QC-Terminal 5.2.0

Service Terminal for USTER® *QUANTUM CLEARER*

User Manual

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⇨ Quick Reference

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1 Introduction

1.1 Abstract

The *QC-Terminal* is a service and diagnostic tool made by **Uster Technologies AG**. It has been primarily developed for the USTER® *QUANTUM CLEARER*. Its basic functions are compatible to a terminal program like Windows “Hyperterm”. Additional functions are specially designed for the USTER® *QUANTUM CLEARER*.

This manual describes the installation, the usage and the customization of the *QC-Terminal*. For last minute and release information please refer to the release notes. They are located in the file ReleaseNotes.txt. You can view this file by the menu **Info / Release Notes** or with a text editor.

1.2 Abbreviations and definitions

CCU	Clearer Control Unit
CMT	Classification of yarn faults
COM	Communication port on the PC
FCMT	Classification of foreign fibers
iMK	Measuring head of the Quantum 2
iMH	Measuring head of the Quantum 3
LED	Light Emitting Diode
MMI	Man machine interface
PC	Personal Computer (host on which *QC-Terminal* is running)
POK	Product Option Key
QC	Quantum Clearer
RTS/CTS	Hardware handshake on serial line
SG99	CCU type (released in the year 1999)
SG2000	CCU type (released in the year 2000)
CCU2006	CCU type (released in the year 2006; with touch screen or integrated)
CCU6	CCU type (released in the year 2009; with touch screen or integrated, no printer)
SP	Spindle (spinning / winding position)
SRAM	Static Random Access Memory (battery backed up memory)
XON/XOFF	Software handshake on serial line

2 Installation

2.1 System requirements

Because of newer functions as Unicode and a newer installer, the software will work on Windows 2000, XP and 7 (32 and 64 bit).

2.2 Restrictions

- The option key tool (with PC-Adapter) is no more supported.
- For known bugs refer to the release notes (menu **Info / Release Notes**).

2.3 Installation

2.3.1 Installation procedure

Start QcTermInstall.exe and follow the instructions.
At any time you can abort the installation by clicking **Cancel**.
To follow the installation steps use **Next >**.
< Back brings you to the previous installation step.

- The previous version will be uninstalled first. If the same version is already installed, you will be asked to uninstall it first. You have to restart the installation after.
  Note: the data directory is not deleted when uninstalling.

- First, you are asked for the destination folder. The default path is "*program path*\Uster Technologies AG". "*program path*" is the location of the programs on your PC.
  You may install to another path by selecting **Change...**.
- Then you are asked for the program folder which will be created below the destination folder.
  The default name is "QcTerm *x.y.z*" (x.y.z is the current version of the program).
  The selection of the installation for anyone or only for me influences the location of the data folder (log-files, .ini file and command history). Default is **Anyone who uses this computer (all users)** (which is good practice).
- On the next screen, the information used for installation is displayed. Select **Next >** to start the copying of the files.
- On the last screen you can select the checkbox **Yes, Launch the program file** to start *QC-Terminal* after having selected **Finish**.

2.3.2 Data directory

In the data directory the following folders are created:

- dbx location of the database export files
- image location of the SG2000 SW update files
- log location for logfiles

Here also the QcTerm.ini file is located and the command history, the filter settings and the Telnet host-names are stored.
All data stored in the data directory are NOT deleted when uninstalling or upgrading the *QC-Terminal*.

During the installation you select if the application is usable for:

- Anyone (all users)
- Only for me (current user)

Depending on this selection the data directory is created on different locations in your file system.

- Anyone → Documents\Public Documents\Uster Technologies AG\QC-Terminal Vx.y.z
- Only for me → Documents\My Documents\Uster Technologies AG\QC-Terminal Vx.y.z

The location of Documents depends on the Windows version. Here, the Windows 7 version is shown.

After installing a new version of the *QC-Terminal*, collected data may be copied from the old data directory to the new one.
Note: when copying the QcTerm.ini file, some new features will not be taken. Simply use the Save feature to create a compatible new .ini file.

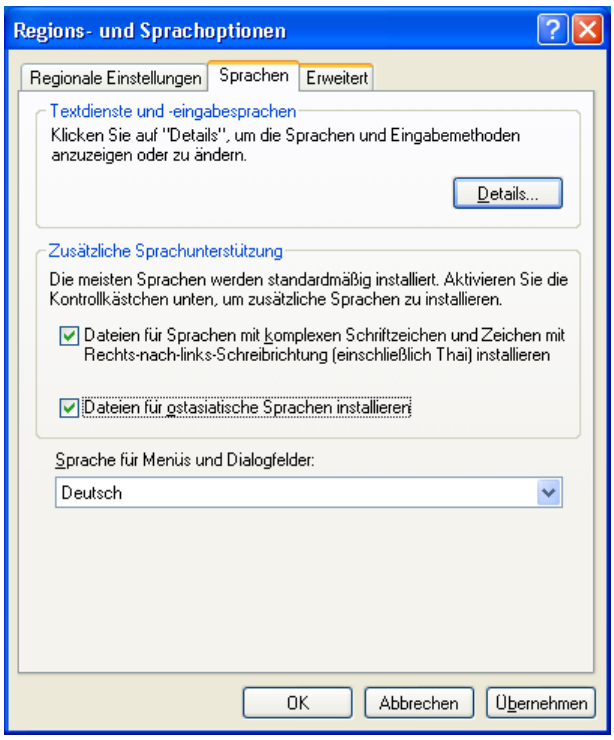
2.4 Starting

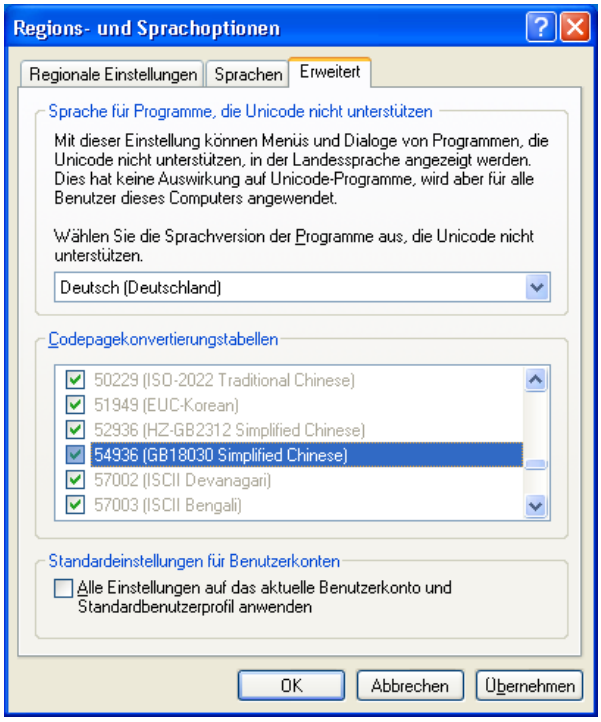
Different start procedures are possible.

- You can start the *QC-Terminal* with the windows start menu. For standard installation, you find it in "Programs / QcTerm x.y.z".
- Use the shortcut, which is installed on your desktop.
- Alternatively, you navigate with the Explorer into the installation directory and double click the file "QcTerm.exe".
- If you want to use a customized .ini file, you can create a new shortcut or modify the existing one on the desktop. Then you open the shortcuts property window. Select **Shortcut** tab and modify the **Target** field. Add the path and filename of your .ini file at the end of the line.
  Example: **Target:** "C:\Programm Files\QC-Terminal Vx.x.x\QcTerm.exe" myInifile.ini
  If you hold the the .ini files in a directory relative to the original QcTerm.ini file, you specify this path as follows: \path\myInifile.ini (the first "\" is mandatory).
  You can define also an absolute path.

2.5 Special Languages

Access the Control Panel by clicking on Start --> Settings --> Control Panel. In the Control Panel, double click on "Regional and Language Options". Click on the Languages tab. Click on the check box marked "Install files for East Asian languages" and click OK.





Add additional fonts you need. You will be prompted to insert the Windows installation disk which has the language support files. Insert the Windows installation CD, or if you have the language support files in another location, browse to the files and click OK. The language support files will be installed on your computer and you will be prompted to restart the computer

3 Basic configuration and connection

3.1 COM Port

The minimum configuration you need to run the *QC-Terminal* connected to the USTER® *QUANTUM CLEARER* Control Unit (CCU) is the COM port of the PC where you connect the cable. All other settings are by default set to "working" parameters. The CCU uses 115'200 baud, 1 stop bit, no parity.
See the page control Options.

3.2 Connection to CCU

You need a null modem cable to connect the PC over serial line to the CCU. See the connection diagram for a null modem cable for a 9 pin and a 25 pin PC connector. All connectors of the cable are SUB D female.

CCU 9 pin		PC 9 pin
1	———	7
2	———	3
3	———	2
4	———	6/8
5	———	5
6	———	4
7	———	1
8	———	4
9	———	9

CCU 9 pin		PC 25 pin
1	———	4
2	———	2
3	———	3
4	———	5/6
5	———	7
6	———	20
7	———	8
8	———	20
9	———	22

On the CCU, you plug the cable into the connector named "Service". It is located at front side of the CCU. On standalone CCU the connector is located under the cover.

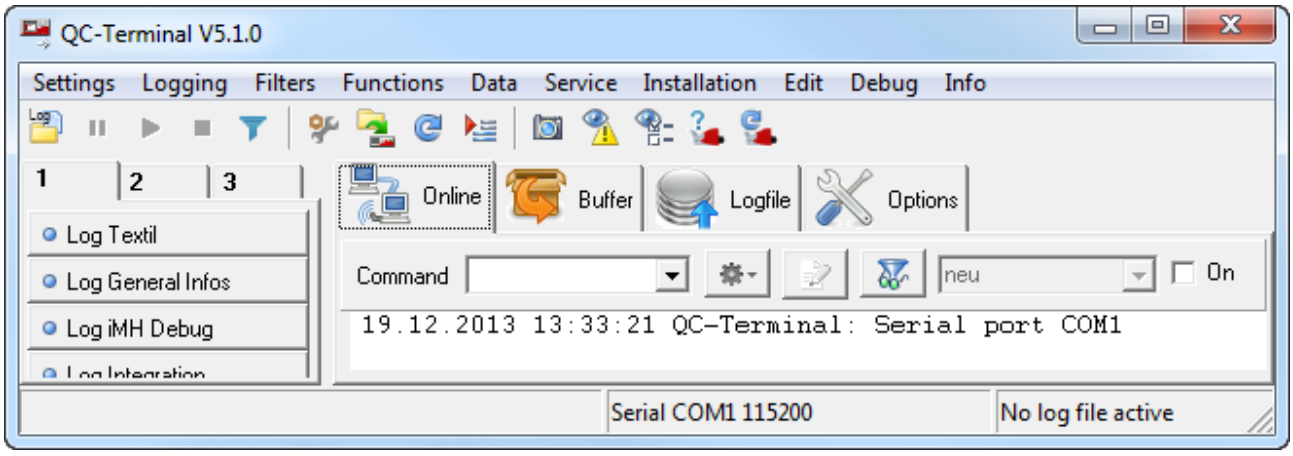
An alternative way to connect the *QC-Terminal* to the CCU is the ETHERNET. Then Telnet is used. With the Telnet client of the *QC-Terminal*, you can do most of the functions that are available over serial connection.

3.3 Connection check

- Connect the PC to the CCU and start the *QC-Terminal*.
- Click into the white field of the **Online** window.
- Press <Enter> on your keyboard.
- If the connection is OK, there should be displayed an arrow "–>" each time you press <Enter>.

When you have problems, see Trouble shooting.

4 Quick reference



- **Menu items**

  Settings Logging Filters Functions Data Service Installation Edit Debug Info
  Control most functions of the *QC-Terminal*. Filters, Functions, Data and Service are customizable.

- **Toolbar**

  Open log file | Interrupt recording | Start recording | Stop recording | Log filters
  Configurator | USB update | CCU reboot | Initial start
  Screen shot | Show alarms | Show options | iMH status | iMH reset

- **Online**

  The Online window shows all messages coming from the CCU. Here you can type in commands for the CCU.

  Command | Edit command list | Add Comment

  Viewing Filters dialog | neu On | Select, activate viewing filter

- **Buffer**

  The Buffer window shows the last 500 lines of the **Online** window. The number of lines is customizable.

- **Logfile**

  The Logfile window shows the contents of the .log file, when it is open.

- **Options**

  The Options window lets you configure the *QC-Terminal* (COM port, baud rate, directories ...). Some items are also accessible through the menu Settings.

- **Buttons**

  Buttons are customizable. They are used for quick access to commands that for the CCU. Up to three button levels may be defined. The width of the button area is adjustable with the mouse by click and drag the separation line between the Online and the button area. The size is saved in the .ini file.

Status Line

The bottom line of the *QC-Terminal* shows on the left side a context sensitive help text according to the mouse position. In the center you see the communication state (COM port, baud rate, handshake state). The right part indicates the name of the .ini file after start-up or the .log file (if open).

5 Functional description

5.1 General operation

With the *QC-Terminal* you get communication between your PC and the USTER® *QUANTUM CLEARER* Control Unit (CCU). Most of the menu functions and buttons are built in the CCU. The *QC-Terminal* is just a tool to call these functions in the CCU. The commands are sent to the CCU. The answer is displayed in the **Online** window. If you activate logging, the CCU permanently sends information to the *QC-Terminal*.

5.2 Menu items

Most of the submenus are customizable by the user. The currently implemented menus are the most useful functions for service technicians. Some menu items are not implemented in old CCU versions. In this case, they have no effect.

5.2.1 Settings

- **Load**
  Loads another initialization file than QcTerm.ini. This item is normally not used. May be you can later make your own customized .ini file with more commands or different buttons.
  This command has the same effect as the **Load** button in the Options screen.
- **Save**
  This is needed, if you want to save your settings permanently. For example, if you change the COM port. This command will store the settings in the currently used .ini file. Normally this is "QcTerm.ini".
  This command has the same effect as the **Save** button in the Options screen.
- **Save As**
  Same function as **Save**, but you can enter a filename to store the settings into. This is used, if you want to make your own .ini file.
  This command has the same effect as the **Save As** button in the Options screen.
- **Edit**
  Enables you to make changes in the .ini file. It simply opens the .ini file with the Windows Notepad. This is used, if you want to customize the menus and buttons.
  Note: after having changed the .ini file, you must reload it using the **Load** menu.
- **Restore defaults**
  This menu resets all user settings to default values. You can create a default .ini file by saving after Restore default.
- **Quit**
  Terminate *QC-Terminal*.
  Note: All changes are lost, if you not have saved them.

5.2.2 Logging

- **Open File**
  This opens a new or existing .log file. The program asks you then if you want to start the recording. If you answer "Yes", the recording will be active. If you answer "No", the .log file will be opened, but the recording is not active.
  The *QC-Terminal* creates a default filename of the form "QC_yyyymmdd.log" (yyyy = year, mm = month, dd = day). If you want to change this format, you need to edit the .ini file (see Default logfile name for more information).
  After you have opened the .log file it can be examined in the Logfile window. If the .log file is already open, this menu is greyed out. The currently opened .log file name is displayed in the right part of the status line.
  We advise to create filenames containing information about the test. Maybe, you organize your .log files in separate directories (e.g. name of the mill).
  By default, the .log files are stored in the directory that is specified in the Options window.
  To view a .log file, you can use the Logfile window or simply use a text editor.
  If you have opened a .log file, you get the logging control buttons, where the state of this buttons is dependent on the action after opening the file (recording or not):

- **Start Recording**
  Recording to the open .log file is started. New messages are appended at the end of the file. The state of recording is displayed in the status line by showing ... Recording appended to the .log file name.
  This menu and the button are greyed out, if the recording is running. The size of the .log file is only limited by the size of your hard disk and by the splitting settings in the Options window. So, be aware of this, when you activate the logging filters in the CCU.

- **Interrupt Recording**
  Interrupt the recording to the .log file. The .log file is still left open for examination. This button is greyed out, if the recording is not active.

- **Close File**
  Close the .log file. Logging is stopped then. If the .log file is closed, this menu is greyed out.

- **Auto Comments**
  Comments are automatic inserted into the .log file, if the option **Auto Comment** is active (see Configuration).

- **Splitting Log files**
  Records over a long time produces large .log files. In some cases, recording is interrupted due to very large files. To avoid this, a new .log file may be created automatically each day, after a certain amount of hours or after an amount of recorded lines. In the Options window, in the section **Logfile**, this is set.

5.2.3 Filters

This menu or tool button opens a dialog window to control the logging filters of the CCU.
The content depends on the CCU Version you use.
The "Apply" button becomes enabled when you change a setting. It is used to send the new filter settings to the CCU. This menu is only shown if the *QC-Terminal* is connected to a CCU.
See chapter Setting of logging filters for more information.

5.2.4 Functions

This is a full customizable menu. This menu contains functions used to display configuration information and print reports.

5.2.5 Data

This is a full customizable menu. This menu contains functions used to display produced data.

5.2.6 Service

This is a full customizable menu. This is mainly used by service and the development. It contains functions to get operating system information, make hardware tests and get communication statistics. Former, you can initialize the built in battery buffered memory and reset the iMHs.

5.2.7 Installation

This menu is not customizable. It is used to install new software, configure the system, export and import data. For more information see chapter 7 CCU software installation and configuration.

5.2.8 Edit

- **Copy**
  Copy the content of the Buffer (last 500 **Online** lines) to the windows clipboard. This has the same effect as right clicking in the **Online** window and selecting **Copy to Clipboard**.
- **View**
  View the content of the clipboard in another window. This has the same effect as right clicking in the **Online** window and selecting **Copy to Buffer**.

5.2.9 Debug

This is used only for development. Debug allows loading the symbol file of the currently running iMH program. Debug messages of the iMH can be interpreted now symbolically.

5.2.10 Info

- **User Manual**
  Display this manual with the Acrobat Reader. For this, at least Acrobat Reader 4.0 must be installed on your PC. The User Manual is not installed when you choose compact installation. In this case, this menu is greyed out. Use custom installation to install the User Manual later.
- **Release Notes**
  Display the release notes of the current version of *QC-Terminal*.
- **About**
  Display the version of *QC-Terminal*.

5.3 Viewing data

5.3.1 The Online window 

In the online window, all messages coming from the CCU are displayed. The amount visible on the screen depends on the window size. With the Viewing Filter, you can control which messaged are displayed.

- **Commands**
  The **Online** window serves also as an input for the CCU. So, you can enter commands directly in the **Online** window. To do that, click somewhere in the **Online** window, type <Enter> to be sure, that you are online ("->" should be displayed) and then enter the command.

  An alternative to enter commands is the **Command** line field and press <Enter>. Here, you can recall previous used commands as well.

  The syntax of each command is different, but the style to enter a command has two different valid forms. You can set the arguments of a command into brackets or separate the command from the arguments by at least one space. Between the arguments a comma is required, spaces are allowed.

  ```
  command(arg1,arg2,arg3)
  command arg1,arg2,arg3
  ```

  Notes:
  Previously entered commands are stored permanently. They may be deleted and modified with the  button.
  For each .ini file a command history file is maintained. It has the same name as the .ini file with the extension .cmds.
  The size of the drop down list is configurable.

- **Add comments**
  You may insert comments to your .log file. To do so, you click the  button. An input window allows you to type in the comment. It can consist of several lines. In the Option window, you can define delimiters for comments. Note, that empty lines are inserted without delimiters.

- **Activate timestamps**
  The CCU creates a timestamp for each line it sends to the *QC-Terminal*. It is the time which is elapsed since start of the CCU. In some applications there are no timestamps.
  For these cases the *QC-Terminal* can generate a timestamp by itself. You can configure if the date should be included. The time output has a resolution of milliseconds. The output format is the following:

  With date: `dd.mm.yyyy hh:mm:ss.sss|any log message`
  Without date: `hh:mm:ss.sss|any log message`

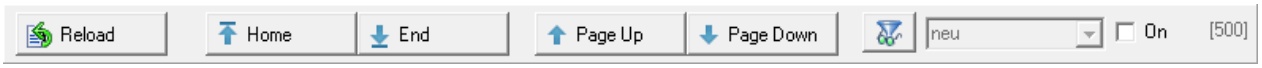
  `sss` = milliseconds

  Go to the Option window to switch on this feature.

- **Emphasize ERROR messages**
  A log line is emphasized if it contains the keyword “ERROR”. It is printed in red color. This makes it easier to locate problems in logfiles. This coloring works also in the **Buffer** and the **Logfile** window.
  Go to the Option window to switch off this feature.

5.3.2 The Buffer window

Normally, the **Online** window is not big enough to display all messages of interest. By default the last 500 output lines are stored in a ring buffer. This size can be customized. For every new line, the oldest is removed. In the **Buffer** window, there are five buttons of interest:



- **Reload**: If you display the **Buffer** window, the collection of messages is still going on. This button refreshes the **Buffer** window to show the latest messages.
- **Home**: Jump to the beginning of the buffer. View the oldest messages.
- **End**: Jump to the end of the buffer. View the newest messages.
- **Page Up**: Show previous page of the buffer.
- **Page Down**: Show next page of the buffer.
- Viewing Filter: Set the filters for selective display (synchronized with the settings on the other windows).
- **[500]**: Display of the number of lines the buffer can hold.
- **Zoom**: Place the mouse pointer into the window, press and hold down the left mouse key and turn the mouse wheel up and down.

5.3.3 The Logfile window

This window allows you to examine a .log file. To do that, the Logfile must be open. The displayable size of the file is limited to 10Mb. On some Windows versions, this size is reduced.
In the **Logfile** window, there are five buttons of interest. These buttons are greyed out, if the .log file is not open.

- **Reload**: If you display the **Logfile** window, the collection of messages is still going on. This button reloads the .log file into memory and refreshes the display to show the newest messages.
- **Home**: Jump to the beginning of the file. Show the oldest entries.
- **End**: Jump to the end of the file. Show the newest entries.
- **Page Up**: Show previous page of the file.
- **Page Down**: Show next page of the file
- Viewing Filter: Set the filters for selective display (synchronized with the settings on the other windows).
- **Lines: xxx**: The number of lines of the logfile which have been read.
- **Zoom**: Place the mouse pointer into the window, press and hold down the left mouse key and turn the mouse wheel up and down.

Notes:
- The Viewing Filter influences the displayed contents.
- The .log file is automatically displayed in this window, if you open the file.
- The window content is cleared, if you close the .log file.
- If the Viewing Filter is switched On or Off, a **Reload** is made.

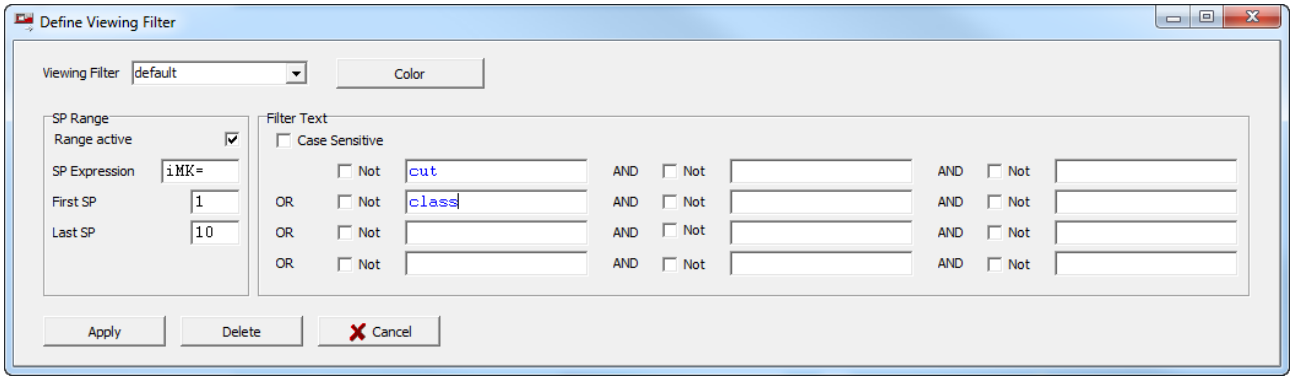
5.3.4 The Viewing filters

Viewing filters are used to display only selected information. They affect what you see in the **Online, Buffer** or **Logfile** window. The settings are provided on each window and are synchronized.
A filter consists of several settings and is identified by its name. The program is able to maintain as many filters as you want. The filter is active, if the check box **On** is checked (✓).

Filter is inactive

Filter "default" is active

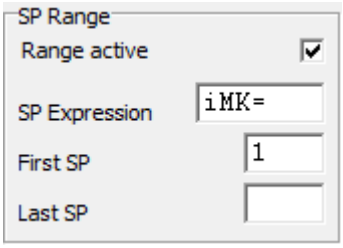
Click on the button to get to the **Define Viewing Filter** Dialog. This dialog may be left open during operation with the program. So you can watch the effect of changes in the filter parameters.



This dialog has the following elements:

- **Viewing Filter**
  Select an existing filter. You can also create a new filter by typing a new name into the field. Define the settings and click the **Apply** button. Then the new settings are saved and become active, if the filtering is **On**.

- **SP Range**
  You can filter messages of a range of spindles. Select the check box **Range active** and specify the desired range by defining **First SP** and **Last SP**. The field **SP Expression** is used to identify messages containing spindle specific data. Normally, this field should not be changed. If the fields **First SP** and **Last SP** are not specified, messages of all spindles are displayed. To select a single spindle, you fill in the spindle number in **First SP** and left **Last SP** empty.

- **Filter Text**
  Here you define text which should be contained (or not) in the message to be displayed. If the **Case Sensitive** check box is checked, the message text must match exactly to the upper and lower case letters of the filter. Else the case of the message text is ignored.
  A matrix of fields is provided to define the search criteria (pattern). If the field is empty, the pattern is not checked. If the field contains a pattern, the message text is displayed if it contains this pattern. If **Not** is checked, the message text is displayed if it contains the pattern not.
  You can create combined search criteria by filling more than one field. All fields in one line are **AND** combined (the message line must contain all patterns). You can define four such **AND** terms which are combined by **OR** (the message line is displayed if one of these terms is found).
  Hint:
  If you want to show all messages which are not empty lines, you can check **Not** for the first field which is left empty (and all other fields also).
  If you want to show only iMH messages you can additionally check **Range active**.

- **Apply**
  This button becomes active, if you make changes in any field. After having made all modifications, you click this button to save the new values and make them active if filtering is **On**. The window remains open.
- **Delete**
  Erase the currently active filter. It is not possible to delete all filters. At least one filter remains selectable.
- **Cancel**
  Reject the modifications and close the dialog.
- **Color**
  Set the color of the text in the Online window, when the filter is active. So you can distinguish between active and inactive filter at a glance.

Notes:

- Viewing filters do not influence the contents of the logging. All messages are stored to the .log file. So it is possible to view the .log file with different viewing filters.
- In the **Online** and **Logfile** windows, each change of the filter (clicking **Apply**) immediately affects the output (if filtering is **On**).
- The position of the dialog is stored when you save the Settings.

5.4 Configuration

Beside the menu Settings, you can configure the *QC-Terminal* with the **Options** window. Some parameters, you can change in both, some are only changeable in the **Options** window.

- **Language**
  Supported languages are German, English and Chinese.
- **Font**
  The selected Font is only used in the terminal areas.
- **Buttons in bold font**
  Change the font style of the user definable buttons.

- **Port**
  The port depends on your PC configuration. You can have a look on your Windows in System → Control panel → Device manager → Ports to see which ports you have. There is also the possibility to change the port numbers in Port Settings → Advanced.

- **Baudrate**
  Qauntum 2 and Quantum 3 need 115'000 Baud. UPC needs probably 19'200 Baud but the interface has not the same commands.

- **Handshake**
  Xon/Xoff is a software handshake protocol. If your PC is not fast enough, you can check this box. Maybe it helps.
  Rts/Cts is a handshake protocol on hardware level. The CCU both must support it.
  SG 2000 supports hardware handshake.
  CCU 2006 does not support hardware handshake.
  CCU 6 supports hardware handshake.

- **Telnet**
  If you are connected to the CCU via ETHERNET, you can use the *QC-Terminal* as Telnet client. To connect the *QC-Terminal* to the CCU, you must enter the IP address or the hostname of the CCU in the **Telnet Host** field. Then select the **Port** named **Telnet** or click the **Connect** button.
  The IP address corresponds to CCU address in the system menu of the CCU. You may also open a command prompt (Execute cmd) and use ping to check the Ethernet connection.

  If the check box **Auto Login** is selected, the *QC-Terminal* does the login for you.
  user: target
  password: password.
  If you want to login to another telnet host, you must deactivate **Auto Login** or you must configure the login parameters in the .ini file.
  The *QC-Terminal* automatically changes to the **Online** window when clicking the **Connect** button and the login is reported there.
  Now, you are able to enter commands and invoke functions by menu or button to the remote CCU.

  When the connection to the CCU has been lost for some reason, *QC-Terminal* automatically tries to reconnect.

  Notes:

  - Don't use the **Command** line for login. Instead make the entries directly in the **Online** window.
  - Previously entered **Telnet host** names are stored and available on the next program start. The list of host addresses may be modified with the button.
  - The login parameters are configurable.
  - Software update is not possible via telnet.

- **Script**
  Allows running a script invoked by the following conditions:

  - CCU boot: The trigger is "Done executing startup script" when the startup script has been processed at CCU startup. The start is delayed by a CCU type specific time.
  - QC-Terminal start: The trigger is the start of the *QC-Terminal* or the loading of the .ini file. The start is delayed by one second (first entry in the script).
  - DSR ON: The trigger is the modem handshake signal DSR which changes to ON. This feature is not supported on all CCUs (CCU2006). The start is delayed by one second (first entry in the script).
  - Telnet connection: The trigger is the successful login at the Telnet server. If the connection is lost, the script is also triggered at reconnection.
  - Run Script now: Triggers the script defined for CCU boot.

  By default the script file scriptCCUstart.ini is used. A different script can be defined for each trigger.

- **Comments**
  Customize the format of the comments that you can insert into the .log files. By default, each command is put into "<<<" and ">>>" brackets. Here, you can put comment begin and end marks whatever you want. If you check **Newline before and after**, each comment is separated by a newline from the normal logging text.

Auto Comment is used to insert comments into the log file each time you do an action to this file (see also Logging).

- If you start recording, you will be asked to enter a comment that describes the purpose of the logging. The *QC-Terminal* adds now a title block containing the current date and time, the system version of the connected CCU and your comment.
- If you interrupt recording, the date and time will be written into the log file.
- If you continue after recording after interruption, the date and time will be written into the log file.
- Finally, if you stop recording, you get also the date and time stamp.

Logfiles

Controls the automatic splitting of .log files.

- normal: no file splitting
- new file each day: Create a new .log file, when the day changes
- new file after xx hours: Each xx hours, a new .log file is created. The time is measured from the moment, the recording is started or the settings were changed.
- new file after approx. xxxx lines: Counts the lines in a .log file and creates a new one, when the lines setting is reached or slightly surpassed.

Miscellaneous

- Generate Time Stamps: QC-Terminal inserts a time stamp to each log line.
- with Date: Time stamp with or without date.
- Emphasize 'ERROR' in Log: Log lines containing 'ERROR' are printed red.

Directories

Here, you can define the default directories.

- Logfiles: Where you want to store the .log files.
- Image Files: Where you have stored the image files for the SG2000 software update.
- Database Files: Where the database export files are stored.

File

Show the currently loaded .ini file.

6 Application

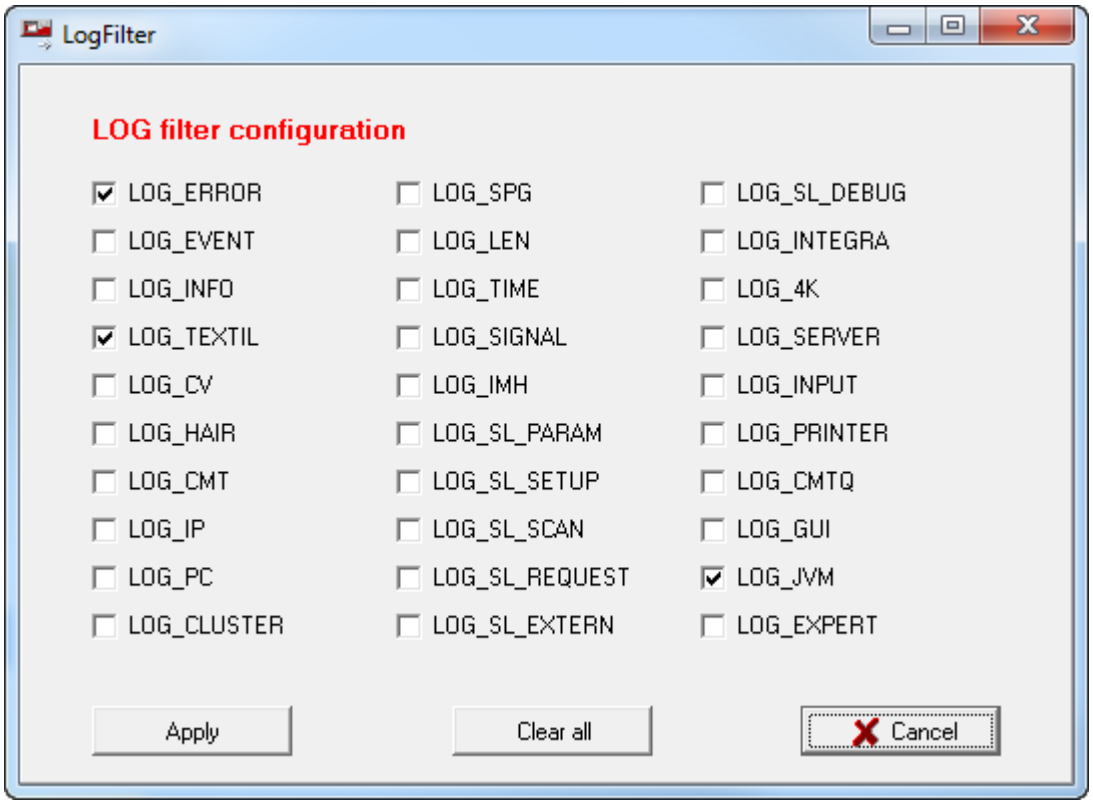
6.1 General help

Only a few functions (the most used) are defined on a menu or button. But there are a lot of other helpful functions. You can get a list of user accessible functions if you type in the following commands into the **Command** line field or into the **Online** window.
Note: The displayed functions are dependent on the CCU version.

- **`ser_show`**
  Show a help for **`ser_show`**. So, you must enter **`ser_show`** and a number.
- **`ser_show 1`**
  Show function help for configuration display and settings.
- **`ser_show 2`**
  Show function help for parameter display. You can display article key information, clearing limits and group parameters.
- **`ser_show 3`**
  Show function help for data display. The functions menu uses functions of this type. If you want to get data of the last shift, you can use these functions.
- **`ser_show 4`**
  Show function help for reports. Most of these functions have been installed in the functions menu.
- **`ser_show 5`**
  Show function help for special functions. These are functions for module check, hardware test and database export / import.

6.2 Setting of logging filters

The menu **Filters** or the tool button opens a dialog that shows the current settings of the logging filters and let you change them. This is used in case of problems, for textile tests, service and development. The content of this dialog depends on the Quantum version. It works only if the *QC-Terminal* is connected to the CCU.



- **Apply**
  Send the new settings to the CCU.
- **Clear all**
  Switch OFF all logging filters.
- **Cancel**
  Abort without change.

As follows some of the most important filters:

- **LOG_ERROR**
  This filter shows all errors occurring in the system. This filter should always be ON. Normally, no errors should occur.
- **LOG_INFO**
  Messages about internal behavior is logged. This is mainly used for development.
- **LOG_TEXTILE**
  This is mainly used for textile tests. All textile events such as cuts or alarms, coming from the iMH are logged. On large machines, this produces a big amount of log messages.
- **LOG_INTEGRATION**
  This filter is only used for integrated CCU's. It shows the traffic between the CCU and the machine board computer. In some CCU integrations, this filter is ON by default.

The filters may also be modified by command:

- To get a list of all possible logging filters type the command `log_show` (which shows also a help for log commands). Each filter has a number, a constant and a symbol.
- Type the command **`log_filterOn x`**, where x is the number of the filter or the symbol.
- To switch the filter OFF type: **`log_filterOff x`**.

Notes:
- After CCU power up, the filter LOG_ERROR is ON and all other filters are OFF.
- Each time after power up, you must set the desired filters anew. To avoid this, you can use the script facility.
- Switching ON a log filter may cause a big amount of output. Please do not activate too much filters at a time. This can cause overflows in the log processing of the CCU, so you may not get all log messages.
- For newer Quantum 3 versions logging may be activated by the user interface. This is normally used to log to an USB-stick. In this case, the filters are restored after power up. Changing the filters in this menu affects also the logging to the USB-stick.
  Logging to the USB-stick is encrypted.

6.3 Content of .log files

The content of a .log file is dependent on the logging filters set in the CCU.
One line in the .log file has the following format:

```
hh:mm:ss   task        message
00:00:19   tSlSetup    iMK=  13 bios started and app ok
```

`hh:mm:ss`	is the time since start of the CCU. If the variable `logShowTicks` is not `0`, the system ticks are output instead of the time.
`task`	is the name of the task that produced the message.
`message`	is the information of interest.

For more information about specific log messages please refer to the *Service Manual*.

6.4 Show CCU configuration information

To get information about the configuration of the USTER® *QUANTUM CLEARER*, there are different ways.

- Use the menu **Functions**.
- Use the menu **Installation / Configurator** or the tool button
- Call service functions.

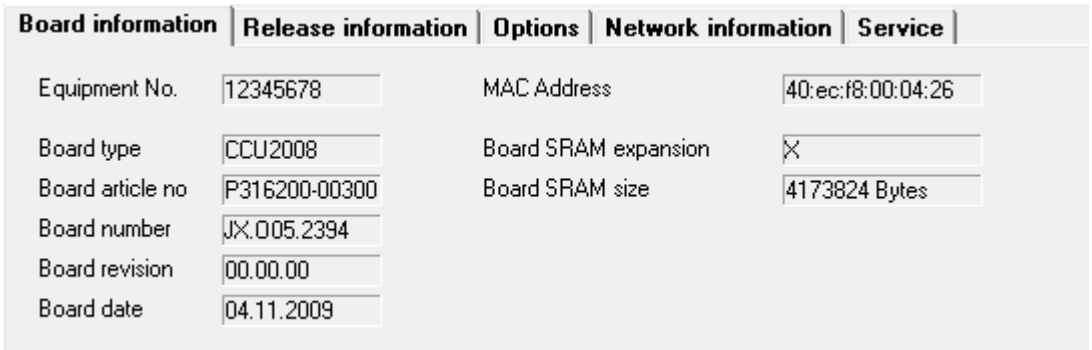
6.4.1 Menu Functions

The menu "Functions" contains the most used functions for service:

- **Show Options**
  List of the state of the options in the CCU.
- **Show Configuration of CCU and iMHs**
  List of the configuration of the CCU and all iMHs. Open .log file first.
- **Show Configuration of CCU**
  List of the CCU configuration only.
- **Show Configuration of iMH**
  List of the configuration of a single iMH. The iMH must be connected, because this information is read directly from there.
- **Report xxxx**
  Generate a report to the *QC-Terminal*. The content is the same as in the reports started in the CCU menu “Reports → Special reports”. Open .log file first.
  See 6.6 Print reports.
- **CCU Screen Dump to USB**
  Stores the CCU screens contents as a picture file (.png) into the directory `UsterScreens` on the USB-stick.
- **Show Change Log**
  List the content of the change log file. Open .log file first.

6.4.2 Menu Installation / Configurator

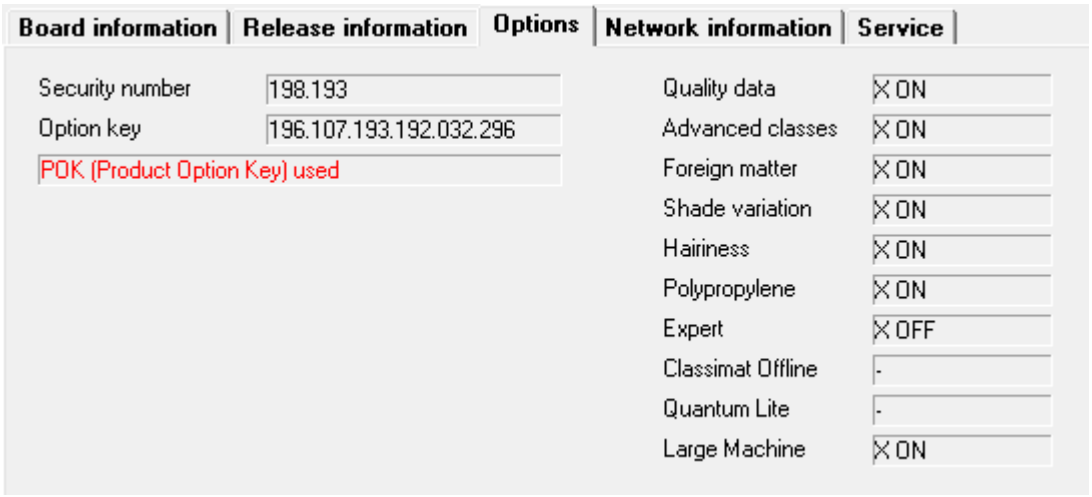
- **Board information**



Board type is interesting. "SC10" stands for CCU of SG2000 type. When connected to a SG99 CCU, the board type is "JUMP". The CCU2006 board type is “CCU2006” and CCU2008 is “CCU 6”. Future CCU's will have an SRAM extension, which can be displayed here. The board article number is only displayed for SG2000 > V3.10.

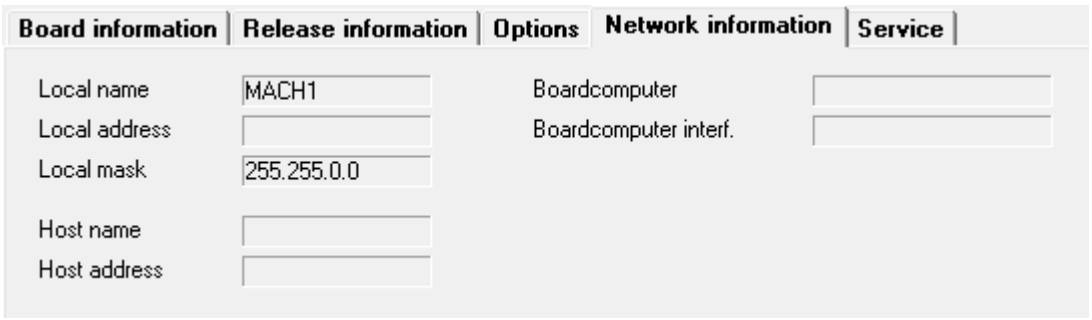
- **Release information**

- **Options**



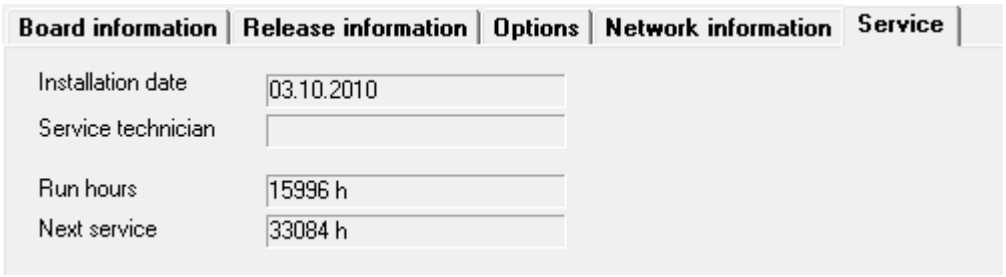
The red field shows, if the options have been set with the "Product Option Key (POK)" or not.
"-" = Option not available, "X ON" = Option available and switched ON, "X OFF" = Option is available, but switched OFF, "XT" = Timed Option.

- **Network information**



The fields "Host name", "Host address", "Boardcomputer", "Boardcomputer interf." are normally blank. On some integrated CCU's, the "Local name" is automatically set by the machine.

- **Service**



The information about installation and run hours is displayed. The field “Service technician” may be empty because this is cleared on initial start.

6.4.3 Print CCU configuration information

The currently displayed CCU configuration information can be printed by pressing the Print data button. The Windows standard printer is used. The produced datasheet contains all information of the configuration.

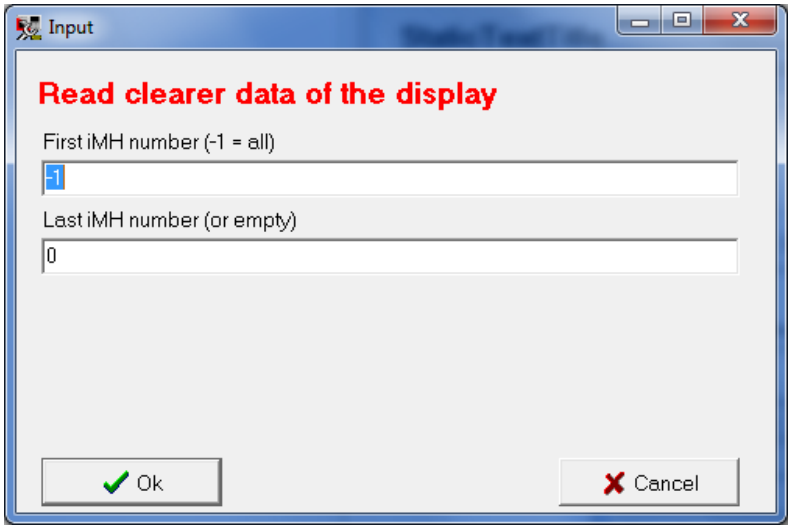
To select a different printer, use the Select printer button.

6.5 Show data

The data show functions, built in the menu **Data** are all configured to show data of the current and last shift. If this should be changed, you have to customize your *QC-Terminal*. The information how you can change the called functions please refer to the general help for data display.

The currently implemented menu **Data** is described below.

Most of the functions ask to enter a range (first and last number). You enter the first number into the first field and the second number into the second field. To show only one element, you type it's number into the first field and set the second field 0 or left it empty. If you want to list all elements, you set the first field –1 and the second field 0 (or empty).



- **Clearer / Group / Machine ...**
  List all data of a range of clearers, groups or the whole machine.
- **... Data / CMT / FCMT ...**
  Data contains the cuts, CV, Hairiness, time, length and some miscellaneous information. CMT shows the yarn fault classification and FCMT shows the foreign fiber classification.
- **... Abs / Rel , ...**
  Abs means, that all data is printed absolute. That means the real counter values.
  Rel means, that all data is printed according to the relative system, set in the CCU. Mostly used is /100km.
- **... Display / Last shift**
  Show the currently displayed data or data of the last shift. If you want to display other information (e.g. current shift, lot, day ...) you must customize this menu using general help.
- **Show ALL Data, Display / Last shift!**
  Calls all data display functions described above. This function is useful, if you want to get all data at a moment. Open a .log file first.

6.6 Print reports

Use menu **Functions** to print reports.
These functions have the same effect as the report invoked by the user interface of the CCU. Instead of printing to the printer, the report is produced to the *QC-Terminal*. You may open a .log file to store the report. The currently implemented reports are described below.

- **Report Setup**
  Prints report configuration.
- **Report Settings**
  Prints basic settings.
- **Report Articles**
  Prints all article settings. You can use this report to list all article settings before you make a software update.

- **Report Service**
  Prints all settings. This report is sufficient to report the basic setup. You can use this report to list all important machine settings before you make a software update.
- **Report Client Logbook**
  Prints all entries of the client logbook.
- **Report Service Logbook**
  Prints all entries of the service logbook.
- **Report Develop Logbook**
  Prints all entries of the development logbook.

6.7 Service and development functions

Some service functions are implemented in the menu **Service**. With the general help, you get a list of callable service functions. Some functions in the menu are operating system calls and not listed in the general help.

IMPORTANT NOTE:
To use these functions, you must have deeper knowledge of the system. Some functions may cause loss of data.

- **Alarms** 
  Show the textile and technical alarms.
- **Options** 
  Show the state of the options in the CCU.
- **4k Statistics**
  This function is only used, where the CCU communicates to the machine computer with the 4k protocol (R20, MC7-5, ACO240, ACO288, ACO312). It shows a list of communication error counters.
- **CCU Task Information**
  Show a task list. Mainly used for development. It is used to see the type of integration.
- **CCU Modules**
  Shows all loaded modules. Mainly used for development.
- **CCU Stack Check**
  Show the use of stack. Mainly used for development. Key information is the margin. If it is too small, a stack overflow can occur.
- **CCU Environment**
  Show the environment variables. Mainly used for development.
- **CCU Red LED Check**
  Turn on the red LED for several seconds.
- **CCU Yellow LED Check**
  Turn on the yellow LED for several seconds.
- **CCU Polykey Test**
  Check the presence of a Polykey. The result is written to the **Online** window.
- **Format CCU SRAM** 
  This function causes the battery buffered SRAM to be formatted. All data stored there will be erased! After calling this function, you must restart the CCU by switching power off / on. The CCU performs then an "Initial Start". You must re-enter all settings.
- **CCU Reboot** 
  Invoke a real hardware reset. It is different from the reboot command which only restarts the boot monitor. This command works only for CCU2006 and newer.
- **iMH Errors**
  Show an error statistic of the iMH communication.
- **iMH Statistics**
  Show a statistic of the iMH communication.

- **iMH Status**
  Show the current iMH state information. A = application running, E = error (no communication), w = waiting for download, d = download started, but not yet running, D = download running, p = parameters requested, D = parameters sending, r = removed (deactivated).
- **iMH Help**
  Show a list of test functions. Mainly used for development.
- **iMH Show LED Function**
  Show the LED display function state of each group.
- **iMH Set LED Function (xxx)**
  Set the LED display function of a group. To switch off this function, you may enter function code 0. With the exception of Rieter integrations, you can set the LED Function also in the user interface of the CCU. There are two different menu entries: xxx = < V4.11.06 applies for Quantum 2 < V4.11.06 and xxx = > V4.11.05 applies for Quantum 2 > V4.11.05 and Quantum 3.
- **iMH Reset**
  Reboot a range of iMHs. First, you are asked to enter a range. Note, that this function is normally not to be used. There are some cases, where this function can help. See the *Service Manual* for more information.

6.8 Reporting problems to Uster Technologies AG

If you have to report problems with the USTER® *QUANTUM CLEARER* you do the following steps:

- Start the logging
- Print all data
- Print all articles
- Print service report
- Depending on the problem, you have to activate logging filters (textile, integration) to log the problem part.
- Stop logging
- Send the .log file to Uster Technologies AG (see address in chapter 9 Trouble shooting)
- On Quantum 3 you can create a database dump using an USB-stick. Enter the command `ser_csvAllExport()`
- On Quantum 2 you can save the settings using the menu **Installation / Database Export to USB**

7 CCU software installation and configuration

7.1 Database functions

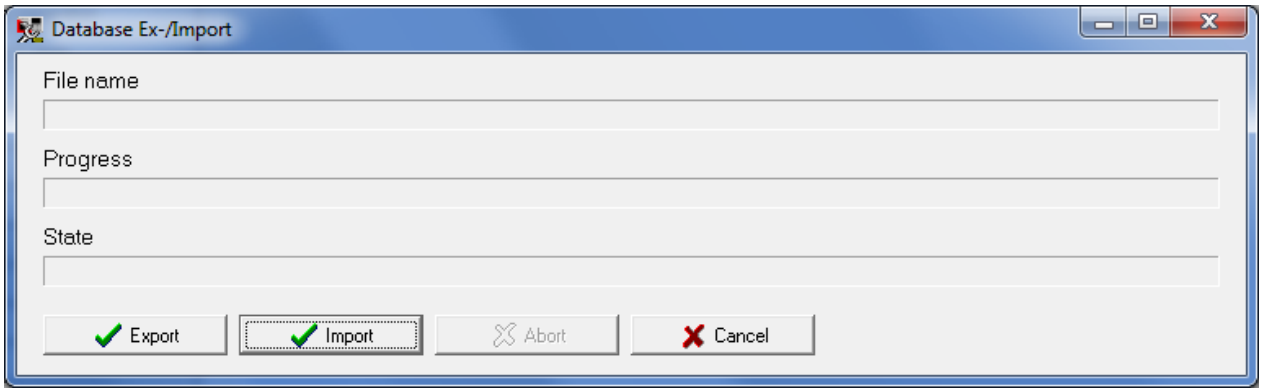
7.1.1 Save and restore the settings

With the menu **Installation / Database Export to USB**, the settings of the CCU are stored to the USB memory stick. All the files are saved in the directory dbx2 for Quantum 2 and dbx3 for Quantum 3.

With the menu **Installation / Database Import from USB**, the settings stored on the USB stick are restored in the. After a software-update (see below), this function is used to restore the settings.

Note:
Storage to the USB is only possible for CCU2006 and newer.

With the menu **Installation / Database Export/Import**, you are able to store and restore the settings of the CCU on your PC.



- **Export** means, that you save all settings (articles, setup ...) of the CCU in a .dbx file. If you start the function, you are asked to enter a file name. Normally, you export the database of the CCU before you make a software update.
- **Import** restores the settings from the file into the CCU. After a software update, you can import the database in order to restore all settings. Maybe, some variables could not be imported, because they have been added in the newer version. These values are set to default by the CCU.

In the **Status** line, you can see the currently running action. In case of errors, an error message is displayed. In the **Progress** line, you see the running operation as bar graph.

Note:
Database export and import works only for CCU version 2.12 or higher.

7.1.2 Make complete database dump

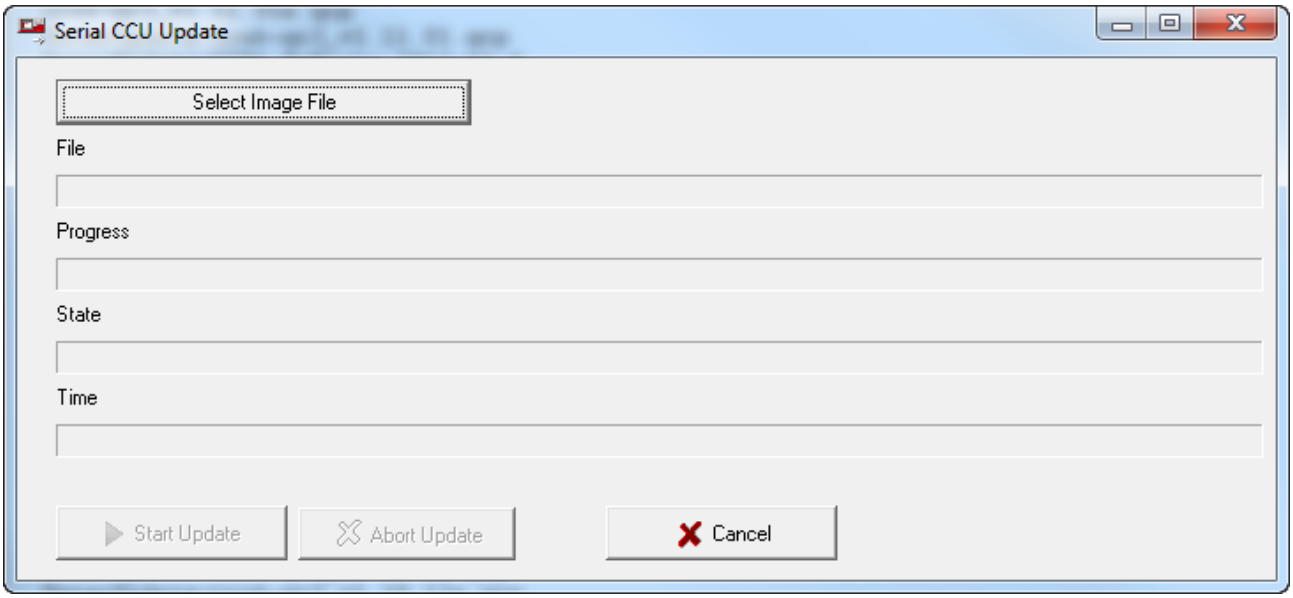
For debugging purposes the whole database (settings and current production data) may be stored as an encrypted file to an USB-stick.
Enter the command: `ser_csvAllExport()`
This feature is only available for Quantum 3 V1.10.01 and later.

7.2 CCU2000 Serial Update

The serial update is used to make a software update on the CCU. It works only for a **CCU2000**. To perform an update, you do the following steps:

- Restart the CCU by switching power off / on or type the command "`reboot`" into the **Online** window. In some cases, reboot may not work. In these cases, you must use the power off / on method.
- Now, the CCU is starting. During the memory test, you must press <Ctrl>C on your keyboard. This works only, if the focus (last used element) is the **Online** window. To ensure that, you click with the mouse into the **Online** window before you restart the CCU.
- Now you are asked to enter a password. Press <Enter>. Then you get a menu.

- Move the menu indicator ">" with the cursor keys to the menu "`Bios Utilities`" and press <Enter>.
- Select the menu "`Write Disk Image`" and press <Enter>.
- The display shows now
  "`Start Ymodem transfer ...`"
  "`C`"
  On the second line, you will see a growing sequence of "`C`", indicating that the CCU is ready to communicate.
- Now select the menu **Installation / Serial SG update**. You get the following window.



- Activate button **Select Image File** to select the image file of the new CCU version. Normally the name of this file is SG2000.img or sg2kVxxxxx.img. The file open dialog starts at the directory that you have defined in the Option window.
- Clicking to **Start Update** starts the first phase of the update process. The file is stored in the memory of the CCU. The window shows now the progress of the update by the **Progress** bar, the **Status** and the **Time**.
- When the transmission is terminated, you can see the message
  "`Compressed Image ? (Y/N):`"
  Press <y>. Maybe, this message is out of sight, because the line of "`CCCCC...`" has been grown too long.
- Now, you see the file size and the message
  "`Store Image to Disk ? (Y/N):`"
  You confirm with <y> to start the second phase of the update. The data in the memory is now stored to the FLASH disk. The currently written track and head are displayed. The last track is 244.
- The last message is
  "`Done`". "`Press any key`"
  Now you press <ESC> three times. Then you see the booting sequence of the CCU. It is now configured as Standalone CCU. To configure it, see next chapter.

Notes:

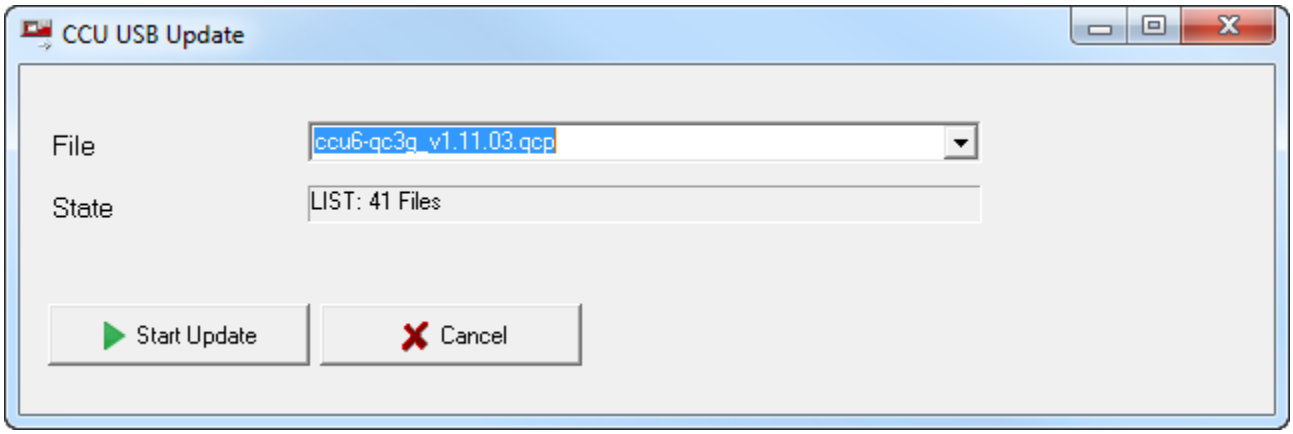
- The window size of the *QC-Terminal* must be big enough to see all of the CCU output. If your PC has a small screen, you can select a smaller font.
- A more detailed description of the software update, you can find in the *Service Manual*.

7.3 CCU USB Update

Select the menu **Installation / CCU USB Update**.
The software update of the CCU2006 and CCU6 is done with an USB memory stick. Copy the .qcp file to the stick and insert it into the USB slot behind the cover.

The behavior of the update function depends on the CCU2006 version.

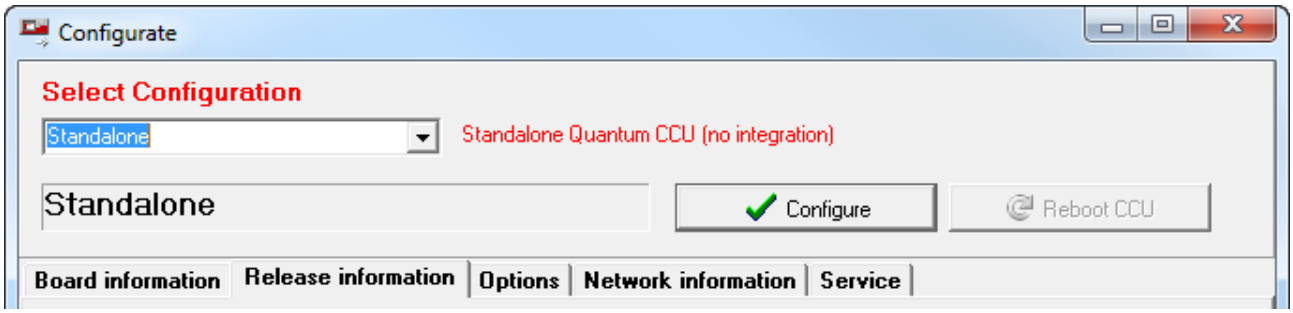
- For version 4.11.12 and lower, the update is immediately started with the file `sg2006.qcp`. No other file name is allowed for this function.
- For version 4.11.13 and higher, the program file for update may be selected in the update dialog shown below.
  The **Status** shows how many files are on the USB memory stick or an error message if something went wrong.
  The **File** combo box allows you to select the program file for update. It is empty when more than one file is present. The Start Update button is disabled then.
  Only files that match to the connected CCU are displayed.
  If this should be overridden by some reason, the file name may be typed into the edit field.



After having started the update you will see the progress in the **Online** window.
During the update, a database export is done to the USB stick (Quantum 2) or the internal FLASH disk (Quantum3). Use the menu Database Import from USB to restore the settings (Quantum 2). For Quantum 3 a dialog is shown after restart to restore the settings.

7.4 Configuration

In some older Quantum versions, the CCU is configured as Standalone CCU after installation. In order to configure it to be integrated in a machine, you select the menu **Installation / Configurator**.



In the display you see the currently configured integration type. The combo box lets you select the desired machine integration. The button **Configurate** sets the CCU to the selected integration type.

After configuration, the CCU must be restarted.

This may also be done by the Reboot CCU button which becomes active as soon as the button **Configurate** is pressed. Pressing the Reboot CCU button closes the **Configurate** dialog and invokes a reboot on the CCU.

Note:

- If the CCU is not connected, the display shows "----".
- If you have problems with integrated machines after software update, you may have forgotten to configure the CCU.

8 Customizing the *QC-Terminal*

8.1 Introduction

You are able to customize the menus **Functions**, **Data**, **Service**, **Installation** and **Debug** as well as the **Buttons**. Further, you can define a script that is processed at connection. The customization is done by editing the .ini file. This is by default the file "QcTerm.ini". As described before, you can also use another file name. To do this, you need a simple text editor. You may also use the menu **Settings / Edit** to edit the currently loaded .ini file. Reload it, if you want to see your changes.

8.2 Syntax description

Please refer to the QcTerm.ini file which is the default after installation. There you can see examples for the descriptions below.

8.2.1 Customizable items

Each customizable item begins with an identifier **`[xxxxx_n]`**. **`n`** is the sequence number, beginning with 0. No gaps are allowed. See the predefined identifiers which are allowed to change:

- **`[MENUS]`**
  `MENU_DEBUG_QC_ACTIVE=1` Activate the menu **Debug** which is only used for Quantum
  `MENU_INSTALL_ACTIVE=1` Activate the Install menu
  `MENU_INST_QC_ACTIVE=1` Activate the Quantum specific parts in the **Install** menu
  `MENU_FILTERS_ACTIVE=1` Activate the Filter menu and tool button
  `TOOL_BTN_QC_ACTIVE=1` Activate the Quantum specific tool buttons
- **`[FUNCTION_n]`** Entries of the menu **Functions**
- **`[DATA_n]`** Entries of the menu **Data**
- **`[SERVICE_n]`** Entries of the menu **Service**
- **`[BUTTON_TABS]`** Define the names of the button tabs (`TAB_x=<name>`, x = 1,2,3)
- **`[BUTTON_n]`** Button definitions for tab 1
- **`[BUTTON2_n]`** Button definitions for tab 2 (tab only visible, if buttons defined)
- **`[BUTTON3_n]`** Button definitions for tab 3 (tab only visible, if buttons defined)
- **`[SCRIPT_n]`** Commands for the script

8.2.2 Defining a command

The **`[FILTER_n]`**, **`[FUNCTION_n]`**, **`[DATA_n]`**, **`[SERVICE_n]`** and **`[BUTTON_n]`** **`[BUTTON2_n]`** **`[BUTTON3_n]`** definitions must contain at least the following items:

- **`ITEM=`** Defines the text which is displayed in the submenu or button.
- **`COMMAND=`** Defines the command that is sent to the CCU.
- **`HINT=`** Defines the help string, for the status line, if you move the mouse over the item.

8.2.3 Parameter input

To create an input window for one parameter add the following:

- **`$$$`** In the **`COMMAND=`** definition, you set **`$$$`** in place of the function argument to be entered. When calling the command, **`$$$`** is replaced by your entry.
- **`PAR1_TXT=`** Text to be displayed in the parameter window.
- **`PAR1_TYP=`** Type of parameter (STRING, SP, GR, INT). STRING sets your entry in " ". This parameter may be omitted (default is INT).

- **PAR1_DEF=** Default value for the input box. If this parameter is omitted, the input line is left empty which results as 0 in the command.

If you have more than one parameter, you can use the following syntax:

```
PARx_TXT=
PARx_TYP=
PARx_DEF=
```

x is a number between 1 and 4. That means you can define a maximum of 4 parameters for your commands.
For each defined parameter an input line is visible in the input window.

The behavior of the input line is the following:

- Empty fields are replaced by a 0 in the command. This is the default for the shell.
- Fields of type STRING take a string which may be enclosed in "" or not. In the command, it is always enclosed in "" (except when the field is empty).
- The last entered value is preserved for the next time when the same command is called.

8.2.4 Prompts

To create a Yes/No prompt window for dangerous operations add the following:

- **PROMPT=** Add the text to ask the user. If he clicks on Yes, the command is called, else not.

8.2.5 Separation lines and empty buttons

To create a separation line in the menu (**[FUNCTION_n]**, **[SERVICE_n]**) set the following entry:

- **[xxxx]**
  ITEM=-

To create an empty button in between add an empty button definition (example for buttons in tab 1):

- **[BUTTON_n]**
  ITEM=

8.2.6 Script

In older versions of the *QC-Terminal*, a start script could be defined in the QcTerm.ini file. This has been changed in that way that script is now an own file. The start script which is executed on CCU start is now defined in the file `scriptCCUstart.ini`. This file may be customized. It is stored on the same location as the QcTerm.ini file. The syntax in the script file remains the same and is described here.

8.2.6.1 Script syntax definition

Each Script entry must have the following syntax:

- **[SCRIPT_n]**
  WAIT_FOR= Set "**->**" if the command should be called when the "**->**" prompt is sent from the CCU.
  TIMEOUT= Time in milliseconds to wait before calling the command. This value must be at least 1 If it is 0 or left open, the reading of the script file is stopped at this point.
  REPEAT= Optional number of repetitions of the same command. The default is 1.
  COMMAND= Command to be sent to the CCU.

Timeout is necessary to give the CCU time to process the command.

In the start script the first element **[SCRIPT_0]** should be an empty element with at least **TIMEOUT=1000**. This is necessary to wait until the CCU is booting till it is able to process commands.

For repeated commands it is possible to use the loop index (starting with 0) as an argument to the command. This is achieved by the keyword **@REPEAT**. You can also make calculations with it like **commandXyz(@REPEAT+1)**.

8.2.6.2 Special commands in a script

You can start and stop a logfile controlled by the script using the following commands:

```
COMMAND=@LOG_FILE_OPEN
COMMAND=@LOG_FILE_OPEN(filename.log)
COMMAND=@LOG_FILE_OPEN(filename<timeFormat>.log)
COMMAND=@LOG_FILE_CLOSE
```

The created filename depends on the parameter of the **@LOG_FILE_OPEN** command. If no filename is defined, the default name is used. This is the same name that is proposed when the logging is started by the toolbar buttons. The specified filename can contain a time format enclosed in **<** and **>**. It is replaced by the current date and time in the given format.
See chapter Default logfile name for more information about the default filename and the time format syntax.
If not an absolute path is defined, the file is written to the path defined for log files (see Configuration).

8.2.6.3 Start script via button

You can define your own scripts and invoke them via a button. For this you create a scriptXyz.ini file following the syntax described above. Store it at the same location of the QcTerm.ini file. Define a button as follows:

-
```
[BUTTON_x]
ITEM=your button text
COMMAND=@SCRIPT_RUN(scriptXyz.ini)
HINT=your button hint
```

8.2.6.4 Different startup scripts

For each trigger a different script can be defined. By default, the scriptCCUstart.ini is used for all triggers. The following entries .ini file entries are defined:

-
```
[APPLICATION]
SCRIPT_BOOT=scriptCCUStart.ini
SCRIPT_QCT=scriptCCUStart.ini
SCRIPT_DSR=scriptCCUStart.ini
SCRIPT_TELNET=scriptCCUStart.ini
```

8.2.7 Inserting internal commands

You can define buttons with internal commands, such as setting the baud rate. To add such a command, you write in the .ini file

```
ITEM=your comment
COMMAND=xxxx
HINT=your help text
```

where **xxxx** is a one of the following strings:

```
@COM_1              Select COM1
@COM_2              Select COM2
@COM_3              Select COM3
@COM_4              Select COM4
@BAUD_2400          Select 2400 baud
@BAUD_4800          Select 4800 baud
@BAUD_9600          Select 9600 baud
@BAUD_19200         Select 19200 baud
@BAUD_38400         Select 38400 baud
@BAUD_57600         Select 57600 baud
@BAUD_115200        Select 115200 baud
@RTS_CTS_ON         Enable hardware handshake
@RTS_CTS_OFF        Disable hardware handshake
@XON_XOFF_ON        Enable software handshake
@XON_XOFF_OFF       Disable software handshake
@COPY_TO_BUFFER     Copy screen to view buffer
@LOG_FILE_OPEN      Open log file
@LOG_FILE_CLOSE     Close log file
@EDIT_COPY          Copy to clipboard
@EDIT_VIEW          Display and edit the view buffer
```

```
@FONT               Select font
@CONFIGURATOR       Select the configurator menu
@SCRIPT_RUN         Run the script
@SCRIPT_TOGGLE      Switch ON/OFF the script usage
@DEBUG              Select iMH debug
@INSERT_COMMENT     Insert comment in log file
```

8.2.8 Default logfile name

You can customize the format of the default log file name by editing the .ini file in the **[APPLICATION]** section. If the entries don't exist, you can call the save menu or add them by hand. The filename consists of two parts: The prefix and the date.

Prefix: The default prefix is "QC_".

LOGNAME_PREFIX=QC_

Date: The default date format is "yyyymmdd"

FILENAME_TIMEFMT=yyyymmdd

You can modify this format. There exist the following format specifiers:

yyyy = Year with century (e.g. 2013)
yy = Year without century (e.g. 13)
mm = Month
dd = Day
hh = Hours
nn = Minutes
ss = Seconds

Example of a different default filename:

```
LOGNAME_PREFIX=Q
FILENAME_TIMEFMT=dd.mm.yyyy_hh-nn-ss
```

Due to a bug in the Windows 7 control, not the whole filename is shown in the file open dialog. Simply press the <Home> key.

8.2.9 Command ComboBox size

The size of the drop down list of the **Command** ComboBox is configurable in the .ini file.
Add the following line in the section **[APPLICATION]**:

COMMAND_LIST=xx

xx is the max number of lines the drop down list of the ComboBox has.

8.2.10 Program title

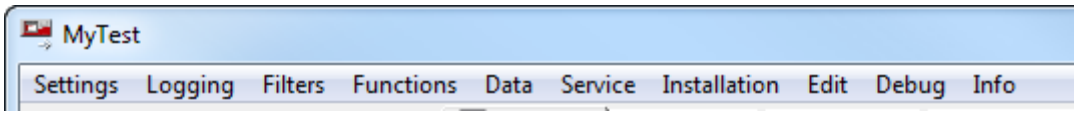
You can specify a program title by adding the following line in the section **[APPLICATION]** of the .ini file:

PGM_NAME=name

This title replaces the main window title as follows:

name

Example:



Additionally the name of the icon in the taskbar becomes this name:

This feature allows you to easy distinguish multiple running *QC-Terminal*s on your PC. Each program should have its own.ini file. This is normally used in test environments with more than one serial interface or when you use the Telnet connection in a network.

You may want to add the program version to the program title. This is achieved in the same section with the following line:

```
PGM_SHOW_VERSION=1
```

8.2.11 QC-Terminal log message prompt

The QC-Terminal generates own log messages. These start with the time stamp and a prompt. Here an example:

```
08.09.2014 13:09:53 QC-Terminal: Serial port COM1
```

The default prompt text can be overwritten by you own prompt in the .ini file in the section

```
[APPLICATION]
LOG_MSG_PROMPT=QC-Terminal
```

8.2.12 Telnet login parameters

When the Auto Login is active, the default login parameters are user "target" and password "password" which are used in the CCU. If you want to use the *QC-Terminal* as a Telnet client on a different system, you can define the needed login parameters in the .ini file in the section

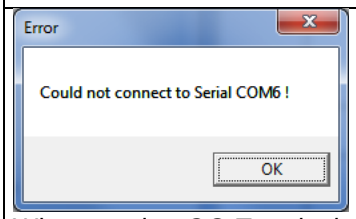
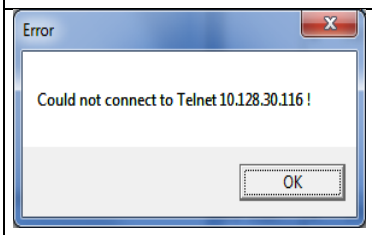
```
[COMPORT]
LOGIN=1
LOGIN_USER=username
LOGIN_PASSW=password
```

8.2.13 Size of Buffer window

The default size of the Buffer window is 500 lines. This size is configurable in the .ini file in section

```
[APPLICATION]
BUFFER_SIZE=400
```

9 Trouble shooting

Symptom	Possible reasons
No connection to CCU	• CCU not running. • Cable not connected, cable broken, wrong cable. Serial cable must be crossed. • Wrong Port, wrong Baudrate, Handshake (xon/xoff or rts/cts) checked. ⇨ Configuration • A serial port has also a ground. There could be a ground loop. Check laptop with and without connected power supply.
"**->**" doesn't appear if you press <Enter>	• No connection to CCU (see above). • You still have set a Viewing Filter. • You are not in the Online window. Click into the Online window. The focus must be there.
 When starting *QC-Terminal*	• *QC-Terminal* already running. • Another program uses the same Port. • See Windows control panel, device manager to see which port is assigned. You need two drivers if you use an USB-Comport adapter. A driver for the device and a virtual Comport-driver.
On Serial Update, the BIOS menu is only partly visible.	• Window too small or font too big.
On Serial Update, the message "`Compressed Image ? (Y/N):`" is not visible.	• The message is out of sight, because the line of "CCC..." has been grown too long. Simply press "y" to go on. • The option "Run Script at Startup" is active (only, if you use older Versions of *QC-Terminal*).
	• You need a crossover Ethernet RJ-45 cable if you connect directly to your Laptop. Have a look to the Ethernet connectors LED's. Are they green = OK? • Have a look to the CCU address. Open command prompt (execute cmd) and use ping xxx.xx.xxx.xxx to see if the low level connection is OK. • Check if the CCU is running.
No or slow reaction to mouse clicks	• The *QC-Terminal* is connected via Telnet and the connection has been interrupted. The reconnection is now in process and the CCU is not reachable (at the moment). • Probably the Ethernet connection was interrupted. Just wait for a while or restart the CCU. • Probably the CCU is rebooting. The connection should be established in about 30 seconds.

Bug reports

Please send problem and bug reports to the following address:

Uster Technologies AG
Product Care Team (PCT)
Sonnenbergstrasse 10
CH-8610 Uster

E-mail: pct@uster.com
Web: www.uster.com

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