



Meinberg Radio Clocks

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Meinberg PTP Client: IEEE 1588-2008 Client Software for Windows and Linux

[1]

The Meinberg PTP Client allows to synchronize the time of Microsoft Windows and Linux servers and desktop PCs by implementing a full IEEE 1588 ordinary clock stack with software- and hardware-timestamping support. The PTP Client offers the most complete PTP feature set available for the two major operating systems by using the Oregano Systems PTP Stack as its core. Users can configure the software to work with almost any PTP Grandmaster Clock or PTP enabled network infrastructure due to its built-in support for most PTP configuration options and operational modes.

The PTP Client software supports both standard IEEE 1588-2008 management messages and the Meinberg NetSync Monitor reverse-PTP technology, enabling the user to take full advantage of the NetSync Monitor functionality to actively measure the performance of a PTP client without having to rely on a self-reported state. Interoperability with other PTP monitoring solutions is provided by supporting the standard PTP management messages mechanism, which can be enabled or disabled in the configuration.

Key Features

- PTP Client allows to synchronize the time of Microsoft Windows and Linux servers and desktop PCs.
- Installer for Microsoft Windows available.
- On Windows, a graphical user interface allows the user to check the status and change the configuration.
- Supported networks: Ethernet IEEE 802.3, IPv4 and IPv6.

Description

PTP Profile Support:

Default, Enterprise, Power, Telecom, Broadcast and AVB/TSN (see Characteristics). Profile support includes any specific BMCA handling and TLVs. Support for features introduced by the upcoming IEEE 1588 revision as well as future profile updates and new profiles will be provided as an update. The Meinberg PTP Client software package for Windows comes with an easy-to-use control program that allows to check the state of the synchronization and can be used to edit the configuration file.

Software timestamping can be used on any of the supported operating systems with any OS-supported Ethernet adapter, hardware timestamping is currently supported for IEEE 1588 capable Oregano network cards on Windows. For Linux systems, hardware timestamping can be enabled for all PTP supporting network cards that use the standard PTP kernel framework (PHC).

The PTP Client has been tested on a wide range of Linux distributions and is available as an installation package that can be used with the distribution

Characteristics

Operating System

Windows-Version:

Installation software (supporting unattended installation) including the PTP client service and a graphical user interface is available for the following Windows versions:

- * Windows 7 SP1 | 64 bit
- * Windows 10 | 32 & 64 bit
- * Windows Server 2012
- * Windows Server 2016 | 64 bit

Linux-Version:

- * Centos 6 | 32 & 64 bit
- * Centos 7 | 64 bit
- * Debian 9 | 32 & 64 bit
- * Fedora 25 | 32 & 64 bit
- * Fedora 26 | 32 & 64 bit
- * Fedora 27 | 32 & 64 bit
- * RHEL 6 | 32 & 64 bit
- * RHEL 7 | 64 bit

* SLE12 | 64 bit

* SLE12-SP1 | 64 bit

* SLE12-SP2 | 64 bit

* SLE12-SP3 | 64 bit

* openSuse 42.1 | 64 bit

* openSuse 42.2 | 64 bit

* openSuse 42.3 | 64 bit

* Ubuntu 16.10 | 32 & 64 bit

* Ubuntu 17.04 | 32 & 64 bit

* Ubuntu 17.10 | 64 bit

Network Protocols	<p>Network type:</p> <ul style="list-style-type: none"> * Layer 2 / Ethernet IEEE 802.3 * Layer 3 / IPv4 * Layer 3 / IPv6
Communication Model	<p>Unicast Multicast (BMCA) Hybrid Unicast/Multicast (BMCA)</p>
Delay Mechanism	<p>End-to-End (E2E) Peer-to-Peer (P2P)</p>
Message Rates	<p>From 1/128s to 128/s for Sync and Delay Request/Response messages</p>
Supported PTP Profiles	<p>Default: - IEEE 1588v2 PTPv2 Default Profile with all optional features</p> <p>Enterprise: - Hybrid Unicast/Multicast mode according to Enterprise Profile Draft RFC</p> <p>Power: - IEEE C37.238-2011 First Version of the IEEE Power Profile</p> <p>Telecom: - ITU-T G.8265.1 Frequency (also supporting experimental phase sync) - ITU-T G.8275.1 Phase/Time with full timing support from the network</p>

Broadcast:

- SMPTE ST 2059-2 Professional Broadcast Environment Profile

AVB/TSN:

- IEEE 802.1AS Profile for Audio/Video Bridging and Time Sensitive Networks

Manual

The English manual is available as a PDF file: [2][Download \(PDF\)](#)

Links:

[1] <https://www.meinbergglobal.com/english/products/>

[2] <https://www.meinbergglobal.com/download/docs/manuals/english/mbg-ntp-client.pdf>