

CNC Transfer

Operating Manual

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1. Introduction

CNC Transfer enables a PC to communicate with any CNC machine that has a serial interface. It organises programs in a structured manner and provides text editing facilities. Before using CNC Transfer it is recommended that you read through this manual.

1.1 Installation

To install CNC Transfer, locate and double-click the installer file then follow the on-screen instructions.

1.2 Running

To run the program, open the Start menu, go to *Programs* and click *CNC Transfer* in the folder of the same name.

1.3 Registration

To enable the registered version of CNC Transfer, load the program then go to the *About* menu and click *Registration*. A dialogue box will appear, in this box you will need to enter your registration name and key, then click *Register*. If you have correctly entered the details you will have full access to CNC Transfer, if not check that you have typed your registration details exactly as supplied.

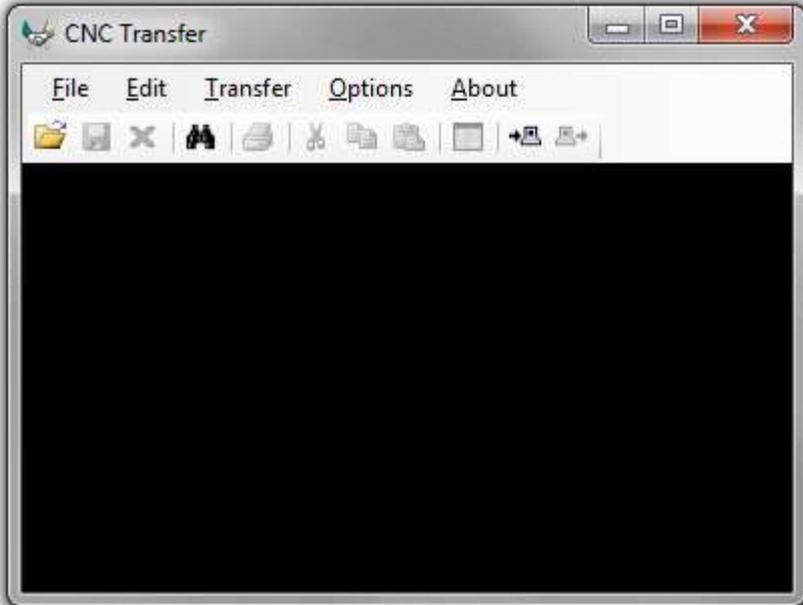
2. Using CNC Transfer

2.1 Set Up

When you run CNC Transfer for the first time it will create a default data directory in *C:\CncData*. If you would like to use a different location (either because you already have a data directory elsewhere or because you would like to save to a different location) then use the *Data Location* command on the *Options* menu (see below) to choose another location.

Before CNC Transfer can be used it must be set up. Use the *Edit Customers* dialogue box (see below) to add the names of all the customers that you wish to store programs for. Use the *Edit CNCs* dialogue box (see below) to add the technical details of each CNC machine that will be used. You should test that you have entered the correct settings by using the *Receive* and the *Send* menu commands (see below).

2.2 Usage



When CNC Transfer is loaded a black editor window will be displayed. Along the top of the window is the title bar, this shows the name of the currently opened program. Below the title bar is the menu bar, it allows access to all of CNC Transfer's commands. Below this is a toolbar that provides convenient access to the most commonly used commands.

2.3 File Menu

The *File* menu contains the following commands.

2.3.1 Open

This command allows you to open a previously saved program. When the command is selected the *Open Program* dialogue box will appear. This dialogue contains a box labelled *Customer*, clicking one of the customer names will display a list of programs in the *Program* box (if nothing appears it means that there are no programs saved under that customer name). Selecting one of the programs and clicking the *Open* button will open the selected program in the editor.

2.3.2 Save

This command will save any changes made in the editor or the Header dialogue box. If you are working on an untitled program (for example after using the *Import* command)

then the *Save Program* dialogue box will be displayed (as if you had clicked *Save As* in the *File* menu).

2.3.3 *Save As*

This command has two main uses. The first use is when you are working on an untitled program, it allows you to save the program by specifying a customer and program name. If you want to save your untitled program over the top of an existing program you can select the customer as normal then choose the program to be overwritten from the program list.

The second use for the *Save As* command is to copy a program to another customer. First, open the program you wish to copy to another customer, then choose the *Save As* command. Select the new customer from the list and click *Save*, the program in the editor will be copied to the selected customer.

2.3.4 *Delete*

This command allows you to delete a previously saved program. When the command is selected the *Delete Program* dialogue box will appear. This dialogue contains a box labelled *Customer*, clicking one of the customers will display a list of programs in the *Program* box (if nothing appears it means that there are no programs saved under that customer). Selecting one of the programs and clicking the *Delete* button will show a warning box asking you to confirm your choice. Be careful as deleting a program cannot be undone.

2.3.5 *Close*

This command closes the current program.

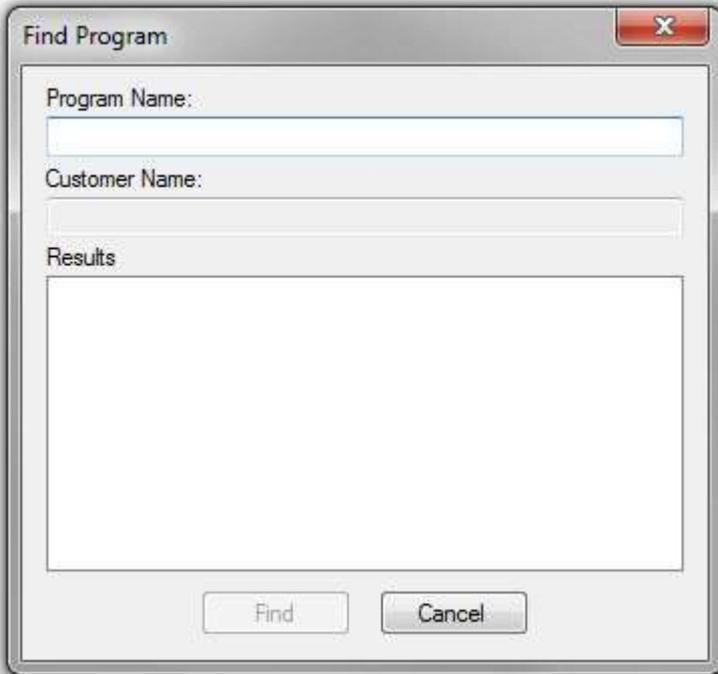
2.3.6 *Import*

This command allows you to import an external file containing a program into CNC Transfer. An *Open* dialogue box will appear, find the file you wish to import and then click the *Open* button. Once you have imported a program from a file it will open in the editor, you can then use the *Save* command to save it (see above).

2.3.7 *Export*

This command allows you to export a program to a text file. A *Save As* dialogue box will appear, choose the location you wish to export the program to and enter a filename, then click the *Save* button. You will be asked whether you wish to remove encoding data from the program, selecting *Yes* will make the exported file easier to read in a standard text editor but may cause problems when re-importing. Selecting *No* will export the file in the same format it was received in.

2.3.8 Find Program



This command can be used to find a program without knowing which customer it is stored under. Enter part of the program name in the *Program Name* box and then click the *Find* button. A list of program names containing the text you entered will be displayed. Clicking one of these programs will display which customer it belongs to in the *Customer Name* box. Clicking *Open* will open the currently selected program in the editor.

2.3.9 Print

This command allows printing of the current program (including its header information). Clicking the command shows the *Print* dialogue box where the printer and the number of copies to be made can be selected. Press the *Print* button to start printing.

2.3.10 Print Program Index

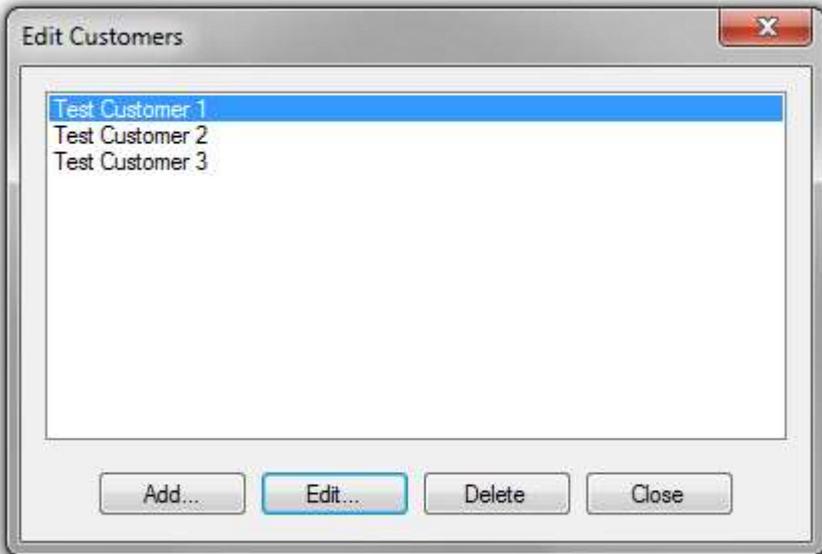
This command opens the *Print Program Index* dialogue box, it allows you to print indexes of customers and the programs associated with them. You can select customers by clicking them and can deselect them by clicking a second time. You can use the *All* and *None* buttons to select all customers or deselect all customers respectively. The *Each customer on new page* option starts each customer index at the top of a new sheet of

paper. When you are happy with your choices click *Print* to bring up the *Print* dialogue box where you can choose your printer and the number of copies required. Click the *Print* button to start printing.

2.3.11 Print CNC Index

The *Print CNC Index* command prints a list of each CNC and the options associated with that machine. Clicking the command shows the *Print* dialogue box where the printer and the number of copies to be made can be selected. Press the *Print* button to start printing.

2.3.12 Edit Customers



This command shows the *Edit Customers* dialogue box that allows you to add, edit and delete customers. To close the *Edit Customers* dialogue box click the *Close* button.

To add a customer, click the *Add* button then enter the name of the new customer. When you have entered it click *Add* to accept or *Cancel* to close without adding the customer to the list.

To edit a customer, select a customer from the list and then click the *Edit* button, edit the name as required then click the *Update* button. Clicking *Cancel* will close the *Edit* dialogue box without altering the customer name.

To delete a customer, select a customer from the list then click the *Delete* button, you will be asked to confirm this decision by clicking the button labelled *Yes*. If you delete a

customer all programs associated with that customer will also be removed, this process cannot be undone so be careful.

2.3.13 Recent Programs

This submenu shows a list of the five most recently opened programs, click an entry to reopen that program. If you have not yet opened a program this menu item will not appear.

2.3.14 Exit

This command quits CNC Transfer. If an unsaved program is opened then you will be asked if you want to save. Click the *Yes* button to bring up the *Save Program* dialogue (see above). Click the *No* button to exit without saving. Click the *Cancel* button to keep CNC Transfer open. It is advisable that you always exit CNC Transfer before turning off your machine.

2.4 Edit Menu

The *Edit* menu contains the following commands.

2.4.1 Undo

This command will undo the most recent change in the editor. Pressing Undo again will restore the most recent change.

2.4.2 Cut

This command will remove the currently highlighted text and place it on the clipboard, you can then use paste to insert the text in a different position or into a different program.

2.4.3 Copy

This command will place the currently highlighted text on the clipboard, you can then use paste to insert the text in a different position or into a different program.

2.4.4 Paste

This command will insert any text on the clipboard at the current cursor position.

2.4.5 Select All

This command selects all text in the current program.

2.4.6 Find

This command opens the *Find and Replace* dialogue box, any text selected in the editor will automatically be copied into the *Find what* box, you can edit this text as normal.

Click the *Find Next* button to begin the search. If the text is contained within the editor then the first occurrence of it will be highlighted, otherwise a message box will inform you that the text could not be found. To find further occurrences, click the *Find Next* button again, click the *Find Next* command in the *Edit* menu or press the F3 key.

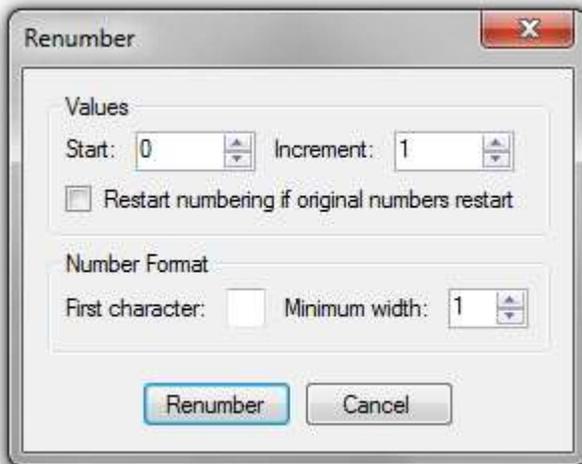
2.4.7 Find Next

If you have already used the find command then this command will search for the next occurrence of the text you entered. *Find Next* will automatically loop around to the top of the editor when it gets to the bottom. If the *Find* command has not yet been used then the *Find and Replace* dialogue box will show (see above).

2.4.8 Replace

This command displays the *Find and Replace* dialogue box, it is used to replace one piece of text with another. Enter the text you wish to be replaced in the box labelled *Find what* and the replacement text in the box labelled *Replace with*, then click either *Find Next*, *Replace* or *Replace All*. *Find Next* will search for and highlight the next occurrence of the *Find what* text. *Replace* will replace the currently highlighted *Find what* text with the *Replace with* text, if no match is currently highlighted then *Replace* will perform a *Find Next* instead. *Replace All* will replace all occurrences of the *Find what* text with the *Replace with* text.

2.4.9 Renumber



This command allows you to renumber a program. The *Start* box specifies the starting number for the first line of the renumbered program. The *Increment* box sets how much the number should increase by for each line of code. Ticking *Restart numbering if original*

numbers restart will preserve any line number restarts in the original program, unticking this option will ignore any line number restarts in the original program.

The *First character* box specifies the leading character any current line numbers use (e.g. if the current line numbers are of the form N0005, N0010, N0015, etc. then you would specify N in the *First character* box). If the current lines numbers are purely numeric then leave this box empty. The *Minimum width* box allows the line number to be padded with zeros until it matches the specified width (e.g. setting *Minimum width* to 4, *Start* to 0 and *Increment* to 5 would output line numbers as 0000, 0005, 0010, etc.). Click the *Renumber* button to perform the renumbering.

2.4.10 Header

This command displays any additional information associated with a program and allows the user to edit this information. All of the boxes can be edited except for the *Program* and *Customer* boxes.

2.5 Transfer Menu

The *Transfer* menu contains the following commands.

2.5.1 Receive

This command will display the *Receive Program* dialogue box, this box allows you to receive programs sent via the serial port from a CNC machine.

You can use the *File Name* section of the dialogue box to select a customer and then type or select a program name. You must also choose which CNC you are receiving from. After choosing a CNC you can fill in any or all of the other boxes with further information about the setup used with this program. The *Clear* button will clear this information, allowing you to start again.

To begin the transfer, click the *Receive* button. If you chose an existing program and did not change its name you will be asked to confirm you wish to overwrite it. If you chose an existing program but changed the name then you will be asked if you want to rename the existing program or create a new program. Once you have confirmed what you want to do, the *Receive Status* dialogue box will open.

You can now tell your CNC machine to begin sending the program. The *Receive Status* dialogue box shows how many characters have been received so far. If you wish to end the process prematurely then clicking the *Cancel* button will return you to the editor. When your machine has finished sending the program a message box should appear telling you the program has been properly received, if this does not happen then click the *Finish* button to save the program you have received.

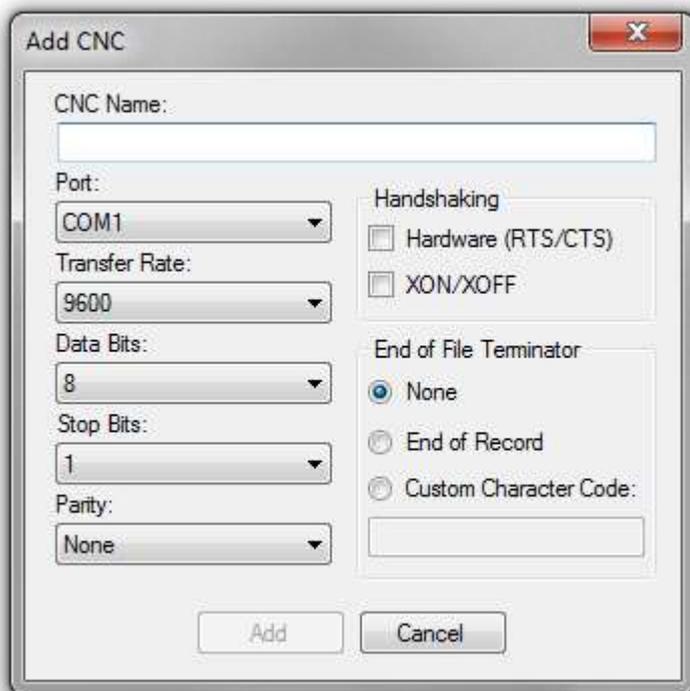
2.5.2 Send

This command allows you to send the contents of the editor via the serial port to the selected CNC machine. You should use the *Open* command (see above) to load the desired program into the editor first.

If the currently open program has never been sent or received (e.g. it was imported) then the *Choose CNC* dialogue box will appear allowing you to select which CNC you are sending to. If the program has already been sent or received then the CNC will be automatically chosen (you can change the CNC associated with a specific program by opening the program then going to the *Header* command in the *Edit* menu). Ensure your CNC machine is set to receive a program before clicking *Send*. The *Send Status* dialogue box will now open, this shows the current progress of the transfer, if you wish to stop the transfer prematurely then click the *Cancel* button.

2.5.3 Edit CNCs

This command shows the *Edit CNCs* dialogue box that allows you to add, edit and delete CNC profiles.



Clicking the *Add* button opens the *Add CNC* dialogue box. Here you can enter the relevant data about a particular CNC machine and store that data for future use. First, enter a name in the box labelled *CNC Name*, this is compulsory. The other options can then be set to the required values, when you have finished, click the *Add* button.

Selecting a CNC then clicking the *Edit* button allows you to change the current settings for that CNC profile. Clicking *Delete* allows you to delete a CNC profile.

2.6 Options Menu

The *Options* menu contains the following commands.

2.6.1 Data Location

This command allows you to change the location where your CNC programs are stored. Choose the new location then press *OK* to confirm. Note this will not move the existing data directory itself, only the location that CNC Transfer uses. If necessary you can manually move a data directory using the tools provided by your operating system.

2.6.2 Text Font/Colour

This command shows a *Font* dialogue box where the font and colour of the text displayed in the editor window can be chosen.

2.6.3 Background Colour

This command shows a dialogue box where the background colour of the editor window can be chosen.

2.7 About Menu

The *About* menu contains the following commands.

2.7.1 Registration

This command allows you to enter a registration code to enable the full version of CNC Transfer. Enter your registration name and key exactly as supplied, then click the *Register* button. After registration this command shows the name of the currently registered user.

2.7.2 About CNC Transfer

This command shows the current version number of CNC Transfer.

3. Further Details

CNC Transfer uses its own directory to store programs and other relevant data. A regular backup copy of this directory should be made using the tools provided by your operating

system or a special purpose backup utility. You should be careful not to delete this directory unless you want to get rid of all your programs and their associated data.

4. Troubleshooting

Symptoms	Possible Causes	Suggested Remedies
A received program is the correct length but the characters appear to be rubbish.	Incorrect parity setting.	Select the correct type of parity in the <i>Edit CNCs</i> box according to your CNC machine's specifications.
A received program is not the correct length and the characters appear to be rubbish.	Incorrect transfer rate setting.	Select the correct transfer rate, data bits and stop bits settings in the <i>Edit CNCs</i> box according to your CNC machine's specifications.
Nothing has happened.	Incorrect COM port setting.	Check the machine is connected to the port specified in the <i>Edit CNCs</i> box.
	Incorrect handshaking setting.	Select the correct handshaking setting in the <i>Edit CNCs</i> box according to your CNC machine's specifications.