logic IO RTCU Programming Tool User Guide

Contents

logic IO RTCU Programming Tool

Introduction

This manual contains the user documentation allowing easy installation and use of the RTCU Programming Tool application and firmware programming utility.
The RTCU Programming Tool program is an easy-to-use application and firmware programming utility for the complete RTCU product family. The connection to the RTCU device can be established using a cable or through the RTCU Communication Hub (RCH),

Installation

Download the installation file from www.logicio.com. Then, run the MSI file and let the installation wizard guide you through the complete installation process.

RTCU Programming Tool

Locate the Logic IO folder in your start->programs menu and run the RTCU Programming Tool.

RTCU Programming Tool user's guide Ver. 8.35

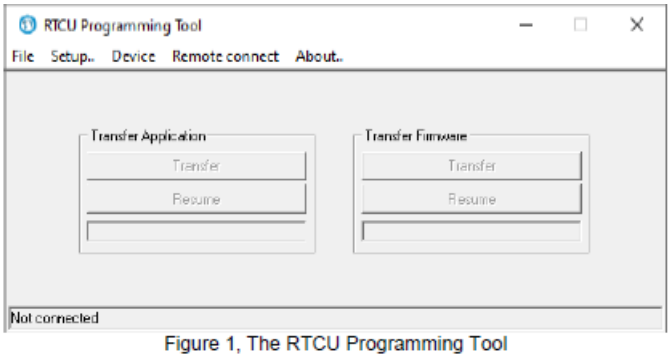

Figure 1, The RTCU Programming Tool

Setup

The setup menu is located in the menu bar. Use this menu to set up the direct cable connection. The default settings are USB for direct cable.
Connection to the RTCU device can be password protected. Type the password in the "Password for RTCU authentication" field. For further information about the RTCU password, consult the RTCU IDE online help.
It is also possible to automatically Enable or Disable the reception of Debug messages from the device.

Connection

The connection to the RTCU device can be made with a direct cable connection or remote connection through the RTCU Communication Hub.

Direct cable

Connect the service port on the RTCU device to the serial or USB port defined in the setup menu. Then, apply power to the RTCU device and wait for the connection to be established.

RCH remote connection

Choose "Remote connect…" from the menu, a connection dialog appears. Setup the IP address, Port setting, and keyword according to your RCH settings. The address can be typed as a dotted IP address (80.62.53.110) or as a text address (for example, rtcu.dk). The port setting is default 5001. And the default keyword is AABBCCDD.
Then type the nodeid for the RTCU device (the serial number) or choose one from the drop-down list. Finally, click the connect button to establish the connection.

RTCU device information

The connected RTCU device information is displayed at the bottom of the RTCU Programming Tool (figure 2). The available information is connection type, Device serial number, Firmware version, application name and version, and the RTCU device type.

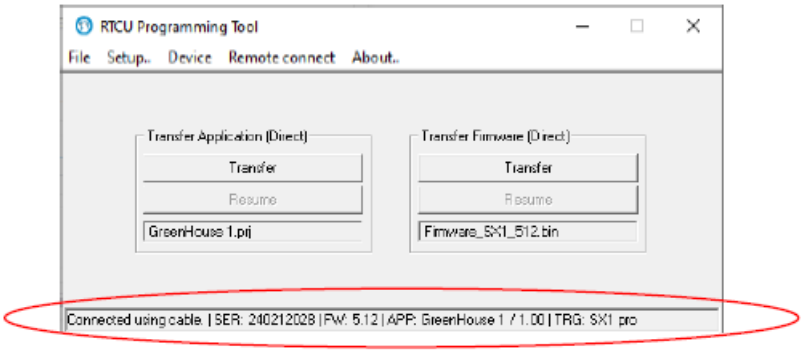

Figure 2, The RTCU Programming Tool device information

Application and firmware update

The application and firmware update can be done by a direct update or background update. Choose the file menu, select the application or firmware submenu, and click the select file. Use the open file dialog to browse for the RTCU-IDE project file or firmware file. Set up the type of update (direct or background) under the file menu -> application or firmware submenu. See the description of the two kinds of update methods below.

Direct update

A direct update will halt the RTCU device's execution and overwrites the old application or firmware with the new file. When the transfer is complete, the device will reset and run the new application or firmware.

Background update

Background update will, as the name refers to, transfer the application or firmware while the RTCU device continues to operate and, as a result of this, maximize the "up-time". When a background update is initiated, the application or firmware will be transferred to the flash memory in the RTCU device. If the connection is terminated or the RTCU device is powered off, a resume feature is supported whenever the connection is reestablished. When the transfer is complete, the device must be reset. The reset can be activated by the RTCU Programming Tool (see the utilities described below). The VPL application can control it, so the reset is completed at a suitable time. When a transfer is complete, and the device has been reset, the new application or firmware will be installed. This will delay the start of the VPL application by approximately 5-20 seconds.

Device utilities

A set of device utilities is available from the Device menu once a connection to an RTCU device is established.

- Adjust clock Set the Real-Time Clock in the RTCU device
- Set password Change the password needed to access the RTCU device
- Set PIN code Change the PIN code used to activate the GSM module
- Software upgrade Upgrade the RTCU device1
- Request unit options Request options for the RTCU device from the server at Logic IO.2
- Options Enable certain options in the RTCU device.
- Network settings Set the parameters needed for the RTCU device to use the network interfaces.
- RCH settings Set the parameters needed for the RTCU device to use an RTCU
- Communication Hub
- Filesystem Manage the file system in the RTCU device.
- Halt execution Stops the VPL application running in the RTCU device
- Reset unit Restarts the VPL application running in the RTCU device.
- SMS messages Send or receive SMS messages to or from the RTCU device
- Debug messages Monitor debug messages sent from the RTCU device

Documents / Resources

	logic IO RTCU Programming Tool [pdf] User Guide RTCU Programming Tool, RTCU, RTCU Tool, Programming Tool, Tool

References

- rtcu.dk
- Logic IO - "The M2M Enabler"
- Logic IO - "The M2M Enabler"