

Design File Server

Instruction Manual

Ver 1.50.00

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1. Introduction

This manual describes the new Design File Server program installation and operation. In order to use the network system properly, please read the manual before using.

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- Other names of Programs, systems, CPU and others are trademarks of each companies in each country.
- Descriptions of ®, ©, TM are abbreviated in this manual

1-1. Outlines

- Downloads designs from a server using a LAN connection. Maximum 1 machine connection.
- Downloads designs from a server using COM connections with a maximum of 8 machine connections.

1-2. Design File server operating environment requirements

| | |
|------------------|--|
| Operation System | Windows Vista/Windows 7/Windows 8/Windows 8.1/Windows 10 |
| Processor (CPU) | Pentium 4 or higher/ 2GHz or higher |
| RAM | 2GB or more |
| Hard Disk | At least 15MB or larger |
| Number of Pixels | XGA (1024x768) or higher |
| Color Depth | Optional Color |
| Others | <ul style="list-style-type: none">• For COM connections, machine requires a COM port or COM adaptor• LAN Protocol is TCP/ IP.• For LAN connection, machine requires a LAN Port, Adapter, or LAN Card |

< Chart 1-3-1 Specifications >

- ※ Since Windows XP® support has been discontinued; we can't guarantee the LEM server performance with this operation system.
- ※ If you are using a PC without a COM port, please use a USB to Serial adapter as recommended by your local Barudan distributor for support reasons.
- ※ COM connections require a Null modem serial cable. Please use a cable as recommended by your local Barudan distributor for support reasons.

1-3. Design File Server Programs

Design File Server is composed of the following programs (Chart 1-3-2)

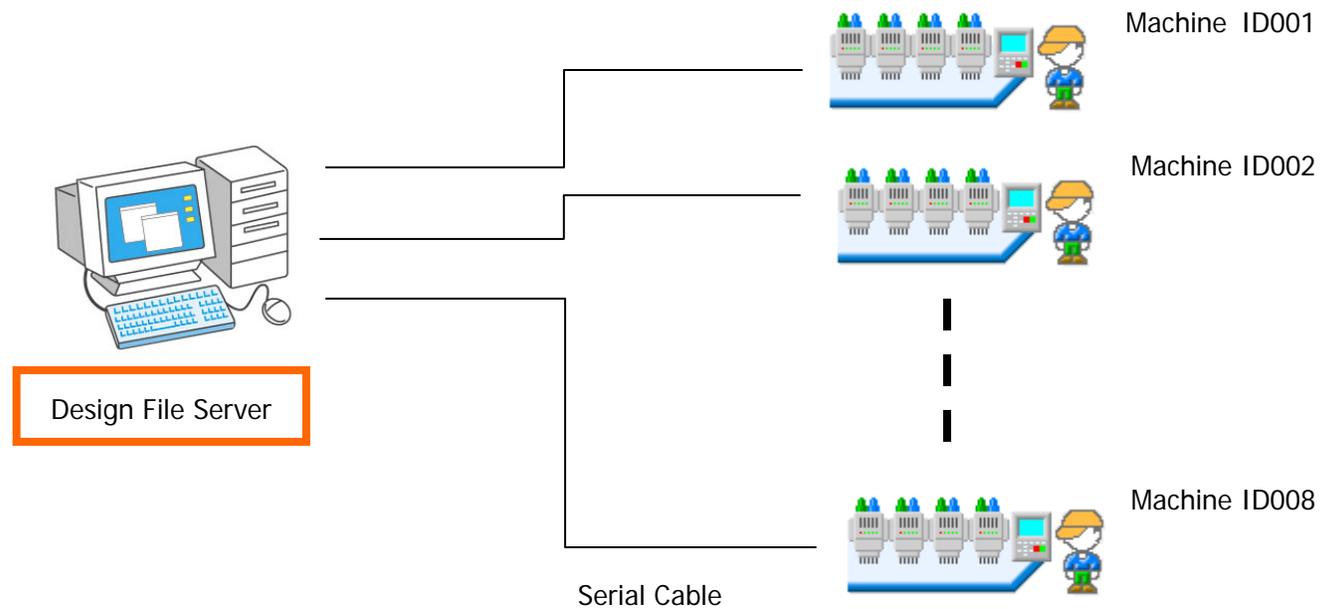
| Applications | Functions | Refer to |
|--------------------|---|----------|
| LEM Server Config | This application performs set-up functions for Design File Server. You must run this with administrator privileges. | Chapter2 |
| Design File Server | This program allows designs to be downloaded to the machines. There are (8) COM connections allowed with (2) different delivery methods available. For LAN, (1) machine connection is allowed, with (3) delivery methods available. | Chapter3 |

< Chart 1-3-2 Applications and functions >

2. Design File Server Installation

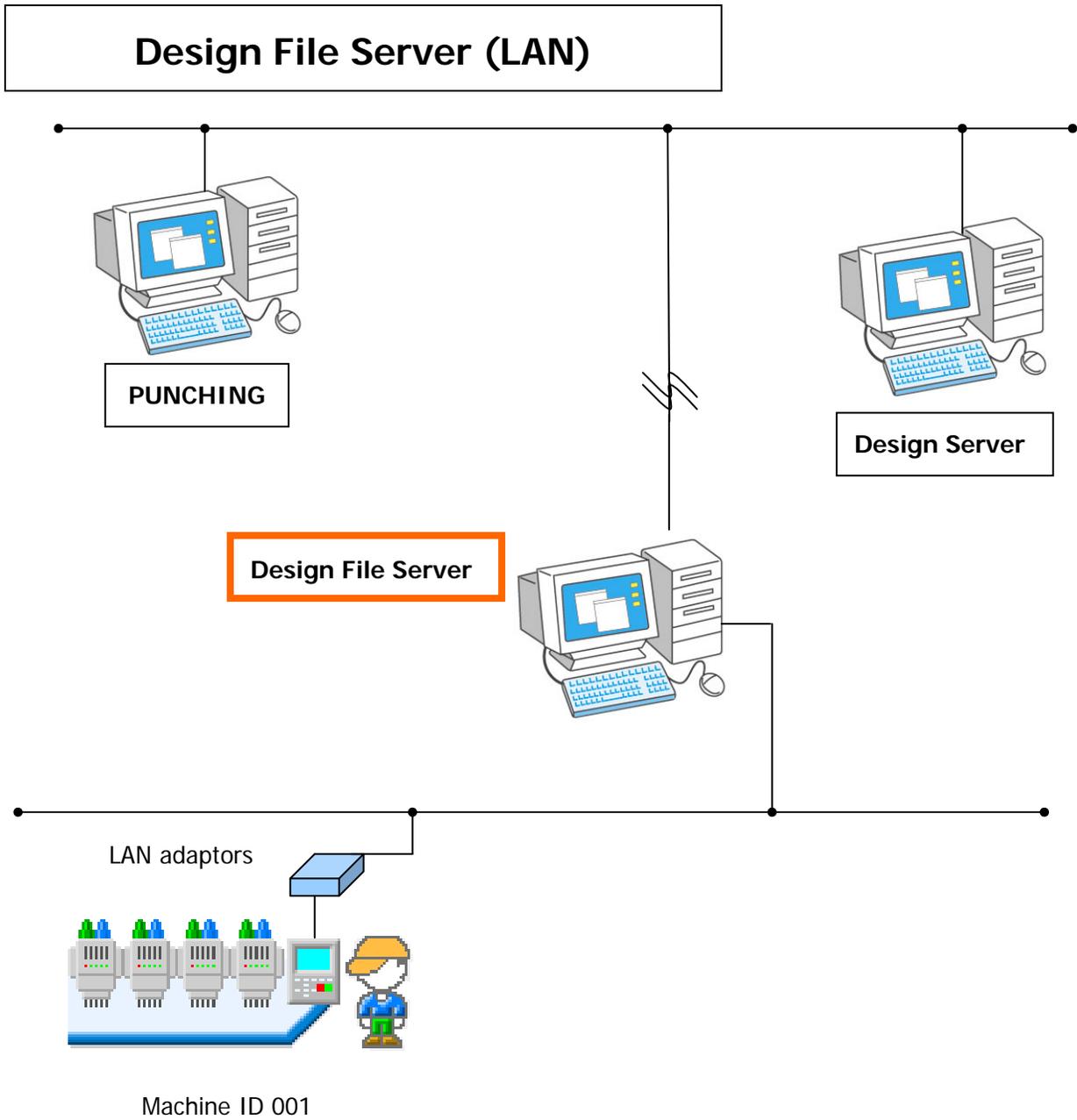
2-1. Connection Diagrams

Design File Server (COM)



< Fig. 2-1-2 Design File Server Connection Example >

- ※ A total of 8 machines can be connected via COM with Design File Server.
- ※ If your PC doesn't have a COM port, please use a USB to Serial adapter as recommended by your local Barudan distributor for support reasons
- ※ Null model Serial cables are required. Please use cables as recommended by your local Barudan distributor for support reasons.



< Fig. 2-1-1 Design File Server Connection Example >

※ Only 1 LAN machine connection is allowed with Design File Server.

2-2. Installing Design File Server Program

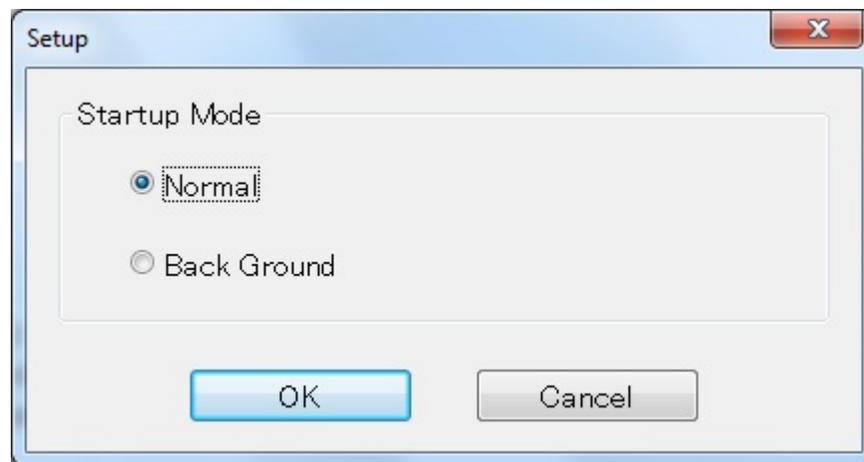
Installation procedure for the Design File Server program to the PC as follows.

- ① Execute the DesignFileServerSetup.exe. If you try to re-install the Design File Server on a PC with a newer version of Design File Server already installed, the program will automatically recognize this, and ask you to un-install the old program. Press "Yes" to un-install the previous version of the Design File Server software. The new installation will automatically start afterwards.



< Fig. 2-2-1 Uninstalling Message >

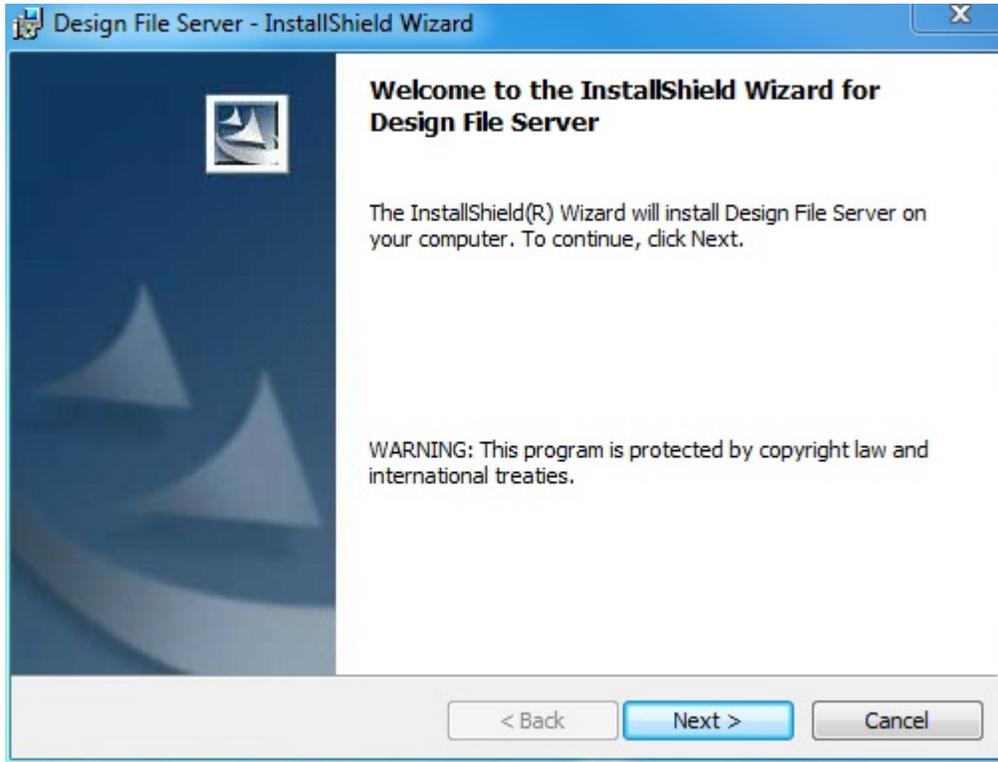
- ② There are 2 types of installation modes, Normal or Background. Choose which mode to use and Click "OK". (Fig. 2-2-2)



< Fig. 2-2-2 Startup Mode Message >

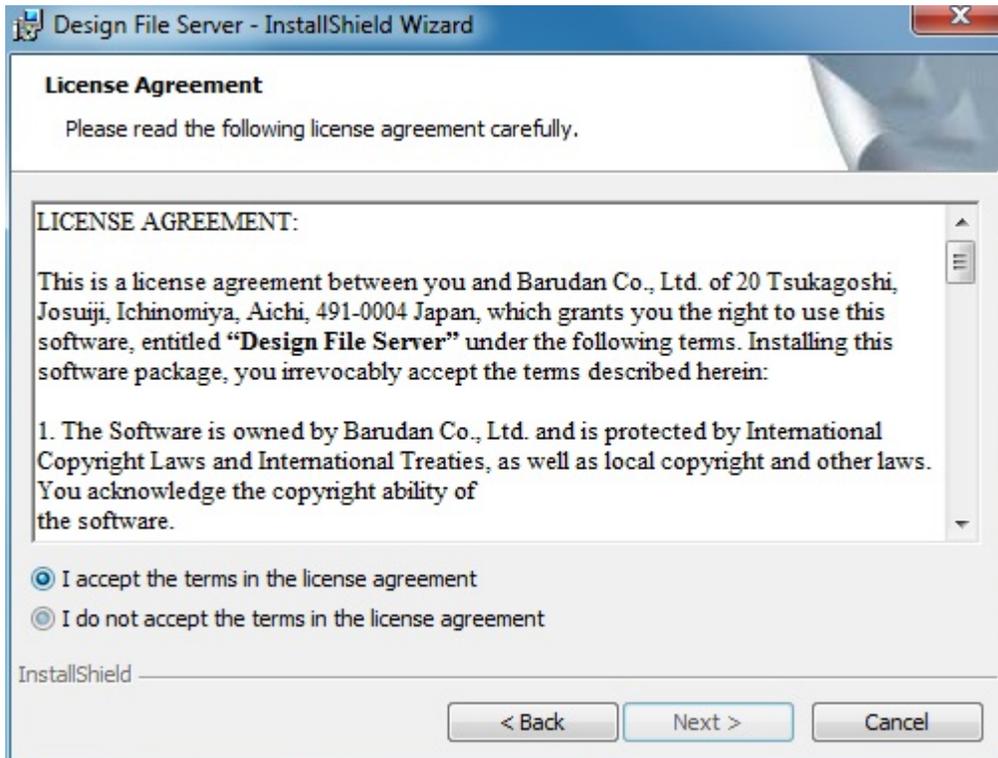
- ※ When you select "Back Ground" mode installation, Design File Server will automatically start every time the PC is rebooted and run in the background.
- ※ The Design File Server install folder is fixed at C:\Design File Server.
- ※ Port 8000 is fixed DFS. If another application uses port 8000, please change the port setting for the application or terminate it.

- ③ The following DFS information menu will be displayed. Click "Next".(Fig. 2-2-3)



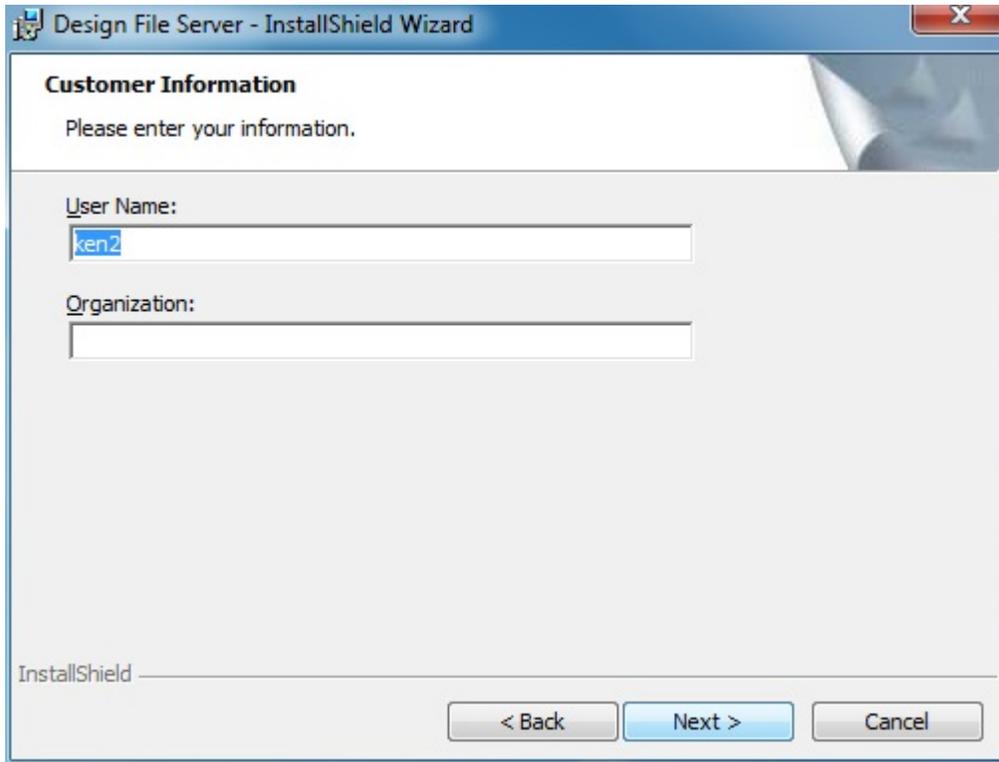
< Fig. 2-2-3 Starting the Installation >

- ④ Please select "I agree" after reading the license agreement, then "Next" to continue. Select "I disagree" or the "Cancel" button to exit the installation. (Fig. 2-2-4)



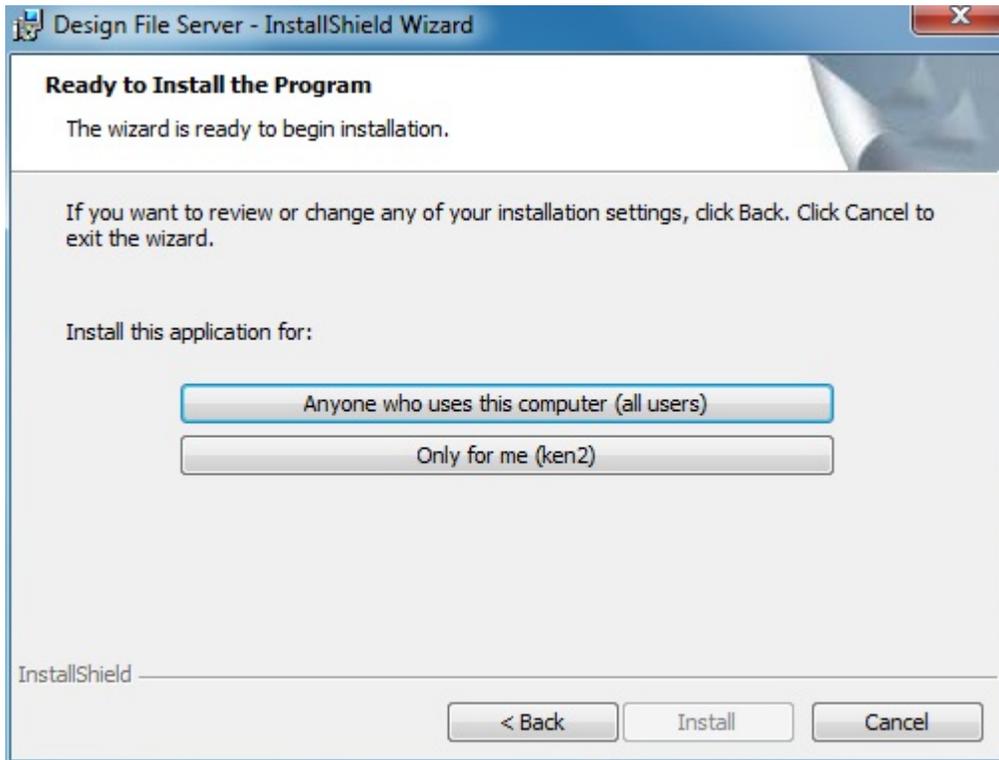
< Fig. 2-2-4 Starting the Installation >

- ⑤ Enter your customer information, and then click "Next". (Fig. 2-2-5).



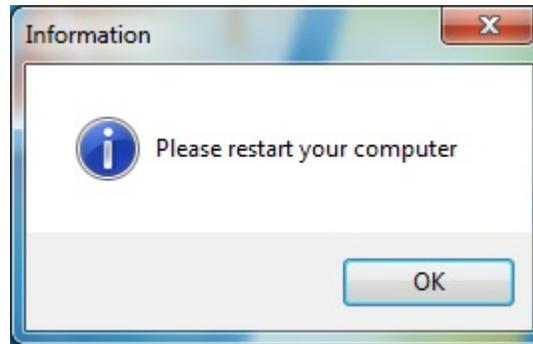
< Fig. 2-2-5 customer information input screen >

- ⑥ Select the user setting and start the installation (Fig. 2-2-6).



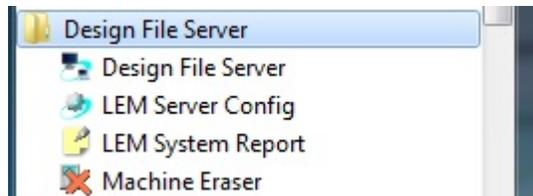
< Fig. 2-2-6 installation user selection screen >

- ⑦ The following Restart message will be shown after the installation (Fig. 2-2-7).
The installation is fully complete after the restart.



< Fig. 2-2-7 restart >

- ⑧ The new program is loaded into the "All Programs" menu as shown below.



< Fig. 2-2-8 Installing Application >

| Application software | Description |
|----------------------|--|
| Design File Server | This is the primary program for downloading designs to the machines. COM mode: Up to (8) sewing machines can connected with COM cables. LAN mode: Only (1) machine can be connected using a LAN cable. |
| LEM Server Config | This program is used for configuration settings. |
| LEM System Report | This application checks the (DFS) LEM Server operating environment and then creates a report for trouble shooting purposes. |
| Machine Eraser | This application is used for deleting sewing machine IDs from the list of connected machines when using LAN mode. |

< Table 2-3-1 Application Software >

2-3. Machine ID for LAN

The machine ID is used by DFS for displaying the machine connected by LAN. Please refer to the Network settings in the machine's Automat Instruction manual if you want to change it.

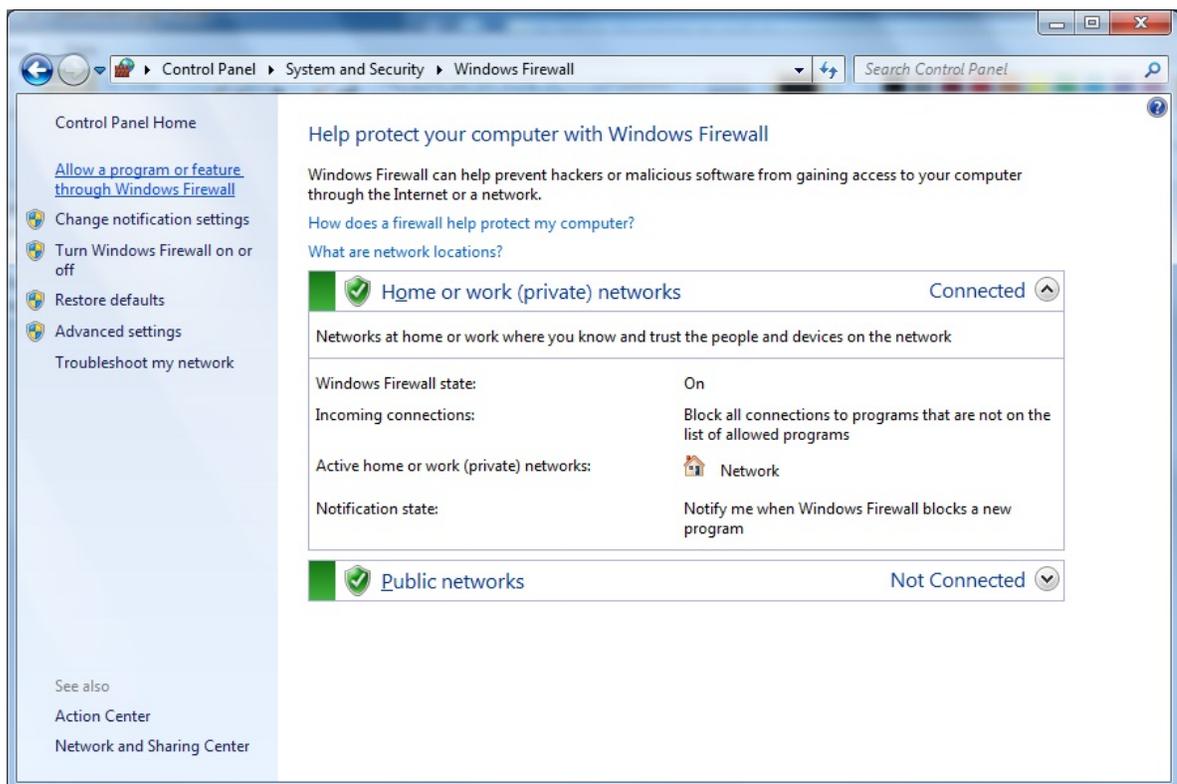
2-4. Firewall settings for Design File Server

If a firewall is not necessary on the DFS PC, please disable it. However, If a firewall is active CEMNETRUN.exe will be blocked and a message to release the block will be shown after the PC restarts after the initial Design File Server install. In this case, please release the block. If this message is not shown and not released, then it's possible that the machines will not connect to network. In this case, please follow instructions in "Section 2-12. Windows Firewall settings" in this chapter and set an exception for CEMNETRUN.exe. Also check if "File and Printer Sharing" is enabled in the firewall, or it's possible that the machines may not connect. In this case, please follow instructions in "Section 2-12. Windows Firewall settings" in this chapter and enable and allow the "File and Printer Sharing".

2-5. Windows Firewall settings

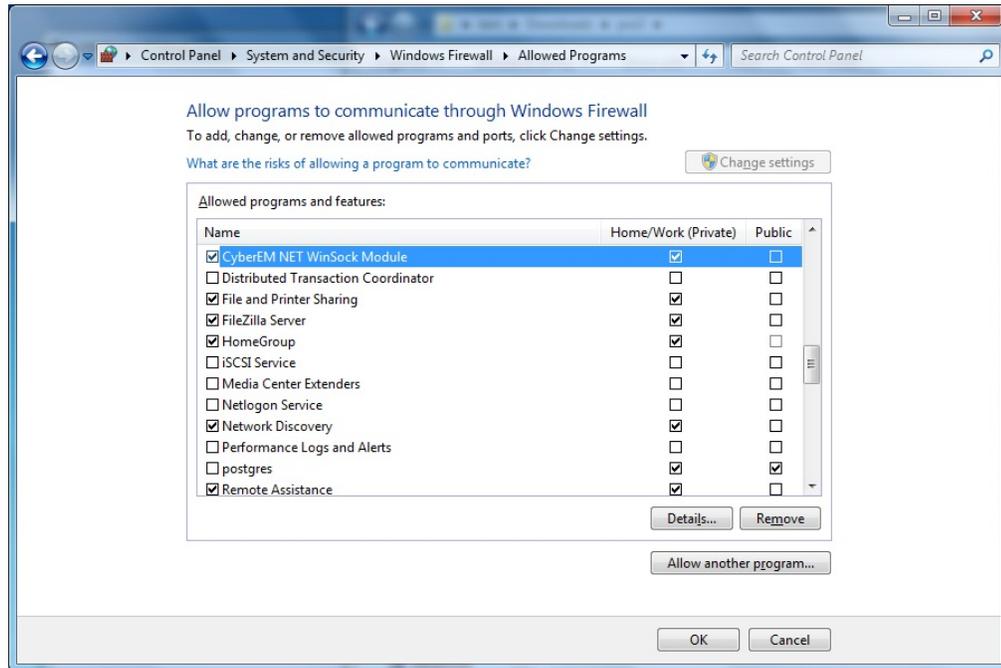
If the Firewall is not necessary, turn the firewall off and ignore the following instructions. However if the firewall is needed and turned On, you'll need to set the exceptions as explained in the following instructions in order for the DFS Programs to work and communicate.

- ① Open "Windows Firewall" in Control Panel (Fig. 2-5-1).



< Fig. 2-5-1 Windows Firewall screen >

- ② Click the “Allow a program or feature through Windows Firewall” to open the currently permitted program list. (Fig. 2-5-2)



< Fig. 2-5-2 Fire wall screen detail >

- ③ Check both “Private” and “Public” for:
CyberEM NET Winsock Module

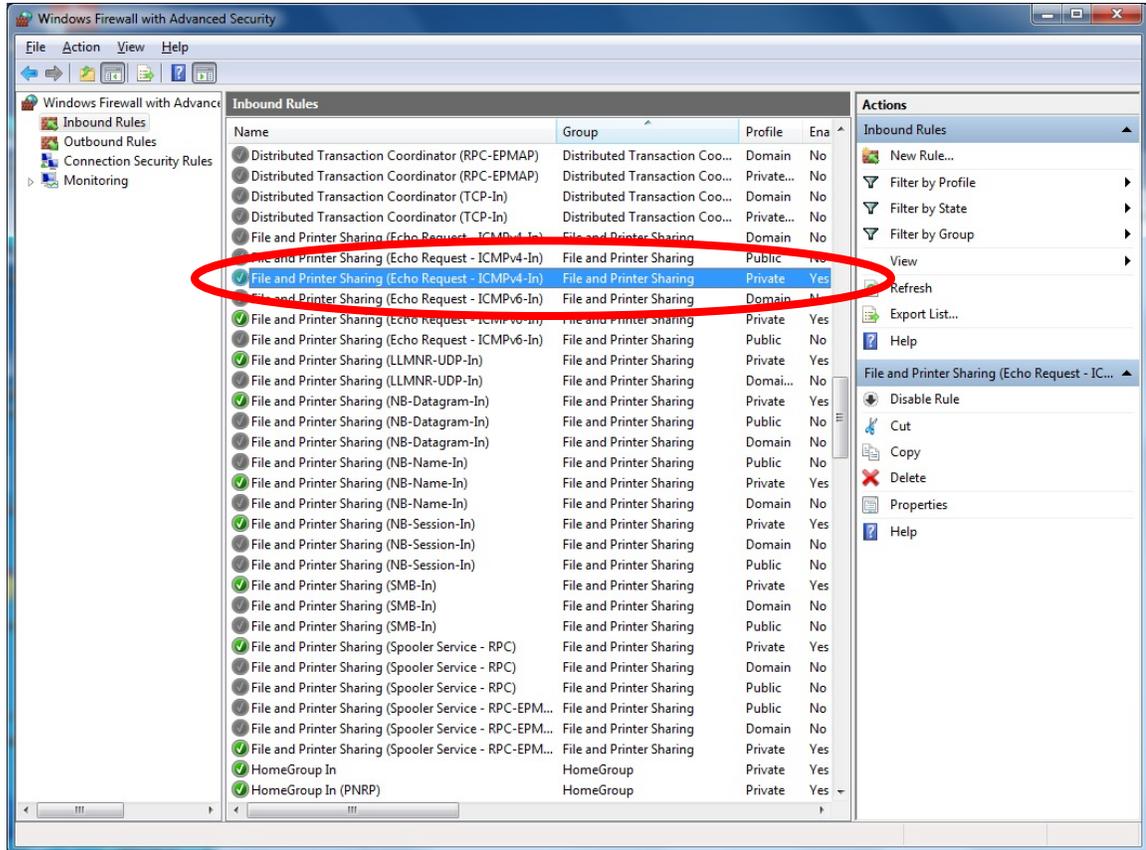
These programs should have been registered automatically when first re-started and show up in this list. However if they are not in the list, you’ll have to register them manually as instructed in step ④ as follows:

- ④ How to manually add a program. At step ② screen, click the “Change Setting” button and then click “Allow another program”.
- ⑤ Select and add the following programs. Please check both “Private” and “Public” for “Network types...”. Click the “OK” button after registered all them.

| Name | Program |
|----------------------------|--|
| CyberEM NET Winsock Module | Design File Server Install folder CEMNETRUN.exe |

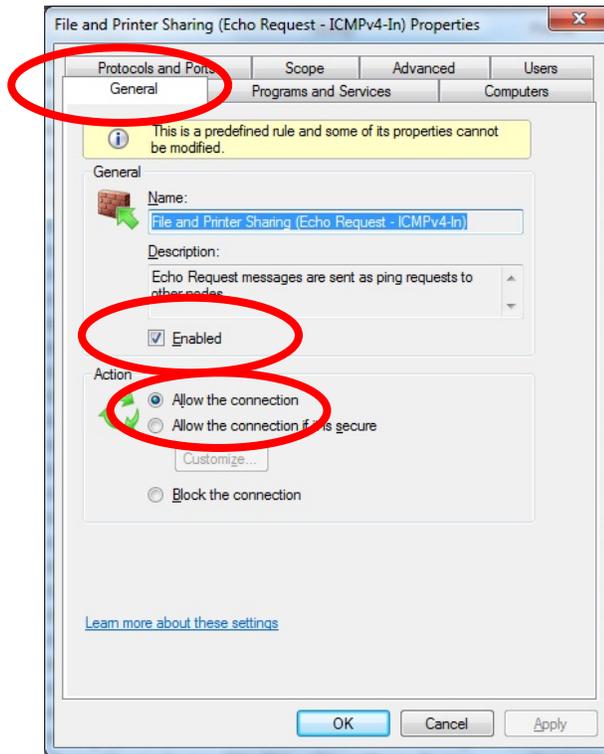
< Table 2-5-1 exceptional setting program >

- ⑥ Configure the File and Printer sharing settings. Select the “File and Printer Sharing (Echo Request –ICMPv4-In)” on the list and double-click it. (Fig. 2-5-3). See step ⑥ if you need help getting back to this menu.



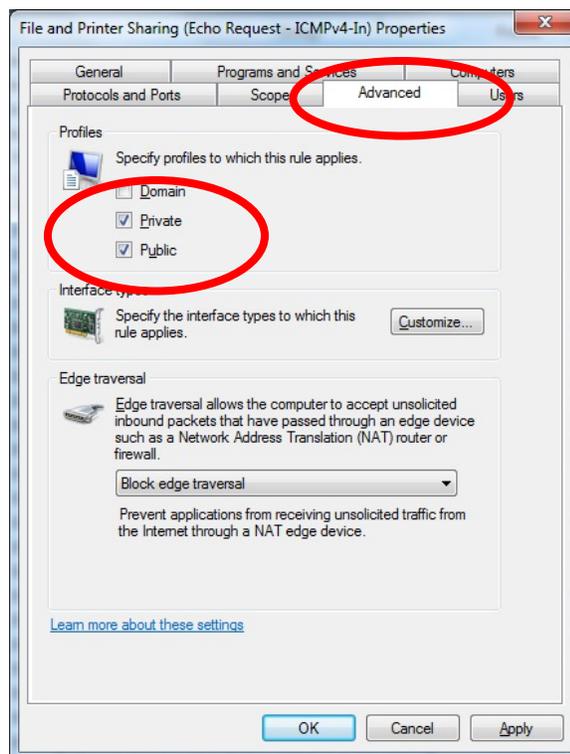
< Fig. 2-5-3 shared selecting of file and printer >

- ⑦ The properties menu will be shown. (Fig. 2-5-4) Check the “General” tab. Make sure “Enabled” is checked and “Allow the connection” is selected.



< Fig. 2-5-4 Shared property of file and printer >

- ⑧ Check the “Advanced” tab. Select “Private” and “Public” check boxes, at a minimum for this setting. Click the “OK” button. (Fig. 2-5-5)



< Fig. 2-5-5 Shared property of file and printer >

2-6. Firewall settings for other security software

If you use other aftermarket security software, or free-software, the security functions should work similar to Windows Firewalls. In this case, please set the same settings used for Windows Firewall as explained in the previous section of this manual for the security software.

※ We can't guarantee Design File server operation if you use free-software or the functions and settings of aftermarket software.

3. Design File Server

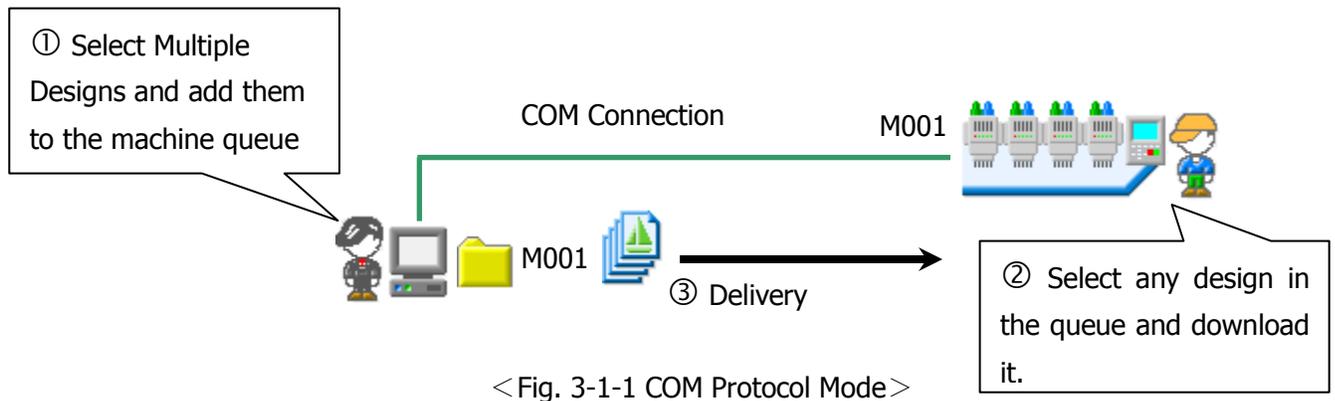
3-1. Design File Server Outline

Downloading Designs by COM

Design File Server has 2 methods of downloading thru COM, **Normal Mode** and **Protocol Mode**.

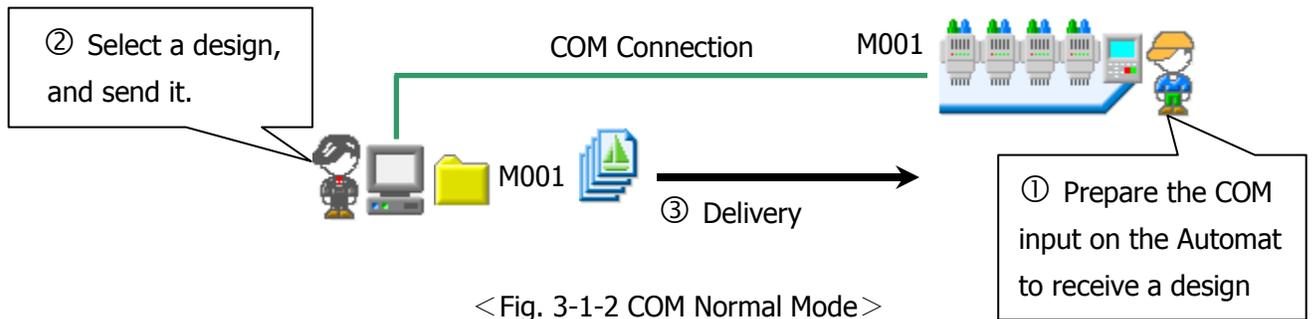
[1] Protocol Mode

Protocol Mode is a network mode that works using COM connections. Multiple designs can be scheduled in this mode, and then operator selects which one to download using the machine Automat. (Fig. 3-1-1).



[2] Normal Mode

Normal Mode sends designs to a machine one at a time. This mode is only recommended for older machines that cannot use the Protocol mode (Figure 3-1-2).

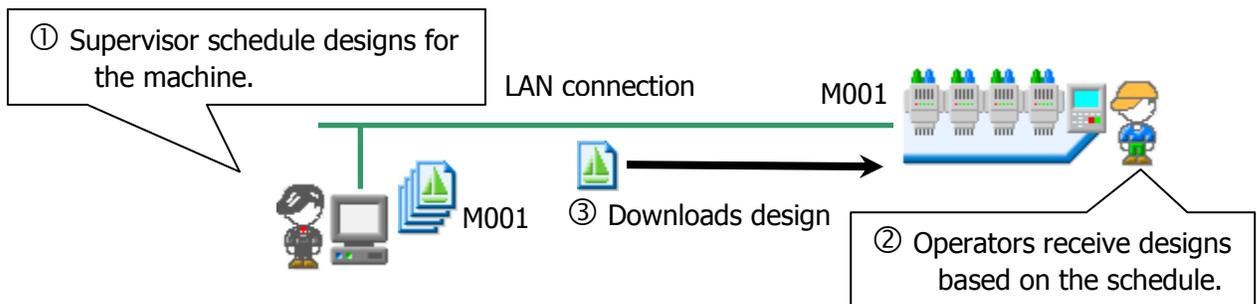


Downloading Designs by LAN

Design File Server can download designs to (1) machine using LAN. There are three primary methods of downloading, **Schedule Download Mode**, **Direct Download Mode** and **Free Download Mode**.

[1] Schedule Download Mode

This method downloads scheduled designs to the machine from the server. Operators receive the scheduled designs based on the order of the designs in the schedule.

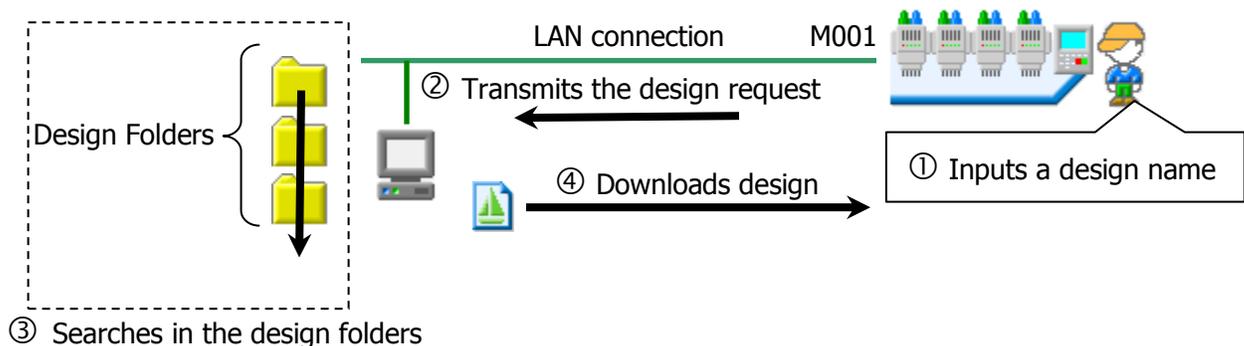


< Fig. 3-1-3 Schedule Download Mode >

[2] Direct Download Mode

Operators input a design name on the Automat, and the design is searched for in the server design folders and automatically downloaded to this machine. This method also allows the use of a bar code scanner to scan the design name.

※ Note: To use a bar scanner, the machine's Automat must be scanner compatible. Check the machine's instruction manual for details and operation.



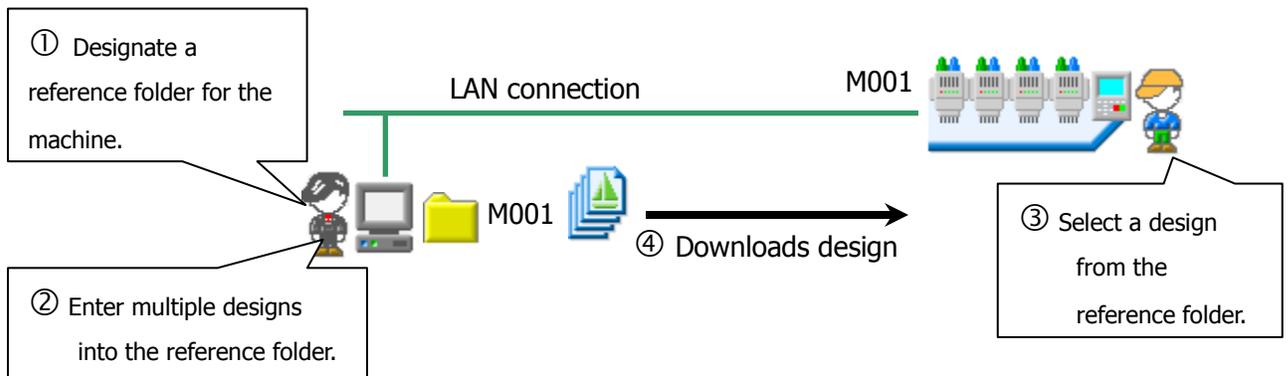
< Fig. 3-1-4 Direct Download Mode >

[3] Free Download Mode

※ Note: This feature is only available with X-Series machines and newer.

Free Download Mode uses a specific reference folder that contains the designs to be downloaded to the machine. In this mode, the operator can freely choose which design in this folder is downloaded to the machine. This mode basically works the same way as COM Protocol mode, except it uses a LAN connection.

<Fig. 3-1-5>



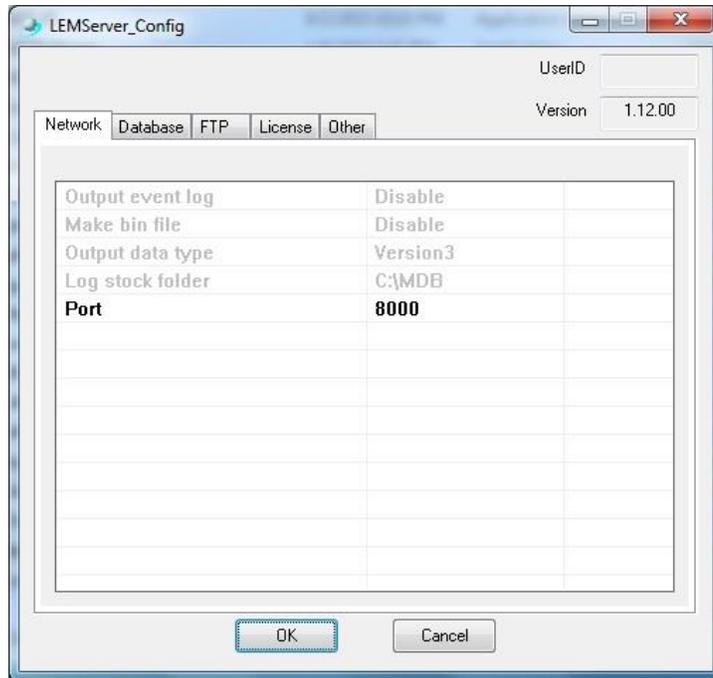
< Fig. 3-1-5 Free Download Mode >

3-2. LEM Server Config

※ Note: These settings do not need to be set for DFS, unless the Port setting needs to be changed or you're setting up the E-Mail Call operation.

[1] LEM Server Config

- 1) Go to "Start Menu"→"All Program"→"Design File Server"→"**LEM Server Config**"
- 2) When you start LEM Server Config for the first time, the following window will be displayed.



< Fig. 3-2-1 LAN setting Screen >

- ※ Please log in with Administrative rights to run this program.
- ※ You must close the Design File Server, to run this program.

[2] Network Settings

(1) Network tab

| Items | Content |
|------------------|--|
| Output event log | Disable |
| Make bin file | Disable |
| Output data type | Disable |
| Log stock folder | Disable |
| Port | Indicates the TCP/IP communication port number being used for DFS LAN connection. 8000 is the default recommended setting. If necessary, alternate recommended settings are 49152 to 65535. *If an alternate setting is used, the Automat or LAN adapter must be changed to match this setting, if using a LAN connection. |

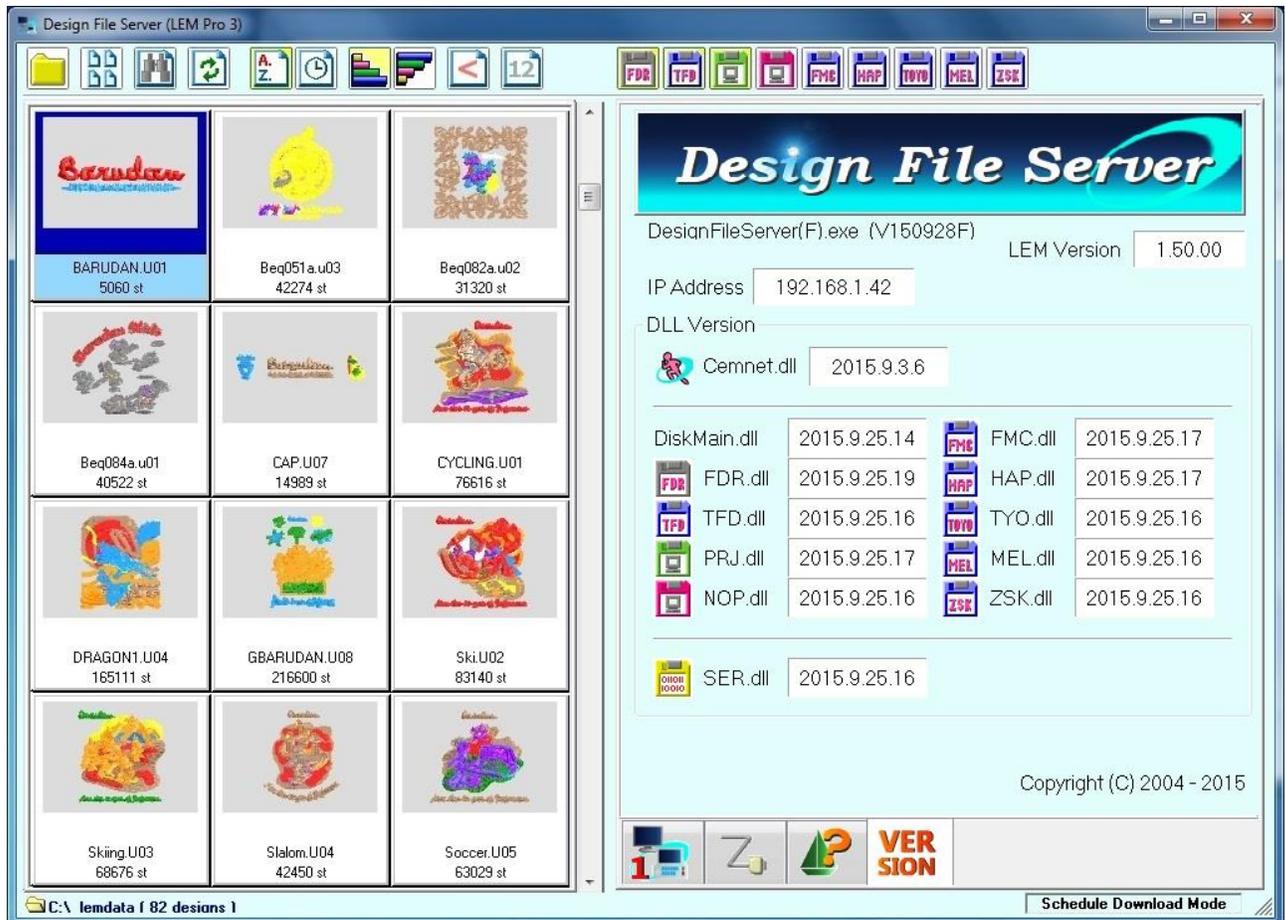
< Fig. 3-2-2 LAN setting Item >

※ You must reboot your computer after opening LEM Server Config in order to save settings and to restart DFS. Otherwise you may receive a "CEMNET cannot find" error until you do.

3-3. Starting Up Design File Server

※ Note: Make sure you reboot the computer before you start Design File Server for the first time. Otherwise you may receive a "CEMNET cannot find" error until you do.

- 1) Go to "Start Menu"→"All Programs"→"Design File Server"→"**Design File Server**".
Or simply click the "Design File Server shortcut" on the desktop. After this, Design File Server program starts up.
- 2) The Design File Server screen opens, as shown below. (Fig. 3-3-1).

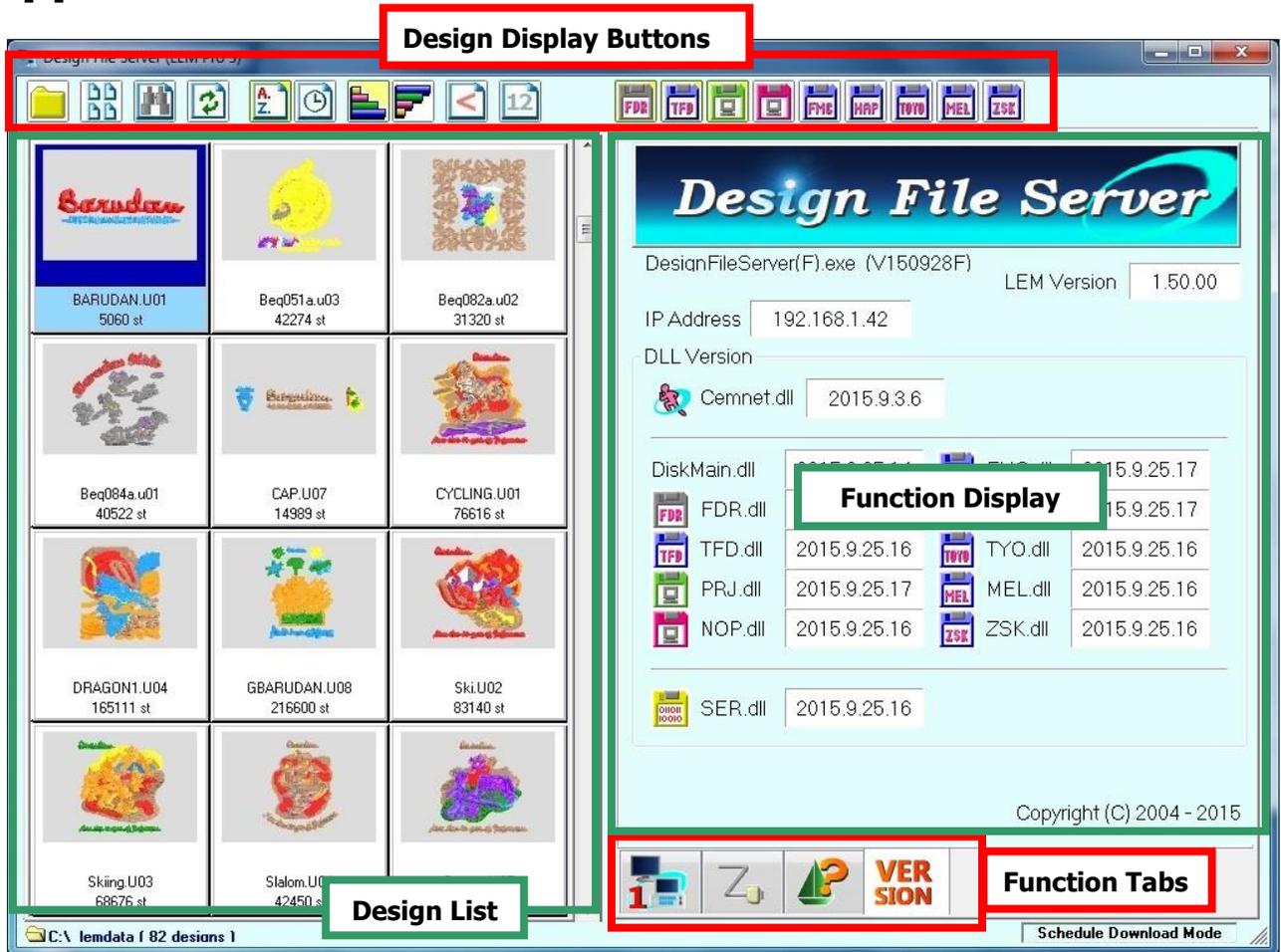


< Fig. 3-3-1 Main Screen >

※ Note: if Design File Server was installed in Back Ground mode, Design File Server will automatically be started in the back ground when the PC is rebooted. In this case the Design File Server icon is contained in the Task tray if you need to open it.

3-4. Design File Server Functions

[1] Function Names



< Fig. 3-4-1 Main Screen >

[2] Function Tabs List

| Icon | Name | Function/Operation |
|---|---------------------|---|
|  | LAN Connection Icon | Click the LAN Connection Icon to view the machine connected via LAN. This function also contains the Design download mode settings for the machine. |
|  | COM Connection Icon | Click the COM Connection Icon to view the machines connected via COM. This function also contains the Design download settings for the machines. |
|  | Design Viewer | Click the Design Viewer Icon to view the selected design in the design list. To cancel the design viewer, click the COM or LAN Connection Icon. |
|  | Version Viewer Icon | Click the Version Viewer Icon to check the DFS software version numbers. |

< Table 3-4-1 Function List >

3-5. Designs List

[1] Design Display Buttons

| Icon | Name | Function/Operation |
|---|---|---|
|  | Change Folder Icon | Selecting a Design Display Folder. 1. Click the Change Folder Icon. 2. Use the "Browse for Folder" to select a folder of designs. 3. Click the OK button. |
|  | Change View Icon | Change View Click the Change View Icon to switch the view from Large, Medium, Small, Minimum or List view. |
|  | Search Icon | This function searches the design list by the design names. The Wild card (*) is available. Example: All files with an "A" at the beginning are displayed, when you input "A*". |
|  | Update Icon | Updates the Design list. Click the Update Icon to update the design list after saving new designs in your folder. |
|  | Sort Icon by name, A to Z | Sorts the designs by name in the design list. |
|  | Sort Icon by date & Time | Sorts the designs by date & time in the design list. |
|  | Ascending order | Sorts the designs in Ascending order. |
|  | Descending order | Sorts the designs in Descending order. |
|  | Design name display button | If a design name is longer than the maximum characters shown (8 or 12), this button allows you to choose whether to omit the beginning portion of the design name (>), or the end (<). |
|  | Design name maximum characters shown button | Determines the maximum number of characters shown for the design name in the list. This includes the (>) and (<) characters if the maximum character limit is exceeded. Setting 8: Displays the design name up to 8 characters + extension. Setting 12: Displays up to 12 characters + extension. |
|  | Disk types Icon | Selects what types of disk formats that are displayed in the design list. The following disk types are available: FDR / TFD / PRJ / NOP / FMC / HAPPY (HAP) / TOYOTA (TOYO) /MELCO (MEL) and ZSK. |

< Table 3-5-1 Icon names and functions >

[2] Design list Indication / Non-indication modes

- ※ Note: This feature is helpful if you have thousands of designs, and you want to turn the Design List off, so no designs are shown. If you try to view thousands of designs at boot up, DFS will be very slow to reboot and may even cause the PC to crash.

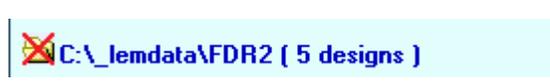
To Use: Click on the "reference folder path" under the design list to switch between "Indication" or "Non-indication" mode for the Design list. When "Non-indication" is changed back to "Indication", a confirmation message is displayed.

- ※ When "Non-indication" is set, the Design List is turned Off and the Design Viewer, and Function Change operations are not available.

Indication

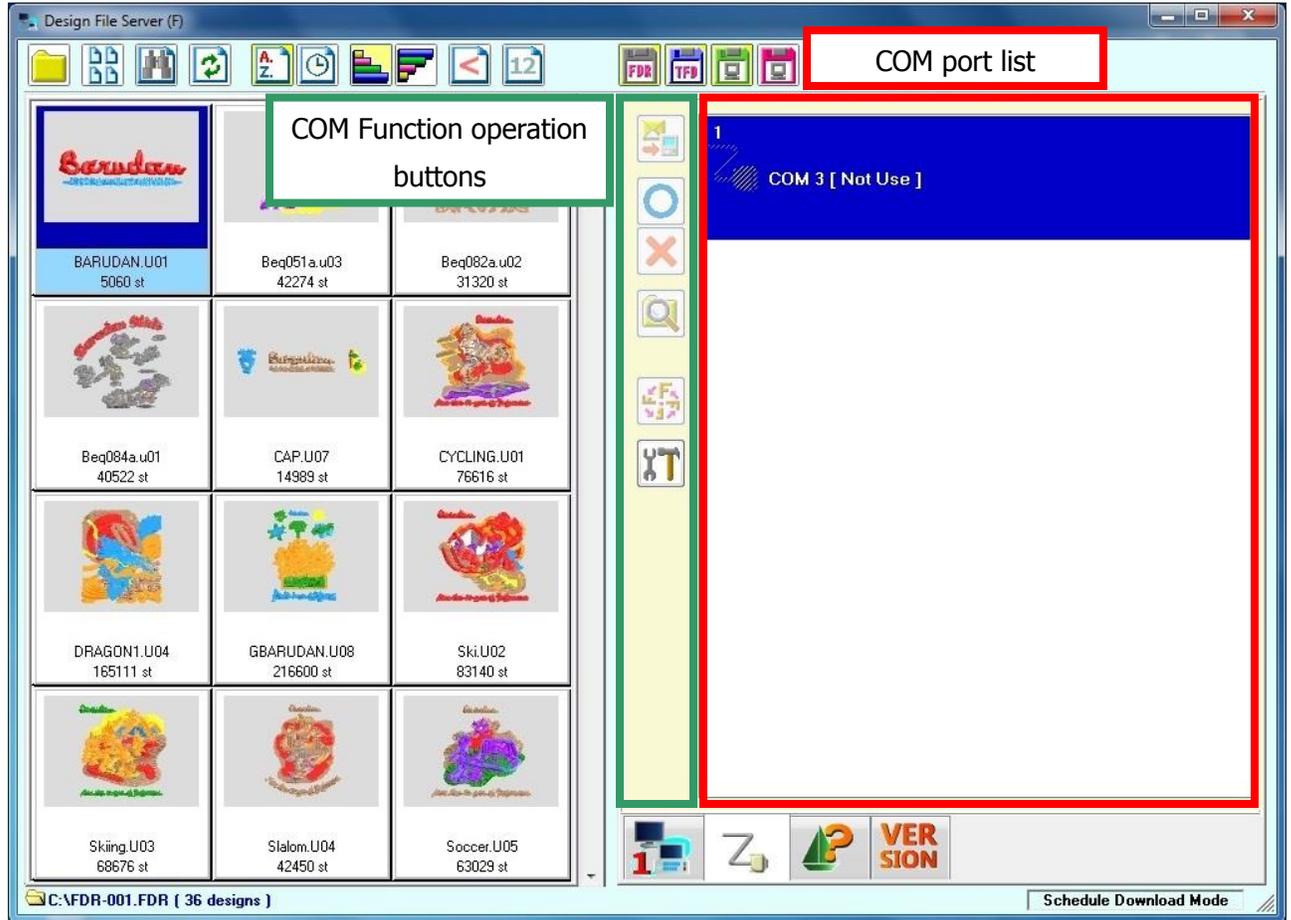


Non-indication



3-6. COM Operations

[1] COM function screen



< Fig. 3-6-1 COM function screen >

[2] Buttons and features

| Icon | Name | Description |
|---|---|--|
|   | Set button / copy button (Set / Copy) | In Normal Mode for the selected COM port, the selected design will be downloaded to the machine. In Protocol Mode, the selected design will be copied to the machine's queue list (COM folder). |
|   | Design transmission start/ stop button (Start / Stop) | In Normal Mode, you can start and stop the design download transfer. |
|  | Drive condition's setting button (Drive Condition) | In Protocol Mode, these settings determine how the designs are sent to the machine. |
|  | See Folder Settings button (Reference) | In Protocol Mode, used for viewing the designs in the machine's queue list (COM folder). |
|  | Options button (Option) | Used to set COM options. |

< Table 3-6-1 Buttons and Functions >

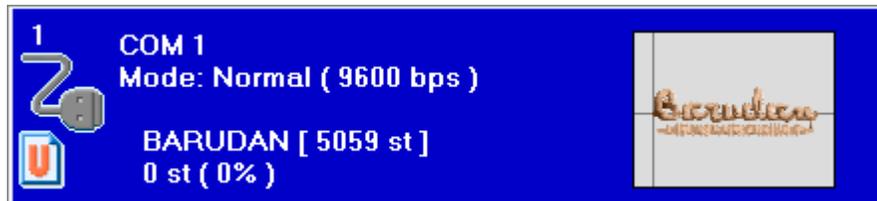
[3] COM List Display

The following shows info displayed for the COM port list: (Table 3-6-2).

| Viewing Item | Display Description |
|---|--|
| COM Number and COM name | COM number that Windows has assigned and the COM name as assigned in the Options menu. |
| COM Icon | Not Used  |
| | Normal  U code  F code  EL code  |
| | Protocol  |
| COM Mode and Baud rate | In Normal Mode, it shows the selected Baud rate. In Protocol Mode, 115200bps is the fixed value and cannot be changed. |
| Operating condition | In Protocol Mode, shows the operating conditions that have been set for the selected COM port/machine. |
| Transfer design name and number of stitches | Displays the design name and number of stitches in the design. |
| Design image | Displays the design being sent. |
| Number of stitches sent | Displays the number of stitches sent and %. |
| COM Folder path and number of designs | In Protocol Mode, this shows the COM folder path, and the number of PRJ files that are in the folder |

< Table 3-6-2 COM list display contents >

Normal Mode Time



Protocol Mode Time

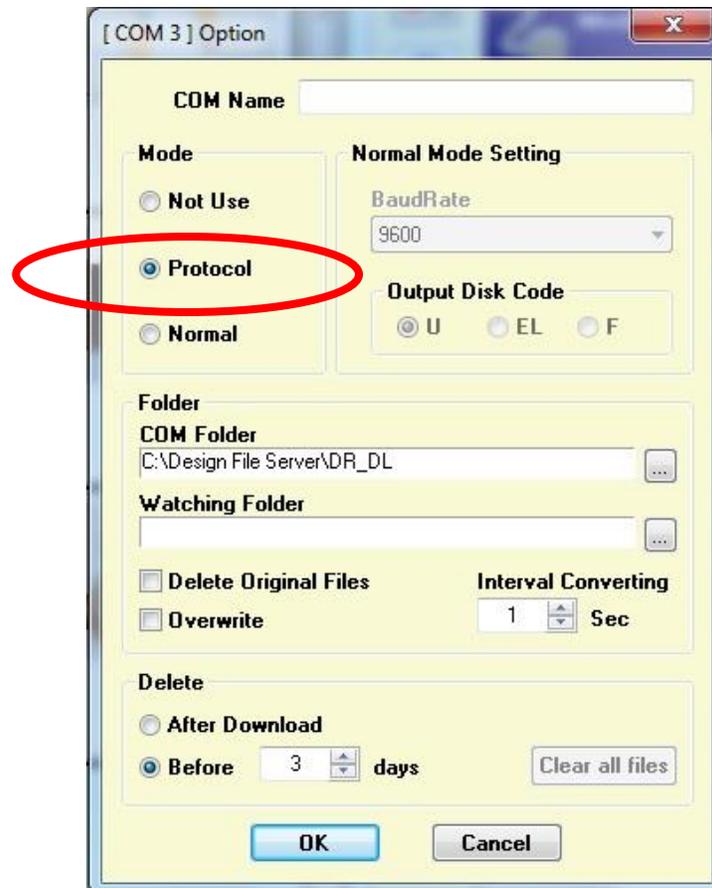


[4] Protocol Mode

(1) Changing COM mode

To use Protocol Mode, you need to change the COM option mode to Protocol Mode. Change mode using the following steps.

- ① Select the COM port you want to change from the COM port list.
- ② Click the  button to display the Option menu (Fig. 3-6-3).



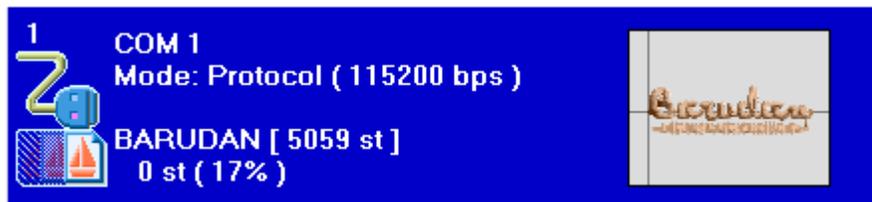
< Fig. 3-6-3 Options dialog >

- ③ Select "Protocol" Mode.
 - ④ COM folder designates where the download designs are stored for this COM port.
 - ⑤ For the "Delete" setting there are 2 options:
 - "After Download" is the recommend setting and it deletes the PRJ file from the COM folder after the design is downloaded.
 - "Before X days", removes the PRJ files after a specified number of days. If 0 days is selected, no Deletes happen.
 - ⑥ When you click the "Clear all files" button, all of the PRJ files in the COM folder are deleted.
 - ⑦ Click the OK button to close the Options dialog. COM mode is the Protocol Mode.
- ※ In Protocol Mode, 115200 BAUD rate and Output disk code "U code" is automatically selected, and cannot be changed.

(2) Sending Designs in Protocol mode

To send a design to a machine, please perform the following steps.

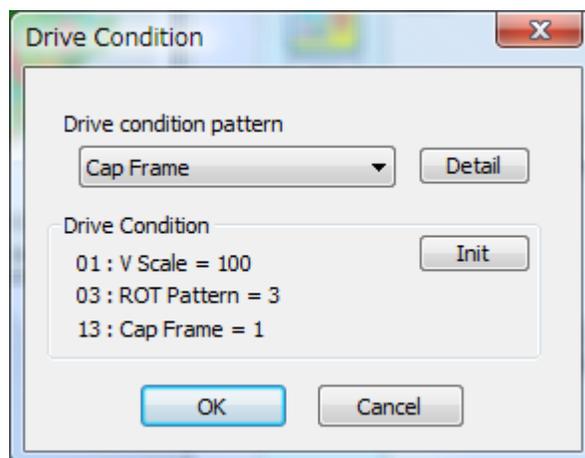
- ① Turn the Network or Protocol mode on for your Machine's Automat. This step may vary depending on Automat model. Please refer to your Automat's instruction manual or call your local Barudan distributor for assistance.
- ② Select a COM port to download to, from the COM port list in DFS.
- ③ From the Design list, choose a design to be sent.
- ④ You can either click on the  button, or drag-and-drop the design on the COM port. This action converts the design to a PRJ design and saves it in to the queue list (COM folder).
- ⑤ To check the designs in the queue list (COM folder), use the  button.
- ⑥ Press the "Network" button on the Automat to display the queue list of designs ready for download. Select a design in the list to download it. For more details on Automat operations, please refer to the Automat's instruction manual.



(3) Drive Condition setting

The setting determines the Drive condition of the design sent to the Automat.

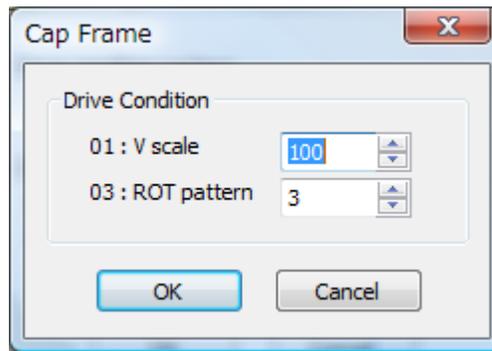
- ① From the COM port list, choose a COM port with Protocol Mode.
- ② Click the  button and the Drive Condition setting menu is displayed (Fig. 3-6-4).



< Fig. 3-6-4 operation condition setting dialog >

- ③ Select a "Drive condition pattern" from the drop down list. The Drive Conditions setting values for the selected pattern is displayed.

- ④ If you want to change a setting, click the "Detail" button to display a Settings menu, as follows for example (Fig. 3-6-5).



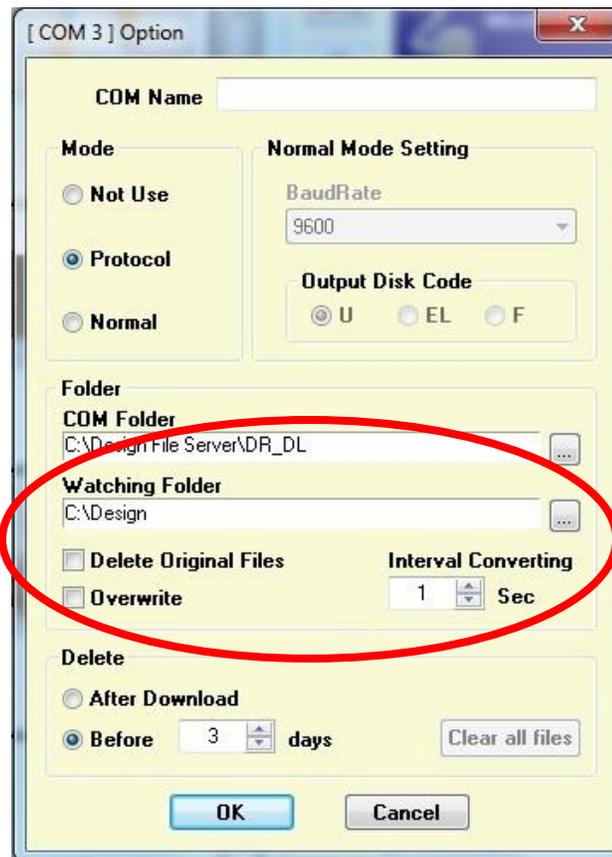
< Fig. 3-6-5 operating conditions the Advanced Settings dialog >

- ⑤ Change settings if needed and then click the "OK" button to save the changes.
- Use the "Init" button to set back to the Default settings.
- ⑥ Afterwards, any design added to the queue list for this machine will have these Drive conditions and designs added after.
- ※ Note: This change will have no effect on designs previously queued for this machine. It only has effect on designs added after the change.

(4) Watching Folder settings

The Watching folder allows you to use whatever Design editing software you want. When you want to send a design to a machine, you simply save the design out of the Design editing software into the Watching folder, to automate the process.

- ① To start with, make a folder on the PC to be used as a watching folder. You can name this folder whatever you want. It's suggested you keep it simple like calling it "Watching folder", or if you have multiple folders, name them by the model name of the machine.
- ② From the COM port list, choose a COM port with Protocol Mode.
- ③ Click the  button to display the Option menu (Fig. 3-6-6).



< Fig. 3-6-6 monitoring folder settings >

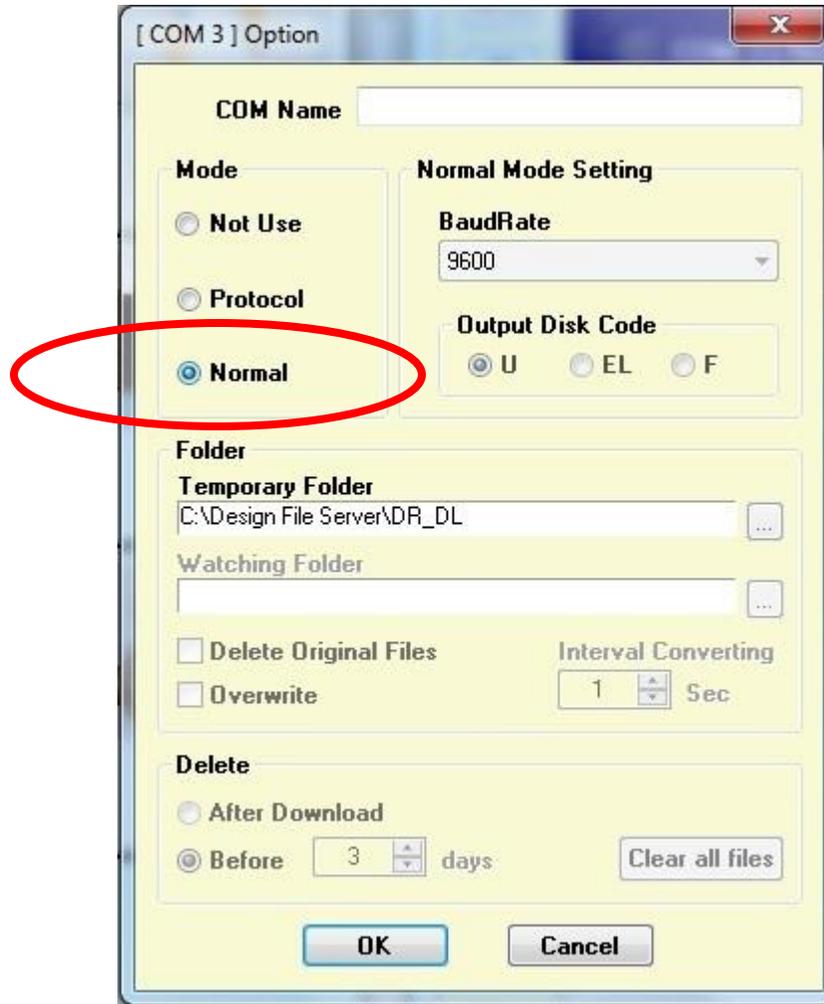
- ④ Click the [...] Browse button at the end of the Watching folder path to browse and select the watching folder you've made in Step ①.
- ⑤ "Delete Original design". It is recommended to check this box. This option automatically deletes the design in the Watching folder, after it's processed and added to the machine's download queue.
- ⑥ "Overwrite". This option determines what happens if you schedule the same design twice or more. If checked, it overwrites the design in the queue. If not checked, it doesn't overwrite.
- ⑦ "Interval Converting" sets the interval DFS uses to check the Watching folder.
- ⑧ Click the "OK" button to save the settings and exit.
- ⑨ Afterwards, save a .U01 or .DST design into the Watching folder to add it to the queue list.

[5] Normal Mode operation

(1) Change COM mode

To use Normal Mode, you need to change the COM option mode to Normal Mode. Change mode using the following steps.

- ① Select the COM port you want to change, from the COM port list.
- ② Click the  button to display the Option menu (Fig. 3-6-7).



< Fig. 3-6-7 Options dialog >

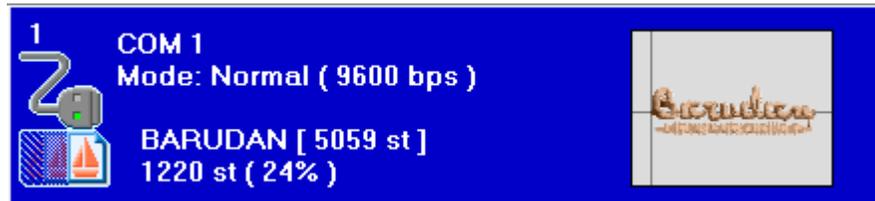
- ③ Select "Normal" Mode.
- ④ Choose a BAUD rate, and Output Disk Code, if necessary.
- ⑤ Click the "OK" button to save settings and close the Options menu.

※ Even if the BAUD rate is the same as the Automat, there may be timing issues with the hardware. In this case, please select an appropriate BAUD rate that can transmit reliably.

(2) Sending Designs in Normal mode

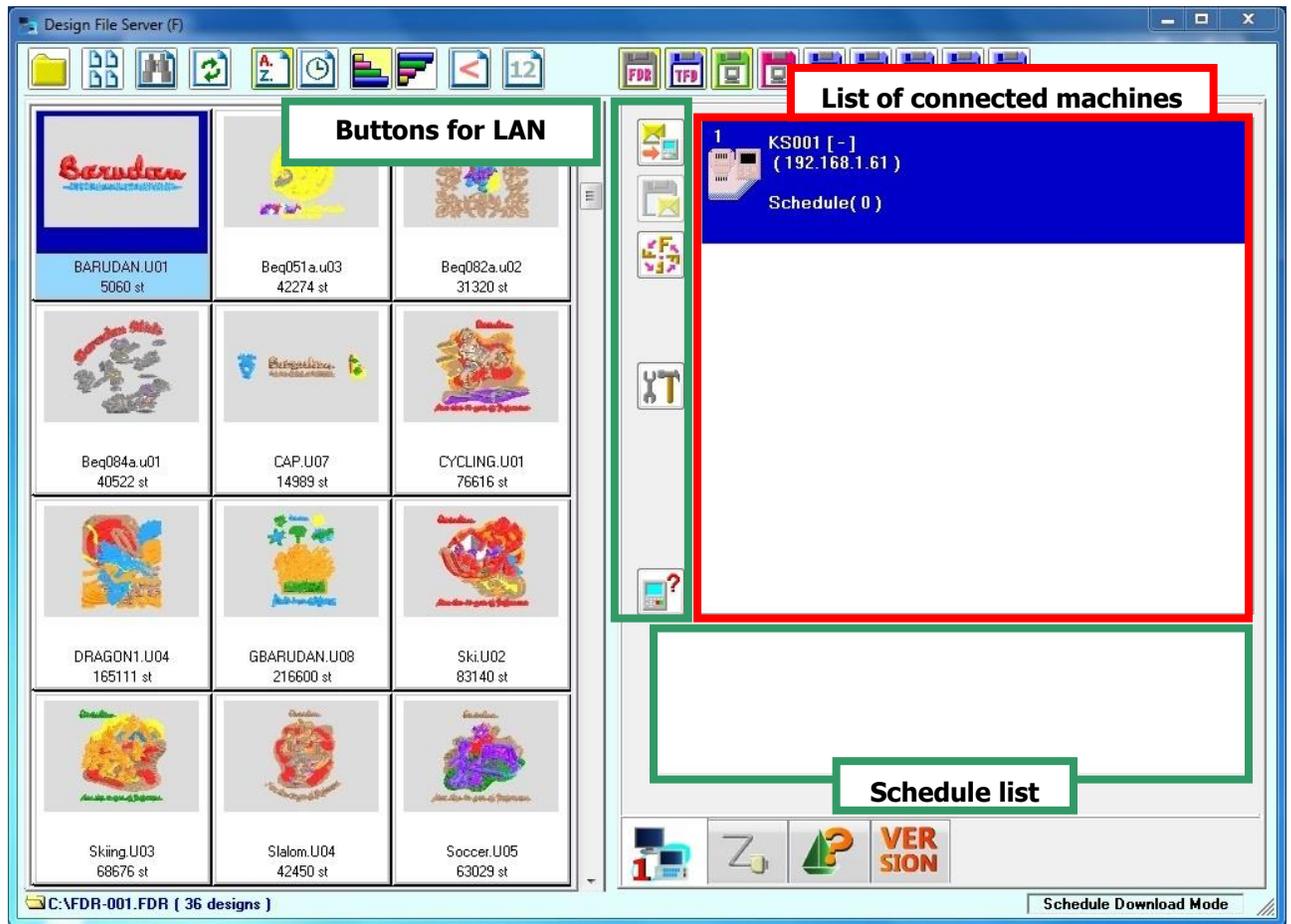
To send a design to a machine, please perform the following steps.

- ① Set the COM input mode on the Automat so it's waiting for the download.
Note: BAUD rate and Output disk code must match the Design File Server Option settings.
- ② Select a COM port to download to, from the COM port list in DFS.
- ③ From the Design list, choose a design to be sent.
- ④ You can either click on the  button, or drag-and-drop the design on the COM port.
- ⑤ The design is sent to the selected COM, and the Automat starts downloading it.
- ⑥ Use the  button if you want to stop in the middle of downloading a design.
Use the  button again when you're ready to resume, or click the  button to cancel.



3-7. LAN Operations

[1] Main Screen of LAN Operation



< Fig. 3-7-1 LAN Function Screen >

[2] List of Connected Machines

The List of Connected Machines shows the following information.

| Display Item | Description |
|---------------------------------------|--|
| Machine Icon | <p>Connected Machine IDs and past machine IDs are displayed in the list. When a machine is connected, the icon lights up as shown below.</p> <p>Connected  Disconnected </p> |
| Envelope Icon | <p>When an operator sends a design to the server from the Automat, an envelope icon is displayed under the machine icon.</p> <p> ← Envelope Icon</p> |
| Machine ID and Operator Name | Machine ID and logged-in Operator Name are displayed. When an operator name is not logged-in, a [-] is displayed. |
| IP Address | IP Address is displayed for each machine ID. |
| Number of scheduled designs | Schedule Download Mode: The number of scheduled designs is displayed for each machine ID. |
| Next Scheduled Design Name with Image | Schedule Download Mode: Next Scheduled Design Name with an image is displayed for each machine ID. |
| Schedule List | Schedule Download Mode: Scheduled Design Images are displayed for each machine ID. |

< Table 3-7-1 Machine ID List Display Contents >

[3] Schedule Download Mode

(1) Mode Options

Instructions for setting Schedule Download Mode options as follows:

- ① Click the  button to display the Mode option screen.



< Fig. 3-7-2 Option Dialogue >

- ② Select "Schedule Download Mode" in "Download Mode" options.
 - For "Create Watching folder" settings, see page 3-20 for details.
- ③ Click "OK" and exit the Design File Server program.
- ④ Re-start the "Design File Server" program to re-open in Schedule Download Mode.

※ The default setting is Schedule Download Mode.

※ The machine Automat recognizes which mode has been selected in the LAN options.

(2) Scheduling Designs

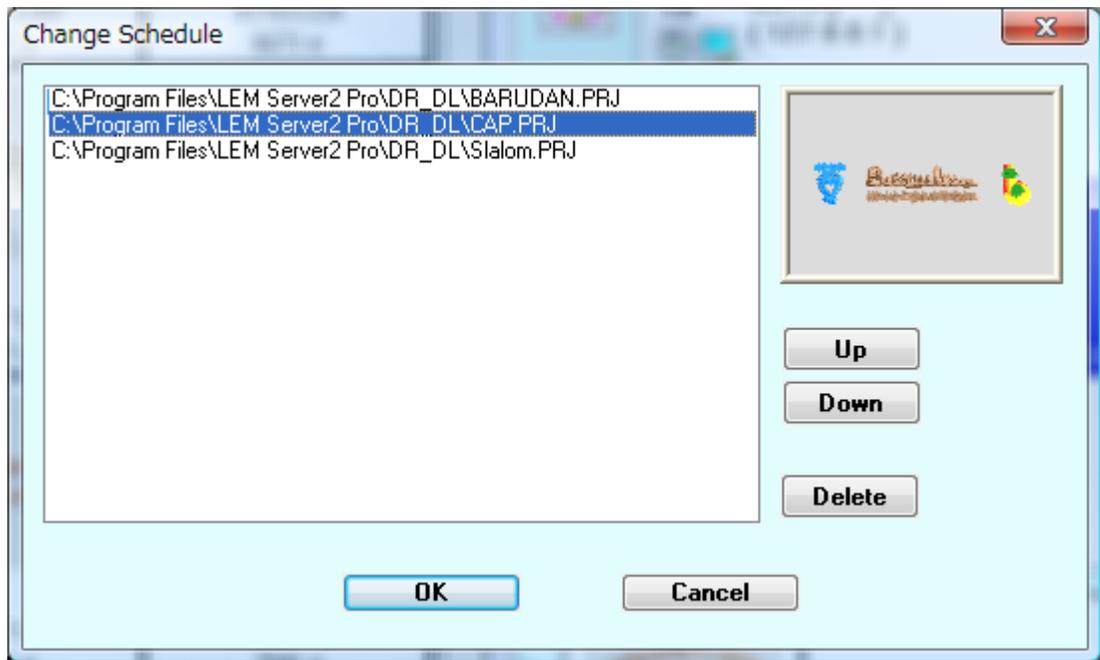
Procedure to schedule a design for a selected machine ID

- ① Select the desired machine in the list of connected machines.
- ② Select a design in the designs list. (Multiple choice available)
- ③ Click the  Button or drag and drop the design on the appointed machine in the list of connected machines.
- ④ The scheduled design is displayed in the Schedule list.

(3) Changing the Schedule

Procedure to re-schedule or delete a design after scheduling

- ① Select the desired machine in the list of connected machines.
- ② Right click on the schedule list and the scheduled designs are displayed as listed below.



< Fig. 3-7-3 Schedule Change Dialogue >

- ③ Select the desired design and click the "Up" or "Down" buttons to move the design up or down in the schedule (order).
- ④ To remove a design from the list, select the design and click "Delete".
- ⑤ Click "OK" to save the schedule.

(4) Downloading Scheduled Designs

The next scheduled design in the list will be downloaded to the appointed machine when the operator requests it, using the Automat. After that, the schedule list is updated automatically, allowing the next design in the schedule to be downloaded when requested.

※ While the Automat is downloading a scheduled design, Steps (2) and (3) above cannot be executed.

(5) Multi Schedule Option

The "Multi Schedule" option for Schedule Download mode, allows the operator to choose which design in the schedule is downloaded. When this option is not selected, the operator doesn't have a choice. They only get the next scheduled design in the schedule.

※ This feature is only for X-Series machines or newer.

(6) Create Watching Folder Option

This Mode allows you to set and use a Watching folder. Anytime a .U01 or .dst design is saved in the watching folder, the design is automatically converted to PRJ data and saved in the machine's reference folder. Afterwards, the design in the watching folder is automatically deleted.

Therefore the Watching folder allows you to use whatever Design editing software you want. When you want to send a design to a machine, you simply save the design out of the Design editing software into the Watching folder, to automate the process.

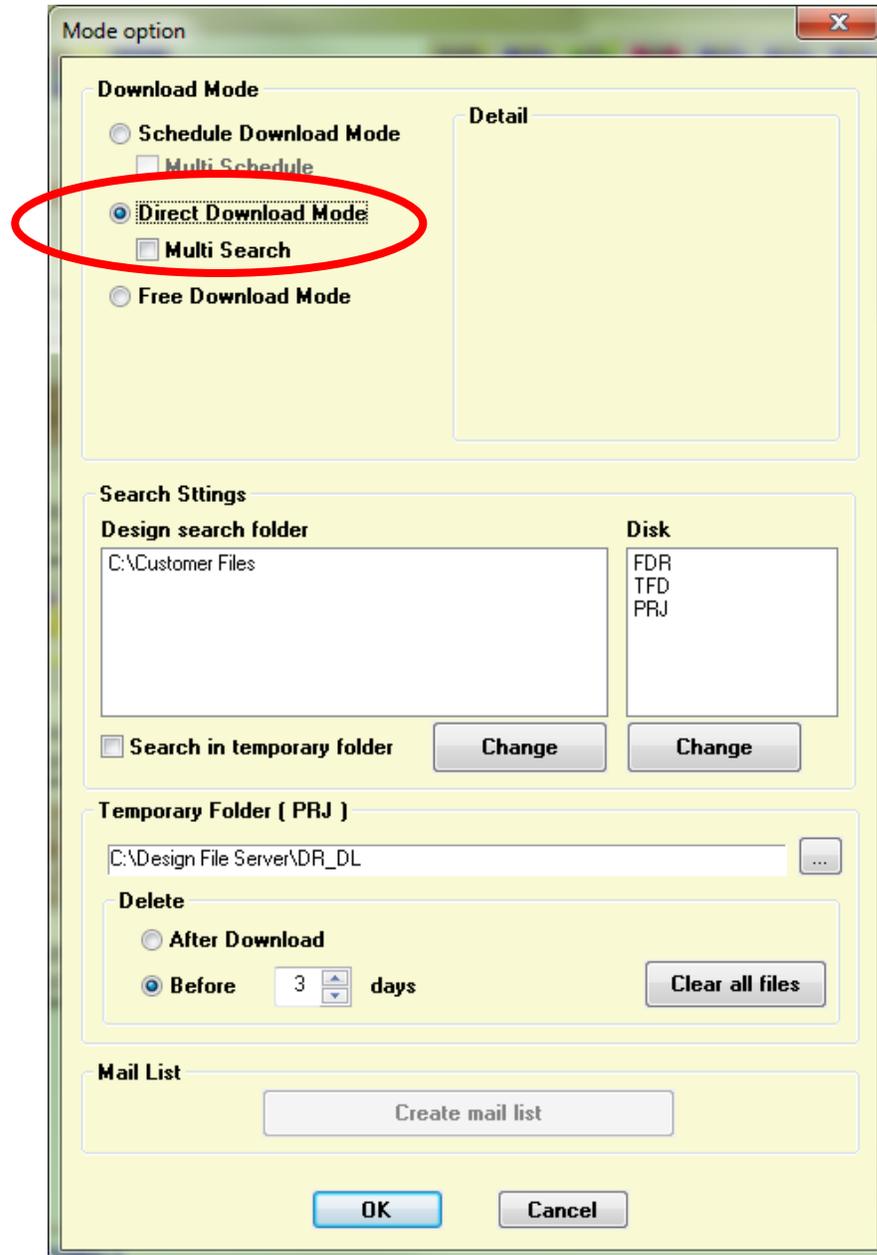
- ① To start with, make a folder on the PC to be used as a watching folder. You can name this folder whatever you want. It's suggested you keep it simple like calling it "Watching folder", or if you have multiple folders, name them by the model name of the machine.
- ② Click the  button.
- ③ Click on the "Create Watching folder" button.
- ④ Click on the Machine ID in the list to set-up.
- ⑤ Click on the "Edit" button to browse and select the watching folder you made for this ID.
- ⑥ Click on "OK" to assign the watching folder
 - "Overwrite". Check this box if you save the same design name again, and you want to overwrite it. If you leave it unchecked, the same design name is saved again with an appended name, Ex design(1).
- ⑦ Click the OK button to exit the Mode option. Afterwards, DFS will start the monitoring process for the Watching folder.

[4] Direct Download Mode

(1) Mode Options

Instructions for setting Direct Download Mode options as follows:

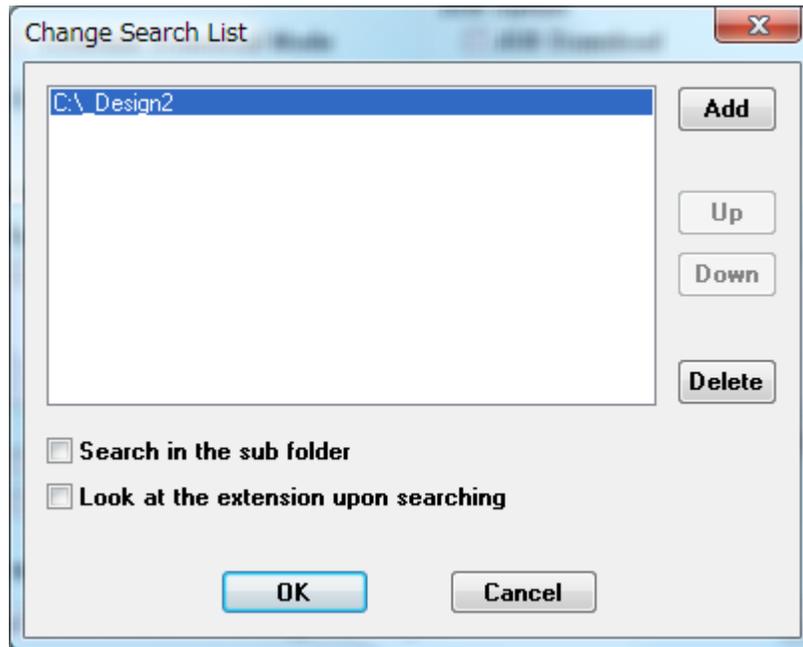
- ① Click the  button.



< Fig. 3-7-4 Direct Download Dialogue >

- ② Select "Direct Download Mode" in the Download Mode options.

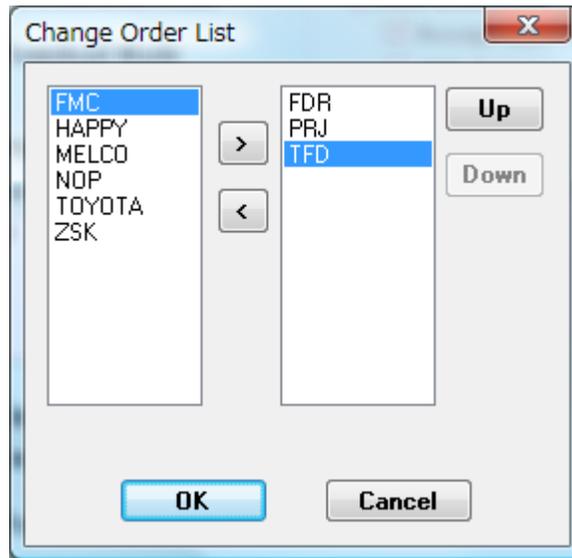
- ③ Select folder(s) to search designs. Click the "Change" button under the Design Search Folder, and the following screen is displayed.



< Fig. 3-7-5 Search Folder Adding Dialogue >

- ④ Click the "Add" button, to browse and select a folder as a search folder.
- ⑤ Use the "Up" or "Down" buttons to change the order of search folders, if multiple folders are selected.
- ⑥ Click the "OK" button to save and exit.

- ⑦ Select Disk Type formats to search for in the search folders of designs. Click the "Change" button under the Disk menu, and the following dialogue box is displayed.



< Fig. 3-7-6 Disk Type Selecting Dialogue >

- ⑧ Select a disk type and click the ">" button to add it to the list. Multiple disk types can be selected.
- Use the "<" button if needed, to remove a disk type from the list.
 - ※ Use the "Up" or "Down" buttons to change the order of priority for searching the disk types.
 - ※ If there are multiple disk formats for the disk type selected, a disk format list is displayed on the right side of the window. Use the "Up" or "Down" buttons to change the order of priority for searching disk formats, for the disk type selected.
- ⑨ Click "OK" to exit and save the Change Order List.
- ⑩ Click "OK" to exit the "Mode Option" dialogue box to register the "Search Folder" and then Close the "Design File Server" program.
- ※ When you change the search folder and the order of priority for reading disk types, it may take a while to register.
- ⑪ Re-start "Design File Server" to open in "Direct Download Mode".
- ※ The "Schedule Lists" will not be displayed when in Direct Download Mode.

(2) Downloading Designs

When an Automat requests a design name, the design is searched for in the design folder(s). When the file is found, it's downloaded to the Automat.

For more details, please refer to your machine's instruction manual for Direct Downloading designs.

(3) Multi Search Option

The "Multi Search" option, displays all designs that match the search design name that was entered into the Automat. If there are multiple designs displayed, the operator manually selects which design to download.

- ※ If only one design matches the search, this design will download directly to the Automat.
- ※ The Multi Search is only available for X-Series machines and newer. Please refer to the instruction manual for the Automat for more operation details.

(4) Search Details

The search priority procedure in Direct Download Mode is listed below.

| Order | Name of Folder | Mode Option |
|-------|---------------------------|---|
| 1st | Temporary folder | When "Search in temporary folder" is checked in Search Settings |
| 2nd | Search folder | Order of search folders in Design Search Folders list. |
| 3rd | Search sub folder | Searches the sub folders of Design search folder, when checked |
| | Sub folder with extension | Looks at folders with extensions when searching |

< Table 3-7-2 Search Order >

1. Search in Temporary Folder setting

After designs are finished downloading, they are saved in the Temporary Folder. Designs can be searched immediately next time, if you check the "Search in temporary folder" box in the Mode options.

*If you edit or modify a design after it's downloaded, the saved design file in the temporary will not reflect the new changes. Therefore, please do not use this option if you modify downloaded designs and you save using the original design names.

2. Search in the Sub Folder setting

Use this feature if you need to register a search folder that has sub folders that also need to be included in the search.

3. Look at the extension upon searching setting.

You must turn this feature on, if you have folder names to be searched with an extension (example C:/Design.FDR). Otherwise folders with extensions will be ignored in the search.

To use these features, see procedure below:

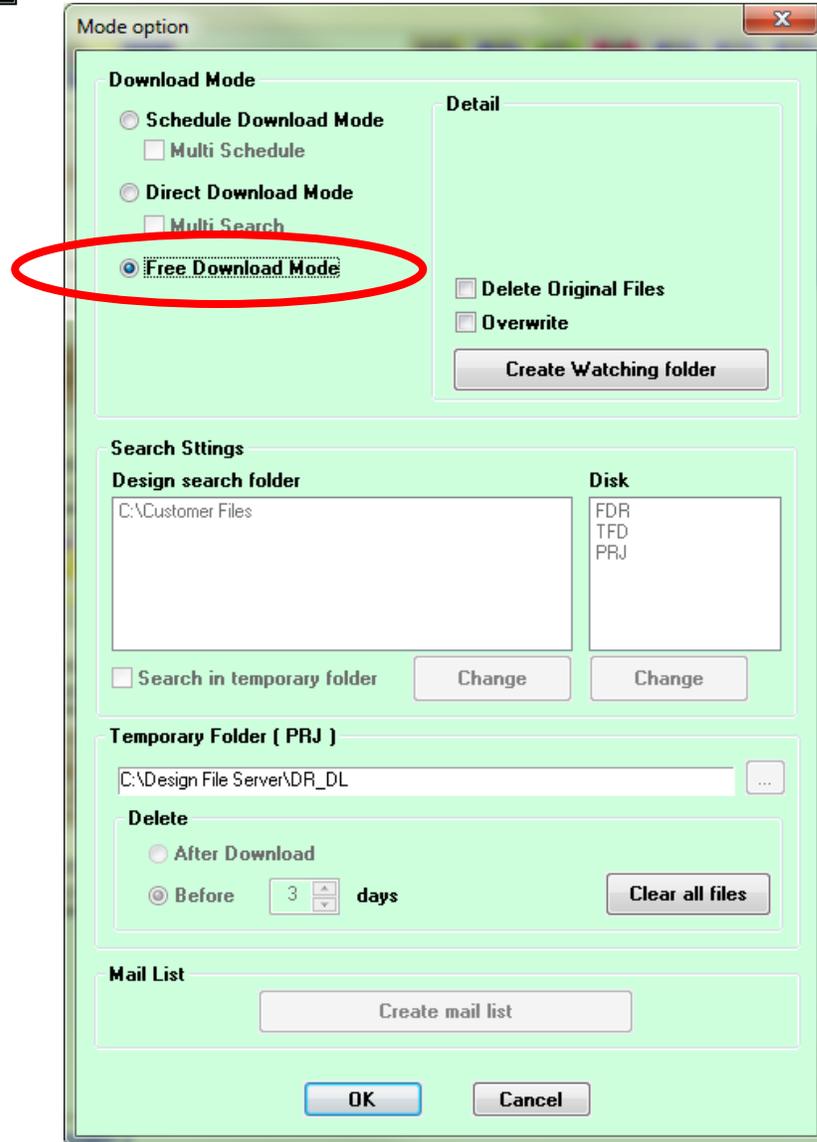
- ① Click the  button.
- ② If you want to search the temporary folder, check the "Search in temporary folder" box.
- ③ Click on the Design search folder "Change" button to open the Change Search List.
- ④ If you want to register a search folder with sub folders, check the "Search in the sub folder" box in the Change Search List.
- ⑤ If you search folders that have a file extension in the folder name, Check the "Look at the extension upon searching" box in the Change Search List. Otherwise, these folders will be ignored.
- ⑥ Click on the "OK" button(s) to save and exit.

[5] Free Download Mode

(1) Changing LAN mode

Instructions for setting Free Download Mode options as follows:

- ① Click  button to display the Option Menu.



< Fig. 3-7-7 Free Download Dialogue >

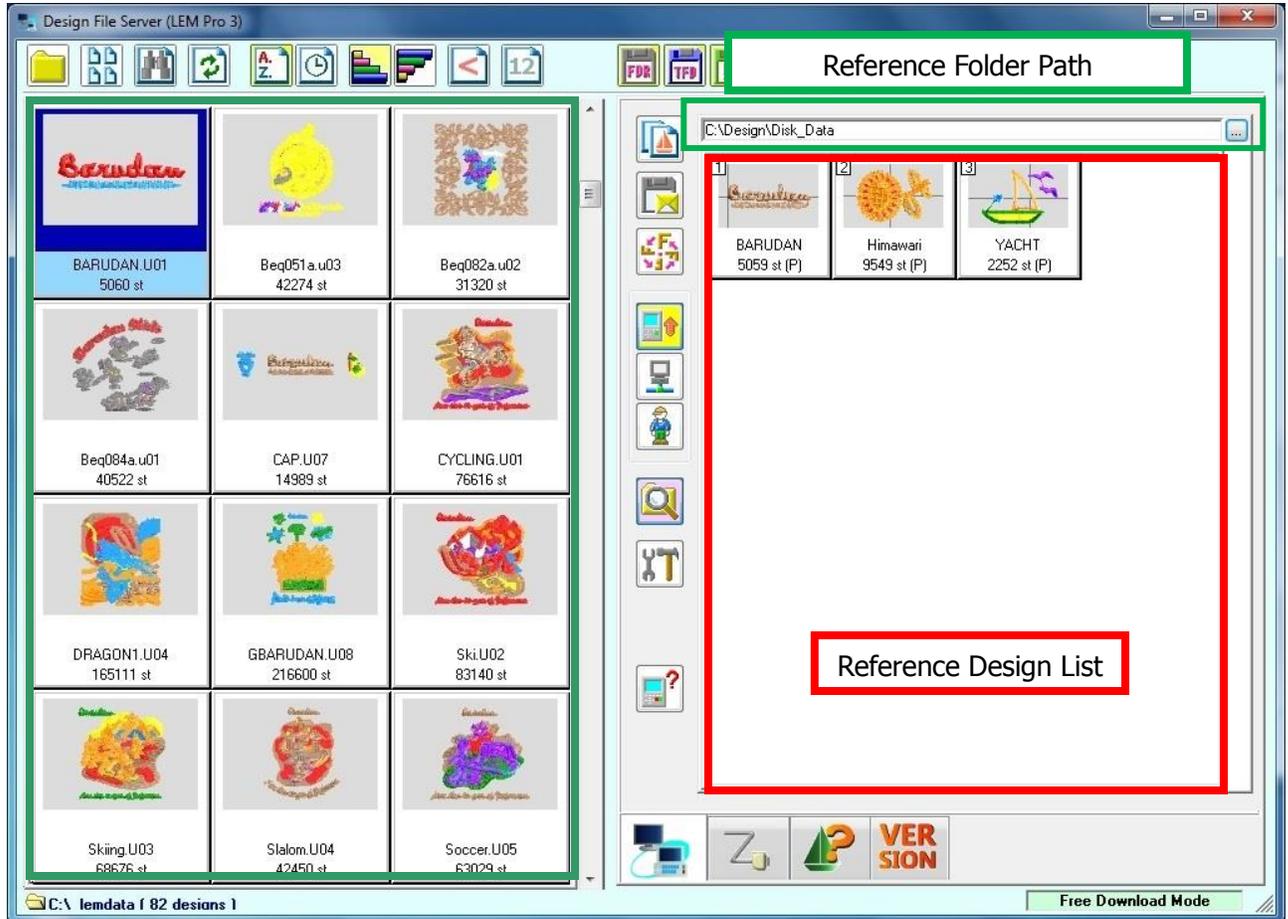
- ② Select "Free Download Mode" in the Download Mode options.
 - For "Create Watching folder" settings, see page 3-30 for details.
- ③ Click the "OK" button to close the Option Menu.
- ④ Close and Re-start "Design File Server" to open in "Free Download Mode".

※ The Free Download mode is only available for X-Series machines and newer. Please refer to the instruction manual for the Automat for more operation details.

(2) Setting a Reference folder and designs

- ① Select a machine ID from the machine ID list.
- ② Click  button to display the path of the Reference folder and the list of reference designs.

(Fig. 3-7-8)



< Fig. 3-7-8 Setting of the reference folder >

- ③ Click the "..." Browse button at the right side end of the Reference folder path to browse and select a reference folder. If you don't have a reference folder already, use the "Make New Folder" to make one.
- ④ To Add a design to the reference design list, select a design in the design list and then click the  button or drag & drop it to the reference design list.

(3) Downloading Designs

Use the machine Automat network function to view the list of designs in the Reference folder. Select a design or designs in the list, to download them to the machine.

- ※ Only designs in the specified reference folder are displayed. This excludes subfolders.
- ※ A Maximum of 200 designs can be saved to the reference design folder for viewing and downloading. If you save more than 201 designs, the additional designs are not displayed on the Automat.

(4) Create Watching Folder

This Mode allows you to set and use a Watching folder. Anytime a .U01 or .dst design is saved in a watching folder, the design is automatically converted to PRJ data and saved in the machine's reference folder.

Therefore the Watching folder allows you to use whatever Design editing software you want. When you want to send a design to a machine, you simply save the design out of the Design editing software into the Watching folder, to automate the process.

- ⑧ To start with, make a folder on the PC to be used as a watching folder. You can name this folder whatever you want. It's suggested you keep it simple like calling it "Watching folder", or if you have multiple folders, name them by the model name of the machine.
- ⑨ Click the  button.
- ⑩ Click on the "Create Watching folder" button.
- ⑪ Click on the Machine ID in the list to set-up.
- ⑫ Click on the "Edit" button to browse and select the watching folder you made for this ID.
- ⑬ Click on "OK" to assign the watching folder
 - "Delete Original Files". Check this box to automatically delete the design file in the Watching folder after it's processed. (This is recommended to clear out the Watching folder).
 - "Overwrite" Check this box if you save the same design name again, and you want to overwrite it. If you leave it unchecked, the design is not overwritten.
- ⑭ Click the OK button to exit the Mode option. Afterwards, DFS will start the monitoring process for the Watching folder.

[6] Other Functions

(1) Copying Designs to the Search Folder.

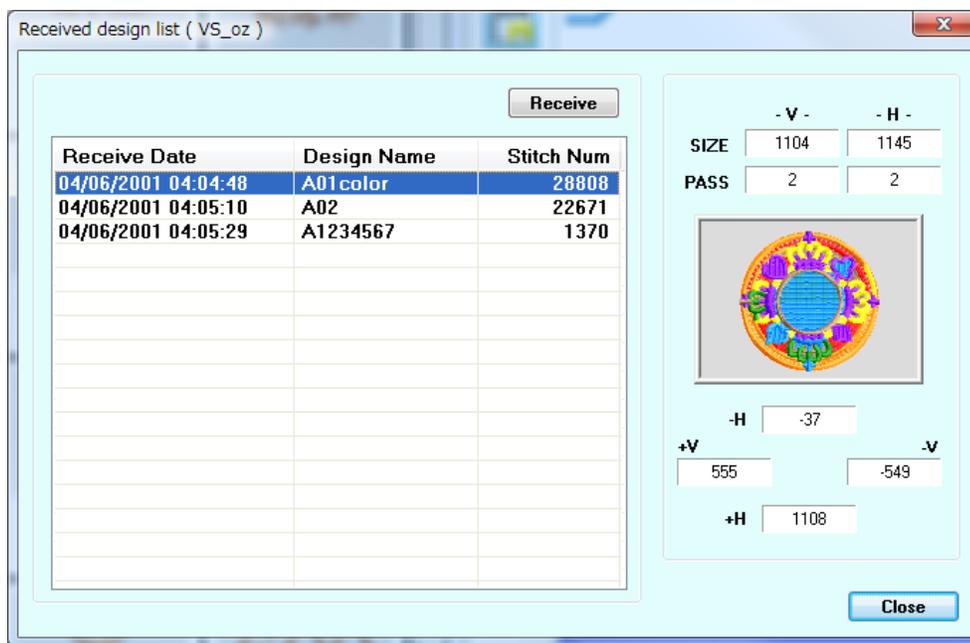
In Free Download Mode, the design selected in the design list can be copied to the machine reference folder. See the following procedure to copy a design.

- ① Select a design in the Design List.
- ② Click the  button or you can drag & drop the design on the List of connected machines.
 - In Direct Download mode: a Copy File dialogue menu is displayed and you can select where to save the design. You can save as a .PRJ File format or All Files (*.*) to keep the original format when saving.
 - In Free Download mode, the design is saved as a .PRJ file into the registered search folder for the machine ID selected in the machine list.

(2) Saving Designs from a Machine (Automat)

The  Icon will be shown when an operator has sent a design to the server from the machine Automat. See the following procedure for saving designs.

- ① Select a machine ID in the list of connected machines with an envelope icon.
- ② Press the button and the following screen is displayed.



< Fig. 3-7-9 Received Designs Saving Dialogue >

- ③ Select a design and click the "Receive" button to save.
- ④ Click "OK" to exit.

※ Some Automats do not have the function to send designs to the server. Please see your Automat instruction manual for more information.

(3) Deleting Designs in the Temporary Folder

All designs are automatically saved to the Temporary Folder after downloading. There are 2 automatic options for deleting. One is to delete after sewing. The other is to delete after a certain period of time. There is also an option to delete manually. See the following instructions for delete methods.

- ① Click the  button.
- ② To delete designs after the machine is finished sewing, go to the "Temporary Folder", "Delete" and set "After Download" to ON.
- ③ To delete designs after a certain period of time, go to "Temporary Folder", "Delete" and set "Before days" to On. Change the number in the box to the number of days you would like to save the files for.
- ④ To delete all designs manually, go to "Temporary Folder", click "Clear all files". This deletes all the designs, which have been saved except for the designs currently being sewn.
- ⑤ Click "OK" to save and exit.

(4) Auto Detection of Search Folders (For Direct download mode).

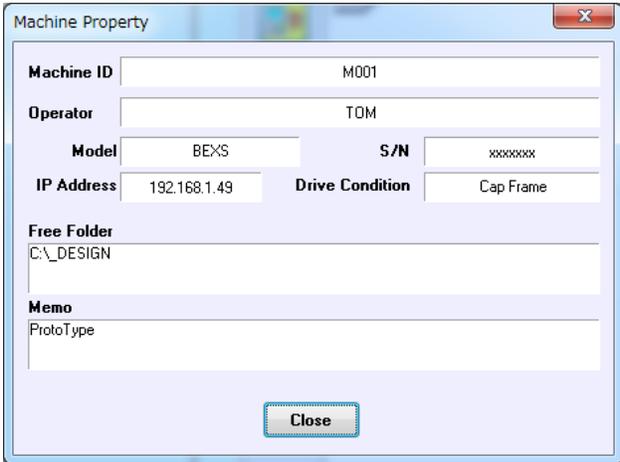
If you delete or add a Sub-folder to the Search Folder, the DFS program detects the changes and renews the search every 60 seconds.

- ※ To optimize the Design file search and automatic update function please use the following tips:
- Do Not use an extension for the folder names.
 - Reduce the number of multiple sub-folders.
 - Do Not save files other than designs in sub-folders.
 - Do Not save too many design files in one sub-folder.
 - Use the local Hard Drive for search folders.
 - Do Not intermingle or use different disc types.

(5) Machine Property Display

This display shows information for the selected machine ID in the machine list.

Click  to display the Machine Property. (Fig. 3-7-10)



| | | | |
|-------------|--------------|-----------------|-----------|
| Machine ID | M001 | | |
| Operator | TOM | | |
| Model | BEXS | S/N | xxxxxxx |
| IP Address | 192.168.1.49 | Drive Condition | Cap Frame |
| Free Folder | C:\DESIGN | | |
| Memo | ProtoType | | |

< Fig. 3-7-10 Dialog of the machine property >

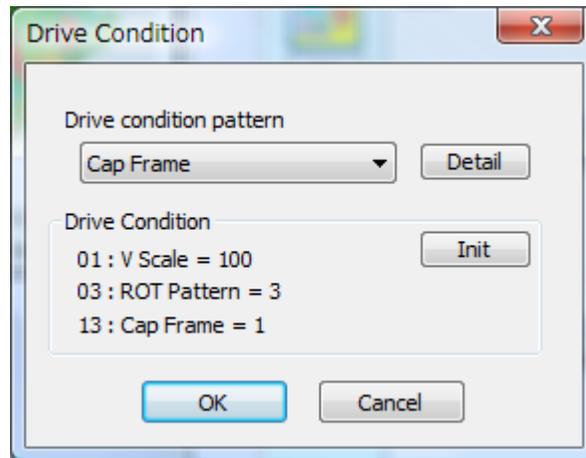
- ※ The information in this display varies per machine model and DFS settings.

(6) Drive Condition Settings.

You can set the drive condition of the design to be sent to the Automat. This operation can be set per embroidery machine.

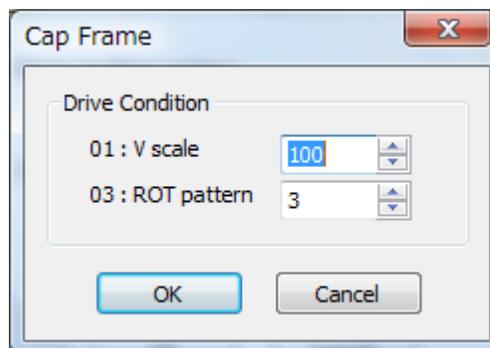
- ① Select the embroidery machine ID from the list.
- ② Click  button to display the drive condition menu.

(Fig. 3-7-11 Drive Condition Setting)



< Fig. 3-7-11 Drive Condition Setting >

- ③ Select a pattern from the "Drive condition pattern" drop down list and the settings for this pattern are displayed.
- ④ Click the "Detail" button if you need to change a setting. A setting menu is displayed to allow you to make changes. (Fig. 3-7-12 Detail of Drive Condition Setting)



< Fig. 3-7-12 Detail of Drive Condition Setting >

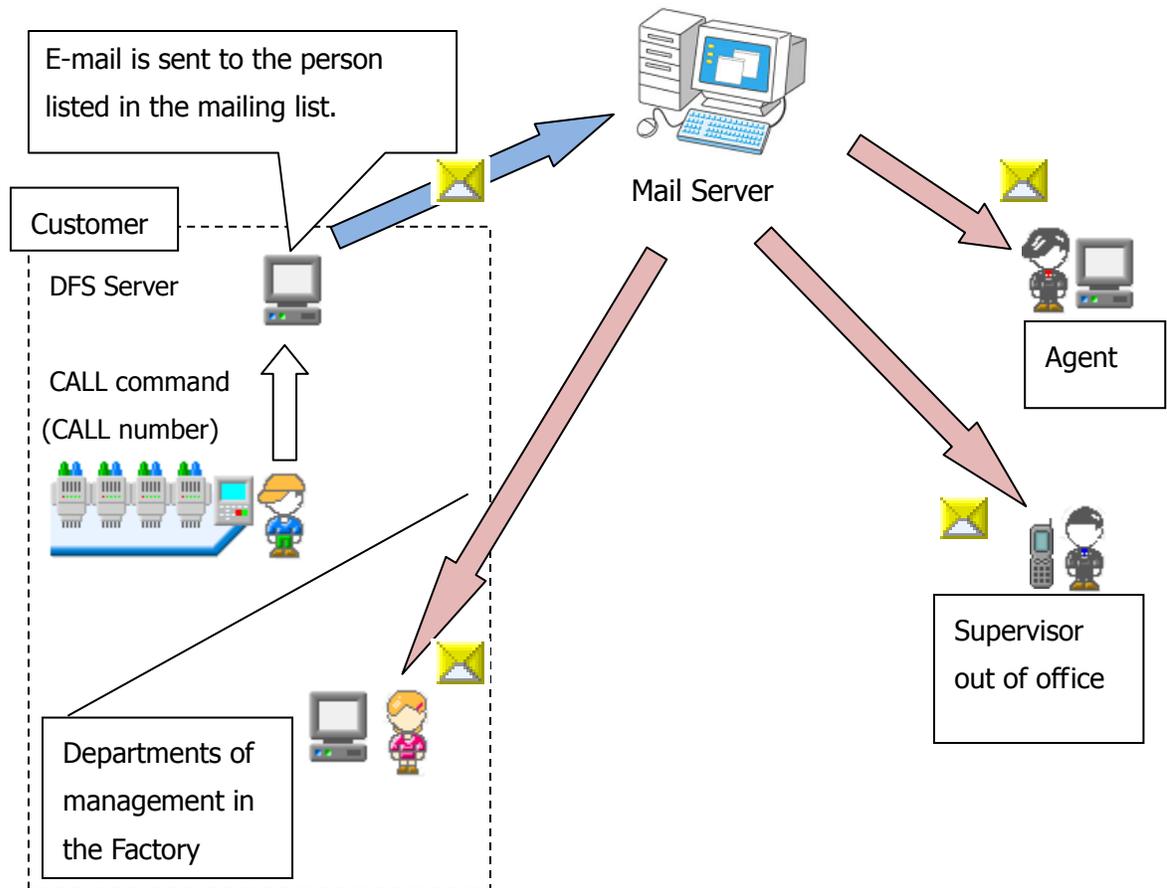
* Each pattern has its specific settings that can be changed.

- ⑤ If needed, change a setting and then click "OK" to save the new setting.
 - Click the "Init" button to set the settings back to default.
- ⑥ The next design and thereafter scheduled for this machine will have the new Drive settings.

※ Note: This change will have no effect on designs previously scheduled for this machine. It only has effect on designs scheduled after the change.

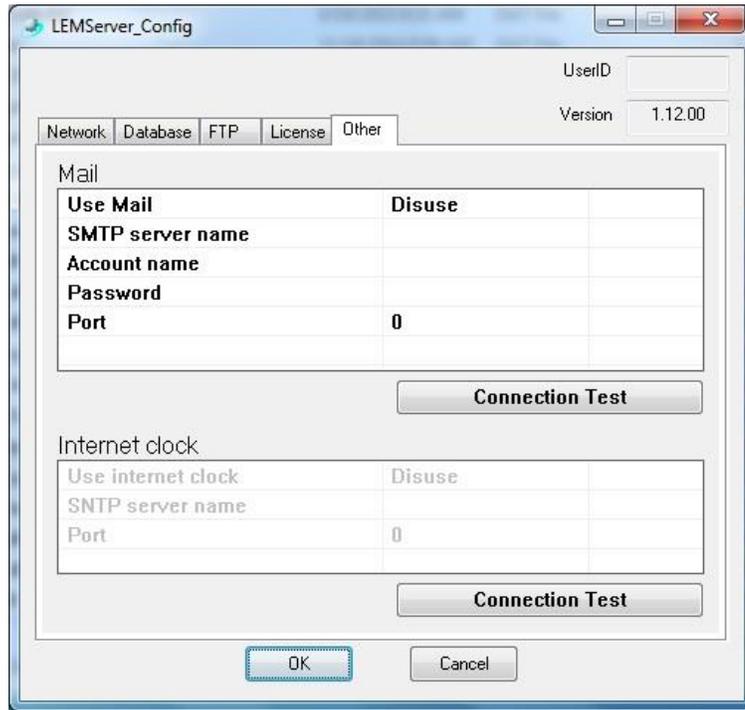
(7) E-mail CALL operation

When a CALL operation is done on an Automat, the contents of the CALL is sent to the registered E-mail address. (Fig. 3-7-13 Mail Function setting Screen)



< Fig. 3-7-13 Mail Function setting Screen >

- ① Turn the E-mail function ON in the LEM Server Config settings and enter the settings for the mail server. See page 3-4 for starting LEM Server Config. (Fig. 3-7-14 Mail Function setting Screen)



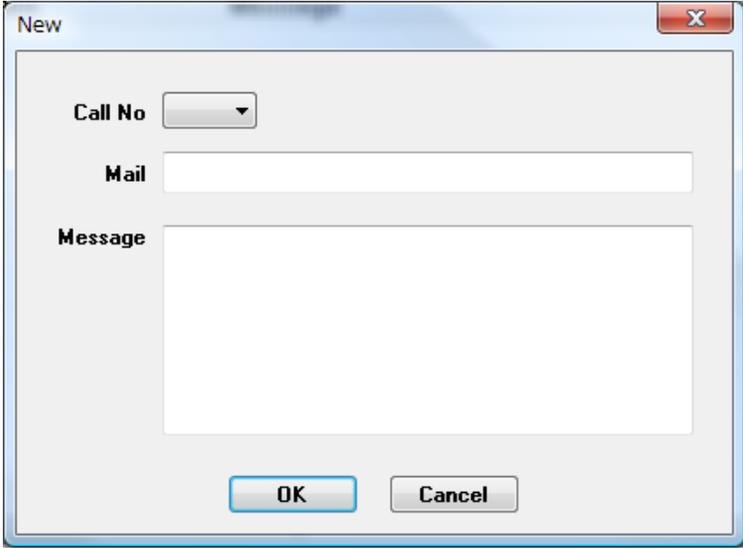
< Fig. 3-7-14 Mail Function setting Screen >

| Item | Content |
|------------------|---|
| Use Mail | To use the CALL mail distribution function, please select "Use". Select Disuse for Off. |
| SMTP server name | Enter the name of mail server. |
| Account name | Enter the name for the mail account to be used |
| Password | Enter the password for the Account name used |
| Port | Enter the TCP/IP port for mail (default is 25) (When outbound port 25 is blocked, trying port 587 is recommended.) |
| Connection Test | Tests the connection to the mail server. |

< Table 3-7-4 mail function setting particle >

- ※ Please log in with Administrative rights to run this program.
- ※ You must close the Design File Server and AutoLogBinChanger programs, to run this program.
- ※ Please input the settings per your ISP.
- ※ In this version, (SSL/TSL) mail protocol with security is not supported.
- ※ Some ISPs may restrict this method of mail transfers. Please check with your ISP.
- ※ If your current mail account is not available, please try to use a free-mail service.
- ※ It may be necessary to specify the "Domain\" when entering the Account name.

- ④ Click the "New" button to make a new mail list. (Fig. 3-7-16 Mail List New Creation Screen)



The image shows a software dialog box titled "New". It has a standard window title bar with a close button (X) in the top right corner. The main area of the dialog contains three input fields: "Call No" with a dropdown arrow, "Mail" with a single-line text box, and "Message" with a larger multi-line text area. At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

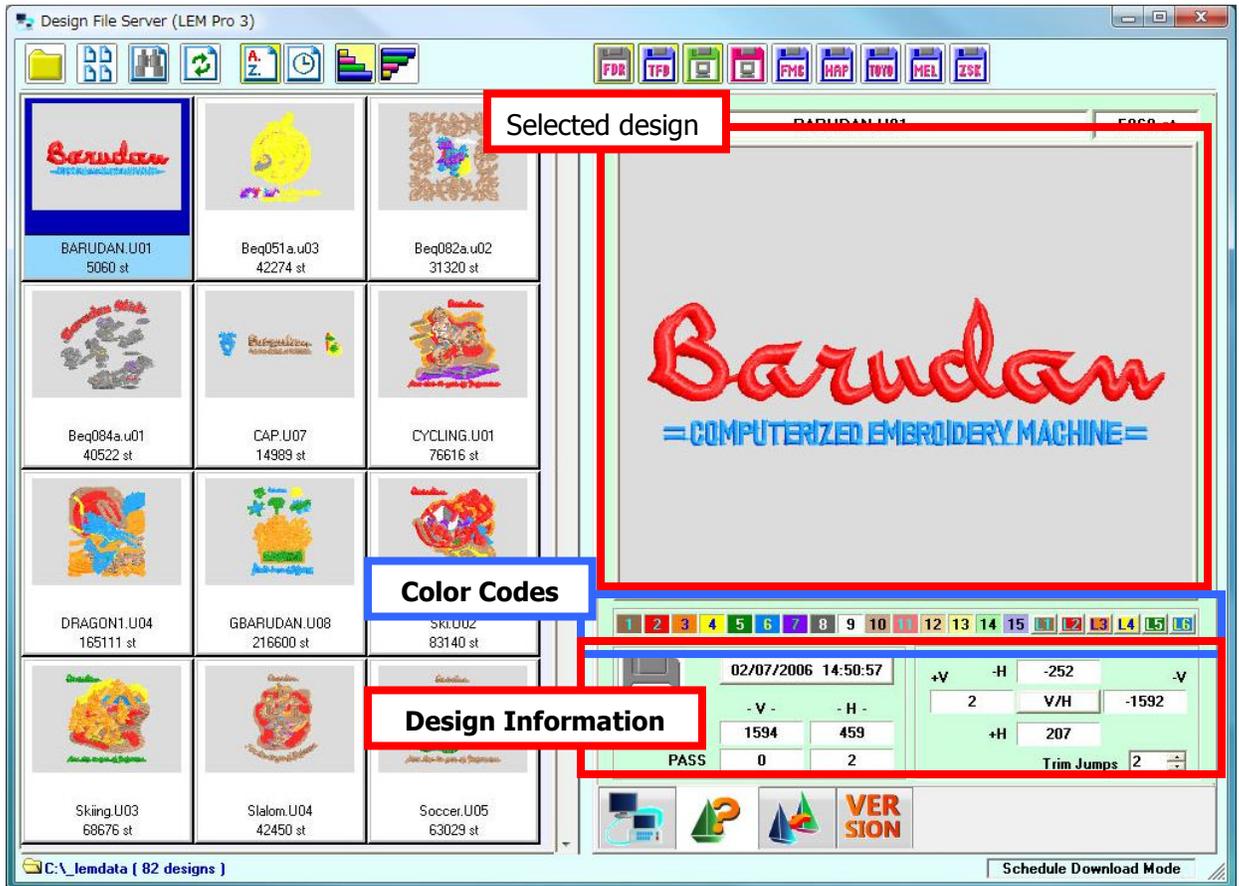
< Fig. 3-7-16 Mail List New Creation Screen >

- ⑤ Input the following information and click "OK":
- CALL No. which is the number sent from the Automat
 - E-mail address for that Number.
 - Message
- ⑥ To edit a mail list which was previously registered, select the list to be edited and click "Edit".
- ⑦ To delete a mail list which was previously registered, select the list to be deleted and click "Delete".
- ⑧ Click "OK" on the mail list screen to complete the registration.
- ⑨ When a CALL operation is done at an Automat, the mail message is sent to the registered address.
-
- ※ You can input multiple addresses per CALL number.
 - ※ The CALL number and name, needs to be programmed on each machine Automat. Please refer to the instruction manual for your Automat for details.
 - ※ Not all Automats have the multiple CALL number feature. (For those Automats with only one Call option, the CALL number is treated as 0). Please refer to the instruction manual for your Automat for details.
 - ※ E-mail is sent by UTF-8 encoding. Therefore, if you receive garbled text E-mails to a mobile or smart phone, please check with the phone manufacturer.

3-8. Design Viewer

Shows details of the design selected in the design list.

[1] Name of Each Function



< Fig. 3-8-1 Design Viewer Screen >

[2] Design View

(1) Design Viewer shows the following information.

| Shown Items | Description |
|------------------|--|
| Selected Design | Selected Design is highlighted with a Blue outline frame. |
| Color Codes | Color Codes C01 to C15 and L1 to L6 (for Chenille Machine). |
| Disk Type Format | Disk Type Format Icon is displayed. |
| Time Stamp | Time Stamp of selected design is displayed. |
| Size & Pass | Size & Pass of selected design is displayed. |
| Size (H/V) | Size of selected design from the design origin is displayed. |

< Table 3-8-1 The Displayed Contents of Design Viewer >

(2) Trim Jumps

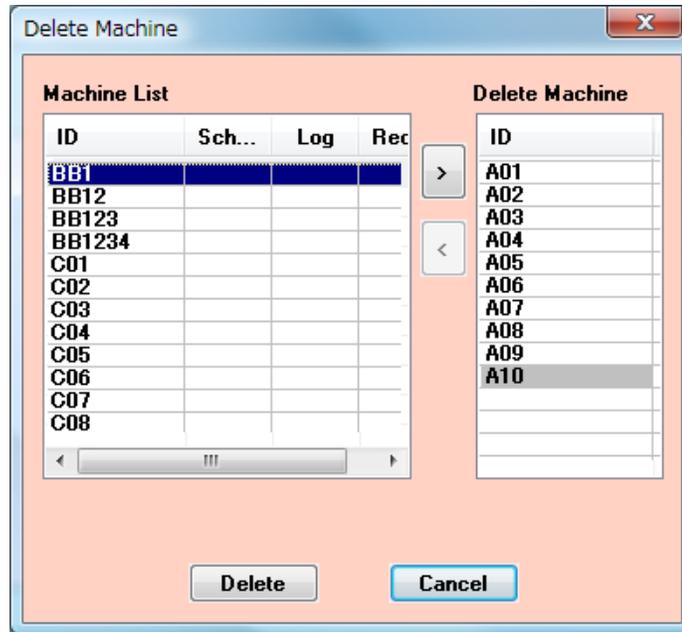
Sets the numbers of jump stitches (0 to 9) where the machine will automatically make a trim.

When this parameter is changed, the selected design will be redrawn to show its effect on the design.

3-9. Machine Eraser

Design File Server will only allow on machine to be connected via LAN. Once you've connected one machine to DFS, this machine ID is registered in DFS and doesn't allow you to connect another ID. Even if the older registered ID is no longer connected. In order to register a new ID, you must delete the old one. The following instructions explain how to delete Machine IDs.

- ① Select "All Programs" > "Design File Server" > "Machine Eraser.exe" from the Windows Start menu. Start the Machine Eraser program to open the following menu. (Fig. 3-9-1).



< Fig. 3-9-1 sewing machine Delete dialog >

| Display Item | Contents |
|--------------|--|
| ID | Displays the registered sewing machine IDs. |
| Schedule | Shows the presence or absence of a design schedule for this Id. "O" means there is a schedule designs that have not yet been sent to this ID. |
| Log | Shows the presence or absence of unsaved log data for this ID. "O" means that there is log data from this ID that hasn't been converted yet to a BIN file. *This feature is N/A for DFS. Only applies to LEM Pro. |
| Receive | Shows the presence or absence of designs to be received from this ID. "O" means that there is a design that was sent from this ID, that hasn't been saved. |

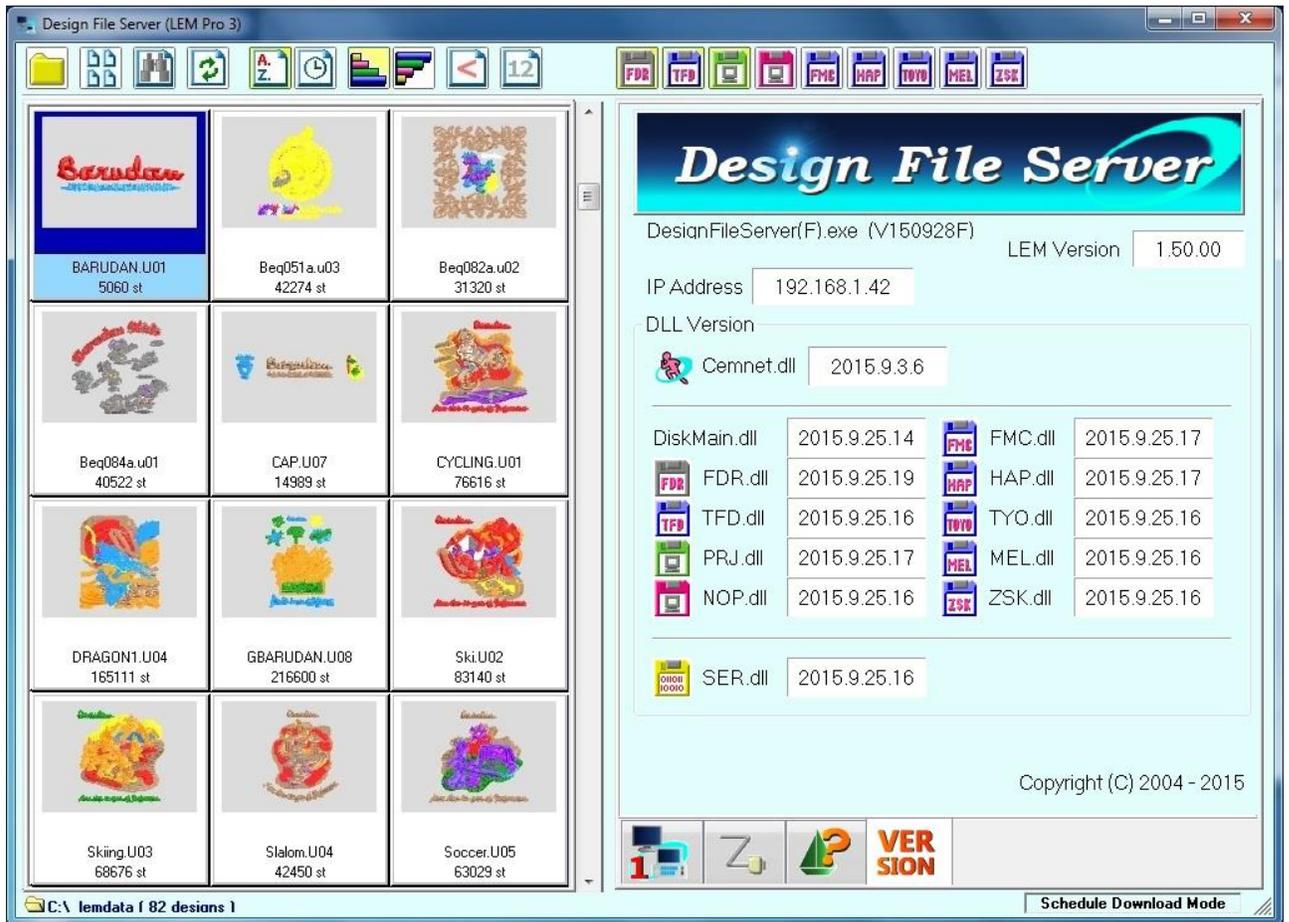
< Table 3-9-1 Delete dialog display contents >

- ② Select an ID from the Machine List on the left that you would like to delete.
- ③ Click the ">" button to add the selected ID to the Delete Machine list on the right.
 - Use the "<" button if you have to return an ID back to the Machine list.
- ④ Click the "Delete" button to remove the ID(s) in the Delete Machine list.

※ Note: As precaution, you cannot delete machine IDs that are currently connected to the network. Therefore only the IDs that are not connected show up in the Machine list above.

3-10. Version Numbers

When you click the Version Viewer Icon, the installed LEM and DLL Versions are displayed as follows. This also displays the Host IP address for the LEM server as "IP Address".



< Fig. 3-10-1 Version >

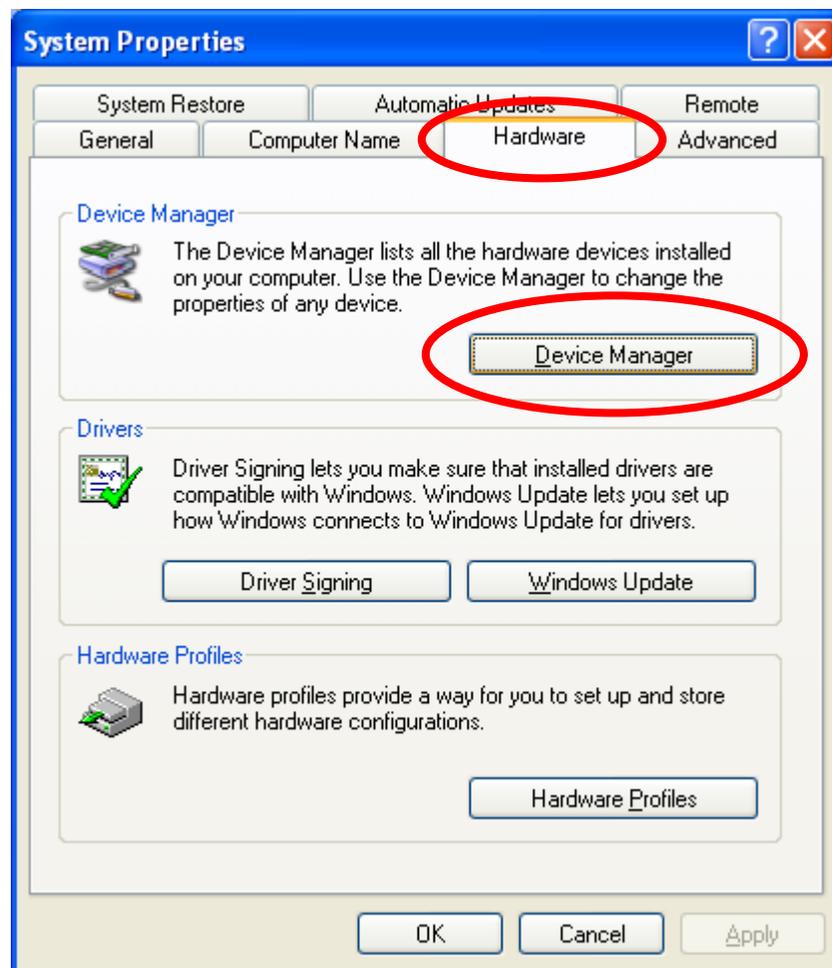
4. Appendix

4-1. Updating Floppy Disk Driver

An additional Floppy Disk driver is available to read 2DD FDR, TFD, FMC, and ZSK formatted disks. The driver is available on the LEM Server Setup CD. The installing procedure is as follows:

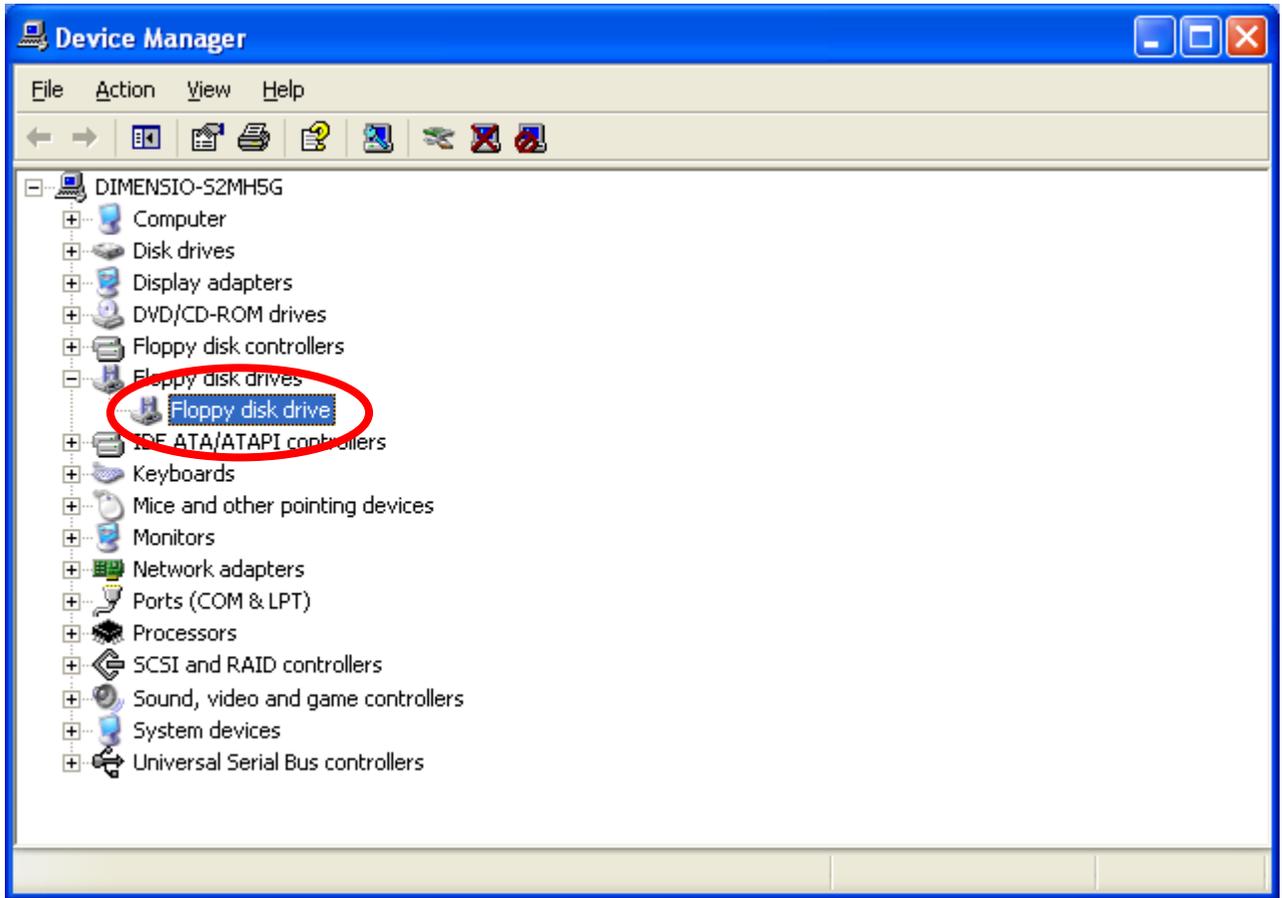
- ※ This driver is not compatible with USB Floppy Disk Drives.
- ※ This driver does not have a digital signature. Therefore you cannot install it on Windows Vista 64-bit or newer (it will show an alert message on Windows Vista 32-bit).

- ① Open the Control Panel → and Click System. The following screen is displayed. Click Hardware→ then Device Manager. (Fig. 4-1-1).



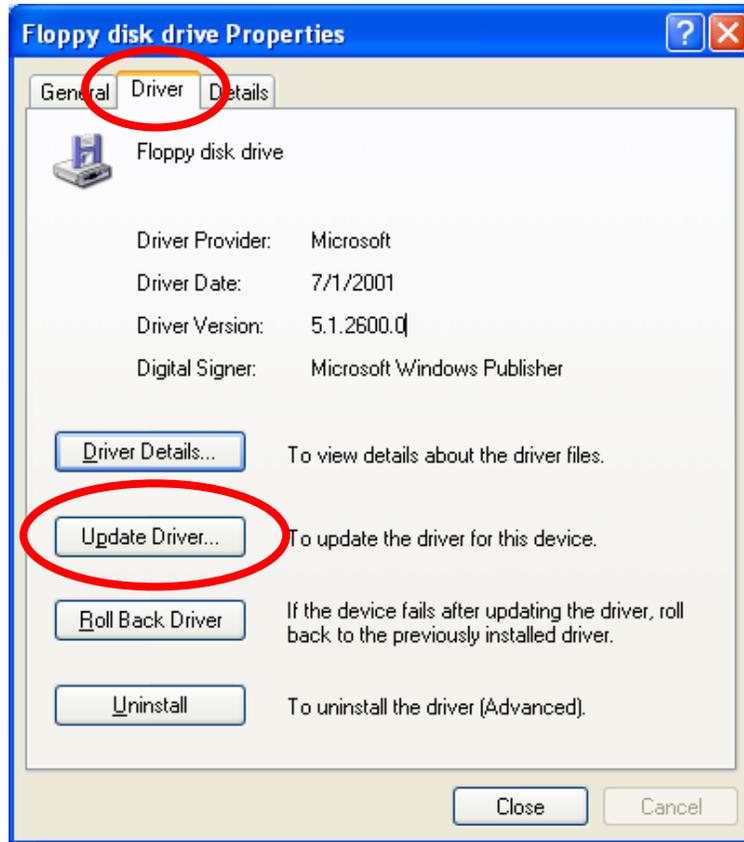
<Fig. 4-1-1 Device Manager>

② Select the "Floppy disk drive" and click the right button to open Properties. (Fig. 4-1-2).



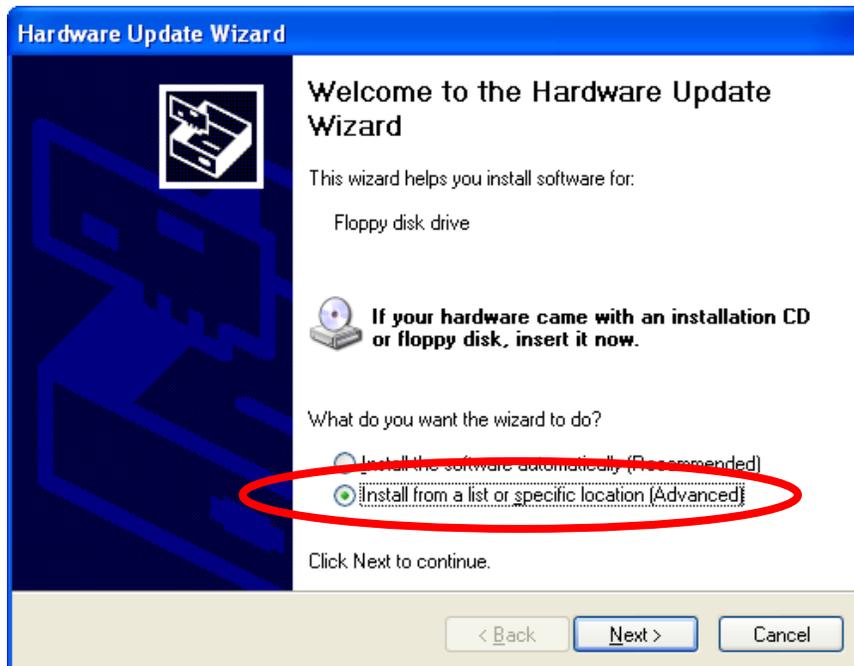
<Fig. 4-1-2 selection of floppy disk drive>

- ③ Select the "Driver" tab and click "Update Driver" (Fig. 4-1-3).



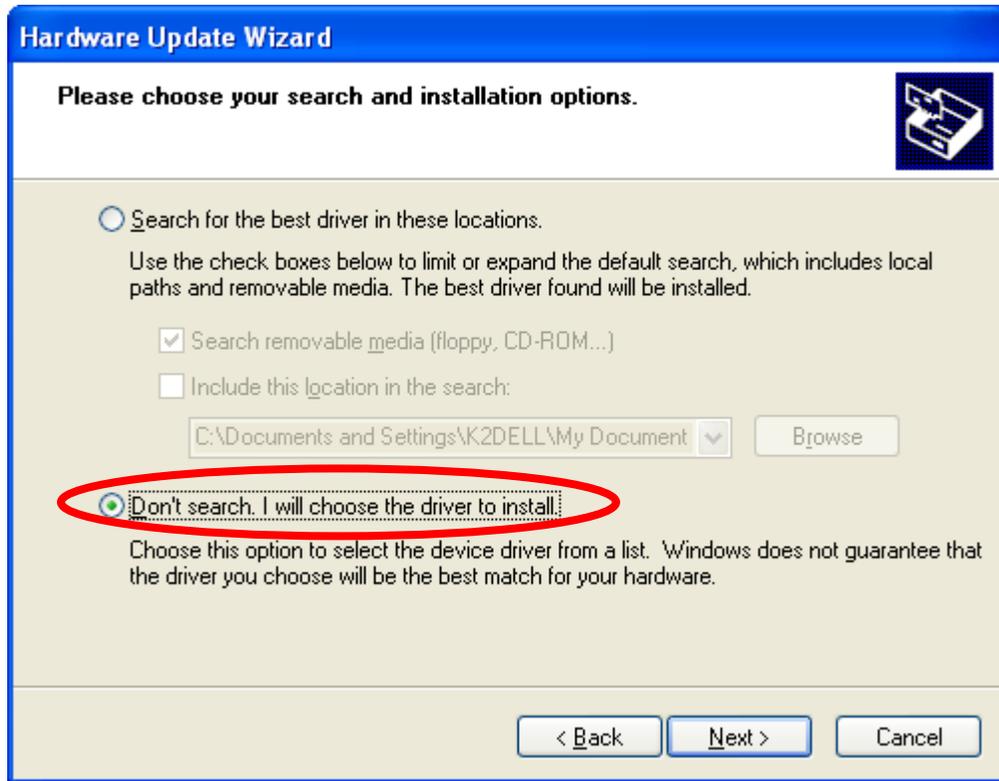
<Fig. 4-1-3 Update driver>

- ④ The Hardware Update Wizard will start to upgrade the device driver as shown below. Please insert the LEM Server Setup CD into the CD Drive. Select "Install from a ..." and click the "Next" button (Fig. 4-1-4).



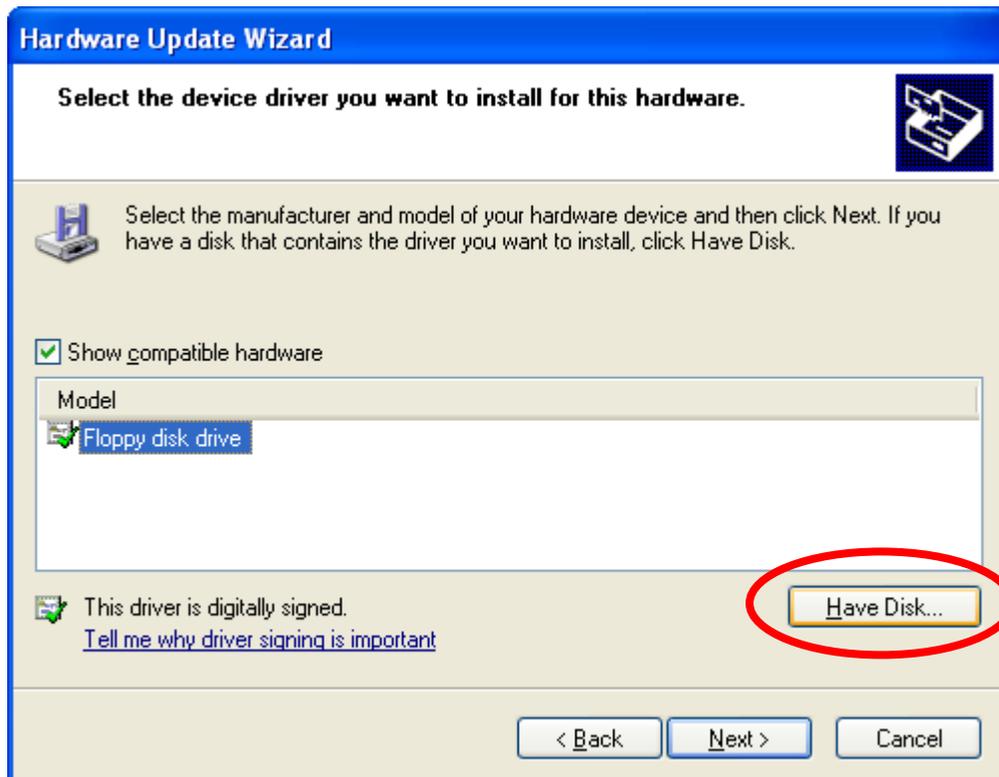
<Fig. 4-1-4 Start Update>

- ⑤ Select "Don't search. I will ..." and click the "Next" button. (Fig. 4-1-5).



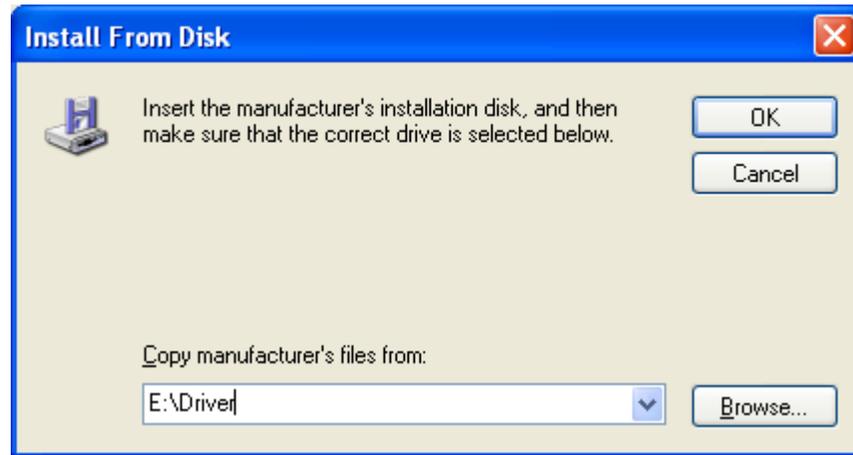
<Fig. 4-1-5 option selection>

- ⑥ Please do not choose the device driver in the list. Click the "Have Disk" button. (Fig. 4-1-6).



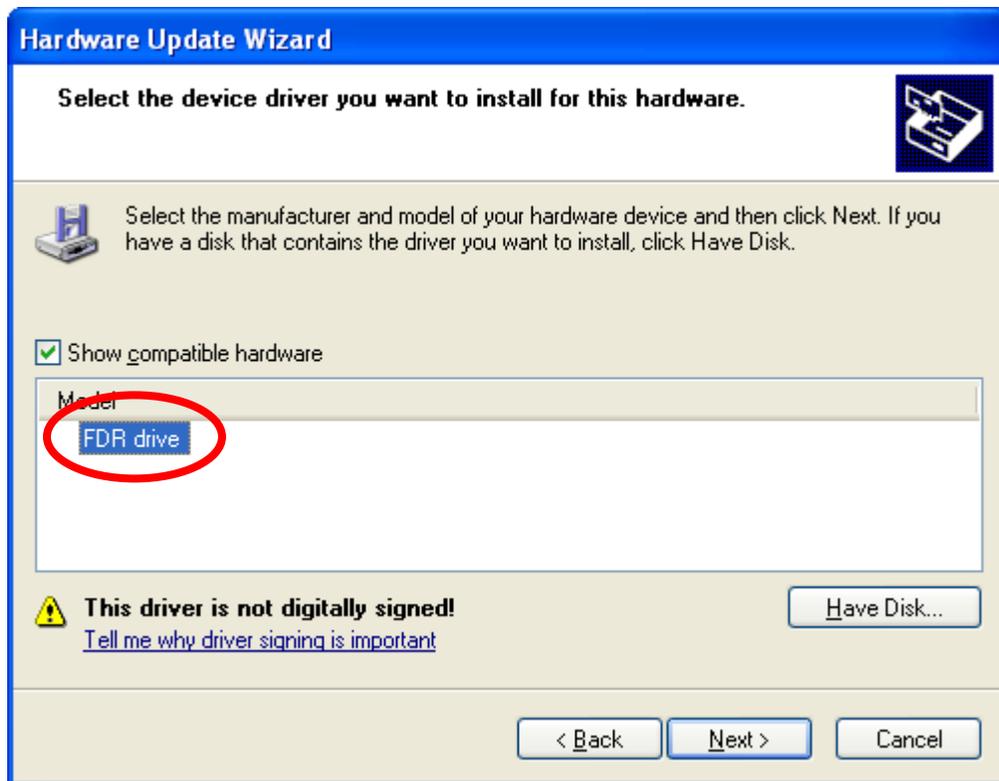
<Fig. 4-1-6 Select a Device Driver>

- ⑦ Select the Driver folder on the CD drive as shown below and click "OK". (Fig. 4-1-7).



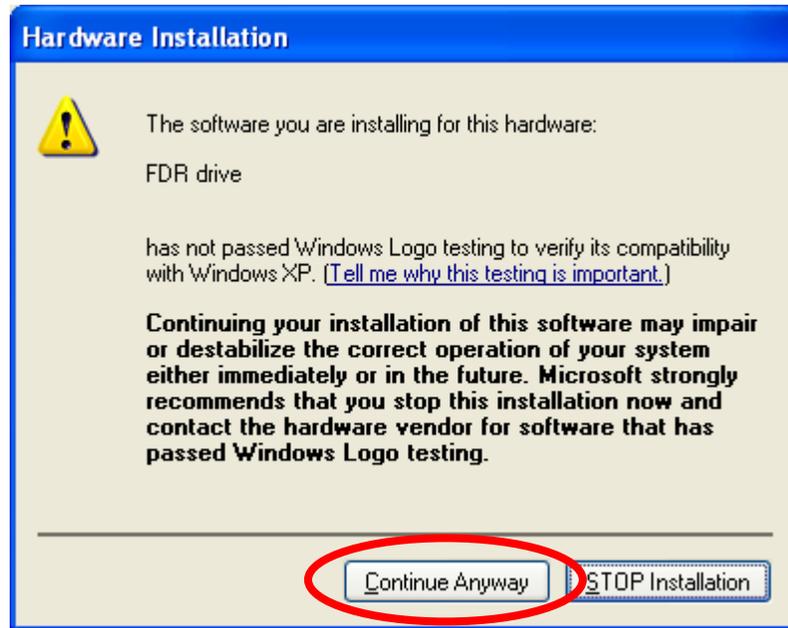
<Fig. 4-1-7 Select Folder>

- ⑧ The FDR drive will be listed as shown below, and click "Next". (Fig. 4-1-8).



<Fig. 4-1-8 Selecting a FDR driver>

- ⑨ The following warning message will be displayed as shown in Fig. 4-1-9. Click “Continue Anyway”.



<Fig. 4-1-9 warning screen>

- ⑩ When the wizard is finished installing the “FDR drive”, click “Finish” to exit. (Fig. 4-1-10).



<Fig. 4-1-10 Driver update completion>

- ⑪ Close the Device Manager (Steps ③②①) to exit.

- ⑫ When the FD driver is updated, the following formats can be read and written as listed in the table below. (Table 4-1-1).

| Disk Type | Reading | Writing | Formatting |
|-----------|---------|---------|------------|
| FDR | ○ | ○ | × |
| TFD | ○ | × | × |
| FMC | ○ | × | × |
| ZSK | ○ | × | × |

<Table 4-1-1 operation after the driver change>

4-2. LEM System Report

This operation checks the condition of LEM DFS Server and makes a report file or compresses the data into a log file. This data for can be used for investigating issues.

① To run the LEM System Report go to "All Programs" > "Design File Server" > "LEM System Report".

※ Note: You may need to run this Report with Administrative Rights using "Run as administrator".

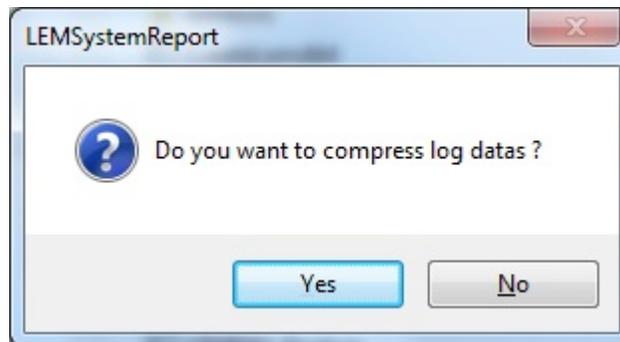
② Clicking "LEM System Report" starts the report process (Fig. 4-2-1).



<Fig. 4-2-1 Create system report>

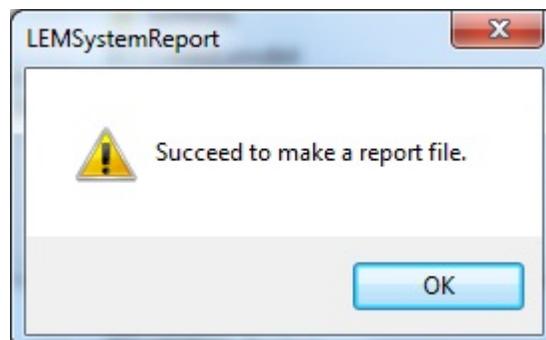
③ Next, select whether to compress the file or not (Fig 4-4-2).

Click "Yes" to make a compressed data log file or "No" to make a readable text file.



<Fig. 4-2-2 log data compression>

④ Report file completed (Fig. 4-2-3).



<Fig. 4-2-3 report is done>

- ⑤ The report file or compressed file will be saved in the following location.

Design File Server installation path\Info

LEM_System.txt Non-compress report file name.

LEM_SystemData.7z Compressed Log data file name. (Locked by password)