DP-501 *eHold Player*

User's Guide

User's Notice

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FCC and CE Statement

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.

Table of Contents

Package Contents

(1) Audio player
(1) Software CD
(1) Ethernet cable
(2) Audio cables
(1) Power adaptor
(1) This user guide

Hardware Descriptions

Specifications
Memory Capacity: 1 GB (1/2 used for audio file, 1/2 used as download buffer)
Max. Number of Sound Files: 1
Sound File Format: MP3, CBR/VBR up to 320 kbps, sample rate up to 44.1 KHz
   * Stereo files are played in mono with both channels mixed together.
Ethernet Interface: RJ-45, 10/100 Mbps
   * Static IP address is required for the player.
Audio Outputs:
   - 8 Ohm single ended with 1/8" phone jack (for most applications)
   - 600 Ohm balanced with RJ-11 jack
   * Both outputs provide the same audio content.

Indicator Lights
System: This light flashes slowly during normal operation.
Play: This light is normally on but turned off during file transfer.
LAN: This light is on if the LAN connection is good, and flashes during network activities such as file transfer.

Volume Control
There are two levels of volume control: hardware and software. The hardware control (via the volume dial on the player) sets the maximum output level. The software control (via the server program) allows you to remotely adjust the volume within the range set by the hardware control.

Hardware Reset Button
To reset the hardware configurations (such as IP address and passwords) to factory default, use a sharp object to press this button down and then turn on the power. Keep holding the button down for 5 more seconds and that's it. If you should somehow forget the passwords, use this button to reset the passwords to blank (no password) so that you can access the player again. Remember to re-configure the player because all the settings will be restore back to factory default.

Hardware Installation
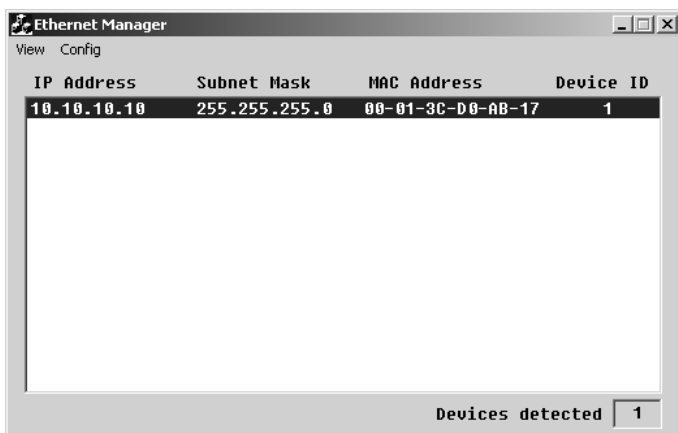
IP Address Configuration

The player is designed to operate as a server instead of a client. If you want to be able to access the player via the Internet, you'll need both a public static IP address (obtained from your ISP provider) and a private static IP address (obtained from your network administrator.) If you already have a public static IP address, it can be shared in most cases. If you will only access the player via a private LAN, then only the private static IP address is needed.

In the rare event that the player will be connected to the Internet directly without a router, you will only need the public static IP address.

The player is pre-configured at the factory with a default IP address that is unusable in most cases. We'll need to change it to the private static IP address obtained from your network administrator. First, use the provided Ethernet cable and connect the player in the following manner:
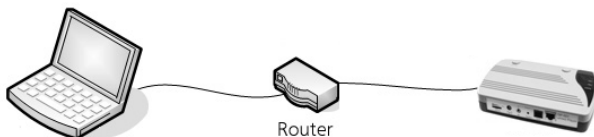
Router

The LAN indicator light must turn on at this point, blinking occasionally. If not, check your router and cable connection. Then run Etm.exe directly from the software CD, or you may copy it to the hard drive and run it from there. The program should find and display the player's default IP address as the following (actual IP address may vary):

IP Address	Subnet Mask	MAC Address	Device ID
10.10.10.10	255.255.255.0	00-01-3C-D0-AB-17	1

Devices detected 1

Select *Config > IP Address* and change the IP address to the private static IP address. In the rare event that the player will be connected to the Internet directly without a router, enter the public static IP address instead. In a few seconds the screen will automatically display the new IP address. Exit the program and you have now completed the IP address configuration.

Note that Etm may not be able to find the player because of firewall and anti-virus issues. Most routers have firewall, and operating systems may also have firewall. You may need to re-configure the firewalls and the anti-virus software in order for Etm to work properly. Please consult with your network administrator on these issues, as there are simply too many different routers, operating systems and anti-virus software for this manual to cover.
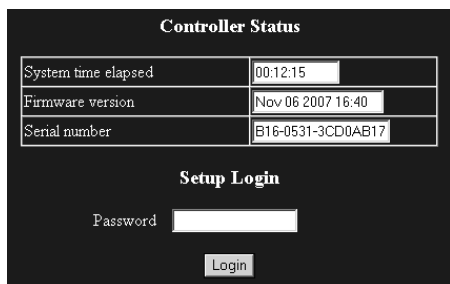
The IP address configuration does not need to be done at the installation site. It can be done anywhere as long as you set the IP address to the one that will actually be used in the final installation. For example, a dealer may configure the player in his office first, then take it to his client's office for final installation. Of course, the dealer must learn the static IP address from his client first.

Device Configuration

Device configuration is very important as it allows you to set new passwords in order to keep the hackers out. There are two passwords, the Setup password and the Access password. The Setup password is what you use to enter the player's Setup page. The Access password is what the server program uses to access the player and upload files. Both passwords are set to blank (no password) at the factory. It is recommended that they be set up before the player is put into service.

If you should lose one or both of the passwords in the future, you may reset them to the default value (blank) by pressing the hardware reset button down for 5 seconds while the player powers up. All configurations will be reset to factory default and you must re-configure everything to the way it was.

From Etm.exe, select *Config > Device Settings* to enter the setup login page:

Click the Login button without entering any password because a brand new player has no login password. Your web browser will open a web page similar to the one shown below:

Controller Setup	
IP address	192.168.100.77
Subnet mask	255.255.255.0
Gateway address	0.0.0.0
Network link speed	Auto
DHCP client	Disable
Socket port of HTTP setup	80
Destination IP address / socket port (TCP client and UDP) Connection	0.0.0.0 0
Device ID	1
Report device ID when connected	Enable
Setup password	
Access password	
FIFO Interface	
Socket port	100 TCP Server
Digital I/O Port	
Socket port	102 TCP Server
Configuration	IO1 Output IO2 Input IO3 Output IO4 Output IO5 Output IO6 Output IO7 Output IO8 Output

Update

IP address: should have been set up previously.
Subnet mask: default value (255.255.255.0) recommended.
Gateway address: don't care.
Network link speed: default value (Auto) recommended.
DHCP client: don't change - must use default value (Disable).
Socket port of HTTP setup: default value (80) recommended.
Destination IP address / socket port connection: don't care.
Device ID: don't care.
Report device ID when connected: don't care.
Setup password & Access password: keep a record of them in a safe place.
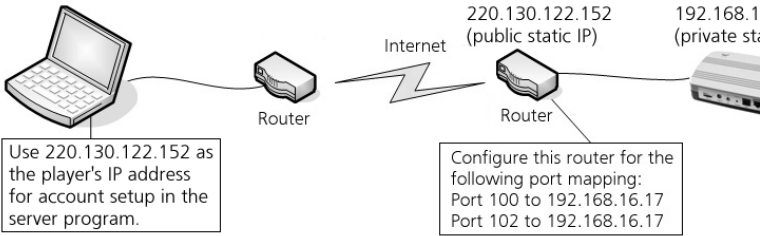**FIFO Interface:** default value (100) recommended.
Digital I/O Port / Socket port: default value (102) recommended.
Digital I/O Port / Configuration: don't change - must use default value.

Site Installation

There are three possible connection schemes for site installation. IP addresses in the following illustrations are for example only.

Player connected to Internet via a router:

220.130.122.152
(public static IP)

192.168.1
(private sta

Internet

Router

Router

Use 220.130.122.152 as the player's IP address for account setup in the server program.

Configure this router for the following port mapping:
Port 100 to 192.168.16.17
Port 102 to 192.168.16.17

Player connected to Internet directly:

Player connected to internal LAN only:

192.168.16.17
(private static IP)

Router

Use 192.168.16.17 as the player's IP address for account setup in the server program.
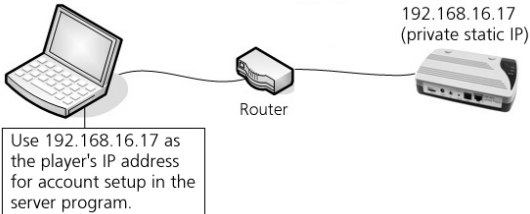
Phone System Connection

Connect the player's audio output to the music input on the phone system. The player has two audio outputs and only one needs to be used. The 8 Ohm output should be used in most cases. The 600 Ohm output should be used only if the phone system has a RJ-11 connector for music input. Do not worry if the phone system has a 600 Ohm input with a non RJ-11 jack - it will work fine with the player's 8 Ohm output.

The player comes preloaded with some demo music. Press and lock down the Monitor button to turn on the internal speaker, and you should be able to hear the music. Adjust the volume if necessary - both the speaker and the audio output will be affected. The speaker can be turned off by pressing the Monitor button again. The speaker may be turned on or off during normal operation.

The Server Program

The server program runs under Windows 2000 and greater. It allows you to set up a database of accounts and upload new programs to the players immediately or at a later time. You can also remotely adjust the audio volume. Each account contains contact information such as name, address, phone number and email address. It also contains the player information such as IP address and password. Each account may have only one player associated with it. For a client with multiple locations, each location should be considered as a separate account.

Software Installation

Run setup.exe on the software CD to begin the installation process. Prerequisite software such as Microsoft .net and SQL server (compact edition) are also included on the CD and will be installed.

If an older version was previously installed, it must be uninstalled first. When the new version installs, the program will ask if you want to replace the old database file "Accounts.sdf". Answer "no" if you want to keep the accounts you previously set up. You will not be asked this question if the software has never been installed on the PC before.

The server program allows you to set up tasks (file transfers) for immediate or future execution. However, the server program needs to be running at the time when the scheduled tasks are supposed to be executed. If the server program is not running at the time, the scheduled tasks will not be executed until the next time the server program runs. Therefore by default a shortcut to the server program is installed in the Programs | Startup folder. This causes the server program to be launched every time the software's owner logs in. The shortcut in the Startup folder can be deleted if this behavior is not desired.

When using Windows Vista it may be necessary to run the server program as the system Administrator.

The first time the server program is run the event log is created. After that server activity will be written to the event log.

Make sure firewalls and anti-virus software are correctly configured to allow the server program to access the players.

The Main Menu
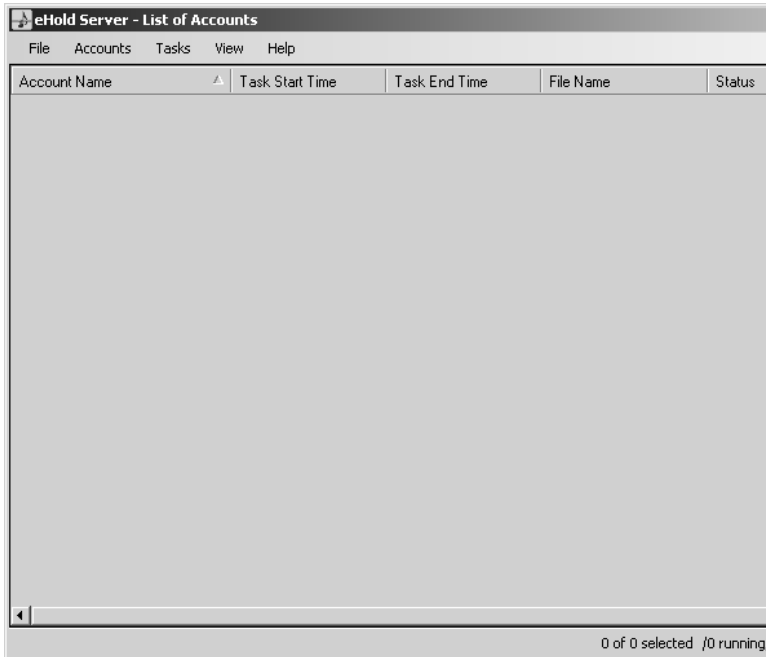
The main menu displays mainly a list of accounts. The view can be customized with the View|Select Columns command.

Some of the commands allow you to act upon one or more accounts. Select one account by simply clicking on it. Select multiple accounts by shift-clicking (range) and/or control-clicking (individual).

The accounts can be sorted by clicking on a column header. Column order can be changed by dragging column headers to different positions.

If you plan to update a group of accounts with the same program on a regular basis, you should give these accounts similar names such as "ABC Corp. - CA", "ABC Corp. - NY" and etc. You can then use the View|Filter command to call them out.

The program is very easy to use. All you need to do is setting up accounts and tasks. The tasks are displayed on the screen with such details as start time, end time, file name and status (result). If a task failed for some reason, the entry will be in red until you clear the task. You may sort on the Status column so that all failed accounts are listed together for you to examine.

The Accounts Command

Add Accounts

In the Contact area, all fields are optional except the Account Name which must be unique. In the eHold Player area, fill in the IP Address (see illustrations on the next page) but leave the IO Port and the Digital IO Port fields unchanged.

The player has no default password. If you want to set up the password (recommended), click the "Config" button after filling out the IP Address. When the Controller Status web page opens, click the "Login" button. There are two passwords in the next page. The Setup password is what you use to log in this page - the default is blank and that's why you were able to log in without the password previously. The Access password is what the server program uses to access the player (the Password in the eHold Player area.) If someday you lose the passwords, you may reset the player to the default (blank for both passwords) by pressing down the player's hardware reset button for 5 seconds while turning on the power.

The Reset button in this dialog box, not to be confused with the hardware reset button, issues a software reset command to the player when it locks up for some reason. If the player cannot be restored by a software reset, recycle its power.

Values of the HTTP Port, the FIFO Port and the Digital IO Port should usually be left unchanged. If there are multiple players (accounts) using the same public static IP address behind the same router, then these software ports need to be changed to unique values for each players. For example,

1st Player: HTTP = 80, FIFO = 100, Digital IO = 102
2nd Player: HTTP = 5000, FIFO = 5001, Digital IO = 5002 (changed from default)

The above software ports are used by the server program to access each player. On the other hand, each player has the same set of hardware ports with the following default values (changable in the device configuration page):

HTTP = 80, FIFO = 100, Digital IO = 102

Therefore, the port forwarding (if firewall is enabled in the router) should be:

1st Player: (public IP) 80 to (private IP) 80, 100 to 100, 102 to 102
2nd Player: (public IP) 5000 to (private IP) 80, 5001 to 100, 5002 to 102

Each player should have a unique private IP address - see IP Address Configuration under Hardware Installation.

Note the HTTP port is used to access the device configuration page only. Do not forward the HTTP port unless you want to access the device configuration page via the Internet.

If you plan to send the same file to a group of accounts on a regular basis, you should give them similar names such as "ABC #1", "ABC #2" and etc. You will then be able to quickly select these accounts using the View/Filter command.

Edit Accounts
You may select one or more accounts for editing. Select multiple accounts by shift-clicking (range) and/or control-clicking (individual).

Duplicate Accounts
This command helps to create multiple accounts with similar data. After setting up the first account manually, you may duplicate it and edit the duplicate to create a new account. All fields will be duplicated except the IP address. Remember to change the account name so that it's unique.
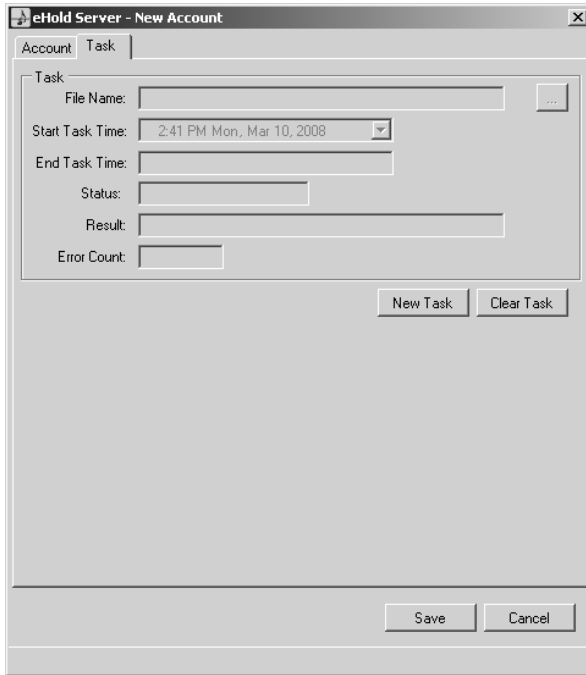
Delete Accounts
You may select one or more accounts for deletion. Select multiple accounts by shift-clicking (range) and/or control-clicking (individual).

The Tasks Command

Edit/Clear Tasks
Use this command to create or clear tasks for one or more accounts. Select multiple accounts by shift-clicking (range) and/or control-clicking (individual).


To create a new task, click the New Task button. Next, select the file and the time to upload, and then click the Save button. When you click the New Task button, the Start Task Time will automatically be set to the current time. If you want to start the task immediately, leave it unchanged. Date and time values can easily be incremented and decremented by selecting the value and using the up and down arrows.

When a task is scheduled for future execution, its Status field in the Main Menu becomes "Ready". After a task is executed, its Status field shows the result.

The Clear button is used to clear the status of the previous task, or to delete a task that's scheduled for future execution. You can also use the *Tasks > Clear* command.

If a task is not executed successfully for any reason, it will be retried automatically at a later time. The retry schedule has a default setting of 100 retries at 1 hour intervals. It can be changed by using the *File > Admin Preferences* command.

Get/Set Volume
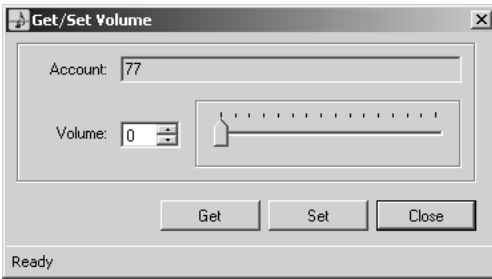
Click the Get button to obtain the current volume. Move the slide to the desired value and click the Set button to set the volume. This command works on one or more accounts. Select multiple accounts by shift-clicking (range) and/or control-clicking (individual).

Note that there are two levels of volume control: hardware and software. The hardware control (via the volume dial on the player) sets the maximum output level. The software control (this command) allows you to remotely adjust the volume within the range set by the hardware control.

Start Transfer Now
Use this command to immediately start the task(s) of the selected account(s). If the task has been executed before, it will be executed again.

Abort Queued Tasks
A task will be queued if its time has come but the system is busy executing another task. Use this command to abort queued tasks if any. These queued tasks do not need to be selected. The task status will become "Aborted".

Abort Running Tasks
Use this command to abort the task that's currently being executed. The running task does not need to be selected. The task status will become "Aborted".

The View Command

Plain Text Password
If this box is checked, the account password will be displayed in plain text. Other-wise, it will be displayed as "xxxxxxxx".

Show Tool Tips
If this box is checked, tool tips will be displayed when the mouse is moved on certain command buttons.

Filter...
Use this command to view accounts with a common word in the account name. It allows you to quickly narrow in (and subsequently select) a group of accounts from a list of potentially hundreds of accounts. You may view accounts that contains, start with, or end with the common word. Note that accounts without the common word will be hidden but not deleted.
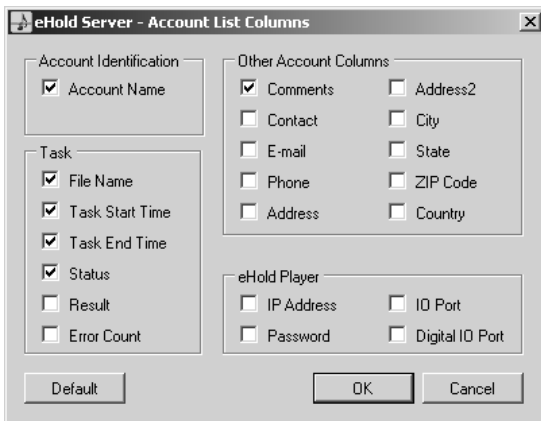
Remove Filter
Remove the filter and view all accounts.

Select All
Use this command to select all accounts.

Select Columns

Select the columns to display in the Main Menu.

The File Command

Admin Preferences

Get Volume Timeout
The Get Volume command can take no longer than the value of this timeout. This timeout value must be greater than Data Send and Data Receive Timeout values.

Set Volume Timeout
The Set Volume command can take no longer than the value of this timeout. This timeout value must be greater than Data Send and Data Receive Timeout values.

Reset Device Timeout
The Reset command can take no longer than the value of this timeout. This timeout value must be greater than Data Send and Data Receive Timeout values.

Data Send Timeout
eHold Server socket send data timeout is initialized to this value.

Data Receive Timeout
eHold Server socket receive data timeout is initialized to this value.

Max. Transfer File Threads

This is the maximum number of concurrent transfers. By setting this value greater than 1, multiple transfers should complete faster because more than one will be done at once.

Transfer Timer Interval

The interval at which system queries are services. The eHold Server checks for transfers that are ready to be queued at this interval. Status messages and transitions from queued to running are also performed at this interval.

Reset to Send File Delay

When this value is non-zero, it specifies the delay between issuing a reset and beginning a file transfer. The default value is 0, which means that a reset is not sent prior to beginning a transfer.

Progress Timer Interval

When a transfer is in progress, the percent completion messages are updated at this interval.

Transfer Packet Size

When transferring a file to an eHold Player, data is written to the player 'Transfer Packet Size' bytes at a time.

Show AccountID Checkbox

Each account has an AccountID. This is a unique number that is automatically generated. Accounts that have been saved to the database have positive AccountID numbers whereas newly created accounts have negative AccountIDs. Some of the event log entries identify the account using its AccountID. Check this check box to enable the AccountID column check box to be displayed in the Select Columns dialog box.

Auto-Dismiss Timeout

Messages that are displayed during a transfer are automatically dismissed after the Auto-Dismiss Timeout has elapsed. In this way pending transfers will not be prohibited from running should an error occur. Note that Auto-Dismiss can be disabled by setting this value to zero (0).

Cell Date/Time Format

This string specifies how the Data/Time is displayed in the Task Start and Task End columns of the List of Accounts display. Details for modifying the format string can be found in Microsoft's Standard Date and Time Format Strings topic in the .NET Framework Developer's Guide.

Dialog Date/Time Format

This string specifies how the Data/Time is displayed in the Task Edit dialog. Details for modifying the format string can be found in Microsoft's Standard Date and Time Format Strings topic in the .NET Framework Developer's Guide.

Retries
The following image shows the Transfer Retry Configuration dialog box.
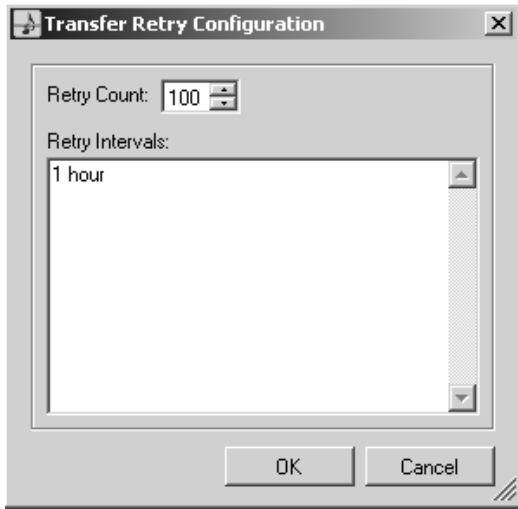
Retry Count
The retry count is the maximum number of transfer retries that are attempted before failing a transfer task. The retry count can be set to zero to disable transfer retries through a maximum value of 9999.

Retry Intervals
A retry interval is the delay between a transfer error and the next retry. Retry intervals are entered one per line. Note that blank lines are not allowed.
Retry intervals have the following format.

<n> <unit>

Where *n* is an integer and *unit* can be minute or minutes, hour or hours, or day or days. The integer and the unit must be separated by a space.

If retry count is greater than the number of retry intervals, the last retry interval entry is used. If there are no retry intervals, the default value of one hour is used.

Click on the OK button to save changes. Note that the Save button on the Admin Preferences dialog must also be clicked for retry changes to be saved.