Factory Floor Specialists since 1983 CAD/CAM Integration, Inc.

SuiteFactoryTM DNC Editing Guide

SuiteFactory[™] DNC Editing Guide Version 1 April 23, 2004 Copyright © 2004 CAD/CAM Integration, Inc., Woburn, MA 01801



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Editing

SuiteFactory provides several ways to edit/create a N/C File.

- Create a New File from Scratch
- Edited an Existing File and Save
- Edited an Existing File and Save as a New File

Note: You can also create a New File Versions from an Existing File by saving the edited file under a new version. As always your ability is "Rights" dependent.

New File

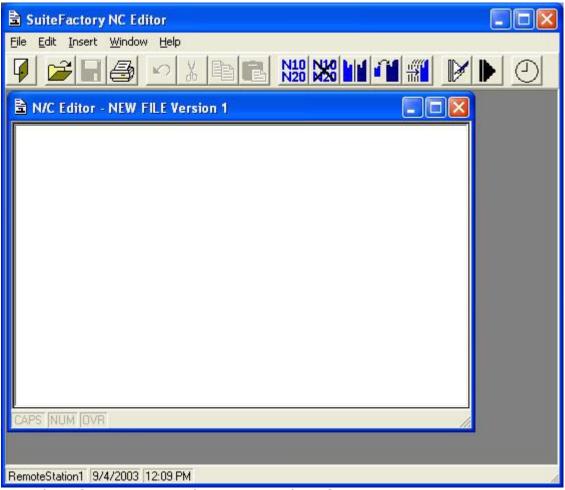
SuiteFactory allows you to create a New File by using it's "Editor" to open up any number of files allowing you to copy and paste from these files to the new file or just create it from scratch!

NEW FILE Create New DNC File (19) (19) (19)				
 BTR [Portserver1:4] Komo mill [Portserver1:9] Komo2 mill [Portserver1:10] M200 lathe [Portserver1:11] M200 Mats-2 mill [Portserver1:12] Matsuura mill [Portserver1:13] Mazak Lathe [Portserver1:13] Mazak Mill [Portserver1:18] Mazak Mill [Portserver1:17] NC2 lathe [Portserver1:15] SL4 lathe [Portserver1:16] SL5 lathe [Portserver1:6] VF-2 mill [Portserver1:7] VF-4 mill [Portserver1:8] 	Name 105704.4.M200 105704.4.M200COPY 106422.1.M200 106422.2.M200 107046.1.M200 107046.2.M200 107052.2.M200 107052.2.M200 107052.2.M200 1070652.2.M200 Prowing Number: Operation: Product: project: B0EING 747	Ver 1 1 1 1 1 1 1 1 1	3610 X 3623 1612 X 900 X 2203 X 2678 X 2678 X	Jut 8/21/200 5/22/200 8/6/20 8/6/20 5/22/200 9/6/20

To create a New File select the view that best meets your needs and type the name of the New File in the text box above that has the name "New File" in it.

You will notice that the Icon "Create New DNC File" becomes un-grayed. After entering the File Name you want and selecting the "Resource Collection" you want to assign it to, click on the "Create New DNC File" Icon to activate the Editor. The following Window will be displayed.

Editor with Blank File



For Editor Operation see the section "Editor Operation".

When you have finished creating and saving the New File the following Window will be displayed.

Note: You will notice that the "New File" has now been added to SuiteFactory's database.

NEW FILE 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
 BTR [Portserver1:4] Komo mill [Portserver1:9] Komo2 mill [Portserver1:10] M200 lathe [Portserver1:11] M200 lathe [Portserver1:12] Mats-2 mill [Portserver1:12] Matsura mill [Portserver1:13] Mazak Lathe [Portserver1:18] Mazak Mill [Portserver1:17] NC2 lathe [Portserver1:16] SL4 lathe [Portserver1:6] SL5 lathe [Portserver1:6] VF-2 mill [Portserver1:7] VF-4 mill [Portserver1:8] 	Name 394301.1A.M200 49296.1.M200 49296.2.M200 JACKROD.M200 NEW FILE PARAM.M200 Image: Comparison of the second s	Ver 1 1 1 1 1 1	Size Master Out 2232 × 1962 × 1962 × 1962 × 1080 × 1080 × 26 1080 × 1080 ×	8/6/20 8/6/20 8/6/20 9/4/200 8/6/20

At this stage you should enter the information in the data fields for later use in controlling access to this particular N/C File.

Edit Existing file

SuiteFactory allows you to create a New File by using it's "<u>Editor</u>" to open up any number of files so you can copy and paste or just edit the file contents! Note: This is one of many relationship views that you can configure. If you would like to modify this view click on the "<u>Change View</u>" Icon and select the options that best suite your needs.

Manage DNC Files (Assigned Items)				
<u> E</u> ile <u>V</u> iew Eilter <u>T</u> ools				
9 🗅 🗃 🕃 📑 🛃 📑				
394301.1A.M200 Edit Existing DNC File				
 BTR [Portserver1:4] Komo mill [Portserver1:9] Komo2 mill [Portserver1:10] M200 lathe [Portserver1:11] M200 ZM200 Mats-2 mill [Portserver1:12] Matsuura mill [Portserver1:13] Mazak Lathe [Portserver1:13] Mazak Lathe [Portserver1:18] Mazak Mill [Portserver1:17] Mc2 lathe [Portserver1:14] NC2 lathe [Portserver1:15] SL4 lathe [Portserver1:16] SL5 lathe [Portserver1:6] VF-2 mill [Portserver1:7] VF-4 mill [Portserver1:8] 	Name 394301.1A.M200 49296.1.M200 49296.2.M200 JACKROD.M200 NEW FILE PARAM.M200 Image: Comparison of the system Drawing Number: Operation: Product: project:	Ver 1 1 1 1 1 1 1	2232 × 1962 × 1298 × 590 × 26 1080 ×	Juit 8/6/200 8/6/200 8/6/200 8/6/200 9/4/2003 9/4/2003 8/6/200
901 files.				

To Edit an existing File select the view that best meets your needs and select the File by highlighting it.

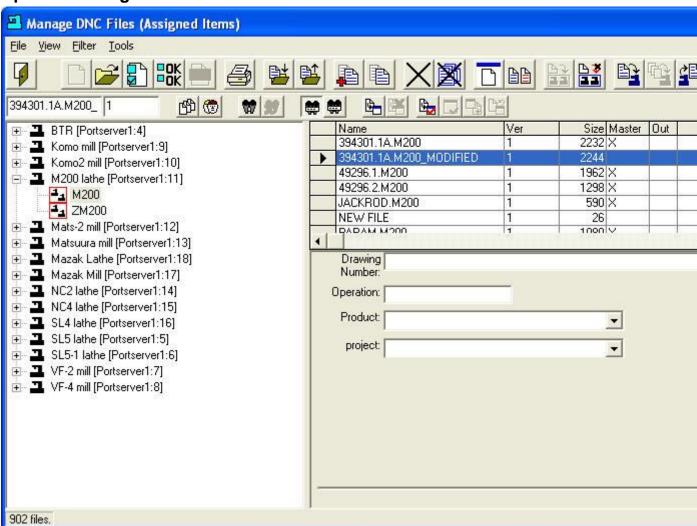
You will notice that the Icon "Edit Existing DNC File" becomes un-grayed. Click on this Icon to activate the Editor. The following Window will be displayed.

Edit Existing File

SuiteFactory NC Editor	
<u>Eile E</u> dit <u>I</u> nsert <u>W</u> indow <u>H</u> elp	
N/C Editor - 394301.1A.M200 Version 1	
<pre>% O4301 (TL01/01 TL07/203 TL05/31 ₩2.812 D4.03 H.2 L0) N01G50S1800 N02G28U0 N03G28W0 N04M01</pre>	
M75 (1ST.SIDE) (JT 1/25/02) (394301-1 REV.A) (END CAPINSERT) (STOCK SIZE:3.0 *3.01*1045) (JAW LOC.#34) (FACE OFF .200 AMOUNT) (N100 80DEG031R,R.FACE) (N125SAME TOOL R.TURN) (N150SAME TOOL R.TURN) (N150SAME TOOL F.TURN) (N150SAME TOOL F.TURN) (N500 69 SPADE DRILL) (N900 55DEG375B.BAR.015R) N100T0100M40 G143	
CAPS NUM OVR	
RemoteStation1 9/4/2003 12:12 PM	1.

For Editor Operation see the section "Editor Operation".

After saving the selected File the following Window will be displayed. You will notice that the "394301.1AmM200_Modified" has now been added to SuiteFactory's database.



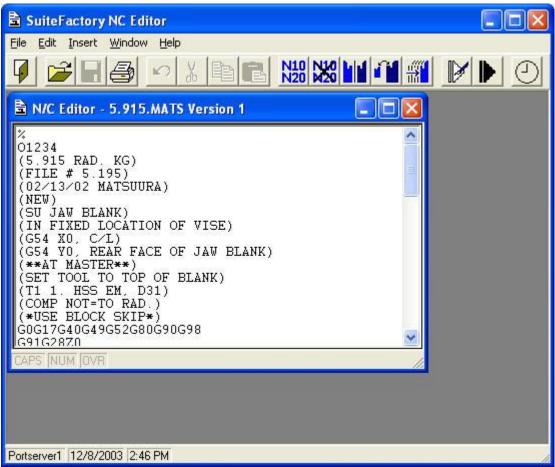
Updated Manage DNC Files Window

At this stage you should enter/modify the information in the data fields for later use in controlling access to this particular N/C File.

Editor Operation

SuiteFactory's N/C Editor is a multi-file editor. You can open up as many files as needed to copy & paste from one file to another.

Open Primary File



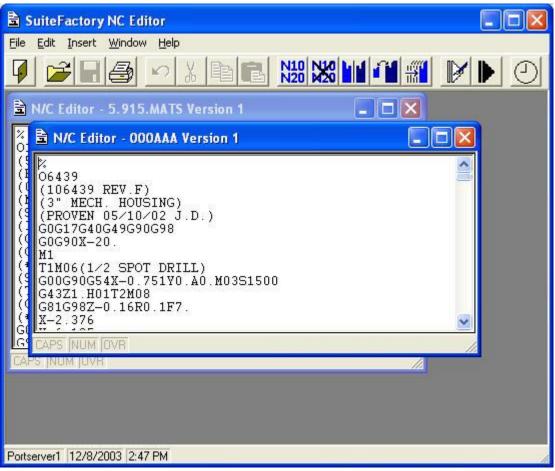
Open Additional Files

To open an addition file(s) click on the Open Icon and the following Window will be displayed.

Manage DNC Files (Assigned Items) File View Filter			
Tile Mew Elicer			
9 🔮 🛅			
000001.NC2 1 🖄 🐨 💓			
Name	Ver	Size M 🔺	⊡- ∔ _ <-
▶ 000001.NC2	1	175 X	1 🖬 🗄
000444	1	4429	
000AAA-RHL	1	75	
000AAA_NEW	1	4429	
000B BRACKET.NC	1	2293	
0111.NC4	1	907 X	
0112.NC4	1	585 X	
05887.VF	1	1080 X	
0819.VF	1	812 X	
0820.VF	1	680 X	
1-8-27.NC2	1	422 X	
1-8-27.NC4	1	477 X	
1.2455.GJ	1	3031 X	
1.920.MATS2	1	735 X	
1.SL4	1	2378 X	
100668.1.SL5	1	1859 X	
100668.2.SL5	1	1169 X	
100668.MATS	1	2196 X	
1,000001/0	1	- vincer	< 1 >

Chose the file you want to add to the multi-file Editor and click on the Select Icon and the Editor will be redisplayed with the two files displayed as follows.

Editor with multiple files opened



Undo Button

Clicking the "Undo" button undoes the last operation.

Cut Button

Clicking the "Cut" button cuts the highlighted area and places it into the Clip Board for pasting.

Copy Button

Clicking the "Copy" button pastes the highlighted area into the Clip Board for pasting but doesn't cut it out of the file.

Paste Button

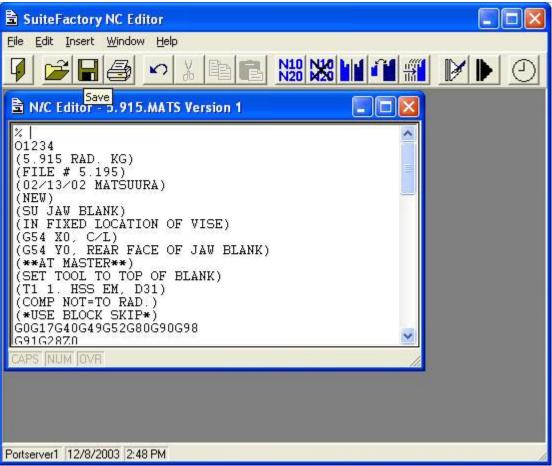
Clicking the "Paste" button will paste whatever is in the Clip Board at the position of the cursor in the N/C File. **Note:** ONLY Paste Text!

Insert Date and Time

Clicking the "insert Date and Time" button will add the current Date and Time at the position of the cursor. Normally you would place this at the very beginning of the file.

The format can be changed by going to the Insert Menu on the Tool Bar and selecting the format of your choice.

Save



To save all the changes, click the "Save" Icon.

Sequencing

Resequence

Clicking the "Resequence" button will bring up the following Window.

🛱 Resequence	
Resequence <u>D</u> ata	Current Resequence <u>F</u> ormat Resequence Always Decimal
Lowest: 1 Highest: 9999	New Resequence <u>F</u> ormat Display value 10 as "10".
Sequencing Mode	Suppress Leading Zeros
Sequence <u>All Lines</u>	Total <u>W</u> idth: 4
O <u>R</u> esequence Only	<u>o</u> k
Sequence Comments	
Start from	Cancel
<u>B</u> eginning of file	
C Current cursor position	
Continue to	
C <u>M</u> atching pattern	
Pattern to match	

You can set the various options for renumbering and or adding program numbers to your N/C File as shown above.

Using the above settings and clicking the "OK" button the selected file will be updated to look as follows:

Editor with N/C File Resequenced

	×
	Ľ×I
<pre>% N1G80 N2M5T0 N3G00Z0W300000F0M9 N4M00(40165-0239XF-2T) N5S25T01M0(LOAD 4.0 SANDVIK MILL) N6G90 N7G0X0Y51875F0H0 N8W50000 N9M3 N10Z0 N11G1Y16875F15000 N12G2X16875F15000 N12G2X16875Y0I0J16875 N13K0Y-16875I16875J0 N14X-16875Y0I0J16875 N15X0Y16875I16875J0 N16G1Y42875 N17G0Y45000F0</pre>	
N18Z26000 N19G3X-45000V0T0.145000F15000	•
CAPS NUM OVR	
DNC1 12/11/2002 12:31 PM	11.

Unsequence

Clicking the "Unsequence" Icon will bring up the following Window.

🗄 Unsequence	
Start from Beginning of file	<u>0</u> K
	<u>C</u> ancel
Continue to	
● End of file	
C <u>M</u> atching pattern	
Pattern to match	

Using the above settings and clicking the "OK" button the selected file will be updated to look as follows:

Editor with Unsequenced N/C File

SuiteFactory NC Editor - [N/C Editor - 40165-01 Version 1] File Edit Insert Window Help	
% G80 M5T0 G00Z0W300000F0M9 M00(40165-0239XF-2T) S25T01M0(LOAD 4.0 SANDVIK MILL) G90 G0X0Y51875F0H0 W50000 M3 Z0 G1Y16875F15000 G2X16875Y0I0J16875 X0Y-16875I16875J0 X-16875Y0I0J16875 X0Y16875I16875J0 G1Y42875 G0Y45000F0 Z26000 G3X-45000Y010.145000F15000	
DNC1 12/11/2002 12:35 PM	1.

Mirroring

Clicking on the "Mirroring" Icon will bring up the following Window.

🖹 Mirror	
Mirroring <u>D</u> ata	<u>o</u> k
Mirroring Axis:	
Start from	<u>C</u> ancel
• Beginning of file	
C Current cursor position	
Continue to	
C Matching pattern	
Pattern to match	

Mirroring will take the selected Axis and reverse all of the signs.

Scaling

Clicking on the "Scale" button will display the following Window.

🔓 Scale	
Scaling <u>D</u> ata Scaling <u>A</u> xis:	Current Scaling <u>F</u> ormat Evaluate ''-125'' as -125.
Eactor: 1	Decimal Programming Irailing Zeros are Suppressed Digits to Right of Decimal Point:
 <u>B</u>eginning of file Current cursor position 	New Scaling Format Display value -1.25 as "-1.25".
Continue to © End of file © Matching pattern Pattern to match	 Decimal Programming Suppress Leading Zeros Suppress Trailing Zeros Digits to Left of Decimal Point: 2 Digits to Right of Decimal Point: 4
<u>K</u>	<u>C</u> ancel

If you would like to scale the N/C Program you can select the Axis you are interested in scaling and select the various options before processing. Clicking the OK button. Repeat this for all Axis that apply.

Translate

🔒 Translate Translation Data Current Translation Format Evaluate "-125" as -125. Translation Axis: Increment: 0 Decimal Programming ☐ Irailing Zeros are Suppressed Start from-Digits to Right of Decimal Point: 4 Beginning of file New Translation Format C Current cursor position Display value -1.25 as "-1.25". Continue to Decimal Programming ● End of file Suppress Leading Zeros C Matching pattern Suppress Trailing Zeros Pattern to match Digits to Left of Decimal Point: Digits to Right of Decimal Point: 4 <u>0</u>K Cancel

Clicking the "Translate" Icon will display the following Window.

If you would like to translate the N/C Program you can select the Axis you are interested in translating and select the various options before processing. Click the OK button. Repeat this for all Axes that apply.

Manage Macros

SuiteFactory NC Editor							
<u> Eile E</u> dit Insert <u>W</u> indow <u>H</u> elp							
		N10 N20	N10 M20				\mathbf{b}
🗟 N/C Editor - 394301.1A.M200_	MODIFIE	D Ve	rsion '	J			age Macros
% (Modified) O4301 (TL01/01 TL07/203 TL05/31 N01G50S1800 N02G28U0 N03G28W0 N03G28W0 N04M01	W2.812	D4.	03 Н	.2 LO)			
M75 (1ST.SIDE) (JT 1/25/02) (394301-1 REV.A) (END CAPINSERT) (STOCK SIZE:3.0 *3.01*1045) (JAW LOC.#34) (FACE OFF .200 AMOUNT) (N100 80DEG031R,R.FACE) (N125SAME TOOL R.TURN) (N150SAME TOOL F.TURN)							
CAPS NUM OVR		_	_			1	
RemoteStation1 9/4/2003 12:17 PM							
Clicking the "Macro" Icon will di	isplay t			ing Wi	ndow.		
🖥 Edit Macros		×	1				
Defined Macros	~	- 1					
	Cļose						
	<u>N</u> ew	1					
	<u>E</u> dit						
	<u>D</u> elete	•					
	<u>R</u> enam	e					

Macros allow you to perform multiple search and replace actions on any selected file. Macros could be used to modify files that were used on one controller and are being used on a new controller where direct substitution of elements of an N/C Program applies. Since Macros support multiple search and substitute you can usually accomplish whatever structural changes you need.

New

Clicking the "New" Icon will display the following Window.

🗟 Edit Macros	
Defined Macros	Close
	New
	Edit
	<u>D</u> elete
	<u>R</u> ename

Naming the "Macro" with a meaningful name is important. Clicking the "OK" button displays the following Window.

Add

Click the Add button allow you to add a new search and replace macro.

Edit Macro - Macro Operatio									×
Search for:		Replace with:				Whole Word? Match Case?		וו	
<u>A</u> dd	Insert		<u>E</u> dit	Move	Down	h	love <u>U</u> p	<u>R</u> emove	
					OK		Apply	<u>C</u> ancel	

Clicking the "Add" button displays the following Window.

🛱 Edit Macro Operation	×
Search for:	
M01	OK
<u>R</u> eplace with:	
M02	<u>C</u> ancel
Match Whole Word Only:	
Match Case	

The above "Macro" will replace every occurrence of "M01" with "M02". Click "OK" to save this "Macro" and the following Window will be displayed.

	Edit Macro - M01 to M02			×
Г	Macro Operations			
	Search for:	Replace with:	Whole Word?	Match Case?
	M01	M02	Whole Word	Exact
	Add lucet	<u>E</u> dit <u>M</u> ove Down	Move <u>U</u> p	Beneve
	Add Insert	Edit Move Down	Move <u>D</u> b	<u>R</u> emove
		ОК	Apply	<u>C</u> ancel

Continue adding as needed and click the "Apply" button to save the sequence of "Macros".

Run Macros

Clicking the "Run Macros" button displays the following Window.

🛱 Run Macro	×
Select Macro to Run	ОК
M01 to M02	
Iext Region to Change Selection <u>M</u> ethod	<u>C</u> ancel
C Down from Cursor Position	
C Up from Cursor Position	
C Selected Text	
Down Erom Cursor To	
C End	
C First Occurrence of This Text	
Find Whole Word Only	

Select the correct options and click OK or Cancel. If you click "OK" all occurrences of "M01" will be changed to "M02" for this Macro.