DNC2go

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Introduction

Striker Systems has taken its SS-DNC communication solutions one step further. The new addition of DNC2go allows you to have access to all your CNC programs though a Pocket PC device. This allows you portable access to all your file transfer needs without a permanent cable connection to all your equipment. DNC2go can transfer files from your local or network storage locations through Wireless, Bluetooth and Serial cable options. Each of your machine configurations is stored in DNC2go separately, so you simply select the machine from a list and your ready to transfer your files. File transfers support both Send and Receive modes, so you can upload files as well as download to your Pocket PC any changes you want to save to any of your storage locations. DNC2go is easily configurable for any equipment with an RS232 port that will accept a text file transfer.

Installing DNC2go

Step 1: Connect your PDA to a desktop using ActiveSync, the linking software that connects your PDA to a desktop. If you do not have ActiveSync it is available from Microsoft's website:
http://www.microsoft.com/windowsmobile/downloads/default.mspx

Step 2: Insert the DNC2go installation disc into the linked PC or run the setup program that you have previously downloaded.

Step 3:   Follow the on screen instructions as directed by the installation wizard to install DNC2go.

Using DNC2go

Congratulations! You have now completed the installation and initial setup of your DNC2go software.

In this section we will discuss the menu system and the basics of running the DNC2go application.

Setting up a Machine Identifier

Step 1: Open DNC2go from the start menu on your PDA.

Step 2: On the first startup you will be taken to the Authorization code page (Figure 4). Please type in the Authorization code provided to you by Striker Systems to fully activate the software. The software comes with a full Demo mode, but it is limited to a 30 day trial period with a transfer limit of 255 characters. It is recommended that you obtain your authorization code as soon as possible.

Figure 1 – Authorization Form

Step 3: After entering your authorization code or selecting Demo you will be taken to the main form (Figure 5). From the main form we will begin by setting up a machine configuration.

Figure 2 – Main Form

Step 4: On the bottom tool bar select 'Tools' then 'Options' to display the Options form (Figure 6).

Figure 3 – Machine Options

Step 5: On the Machine tab, type in a machine name for configuration on DNC2go and click add on the button below.

Step 6: The Options form contains several tabs for configuring the machine settings. The following provides a brief outline of each tab and its contents.

Machine Identifier Management (Figure 6)

Select Active Machine – Select the machine for which to modify the settings.
Add/Remove Machine – Add or delete machine configurations.

Communication (Figure 7)

COM Port – Select the COM port used to send and receive data. The Filecopy option is used to send and receive files locally or across a network.

Filecopy Path – Select the destination path to use during a Filecopy transaction.

Hand Shaking – Set the hand shaking protocol for the machine configuration.

Baud Rate – Set the baud rate for the machine configuration.

Data Bits – Set the data bits for the machine configuration.

Parity – Set the parity bit for the machine configuration.

Stop Bits – Set the stop bit for the machine configuration.

Figure 4 - Communication

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Extended (Figure 8)

Character Transfer Delay – Set the amount of time in milliseconds that the application delays before sending the next character.

File Receive Time Out – Set the amount of time in seconds that the application waits for a file to be received.

File Send Delay – Set the amount of time in seconds that the application delays before sending a file.

Enable SSDNC Logging – Enable or disable logging of transactions to a .log file in the installation directory.

NC Extension Filters – Add, remove, or sort extension filters for the open file and open folder browser dialogs.

Figure 5 – Extended Options

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Pre/Post Send (Figure 9)

Pre-Send Data – Enable or disable the sending of a Pre-Send data file. The Pre-Send File button allows the user to select the local file to be sent.

Post-Send Data – Enable or disable the sending of a Post-Send data file. The Post-Send File button allows the user to select the local file to be sent.

Figure 6 – Pre/Post Send

Translations (Figure 10)

Send Translations – Enable or disable the use of a translation file while sending. The Send File button allows the user to select the local file to be used for translations during a send.

Receive Translations – Enable or disable the use of a translation file while receiving a file. The Receive File button allows the user to select the local file to be used for translations while receiving a file.

Figure 7 - Translations

Step 7: From the Communications tab (Figure 7) set the transfer options to match the Hand Shaking, Baud Rate, Data Bits, Parity, and Stop Bits of your particular machine.

Step 8: When finished in the 'Options' form select OK at the top right corner to return to the main form.

Sending/Receiving

At this point you are ready to begin sending and receiving files. At the top of the main form click the 'Active' dropdown list to select the active machine identifier.

Sending:

Sending files on your PDA

Step 1: In order to send a file, first choose 'Select File' from the main form (Figure 5) to open the file browser dialog (Figure 11).

Note: If you have not loaded any NC files to your PDA, you can use ActiveSync to transfer files to a directory on the PDA.

Step 2: Navigate to the desired file and select it using the stylus. After selecting the file, you will be returned to the main form (Figure 5).

Step 3: Next click the Send button on the main form (Figure 5).

Figure 8 - File Explorer

Sending files from a network resource

Step 1: In order to send a file, first choose 'Select File' from the main form (Figure 5) to open the File Explorer dialog (Figure 11).

Step 2: At the bottom of the screen select Open from the toolbar.

Step 3: You will be presented with the Open Path form (Figure 12). Type the desired path name in the blank and select OK. Example Path: \\exampleserver

Step 4: Next choose a file from the available files presented to you through the File Explorer (Figure 11). Pick the file to return to the Main form (Figure 5).

Step 5: Next click the Send button on the Main form (Figure 5).

Figure 9 – Open Path

Receiving:

Step 1: Setup the machine or computer to send the file, but do **not** send.

Step 2: Now, from the Main form of your DNC2go software select the Receive button. You will be presented with the Save File dialog (Figure 13) to choose the file name, folder, type, and location.

Note: If a file has previously been selected you will be prompted before it overwrites the file. If you choose NO you may either use the assigned file name or enter your own.

Step 3: Immediately after selecting the file name a default 30 second countdown will begin. In this time period you may begin sending the file from the machine. If you do not send the file in this amount of time then the receive command will timeout and return to the Main form.

Figure 10 – Save File

Step 4: The file will transfer as shown by the 'Transferred characters' progress bar. You may view the file after completion by selecting File then View from the toolbar on the Main form.

Using Translation Tables

DNC2go can use translation tables to convert the files being send and received to and from the machine controller.

If your machine is able to receive true ASCII file formats, then translation tables are not required. However, some machines cannot be reconfigured to an ISO format, which is the same as ASCII text format.

DNC2go also provides template files for transfer processes to properly format your existing files so that needed information can be added to the header and footer sections of the file being sent to the machine.

If your machine cannot be reconfigured, it is probably only able to accept files in EIA format, so all program files transferred into and out of DNC2go will need to be translated.

You can select the EIA-ISO included file for the RECEIVE translation and the ISO-EIA included file for the SEND translation file.

Some standard translation files will be placed in the
My Documents/TranslationFiles
directory on the Pocket PC during the application installation.

Specific translation tables can be specified using the Translations tab of the Options dialog (Figure 14). Use the appropriate button to display an Open dialog and navigate to the desired file for selection.

Figure 14 – Translations

Creating/Modifying a Translation Table

If you need to setup your own translation files, use the following example information to help configure them as needed.

Example: Character Translation File
The translation file format is 'char1=char2, char3, char4.....'
Char1 is the character to be translated.
Char2, char3, char4 etc... are the characters which will be used in place of char1.

The following examples may be used. All translations must be on their own line. If a character is not referenced then it is simply not translated.

97=97 is the same as NO 97 reference at all.
By default all Ctrl characters (char<32) and 123,124,125,126,127 are set to be strip.

Lines with a ';' as the first character are comment lines.

Examples:
97=97 Translates the letter 'a' to 'a'. Nothing changes.
97= All letter 'a' will be skipped or stripped.
97=98 All letters 'a' will be translated to letter 'b'
97=98, 99, 100 All letter 'a' will become 'bcd'
97=0 All letters 'a' will be replaced with 0 Null

Troubleshooting

Sending/Receiving

Dropped Lines or Sections of Code
- Check to make sure your Hand Shaking, Baud Rate, Data Bits, Parity, Stop Bits are the same as your machine.
- Check your wireless connections Signal strength. If it loses connection temporarily it will prematurely terminate the transfer
- The Pocket PC may be sending data faster than the controller can accept it. Try putting a 1 millisecond delay in the Character Transfer Delay option on the Extended tab of the Options dialog.

Transfer Bar shows transfer, but received no file to machine.
- Check COM port settings. If on wrong COM port (ex. COM1) the file will not transfer due to a wrong path. Remember Bluetooth generally transfers on COM7.

CR and LF Translation during Download
- At the end of each line in an ASCII formatted text file, there can be two invisible characters. One is a CR (Carriage Return) character and the other is a LF (Line Feed) character.

The Carriage Return causes the next character to return to the beginning of the same line. This would make each line of text overwrite itself with the next line.

The Line Feed causes the next character to move down to the next line. This will make the lines of text look like stair steps going down and to the right should you view it in a text editor like NOTEPAD.

Some machine controllers cannot use both a Carriage Return and a Line Feed at the end of each line of code. If this happens then the Send Translation File will need to be modified. The hexadecimal code for a Line Feed is 13 and hexadecimal code for Carriage Return is 10. Either of the characters can be stripped by changing the appropriate line in the Send Translation file to 10= or to 13=. Only one should be stripped since at least one is usually needed to indicate the end of the code block at the machine.

CR and LF Translation during Upload

After receiving the file to the computer, when viewing it with Pocket Word, each line of code should be properly formatted so that each line is to the far left and directly under the previous line. If it appears that each new line overwrites the previous line and it never moves down that means that there are no Line Feeds in the code, only Carriage Returns. In this case, open the Receive Translation file and edit the 13= line to be 13=13,10. If the code is displayed in a "stair step" pattern down the screen then it means that there are no Carriage Returns in the code only Line Feeds. In this case, open the Receive Translation file and edit the 10= line to be 10=13,10.