

RTC4eth Configuration Tool

The Software “RTC4ethConfig” is intended to test the network installation of an RTC4eth and to configure the card’s static IP settings.

1. Section “Network Configuration”

To find an RTC4eth in the network, a broadcast must be sent to a specified subnet. A subnet consists of an IP address and netmask assigned to a network interface card (NIC).

At program startup, the operating system settings of the NIC are retrieved automatically. As it is possible to have more than one NIC installed, and even every NIC can have more than one IP addresses assigned, a dropdown list is provided showing all IP address / netmask settings. If the operating system’s NIC settings are modified, press the button “refresh” to update the displayed information.

In case the operating system settings are not retrieved correctly, a custom subnet can be entered in the provided input field. Select “custom subnet” in the dropdown list for this purpose.

Pressing the button “search in specified subnet” sends a broadcast and receives the answer(s) of addressed RTC4eth(s). The received information is displayed in the section „Available RTC4eth”.

If more than one subnet is available, “search all available subnets” can be checked; now broadcasts are sent to all available subnets.

Checking “continuous search” performs an automatic search every 500 milliseconds. This can be useful if the availability of newly attached RTC4eth cards should be observed.

2. Section „Available RTC4eth”

After a successful search the number of found cards is displayed in a dropdown list; the appropriate card can be selected to show its delivered information:

- The card’s current IP address
- The card’s serial number
- The card’s MAC address
- The card’s connection status
- If a master PC is connected, the master’s IP address
- The card’s microcontroller unit (MCU) firmware version

3. Section “Configure RTC4eth”

To acquire an RTC4eth, enter the card’s IP address and press the button “acquire”. After successful acquisition the button’s text changes to “release” and the card can be released by clicking it.

While a card is acquired, its static IP settings can be read out by pressing the button “get”.

Factory default for IP address, netmask and gateway is “255.255.255.255”, which means no programmed values.

To set static IP address and netmask settings, fill in the appropriate fields and press the “set” button. The values are stored in non-volatile memory and are applied only during the RTC4eth’s boot process, i.e. on power-up.

If you want to use a static IP address, be sure that the jumper X12 is not in the position “FORCE_DHCP”. On the other hand, if the stored static IP settings are invalid or lead to a collision, the jumper can be used to omit the programmed settings and let the card obtain its IP address via DHCP server or auto-IP.

If the use of a static IP address shall be disabled (without using the jumper X12), set the static IP address “0.0.0.0” or simply “0”.