RS232 File Transfer Documentation

The Haas Super Mini Mill and its adjacent computer are connected via an analog RS232 interface which allows the rapid transfer of G-code via HSMWorks.

1. Post the G-code through imbedded HSMWorks within SolidWorks. Ensure that “open NC file in editor” is checked and that the proper post configuration (Haas pre NGC / Haas) is selected.
2. On the Haas ensure that DNC mode is selected. This is done through pushing the MDI/DNC button twice.
3. Open theNC file will then open within Autodesk HSM Edit. This will happen automatically when you post process. your file. You can also start HSM Edit and open your code file.
4. Select transmission from the menu bar and click “send.
5. A file transfer window will open, select start transmission. When the transmission is complete the Haas should show that “end of DNC transmission is reached”.
6. ensure the correct program was transferred, and press cycle start to begin the program.

Large programs with 3D toolpaths and high speed machining may take upwards of minuets to transfer, and could exceed the memory buffer of the Haas. This can be fixed by drip feeding the machine or starting the machine before the entire file has transferred. Switching to a lower baud rate may improve results when drip feeding. Personally for large files it is often faster to transfer the file using a USB stick to reduce load on the Haas system memory.

Troubleshooting/setup check

1. Within the transmission tab in Autodesk HSM Edit select “set up DNC”.
2. Click advanced settings after selecting “Haas”
3. On the Haas select settings (press view/settings once) and using the F2 search command search for “baud” or setting 11 which sets baud rate.
4. Ensure that the DNC settings on the Haas match those selected under “machine 1” on the Haas computer. Keep in mind a different value of baud rate or start/stop codes will cause problems when sending files.

- Faster Baud rates will result in faster file transfer, however it also greatly increases the chances of errors or failure during transmission. Haas recommends a Baud rate of 9600 with a maximum baud rate of 115.2 kbaud.

RS232 settings: **HSM Edit**

- 9600 Baud
- Com3
- 1 stop bit
- 7 data bits
- Even parity
- Software flow control
- DTR enabled
- RTS enabled
- Check parity box NOT selected
- \17 Xon
- \19 Xoff

Haas (setting 11)

- 9600 Baud
- Even parity
- 1 stop bit
- Xon/Xoff synchronization
- 7 Data bits
- Leader to punch none
- EOB CR LF
- Add spaces on
- Settings below this do not matter