

SuiteFactory™ Operator's Quick Guide

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Starting SuiteFactory

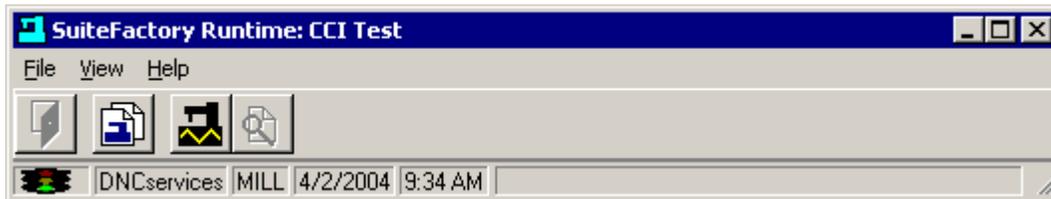
Start SuiteFactory by **Clicking on this icon** on you desktop!



Login by entering your assigned **User Name** and **Password**, if any.



Click OK!



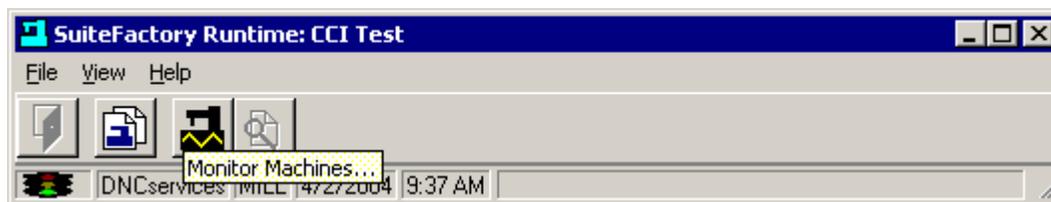
The main SuiteFactory screen appears.

Selecting a file to send to a CNC controller

There are at least three ways to select the file you need depending upon whether or not you know what the file name is or whether you have to search for it based on other information..

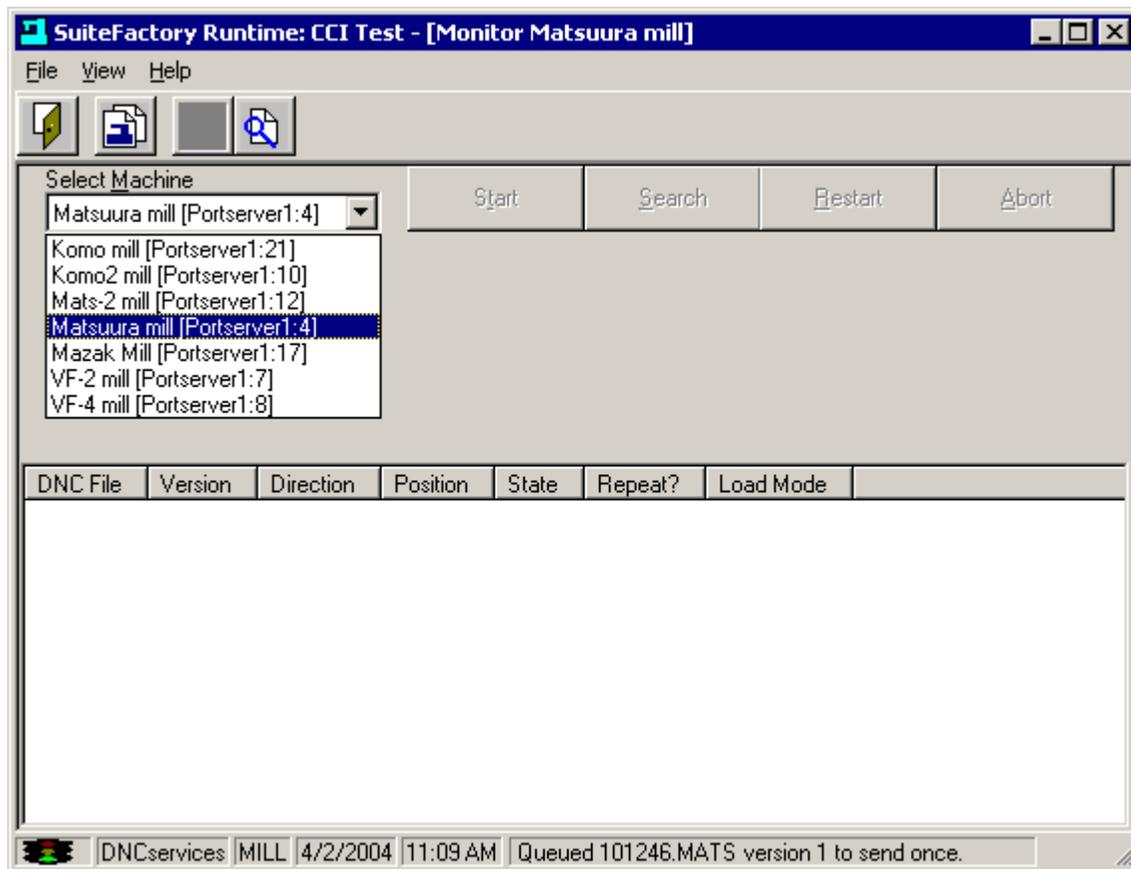
Note! When moving the mouse arrow over a button its function is described in a small yellow box on your

screen. Look at the figure below. The mouse was moved over the 2nd button from the right  and the description, **Monitor Machines...** appeared. Also the various pull-down menus, File, View, Configure and Help contain the same functions as the button as well as other less used selections.



Click on the **Monitor Machines** button !

The Machine Monitor screen appears. **Click on the Select Machine** pull-down list to choose the machine to which you are sending the file such as the Matsuura mill in this example.

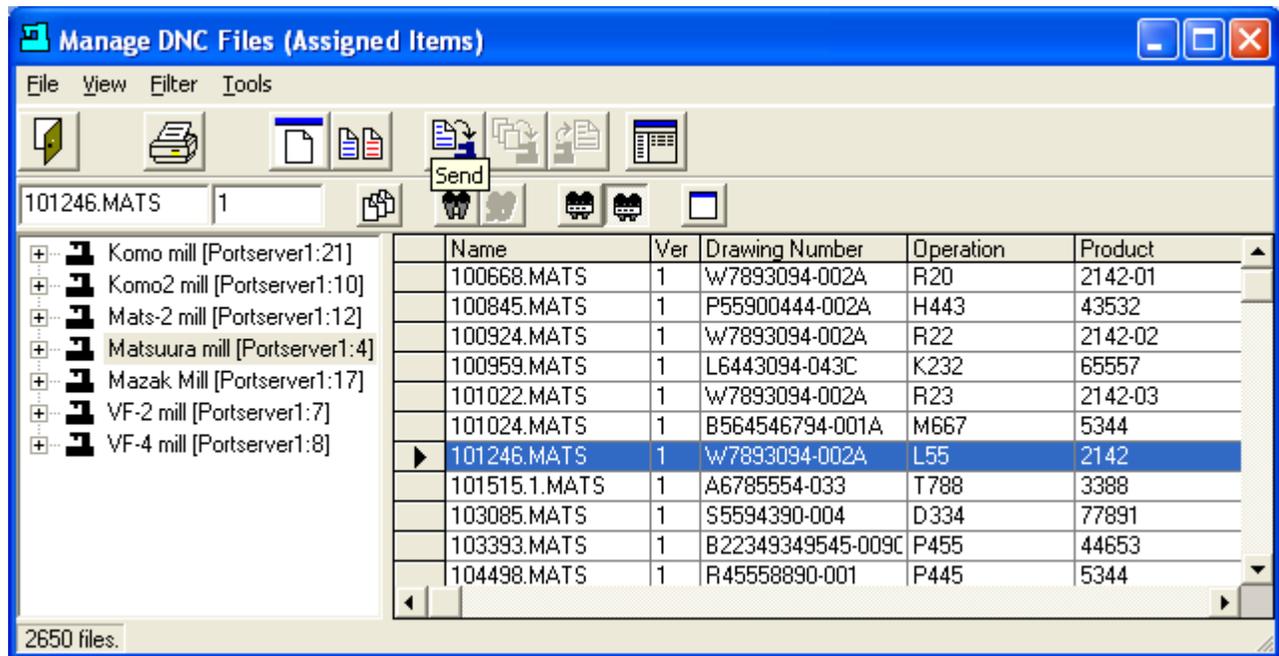


Monitoring turns on. Any files queued up previously will appear in the white field. In this example nothing is on the queue.

Click on the **Manage DNC Files** button .

The following screen appears. This view shows your list of authorized machines on the left side of the screen and the DNC files assigned to that machine on the right. If this is not similar to what you see, read Appendix D below for a discussion on Views.

Above the list of files are various headings. See Appendix A for detailed descriptions.



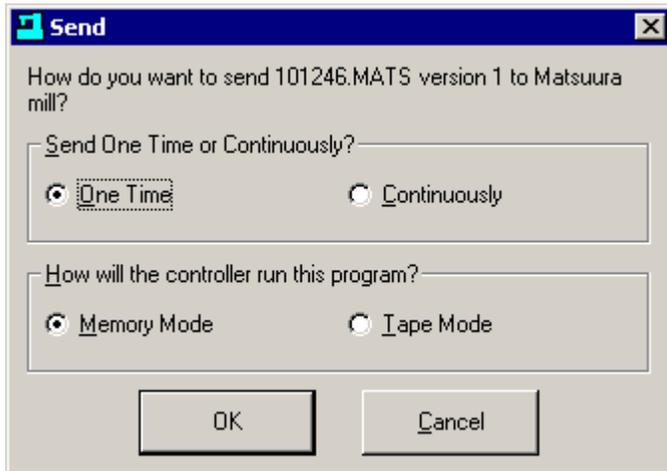
At this point, if you see the name of the file in the list you can just select it by a click of the mouse, or you can scroll down until you find your file. The files are listed in alpha-numeric order. You can change the ordering by clicking on the heading above the column. If you click on the name heading it will sort your files in reverse alpha-numeric order. If you click on a date heading once it will sort by the date/time in ascending order. If you click again it will sort in descending order. This is true of most but not all of the columns. You cannot sort by version, for example.

OR

You can start typing the name in the white field above the machine list. As you type the pointer will quick-search down the list for the closest match. When you see your file you can select it by clicking on it or just keeping typing the entire name.

Before you send the file to the CNC, you can click on other buttons to print it, view it or compare it side-by-side to another file. To send the selected file to the selected machine, **click on Send**.

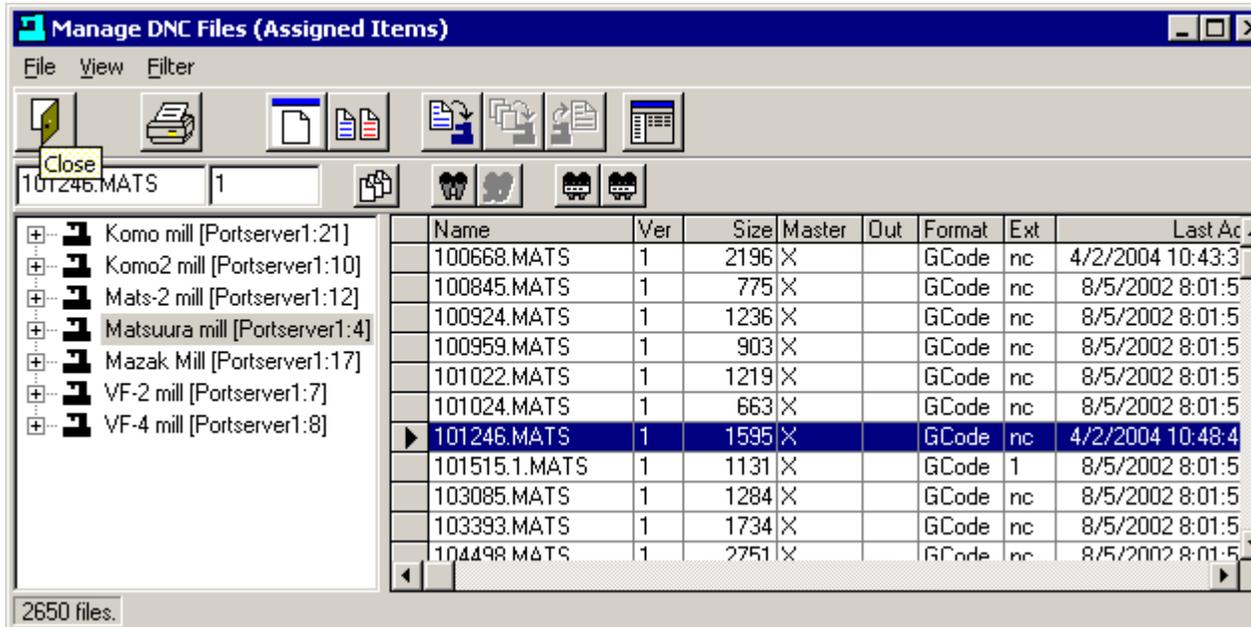
The following screen appears:



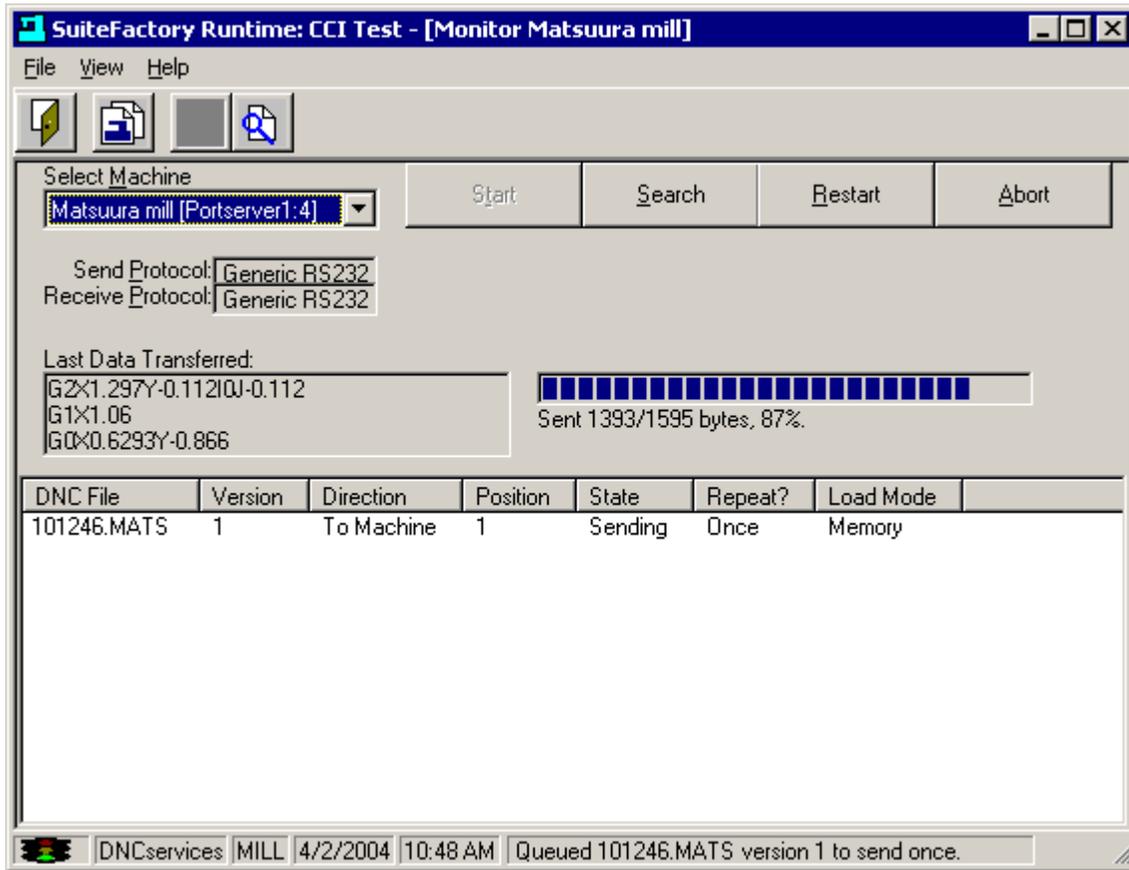
Click OK unless you are drip-feeding to the CNC in real time (Tape Mode). In Memory Mode a timeout is active which clears the file from the machine queue if the data transfer is stopped by the CNC for the set amount of time. (A SuiteFactory parameter). In Tape Mode this timeout is ignored so that the file stays on the queue during long cutting of arcs for example. Selecting “Continuously” causes the file to be re-queued each time it’s sent for doing production jobs in Tape Mode.

Click OK

You return to this screen.

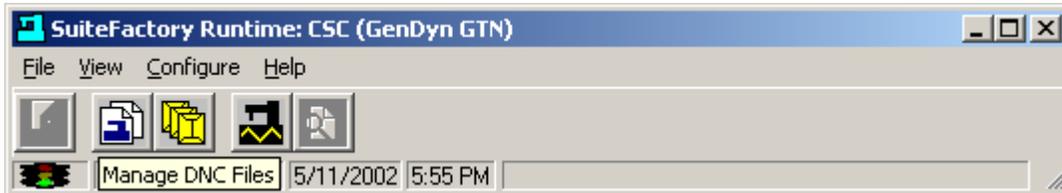


Click **Close** and you return to the Monitor Screen. But now the DNC File you selected is shown. You now go to your Machine Controller and select the Read function. Last Data Transferred will show the program data being sent and a progress bar keeps track of how much data was transmitted. If most of the time you know the name of the file you need, then leave this window on your computer screen ready to select the next machine and/or DNC file you need.

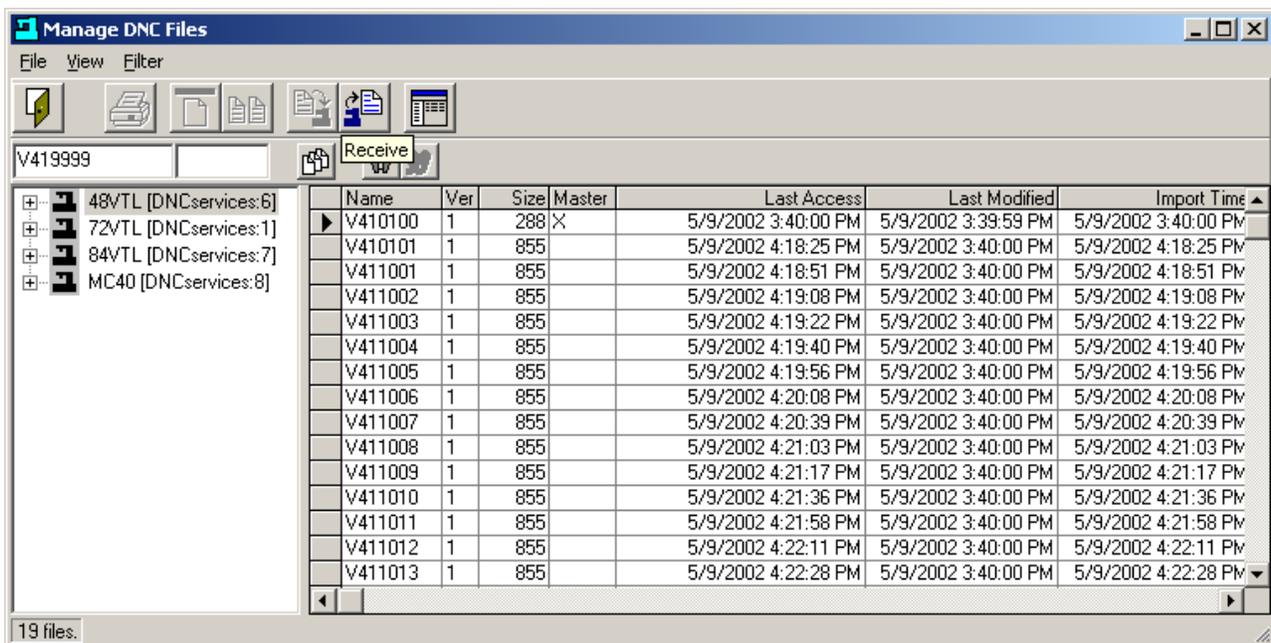


Receiving a DNC file from a CNC Controller

From the main SuiteDNC tool bar.

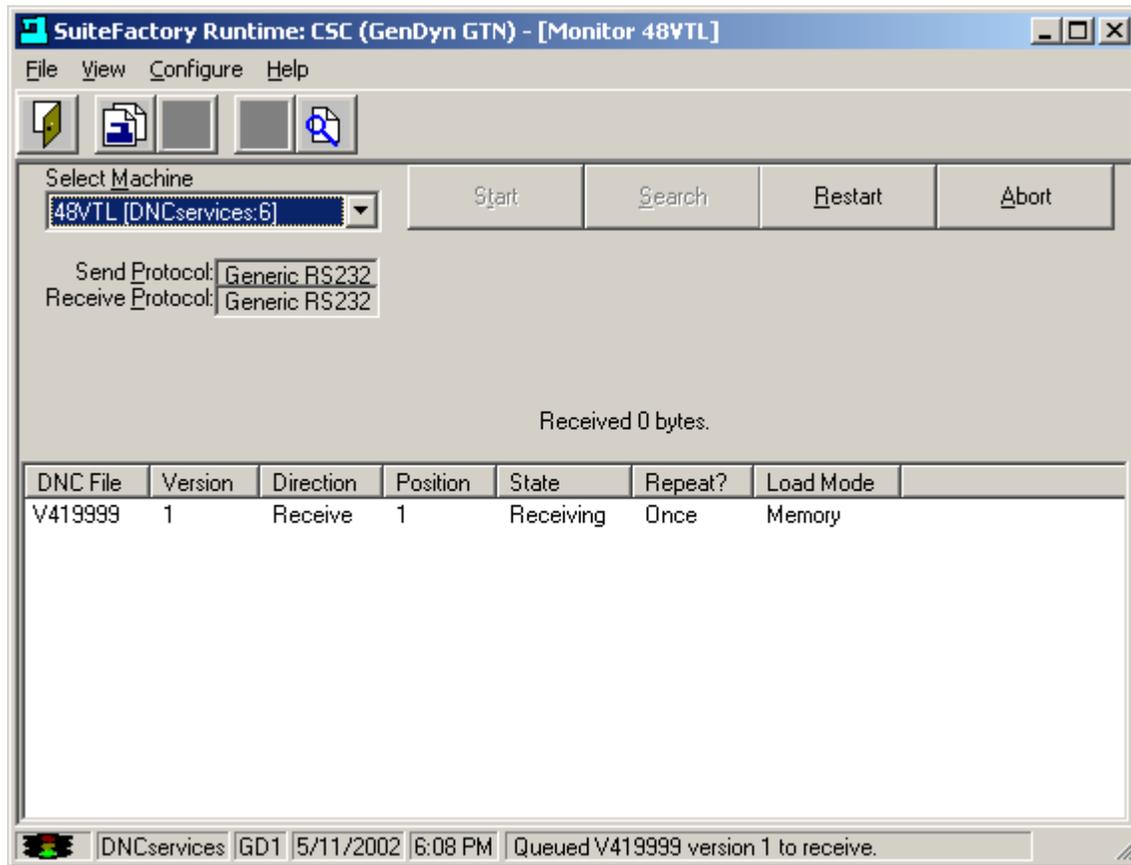


Click on the **Monitor Machines** button , select the machine from the drop down list and then click on the **Manage DNC Files** button  on the Monitor Screen.



The machine 48VTL is selected. Enter a new file name, V41999, in this example, and the Receive button  is enabled.

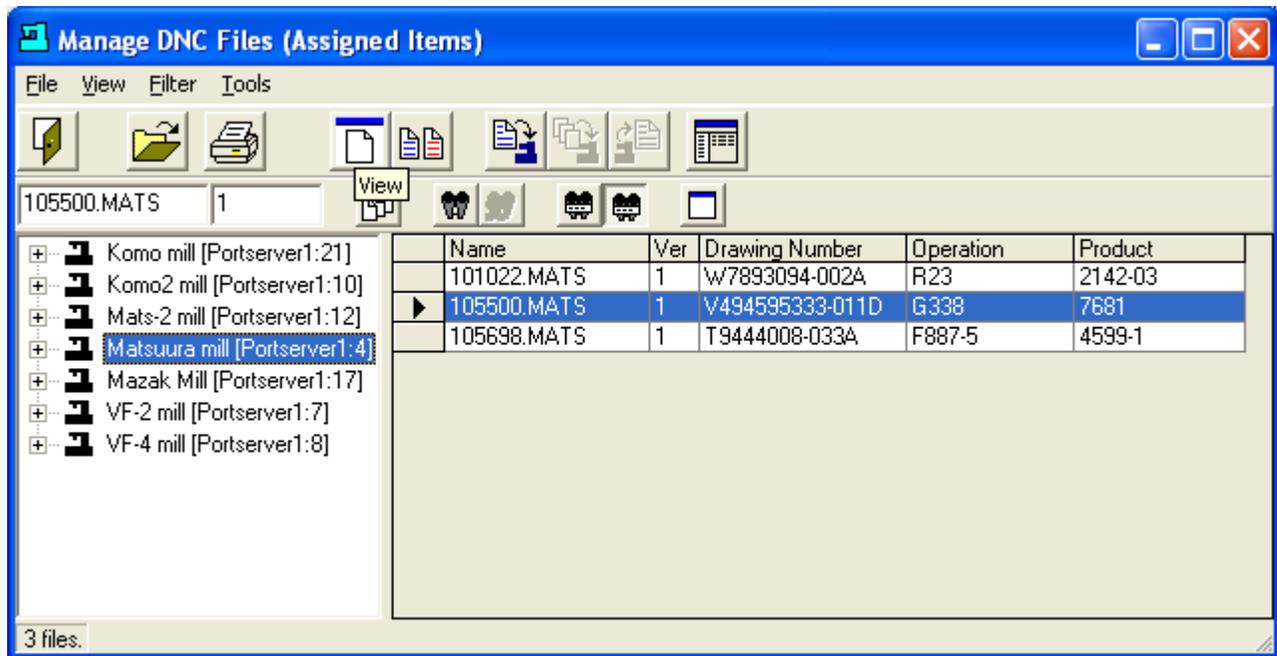
Click on Receive. The file V41999 is then queued up. To verify this click on **Close**  to return to the Monitor screen.



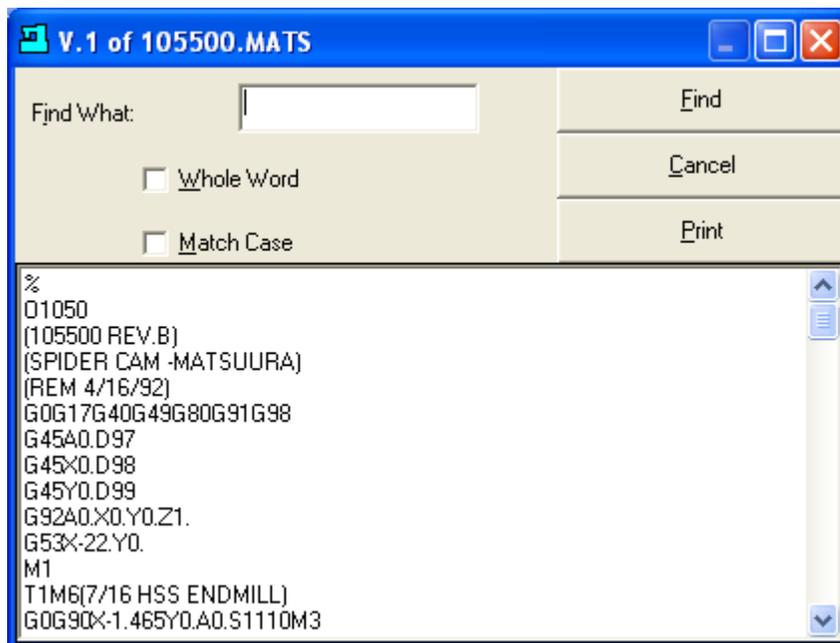
At the CNC, V48VTL output (punch, send . . .) the file. As the data is received the Received 0 bytes field will be updated. When done the file will be removed from the queue automatically after about 5 seconds.

Viewing and Printing

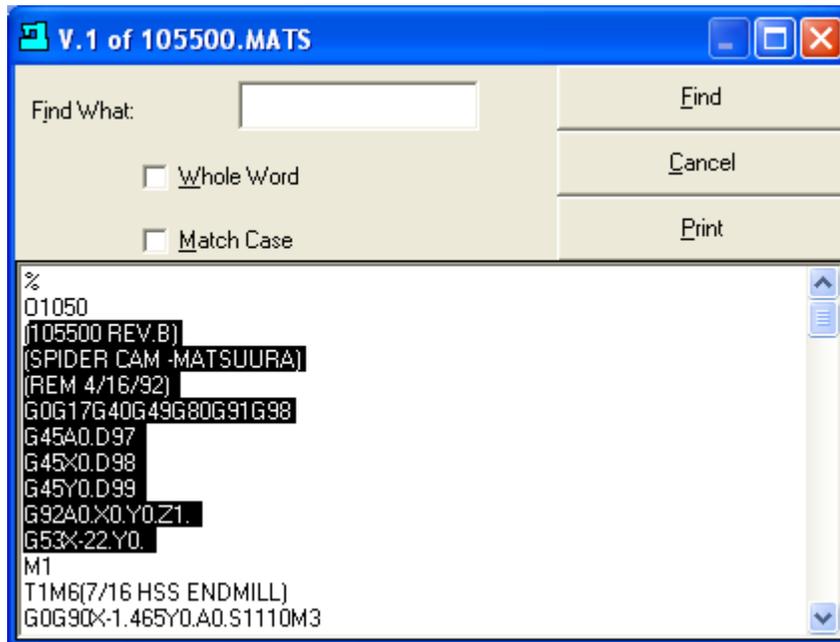
Return to the Manage DNC Files screen. Select a machine and select the file to view.



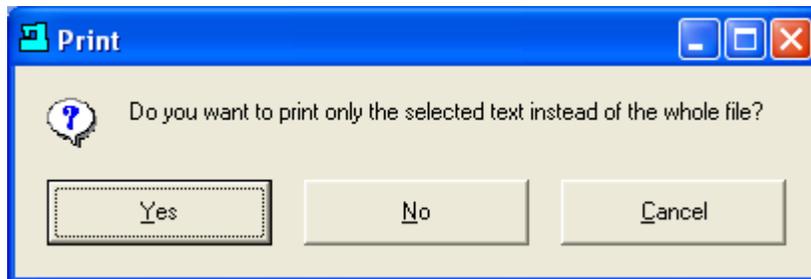
Click on the **View** button .



From this screen you can search for something, scroll up and down and print the file. You can also select just a part of the file to print. Some shops put notes and tooling information as a file header and want to print out only that part. To do that, use the mouse to highlight the text to be printed:



Click Print.

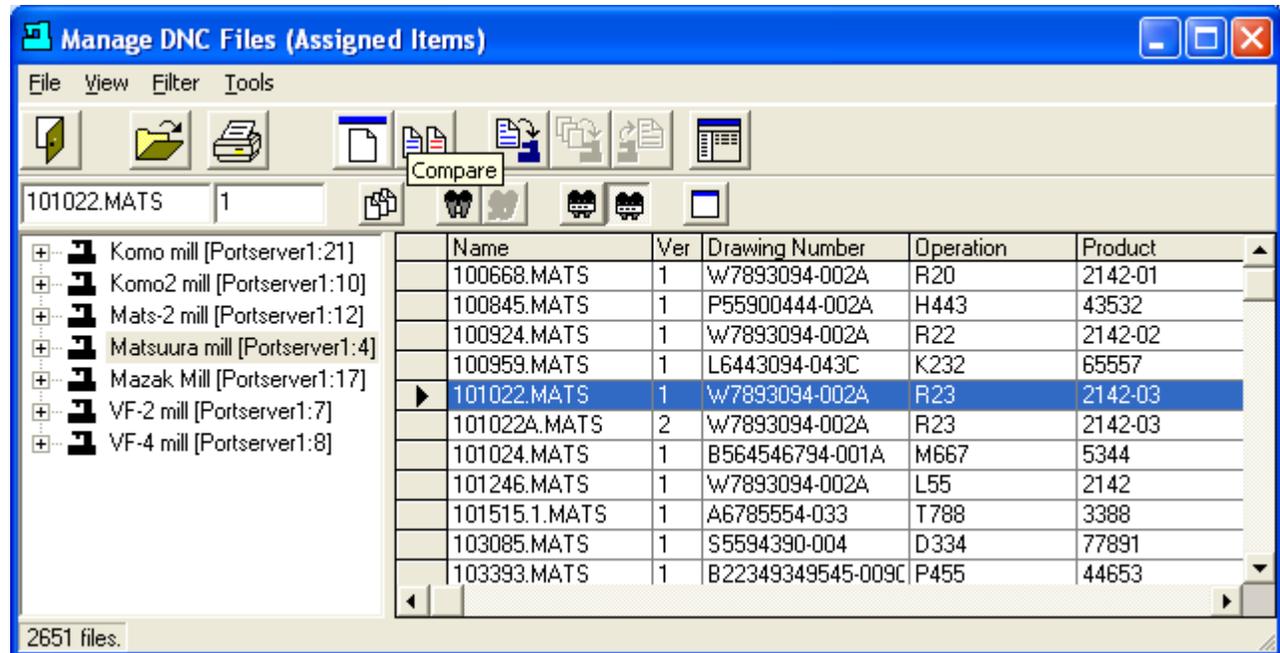


If you click Yes then the only the highlighted text will be printed. If you click No then the entire file will be printed.

You can also print a file by simply clicking on the Print button .

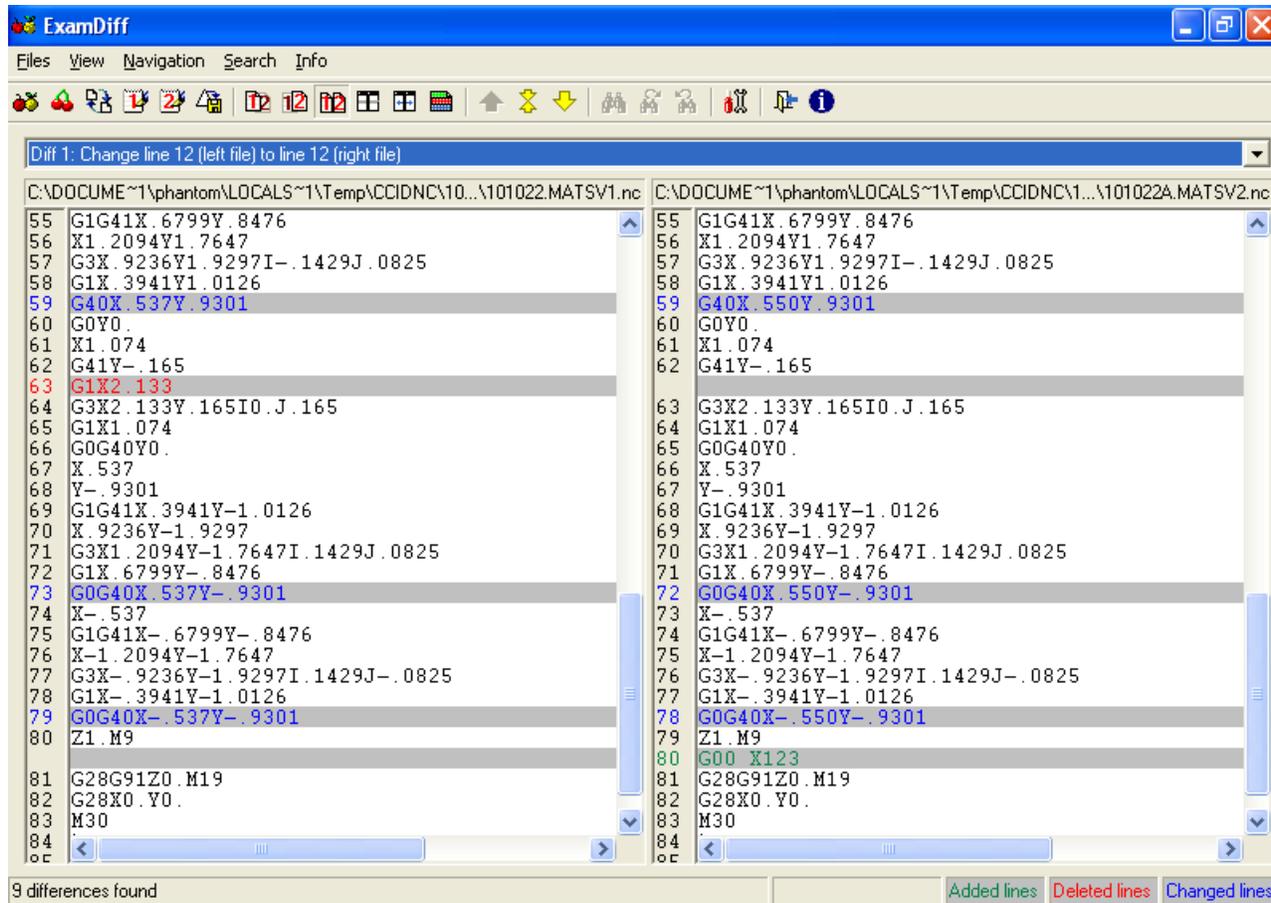
Comparing Two Files

Go to the Manage DNC Files Screen. Select a machine. For example, say you want to see what the differences are between the original file, 101022.MAT and the one uploaded from the CNC named, 101022A.MATS. Highlight the original file, 101022.MAT.

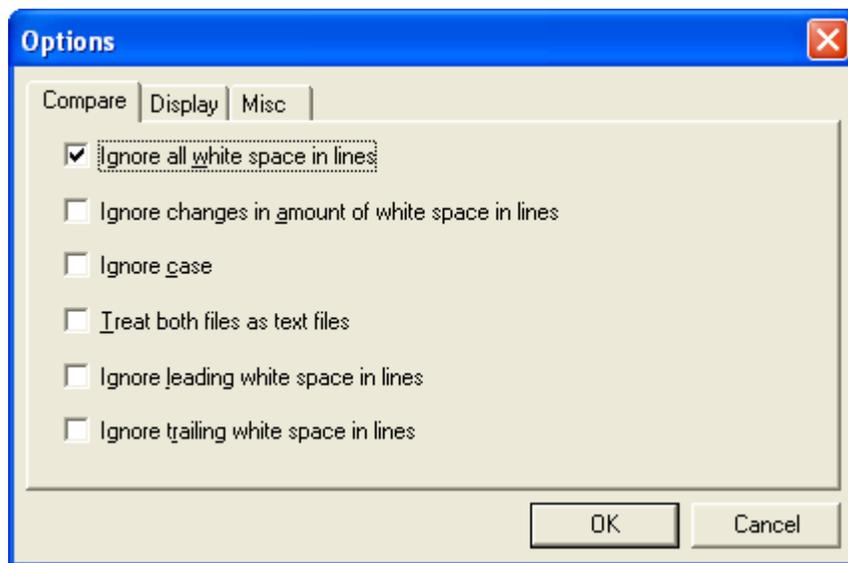


Click on the **Compare** button . Next, highlight the second file, 101022A.MATS and click on the **Compare** button  again.

The lines that are different are shown in blue. Lines missing are red. Added lines are green.



This works quite well with files that are alike as in the example, above. However, sometimes files sent to a CNC and the received back appear to be very different when using the compare feature. Often this is due to the fact that the CNC either deletes “white space” that it gets or it might add “white space” for printing purposes. If you see this happen then click on View/Options on the Compare Tool Bar and select the items that make sense.



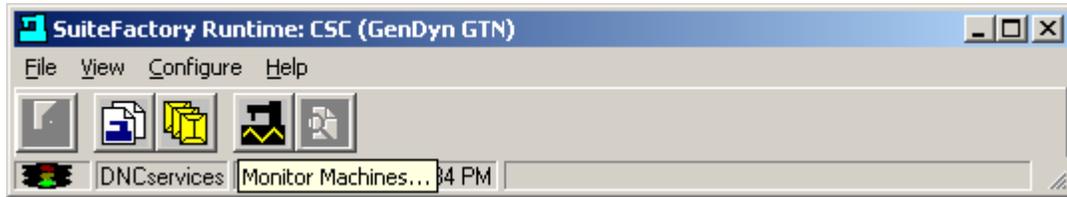
Appendix A

Descriptions of DNC file list headings.

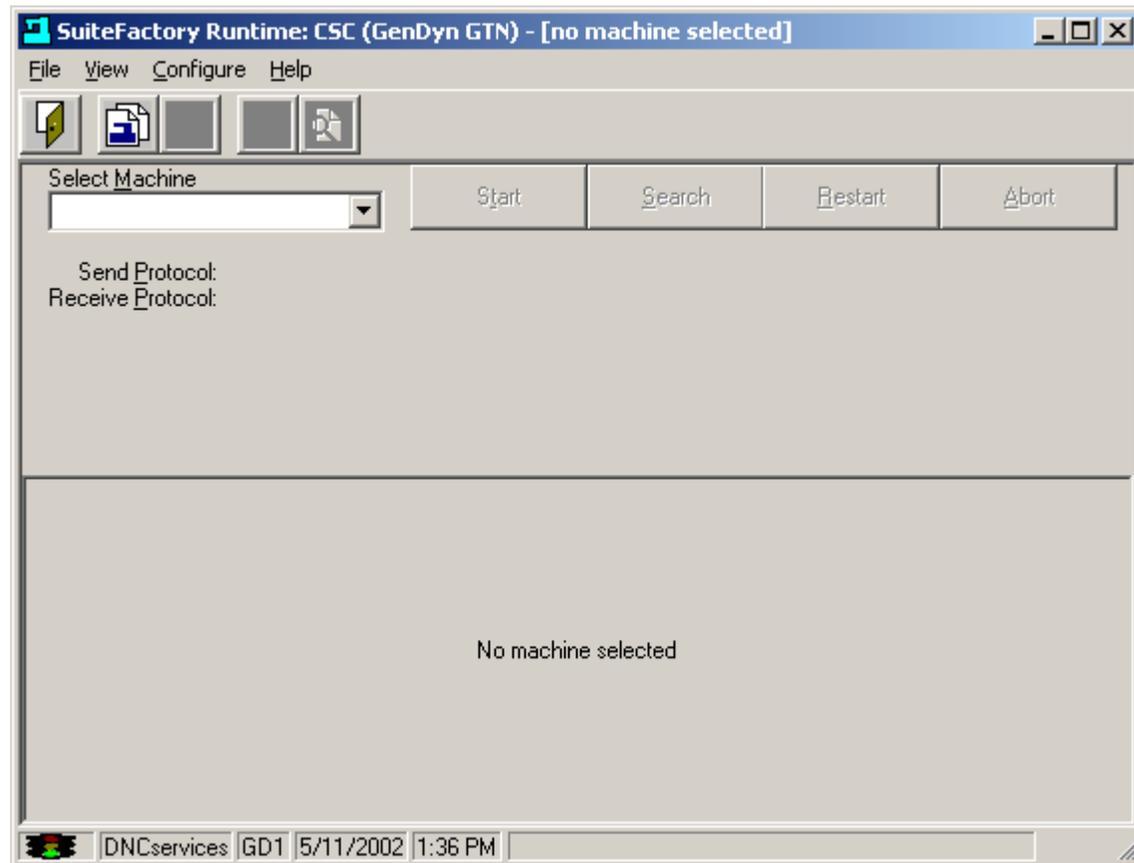
HEADING	DESCRIPTION
Name	Self-explanatory
Version	If allowed, it is possible to have more than one version of a DNC file.
Size	The number of characters (or bytes) in the file.
Master	If there is an X in this field the file is a Master File, meaning that it was either manually or automatically imported into the database from the programming or engineering department. Files uploaded from CNC controllers or created by copying or a new file created by the editor is not a Master File and it has no X.
Out	An X in this field indicates the file was “checked out” for editing and cannot be used by anyone else until it is checked back in.
Last Access Time	The last Date and Time this file was downloaded to a CNC controller.
Last Modified Time	The Date and Time this file was created or the last time it was edited.
Import Time	The Date and Time this file was either imported into the database (which would make it a Master file) or the Date and Time this file was created by upload or the editor.
Extension	The original .ext that windows based files use to determine which application will start when you “Open” the files. For example, .txt causes Notepad to open and .doc causes Word for Windows to open. Some non-text DNC files like those from a Mazatrol CNC have a .bin extension.
Format	Shows what kind of a DNC it is. Most DNC files are “GCODE” text files. Mazatrol CNC files show the format for the particular CNC model, for example, Mazak M32 or Mazak T-Plus, etc.

Appendix B

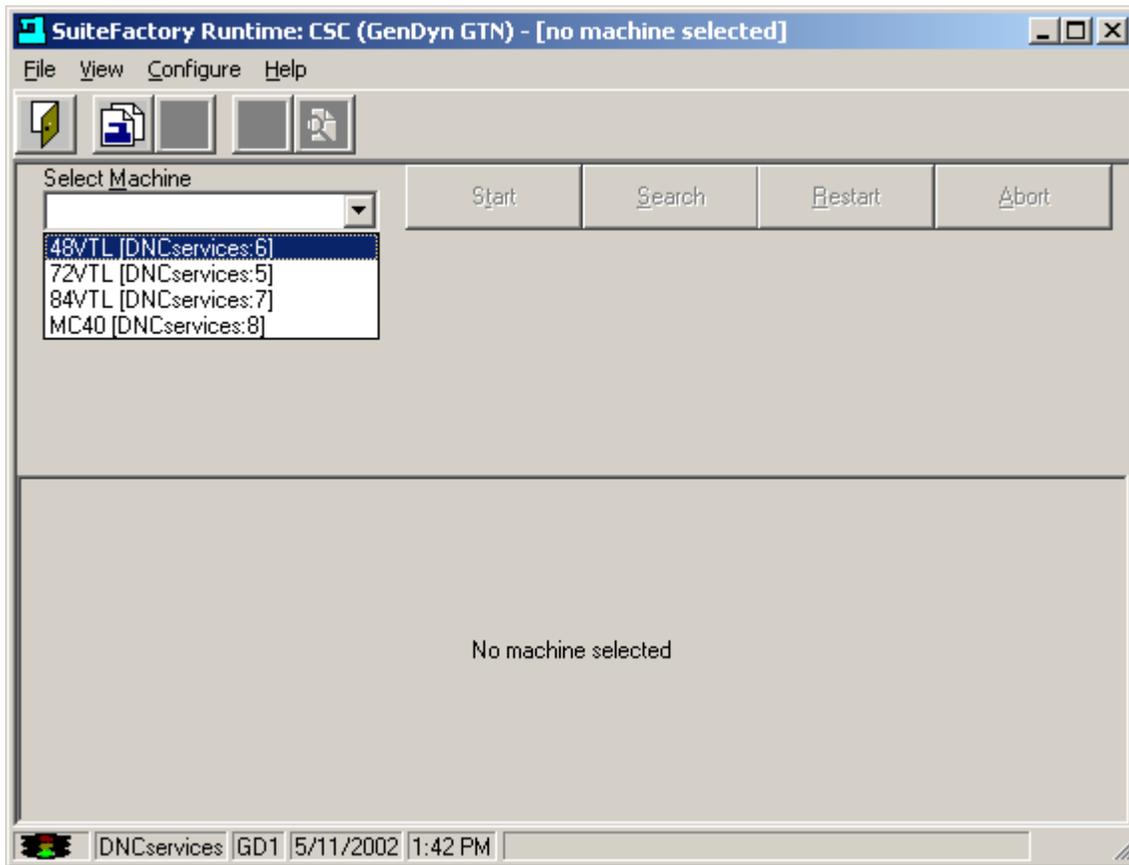
Machine Monitor Screen Functions



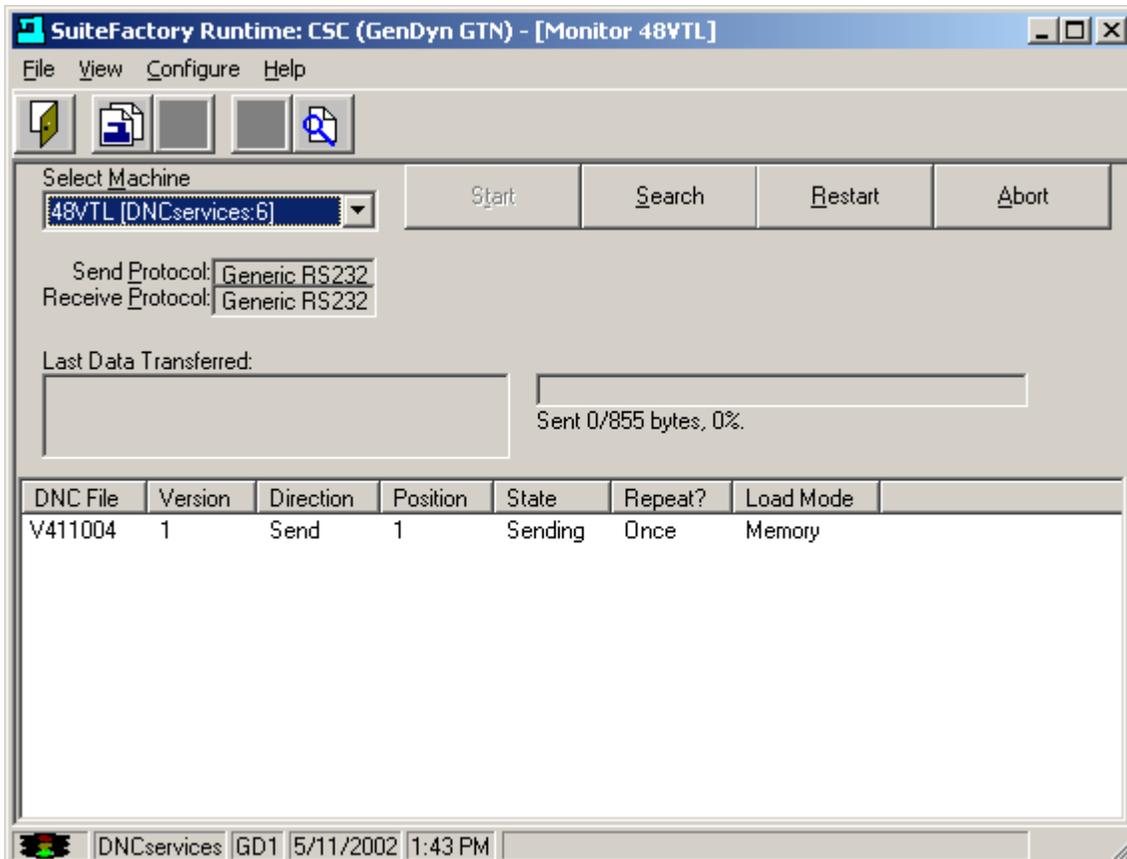
From the SuiteFactory Main window click on **Monitor Machines.**



Click on the **Select Machine** pull-down arrow.



Click to select a machine. This shows machine, 48VTL, with a DNC file, V411004, queued to be sent once.



Monitor Screen Functional Description

The Queue

The white window in the Monitor Screen displays the Job Queue. The Job Queue is simply the list of DNC files to be sent to or to be received from the selected machine controller. The queue displays the DNC file name; its version; direction of transmission: Send or Receive; its position in the queue; the state of the transmission: Sending, Receiving or Pending; whether or not it is to be repeatedly sent: Once or Loop; and its Load Mode: Memory or Tape.

The Queue Editor

Clicking on the last big button on the right brings you to the Queue Editor. If more than one inactive file is queued for any one machine, the queue editor enables you to re-arrange the order of files on the queue or to delete them from the queue.

The Function Buttons

These buttons enable you to control the data transmission in various ways:

Start

- This button is available when a DNC file is queued up if the “User Must Start” feature was selected on the Machine Properties Identification tab at installation. It prevents data transmission until it is clicked.
- Used with some older CNC’s that had no handshaking.

Search

- This button is available when a DNC file is queued to send. When clicked it aborts any current data transmission and opens a window with a view of the contents of the queued up DNC file. You can search to any line in the file and start transmission from that point on.
- Used when drip-feeding long part programs in tape mode to re-start at some safe-start point after some incident such as a tool break.

Restart

- This button is available whenever a DNC file is queued up. When clicked it aborts any current data transmission and then restarts the DNC file transmission from the beginning.

Abort

- This button is available whenever a DNC file is queued up. When clicked it aborts any current data transmission. The DNC file is removed from the queue.

Other features

Send and Receive Protocol fields

Displays what protocols were selected during machine properties setup at installation.

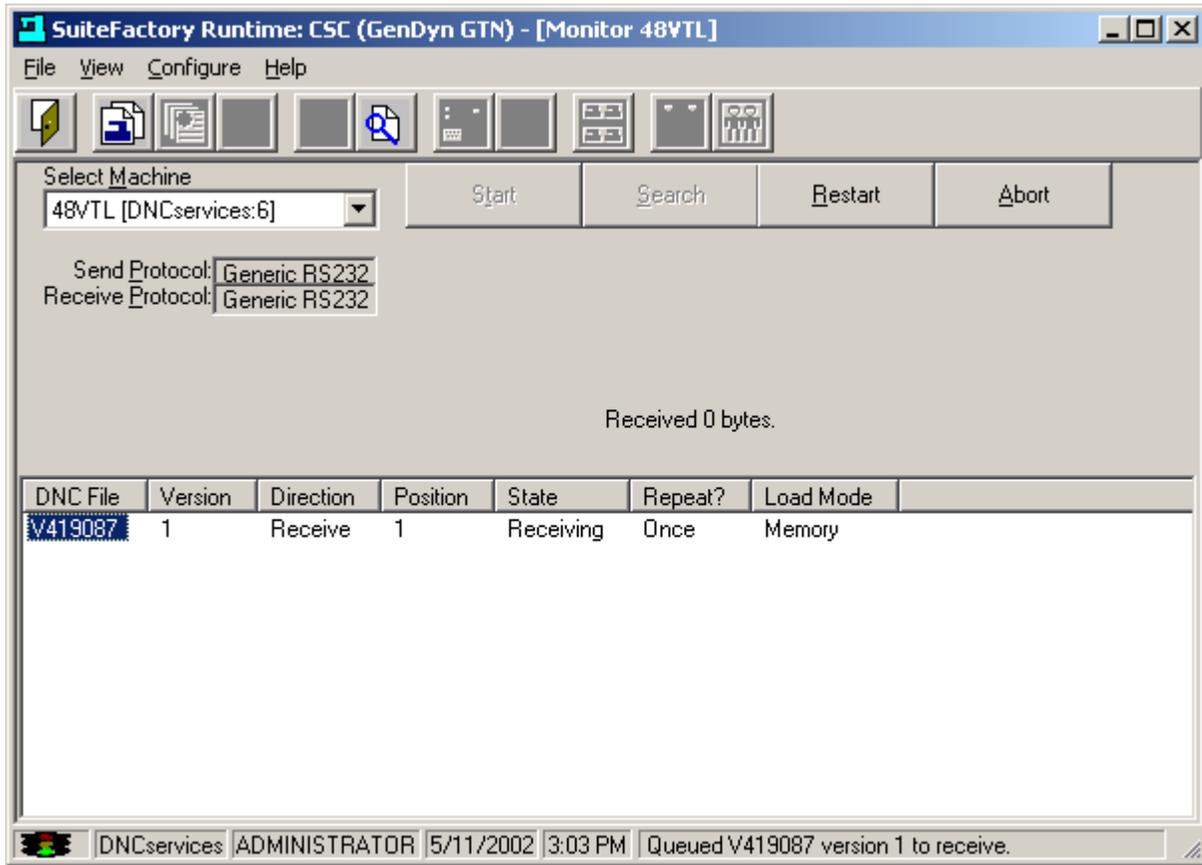
Last Data Transferred

Displays the last three full lines of data sent to a machine controller.

Sent

A progress bar showing the percentage of data sent to a machine controller.

This is a view of the Monitor Screen with DNC file, V419087, queued to be received. Instead of a progress bar showing percent receive, the Received xxx bytes field appears which will be updated as data is transmitted from a machine controller.



Appendix C

The SuiteFactory Database and Resource Collections

SuiteFactory is a **database driven** system.

Database driven refers to the fact that instead of using the Windows Operating System's folders, and depending upon someone's knowledge of how to implement Windows security to protect and keep track of all the files, documents, setup and other information, SuiteFactory uses a database. This puts all the information in a centralized place, making file control, maintenance, backup and restore much easier. All DNC files and other controlled documents are stored in special folders inside the folder containing the database files. Each is encoded with a special ID so that it can be tracked from inception by import, upload from a CNC or created by the NC editor to the end of its useful life and sent to the archive.

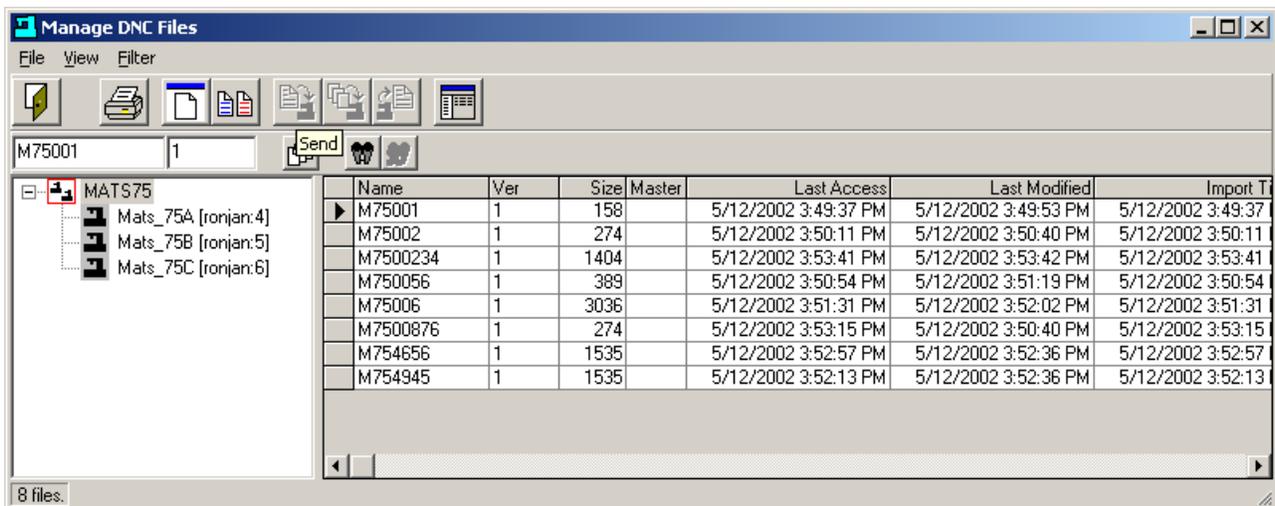
Resource Collections tie everything together

There are machines. There are part program DNC files for those machines. There might be packets (optional) containing documents, DNC files or other kinds of text files that can be used to contain all the information needed to perform a machine tool operation. There are people, whom we call users, who need to send these files to machines or view these files or perhaps edit them or something else. Users are members of groups with special rights assigned to establish what the group members can or cannot do while using SuiteFactory.

Think of SuiteFactory's Resource Collections as boxes; containers where we put all the machines that can run the same DNC files, the DNC files for those machines and the user groups that have permission to run those machines. If you have the Job Packet option, packets for operations for those machines are also put in the correct Resource Collection.

Since Resource Collections are not actually physical containers, the word we use is "assign." For example, say you have three Matsuura 75 mills with Fanuc 15M CNC's. We create a Resource Collection called MATS75 and "assign" to it all three Matsuura mills, all the DNC files that can be run by those machines, the user groups that have the need to operate these machines, and any packets with operational data for those machines.

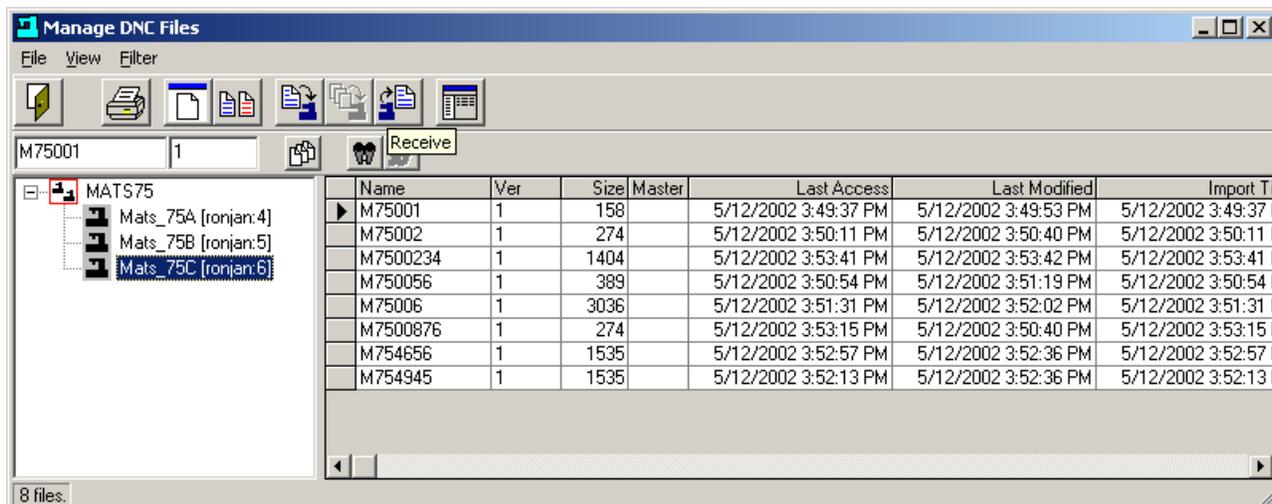
The screen below shows the Resource Collections > Machines > Files view of the Manage DNC Files screen. The small red box with the two black machines represents the Resource Collection, MATS75. Assigned to that MATS75 are three machines, Mats_75A, B and C. The assigned files are shown on the right. Notice that the **Send** button is greyed out and therefore not available.



This is because the focus is on the Resource Collection, MATS75. In order to send a file to a machine you have to select it.

Click on Mats_75C.

Now both the **Send** and **Receive** buttons are enabled.

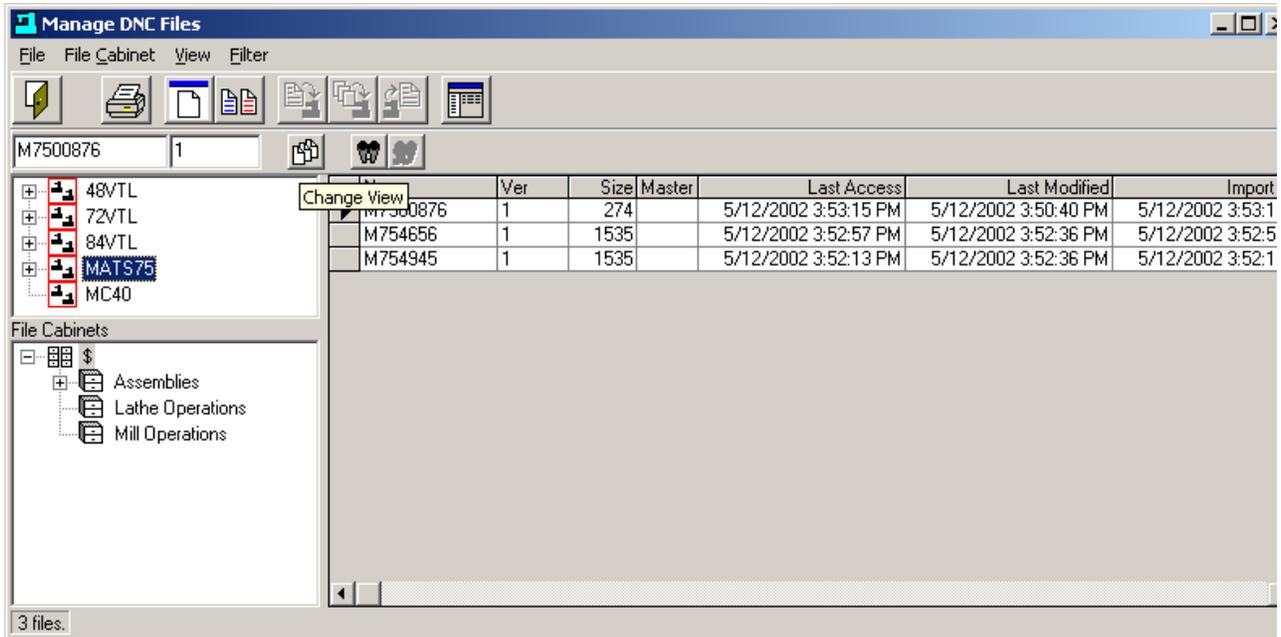


See Appendix D for discussion on Views.

Appendix D

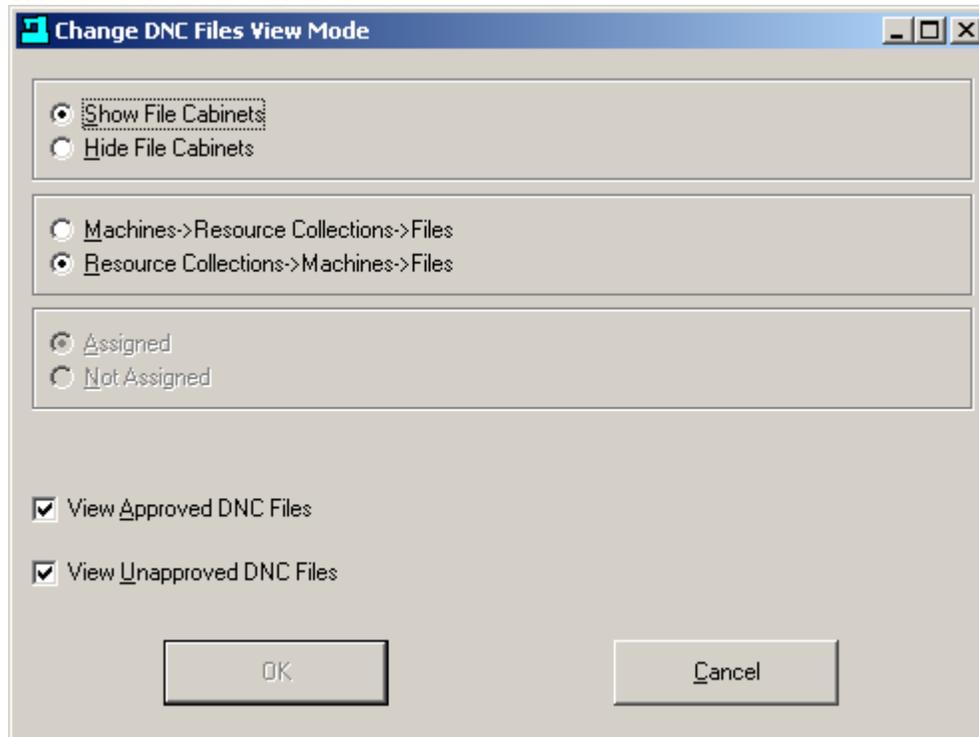
Views

When you first login to SuiteFactory and select Manage DNC files, you might get a screen that look like this: This view is Resource Collections > Machines > Files. In addition, File Cabinets are shown.

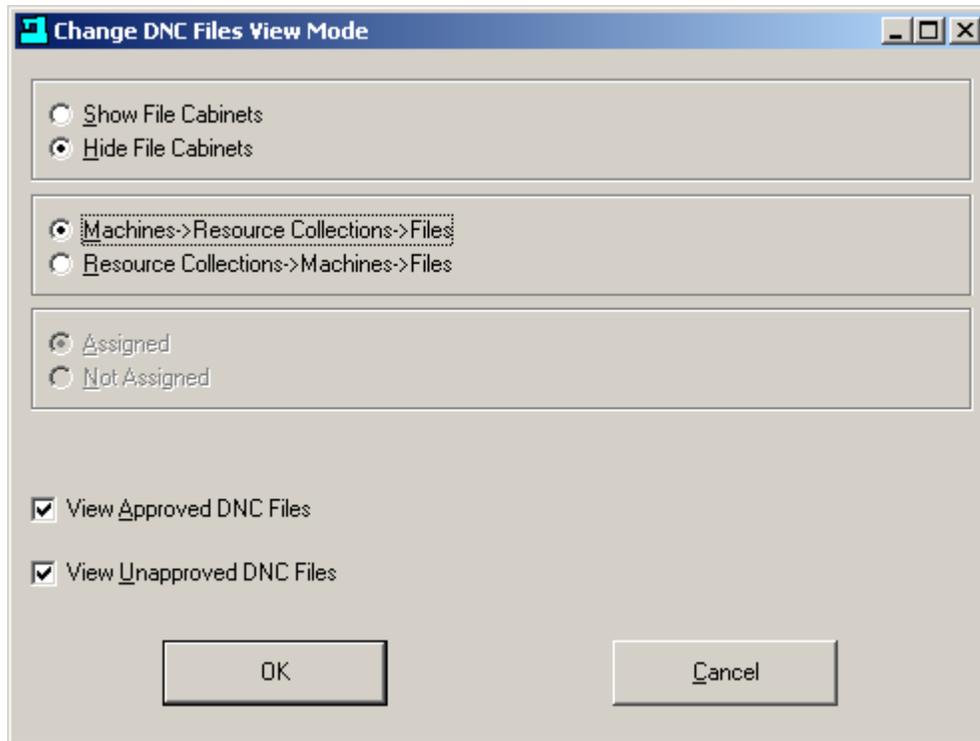


Click on the small **Change View** button (1st small button on left.)

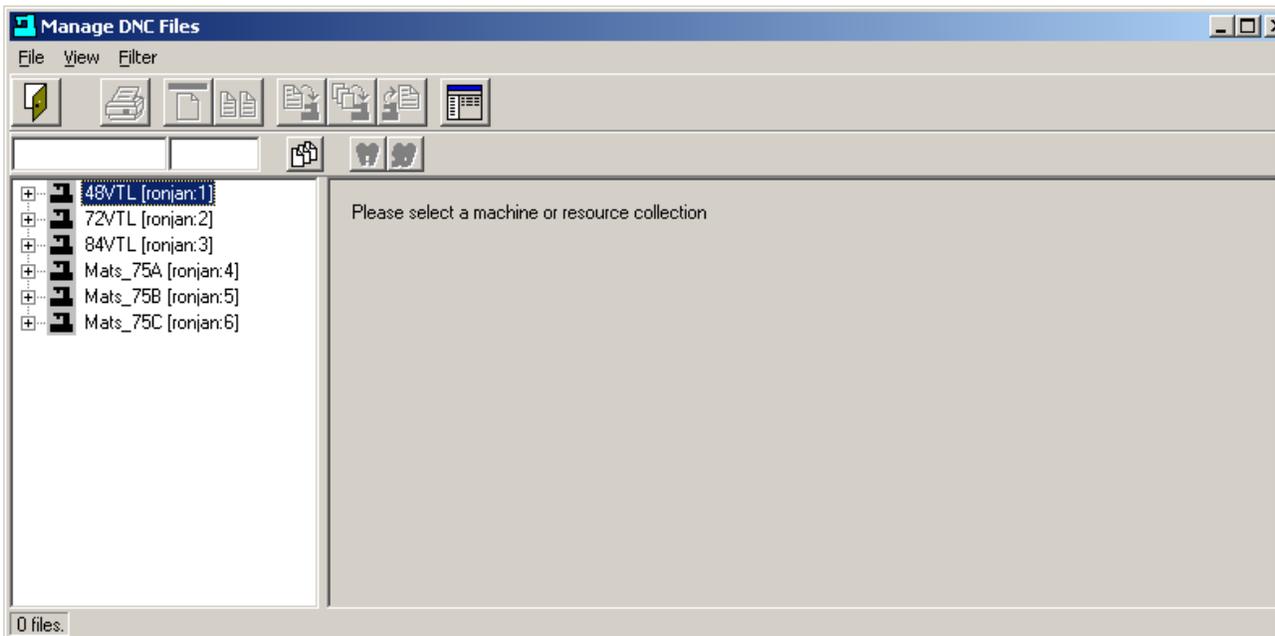
This screen shows the current view.



For everyday shop operations we recommend the view without file cabinets showing and Machine > Resource Collections > Files. Unless your shop is using the DNC file approval feature, make sure that both View Approved and View Unapproved DNC files are checked.



Click OK. The resulting view is



If you click on the small + signs next to the machine symbols you get to see the Resource Collection or Collections to which the machines are assigned. You have to select a machine or Resource Collection to see the assigned files.

Experiment yourself with the various views.

