

Getting Started Guide



Important User Notices

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Patents

PartMaker software is subject to the following patents:

Patent granted: US 6, 112, 133 Visual system and method for generating a CNC program for machining parts with planar and curvilinear surfaces

Patent granted: US 6, 741, 905 Visual system for programming of simultaneous and synchronous machining operations on lathes

PartMaker 2016. Published on 28 December 2015

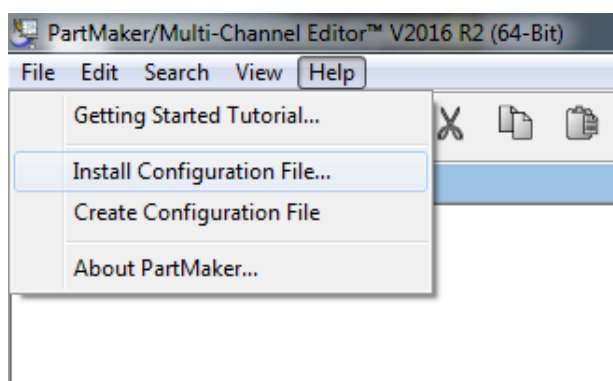
Getting Started with PartMaker/Multi-Channel Editor

Installing the Configuration File

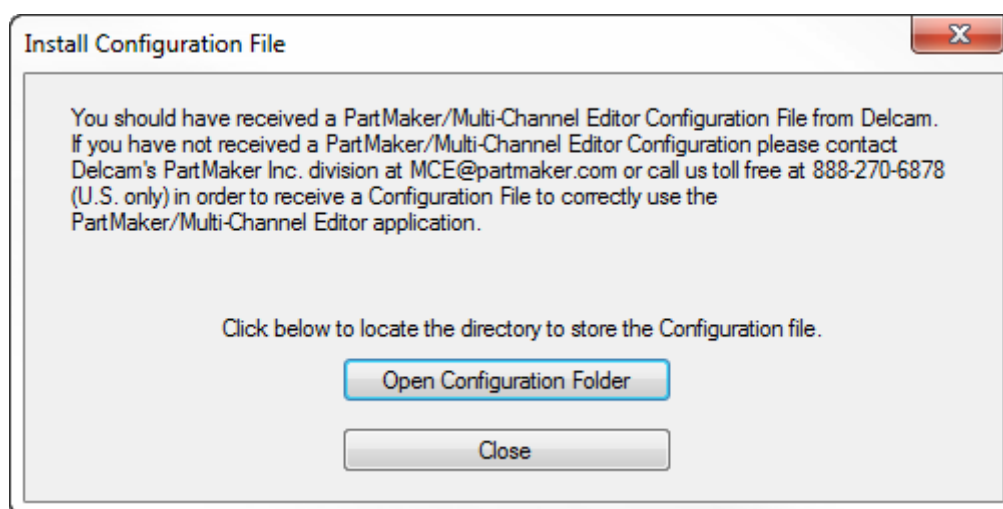
Before proceeding with the steps below, make sure that you have received the file **PmMCEConfig.txt** from your Delcam PartMaker representative. This file configures PartMaker/Multi-Channel Editor to allow the display of machine specific CNC programs.

(**Note:** Existing PartMaker users do not need a configuration file. Your license file will automatically add the machines that you are licensed for.)

- 1 In the Menu Bar, **Select Help > Install Configuration File** to open the Install Configuration File dialog.



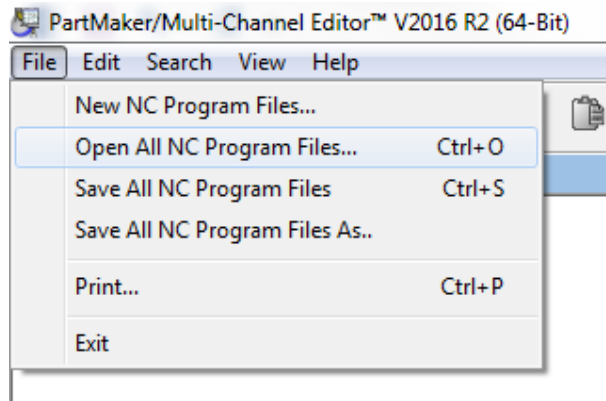
The Install Configuration File dialog box will display as shown below:



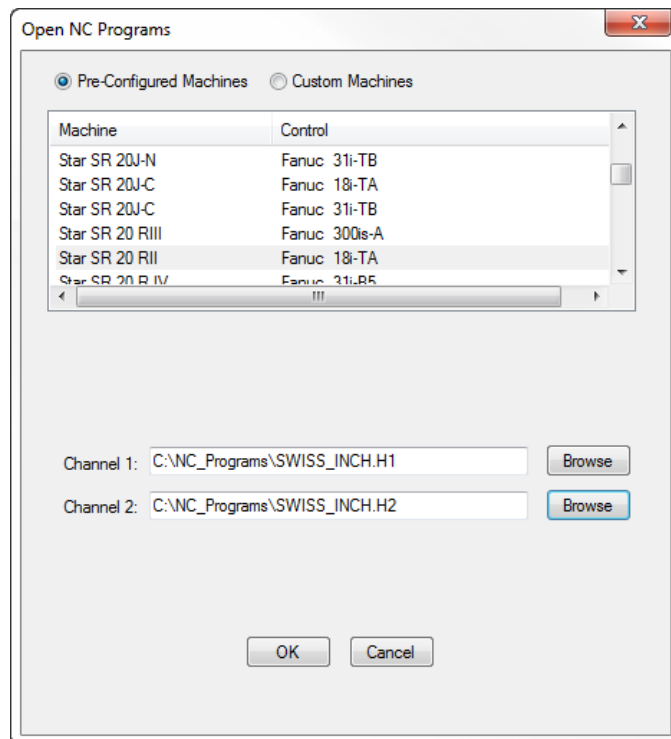
- 2 Click <Open Configuration Folder> button.
Windows Explorer will open the folder where the file, **PmMCEConfig.txt**, should be placed.
- 3 Place the **PmMCEConfig.txt** in the required directory.
- 4 Click the <Close> button to update the application based on this configuration.

Opening NC program files

- 1 On the toolbar, select File, and from the menu select **Open All NC Program Files**.



The Open NC Programs dialog will display as shown below:

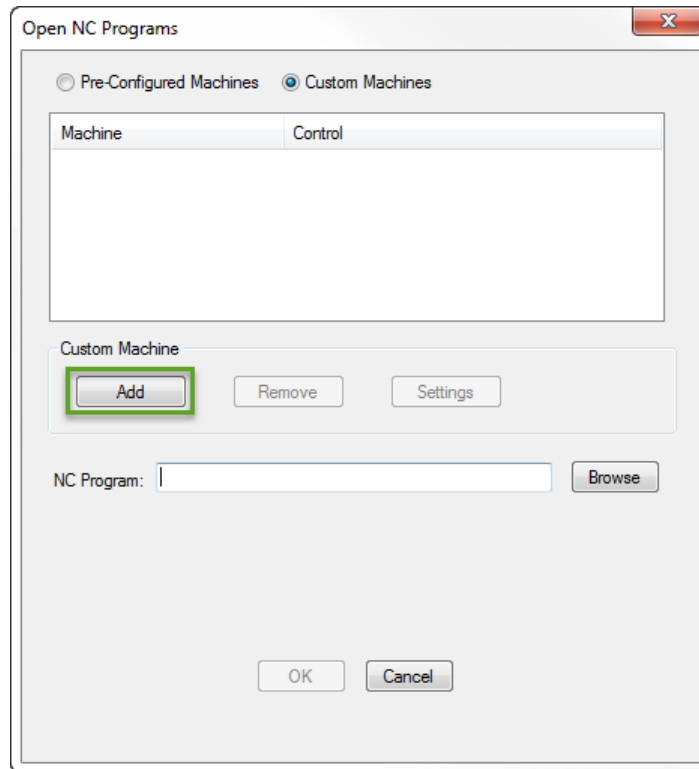


- 2 Choose your **Machine and Control combination** from the list of Pre-Configured Machines for the programs that you will be loading into the Viewer.
- 3 Click the **<Browse>** buttons next to each Channel field to select the NC programs to be loaded into the Viewer.
- 4 Press **<OK>** to open all programs.

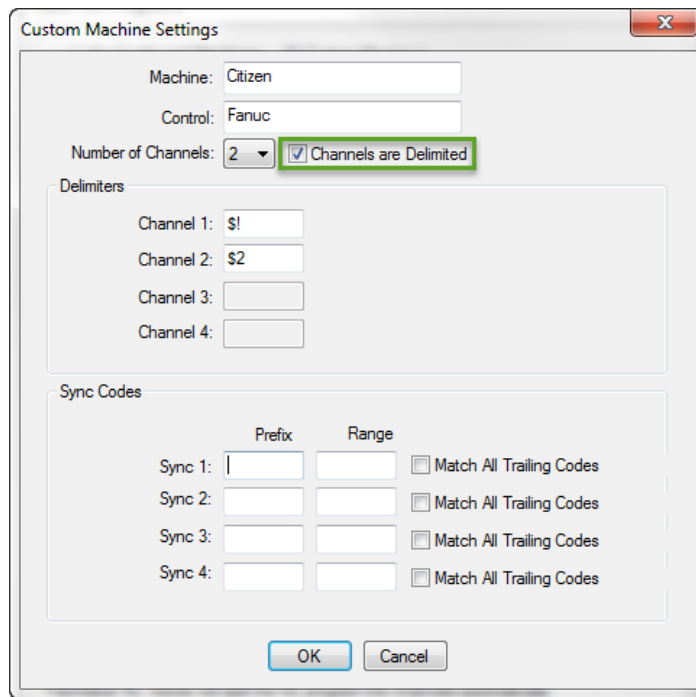
Opening NC program files by creating a custom machine

Dongle users of PartMaker will have the ability to create custom machines on top of the pre-configured machines they are licensed for, allowing them to edit and synchronise code for any machine.

- 1 On the toolbar, select File, and from the menu select **Open All NC Program Files**.
- 2 Select the Custom Machine radio button and press **Add** to create a custom machine.



- 3 Select the number of channels for your custom machine and set whether those channels are delimited or not.
 - For machines with multiple channels that use a single program file you will use a delimiter such as \$1, \$2.
 - For machines with multiple channels that use a program file for each channel, no delimiters will be used.



Custom Machine Settings

Machine: Citizen

Control: Fanuc

Number of Channels: 2 ☒ Channels are Delimited

Delimiters

Channel 1: \$!

Channel 2: \$2

Channel 3:

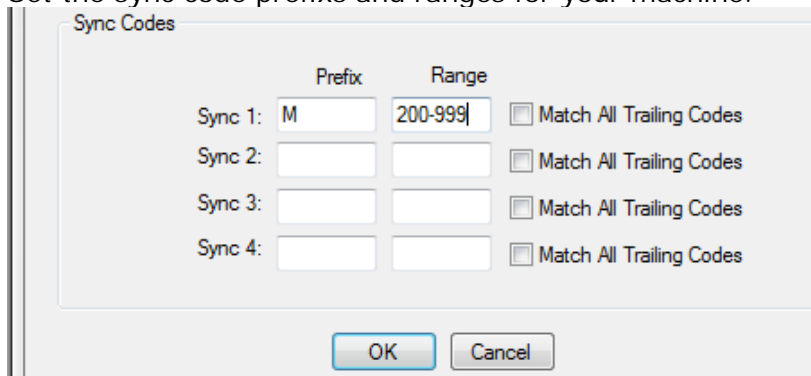
Channel 4:

Sync Codes

	Prefix	Range	
Sync 1:			<input type="checkbox"/> Match All Trailing Codes
Sync 2:			<input type="checkbox"/> Match All Trailing Codes
Sync 3:			<input type="checkbox"/> Match All Trailing Codes
Sync 4:			<input type="checkbox"/> Match All Trailing Codes

OK Cancel

- 4 Set the sync code prefixs and ranges for your machine.

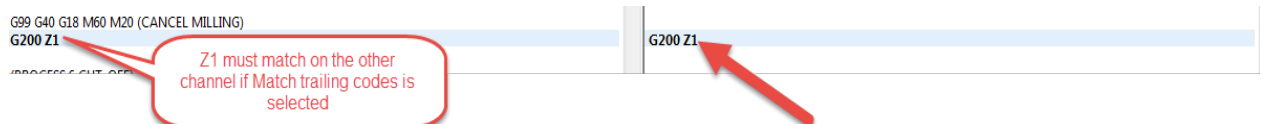


Sync Codes

	Prefix	Range	
Sync 1:	M	200-999	<input type="checkbox"/> Match All Trailing Codes
Sync 2:			<input type="checkbox"/> Match All Trailing Codes
Sync 3:			<input type="checkbox"/> Match All Trailing Codes
Sync 4:			<input type="checkbox"/> Match All Trailing Codes

OK Cancel

- 5 Select Match All Trailing Codes if you want codes after the sync code to match on each channel for synchronization.



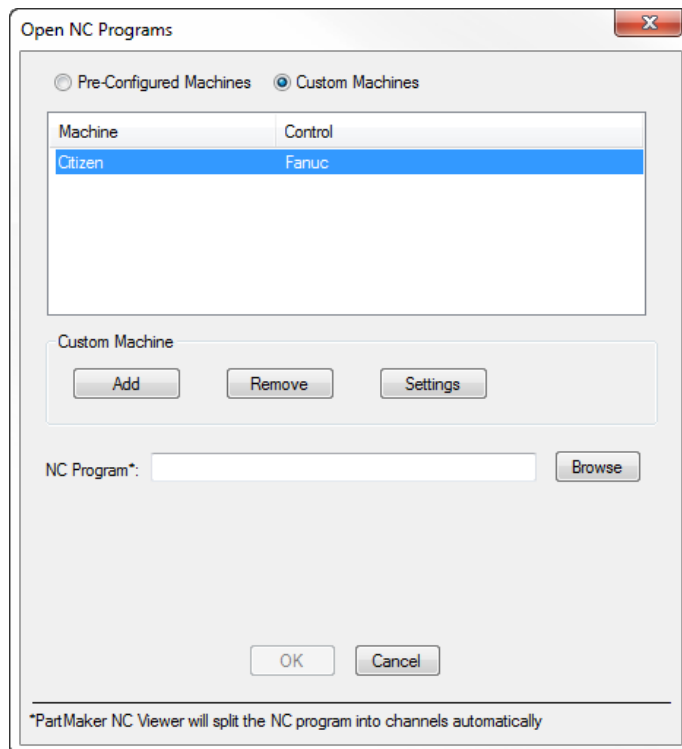
G99 G40 G18 M60 M20 (CANCEL MILLING)

G200 Z1

G200 Z1

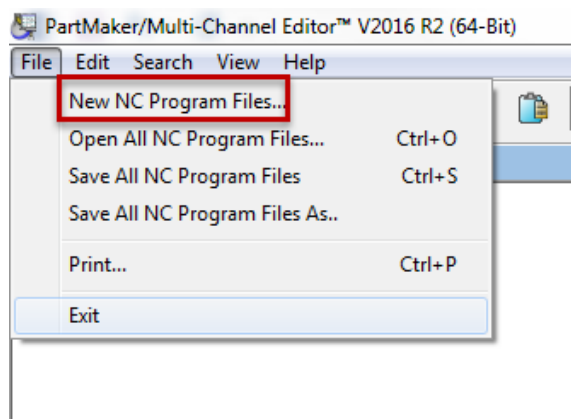
Z1 must match on the other channel if Match trailing codes is selected

- 6 After creating your custom machine, it will show on the list of custom machines and allow you to import the appropriate number of NC programs.

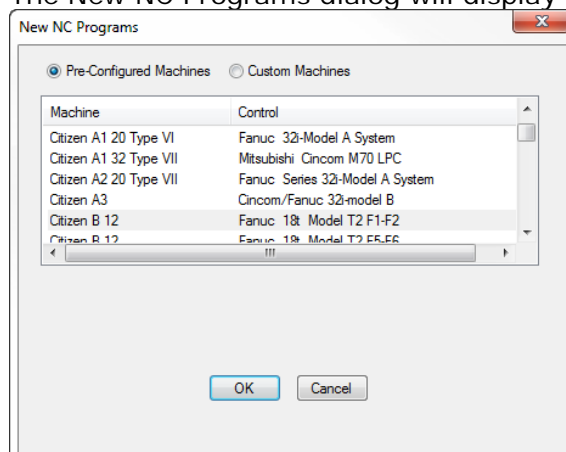


Creating a New NC Program

- 1 On the toolbar, select File, and from the menu select **New NC Program Files**.



The New NC Programs dialog will display as shown below:

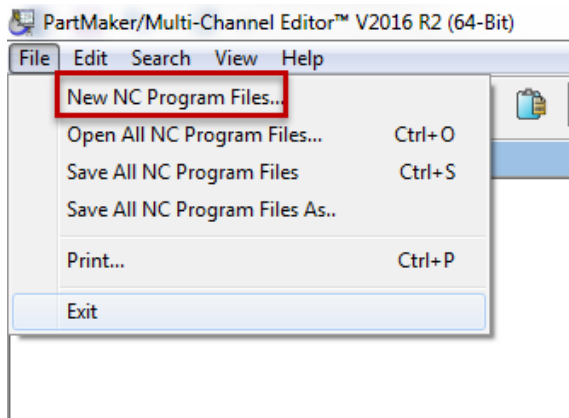


- 2 Choose your **Machine and Control combination** from the list of Pre-Configured Machines.

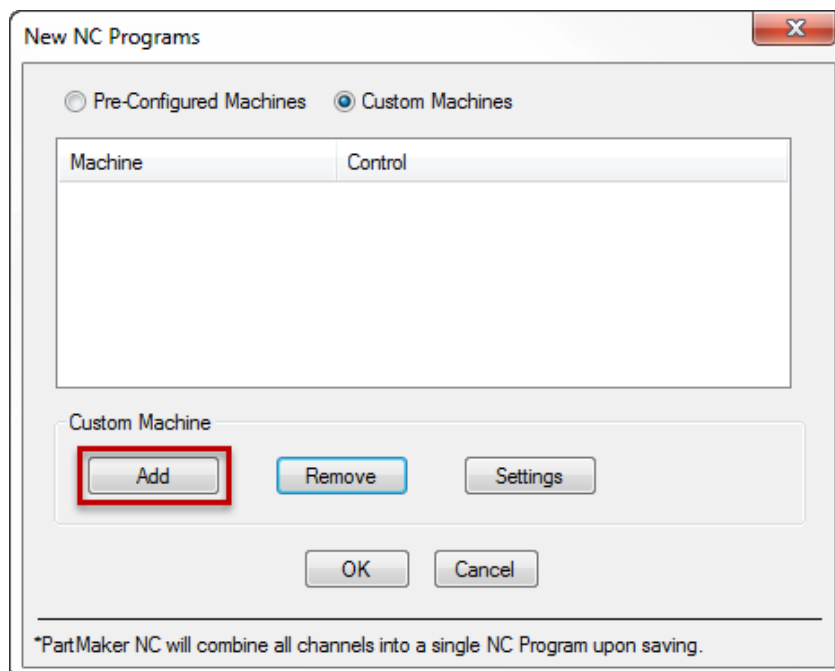
Creating a New NC Program by Creating a Custom Machine

Dongle users of PartMaker will have the ability to create custom machines on top of the pre-configured machines they are licensed for, allowing them to edit and synchronise code for any machine.

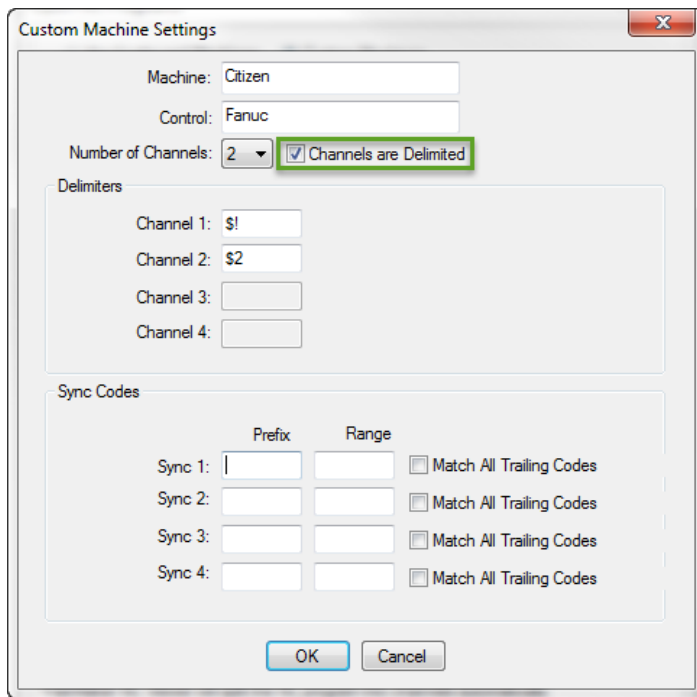
- 1 On the toolbar, select File, and from the menu select **New NC Program Files**.



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- 3 Select the number of channels for your custom machine and set whether those channels are delimited or not.
 - For machines with multiple channels that use a single program file you will use a delimiter such as \$1, \$2.
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Custom Machine Settings

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Channel 1: \$!

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Channel 3:

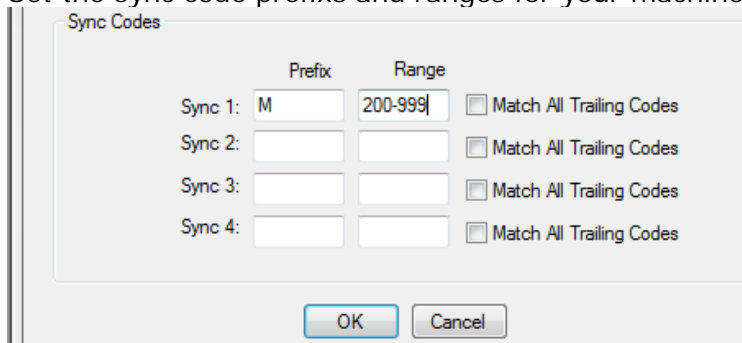
Channel 4:

Sync Codes

	Prefix	Range	
Sync 1:			<input type="checkbox"/> Match All Trailing Codes
Sync 2:			<input type="checkbox"/> Match All Trailing Codes
Sync 3:			<input type="checkbox"/> Match All Trailing Codes
Sync 4:			<input type="checkbox"/> Match All Trailing Codes

OK Cancel

- 4 Set the sync code prefixs and ranges for your machine.

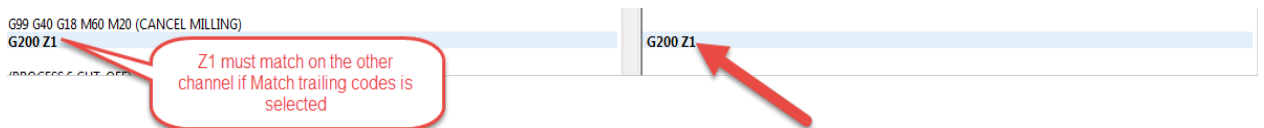


Sync Codes

	Prefix	Range	
Sync 1:	M	200-999	<input type="checkbox"/> Match All Trailing Codes
Sync 2:			<input type="checkbox"/> Match All Trailing Codes
Sync 3:			<input type="checkbox"/> Match All Trailing Codes
Sync 4:			<input type="checkbox"/> Match All Trailing Codes

OK Cancel

- 5 Select Match All Trailing Codes if you want codes after the sync code to match on each channel for synchronization.



G99 G40 G18 M60 M20 (CANCEL MILLING)

G200 Z1

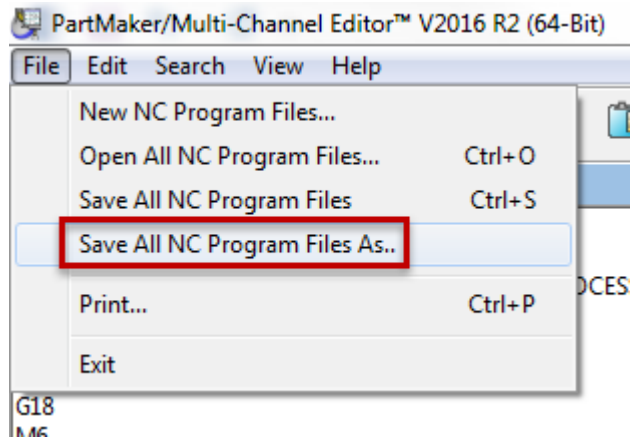
G200 Z1

Z1 must match on the other channel if Match trailing codes is selected

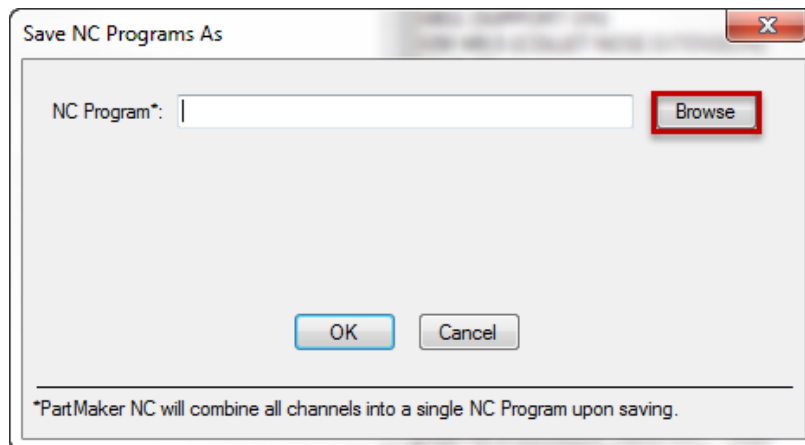
- 6 After creating your custom machine, it will show on the list of custom machines and create the appropriate number of channel for that machine in your new program.

Saving an NC Program in PartMaker Multi-Channel Editor

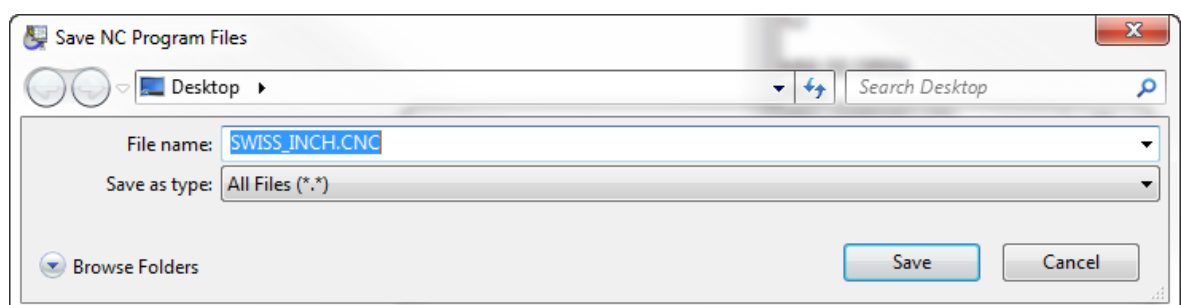
- 1 On the toolbar, select File, and from the menu select **Save NC Program Files As.**



- 2 Select the **Browse** button to set your save location and name the file.

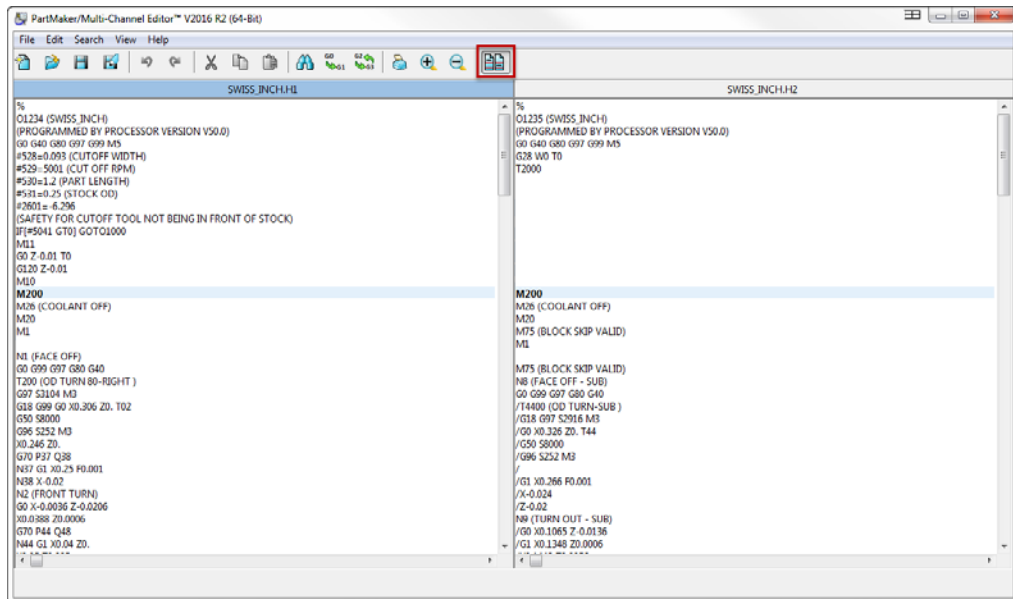


- 3 After selecting the file location, name the file with the extension needed for your machine. The Multi-Channel Editor will output the appropriate number of files based on your machine.



Aligning the Wait/Sync Codes

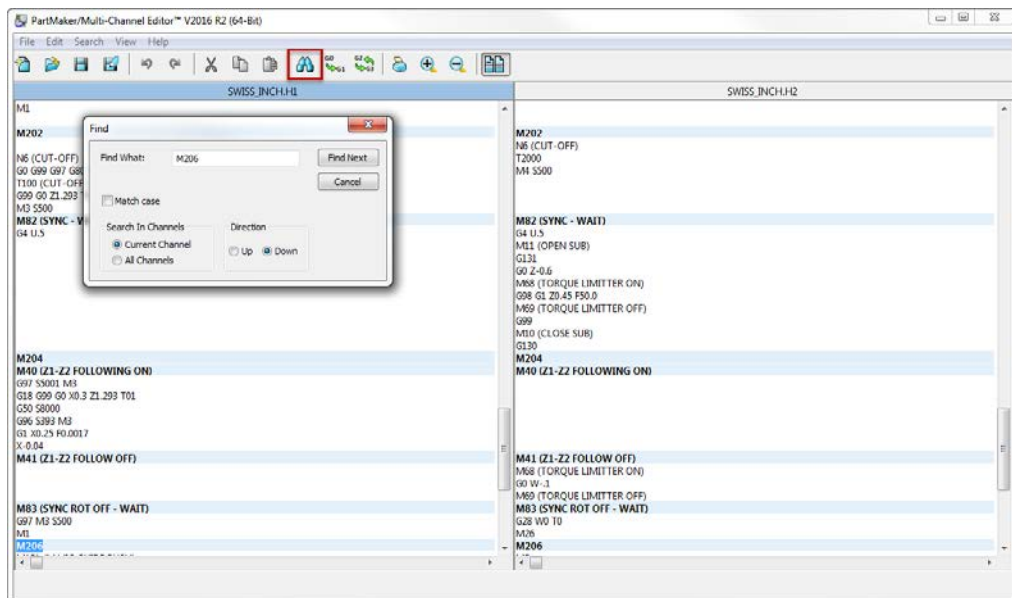
- 1 To align Wait codes across each channel, select the **<Align>** button from the Icon Bar.



Finding Text in the NC Programs

The **Find** Icon allows you to search for specific text in the NC Programs.

- 1 Click the Find Icon to display the Find Dialog box as shown here:



- 2 Enter the text that you wish to find in the **Find What** field.
- 3 Select the **Match Case** radio button if you would like find to be case sensitive.
- 4 Select the **Match Entire Code** radio button if you would like to find codes that match only the full code you have typed into the dialogs.

(Ex: With G0 typed in the Find What dialog, G03 will be ignored with Match Entire Code selected.)

- 5 Select where you wish to search by clicking one of the radio buttons under Search in Channels.

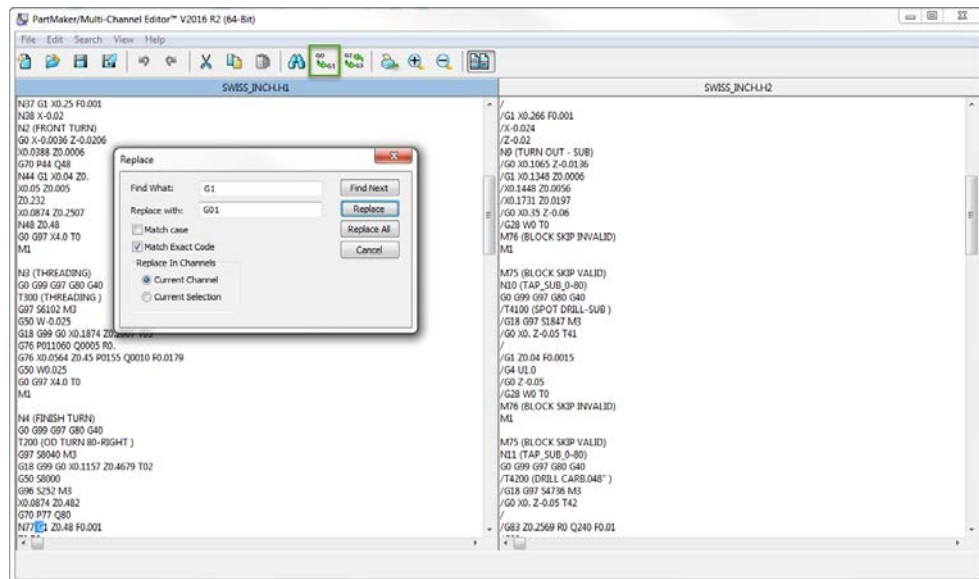
Current Channel will search in the channel with the NC program name highlighted in Blue.

All Channels will search across all channels shown.

Replacing Text in the NC Programs

The **Replace** Icon allows you to find and replace specific text in NC Programs.

- 1 Click the Replace Icon to display the Replace Dialog box as shown here:



- 2 Enter the text that you wish to find in the **Find What** field.
- 3 Enter the text that you wish to replace it with in the **Replace With** field.
- 4 Select the **Match Case** radio button if you would like replace to be case sensitive.
- 5 Select the **Match Entire Code** radio button if you would like to replace codes that match only the exact code you have typed into the dialogs.

(Ex: With G0 typed in the Find What dialog, G03 will be ignored with Match Entire Code selected.)

- 6 Select where you wish to replace by clicking one of the radio buttons under Replace in Channels.

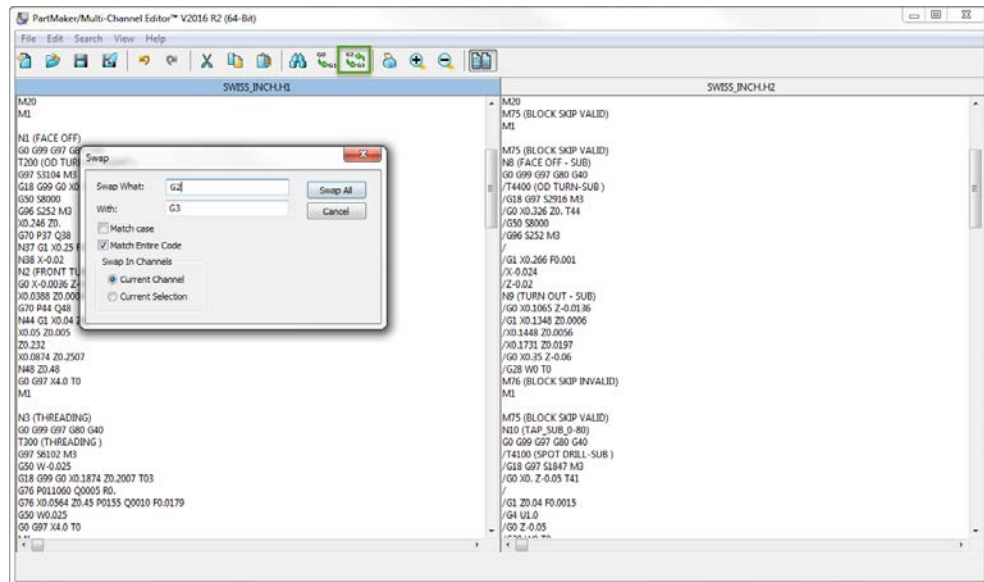
Current Channel will replace in the channel with the NC program name highlighted in Blue.

All Channels will replace across all channels shown.

Swapping Text in the NC Programs

The **Swap** Icon allows you to swap text in NC Programs.

- 1 Click the Swap Icon to display the Swap Dialog box as shown here:



- 2 Enter the text that you wish to swap in the **Swap What** field.
- 3 Enter the text that you wish to swap it with in the **With** field.
- 4 Select the **Match Case** radio button if you would like swap to be case sensitive.
- 5 Select the **Match Entire Code** radio button if you would like to swap codes that match only the full code you have typed into the dialogs.

(Ex: With G0 typed in the Swap What dialog, G03 will be ignored with Match Entire Code selected.)

- 6 Select where you wish to swap by clicking one of the radio buttons under Swap in Channels.

Current Channel will swap in the channel with the NC program name highlighted in Blue.

All Channels will swap across all channels shown.