RTU32x Series Remote Update Tool

User Guide / Version 2011-01-26







Customer Information

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To receive the latest version of the user manual, please visit our Web site at:

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Choose the product in question under product search and under each product you will find accompanying data sheets, manuals, user guides etc.



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Product Warranty

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This warranty does not apply to any products which have been repaired or altered by persons other than repair personnel authorized by Brodersen, or which have been subject to misuse, abuse, accident or improper installation. Brodersen assumes no liability under the terms of this warranty as a consequence of such events. Because of Brodersen's high quality control standards and rigorous testing, most of our customers never need to use our repair service. If a Brodersen product is defective, it will be repaired or replaced at no charge during the warranty period. For out-of-warranty repairs, you will be billed according to the cost of replacement materials, service time, and freight. Please consult your distributor for more details. If you think you have a defective product, follow these steps:

1. Collect all the information about the problem encountered. (For example, Product type and s/n, hardware and software version etc.) Note anything abnormal and describe the error in a product failure report.

2. Call your distributor and describe the problem. Please have your manual, product, and any helpful information readily available.

3. If your product is diagnosed as defective, make arrangement with your distributor about this.

4. Carefully pack the defective product, a complete failure report and a photocopy of proof of purchase date (such as your sales receipt) in a shippable container. A product returned without proof of the purchase date is not eligible for warranty service.

5. Ship it to your distributor.



2. Introduction

Update tool for remote and/or bulk update of RTU32 Series products

The update tool for the RTU32 series are designed for remote and/or bulk updates of RTU32 series product in a WAN/LAN network. The supported functions are;

- Scan an Ethernet network for RTU32 modules
- Update STRATON project in one or more RTU32
- Update RTU32 firmware/software partly or completely.
- Upload files to the RTU32 Flash disc.
- Remote boot any RTU32 in the network

The tool is designed for Windows operating systems and support to run on .NET 3.5 (Windows XP SP2 to Window 7).

3. Installation and user license details

Installation

RTU32 Update Tool is supplied on a CD/DVD and installed via an installation program. The software license is allowed to install on one PC.

The Update tool is installed in the Brodersen RTU folder in the Start / Programs.

4. Getting started and general functions

Start up and defining RTUs for update

Start the RTU Update tool from Start/Programs/Brodersen RTU/.

The User interface will appear. The main window is used for listing the RTUs that needs to be updated and defining the specific update settings for each RTU.

You have 2 options for defining the RTUs you want to update. Either you use the search function and select relevant RTUs from a list of found RTUs – or enter the RTUs manually in the list.

| 🖀 Ole_test_demo.rud - RTU32Update V(2011/01/26) | | | | | | | |
|---|----|------|---------|----------|------|--|--|
| <u>File I</u> ools <u>H</u> elp | | | | | | | |
| 2 2 | | | | | | | |
| Updae Name | IP | Port | STRATON | Firmware | BOOT | | |
| P* | | | | | | | |
| Search for RTUs | | | | | | | |
| Progress log Update selected | | | | | | | |
| RTUs | | | | | | | |
| | | | | | | | |



In the main windows you find 2 function buttons;

- Search for RTUs in the network
- Update selected RTUs

When you select the "Search for RTUs" the search window will appear;



Select the relevant LAN Interface on your PC – use default if you only have one. Check that the local subnet is correct and press "Start" to search for RTUs. If the RTUs are assigned a correct IP address and connected to your network, they will appear in the list as shown above. You can now use the check box at the left side and the "Insert to table" button to copy the found RTUs to your table in the Main window.

If you want to remove a RTU from the list in the main window, just high light it by selecting it on the left side and press Delete.

| | | 📓 Ole_test_demo.rud - RTU32Update V(2011/01/26) | | | | | | | | | |
|-----------------|-----------------------------|---|--|--|---|--|--|--|--|--|--|
| ols <u>H</u> el | lp | | | | | | | | | | |
| | | | | | | | | | | | |
| date N | Name | IP | Port | STRATON | Firmware | BOOT | | | | | |
| E F | RTU_DEMO RTU32 in workshop | 192.168.1.232 | 502 | | | | | | | | |
| E F | RTU_TEST running on my desk | 192.168.1.127 | 502 | | | | | | | | |
| | | | | | | | | | | | |
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| Progress log | | | | | | | | | | | |
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| | ate I | ate Name RTU_DEMO RTU32 in workshop RTU_TEST running on my desk | ate Name IP RTU_DEMO RTU32 in workshop 192.168.1.232 RTU_TEST running on my desk 192.168.1.127 | ate Name IP Port ate Name 192.168.1.232 502 RTU_DEMO RTU32 in workshop 192.168.1.232 502 RTU_TEST running on my desk 192.168.1.127 502 | ate Name IP Port STRATON RTU_DEMO RTU32 in workshop 192.168.1.232 502 | ate Name IP Port STRATON Firmware ate Name 192.168.1.232 502 | | | | | |

The listed RTUs are defined by a range of parameters and information's;

Update check box

Is check when you want to update the RTU. If not checked it will be ignored in the update process.



Name

The name of the applicable RTU. Default is set the text: RTU_[IP address] – e.g. RTU_123.123.12.123. But you are free to enter your own naming.

IP

The IP address of the RTU – and ONLY the IP address – e.g. 123.123.123.123.

Port

Port address for STRATON connections – default always set to 502. (It is the same port address as ModbusTCP and that is on purpose selected).

STRATON Check box

To be checked if you want to update a STRATON PLC project in the RTU. When you select it, additional fields are displayed for defining the STRATON project you want to copy to the RTU and a field for enter the STRATON password if applicable.

If you ONLY select this update, STRATON project are transferred without using FTP (STRATON background file transfer used) and the STRATON project will be started right after upload.

If you select more installation options, FTP will instead be used for all uploads.

Note: If STRATON project is loaded without any additional option, the project will be loaded after download. If the STRATON project is uploaded via FTP, the STRATON project is not started after upload – you will have to send a boot order to make the RTU start up with the new project. This tool does NOT support online changes – if that is required you have to use STRATON WorkBench.

Project Path (only when STRATON check box is selected)

Here you define the folder incl. path for the STRATON project you want to upload/update. If you double click on the field a browse window will open where you can find and define the project.

STRATON Password (only when STRATON check box is selected)

If you have protected your running STRATON project with a password, you will need to enter it here.

Firmware Check box

Is checked if you want to update the RTU32 firmware full or partly. Or if you want to copy some files to the RTU32.

Firmware Path (only when Firmware check box is selected)

Double click on the field to browse for files and folders to upload. All the files and folder that are placed in the folder you selected will be copied to the Flash disc root ("\Hard Disk\").

It is recommended that you have full control of all you want to update – what files is required etc.

FTP User

You have to define the FTP user name of RTU e.g. admin (same as for login to WebServer).

FTP Password

You have to define the FTP password of the RTU - (same as for login to WebServer).



BOOT Check box

Used if you want to boot the RTU32. Can be used together with the other update procedures or as a standalone procedure. It might be a good idea to copy all updates to all RTUs in your application and then at the end send a boot command to all, so all requested updates are initialized at the same time.

NOTE that you have to add FTP user name and password for BOOT command.

5. Progress indicators and log

The progress log is providing information about the running applications. Update processing, successful or failures in update procedures are shown by reporting yellow, green or red background on each RTU update line. If the update is successful executed it will appear green – see example below;

| 🔜 Ole | _test_de | emo.rud - RTU32Update V(2010/10/29) |) | | | | | | | | |
|--|--|---------------------------------------|---------------|------|---------|----------|--|------------------|-----------------|------|--|
| Elle Iools | | | | | | | | | | | |
| | | | | | | | | | | | |
| | Update | Name | IP | Port | STRATON | Firmware | Firmware Path | FTP User Name | FTP Password | BOOT | |
| | | RTU_DEMO RTU32 in work shop | 192.168.1.221 | 502 | | | C:\Documents and Settings\ob\My Document | | | | |
| ۰ | | RTU_TEST running on my desk | 192.168.1.144 | 502 | | | C:\Documents and Settings\ob\My Document | admin | admin | | |
| | | RTU_192.168.1.220 App:Zenon_DNP3 (Run | 192.168.1.220 | 502 | | | C:\Documents and Settings\ob\My Documents\ | Jpdate RTU32 | | | |
| * | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| Progr | ess log | | | | | | | | | | |
| 10:55:05:538:FTP_Connected to 132:158:1.144 | | | | | | | | | | ^ | |
| 10.55/07.785 DisConnected from 192.168.1.144 | | | | | | | | | | | |
| 11:47:55:110FTP Connected to 192:163.1144 | | | | | | | | | | | |
| 11:4/55.279 Updating trimware 11:4/55.279 Tie: Vhard Disk == test allså odt | | | | | | | | | | | |
| 11:47:5 | 11:47:56.422 DisConnected from 132:168.1.144 | | | | | | | | | | |

And if an error has occurred, the line background will be red;

| 🐱 Ole_test_demo.rud - RTU32Update V(2010/10/29) | | | | | | | | | | | | |
|---|--|---------------------------------------|---------------|------|---------|----------|--|------------------|-----------------|------|--|--|
| Ele Iools | | | | | | | | | | | | |
| : 🔊 | | | | | | | | | | | | |
| | Update | Name | IP | Port | STRATON | Firmware | Firmware Path | FTP User Name | FTP Password | BOOT | | |
| | | RTU_DEMO RTU32 in work shop | 192.168.1.221 | 502 | | | C:\Documents and Settings\ob\My Document | | | | | |
| • | | RTU_TEST running on my desk | 192.168.1.144 | 502 | | | C:\Documents and Settings\ob\My Document | admin | | | | |
| | | RTU_192.168.1.220 App:Zenon_DNP3 (Run | 192.168.1.220 | 502 | | | | | | | | |
| * | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Progress log 1147:54 454 2. RTU_TEST running on my desk | | | | | | | | | | | | |
| 12:06:1 12:06:1 | 12:06:18:302 Missing User name and password 12:06:18:411 Not able to FTP connect to 192:168:1.144 | | | | | | | | | | | |

And the Progress log will indicate error.



6. Additional features

An update project can be saved with all the relevant setting. Just select files, save as and enter your project name. The RTU Update project is defined a text file type "*.rud".

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