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MCE9626L and 4025 PC Scale Service

EEScaleService PC software suite for MCE9625L and 4025 weighing terminal maintenance

Applies to:

Software: EEScaleService.901116.1v6

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2) Introduction

2.1 Scale service

This document describes how to use the Eilersen Electric EEScaleService PC software suite. This software is used to do maintenance on a MCE9625L or a 4025 weighing terminal. The software has the following features:

- Connects with a RS232 serial COM port to the terminal RS232-DOWNLOAD plug for software download or parameter transfer between PC and weighing terminal.
- Connects with a RS232 serial COM port to the terminal RS232-TEST plug for parameter transfer from weighing terminal to PC.
- Download of new software to a MCE9625L terminal
- Download of new software to a 4025 terminal

To use the software the following two files must be present in the same directory:

- EEScaleService.exe
- EEScaleService.INI

No installation is required. To launch the software simply launch the EEScaleService.exe file. The software will run directly on any Windows-XP (or later) system, but of cause requires a RS232 COM port (build-in or on USB).

2.2 Operation selection

When the Scale Service software is started the upper left part should look like this (possibly with an operation type selected):
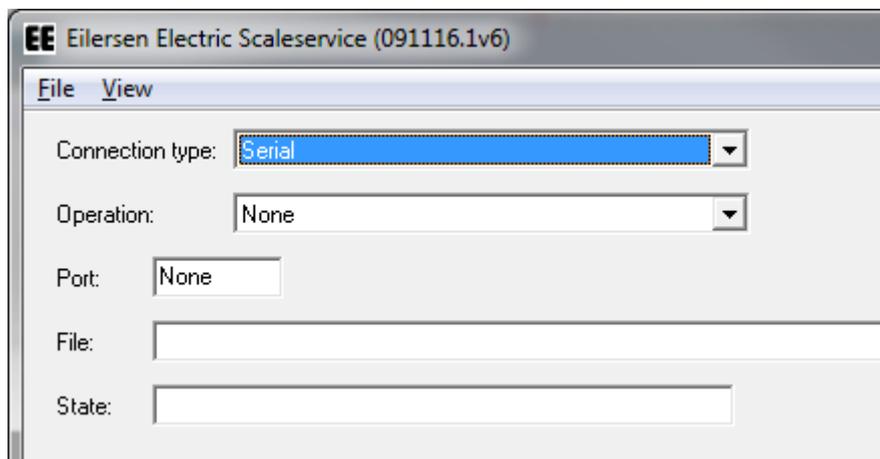
Five different operations are possible:

- Software download – 4025
- Software download – MCE9625
- Parameter transfer from PC to device (4025 or MCE9625)
- Parameter transfer from device to PC on TEST connection
- Parameter transfer from device to PC on DOWNLOAD connection

Select the desired operation with the drop-down box:
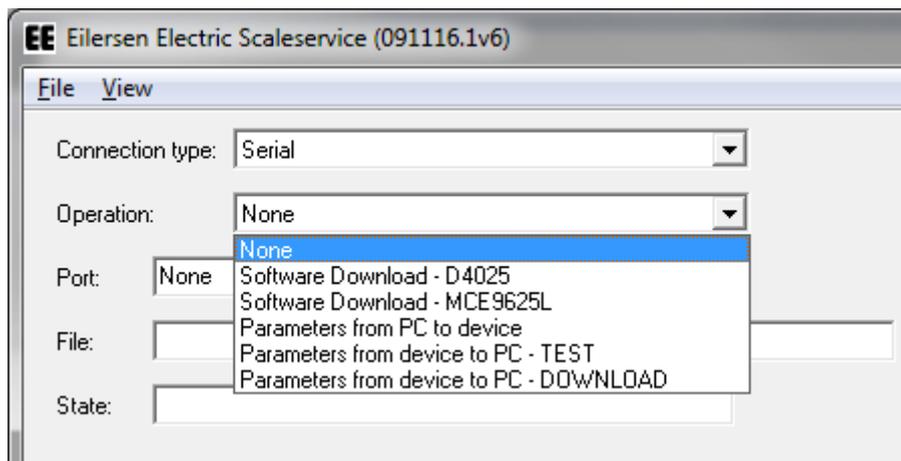
Then follow the appropriate procedure below.

2.3 4025 software download

When the Scale Service software is started and "Software download- 4025" is selected the upper left part should look like this:
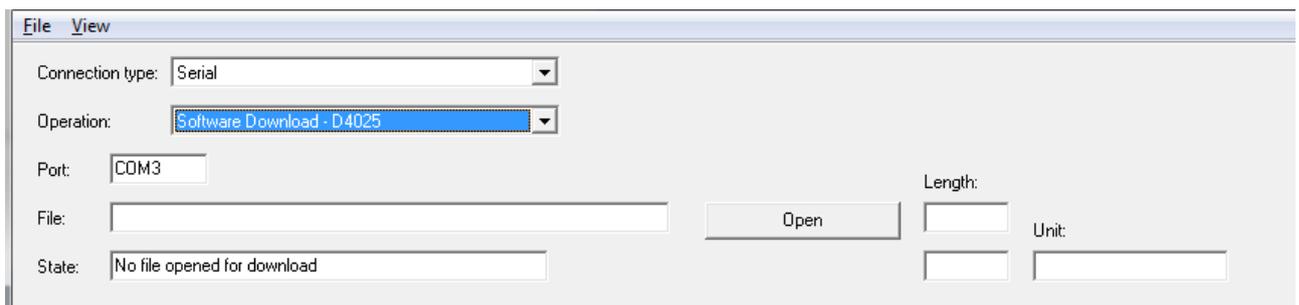
If not so select the connection type as 'Serial' and the operation as 'Software download'.

Please consult Appendix C on how to change the COM port number if necessary. To download software, perform the following steps (only step 1-5 requires user interaction, step 6 and forward will be performed automatically by the software).

1. Connect the COM port to the DOWNLOAD port on the 4025.

2. Open the HEX file by clicking 'Open' and then select the appropriate HEX file and click 'Open' in the open dialog box:
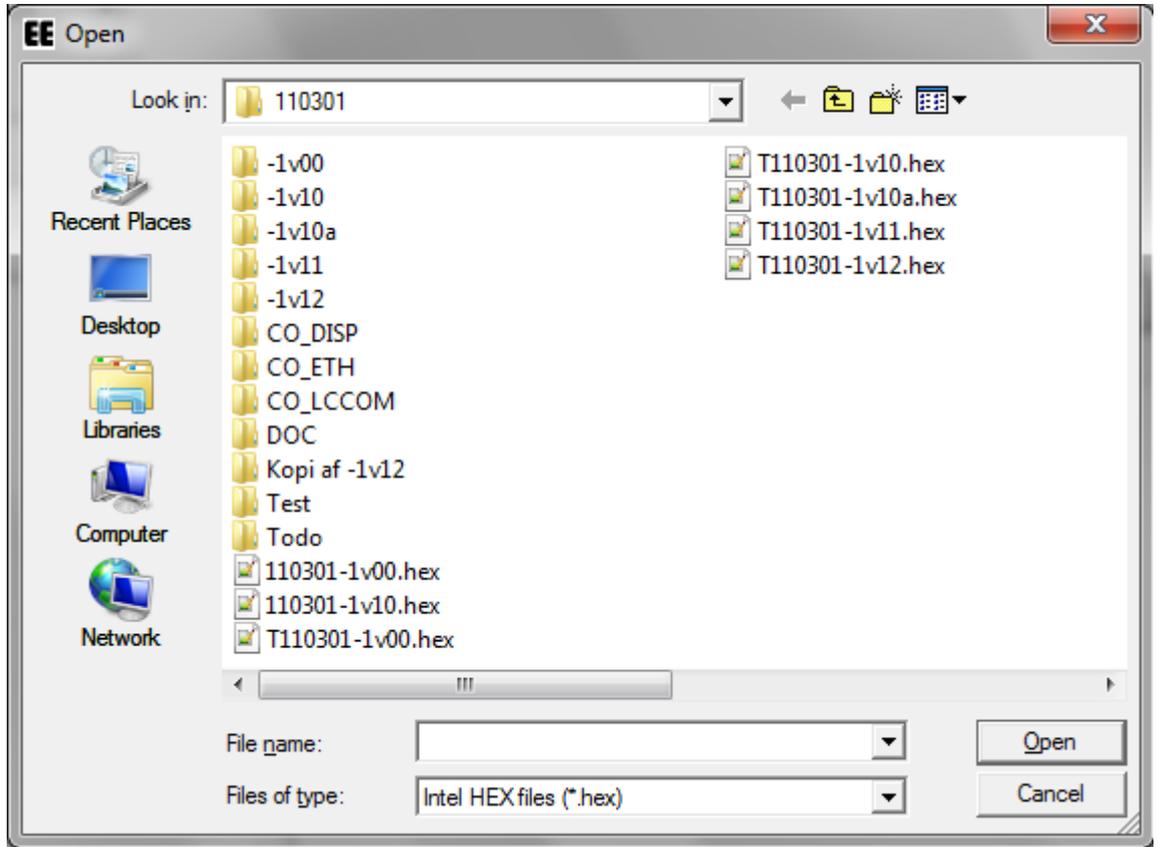
3. The file will load. This could take several seconds. When the file is loaded and ready for download the lower part of the screen will display the file content at it will be indicated in the upper part of the screen like this:
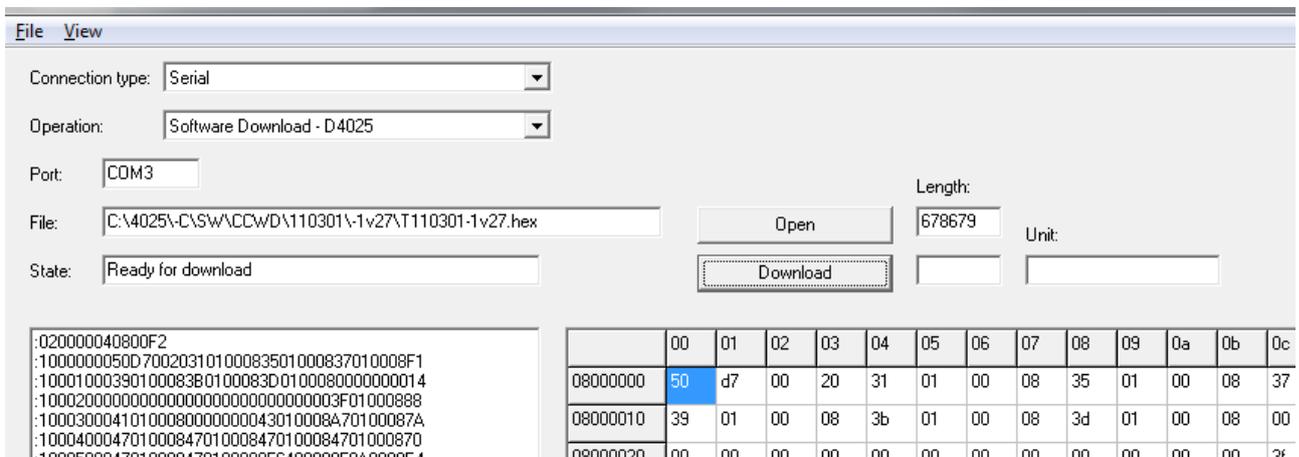
4. Switch the 4025 terminal Off.

5. Click 'Download'. The system will now attempt to connect to the 4025 indicated like this:

State:	Connecting		Abort			Main processor

6. Switch the 4025 back On.

7. After 5-10 seconds the connection will be made and the download will commence. First the Main Processor software will be downloaded while the 'Length' field indicates the progress (please notice that the upper 'Length' field indicates the total length of the HEX file, which is much longer than the number of bytes that actually needs to be downloaded):

State:	Downloading		Abort		1792	Main processor

8. After the download the downloaded software will be verified. The 'Length' field indicates the progress like this:

State:	Verifying		Abort		1792	Main processor

9. After the Main Processor software has been downloaded and verified, the 4025 will be restarted, indicated like this:

State:	Re-booting device		Abort			

10. Then a connection to Display Unit will be established (on fast computers this may happen very fast):

State:	Connecting		Abort			Display

11. Then the Display Unit software will be downloaded, while the 'Length' field indicates the progress like this:

State:	Downloading		Abort		1792	Display

12. After the download the downloaded software will be verified. The 'Length' field indicates the progress like this:

| State: | Verifying | | Abort | | 1792 | Display |

13. After the Display Unit software has been downloaded and verified, the 4025 will be restarted, indicated like this:

| State: | Re-booting device | | Abort | | | |

14. Then a connection to Loadcell Communication Unit will be established (on fast computers this may happen very fast):

| State: | Connecting | | Abort | | | Loadcell communication |

15. Then the Loadcell Communication Unit software will be downloaded, while the 'Length' field indicates the progress like this:

| State: | Downloading | | Abort | | 1792 | Loadcell communication |

16. After the download the downloaded software will be verified. The 'Length' field indicates the progress like this:

| State: | Verifying | | Abort | | 1792 | Loadcell communication |

17. After the Loadcell Communication Unit software has been downloaded and verified, the 4025 will be restarted, indicated like this:

| State: | Re-booting device | | Abort | | | |

18. Then a connection to Ethernet Unit will be established (on fast computers this may happen very fast):

| State: | Connecting | | Abort | | | Ethernet |

19. Then the Ethernet Unit software will be downloaded, while the 'Length' field indicates the progress like this:

State:	Downloading		Abort		1792	Ethernet

20. After the download the downloaded software will be verified. The 'Length' field indicates the progress like this:

State:	Verifying		Abort		1792	Ethernet

21. Finally the total system is reset, indicated like this:

State:	Final reboot: Connecting		Abort			

22. Now the 4025 is operational and the PC is ready for a new download:

State:	Download done. Ready for new download		Abort			

2.3.1 Abort download

The download procedure can be aborted at any time.

Warning: If download is aborted during download it most likely may be necessary to perform a "First time download", as described below in section 3.2 Appendix B: First time software download 4025.

To abort click abort and verify the abort operation:

Abort

Abort download?

[Yes]   [No]
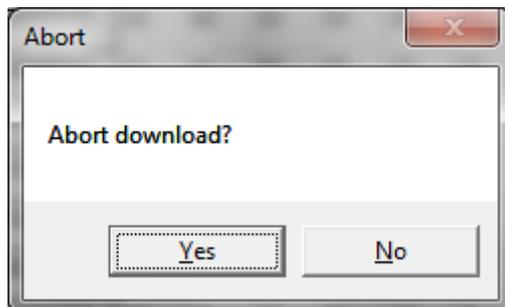
After this the system will be ready for a new download:
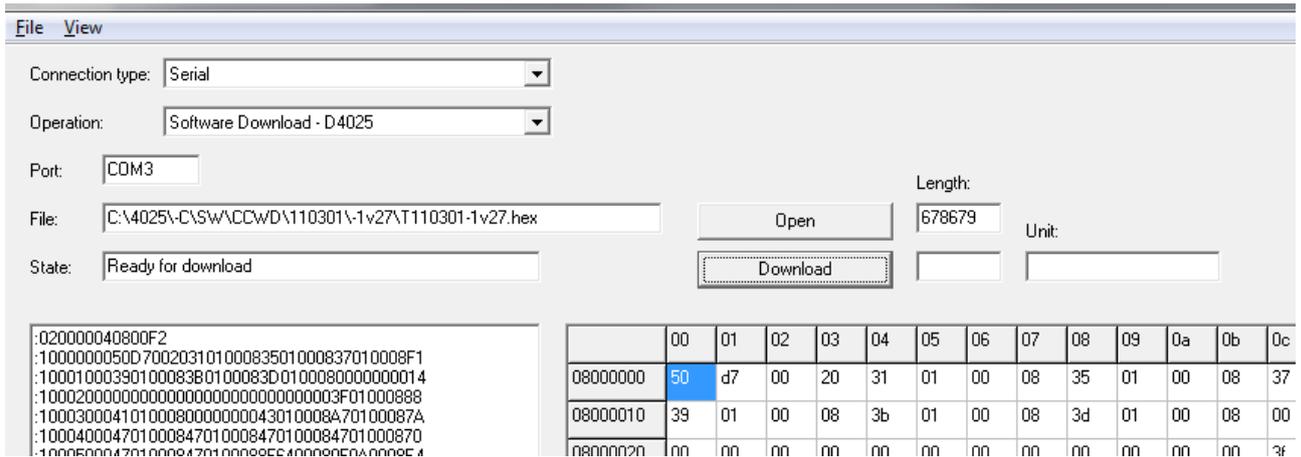
2.3.2 Trouble shooting

If for any reason the download or the verification fails, the system will automatically restart the operation. If the system will not connect or restarts an operation repeatedly the operation can be stopped simply by aborting as described above or exiting the EEScaleService software.

To retry the download launch the EEScaleService software and retry the procedure above.

If this does not work after several attempts the procedure described in section 3.2 Appendix B: First time software download 4025 below must be carried out.

PLEASE NOTICE that this MUST be done with a Main Processor only HEX file with a length below 524288.

2.4 MCE9625L software download

When the Scale Service software is started and "Software download- 4025" is selected the upper left part should look like this:
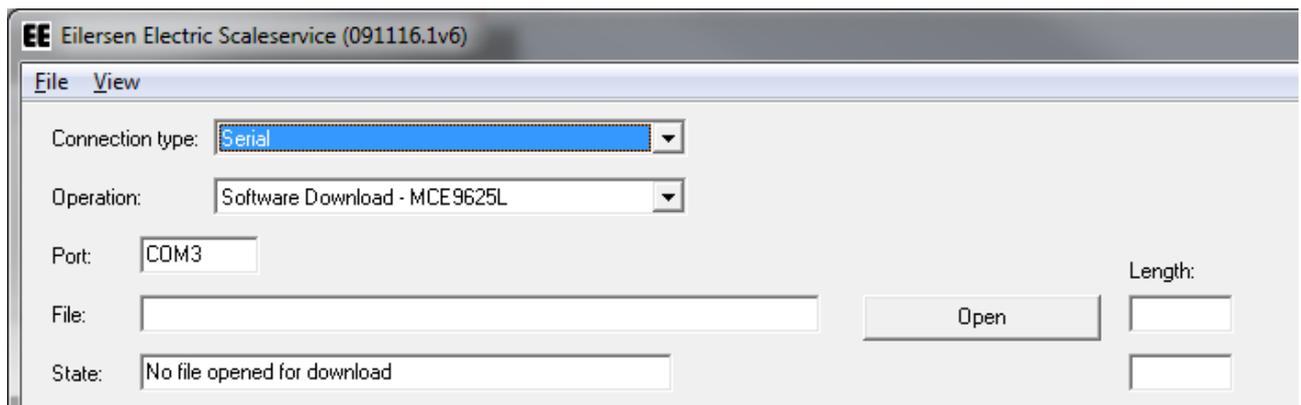
1. Connect the COM port to the DOWNLOAD port on the MCE9625L motherboard (MCE9627).

2. Open the HEX file by clicking 'Open' and then select the appropriate HEX file and click 'Open' in the open dialog box:
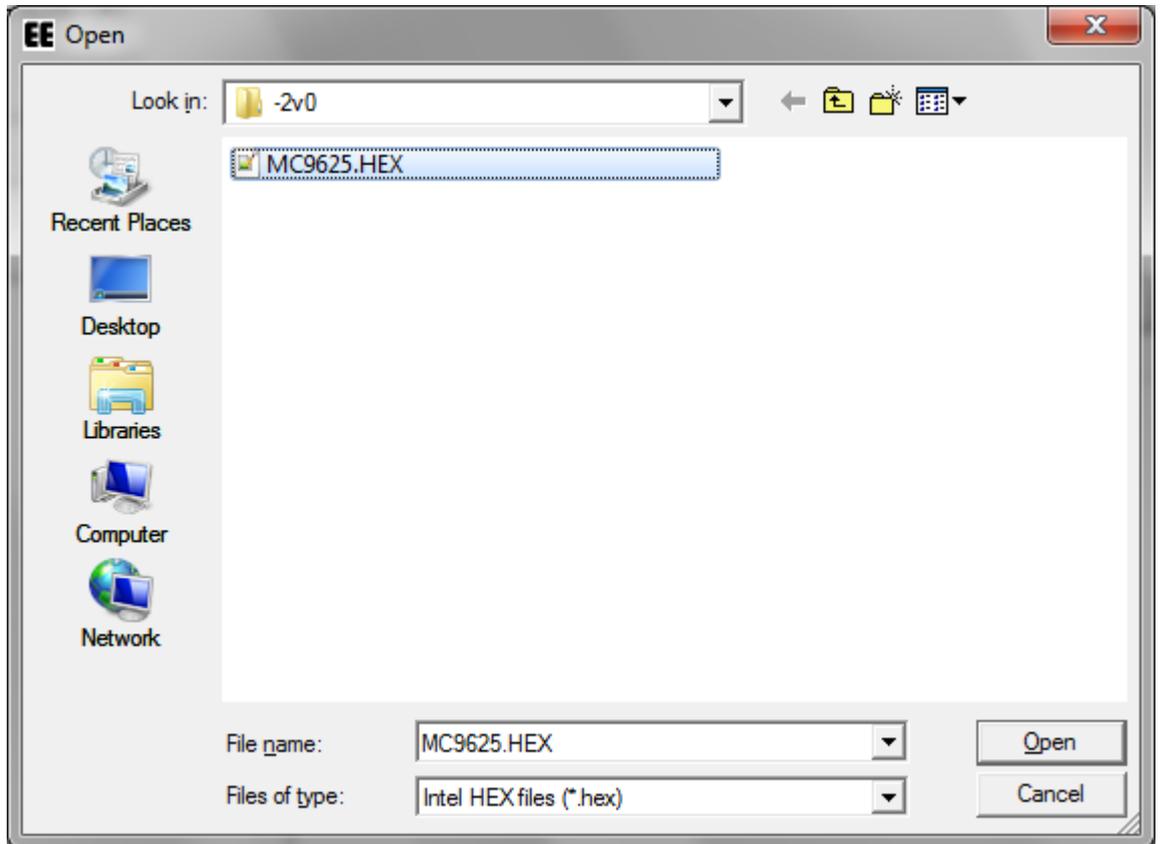
3. The file will load. This could take several seconds. When the file is loaded and ready for download the lower part of the screen will display the file content at it will be indicated in the upper part of the screen like this:
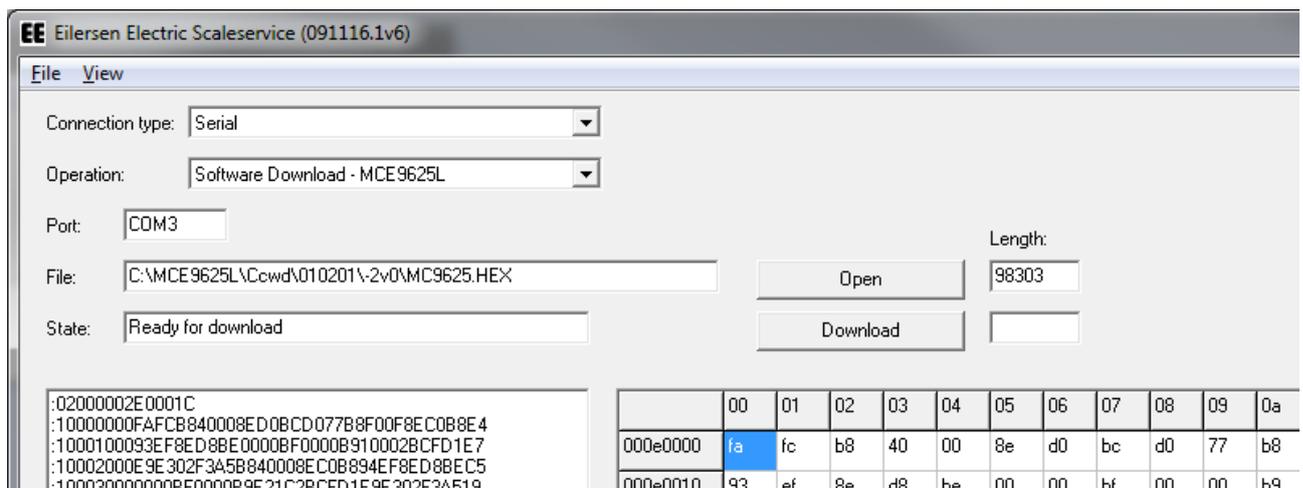
4. Switch the MCE9625L terminal Off.

5. Click 'Download'. The system will now attempt to connect to the MCE9625L indicated like this (the counter will increase every second until a connection is made):

State:	Connecting 8		Abort	

6. Switch the MCE9625L back On.

7. After 5-10 seconds the connection will be made and the download will commence. Very fast the BIOS revision will be read, the baudrate will be set, and the Flash unlock signature will be transferred:

State:	Aqquiring BIOS revision		Abort	

State:	Transferring Flash Unlock Signature		Abort	

State:	Setting baudrate at 57600 baud		Abort	

8. Then the new software will be transferred and verified. The 'Length' field indicates the progress like this:

State:	Transferring data		Abort	32463

9. When the transfer is completed the MCE9625L will start and the PC is ready for a new download:

2.4.1 Abort download

The download procedure can be aborted at any time.

Warning: If download is aborted during download the MCE9625 will not be able to start. However software can still be downloaded as described above

To abort click abort and verify the abort operation:
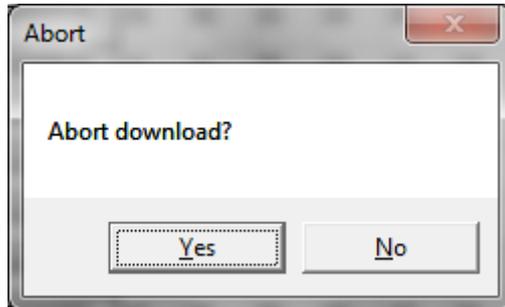
After this the system will be ready for a new download:
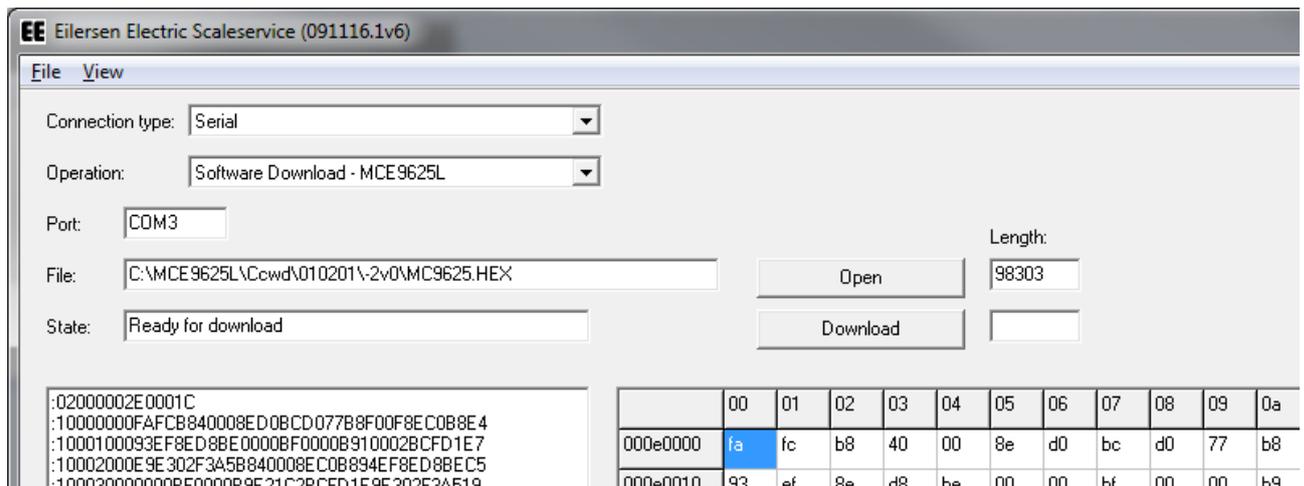
2.4.2 Trouble shooting

If for any reason the download fails, the system will automatically restart the operation. If the system will not connect or restarts an operation repeatedly the operation can be stopped simply by aborting as described above or exiting the EEScaleService software.

To retry the download launch the EEScaleService software and retry the procedure above.

If this does not work after several attempts, try lowering the baudrate as described below in section 3.3 Appendix C: COM port selection and parameters.

2.5 Parameter transfer from PC to device

When the Scale Service software is started and "Parameters from PC to device" is selected the upper left part should look like this:
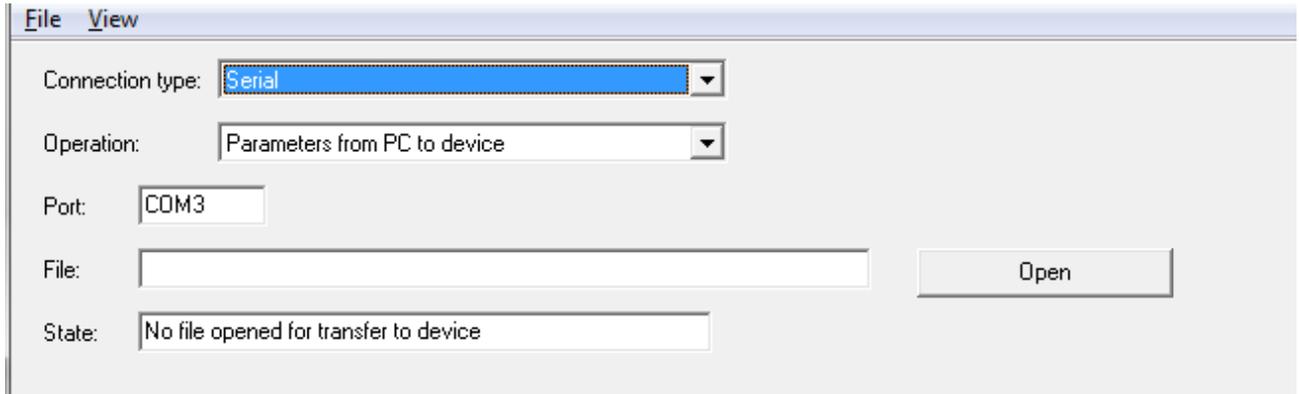
1. Connect the COM port to the DOWNLOAD port on the 4025 or the MCE9625L motherboard (MCE9627).

2. Open the Parameter file file by clicking 'Open' and then select the appropriate TXT file and click 'Open' in the open dialog box. Please notice that old DOS version could only download short-form parameter files without parameter description. This DO NOT apply to the EEScaleService software. Parameter files with parameter description can be opened and downloaded.
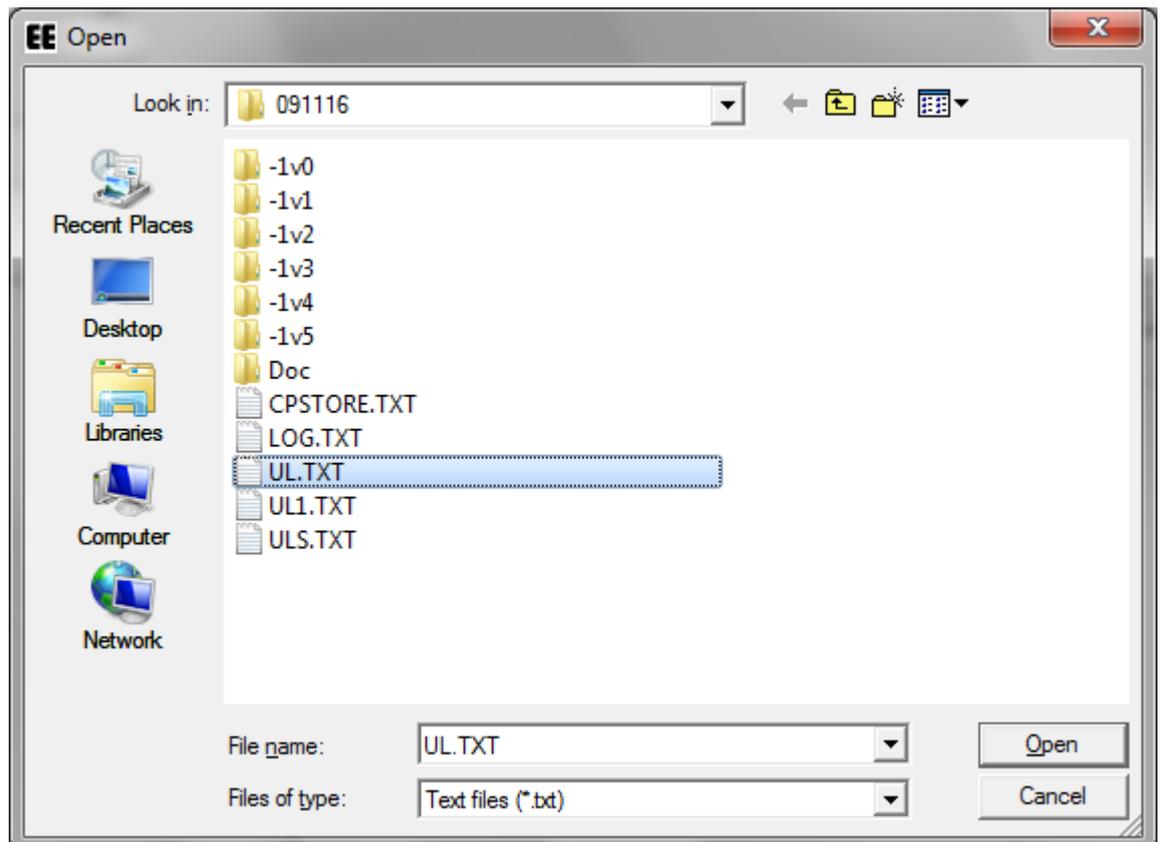
3. The file will load. This could take several seconds. When the file is loaded and ready for download the lower part of the screen will display the file content at it will be indicated in the upper part of the screen like this:
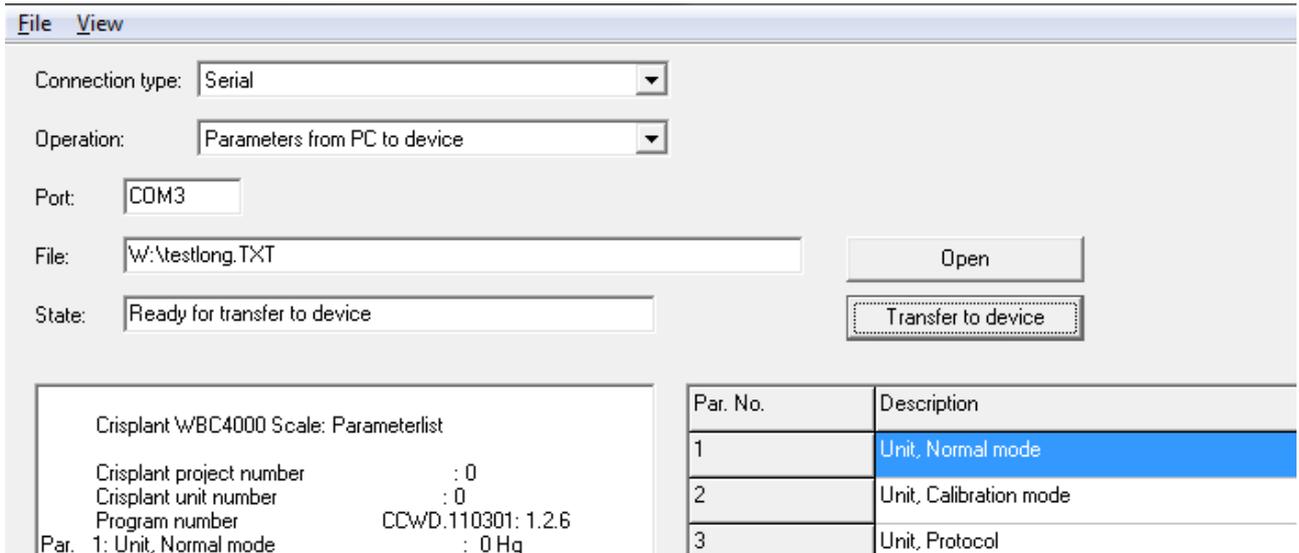
4. Click 'Transfer to device'. The system will now attempt to download the parameters while indicating which parameter is currently being downloaded:

5. When all parameters are downloaded, the old parameter value, the parameter from the file opened and the new value of the parameter can be inspected in the lower right corner of the display.

2.5.1 Abort

The procedure can be aborted at any time.

To abort click abort and verify the abort operation:
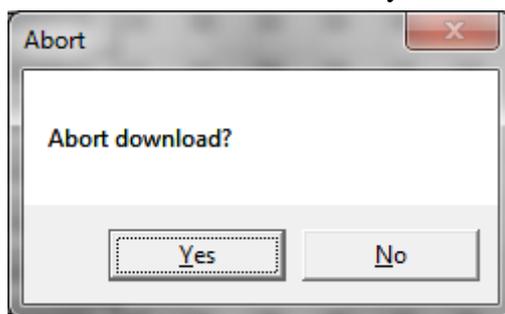
After this the system will be ready for a new transfer:
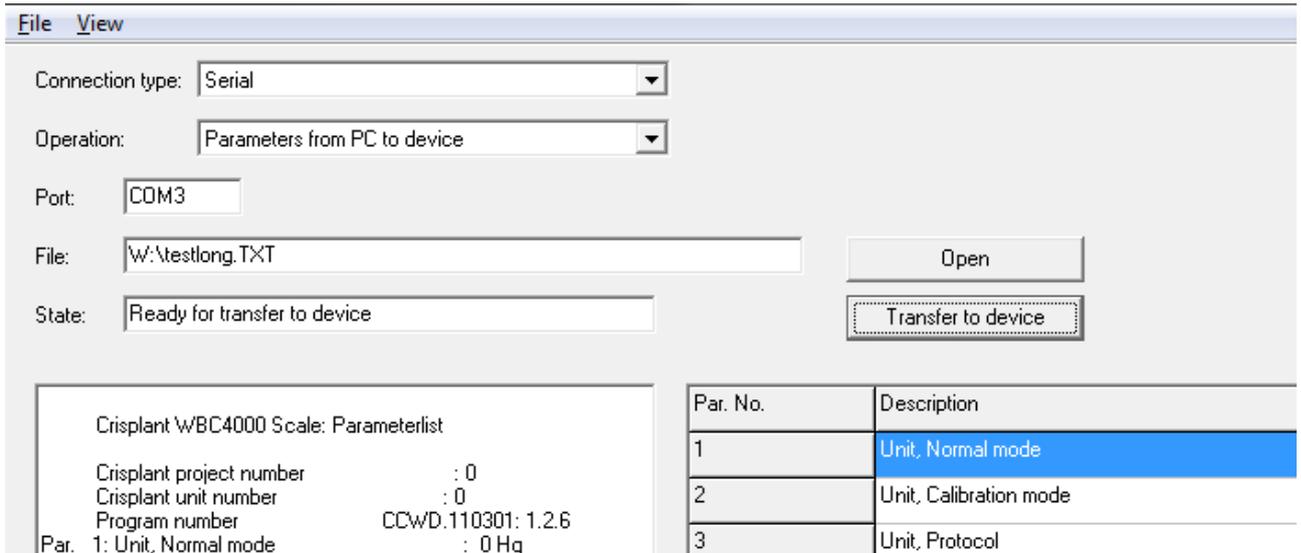
2.5.2 Trouble shooting

If for any reason the download fails, the system will automatically restart the operation. If the system will not connect or restarts an operation repeatedly the operation can be stopped simply by aborting as described above or exiting the EEScaleService software.

To retry the download launch the EEScaleService software and retry the procedure above.

2.6 Parameter transfer form device to PC

When the Scale Service software is started and "Parameters from device to PC - TEST" or "Parameters from device to PC - DOWNLOAD" is selected the upper left part should look like this:
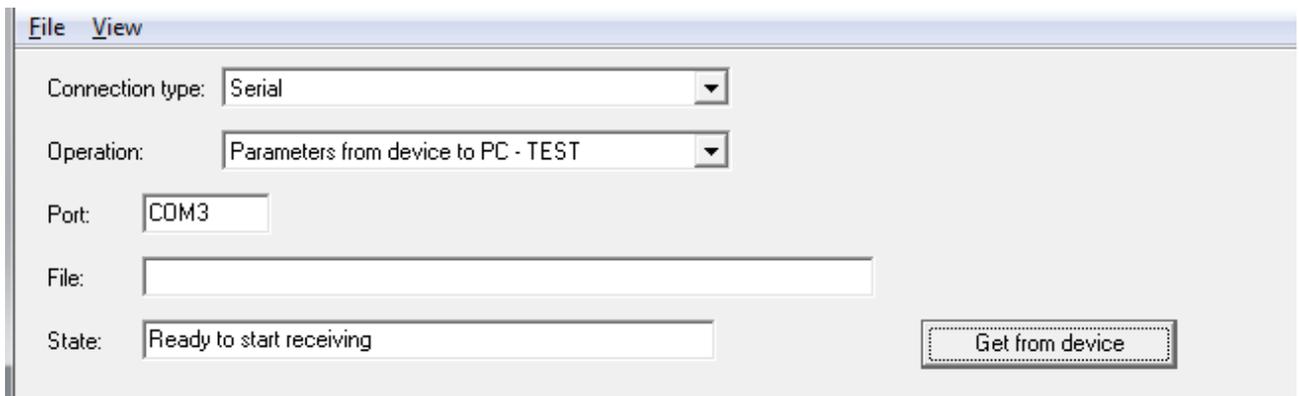
Or like this

1. Connect the COM port to the TEST or DOWNLOAD port on the 4025 or the MCE9625L motherboard (MCE9627). When TEST port is use parity (N)one must be selected. When the DOWNLOAD port is used parity (E)ven must be selected. Please see below in section 3.3 Appendix C: COM port selection and parameters, how the parity setting is changed.

2. Click 'Get from device'.

3. Start parameter printing on the 4025/MCE9625L by selecting parameters and pressing Print or Shift+Print.

4. When the parameters are received they will be displayed in the lower left part of the screen. All received data are saved in a file named CPSTORE.TXT:
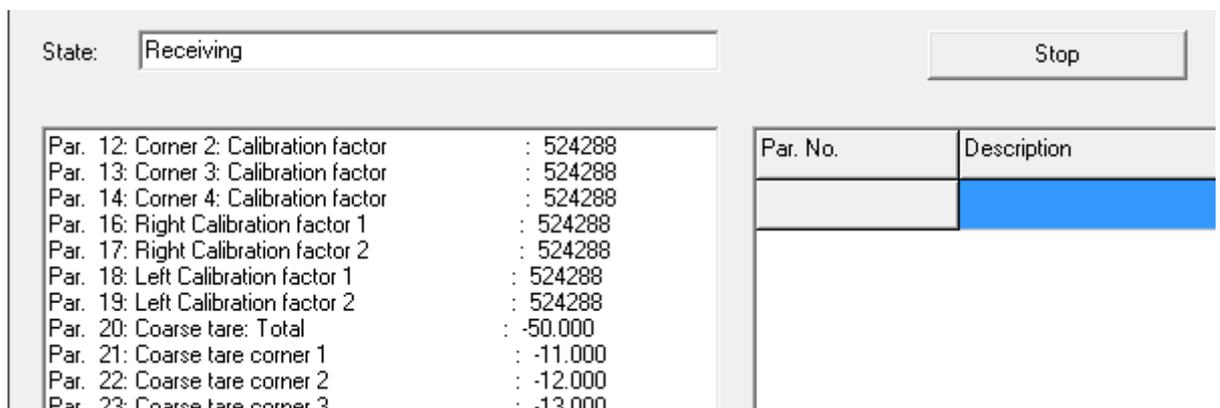
5. When all parameters are received click 'Stop'. This will calculate and display parameter values in the lower right part of the screen and enable parameter saving.

6. Click Save to save the parameter file:

2.6.1 Trouble shooting

If for any reason the upload fails, carefully check that the port on the 4025/MCE9625 TEST or DOWNLOAD matches the selected parity. TEST: (N)one, DOWNLOAD: (E)ven.

3) Appendices

3.1 Appendix A: Hardware connection 4025

To download a standard Crisplant download cable must be connected to the RS232-DOWNLOAD plug (labelled J1) located in the middle of the top of the board.
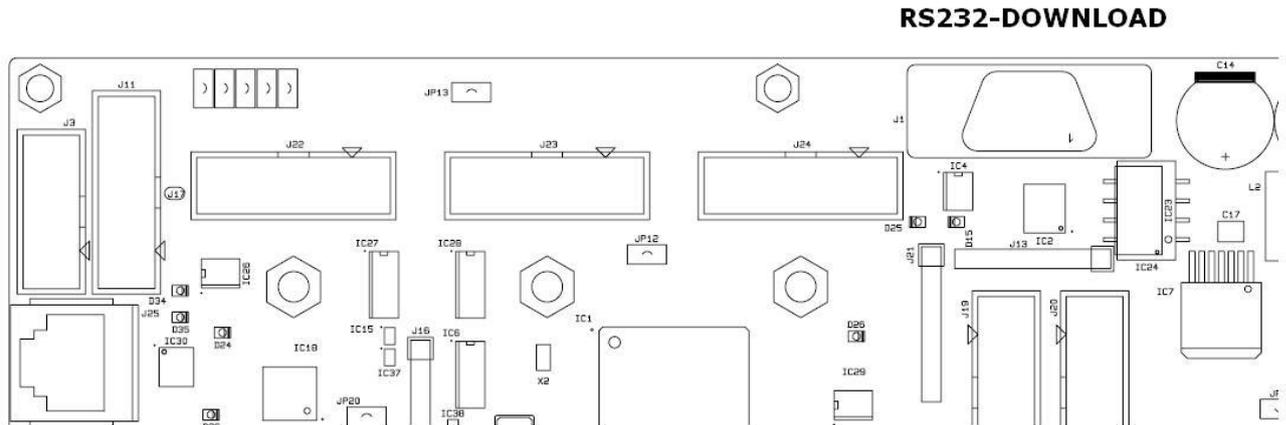
3.2 Appendix B: First time software download 4025

If no software has yet been downloaded (or a software version not able to perform auto download has been downloaded) a two-step process must be followed

1. A Main Processor only manual download:

    a. Switch the 4025 Off

    b. Insert jumper JP12

    c. Open the HEX file by clicking 'Open' and then select the appropriate HEX file and click 'Open' in the open dialog box. This MUST be a Main Processor only HEX file with a length below 524288.

    d. The file will load. This MUST be a Main Processor only HEX file with a length below 524288.

    e. Click ' Download'. The system will now attempt to connect to the 4025

    f. Switch the 4025 back On.

    g. After 5-10 seconds the connection will be made and the download will commence. The Main Processor software will be downloaded while the 'Length' field indicates the progress

    h. After the download the downloaded software will be verified. The 'Length' field indicates the progress.

    i. When the verification has ended switch the 4025 Off

    j. Remove jumper JP12

2. A total software download as described above.

JP12 location:
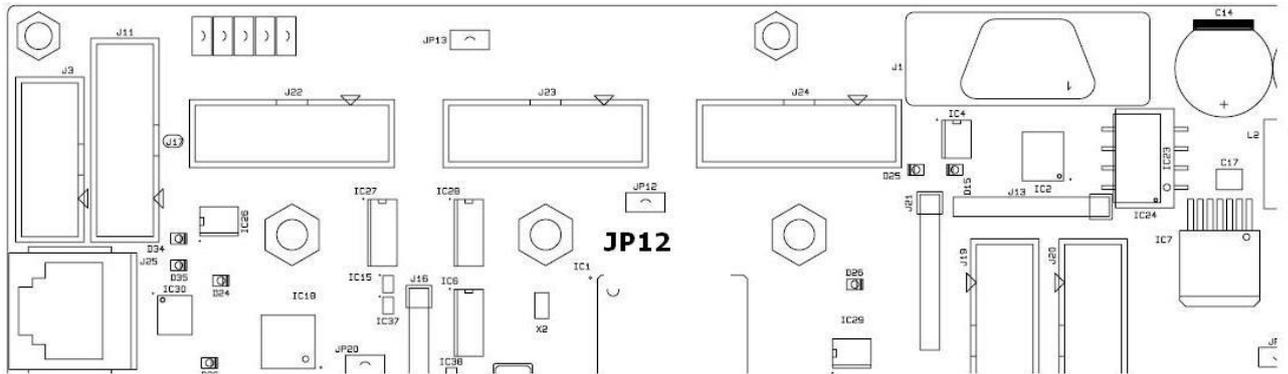
3.3 Appendix C: COM port selection and parameters

The COM port number and relevant communication parameters can be changed by selecting the "View – Settings" menu (this is only possible when no download is started):
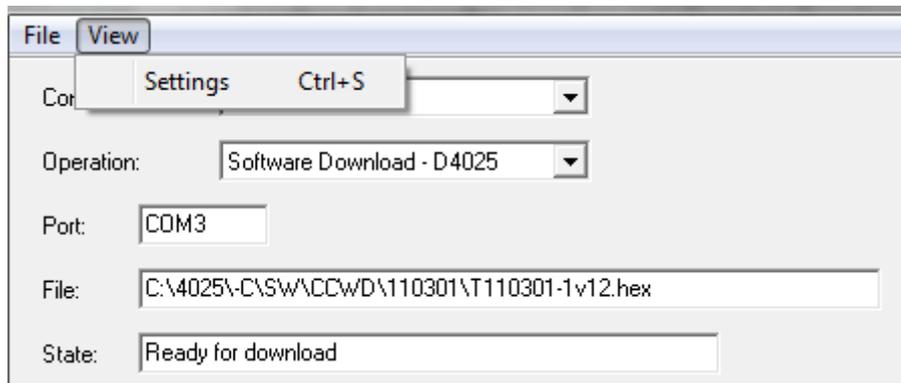
In the settings screen the COM port can be selected with the dropdown list:
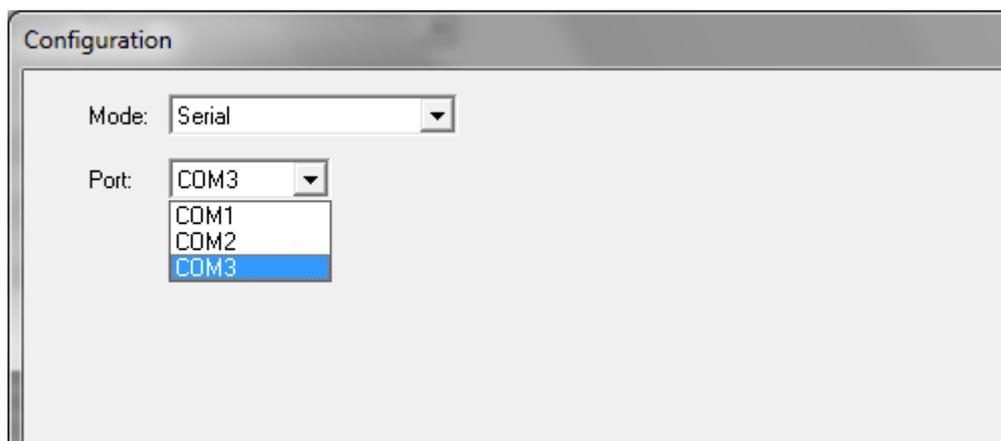
Click "Apply" to use the selected port. The port is common to all operations. Depending on the selected operation other settings may be changed as well.

For MCE9625L software download the baudrate can be selected:
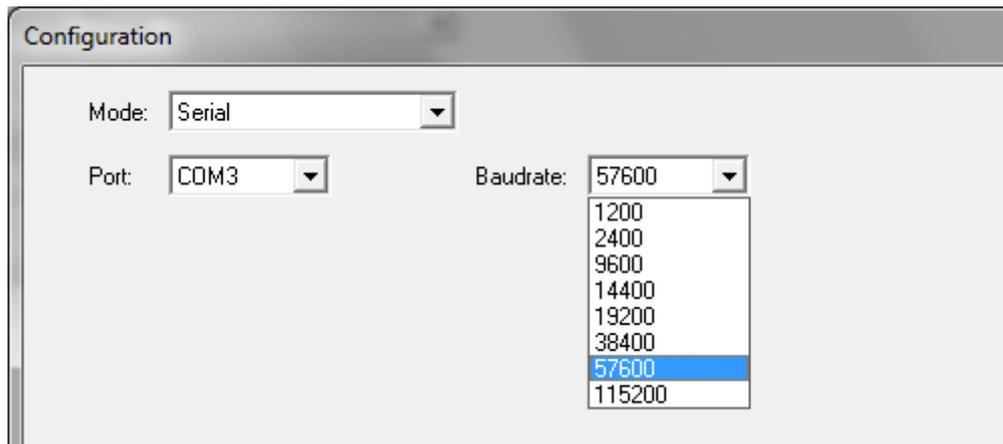
For "Parameters transfer from device - TEST/DOWNLOAD" the parity (None or Even) is selectable:
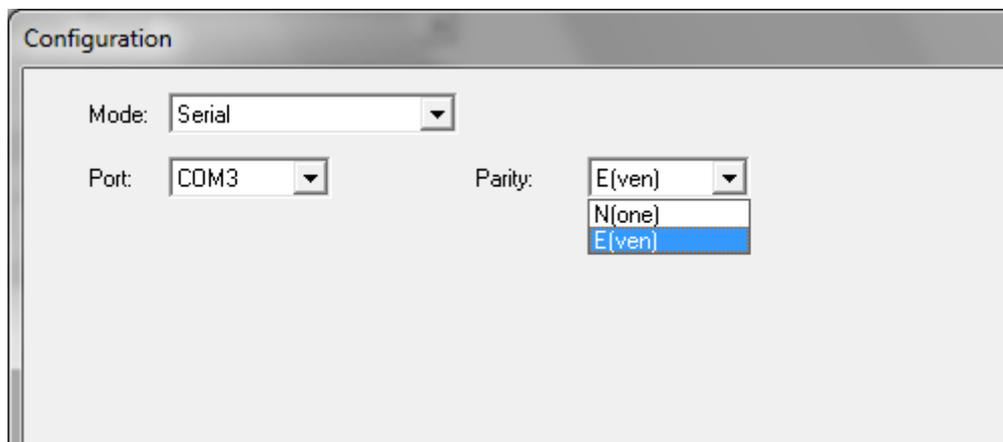
All other parameters are fixed.