window and click on the OPEN button. Playback of the selected MXF Proxy AV file begins.

Transferring Files

You can transfer files between two selected e-VTRs.

- 1 In the Network Device Register window, select two e-VTRs and display the VTR window for each e-VTR.
- 2 Select the file to transfer from the sending side VTR window, and drag and drop it to the file list in the receiving side VTR window.

The file transfer starts.

During the file transfer, the transfer LED on the front panels of the e-VTRs flash. The File Transfer Progress window appears on the computer screen, displaying the transfer progress as a percentage value and a bar graph.

When the transfer finishes, the information for the transferred file appears in the file list of the receiving side VTR window.

Note

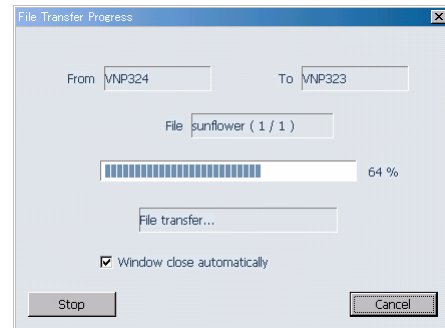
Files cannot be received if the Tele-File label is write inhibited or if 100% is displayed as the Tele-File percent usage value in the receiving side VTR window (see page 24). In addition, if there are no files defined on a cassette, the tape is rewound and recording starts at the tape top whenever a file is received. This overwrites any content that may have been previously recorded at the tape top.

Transferring multiple files at once

You can select multiple files in the sending side VTR window by holding down the Shift key or Ctrl key as you click on the files. Drag and drop all of the selected files to the file list in the receiving side VTR window. The files are transferred in the order in which they appear in the sending side file list.

File Transfer Progress Window Operations

The File Transfer Progress window shown below appears during file transfers.



In addition to a progress bar and transfer percentage value, the following status information is displayed beneath the progress bar.

Device connect... > File cue up... > File transfer... > File recording..

Check the Window close automatically check box if you want the File Transfer Progress window to close automatically when the file transfer ends.

When you are transferring multiple files, the number of the file currently being transferred appears to the right of the file name.

Stopping or canceling a file transfer

When you click on the Stop button or the Cancel button, the file transfer stops and the File Transfer Progress window closes.

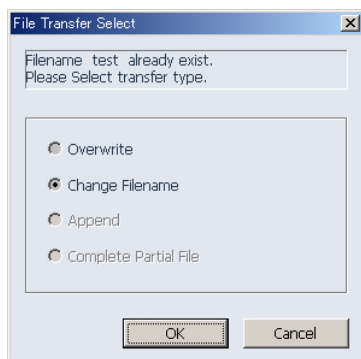
When you click on the Stop button, a real file is recorded on the receiving side even when a file has only been partially transferred.

When you click on the Cancel button, the partially transferred file is discarded.

Note that you can stop the transfer of a file transfer only when Open File Transfer has been checked using the Setup command in the File menu in the main window of e-VTR Manager.

If the Receiving Side Has a File of the Same Name With the File Being Transferred

The File Transfer Select window appears.



Select one of Overwrite, Change Filename, Append, and Complete Partial File in the window.

Overwrite: Overwrites the file on the receiving side with the file being transferred. (It is necessary to have the access privilege to the file on the receiving side.)

Change Filename: Renames and saves the transferred file.

Append: When the file on the receiving side is at the end of the tape (the file attributes are displayed as red-colored text in the file list), adds the transferred file at the end of the receiving-side file.

Complete Partial File: When the file on the receiving side is a partial file recorded at the end of the tape (the file attributes are displayed as pink-colored text in the file list), adds the part of the transferred file which is missing in the receiving-side file.

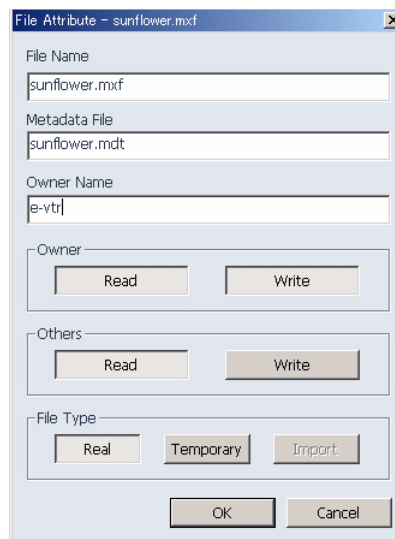
When a virtual file is being transferred between e-VTRs, only Change Filename can be selected.

Partial file

If the network is disconnected or the transmitting server stops for more than 30 seconds while receiving a file, a temporary file is created using data received on the way. This temporary file is called “partial file.”

Changing File Attributes (Change Attribute)

Clicking on the Change Attribute button on the Toolbar opens the File Attribute window, permitting you to change the attributes for the currently selected file.



To change the filename

In the File Name field enter characters for the desired name, and click on the OK button. You can use up to 23 characters.

To change the owner name

In the Owner Name field enter characters for the desired name, and click on the OK button. For the new name, you can use any of the user names that have been registered to the e-VTR. You cannot use unregistered user names.

To change access privileges

You can change read and write permissions of the Owner and Others (Users who are not the owner).

To give a read permission, click on the Read button so that it is depressed. To give a write permission, click on the Write button so that it is depressed.

To change the file type

You can change the file type from Real to Temporary and vice versa. To change the file type to Real, click on the Real button so that it is depressed. To change the file type to Temporary, click on the Temporary button so that it is depressed.

To specify the metadata

Enter the filename under which metadata are stored in the Metadata File field, then click on the OK button.

This connects the MXF D10 video/audio data with the metadata and permits them to be packaged as a single MXF file for transmission.

The metadata file is obtained from the specified Metadata Directory (*see page 26*).

Web Application Operations

By accessing the Web server built into e-VTRs from Internet Explorer and Netscape Navigator, you can make e-VTR settings and perform file operations through the Web application.

The following operations can be performed from the Web application.

- Displaying e-VTR specifications (model name, destination, serial number, etc.) and network information (IP address, subnet mask, default gateway)
- Adding, modifying, and deleting files
- Registering e-VTR users
- Setting the SNMP parameters
- Displaying the menus regarding network operations
- Setting the destination servers for file transmission using the control panel
- Setting the DNS server and internet proxy

Notes

- To access the Web server, specify the e-VTR's IP address directly as the URL (example: 192.168.0.1).
- Do not use a proxy server.

If your browser is set up to use a proxy server, proceed as follows to cancel the setting.

Internet Explorer: Select Internet Options from the Tools menu. In the Connections tab of the Internet Options dialog, click LAN settings. In the Local Area Network (LAN) Settings dialog, clear the check from the Use proxy server check box.

Netscape Navigator: Select Settings from the Edit menu, and select Proxy from the Advanced category of the Settings dialog. In the Proxy Settings screen, select Connect to Internet directly.

Supported Web browsers

Use either Internet Explorer or Netscape Navigator. The browser version should be at least as high as those listed below. Web pages may not display correctly if viewed with an earlier version of either browser.

Internet Explorer: Version 5 or higher

Netscape Navigator: Version 6 or higher

Displaying the Web Application

Proceed as follows to display the Web application.

- 1 In the Web browser address field, enter the IP address of the e-VTR you want to access.

The Enter Network Password window appears.

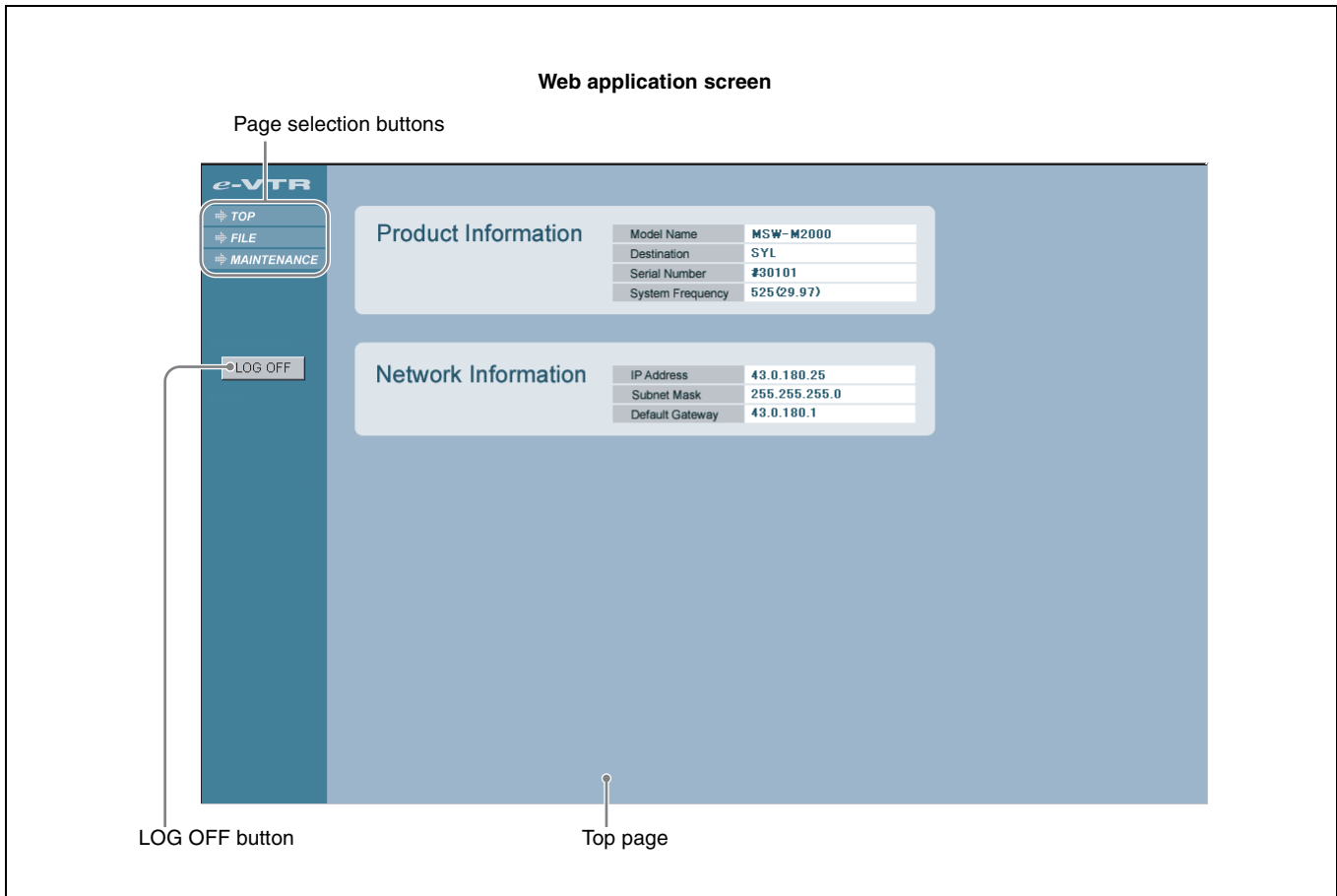


- 2 Enter your user name and password and click on the OK button.

The user name and password to be entered are the same as those for file and VTR operations (*page 22*).

If the user name and password are correct, the Web application starts.

The top page (*see next page*) is displayed when the Web application starts.



The left side of the Web application screen shows the page selection buttons and the LOG OFF button. The right side shows the top page, file page, or maintenance page, as selected by the page selection buttons.

To select a Web application page

TOP button: Click on this button to display the top page.

FILE button: Click on this button to display the file page (*see page 37*).

You can use the file page to create and delete file and record entries, to change their properties, and so on.

MAINTENANCE button: Click on this button to display the maintenance page (*see page 39*).

You can use this page to register users (if you are the superuser) and to change passwords.

To exit the Web application

Click on the LOG OFF button to exit the Web application.

Information in the Top Page

The top page displays product information about the VTR and network settings.

Product Information

Model Name: e-VTR model name

Destination: e-VTR product destination

Serial Number: e-VTR serial number

System Frequency: e-VTR system frequency

Network Information

IP Address: IP address (decimal)

Subnet Mask: Network subnet mask (decimal)

Default Gateway: Default gateway IP address (decimal)

File Page Operations

Click on the FILE page selection button to display the file page of the Web application on the right side of the screen.

The file page allows you to modify existing files on e-VTRs in the network, and to create new files.

The screenshot displays the e-VTR web interface. On the left is a navigation menu with 'TOP', 'FILE', and 'MAINTENANCE' options, and a 'LOG OFF' button. The main area is divided into two sections:

- Display area for acquired image:** Shows a video frame of a building.
- File/record entry list:** A table listing recorded files with columns for Name, Size, Top, End, Date, Time, Property, and Owner.

Below the image display is an 'ENTRY' form with the following fields:

- File Name: scene8-3 (1 / 1)
- File Type: real
- Property: Owner (Read, Write), Others (Read, Write)
- Owner: e-vtr
- Top TC: 00:06:11:04
- End TC: 00:06:46:22
- Tele-File: [Progress bar]
- Tape: [Progress bar]
- Function: No Operation

At the bottom of the form are 'Execute' and 'Reset' buttons, and a 'Status' field.

Name	Size	Top	End	Date	Time	Property	Owner
R scene8-1	00:00:16:28	00:04:55:00	00:05:11:27	02/10/23	00:07	rwr-	e-vtr
R scene8-2	00:00:40:21	00:05:22:20	00:06:03:10	02/10/23	00:08	rwr-	e-vtr
R scene8-3	00:00:35:19	00:06:11:04	00:06:46:22	02/10/23	00:09	rwr-	e-vtr
R scene9-1	00:00:33:17	00:07:28:03	00:08:01:19	02/10/23	00:10	rwr-	e-vtr
R scene9-2	00:00:26:08	00:08:29:13	00:08:55:20	02/10/23	00:11	rwr-	e-vtr
R scene10-1	00:00:16:20	00:10:16:11	00:10:33:00	02/10/23	00:12	rwr-	e-vtr
R scene11-1	00:00:15:20	00:10:42:08	00:10:57:27	02/10/23	00:13	rwr-	e-vtr
R scene12-1	00:00:17:23	00:12:12:02	00:12:29:24	02/10/23	00:14	rwr-	e-vtr
R scene12-2	00:00:34:16	00:12:50:23	00:13:25:08	02/10/23	00:15	rwr-	e-vtr
R scene14-1	00:00:27:11	00:14:31:28	00:14:58:28	02/10/23	00:16	rwr-	e-vtr

Displaying and Modifying Attributes of Existing Files

- 1 Select a file to display from the file/record entry list on the page.

The attributes of the selected file appear in the File Attribute area on the page.

File Name: File name

File Type: File type (real file or temporary file)

Property: File access privileges (held by file owner and other users)

Owner: Name of file owner

Top TC: Timecode of file/record entry

End TC: Timecode of file/record entry

Tele-File: Memory label usage percentage (in units of 1%, maximum 100%)
No further files or record entries can be created when the memory label usage percentage reaches 100%.

Tape: Tape usage percentage (in units of 1%, maximum 100%)

No further files or record entries can be received when the tape usage percentage reaches 100%.

Function: Function list

- 2 Modify the required attributes (however, the file owner can be modified only by a superuser).

To change the file/record entry top and file/record entry end

Using the VTR control panel, cue up the position that you want to make the file/record entry top and click on the ENTRY TOP button. In the same way, cue up the position that you want to make the file/record entry end and click on the ENTRY END button.

- 3 When finished with your modifications, select Change Attribute from the Function drop-down list and click on the Execute button.

To cancel the operation

Click on the Reset button.

Updating the Content of File and Entry Record Lists

Click on the Reload button to reload the content of file and entry record lists.

When you exchange cassette tapes, you should always click on the Reload button to update the file and record entry lists before carrying out any data operations.

Capturing Images

- 1 Operate the VTR to cue up the position where you want to capture an image.
- 2 Select Get Image from the Function drop-down list and click on the Execute button.

An image of the VTR's current output is captured to the Web page.

To cancel the operation

Click on the Reset button.

Creating Files

- 1 Using the VTR control panel, cue up the position that you want to make the file top.
- 2 From the Function drop-down list, select Create New File and click on the Execute button.

A file with a length of 1 frame is added.

To cancel the operation

Click on the Reset button.

Creating Record Entries

- 1 Click on the file list to select the file to which the record entry will be added.
- 2 Operate the VTR to cue up the position that you want to make the entry top.
- 3 Select Create New Entry from the Function drop-down list and click on the Execute button.

A record entry with a length of 1 frame is added.

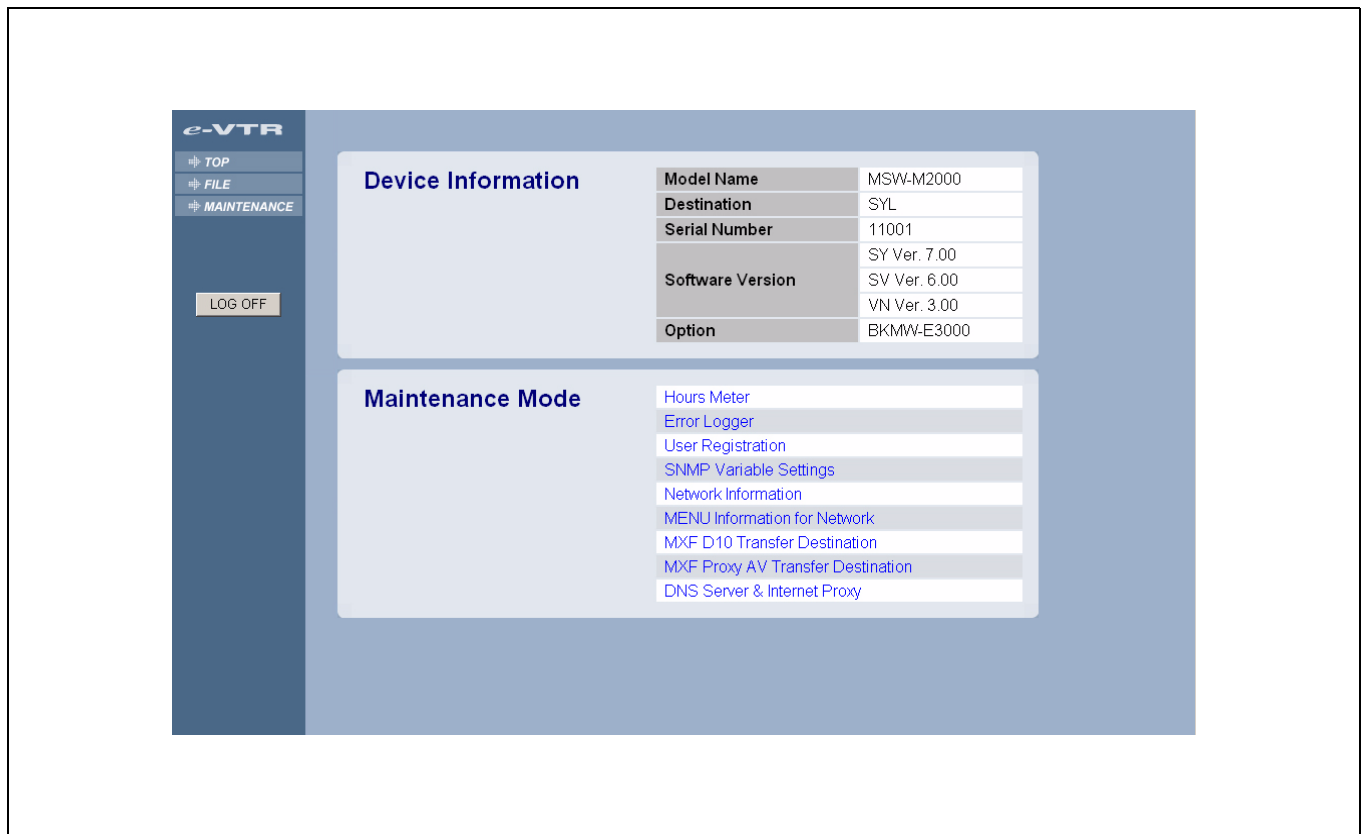
To cancel the operation

Click on the Reset button.

Maintenance Page Operations

Click on the MAINTENANCE page selection button to display the maintenance page of the Web application on the right side of the screen.

This page allows you to check e-VTR product information (Device Information) and to call maintenance functions from the Maintenance Mode list.



Device Information

Model Name: e-VTR model name

Destination: e-VTR product destination

Serial Number: e-VTR serial number

Software Version: e-VTR firmware version

Option: Option boards installed in e-VTR

Maintenance Mode (pages accessible from the Maintenance Mode list)

Hours Meter: Click to display the Hours Meter page (page 40).

Error Logger: Click to display the Error Logger page (page 41).

User Registration: Click to display the User Registration page (page 42).

SNMP Variable Settings: Click to display the SNMP Variable Settings page (page 44).

Network Information: Click to display the Network Information page (page 45).

MENU Information for Network: Click to display the Menu Information page (see page 45).

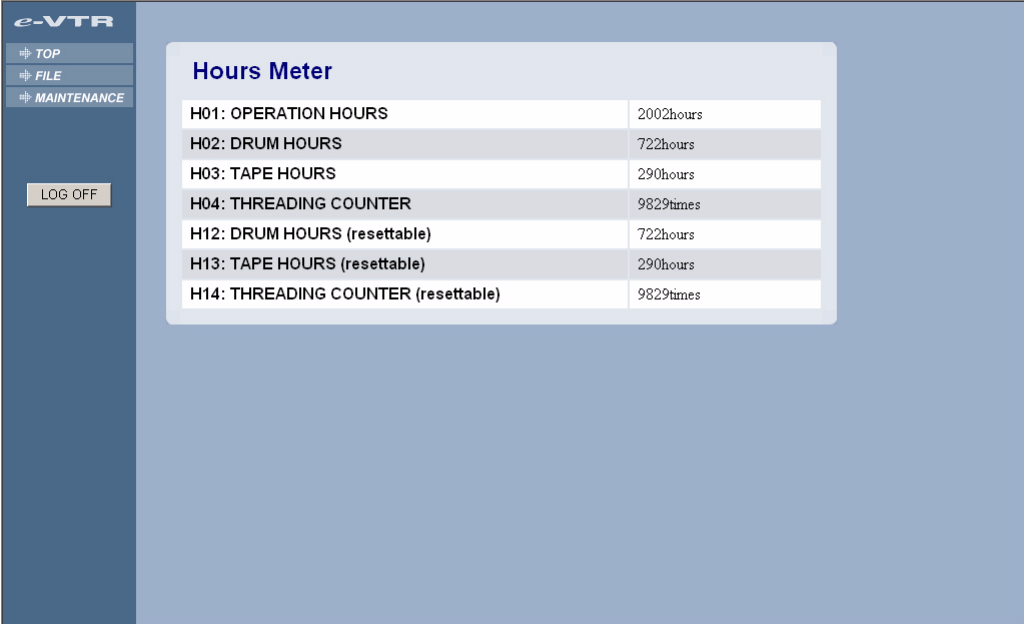
MXF D10 Transfer Destination: Click to display the MXF D10 Transfer Destination page (page 46).

MXF Proxy AV Transfer Destination: Click to display the MXF Proxy AV Transfer Destination page (page 47).

DNS Server & HTTP Proxy: Server Click to display the DNS Server & HTTP Proxy Server page (page 48).

Hours Meter Page

The Hours Meter page displays the hours meter information for the e-VTR.



Hours Meter	
H01: OPERATION HOURS	2002hours
H02: DRUM HOURS	722hours
H03: TAPE HOURS	290hours
H04: THREADING COUNTER	9829times
H12: DRUM HOURS (resettable)	722hours
H13: TAPE HOURS (resettable)	290hours
H14: THREADING COUNTER (resettable)	9829times

H01: OPERATION HOURS (accumulated operation time)

Displays the total number of hours the unit has been turned on in units of 1 hour.

H02: DRUM HOURS (accumulated head drum rotation time)

Displays the total number of hours the head drum has operated with tape threaded in units of 1 hour.

H03: TAPE HOURS (accumulated tape running time)

Displays the total number of hours the unit has operated in fast-forward, rewind, playback, search, recording, or editing mode in units of 1 hour.

H04: THREADING COUNTER (total number of threading)

Displays the total number of times tape has been threaded in the unit.

H12: DRUM HOURS (accumulated head drum rotation time)

Same as H02, except that the count is resettable. Can be used as a guide for head drum replacement.

H13: TAPE HOURS (accumulated tape running time)

Same as H03, except that the count is resettable. Can be used as a guide for replacing fixed heads, pinch rollers and other components.

H14: THREADING COUNTER (total number of threading)

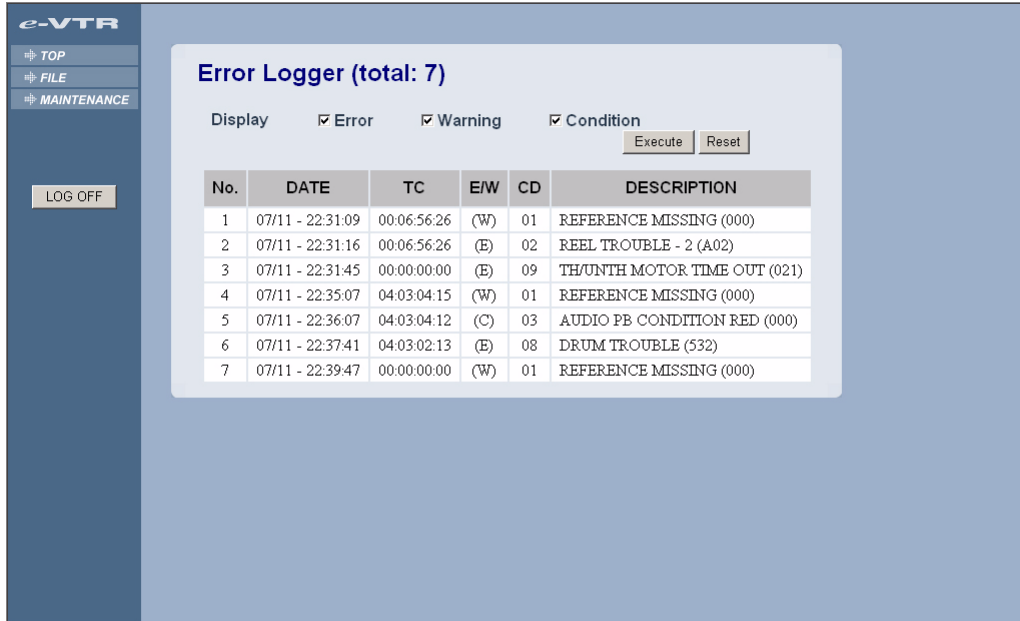
Same as H04, except that the count is resettable. Can be used as a guide for the replacement of the threading motor, etc.

Error Logger Page

The Error Logger page displays the messages stored in the error logger of the e-VTR.

Three types of the messages can be selected for display: “Error,” “Warning,” and “Channel Condition.”

Check the message type to be displayed and click on the Execute button. An error log list showing messages of the selected type appears.



The screenshot shows the e-VTR Error Logger interface. On the left is a navigation menu with 'TOP', 'FILE', and 'MAINTENANCE' options, and a 'LOG OFF' button. The main content area is titled 'Error Logger (total: 7)'. It features a 'Display' section with three checked checkboxes: 'Error', 'Warning', and 'Condition'. Below these are 'Execute' and 'Reset' buttons. A table displays the error log entries with columns for No., DATE, TC, E/W, CD, and DESCRIPTION.

No.	DATE	TC	E/W	CD	DESCRIPTION
1	07/11 - 22:31:09	00:06:56:26	(W)	01	REFERENCE MISSING (000)
2	07/11 - 22:31:16	00:06:56:26	(E)	02	REEL TROUBLE - 2 (A02)
3	07/11 - 22:31:45	00:00:00:00	(E)	09	TH/UNTH MOTOR TIME OUT (021)
4	07/11 - 22:35:07	04:03:04:15	(W)	01	REFERENCE MISSING (000)
5	07/11 - 22:36:07	04:03:04:12	(C)	03	AUDIO PB CONDITION RED (000)
6	07/11 - 22:37:41	04:03:02:13	(E)	08	DRUM TROUBLE (532)
7	07/11 - 22:39:47	00:00:00:00	(W)	01	REFERENCE MISSING (000)

User Registration Page

The content of the user registration page is different for the superuser and general users.

Superuser can register a general users' user names and passwords in the User Registration page. A general user can change his/her own password.

User Registration page for the superuser

The superuser can register up to five pairs of user names and passwords for each e-VTR.

UID	User Name	Password	Verify Password
0	billy	*****	*****
1	kathy	*****	*****
2	davis	*****	*****
3	hash	*****	*****
4	nancy	*****	*****

The user ID (UID) of the superuser is 0. The superuser can access all files on the e-VTR.

To register a user

Enter a user name in the User Name field. Enter a password in the Password field, and then enter the same password in the Verify Password field. Finally, click on the Execute button.

User Registration page for general users

General users can change their own passwords.

UID	User Name	Password	Verify Password
2	davis	*****	*****

Execute Reset

To change your own password

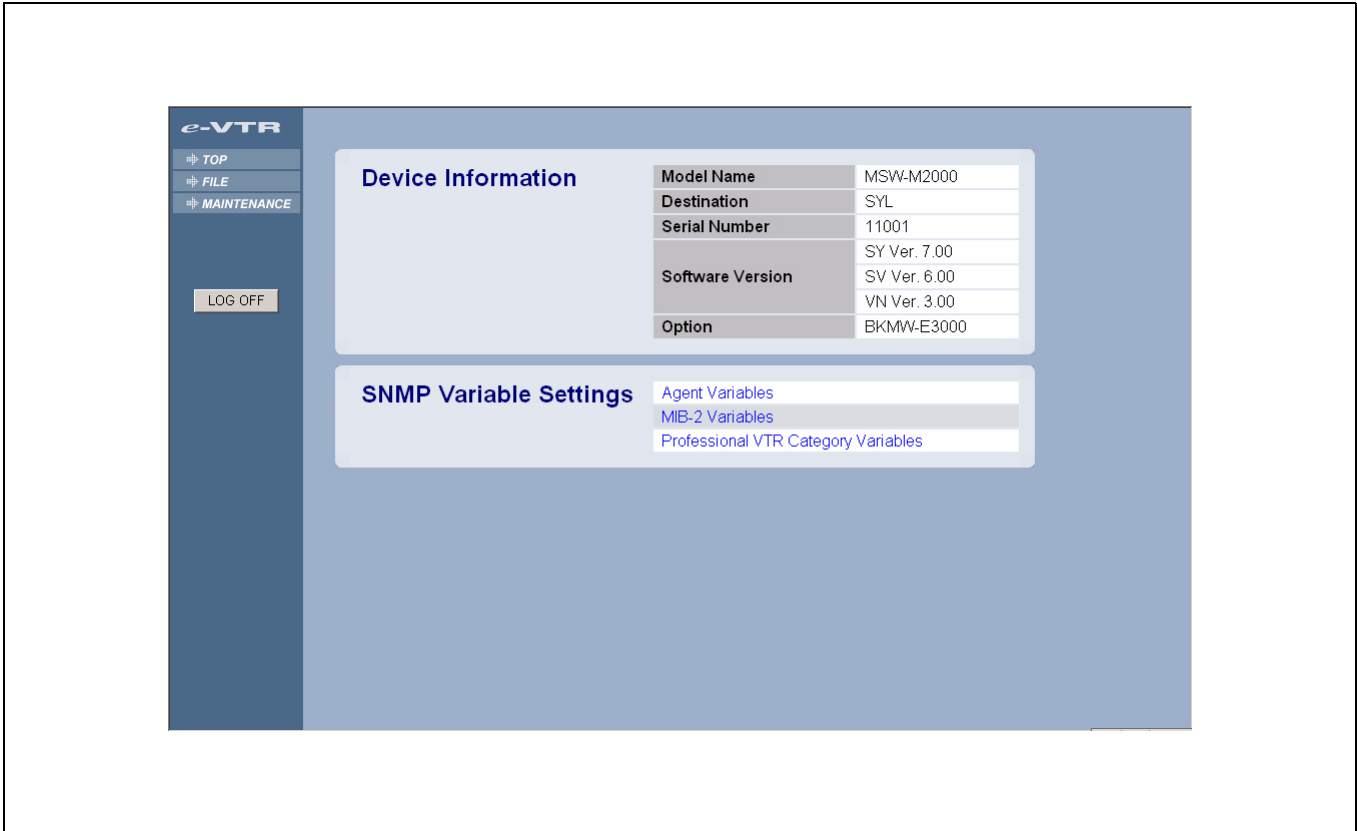
Enter a password in the Password field, and then enter the same password in the Verify Password field. Finally, click on the Execute button.

SNMP Variable Settings Page

The e-VTR provides the SNMP (Simple Network Management Protocol) function that allows management information on devices on the network, such as the e-VTR, to be monitored by external monitoring applications.

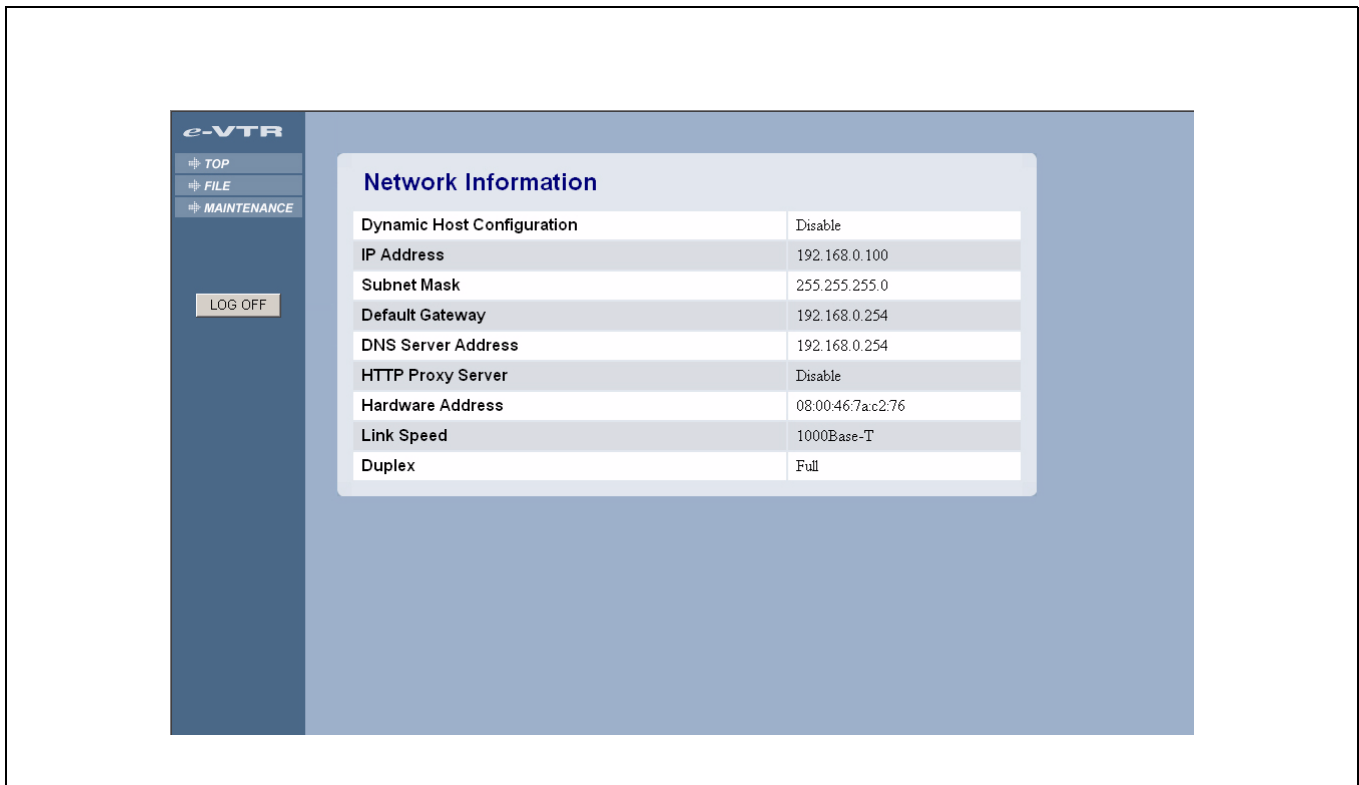
SNMP settings can be made in the SNMP Variable Settings page.

For details on SNMP settings, refer to the Installation Manual.



Network Information Page

The Network Information page shows the status of the network to which the e-VTR is currently connected.



Dynamic Host Configuration

Indicates whether the mode enabling automatic IP address acquisition is being used or not.

IP Address

Displays the IP address.

Subnet Mask

Displays the subnet mask.

Default Gateway

Displays the IP address of the default gateway.

DNS Server Address

Displays the address of the DNS server.

HTTP Proxy Server

Displays the internet proxy on/off when sending files to the HTTP server.

Hardware Address

Displays the hardware address of the network board of the e-VTR.

Link Speed

Displays the transmission speed of the network to which the e-VTR is currently connected.

Duplex

Displays the connection status of the network: Full (full duplex) or Half (half duplex).

MENU Information for Network Page

The MENU Information for Network page displays the settings of 8 menu items of the e-VTR. (No setting is made on this page.)

For details on the menu items, refer to the Operation Manual or Maintenance Manual of the e-VTR.

MXF D10 Transfer Destination Page

Settings for MXF D10 file transfer through the operation on the control panel of the e-VTR can be done on this page.

Up to 5 settings containing the following 5 items can be registered.

The screenshot shows the 'MXF D10 Transfer Destination' configuration page in the e-VTR interface. The page has a left sidebar with 'TOP', 'FILE', and 'MAINTENANCE' options, and a 'LOG OFF' button. The main content area contains a table with 5 rows for configuring transfer destinations. Each row includes fields for ID, Protocol (FTP or HTTP), Hostname/IP Address, User Name, Password, and Verify Password. Below the table are buttons for 'Execute', 'Reset', and a 'Status' indicator.

ID	Protocol	Hostname / IP Adrs	User Name	Password	Verify Password
1	<input checked="" type="radio"/> FTP <input type="radio"/> HTTP	<input type="text" value="192.168.0.1"/>	<input type="text" value="e-vtr"/>	<input type="password" value="*****"/>	<input type="password"/>
		Path: <input type="text" value="/temp/mxf/"/>			
2	<input checked="" type="radio"/> FTP <input type="radio"/> HTTP	<input type="text" value="mxf1234"/>	<input type="text" value="sony"/>	<input type="password" value="*****"/>	<input type="password"/>
		Path: <input type="text" value="/var/mxf/"/>			
3	<input checked="" type="radio"/> FTP <input type="radio"/> HTTP	<input type="text"/>	<input type="text"/>	<input type="password"/>	<input type="password"/>
		Path: <input type="text"/>			
4	<input checked="" type="radio"/> FTP <input type="radio"/> HTTP	<input type="text"/>	<input type="text"/>	<input type="password"/>	<input type="password"/>
		Path: <input type="text"/>			
5	<input checked="" type="radio"/> FTP <input type="radio"/> HTTP	<input type="text"/>	<input type="text"/>	<input type="password"/>	<input type="password"/>
		Path: <input type="text"/>			

Execute Reset Status

Protocol

Select the transfer protocol.

Hostname/IPAdrs

Enter the hostname or IP address of the transfer destination server.

User Name

Enter the user name to log in the transfer destination server.

Password

Enter the password to log in the transfer destination server.
Enter the same password in the Verify Password field.

Path

Specify the directory path to the storage location in the destination server.

When specifying the path, enter / (slash) at the end.

MXF Proxy AV Transfer Destination Page

Settings for the MXF Proxy AV file transfer through the operation on the control panel of the e-VTR can be done

on this page. Up to 5 settings containing the following 5 items can be registered.

ID	Protocol	Hostname / IP Adrs	User Name	Password	Verify Password	Path
1	<input type="radio"/> FTP <input checked="" type="radio"/> HTTP	<input type="text" value="www.mxf.sony.co.jp"/>	<input type="text" value="sony"/>	<input type="password" value="*****"/>	<input type="password"/>	<input type="text" value="test/mdf"/>
2	<input checked="" type="radio"/> FTP <input type="radio"/> HTTP	<input type="text" value="192.168.0.1"/>	<input type="text" value="e-vtr"/>	<input type="password" value="*****"/>	<input type="password"/>	<input type="text" value="/tmp/proxy/"/>
3	<input checked="" type="radio"/> FTP <input type="radio"/> HTTP	<input type="text"/>	<input type="text"/>	<input type="password"/>	<input type="password"/>	<input type="text"/>
4	<input checked="" type="radio"/> FTP <input type="radio"/> HTTP	<input type="text"/>	<input type="text"/>	<input type="password"/>	<input type="password"/>	<input type="text"/>
5	<input checked="" type="radio"/> FTP <input type="radio"/> HTTP	<input type="text"/>	<input type="text"/>	<input type="password"/>	<input type="password"/>	<input type="text"/>

Execute Reset Status

Protocol

Select the transfer protocol.

Hostname/IPAdrs

Enter the hostname or IP address of the transfer destination server.

User Name

Enter the user name to log in the transfer destination server.

Password

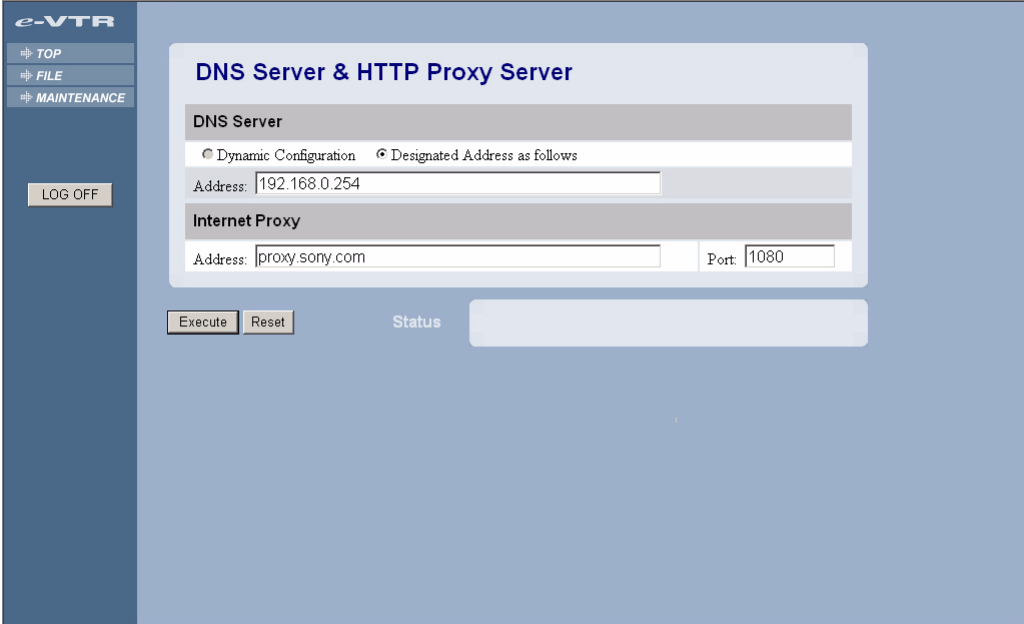
Enter the password to log in the transfer destination server.
Enter the same password in the Verify Password field.

Path

Specify the directory path to the storage location in the destination server.
When specifying the path, enter / (slash) at the end.

DNS Server & HTTP Proxy Server Page

Settings of the DNS (Domain Name System) server and internet proxy can be done on this page.



The screenshot shows the 'e-VTR' web interface for configuring the 'DNS Server & HTTP Proxy Server'. On the left is a navigation menu with 'TOP', 'FILE', and 'MAINTENANCE' options, and a 'LOG OFF' button. The main content area is titled 'DNS Server & HTTP Proxy Server' and contains two sections: 'DNS Server' and 'Internet Proxy'. In the 'DNS Server' section, the 'Designated Address as follows' radio button is selected, and the 'Address' field contains '192.168.0.254'. In the 'Internet Proxy' section, the 'Address' field contains 'proxy.sony.com' and the 'Port' field contains '1080'. At the bottom of the form are 'Execute' and 'Reset' buttons, and a 'Status' label next to an empty text box.

Setting the DNS server

To automatically acquire the DNS server from the DHCP server, select the Dynamic Configuration option.

To specify a certain IP address, select the Designate Address as follows option, and enter the IP address in the Address field.

Note

To automatically acquire the DNS server from the DHCP server, the IP address and subnet mask must be automatically acquired at the same time. It is not possible to acquire the DNS server setting alone from the DHCP server. When you do not use the DNS server and specify a destination server by directly entering the IP address, these settings are not required.

Setting the HTTP Proxy Server

To send files to the HTTP server via the proxy server, specify the network address and port number of the proxy server. These settings are not required when you do not use the proxy server.

The material contained in this manual consists of information that is the property of Sony Corporation and is intended solely for use by the purchasers of the equipment described in this manual.

Sony Corporation expressly prohibits the duplication of any portion of this manual or the use thereof for any purpose other than the operation or maintenance of the equipment described in this manual without the express written permission of Sony Corporation.

