

Dewesoft Application note:



NTP syncing with DEWESOFT devices

1. Task

For syncing multiple DEWESOFT devices there are following possibilities:

- sync cable
- GPS
- IRIG
- NTP

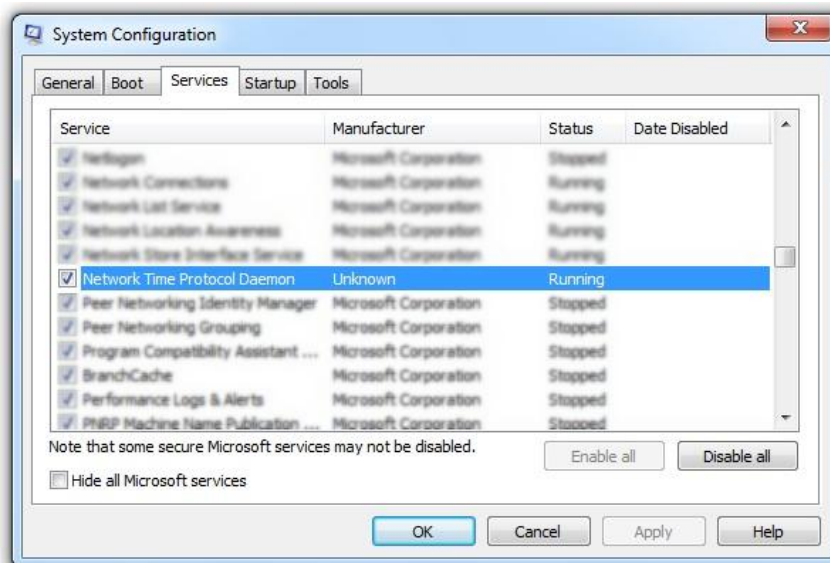
For time synchronization per NTP there are 2 options:

- a. **NTP Hardware** -> expensive but rugged (and more precise) solution, external NTP device connected to the network, which delivers the time, e.g. <http://www.meinberg.de/lp/index.php?mode=ahs&lang=en>
- b. **NTP Software**, detailed explanation following.

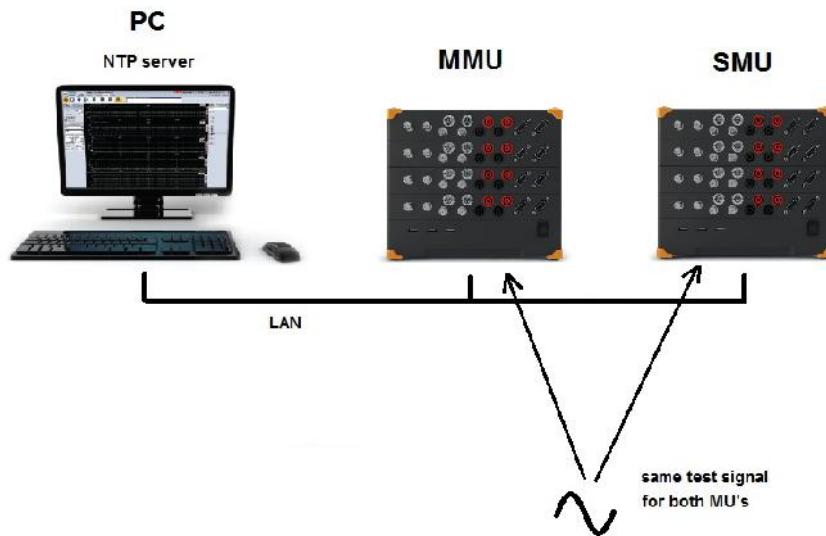
2. NTP Software solution

Download the software „ntp-4.2.4p8@lennon-o-lpv-win32-setup“ (NTP timeserver) and let it run on a PC, which is connected to the internet. This software has to connect to the internet ONLY INITIALLY or FIRST TIME AFTER NTP SERVER RESTART to synch to the time servers. Then it can run continuously (i.e. train driving through tunnel, when there is no mobile internet connection, is no problem). In fact it is a service running in background.

Check msconfig:



3. Test Setup

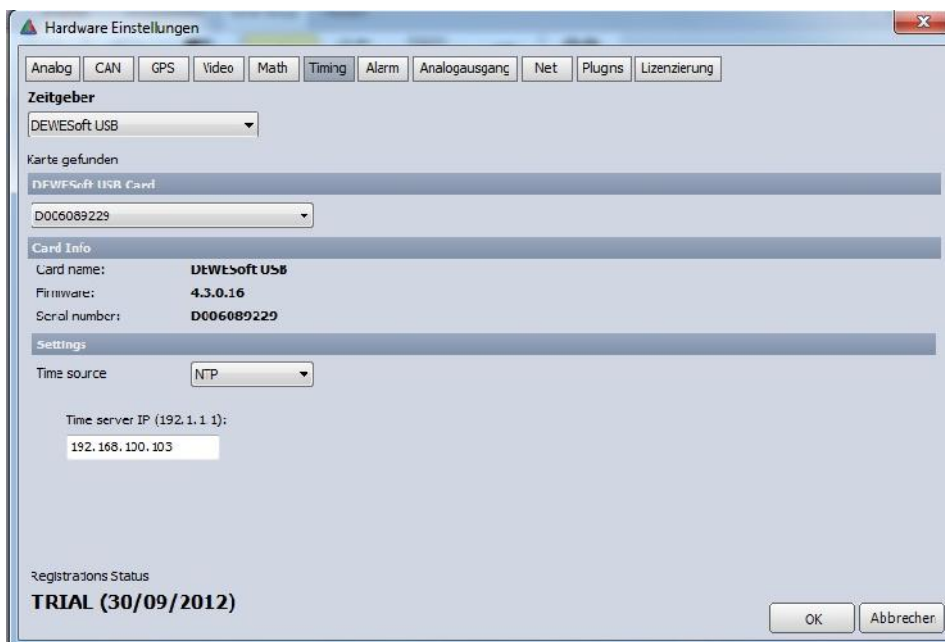


The two measurement devices (e.g. SIRIUS) are connected as shown in the picture. The DEWESoft NET option is used to store **one datafile** of the master and slave channels.

MMU = Master Measurement Unit

SMU = Slave Measurement Unit

4. DEWESoft settings



On both MU's, in DEWESoft, go to hardware setup -> Timing.

You have to set the IP address of the NTP server PC (in our case 192.168.100.103).

5. Results

If you run the measurement and the dot next to the time on top is lighting green, you succeeded! Connection to the timeserver is working.



From the datafile you can see that it is possible to achieve **below 1ms synch accuracy** (0.51ms) between the units.