

Platform MX6

Software option S112

NTP Client

1 Identification

Identification	
Option ID	S112
Order number	S-05000313-0000
Short name	NTP Client
Brief description	With this software option it is possible to get the actual date and time from a network time protocol server (ntp or time server) over the network.
Revision ID document	V1.0

2 System requirements and restrictions

System requirements and restrictions	
Supported Platforms and devices	Berghof PLC or ET/WT devices of the MX6 platform (e.g.: MCs, CCs, DCs, ETs). Additional information regarding availability and compatibility can be found in options section of the product catalog.
Firmware	MX6 Version 1.17.1 or higher
Additional requirements	<ul style="list-style-type: none">– Network access to the internet or– ntp server (time server) in local network– at least one network interface with connection and settings for use of a local network or access to the Internet
Restrictions	<ul style="list-style-type: none">– Only the IP address of the ntp server can be configured (no name server support)

3 Product description

With this extension it is possible to synchronize the local date and time with a network time protocol server (short: time server or ntp server). The time server can either be accessible via the Internet (access to the Internet must be possible) or be in the local network. The time server always has the current time and date and delivers it on request. This means that a system without its own real-time clock (RTC) can be supplied with the current time data. This can be important if the web browser at the web terminal has to check the validity of certificates.

The date and time are set once on boot-up, then once a day at 04:00 a.m. via a crontab entry (cron is a tool for the regular execution of tasks at specific times or at selectable time intervals). The date and time of a possibly existing RTC (real time clock) are not changed.

Setting the IP address of the time server to be used and the activation of this extension take place via the web interface. Within the E-Terminal or Web-Terminal, this setting can also be made by the configuration interface on the display.

4 Technical data

Technical Data

Integrated Version	Ntp 4.2.6 (only ntpdate)
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5 Quick Start Guide

5.1 NTP configuration of the PLC

For using a time server you have to enter the IP address of the server that provides this service. In the web interface select "Time and Date" from the left side in "Configuration". Enter the IP address of the time server in the field called NTP Server (see green arrow). Click in the checkbox above the NTP Server field to enable this extension. Then click on the Save Button and reboot.

Configuration

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Time and Date Configuration

Date (Timezone: UTC)

Year (e.g. 2012)	<input type="text" value="2020"/>
Month [1-12]	<input type="text" value="04"/>
Day [1-31]	<input type="text" value="22"/>
Hours [0-23]	<input type="text" value="08"/>
Minutes [0-59]	<input type="text" value="14"/>
Seconds [0-59]	<input type="text" value="18"/>

Timezone

Timezone

Time syncing

use ntpdate

NTP Server 

5.2 NTP settings in configuration dialog

Configuration of a time server on an E-Terminal or Web-Terminal can be done either on the web interface as shown in the previous chapter or in the configuration dialog on screen. On the main screen (after boot-up) enter the configuration dialog by activating the “configuration” button. Activate the “Next” button until you reach the Ntpdate configuration screen as shown below. By activating the “Edit” button you can enter the IP address of the time server. State can be changed from disabled to enabled or vice versa by activating the “Change” button. Activate the “Next” button until you can save the new configuration and reboot the terminal.

E-Terminal Settings: Ntpdate

NTP-Server: 192.168.3 .250

Edit

State: disabled

Change

Back

Cancel

Next

(screenshot looks slightly different on a web terminal)

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