

RTU32 Software v. 1.00 - Release notes

General

RTU32 with software Version 1.00

RTU32 in software version 1.00 support as follows;

- STRATON WorkBench version SR5 – all basic functions. Included are also binding / dual binding functions for fast network communication and redundant connectivity.
- STRATON WorkBench version SR6 – all standard functions excluding C+ compiler options and redundant functions. In addition HMI function with graphic HMI design for RTU32 HMI WebServer.
- In addition to all the standard functions in STRATON, the specific RTU32 functions are as follows;
 - o I/O Driver for Internal and external I/Os boards.
 - o I/O configuration locks functions.
 - o Forced saving of retained variables to RAM.
 - o Enhanced serial port handling with handshake.
 - o Dial functions for serial drivers.
 - o Realtime function with milli sec resolution and adjustability.
 - o Read text file functions.
 - o Driver for EN/IEC60870-5-101 Master and Slave.
 - o Driver for EN/IEC60870-5-104 Server (NUC compliant. optional).
 - o SNMP Agent driver for network management functions (optional).
 - o Debug facilities via port911.
 - o HMI WebServer function with dynamic web interface (STRATON WB SR6 and newer).

Be sure to get the latest HWDEF files for STRATON (HWDEF is the special RTU32 library you use in STRATON when for programming).

RTU32 Licensing:

When you purchase any RTU32, a MS WinCE License is included. In standard version RTU32 the STRATON runtime is free.

STRATON WorkBench Licensing:

Every STRATON WorkBench requires a license and a dongle / hard key.

In order to activate your license you must:

- Run the "License" command in the STRATON group of the Start menu, and enter your license number (press Add button).
- Plug the hardware key (dongle)

If no valid license is entered, the Workbench operates in demo mode.

Limitations in demo mode:

- Applications are limited to 40 I/Os.
- The code generated by the compiler stops after 15 minutes.
- The simulation stops after 15 minutes.

STRATON WorkBench SR6 - New features

System requirements:

- PC with Pentium II at 500MHz
- Windows Win 2000 or Windows XP operating system
- 128 MB of RAM
- 50 MB of available disk space
- 800x600 screen resolution (1024x768 / true colours recommended)
- mouse

The STRATON WorkBench versions since SR5 include new functions which are listed below.

New features in version SR6:

- New single frame environment
- New workspace for arranging programs and function blocks of the project
- The STRATON Workbench now can generate compiled machine code, using a "C" compiler
- Structures and UDFBs can be declared in any order
- New "ApplyRecipeColumn" function for working with embedded recipes
- The "SEL" function can now be used with any data type
- New libraries for management of large text buffers
- New libraries for XML writing and parsing
- New libraries for support of the MQTT telemetry protocol
- New "Project Settings" box with more options
- New wizard for configuring On Line Change
- New column in the variable editor for embedding symbols
- Select each program to be executed or not at runtime (conditional compiling)
- The FBD editor can automatically build a UDFB from the selected part of a diagram
- The compiler now displays code size at the end of the build
- The SFC editor now provides more options for displaying the programming of a step (actions)
- Values can be displayed directly within the ST code during test
- In the variable editor you can use the mouse to move a variable from a group to another
- Spy lists can now be sorted by name
- Variable editor can now be sorted according to any column, and remembers the sorting method
- The On Line help includes a list of available keyboard shortcuts
- New functions for serializing strings: SerGetString, SerPutString

Functions (Blocks) in STRATON NOT supported by RTU32 are:

- AS-Interface (used for specific PC interface boards).
- T5 Runtime for XP.

RTU32 software version 1.10 – release end October 2006

RTU32 software version 1.10 is planned and under test. The version 1.10 is locked to STRATON WorkBench 6.2 which is released by Copalp.

RTU32 in software version 1.10 support as follows;

- STRATON WorkBench version SR5 and SR6 – all basic functions. Included are also binding / dual binding functions for fast network communication and redundant connectivity.
- STRATON WorkBench version SR6 – all standard functions excluding C+ compiler options and redundant functions. HMI function is improved – entering of filenames etc. in setup is saved and do not have to be entered every time.
- New watchdog functions are added. An CPU and WinCE independent watchdog on the power supply is implemented to monitor tasks running in WinCE. That include general WinCE system tasks, the STRATON VM etc. This will run on hardware version C and upwards.
- UPS function for controlling and monitor the UPS power supply functions is added. Some Function Blocks are added to give information's about UPS status which include mains alarm, low battery alarm and battery voltage.
- Log data to file function which include a general log data to file function. The log function provides possibilities to configure logs to your requirements. Included for this function are also a few new time functions to handle time initiated logs (log at specific realtime settings).
- In addition are added a range of new STRATON functions for data conversions and general handling. These new functions are mainly implemented based on wishes from different clients. See STRATON WorkBench SR6-2 for details.
- The USB interface on the RTU32 is enabled in the WinCE image and support MS Windows mouse and keyboard driver.

STRATON WorkBench SR6-2 - New features

NOTE about STRATON WorkBench: Version SR6-2 is available now but RTU32 do NOT support all the new functions. Will be available in RTU32 software version 1.10 ultimo October 2006.

New features in version SR6-2:

- The STRATON Workbench is now available in Korean
- You can use in a project objects from other projects and thus manage your own libraries of IEC written function blocks.
- You can protect your programs by encryption.
- The CASE statement can be used with any numbers and STRING switches.
- The variable editor now allows you to enter initial values for arrays.
- STRATON now supports MODBUS networking on UDP.
- New function blocks are available for instantiating MODBUS slave ports (MBSlaveRTU / MBSlaveUDP).
- The register functions now accept arguments with "ANY" data type.
- Many new blocks have been added to the standard libraries. Especially for data conversions etc. See the home page of the On Line Help for details.
- A new wizard is available in the "Program properties" box for editing parameters of a UDFB or sub-program.
- The viewing of execution order can be turned off in the FBD editor
- A new Fieldbus Configurator is available for access to WIN32 shared memory

- You can hide some blocks/categories in the list of available blocks
- Sorting programs by names is now an option from the context menu
- In FBD, you can drag the "cut" segment of a line with the mouse
- A new command is available in FBD to insert blank lines at the mouse position
- New in the options box: you can select what to display in editors tooltips