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Using CCL to Upload and Download from your CNC Console

G&L 8000 CNC

(Models where you use the Punch and Load/Delete buttons for uploading and downloading part program files. Assign COM1:=2. Set the Default Device to COM1:2)

The concept of CCL (CCI's Command Language), is to create a "dummy" program at your CNC console with the CNC's editor into which you enter the command to either get a file from the SuiteFactory database or save one to that database. Response files are sent to the CNC at appropriate times with codes describing an action or problem. See code list on last page of this document.

The SuiteFactory system administer must set up the CCL leader as:
% <CR><LF> N0(PGM,RSP) <CR><LF>
where RSP is the name of the response file. (It can be something different if you wish.)

The CCL Trailer must be set up as:
(CODE)<CR><LF>N100M02<CR><LF>%

Check box for "Send response code without trailing newline.

To Get a File from the DNC System

1. Edit the 'dummy' program, DNCdown, for example.
   - Alter the Xvalue where 'value' is the name of the file exactly as it is stored in the DNC database.
     For example XVMC070.TFI where VMC070.TFI is a file in the DNC database assigned to this machine type.
   - If you have multiple versions of the file add a second line to the 'dummy' program with Xvalue where 'value' is the version you want.

2. Send the 'dummy' program, DNCdown to the DNC system:
   - Press PUNCH
   - Type DNCdown (or whatever you named the 'dummy' program to get a file from the DNC database.)
   - Make sure soft menu item SINGLE is selected
   - Press key S1, Begin Output
   - Wait at least 15 seconds.

3. Get the file you requested:
   - Press Load/Delete
   - If necessary press DSPL RET to get to the screen with the Begin Load selection above S1.
   - Press S1, Begin Load.

4. When reading is complete, check your program and make sure there were no problems. If the DNC system had a problem locating the requested file or if that file was not assigned to your machine, instead of the program you requested, you will get a response file, RSP, for example, (or whatever it is called on your CNC), with a coded error message rather than the file you requested. For example, an N6 response means that the program could not be found in the DNC database. Make sure that you spelled it correctly in 'dummy' program SF. An N12 response means that the program exists in the database but it is not assigned to your machine.

5. If you got a response file **delete it now**. Correct the problem then try again.

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To Send a File to the DNC System

1. Edit the 'dummy' program, DNCup, for example, (or whatever it is called on your CNC):
   - Alter the Yvalue or Zvalue, where 'value' is the name of the file exactly as you want it named on the DNC system.
   For example YVTL208F where VTL208F is the name you want to call the program you are saving on the DNC system.
     - If your system is configured for single version only then "value" must be a new and unique name. Add the operator's initials for example. If you supply a name that already exists in the DNC database you will get a response with the code N7.
     - If your system is configured to use the automatic naming function for new files then make 'value' = 0. For example, Y0 or Z0.

2. Send the 'dummy' file DNCup to the DNC system:
   - Press PUNCH
   - Type DNCup (or whatever you called the 'dummy' program to save programs in the DNC database.)
   - Press S1, Begin Output.
   - Wait at least 15 seconds.

3. Get the response file which tells you the DNC system is ready to save your program:
   - Press Load/Delete
   - Type RSP (or whatever the response file was named.)
   - Press S1, Begin Load. You will receive program RSP.
   - The contents of RSP should have the code, N1, in the first line after the PGM line. This means that SuiteFactory is ready to receive the DNC file you want to save.
   - If there was a problem with your request to save the file, instead of the N1 code you will get a different code. For example, N7 means that DNC system could not use the name, "value", you specified probably because your system is configured for single version only and the DNC file name you specified was already used. Delete the response file, change the value to something unique and try again.

4. **Delete the response file** (for example, RSP) from CNC memory.

5. Send the program you what to save to the DNC database.
   - Press PUNCH
   - Type filename where filename is the program you want to save.
   - Press S1, Begin Output.
   - After the output is complete wait at least 15 seconds.

6. Get the response file (for example, RSP) which tells you that DNC system successfully saved your program:
   - Press Load/Delete
   - Type RSP (or whatever the response file was named.)
   - Press S1, Begin Load. You will receive program RSP.
   - The contents of RSP should have the code, N2, in the first line after the PGM line. This means that the DNC system successfully received the DNC file you wanted to save.

6. **Delete the response file** (for example, RSP) from CNC memory.

CCL Response Codes

- N1 = The DNC system successfully queued the specified file for receiving. The shop floor operator can now output (punch) the file to the DNC database.

- N2 = The DNC system successfully received the file.

- N3 = After a CCL command to queue a file to be received, the file sent from the CNC file contained an Abort command sequence (N1M30). The DNC file has been deleted from the DNC database.

- N4 = The DNC system did not successfully receive the file.

- N5 = The CCL command file was not valid because there was no command (no X, Y or Z line.)

- N6 = The requested DNC file does not exist.

- N7 = The file name you specified already exists and you are not allowed to overwrite an exiting file.

- N8 = The CCL command file was not valid because there was no file name following the X, Y or Z command.

- N9 = The CCL command file contained an optional version command (Xversion_number) but the version_number text was not a number.

- *N10 = The CCL command file was empty (contained no data.)

- N11 = A CCL command was found but the file_name contains illegal characters.

- N12 = The specified DNC file exists but it is not assigned to this machine.

- N13 = The file requested was found, but local copy or leader/trailer stripping is required but failed. (Local copy and leader/trailer stripping which forces local copying of files are set up via machine parameters.)

- N14 = The CCL Command file is a valid Mazak CMT file but the format is not supported. (Such as T1 and M1.)

- *N15 = The CCL command file appears to be a Mazak CMT file but is not valid. (Points to a software problem: CMT signature is listed as supported but the embedded CCL command cannot be located.)

- N16 = The specified DNC file exists but it is empty. (It might be queued up for receiving data from a CNC.)

- N17 = The requested file is Checked Out.

- N18 = The requested file is currently being used exclusively (being uploaded or edited.)

- N19 = The requested exists and is assigned to your machine, but it is not Approved.

* These response codes should never occur. Getting them indicates a software problem. Please contact CAD/CAM Integration, Inc.