



Machine A

Status



Queue

Bracket.NC (DNC)
Cylinder.NC (DNC)

Actions

Send File	Receive File
Edit / Manage Files	Clear Queue
Force Send	Abort Transfer

Configuration

Change Settings	Activity Log
Open Port	Terminal Mode
Close Port	
Reset Port	

DNC USER MANUAL

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Installing FactoryWiz DNC

Minimum Specifications:

The following are the minimum and recommended specifications for computers running FactoryWiz DNC software.

FactoryWiz DNC Server:

Minimum	Recommended
Windows 10	Windows Server 2016 or above
4gb RAM	4gb RAM
300mb available hard drive space	500mb available hard drive space
Ethernet LAN interface	Ethernet LAN interface
1280x1024 display	1280x1024 display

FactoryWiz DNC Client:

Minimum	Recommended
Windows 7	Windows 10 or above
2gb RAM	4gb RAM
200mb available hard drive space	300mb available hard drive space
Ethernet LAN interface	Ethernet LAN interface
1024x768 display	1280x1024 display

Download FactoryWiz DNC Server Software

Note: Installation instructions for hardware drivers are provided separately.

1. Make sure you are connected to the Internet.
2. Open an Internet browser, and navigate to: <https://download.factorywiz.com>
3. Select Download FactoryWiz DNC Server. If you are prompted to Open/Run or Save the file, click on the **Save** pulldown arrow, and select **Save As**, and save the file to your Desktop.
4. Look for your software to be downloading.

Note: This could be in a pop-up window or in your browser window's footer.

Install FactoryWiz DNC

1. Locate the most recently downloaded file on the Desktop.
2. Double-click to run **setup_fwdnc_server.exe**.
3. You will be prompted for a password. You must contact FactoryWiz for the password.
4. Follow the onscreen instructions and click the Next button on each screen to use the default settings.
5. Click **Finish**.

- Two shortcuts are created on your desktop: **FactoryWiz DNC Server** and **FactoryWiz DNC Client**.

License your Software

Systems With Internet Access

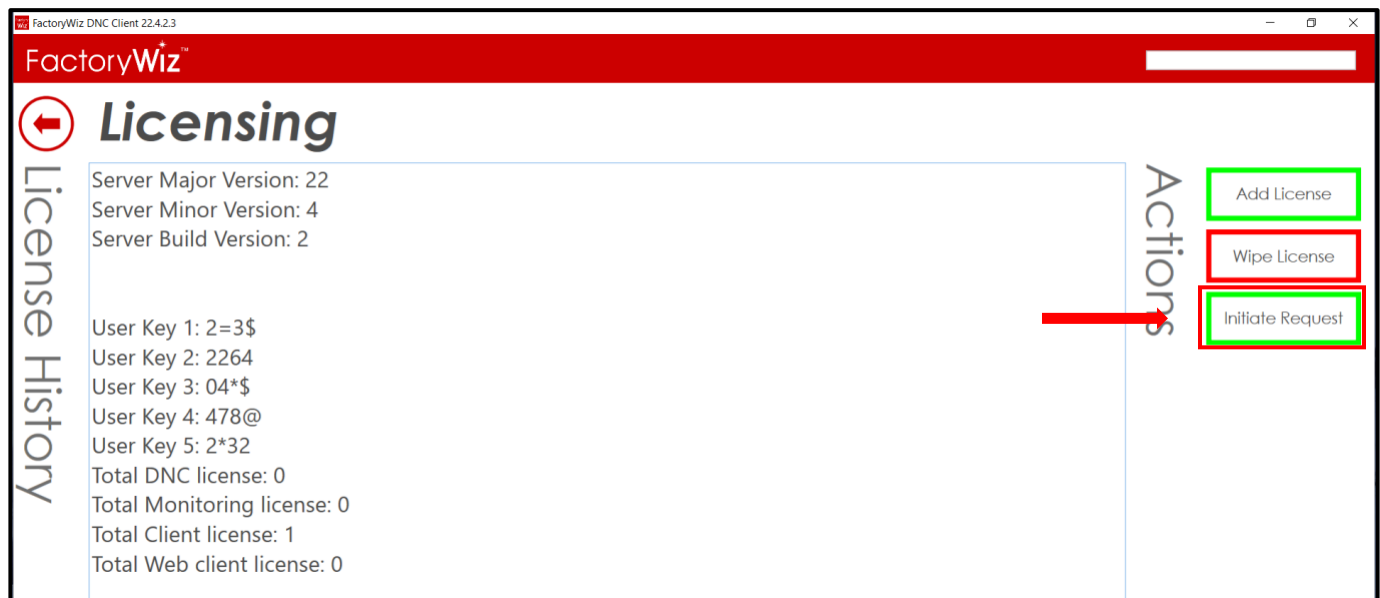
- Locate the shortcut to **FactoryWiz DNC Server** on your desktop and double-click to run the server in the background.



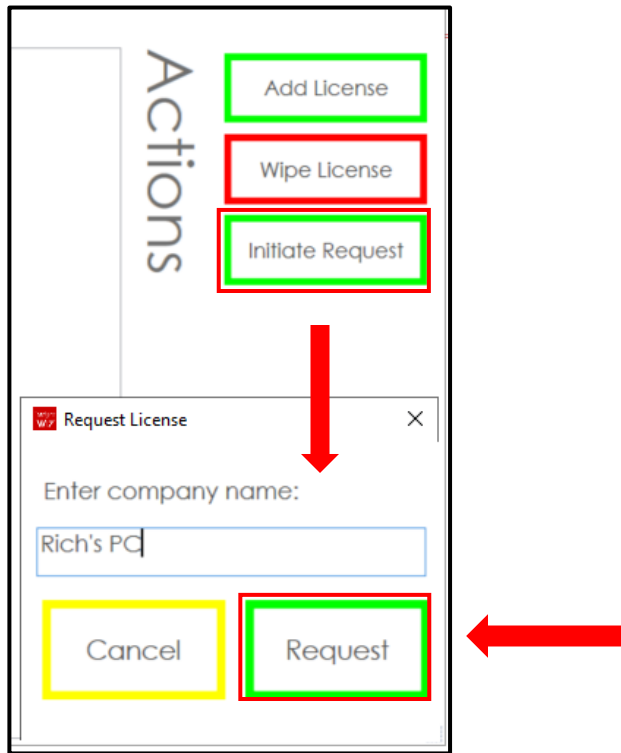
- Locate the shortcut to **FactoryWiz DNC Client** and double-click to open the application.



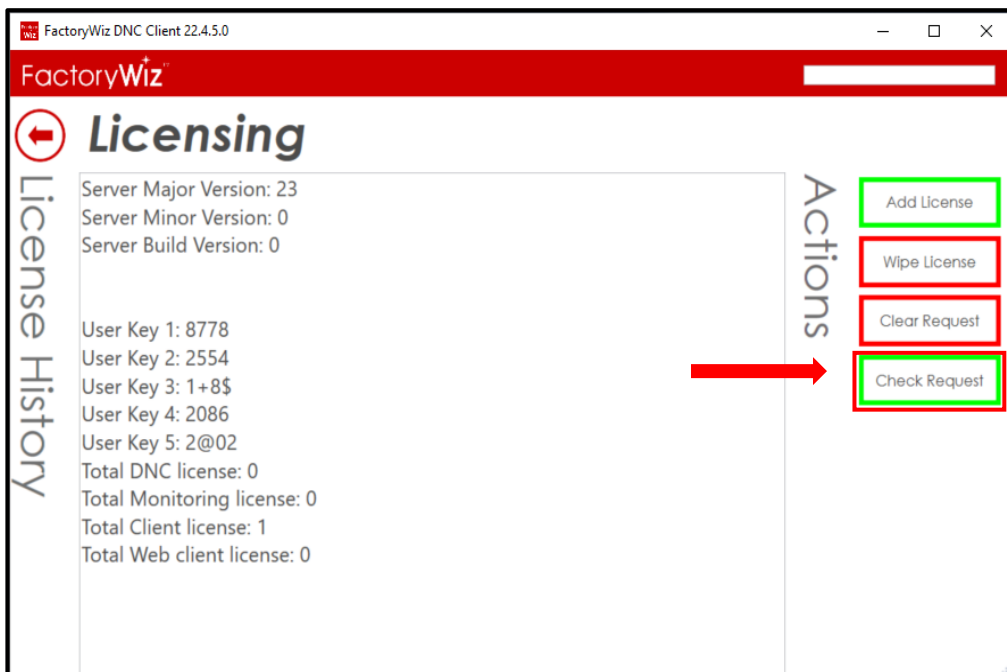
- Click the **Log In** button and log in with the username **Admin** and the password **FactoryWiz**.
Note: The password is case-sensitive.
- On the left side of the screen, click **Licensing**.
- Click on **Initiate Request** button. For systems without internet access, see sections below.



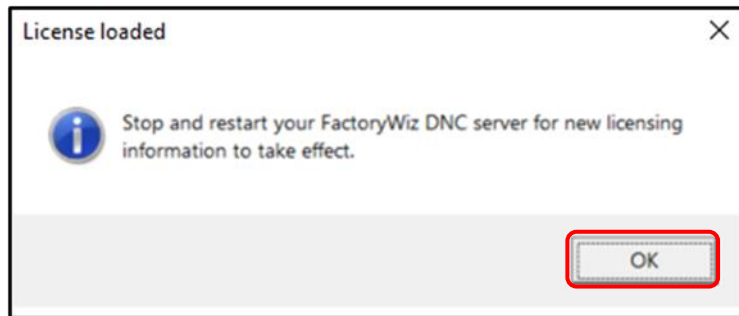
- Enter Company name for the license in the **Request License** field. If you have purchased multiple systems at the same time, name each one in such a way as to distinguish it from the others (i.e., Company Name/machine name or location. This is a temporary name to allow RYM to pick the correct system from the pending license requests). Click **Request**.



- 7. You will receive an email indicating that your license has been activated. **Log In** with the username **Admin** and the password **FactoryWiz**. Click **Licensing**. Click **Check Request**.



8. You will be prompted to restart server for new license to take effect.



9. Press **OK**.
10. The new license will go into effect once the FactoryWiz DNC Server Application/Service is restarted.

Systems Without Internet Access

1. Click the **Log In** button and log in with the username **Admin** and the password **FactoryWiz**.
Note: The password is case-sensitive.
2. On the left side of the screen, click **Licensing**. Five User Keys display at the top of the licensing information.
3. Copy User Key 1 through 5 by dragging your cursor to select all five User Keys and then click the right mouse button and select Copy.
4. Open a new e-mail and type your company name and License Request in the subject line.
5. Paste the license keys in the body of the e-mail.
6. Be sure to include all your contact information and send to licensing@factorywiz.com.
7. You will receive an e-mail with your license file and instructions on how to activate it.

Using FactoryWiz DNC

FactoryWiz DNC is a modern touchscreen accessible DNC communication system for the secure transfer of files to and from CNC machines. FactoryWiz DNC has full simultaneous communication capability to every machine, comprehensive network support, and powerful remote-request capability from the machine control panel plus mobility features that let you access your client software through any PC, tablet, or mobile device with a standard web browser.

Starting the FactoryWiz DNC Server


The FactoryWiz DNC Server is an application that runs in the background to connect your machines to the FactoryWiz DNC Client.

To start FactoryWiz DNC Server, do one of the following:

- On the Windows Start menu, click **All Programs > FactoryWiz DNC Server > FactoryWiz DNC Server** to start the server running in the background
- Double-click the FactoryWiz Server icon on your desktop 

The DNC Server runs in the background until you log off your computer or close the DNC server application.

Stopping the FactoryWiz DNC Server

The FactoryWiz Server icon  is located under the hidden icons' location on your task bar near the clock.

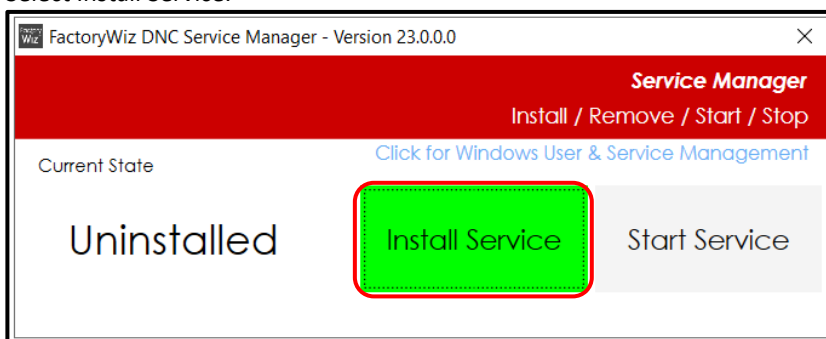
To stop the FactoryWiz DNC Server:

- Double-click the icon and then click on the red X to close the server. Click OK after reading the warning message.

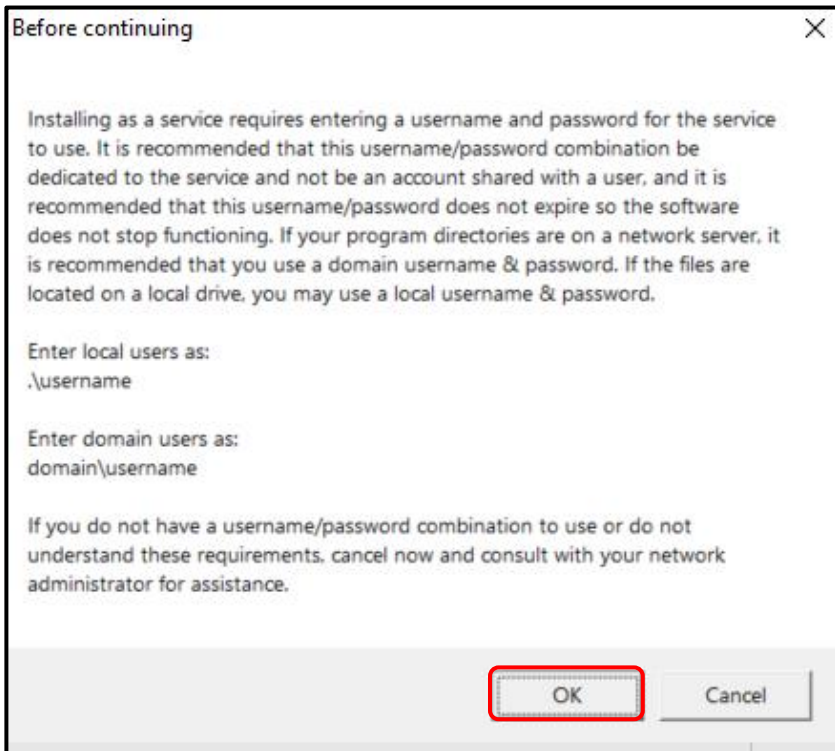
Setting up FactoryWiz Server to run as a service

Before proceeding, you will need to create a Service Login account. This will be the account under which the DNC service runs, so it will need access to any directories that contain part programs, including write access to any Receive directories.

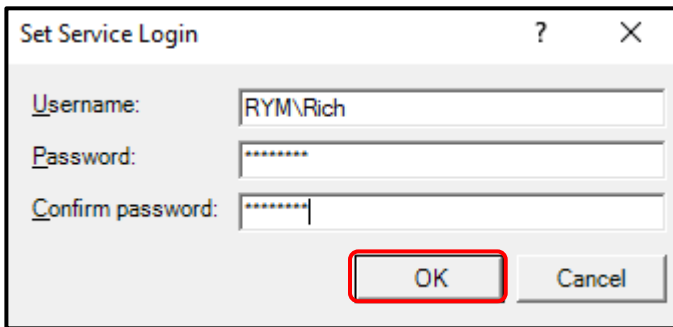
1. Click on Start.
2. Under the FactoryWiz DNC Server group, select Service Manager.
3. Select Install Service.



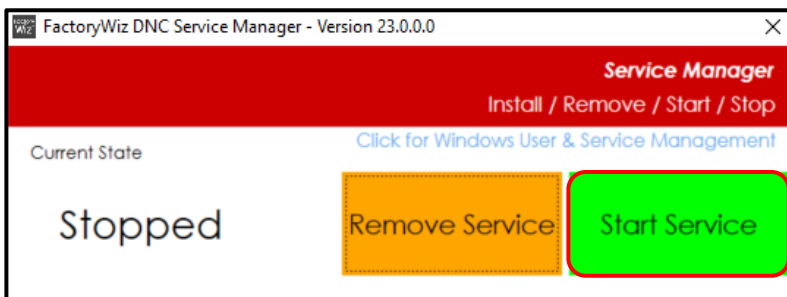
4. The Username and Password format information box will open.



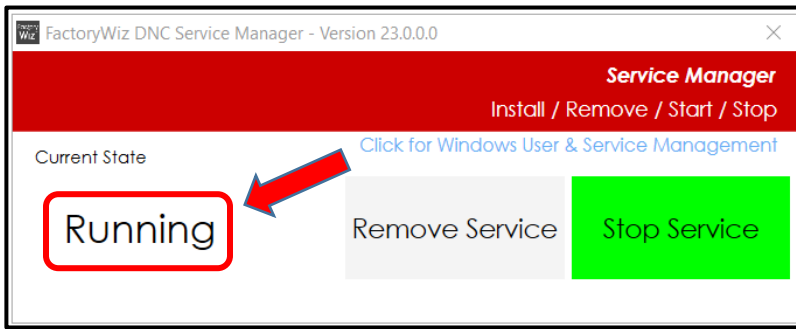
- 5. Once you have read the information box, select OK to continue.
- 6. The Set Service Login dialog box will open. Enter the Domain\username then the password.



- 7. If the creation of the service account was successful, the FactoryWiz DNC Service Manager screen will update and display the following:



- 8. Select Start Service to start.
- 9. Once the service has started, the FactoryWiz DNC Service Manager will display:



The FactoryWiz DNC Server service is set to automatically start when the computer is restarted.


10. To stop the service, select Stop Service. Depending on how many machines are configured will determine on the speed of stopping the service. You can also Start/Stop the FactoryWiz DNC Server service by going into the computers Services.

Using the FactoryWiz DNC Client

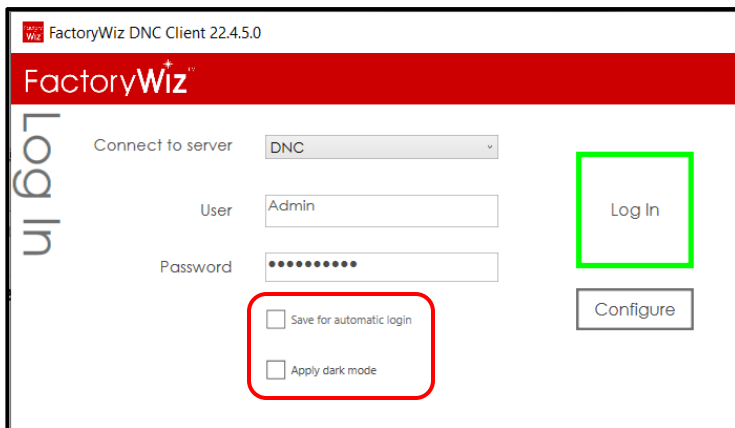
To start a new session of FactoryWiz DNC Client:

1. On the Windows Start menu, click **All Programs > FactoryWiz DNC Server > FactoryWiz DNC Client**,

Or

Double-click the FactoryWiz Client icon on your desktop 

2. Press or click the **Log In** button.
3. Enter your username and password.
Note: Password is case-sensitive.



4. Optionally, select **Save for automatic login** if you want to skip entering a username and password the next time you open the client. Also, you can choose **Dark mode** format for the Client interface.

Note: Workstations can be configured to automatically log in as a particular restricted user without prompting for passwords.

5. Press or click **Log In**.

Figure 1. *FactoryWiz DNC Client user interface*

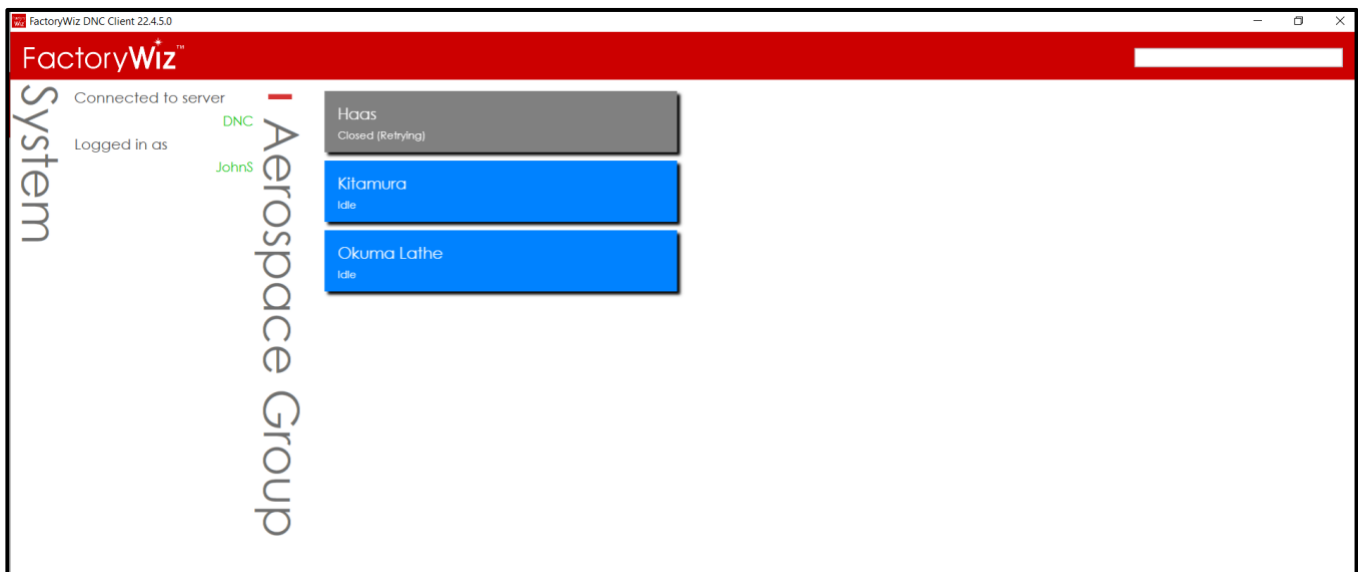


Note: The FactoryWiz DNC installation includes a set of basic machine samples.

The large, touch-optimized buttons make FactoryWiz DNC easy to use for new operators. Clearly labeled buttons are color coded to point you to what options are available in your current state. Features you use most will always be clearly visible.

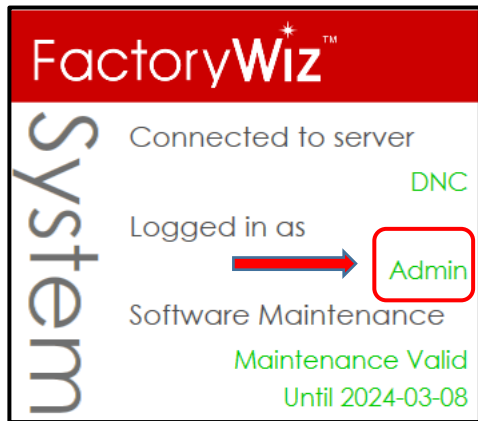
You can organize your CNC list by cell or department, making it simple to find or search for machines. You can also restrict end users to viewing specific departments and keep them out of configuration screens.

Figure 2. *Restricted user interface*

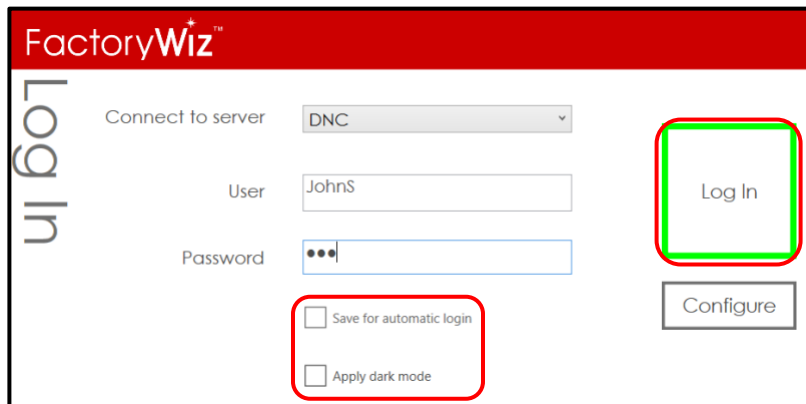


[To log in as a Different User](#)

1. Press or click the username under **Logged in as** on the main menu,



- 2. Enter the **User** and **Password**. The user must already exist in the system.



- 3. Optionally, select **Save for automatic login** if you want to skip entering a username and password the next time you open the client. Also, you can choose **Dark mode** format for the Client interface.
- 4. Press or click **Log In**.

Using FactoryWiz DNC Floating Client

If you have additional PCs where you want to run the Client software, you will need to download and install the Client to each computer and configure it to the point to the shared configurations of the FactoryWiz DNC Server.

Sharing FactoryWiz DNC Server Folder

Before starting this section, you should be proficient at sharing folders, understanding user permissions, managing users in a domain or workgroup environment, determining host names, and other basic networking tasks. If you are not proficient at, or do not have authorization to perform these tasks, then you should seek the assistance of your IT professional for the following section.


- 1. You will need to share out the Shared folder on the FactoryWiz DNC Server, then ensure the appropriate user groups have read and modify permission to the share. This folder is located at the following location:

C:\RYM\FactoryWiz DNC Server\SHARED

Download FactoryWiz DNC Client Software

1. Make sure you are connected to the Internet.
2. Open an Internet browser, and navigate to: <https://download.factorywiz.com>
3. Select Download FactoryWiz DNC Client. If you are prompted to Open/Run or Save the file, click on the **Save** pulldown arrow, and select **Save As**, and save the file to your Desktop.
4. Look for your software to be downloading.
Note: This could be in a pop-up window or in your browser window's footer.
5. If you are prompted to Open/Run or Save the file, click on the **Save** pulldown arrow, and select **Save As**, and save the file to your Desktop.
6. Look for your software to be downloading.
7. *Note:* This could be in a pop-up window or in your browser window's footer.

Install FactoryWiz DNC Client

8. Locate the most recently downloaded file on the Desktop.
9. Double-click to run **setup_fwdnc_client.exe**.
10. You will be prompted for a password. If you do not know the password, see [Installer Password](#)
11. Follow the onscreen instructions and click the Next button on each screen to use the default settings.
12. Click **Finish**.
13. Locate the shortcut to **FactoryWiz DNC Client** on your desktop and double-click to open the application. 
14. In the Log In screen, click **Configure**.
15. Click on **Edit Location**.
16. Browse to the **FactoryWiz DNC Server\SHARED** folder located on the server and double-click on the **SERVER.FWDNCSEVER** file.
17. Click **Return**.
18. You must close FactoryWiz DNC Client for the new setting to take effect.
19. Start FactoryWiz DNC Client and login with your username/password. To log in automatically the next time you run the client, select **Save for automatic login**. Optionally, you can choose **Dark mode** format for the Client interface.
20. Press or click **Log In**.

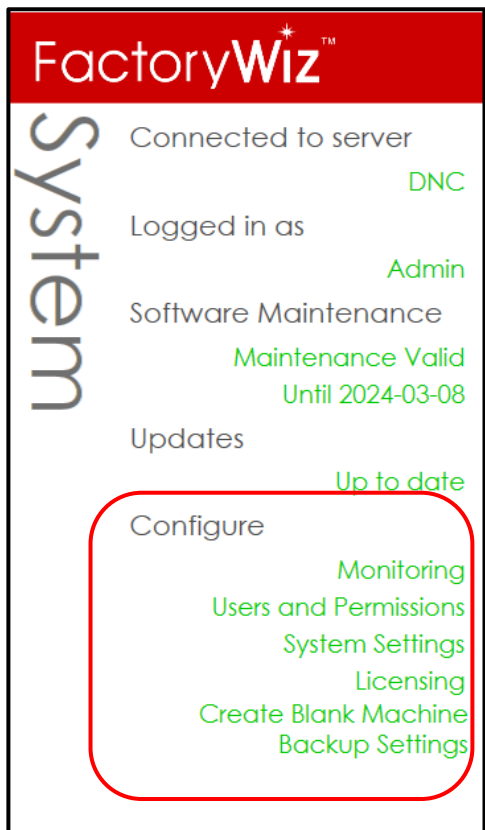
Installer Password

You will receive the latest installer from FactoryWiz by email quarterly. If you do not have this, please email us. If you are updating an existing client, click UPDATE to reveal the password.

FactoryWiz DNC User Administration

FactoryWiz will provide you with the admin's password when the DNC system is installed. The **Admin** user has full privileges to administer the system, which includes adding, changing, removing users and machines.

Figure 3. *Configure menu*



Monitoring

FactoryWiz DNC provides full integration with the FactoryWiz Monitoring solution to make it easy to upgrade to a full monitoring system in the future. With this tight integration, monitoring data such as machine idle reasons can be entered from any DNC client station – or file queuing can be performed from data input tablets used for your monitoring system. Information like macro-outputs and probe data are easily shared between the two. FactoryWiz Monitoring is a separate product.

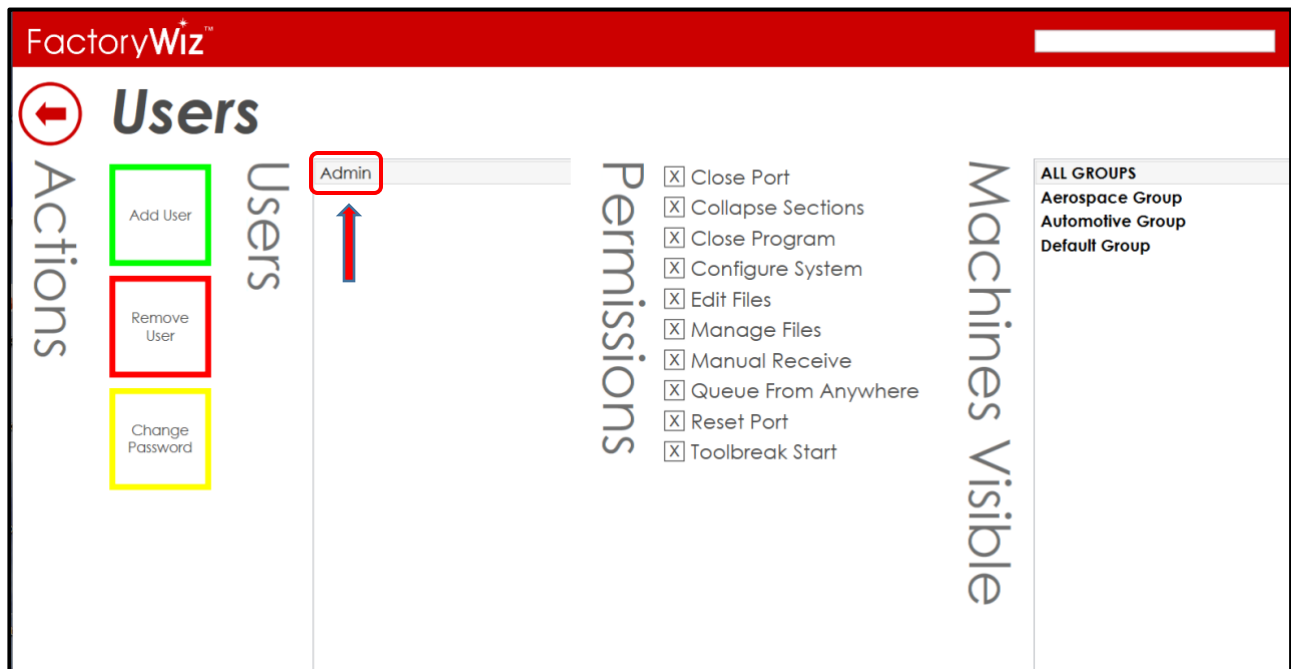
Users and Permissions

Additional users can be allowed access to the FactoryWiz DNC Client. The definition of each user includes full control over individual actions that can be performed by that user and the machines they are allowed to see.

Add a User

1. Open FactoryWiz DNC Client. Login if required.
2. Press or click **Users and Permissions** on the Configure menu.

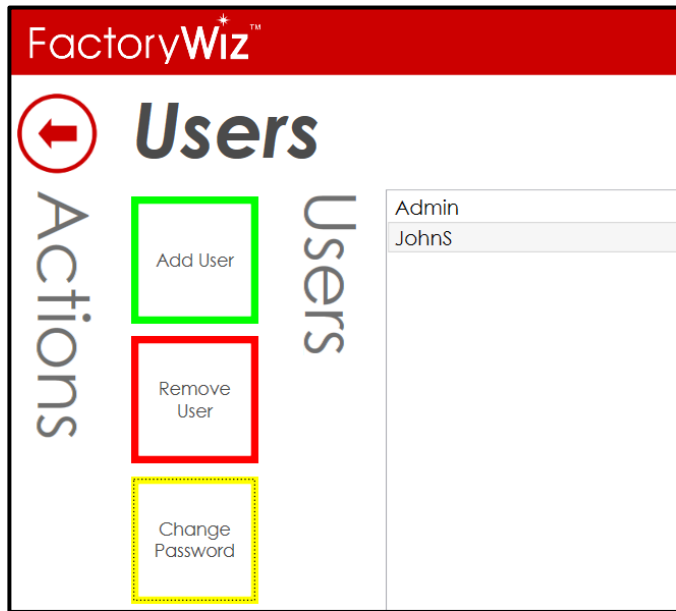
Notice that the Admin user has all permissions and can see all groups.



- 3. Press or click **Add User**.
- 4. Type the **New Username** and **Password**.
- 5. Retype the same password in **Verify Password**.



- 6. Press or click **Add User** to add the new user to the list.



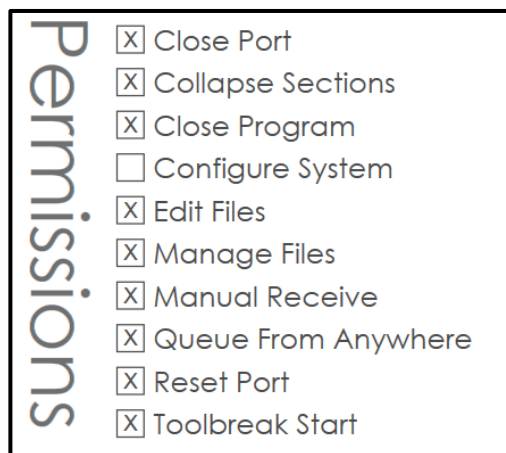
7. To save your changes and return to the main menu, click **Return to Main Menu**. Otherwise, set permissions for the new user.



Set Permissions

Each user has a customizable set of permissions that control the tasks they are allowed perform in FactoryWiz DNC Client. You can restrict an end user from performing certain tasks and viewing certain machines.

Note: When a new user is added, all permissions are granted by default except for the ability to configure the system. Only trusted users should be allowed to change the system configuration.



1. On the Users page, select a user in the Users list.
2. Select or clear the individual permissions for that user.

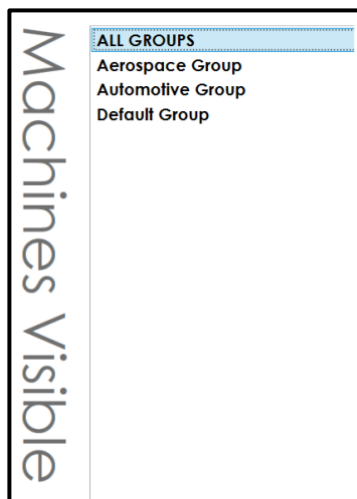
- **Close Port:** Allow the user to close a port to a machine. Typically, a port is closed only to troubleshoot a problem with communication.
 - **Collapse Sections:** Allow the user to minimize the machine list under the group.
 - **Close Program:** Allow the user to exit the Client interface.
 - **Configure System:** Allow the user to configure the system. This permits the user to add/remove users and machines. This option is disabled by default.
 - **Edit Files:** Allow the user to edit files using the FactoryWiz Editor. If you do not want the user to edit the NC code contained in a file, disable this permission.
 - **Manage Files:** Allow the user to manage files, which includes managing folder locations and contents, copying, renaming, and deleting files.
 - **Manual Receive:** Allow the user to receive files manually.
 - **Queue From Anywhere:** Allow the use of a USB drive or local hard drive on the client computer. Disable this option to restrict the sending of files from the Send Directory only.
 - **Reset Port:** Allow the user to reset a port to a machine. Typically, a port is reset only to troubleshoot a problem with communication.
 - **Toolbreak Start:** Allow the user to restart the transfer of a file after a tool break at the machine.
3. To save your changes and return to the main menu, press or click **Return to Main Menu**. Otherwise, set the machines that are visible to the new user.

Control the Machines Visible to a User

1. On the Users page, select a user in the User list.

In the list of Machines Visible, any machine group that is highlighted in the list will be visible to the user on the main menu. Any group that is not highlighted will not be displayed to the user.

By default, ALL GROUPS are highlighted for a new user. This allows the new user to see all machine groups.



2. In the list of Machines Visible, select a group to make it visible to the user. Select a highlighted group to clear it and make it invisible to the user. Highlight ALL GROUPS to make all machines visible to the user.
3. To save your changes and return to the main menu, click **Return to Main Menu**.

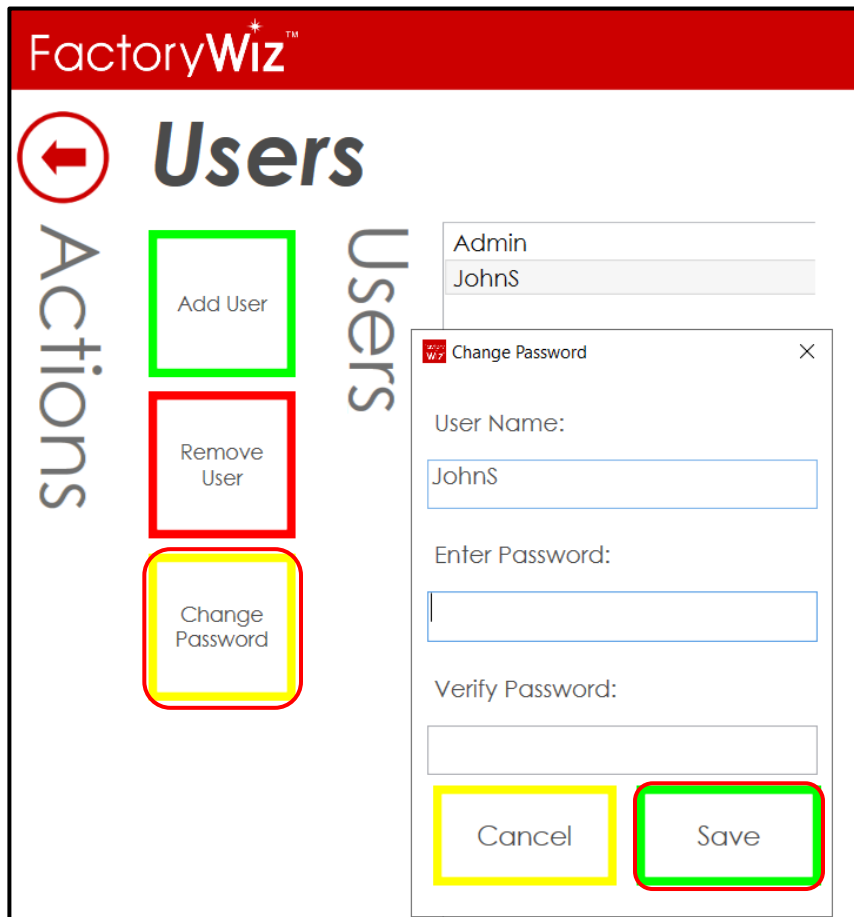


Remove a User

1. On the Users page, select a user in the User list.
2. Press **Remove User**.

Change a Password

1. On the Users page, select a user in the User list.
2. Press or click **Change Password**.
3. Type the new password in **Enter Password**.
4. Retype the same password in **Verify Password**.



5. Press or click **Save**.
6. To return to the main menu, click **Return to Main Menu**.



System Settings

System Settings apply to every port.

Set up an email server for the DNC system

Enter information about your email server in order for the DNC system to send e-mail notifications.

1. Press or click **System Settings** on the Configure menu.

2. Enter the **SMTP Server Address** for outgoing e-mail.

Simple Mail Transfer Protocol (SMTP) is an Internet standard for e-mail transmission. SMTP is used for outgoing e-mail. Most server names are written in the form "smtp.domain.com" or "mail.domain.com". For example, a Gmail account will refer to smtp.gmail.com.

3. If your SMTP connection is secured by SSL, select **Use SSL/TSL Encryption**.

4. Enter the **SMTP Server TCP Port**.

By default, SMTP uses TCP port 25.

5. Enter the **SMTP Return Address** for incoming e-mail.

6. If required by the SMTP server, enter the **SMTP User**.

7. If required, enter the **SMTP Password**.

The screenshot shows the 'System Settings' page for 'SMTP Email Server' in the FactoryWiz interface. The page has a red header with the 'FactoryWiz' logo. On the left, there is a vertical sidebar with a red arrow icon and the text 'SMTP Email Server'. The main content area contains the following fields and options:

- Server Address:
- Server TCP Port:
- Return Address:
- User (optional):
- Password (optional):
- Encryption: Use SSL / TLS
- Send Test To:

At the bottom of the form is a button labeled 'Test Email Settings'.

8. When you are done, press or click **Return to Main Menu**.



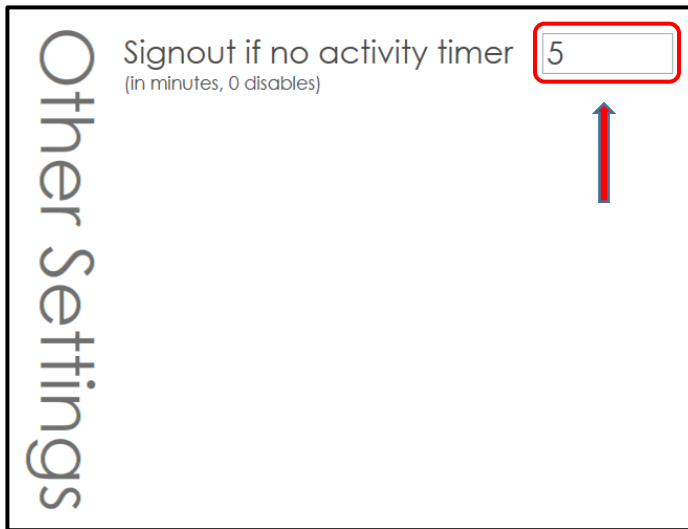
Your settings are saved automatically.

Note: The email recipient for each machine is defined in Item 3.51 *File received email recipient* in the machine configuration.

[Signout if no activity timer](#)

This timer will automatically log out the current user which will free up the floating Client license.

1. Press or click **System Settings** on the Configure menu.
2. Enter the timeout value (in minutes). If left blank, or is 0 is entered, then the timeout is disabled.



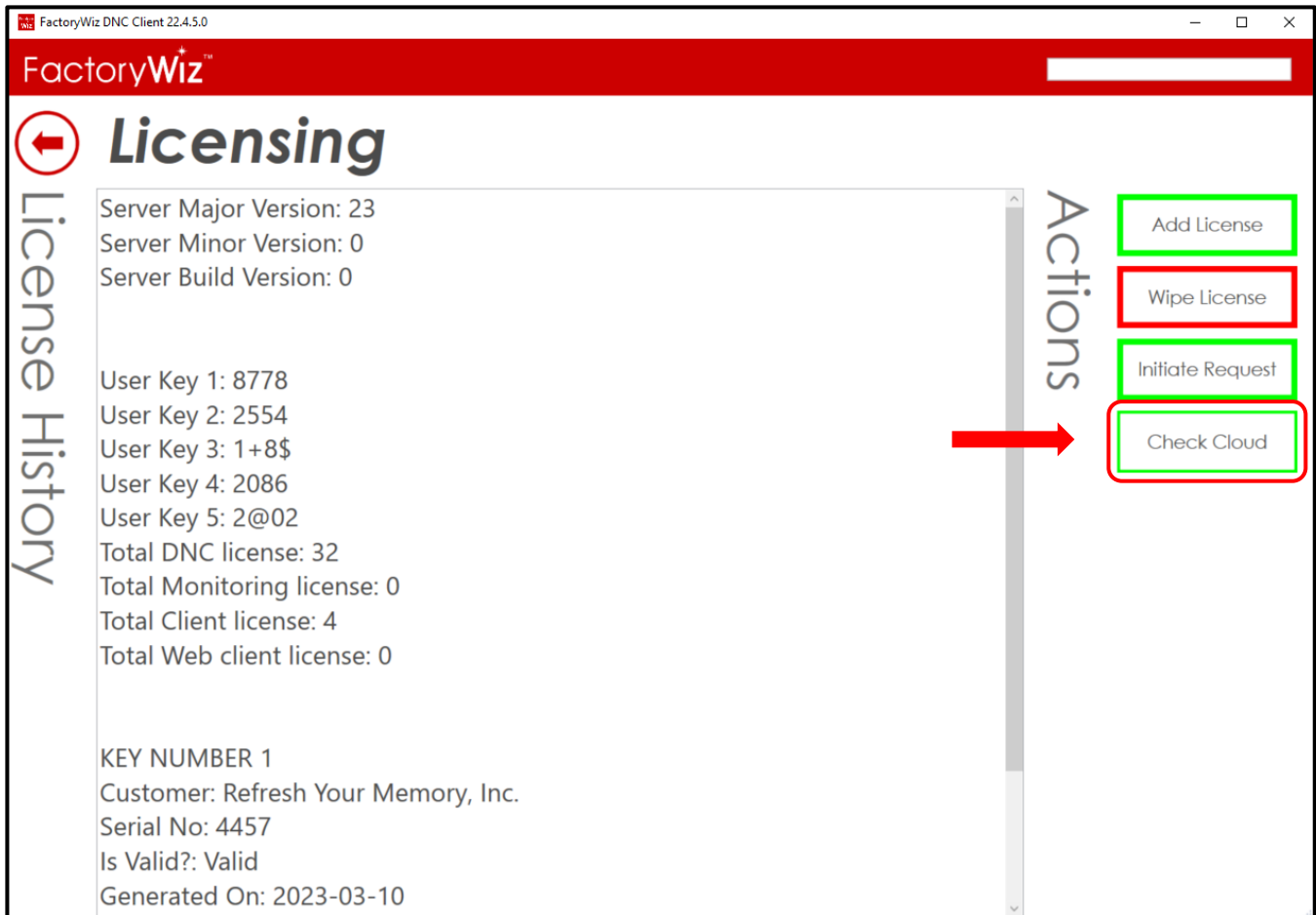
3. When you are done, press or click **Return to Main Menu**.



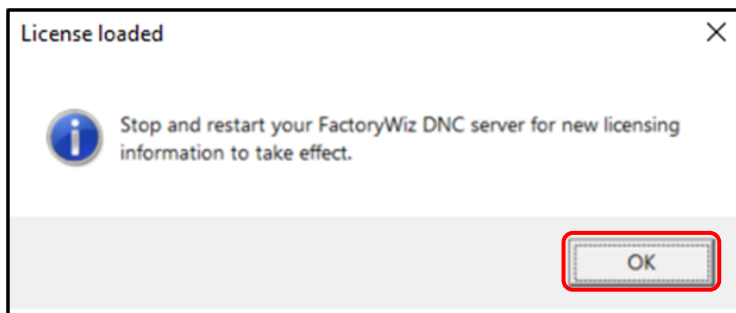
[Licensing](#)

FactoryWiz license information is contained in an external FactoryWiz DNC License (*.FWDNCkey) file. The license file is provided by FactoryWiz as part of the installation process. To add licenses after the initial installation, follow the procedure below.

1. Once you have downloaded at least one key, even if that key has expired, our system will know who that computer belongs to, and a **Check Cloud** button will appear on the Licensing Screen. Click **Check Cloud** to download your new key(s).



2. Once the license has been downloaded, you will see the message:

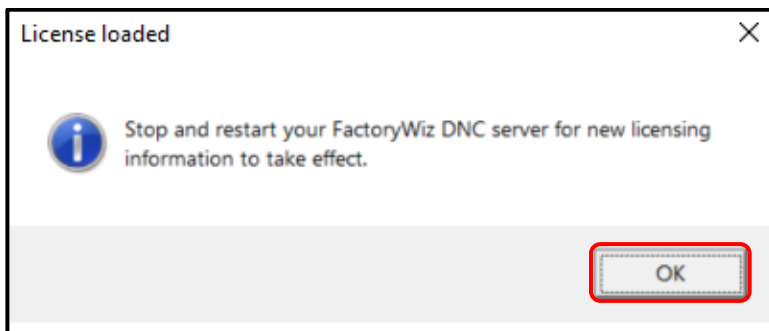


3. Press OK.

4. The new license will go into effect once the FactoryWiz DNC Server Application/Service is restarted.

Add a License: Systems Without Internet Access

1. You will have received a new license file by email. Download file and save to Desktop or Downloads.
2. Press or click **Licensing** on the Configure menu.
3. Press or click **Add License**.
4. Browse for FactoryWiz DNC License (*.FWDNCkey) file.
5. Select the file and click **Open**.
6. The new license information is displayed, and you are prompted to stop and restart your FactoryWiz DNC Server. Press or click **OK**.



7. The new license will go into effect once the FactoryWiz DNC Server Application/Service is restarted.

Wipe a License

Wiping a license replaces the current user keys and replaces them with new user keys. You will be required to obtain a new license file for the new user keys after the license is wiped.

Warning: Do not wipe the license unless you are having license problems that cannot be resolved by a FactoryWiz representative.

1. Press or click **Licensing** on the main menu.
2. Press or click **Wipe License**.
3. You are prompted to stop and restart your FactoryWiz DNC Server.
4. Press or click **OK** and then click **Return** to return to the Main menu.
5. Press or click **Restart Server**.
6. Press or click **OK** to stop the server and then restart it.
7. When the login page displays, enter your **Username** then **Password** and click **Log In**.
8. On the left side of the screen, click **Licensing**.
Five User Keys display at the top of the licensing information.

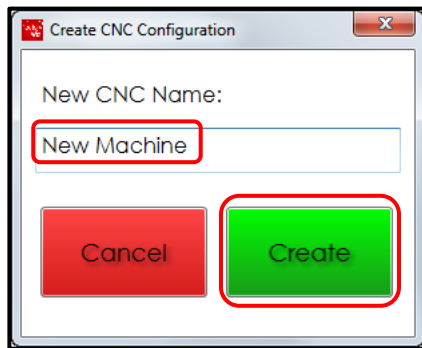
9. Copy User Key 1 through 5 by dragging your cursor to select all five User Keys and then click the right mouse button and select **Copy**.
10. Open a new e-mail and type your company name and License Request in the subject line.
11. Paste the license keys in the body of the e-mail.
12. Be sure to include all your contact information and send to licensing@factorywiz.com.
13. You will receive an e-mail with your license file and instructions on how to activate it.

Machines

The FactoryWiz installation includes a set of sample machines to get you started. Machine configurations can be added, duplicated, edited, and organized into groups.

Create a New Machine

1. Press or click **Create Blank Machine** on the Configure menu.
2. Enter the name for the new machine and press **Create**.



3. Update the configuration settings for the machine. A complete list of all configuration settings is provided in the Machine Configuration Options section of this document.

Be sure to define the following information:

- Port Type: Which type of port is this? For typical RS232 machines use "Standard".
- COM Port: The port number that will be connected to this CNC. You should not use the same COM port number for more than one machine.
- Baud Rate: The speed at which the CNC is configured to communicate.
- Send Directories: The folders to be searched when queuing or requesting files.
- Receive Directories: The folders where received files from the machine will be stored.

Note: When you highlight an option, information about that option is displayed at the bottom of the frame.

Basic Communication	
1.00 - Machine Group	B
1.01 - Port Type	Standard
1.02 - COM Port	COM222
1.03 - Device server IP address	
1.11 - Baud Rate	9600
1.12 - Data Bits	7
1.13 - Parity / Code Type	ASCII Even
1.14 - Stop Bits	2
1.15 - Handshake	XON/XOFF
1.16 - Toggle RTS and DTR signal	False
1.21 - End of block (EOB)	CRLF
1.31 - Retry interval	3
1.32 - Periodic reset interval	120
1.41 - Activity Log Size	10

1.01 - Port Type
Which type of port is this? For typical RS232 machines use "Standard".
WARNING: Be cautious not to leave a port set to "Diagnostic" long term. Only use this port type if you have been advised to do so for

4. When you are done, press or click **Return to Main Menu**.



5. When you are prompted to save your changes, press **Yes**.

Save before leaving? [X]

Do you wish to save these values before leaving?

Yes No Cancel

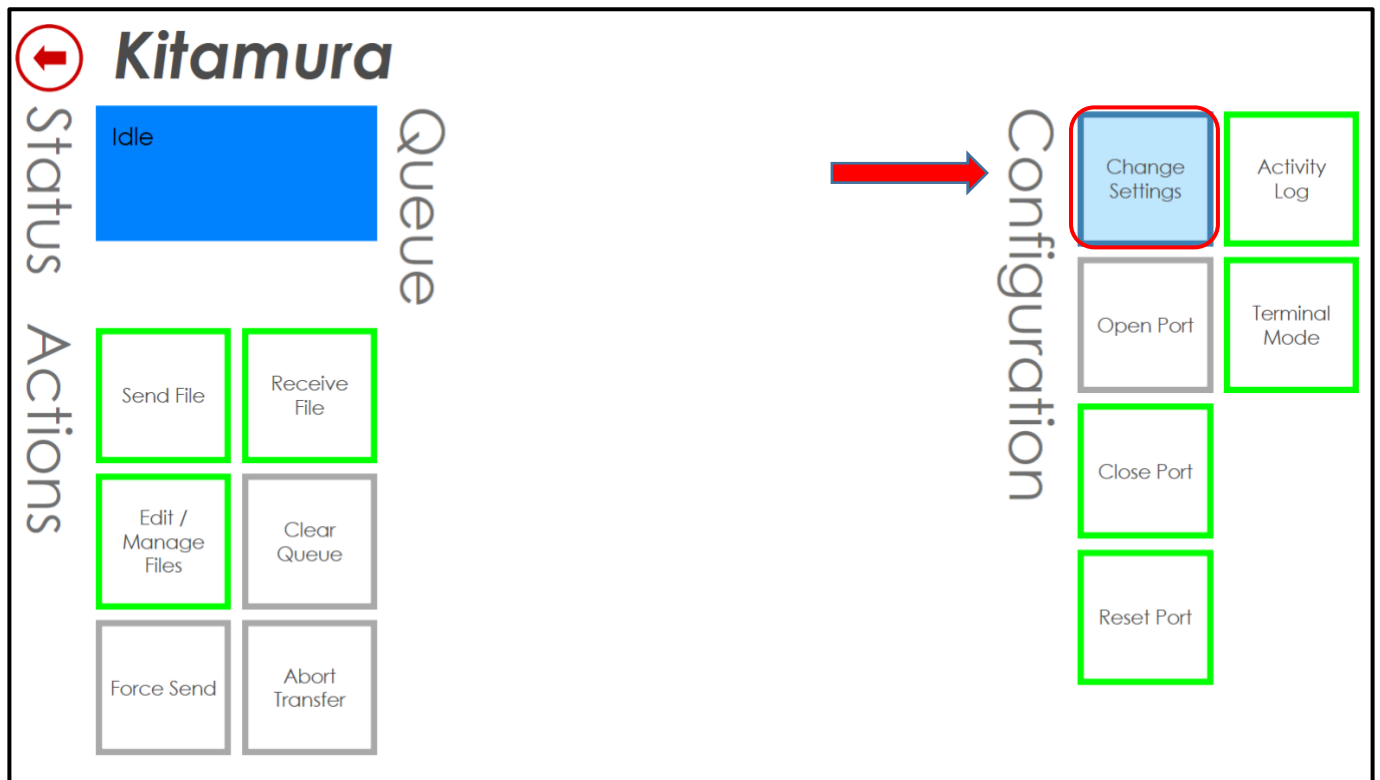
Rename an Existing Machine

1. Press or click a machine on the Main menu that you want to rename.
2. In the **Configuration** group, press or click **Change Settings**.
3. Click **Rename**
4. Enter new name. Click **Rename** again.
5. Restart FactoryWiz Server or Service to complete the process.

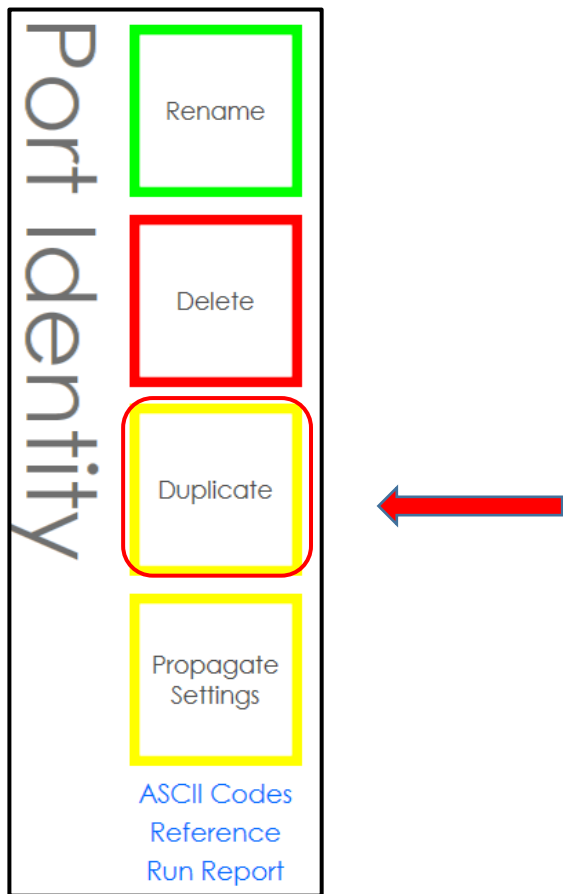
Duplicate an Existing Machine

It is often easier and more dependable to create a new machine by duplicating the configuration of an existing machine. The installation comes with basic machine-type samples. As an example, if your factory has Fanuc controls, select Kitamura from the sample machines that come with your installation.

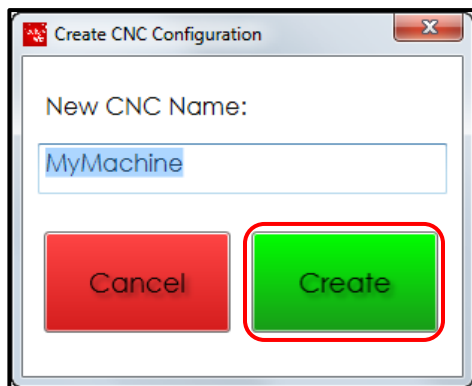
6. Press or click a machine on the Main menu that you want to duplicate.
7. In the **Configuration** group, press or click **Change Settings**.



8. Press or click **Duplicate**.



9. Enter the name for the new machine and press **Create**.



A configuration screen for the new machine opens. All the settings from the sample machine are copied to the new machine.

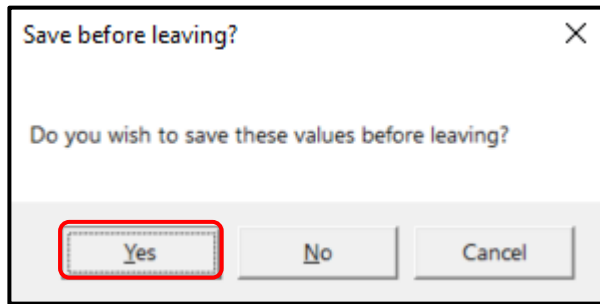
10. You need only to make basic changes such as:

- COM Port: The port number that will be connected to this CNC. You should not use the same COM port number for more than one machine.
- Baud Rate: The speed at which the CNC is configured to communicate.
- Send Directories: The folders to be searched when queuing or requesting files.
- Receive Directories: The folders where received files from the machine will be stored.

11. When you are done, press or click **Return to Main Menu**.



12. When you are prompted to save your changes, press, or click **Yes**.



Create a Machine Group

Machine groups are properties of machines. You define a machine group in the configuration settings of a machine. Once a group is defined, it can be selected for other machines.

Machine groups help you organize your CNC list by cell or department, making it simple to find or search for machines.

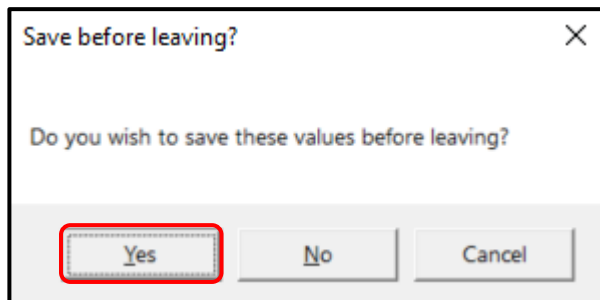
1. Press or click a machine listed on the Main menu.
2. Press or click **Change Settings**.
3. In the Basic Communication list, place the cursor in the **Machine Group** setting to highlight the name.
4. Enter a new name for the group.



5. Press or click **Return to Main Menu**.



6. When you are prompted to save your changes, press, or click **Yes**.

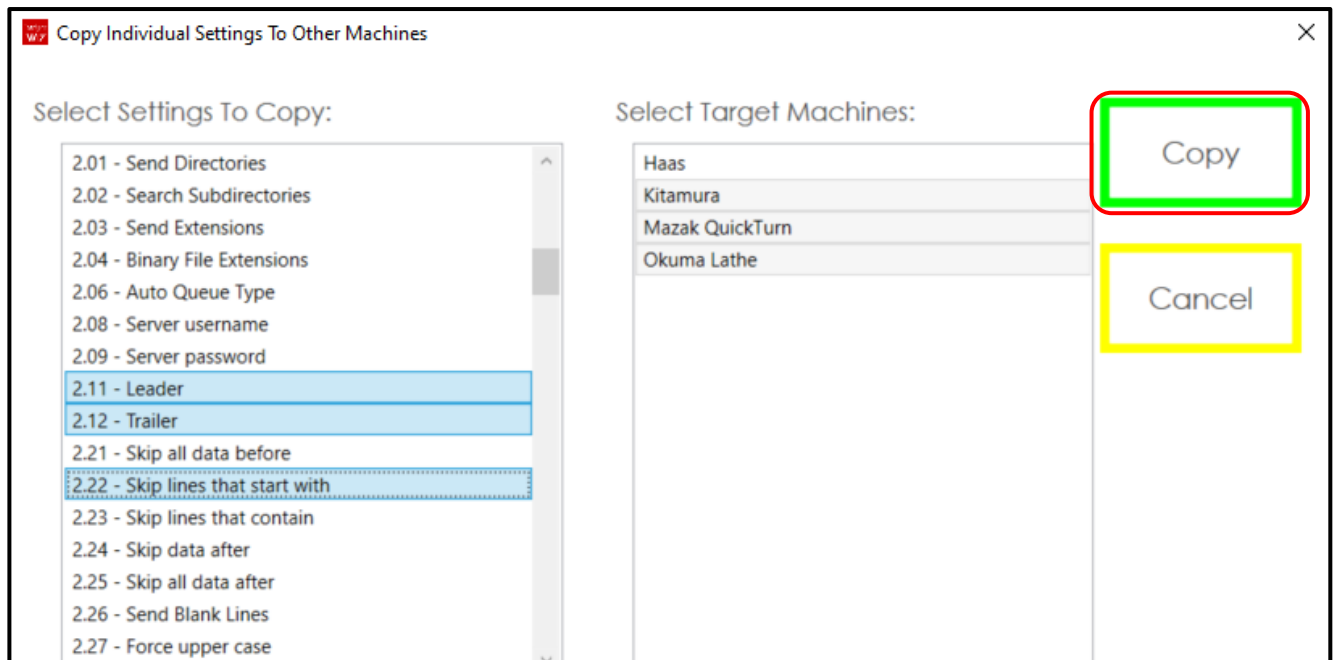


The new group will be added to the list of machine groups for all other machines. Be sure to review the machine visibility settings for other users defined in the system.

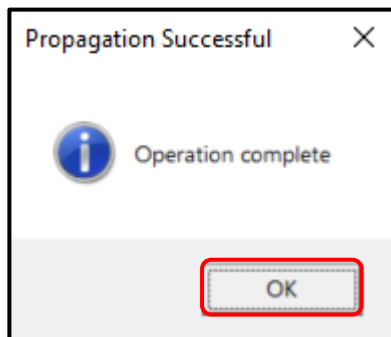
Propagate settings to other machines

The settings defined for one machine can be propagated to other machines. For example, if you create a new machine group or customize send and receive directories, you can propagate the changes to other machines without having to update each machine one by one.

1. Open a machine listed on the Main menu.
2. Press or click **Change Settings**.
3. Press or click **Propagate Settings**.
4. In the list of **Settings to Copy**, select all the settings you want to propagate.
Use the Ctrl or Shift keys to select multiple settings.
5. In the list of **Target Machines**, select all the machines that will receive the settings.



6. Press or click **Copy**.



7. Once the copy function has been completed, press OK.

Backup Settings

After customizing your system, it is good practice to make a backup of your machines and user configurations.

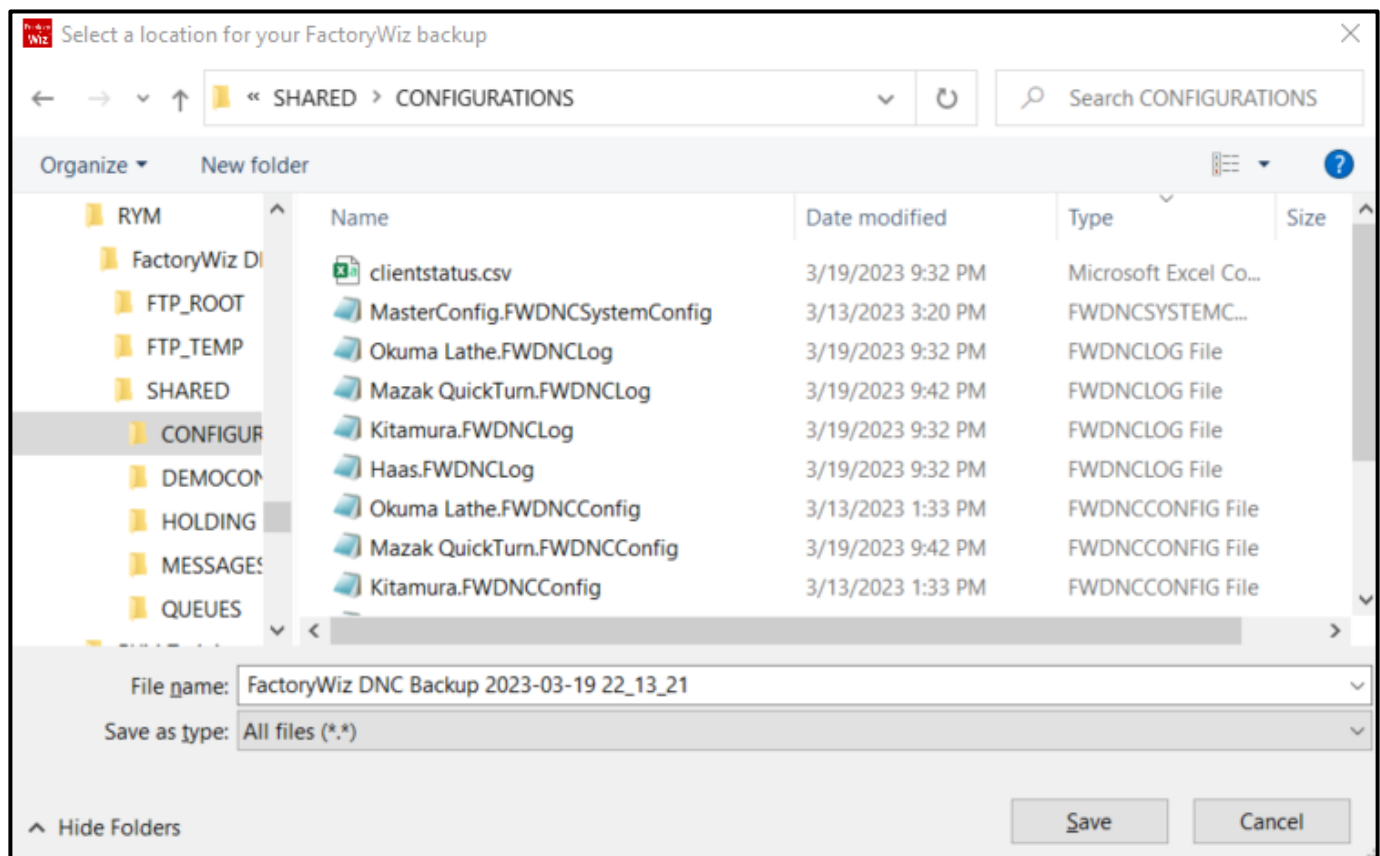
1. Press or click **Backup Settings** on the Configure menu.
2. Select the **Machines** you want to back up. By default, all machines are selected.

Like most Windows applications, you can use the Ctrl and Shift keys to select multiple machines.

3. Select the **Options** you want to back up. By default, all options are selected.
4. Press or click **Backup**.
5. Browse to the folder location where you want the backup file to be saved.
6. Press **Save**.

A folder is created at the location you specified that contains backup files for the items you selected.

When you install an updated version of FactoryWiz DNC or install the software on a new computer, you can copy these files to the FactoryWiz DNC installation folder in the SHARED\CONFIGURATIONS directory.



DNC Operations

FactoryWiz DNC supports multiple simultaneous file transfers, drip-feed capability, mid-program restart, remote requests, Mazatrol transfers, and more. Support for Ethernet machines means you can use FactoryWiz DNC to transfer to machines acting as FTP Clients, FTP Servers, or Microsoft SMB servers.

The structure of FactoryWiz DNC separates message and configuration directories so you can use Windows security features to further lock down access without manually manipulating each file.

Files that are not accessible to your DNC system can automatically be imported from local drives and removable media without risk of interruption. Spend less time moving one-time-use files into approved program directories, and never interrupt a drip-feed by accidentally removing a USB stick again.

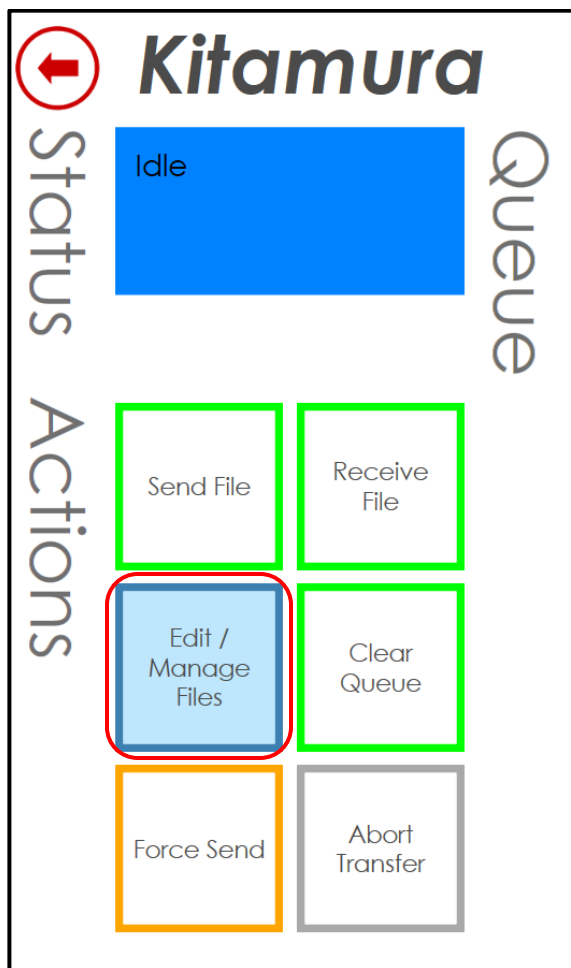
FactoryWiz DNC can manage files going to and from USB drives for non-attached machines, ensuring that newly modified files get sent to the appropriate inbox folder for proper review

File Management

Each machine has actions you can use to manage your files.

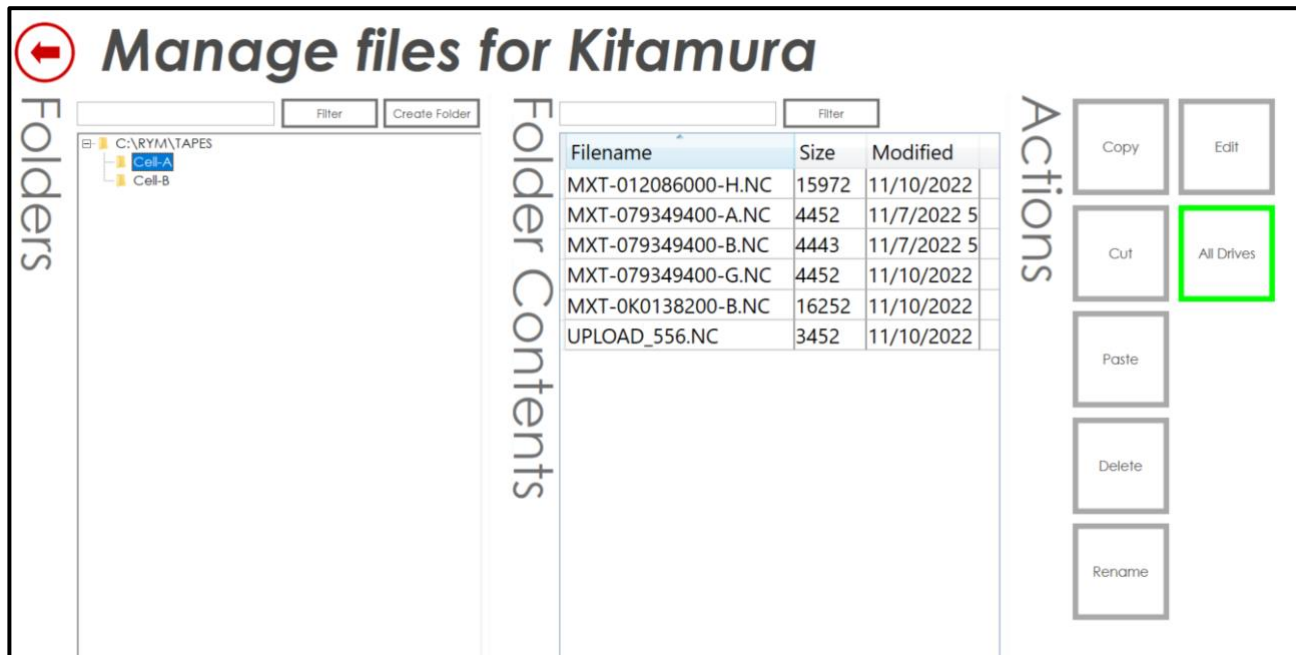
View Files

1. Select a machine on the Main menu.
2. Press or click **Manage Files**.

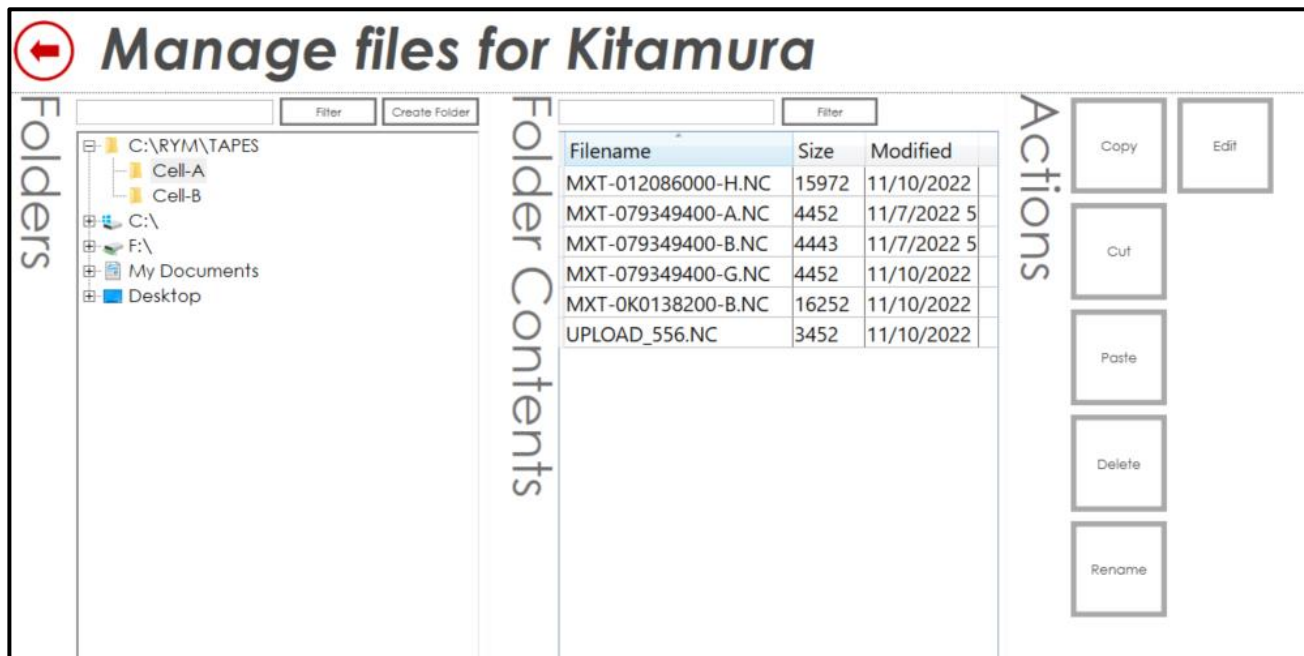


- 3. Choose a folder in the **Folders** list. The list displays the folder or folders defined as the Send Directories in the machine configuration.

All files in that folder are displayed in the Folder Contents list.



- 4. To display all folders on all drives, press **All Drives**.



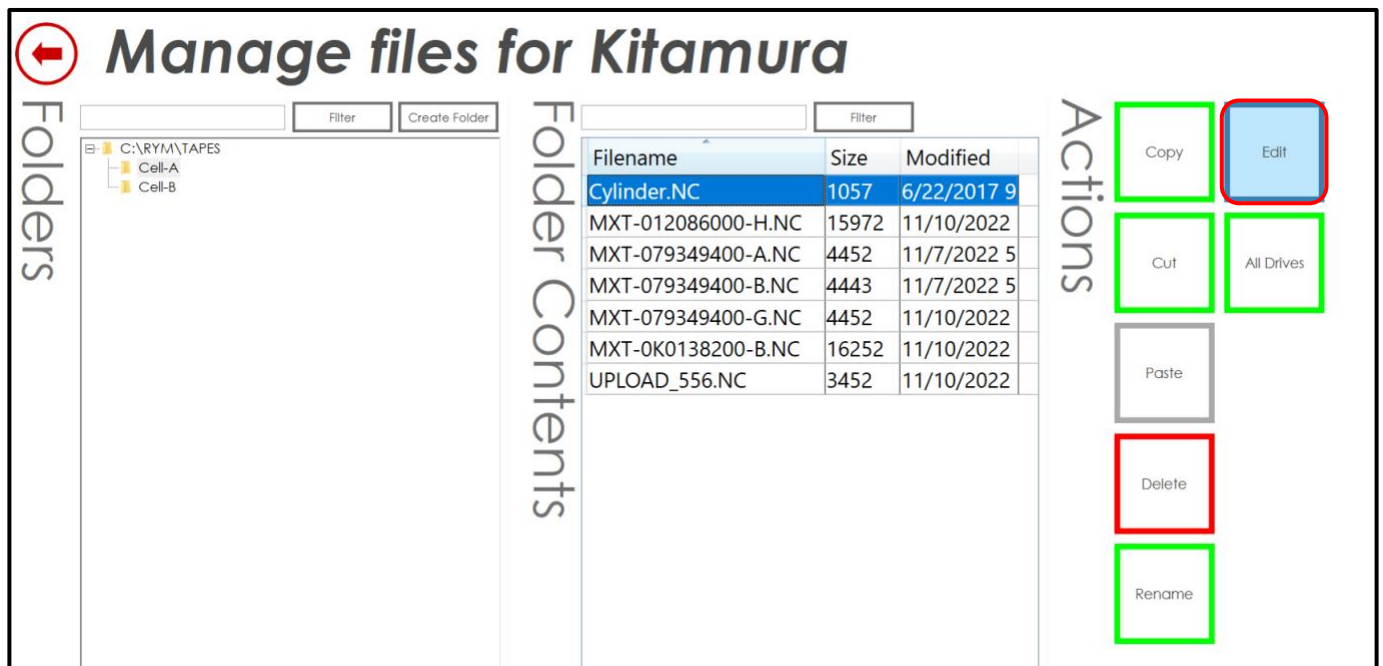
Edit Files

The FactoryWiz Editor is designed specifically for editing G-code. It features:

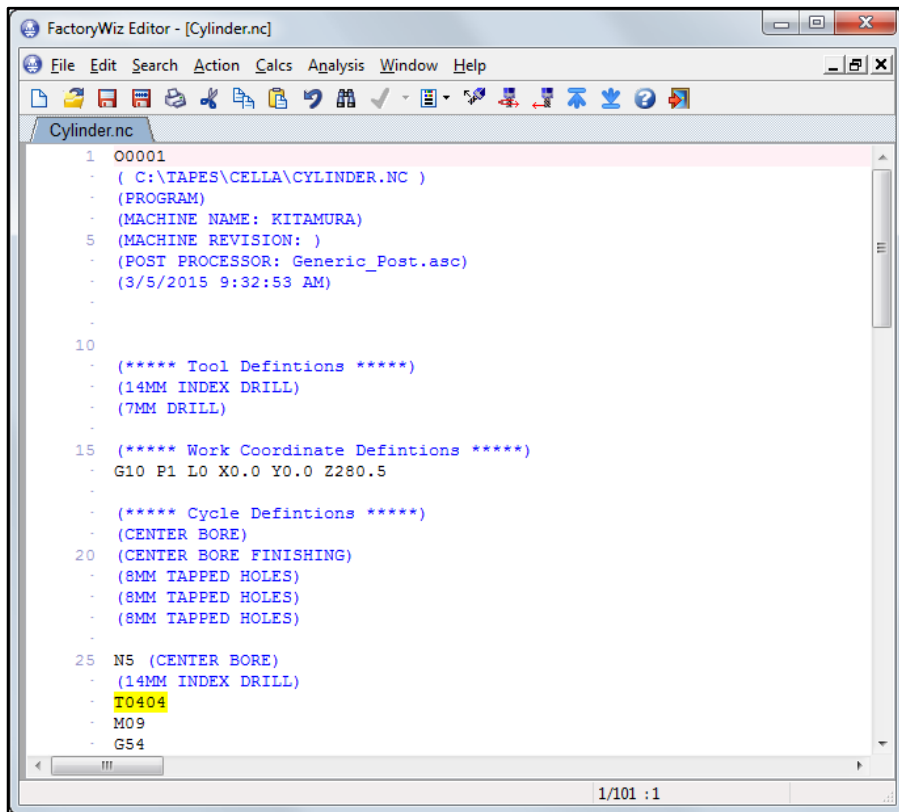
- Powerful side-by-side file compare features
- Coordinate transformations – translation, rotation, scaling, and mirroring
- Extract Program File – Separate by O number, split a file into multiple files
- Sequence number maintenance – renumber, resequence, N-blocks
- Several calculators designed for CNC programmers
- File analysis – Min/max values, cycle times, and more
- Powerful search capability offering saved searches, find and replace
- Superior performance when editing large files
- Content based syntax coloring and font highlighting
- “View-only” mode prevents changing files
- File locking improves integrity over a network
- Customizable toolbars, colors, fonts, and other items

The FactoryWiz Editor lets you edit G-code in a separate screen without leaving the FactoryWiz DNC environment.

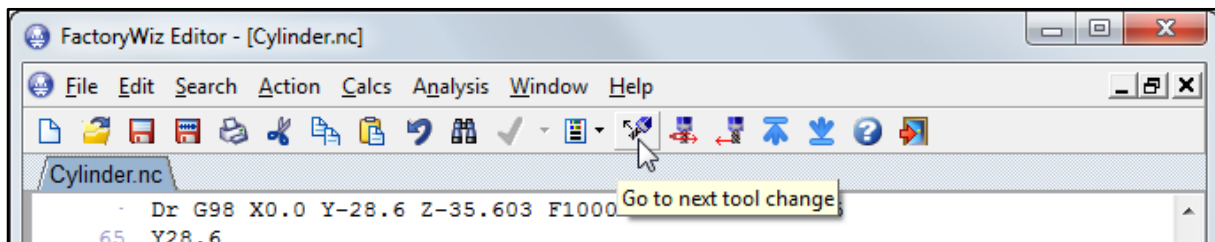
1. Select a file in the **Folder Contents** list that you want to edit and press **Edit**.



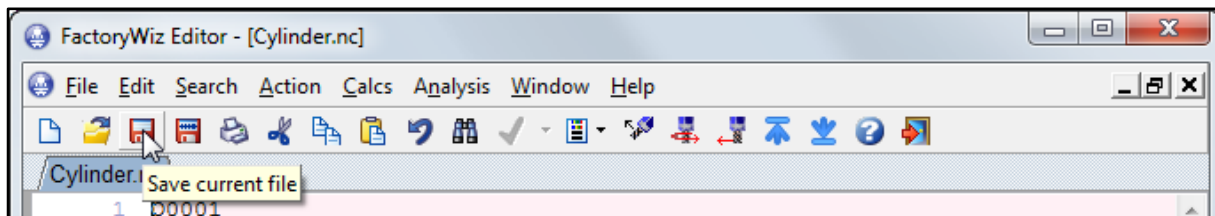
The FactoryWiz Editor displays the NC code for the file.



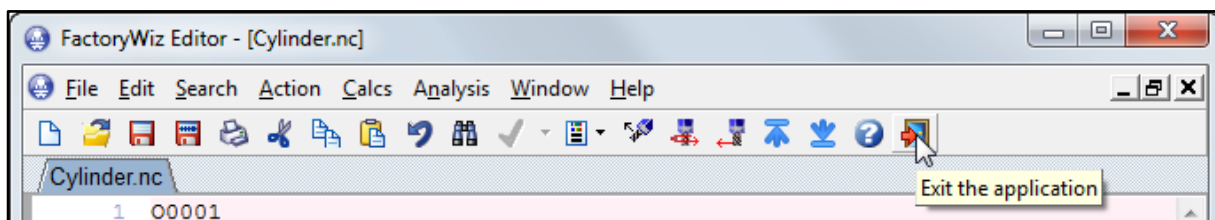
- 2. Use the functions in the Editor to edit the NC code. Commands on the toolbar let you jump to the next tool change, next speed change, next feedrate change, top of file and end of file.



- 3. When you are done, save the file.



- 4. Click **Exit** to return to FactoryWiz.



Copy and Paste Files

1. Select a file in the **Folder Contents** list and press **Copy**.
2. Optionally, choose another folder in the Folders list.
3. Press **Paste** to paste the copied file.

Rename Files

1. Select a file in the **Folder Contents** list and press **Rename**.
2. Type the new name.

Delete Files

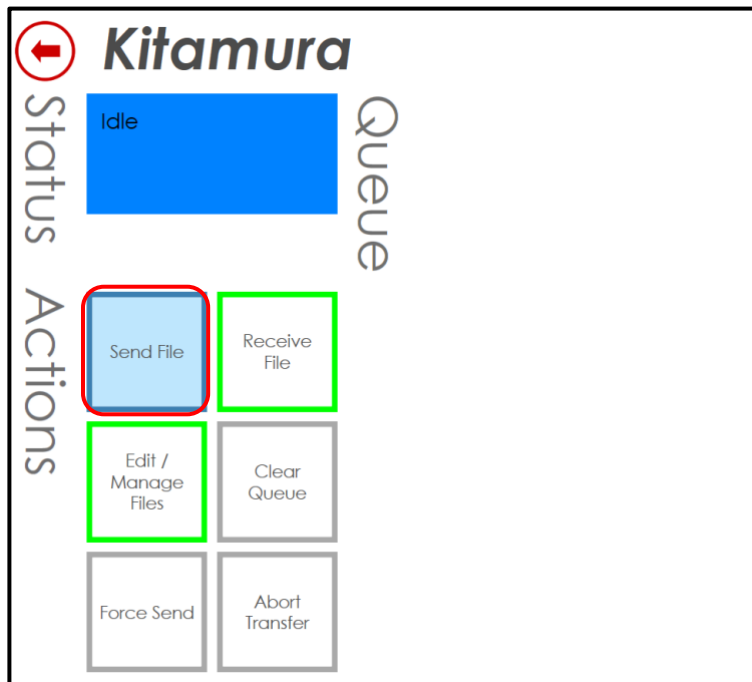
1. Select a file in the **Folder Contents** list and press **Delete**.

File Transfer

FactoryWiz makes it easy to send and receive files between the system and CNC machines.

Queue a file to send to a machine

1. Open FactoryWiz DNC Client. Login if required.
2. Select a machine on the Main menu.
3. Press or click **Send File**.



4. The **Folders** list displays the folders defined in the Send Directories option for the machine. If necessary, select a folder.
5. In the list of **Folder Contents**, select the file that will be sent to the machine.

Add file to queue for Kitamura

Folders

C:\RYM\TAPES

- Cell-A
- Cell-B

Folder Contents

Filename	Size	Modified
MXT-0K0138200-B.NC	16252	11/10/2022
MXT-012086000-H.NC	15972	11/10/2022
MXT-079349400-A.NC	4452	11/7/2022 5
MXT-079349400-G.NC	4452	11/10/2022
MXT-079349400-B.NC	4443	11/7/2022 5
UPLOAD_556.NC	3452	11/10/2022

Actions

- Send File (Once)
- Drip Feed (Once)
- Loop Mode
- Find Manually

Location in queue:

- Queue as last file
- Queue as next file
- Toolbreak Edit Before Sending

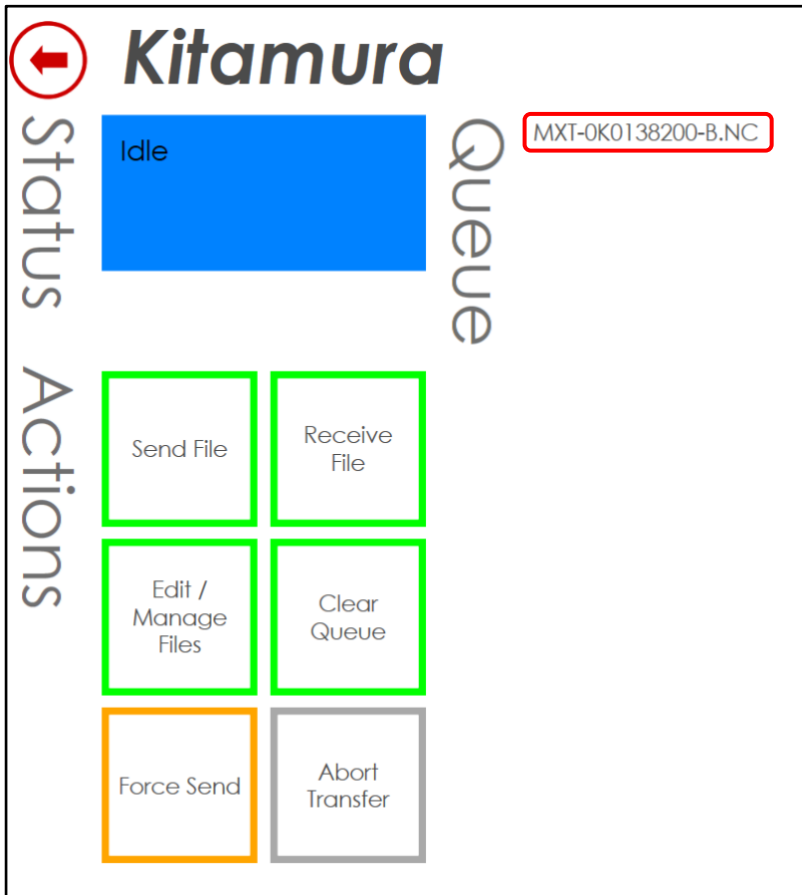
6. Choose the location in the queue for the file:

- Queue as last file
- Queue as next file

7. Choose one of the following actions:

- **Send File (Once):** Send the file to the queue. This action will use the Automatic Timeout setting in the machine configuration. If a file transfer is stopped for more than this number of seconds, the system will automatically cancel the file transmission.
- **Drip Feed (Once):** Send the file to the queue and disable the Timeout Setting in the machine configuration. Use drip feed for programs that exceed the memory of the machine.
- **Loop Mode:** Keep sending the same file until the queue is manually cleared.
- **Find Manually:** Only users with permission to *Queue From Anywhere* can use this action. Otherwise, files can only be sent from the send directory. Click Find Manually and then browse to the location of the file on a USB or hard drive.

The file is added to the Queue list.



Depending on how the machine is set up to receive files, go to the machine and read the program into memory.

Remove files from the queue

Files can be removed from the queue two ways:

- Press Clear Queue to remove all files from the queue
- Right-click on a file in the queue and then choose Remove

If you need to stop the transfer of a file, press **Abort Transfer**.

Restart a file transfer after a tool break

When a tool breaks at the machine and interrupts a file transfer, the file can be restarted from the point where the interruption occurred.

1. At the machine, make a note of the block in the NC code where the transfer was interrupted.
2. In FactoryWiz DNC Client, select the machine in the Main menu.
3. Press **Send File**.
4. Select the file to add to the queue.
5. Select **Toolbreak Edit Before Sending**.

Add file to queue for Kitamura

Folders

- C:\RYM\TAPES
 - Cell-A
 - Cell-B

Folder Contents

Filename	Size	Modified
Cylinder.NC	1057	6/22/2017 9
UPLOAD_556.NC	3452	11/10/2022
MXT-079349400-B.NC	4443	11/7/2022 5
MXT-079349400-A.NC	4452	11/7/2022 5
MXT-079349400-G.NC	4452	11/10/2022
MXT-012086000-H.NC	15972	11/10/2022
MXT-0K0138200-B.NC	16252	11/10/2022

Actions

- Send File (Once)
- Drip Feed (Once)
- Loop Mode
- Find Manually

Location in queue:

- Queue as last file
- Queue as next file
- Toolbreak Edit Before Sending

6. Press Send File (Once).
7. A temporary copy of the file is made, and the file is opened in the Editor. Make any changes to the file in the new window.

Add

Folders

- C:\RYM
 - Cell-A
 - Cell-B

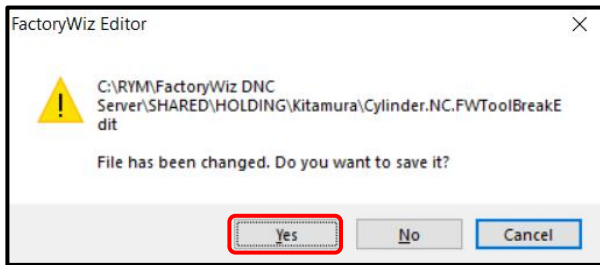
FactoryWiz Editor - [Cylinder.NC.FWToolBreakEdit]

```
G09
G92X-.05+H003 Y-.05+H004
M99
N0172
G08
G92XY
G0Y+[H005]
G80X
G92X-[H002/2]
G0X-.05M5
Y0
G0X-[H005]
G80Y-
G92Y[H002/2]
G0Y.05M5
X-.05
G09
G92X.05+H003 Y-.05+H004
M99
N0173
G05
G92XY
G0Y+[H005]
G80X
G92X-[H002/2]
G0X-.05M5
```

Location in queue:

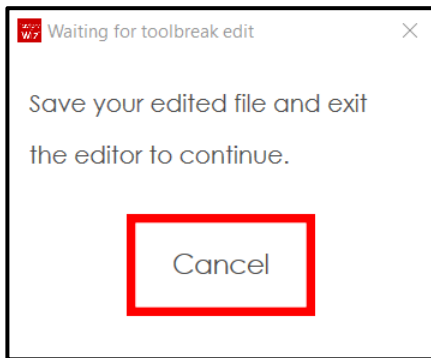
- Queue as last file
- Queue as next file
- Toolbreak Edit Before Sending

8. Save the file and close the Editor.



The file is added to the queue.

Note: The Editor must be closed before returning to the DNC window. If the Editor is not closed first, the system prompts you to save your edits. If the Cancel button is depressed, the file will not be queued.



Auto Queue Files (Drop Box)

A directory can be set up to automatically send files to a machine.

1. Select a machine on the Main menu.
2. Press or click **Change Settings**.
3. In Item 2.05 **Auto queue directory**, enter the name of a unique directory for this machine.

For example:

- Send Directories is set to C:\TAPES\Outbox\MachineABC
- Receive Directories is set to C:\TAPES\Inbox\MachineABC
- Auto Queue Directory is set to C:\TAPES\Queue\MachineABC

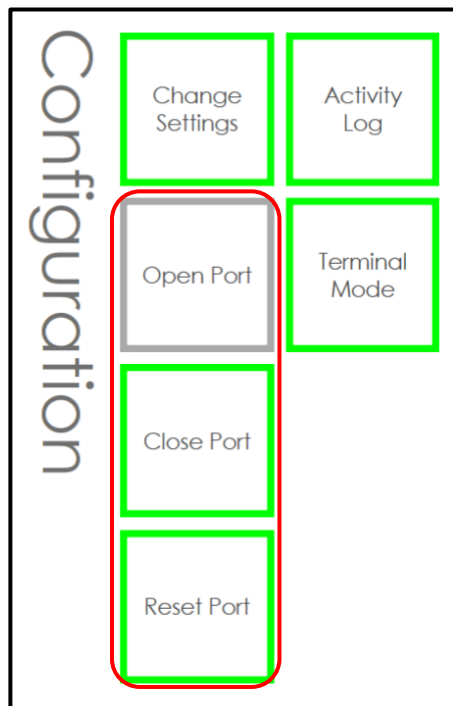
4. Press or click **Return to Main Menu**.
5. When prompted, save your changes.
6. In Windows Explorer, drag a copy of a file into the queue directory.

Every few seconds, FactoryWiz reads the folder. When it finds a file in this directory, it automatically queues this file for the machine. After the file is queued, the system will delete the file from the Auto queue directory.

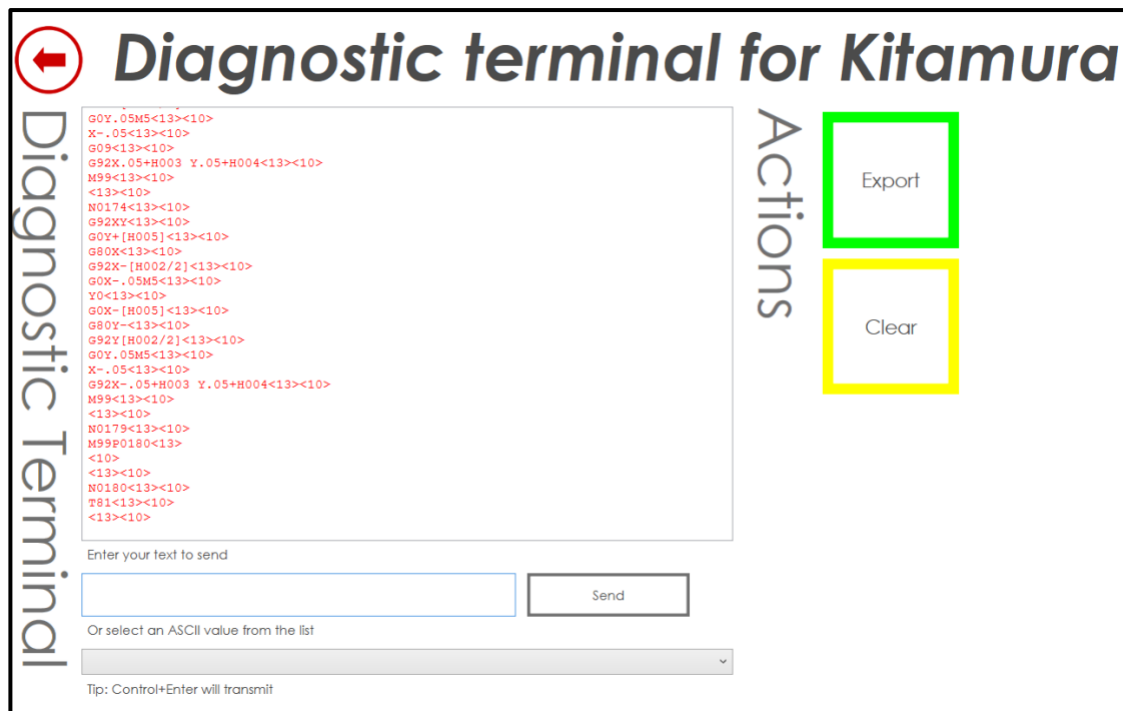
Manage Ports

Typically, ports are managed only when there is a communication problem. When a connection is lost, use Close Port, Open Port and Restart Port to restore communication.

Note: When the Retry Interval for the machine is set to 0, the port will have to be reopened manually.



To test if the correct Baud rate is used for the machine, press Terminal Mode to open a diagnostic terminal for the machine.



Machine Configuration Options

Basic Communications

1.00 - Machine Group

Under which group heading should this machine appear? Use this setting to organize your machines and limit access.

1.01 - Port Type

- Standard – RS232 machines
- FTP Server – Ethernet connection
- FTP Client – Ethernet connection
- Focas – Ethernet connection
- Heidenhain TCP – Ethernet connection
- UNC – Ethernet connection
- UNC_Intermediate – Ethernet connection
- Demo – Used for training
- Diagnostic – Used for troubleshooting. Should only be used with FactoryWiz tech.

1.02 - COM Port

Select the COM port which will be connected to this CNC. You should not use the same COM port number for more than one CNC.

1.03 - Device server IP Address

The device server IP depends on the port type you are connecting to.

Standard – Moxa or serial device IP Address

The IP address of your serial device server. This will be used to ping your device server prior to performing a port open (speeds startup), and to periodically verify the device server is still turned on. If you leave this blank, communication will work, however status checking will not be performed. Always leave blank for USB connected devices and internal COM ports.

UNC Intermediate – Machine IP Address

The IP address of your CNC. This is only needed for this machine type if you are making use of the TCP DPRNT function – otherwise leave blank.

UNC – Machine IP Address

The IP address of your CNC. This is only needed for this machine type if you are making use of the TCP DPRNT function – otherwise leave blank

FTP Client – CNC IP Address

The IP Address of your CNC

FTP Server – CNC IP Address

The IP Address of your CNC

Focas – CNC IP Address

The IP Address of your CNC. This will be used as the primary authentication method, regardless of username and password settings.

1.04 – TCP port

The TCP port number depends on the Port type.

FTP Client – 21

The TCP port corresponding to the FTP server on your CNC. Normally 21.

FTP Server – 21

The TCP port corresponding to the FTP server on your CNC. Normally 21.

Focas – 8193

The TCP port corresponding to the FOCAS interface on your CNC. Normally 8193.

1.06 - UNC return path

The folder where FactoryWiz DNC will retrieve files from - either on the CNC, or a network location the CNC can access. This may or may not be the same as the UNC target.

1.07 - UNC path username

If the folder is on a different computer and you are not using domain users to authenticate, you may enter the username here.

1.08 - UNC path password

If the folder is on a different computer and you are not using domain users to authenticate, you may enter the password here.

1.09 – DPRNT TCP Port

The TCP port corresponding to the DPRNT output on your machine, if applicable. If not in use, leave at 0.

1.11 - Baud Rate

Select the baud rate (speed) at which the CNC is configured to communicate. This MUST match the speed used by the CNC.

1.12 - Data Bits

Select the data bits in each byte. For most machines this is 7.

1.13 - Parity / Code Type

Select the parity used by the CNC. For most machines this will be ASCII Even.

1.14 - Stop Bits

Select the stop bits used by the CNC. For most machines this will be 1 or 2.

1.15 - Handshake

Select the handshake type used by the CNC. For most machines this will be XON/XOFF (also known as DC Codes or Software handshaking). RTS/CTS handshaking (also known as Hardware handshaking) is less common.

1.16 – Toggle RTS and DTR signal

This is an experimental setting to address when a serial device does not register the correct handshake setting. Do not use with Quatech devices.

1.21 - End of block (EOB)

Select the character(s) required by the CNC for End of Block. If unsure, try CRLF (Carriage Return + Line Feed).

1.31 - Retry interval

How often should the system attempt to reconnect? Tip: Higher values will mean a longer wait after a connection is turned on before a file transfer can be accomplished. Lower values will slow the system down as connections are attempted. We recommend starting with a value of 3 (minutes).

1.32 - Periodic reset interval

How often should the connection be reset? Tip: When using Moxa units, we recommend a value of 120.

1.41 - Activity Log Size

What is the maximum size (in kb) for the activity log? (Recommended size is 256)

1.51a – Machine Path 1 Name (Focas port type)

Give a display for PATH 1 on your machine (only useful on multipath machines)

1.51b – Machine Path 2 Name (Focas port type)

Give a display for PATH 2 on your machine (only useful on multipath machines)

1.51c – Machine Path 3 Name (Focas port type)

Give a display for PATH 3 on your machine (only useful on multipath machines)

1.51d – Machine Path 4 Name (Focas port type)

Give a display for PATH 4 on your machine (only useful on multipath machines)

1.51e – Machine Path 5 Name (Focas port type)

Give a display for PATH 5 on your machine (only useful on multipath machines)

1.61 – Username (FTP Client port type)

When establishing an FTP connection with your CNC, this username will be used.

1.62 - Password (FTP Client port type)

When establishing an FTP connection with your CNC, this password will be used.

1.63 – Alternate FTP directory format (FTP Server port type)

Use this with Mitsubishi based controls which requires an IIS compatible directory format.

1.65 – FTP passive mode (FTP Client port type)

Turn on to enable PASSIVE mode connections instead of ACTIVE mode.

1.66 – FTP folder to access (FTP Client port type)

When establishing an FTP connection with your CNC and not desiring to access the root directory, define the appropriate starting folder here.

1.67 – FTP client alternate mode (FTP Client port type)

Uses an alternate method of establishing an FTP connection to your machine. Implemented originally for Fagor controllers.

Sending Options

2.01 - Send Directories

Folders to be searched (allowed) when queueing or requesting files. One per line. UNC paths preferred.

2.02 - Search subdirectories

Search folders underneath the send folder when sending files.

2.03 - Send Extensions

File extensions that should be displayed / searched when adding files to the queue. One per line such as ".NC".

2.04 - Binary File Extensions

File extension which indicates a transfer should be performed in raw binary (often used for exec tape transfer). Note: affects receiving of binary files also.

2.05 - Auto queue directory

Files in this directory will automatically be queued, transferred to the CNC, and then deleted. FactoryWiz scans this folder every few seconds. When it finds a file in this directory, it automatically queues this file for the machine. After the file is queued, the system deletes the file from the Auto queue directory.

2.06 – Auto queue type

When a file is queued via the Auto queue directory, should it be queued as a standard (to memory) file transfer or as a DNC (drip-feed) transfer?

2.08 – Server username

If folders exist on another computer and you are not using domain authentication, you may enter the username here.

2.09 – Server password

If folders exist on another computer and you are not using domain authentication, you may enter the password here.

2.11 - Leader

Data to be appended before the start of the program. Custom characters can be entered as ASCII values inside <>. Example: A Carriage-Return character has an ASCII value of 13 and can be entered as <13>. A NULL character can be entered as <00>.

2.12 - Trailer

Data to be appended after the end of the program. Custom characters can be entered as ASCII values inside <>. Example: A Carriage-Return character has an ASCII value of 13 and can be entered as <13>. A NULL character can be entered as <00>.

2.21 - Skip all data before

Any data up to and including the specified character will be omitted from the file transmission.

2.22 - Skip lines that start with

Any lines starting with this character will be omitted.

2.23 - Skip lines that contain

Any lines containing this character will be omitted, regardless of where they appear on the line. Tip: Use a % to avoid sending duplicate percent signs if one exists in your leader and another in your part program.

2.24 - Skip data after

Any data including and after the specified character on a given line will be omitted.

2.25 - Skip all data after

Any data including and after the specified character for the remainder of the file will be omitted.

2.26 - Send Blank Lines

Include blank lines when sending files.

2.27 - Force upper case

When transmitting data, convert all lower-case characters to UPPER-CASE characters.

2.28 - Mask characters

Remove these characters when sending data. Example: <0><18><20>

2.29 - Characters to substitute when sending

When sending replace one character with another. Use numeric ASCII values in <>, with a semi-colon after each pair. Example: <13>=<00>;

2.31 - Automatic timeout

If a file transfer is stopped for more than this number of seconds, the system will automatically cancel the file transmission.

2.32 - Send without XON timeout

Send the program after (x) seconds if no XON is received. Blank or zero disables the feature.

2.33 - Hardware handshake to release file

When using hardware handshake, which line should be used to trigger the release of the program?

2.34 - Advance queue on reset

When a safety timeout occurs, should the next file be loaded? When set to 'No' FactoryWiz DNC will return to the beginning of the interrupted transfer instead.

2.35 – Process CALL statements

Use this feature to merge two or more files together prior to transferring into your CNC. Sometimes used in place of standard subprogram calls for drip-feeding. If not using this feature, it is recommended that you leave this setting disabled to prevent parsing all your files unnecessarily. If using this feature, set to NO NESTING to prevent parsing each CALLED file for further CALL statements.

2.36 – Permit shortcut files to be followed

If a shortcut file is queued, should the file be sent never, sent only if the target files is in the permitted directory, or always sent?

2.41 - Ready To Send (RTS) String

String to be output to the CNC when a transfer is ready. For most machines leave blank.

2.42 - Ready To Send (RTS) Interval

Number of seconds between each RTS transmit. Leave at 0 or blank to disable.

2.43 - RS491 protocol enabled

Should the DNC system respond to RS491 control codes? Not needed for most machines.

2.44 - Repeatedly send XON signal

Should the DNC system send an XON character every two seconds? Leave at false for most machines. Mostly for Haas controllers with a particular software bug.

2.51 - Character delay

After every character, the software will pause for (x) milliseconds. If experiencing buffer overflows on a machine that does not perform handshaking, try adding a delay. This setting is ignored when using device driver handshaking.

2.52 - Block delay

After every line, the software will pause for (x) milliseconds. If experiencing buffer overflows on a machine that does not perform handshaking, try adding a delay. This setting is ignored when using device driver handshaking.

2.53 - Character delay (first block)

Time (in milliseconds) to pause between each character on the first line only.

2.54 - First block delay

After the first line only, the software will pause for (x) milliseconds. If experiencing buffer overflows on a machine that does not perform handshaking, try adding a delay. This setting is ignored when using device driver handshaking.

2.55 - Send buffer level

Adjusts the size of the transmit buffer for the RS232 device. Normal is appropriate for most situations, however high baud rates and slow networks may benefit from the LARGE value. To solve handshake problems, try using SMALL.

2.61 – Files to purge from UNC folder (extensions)

When transferring files to a UNC port, any existing files with the listed extensions will be deleted from the folder. **USE WITH CAUTION – YOU WILL NOT BE ABLE TO GET THESE FILES BACK!**

2.62 – Ordered files to be followed

When the CNC requests a directory list and the files are queued, should FactoryWiz add a prefix such as 001- to order the files appropriately? This must be set to FALSE when using FTP with Brother machines.

2.71 - UNC target flush interval

Files in the outbox will be deleted after the specified number of hours. Put a number here. 0 or blank signifies the feature is turned off.

2.72 – Renaming file when sending

When transferring, rename the file. Use %filename% and %ext% as variables. Blank disables renaming.

2.73 - Direct to search when sending

When clicking Send from the Client, should it skip showing the folder tree and only show search? For large directory structures on slow networks.

2.81 – Program to launch before transmission

The full path to the program which will be invoked before a file is sent.

2.82 - Program to launch after transmission

The full path to the program which will be invoked after a file is sent.

2.83 – Force temporary copy

All files queued through the Client should have a temporary copy generated for transmission. Useful for automated scripts.

Receiving Options

3.01 - Receive Directories

Folder where received files from this machine will be stored. UNC paths preferred. Tip: Usually, you will want to use only one directory per machine.

3.03 - Use CNC defined filename only

When receiving a file via FTP, leave the original filename defined by the CNC intact.

3.04 – Keep files separate when receiving (FOCAS)

When receiving a file via Focas, separate files.

3.11 - Program identifier 1

Whatever text comes after this string will be used for the filename when files are received automatically.

3.12 - Program identifier 2

Whatever text comes after this string will be used for the filename when files are received automatically, but only if the first program identifier string is not present.

3.13 - Default Filename

If no program ID is present, this will be used as a fallback filename.

3.14 - Receive filename prefix

Prefix to add to automatically generated filenames.

3.15 - Receive filename suffix

Suffix to add to automatically generated filenames.

3.16 - Auto rename type

When receiving a file with the same name as an existing file in the receive directory, should the system overwrite the old file, rename the old file, or employ version numbering?

3.18 - Receive filename truncate string

The filename will automatically remove anything including and after this string. For example, if the first line received from the CNC is "O1111(COMMENT)" and you enter "(" as the truncate string, the file would be saved as O1111.

3.21 - Receive timeout

If the system detects inactivity for (x) seconds, a received file will be deemed complete (in seconds). 3 is the default, but if files are being cut off before completion try increasing this setting.

3.22 - Auto code recognition

When receiving data, automatically detect EIA versus ISO code.

3.23 – Group files into folders

When this option is activated, any files received into the UNC intermediate folder within a 10 second period will be placed into the same folder underneath the inbox folder.

3.31 - Ignore data before first end-of-block

When receiving data, should any data before the first detected EOB be discarded?

3.32 - Ignore data after last end-of-block

When receiving data, should any data after the last detected EOB be discarded?

3.33 - Receive blank lines

Should blank lines be saved when received?

3.35 - Ignore Fadal checksum

You should always select TRUE if using a Fadal controller.

3.41 - Mask characters

Remove these characters when receiving data. Example: <0><18><20>

3.42 - Characters to substitute when receiving

When receiving replace one character with another. Use numeric ASCII values in <>, with a semi-colon after each pair. Example: <13>=<00>;

3.43a – Receive suffix for machine path 1 (Focas port type)

Once received, files will have the configures suffix appended so you can tell apart path 1 vs path 2 files, etc.

3.43b – Receive suffix for machine path 2 (Focas port type)

Once received, files will have the configures suffix appended so you can tell apart path 2 vs path 1 files, etc.

3.43c – Receive suffix for machine path 3 (Focas port type)

Once received, files will have the configures suffix appended so you can tell apart path 3 vs path 1 files, etc.

3.43d – Receive suffix for machine path 4 (Focas port type)

Once received, files will have the configures suffix appended so you can tell apart path 4 vs path 1 files, etc.

3.43e – Receive suffix for machine path 5 (Focas port type)

Once received, files will have the configures suffix appended so you can tell apart path 5 vs path 1 files, etc.

3.51 – File received email recipient

If you enter an email address here, the recipient will get notified every time a file is sent back from this CNC. Ensure that your SMTP mail server settings are entered on the System Settings page for this to work. Multiple email recipients may be defined with addresses separated by a semicolon.

3.52 – Receive confirmation program ID

Enter an identifier here to enable sending a confirmation back to the CNC after every received program. If blank, feature is disabled. Normal format would be something like "O7111(FILE CONFIRMATION – DELETE WHEN READ)" or any other text that should constitute the top line of the file.

3.61 - DPRNT filename

Used to identify which outputs from the CNC are DPRNT related.

3.62 - DPRNT save directory

Where should DPRNT data which is not intended for FactoryWiz be saved (if different from the standard receive directory)?

3.63 - DPRNT save type

Specify the method by which DPRNT files are named and saved. To create a new file for each DPRNT received, select "Auto Date/Time". To continue adding to the same DPRNT file specified by the CNC, select "Append". To allow the CNC to overwrite existing files, select "Overwrite". Using "Process" will look for the APPEND- command within the file contents and use that for the filename. The APPEND- command is controlled by setting 4.41. If "Process" is selected but no command is specified in 4.41, APPEND- will be assumed.

3.70 – Auto receive files

When this option is activated, any files received into the UNC return folder will be moved to the Master return folder. This option is ONLY active when the UNC out and UNC return folder are set separately in setting 1.05 and 1.06. This option is destructive – files in the return folder will be moved, not copied.

Remote Commands

4.02 - Request for file command

Used to remotely add a file to the queue.

4.03 - Request for file command (drip feed)

Used to remotely add a file to the queue (for drip-feed with timeouts disabled).

4.04 - Prefix to assume for requested files

This prefix will be appended to the beginning of the file name for all requested files.

4.05 - Suffix to assume for requested files

This suffix will be appended to the end of the file name for all requested files.

4.06 - Search inside Files

Look for the requested program identifier inside files in the send directory. This will slow down the search substantially and should not be used with folders containing many files and subdirectories.

4.07 - File not found message

This is the text which will be returned to the CNC when a file cannot be found. Enter EOB as ASCII characters such as <13><10>.

4.08 - Remote request clears queue

Enable this option if you only intend to have one item in the queue at a time. Will clear out accidentally queued entries automatically.

4.09 – Request truncate string

This string will be ignored when it comes after a remote request command.

4.11 - Request to save command

Used to remotely define the name of a file about to be sent to the DNC software. Rarely used.

4.12 - Command to ignore

Used to ignore a line that should not be processed as a command.

4.21 - Launch a program command

Using this command will launch a pre-defined program.

4.22 - Launch a program target

The full path to the program which will be invoked by the launch command.

4.23 - Launch program arguments

Configure whether additional information is passed to the launched program. Pass the CNC name, additional arguments from remote command, neither, or both.

4.31 - Redirect command

Using this command will cause all subsequent remote commands to be forwarded to another device.

4.32 - Redirect default target

When the port opens, automatically begin redirecting commands to this target. Generally used with barcode readers.

4.41 – Append command

Using this command will cause all subsequent text to be saved into a designated file. Use in the format of DPRNT[APPEND-FILENAME.TXT]” to start, and “DPRNT[APPEND-]” to cease. Be sure to cancel the command when finished to ensure subsequent commands are recognized.

4.42 – Request for directory command

Using this command will cause the system to generate a list of available files and queue it up for this CNC. The operator may then press RECEIVE at the CNC in order to get the list. If search subdirectories are turned on or there are many files, the CNC could run out of the room before getting the entire list. Be sure to configure setting 4.43 also when using this command.

4.43 – Request for directory program ID

When using the request for directory command, a file will be sent to the CNC with a particular number. Enter the desired ID here, such as "O7000". Only used in conjunction with setting 4.42

4.50 – Remote request searches subfolders

This controls if a remote request will cause searching under subfolders, including a remote FTP get command. Separate from 2.02 which controls subdirectories for client access.

Mazatrol Options

5.01 - CMT protocol enabled

Use CMT protocol to transfer via CMT IO, required for Mazatrol programs on T32/M32 and older controllers.

5.02 - CMT controller type

Select the type of Mazak controller (if using CMT) so that file names can be properly parsed.

5.03 - CMT response delay

Slower CNCs may require additional delay (in milliseconds) when initializing the session to communicate properly.

5.04 - CMT block delay

Slower CNCs may require additional delay (in milliseconds) mid-file to communicate properly.

5.11 - CMT file extension

All files with the designated extension will be treated as CMT files.

5.12 - CMT name to use when receiving

Should the system use the first program number found in the received file, the first program comment found in the received file, or a filename based on the date and time?

5.13 - CMT file prefix

When receiving CMT files, this will be appended to the automatically generated name.

5.14 - CMT file suffix

When receiving CMT files, this will be appended to the automatically generated name.

5.15 – Use Mazatrol filename for UNC received

Will search the file for a Mazatrol filename and rename the file accordingly. You may need to rename to a number in order to return to the machine, though.

Monitoring Options

This section applies only to customers who have purchased and implemented FactoryWiz Monitoring system, a separate product. All other customers can skip to next section.

6.01 - Monitoring method

This will determine which method, if any, will be used to collect data for FactoryWiz CNC Monitoring.

6.02 - FactoryWiz Monitoring Name

If the name of this machine in FactoryWiz Monitoring differs from the name in FactoryWiz DNC, indicate the correct FactoryWiz Monitoring name here.

6.11 - DPRNT start of cycle command

When received from the CNC, FactoryWiz will consider the machine in-cycle.

6.12 - DPRNT end of cycle command

When received from the CNC, FactoryWiz will consider the machine completed with a cycle.

6.13 - Paused command

When received from the CNC, FactoryWiz will set the machine to a paused status.

6.15 - Part ID command

When received from the CNC, FactoryWiz will set the current part name.

6.21 - DPRNT alarm command

When received from the CNC, FactoryWiz will consider the machine in an alarm state. Append text after the alarm command to indicate which alarm.

6.22 - DPRNT batch name command

When received from the CNC, FactoryWiz will store the following data in the batch field.

6.23 - DPRNT batch quantity command

When received from the CNC, FactoryWiz will store the following data in the batch quantity field.

6.24 - DPRNT custom double command

When received from the CNC, FactoryWiz will store the following data in the custom double field.

6.25 - DPRNT custom integer command

When received from the CNC, FactoryWiz will store the following data in the custom number field.

6.26 - DPRNT custom text 1 command

When received from the CNC, FactoryWiz will store the following data in the custom text 1 field.

6.27 - DPRNT custom text 2 command

When received from the CNC, FactoryWiz will store the following data in the custom text 2 field.

6.28 - DPRNT custom text 3 command

When received from the CNC, FactoryWiz will store the following data in the custom text 3 field.

6.29 - DPRNT email command

When received from the CNC, FactoryWiz will send an email.

6.30 - Idle reason command

When received from the CNC, FactoryWiz will set the machine's idle reason.

6.31 - Idle commit command

When received from the CNC, FactoryWiz will save the existing idle time and begin a new period.

6.32 - Job command

When received from the CNC, FactoryWiz will store the following data in the job field.

6.33 - Mode command

When received from the CNC, FactoryWiz will store the following data in the mode field.

6.34 - Operator name command

When received from the CNC, FactoryWiz will store the following data in the operator name field.

6.35 - Part counter command

When received from the CNC, FactoryWiz will update the machine resettable part counter field with the specified value.

6.36 - Reference runtime command

When received from the CNC, FactoryWiz will update the reference runtime field with the specified value.

6.37 - Sequence command

When received from the CNC, FactoryWiz will update the current sequence field with the specified value.

6.38 - Tool command

When received from the CNC, FactoryWiz will update the current tool field with the specified value.

6.39 - Parts per cycle command

When received from the CNC, FactoryWiz will update the number of parts produced by each program cycle with the specified value.

6.40 – Variable command

When received from the CNC, FactoryWiz will record a variable's value. Requires the command, the variable number, an equal sign, and the variable. Example: DPRNT[FWMV600=-0.123] would set variable 600 to -0.123 in the FactoryWiz Monitoring database.

6.51 – Filename sets PART ID in monitoring

When enabled, the filename will be set as the monitoring Part ID each time a file is transferred to a machine.

6.61 - Haas MDC poll interval

When using Haas MDC, how many seconds should elapse between queries?

6.62 - Haas collect O number

When using Haas MDC, should the O number be collected and placed in the Part ID field? When set to True, the O number may still be overwritten by a DPRNT command. When set to False, the O number will not be collected at all, and the ID must come from a DPRNT or other method.

6.63 - Haas determines MDI state

When using Haas MDC, software differentiates between MDI state and standard Idle / Running?

6.64 - Haas disable MDC command

When using Haas MDC, this remote command will disable MDC polling temporarily. Use this before sending a file from the CNC to the computer to prevent accidental interference from polling.

6.65 - Haas disable MDC time

When using the 6.64 Haas MDC disable command, how many minutes should pass before polling is resumed?

6.66 - Haas MDC poll reference time variable

When using Haas MDC, should the system look in a macro variable to find the reference runtime? Requires program modification. Enter a number, or 0 to disable.

Barcode Reader

7.01 - Barcode Port Type

Which type of port is this? For typical RS232 ports use "Standard".

7.02 - Barcode COM Port

Select the COM port which will be connected to this barcode reader. This must not be the same number as is used for the CNC.

7.03 - Barcode Baud Rate

Select the baud rate (speed) at which the barcode reader is configured to communicate. This MUST match the speed used by the barcode reader. Most barcode readers default to 9600 baud.

7.04 - Barcode Data Bits

Select the data bits in each byte. Most barcode readers default to 8.

7.05 - Barcode Stop Bits

Select the stop bits used by the barcode reader. Most barcode readers default to 1.

7.06 - Parity / Code Type

Select the parity used by the barcode reader. For most barcode readers this will be ASCII None.

Appendix A: Importing settings from PC-DNC Plus system

Settings from a PC-DNC Plus system can be imported into FactoryWiz DNC.

1. On the **Windows Start** menu, click **All Programs > FactoryWiz DNC Server > Import PC-DNC Plus Config.**

A dialog box will open with two paths displayed:

- The current path to the original PC-DNC Plus configurations
 - The current FactoryWiz Server location.
2. If the PC-DNC Plus location is not correct, browse to the correct folder.
(This could be a backup location for PC-DNC Plus, or even a USB storage device)
 3. Make sure the box is checked to remove any existing FactoryWiz DNC configurations.
(When doing the original install, sample machines are entered)
 4. Click **Start**.

Appendix B: Remote Request Procedure

Machines with full keyboards

It is best to consistently use the same program number for the request program on all machines.

In this sample, I have chosen O7000.

FactoryWiz DNC Configurations for Remote request using the O7000 program:

4.02- Request for file command: (GET-

4.03- Request for file command (drip feed): (DNC-

4.04- Prefix to assume for requested files: LEAVE BLANK

4.05- Suffix to assume for requested files: LEAVE BLANK

Remote program should look like this:

```
%  
O7000(GET-FILENAME.EXT)  
M30  
%
```

Basic remote request operation steps:

Edit the O7000 request program on the machine.

Output the O7000 request program.

Read the requested program into machines memory.

Appendix C – Downloads

[Moxa Device Driver \(3.2\)](#)

[Moxa Device Search Utility](#)

[Factorywiz Software](#)