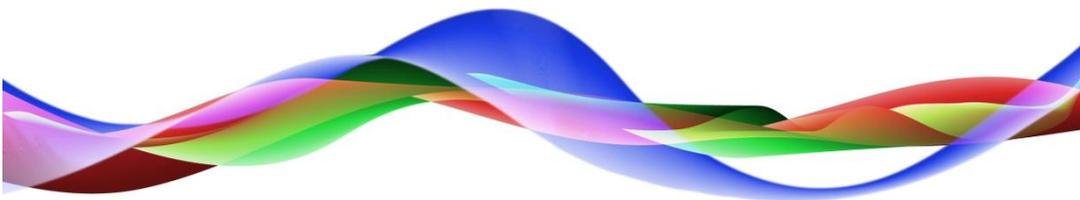


21 vsmTimeSync

vsmTimeSync

Manual



Legend



Please note: This information is of prime importance.

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Content

- 1 Installation of vsmTimeSync 4
- 2 Starting the vsmTimeSync Service 5
- 3 Configuring vsmTimeSync through a Web-Browser 6
 - 3.1 Login 6
 - 3.2 Configuring vsmTimeSync 6
 - 3.3 Status Display 7
 - 3.3.1 Host-Server Status 7
 - 3.3.2 Clients Status 7
 - 3.4 Messages Display 8
- 4 vsmTimeSync Online 9
 - 4.1 Synchronization vsmTimeSync – Server 9
 - 4.2 Synchronization vsmTimeSync – LTC Interface 9
 - 4.2.1 Configuration and Status Display 10
 - 4.2.2 Messages Display 11

vsmTimeSync is a software service that allows time synchronization between the host server and the client PCs connected to it.

1 Installation of vsmTimeSync



Please note: vsmTimeSync must be installed on every VSM server. Prior to the installation, check whether Windows Framework 3.5SP1 is installed. If vsmTimeSync is installed without using a LTC interface, the Windows time service must be ended and deactivated on the second server. For an installation with LTC interface, the windows time service must be ended and deactivated on both servers.

Before it is possible to install vsmTimeSync, a folder named *vsmTimeSync* should be created on the VSM drive. Copy and extract the received .zip file into that folder.

Name	Date modified	Type	Size
setup.exe	25.02.2010 09:01	Application	362 KB
vsmTimeSync.Setup.msi	25.02.2010 09:01	Windows Installer ...	516 KB
vsmTimeSync.txt	25.02.2010 09:04	Text Document	2 KB
vsmTimeSync-1.1.6.zip	25.02.2010 10:04	Compressed (zipp...	485 KB

Folder vsmTimeSync

Start the installation by executing the *vsmTimeSync.Setup.msi*. Follow the instructions of the vsmTimeSync setup wizard.



vsmTimeSync setup wizard

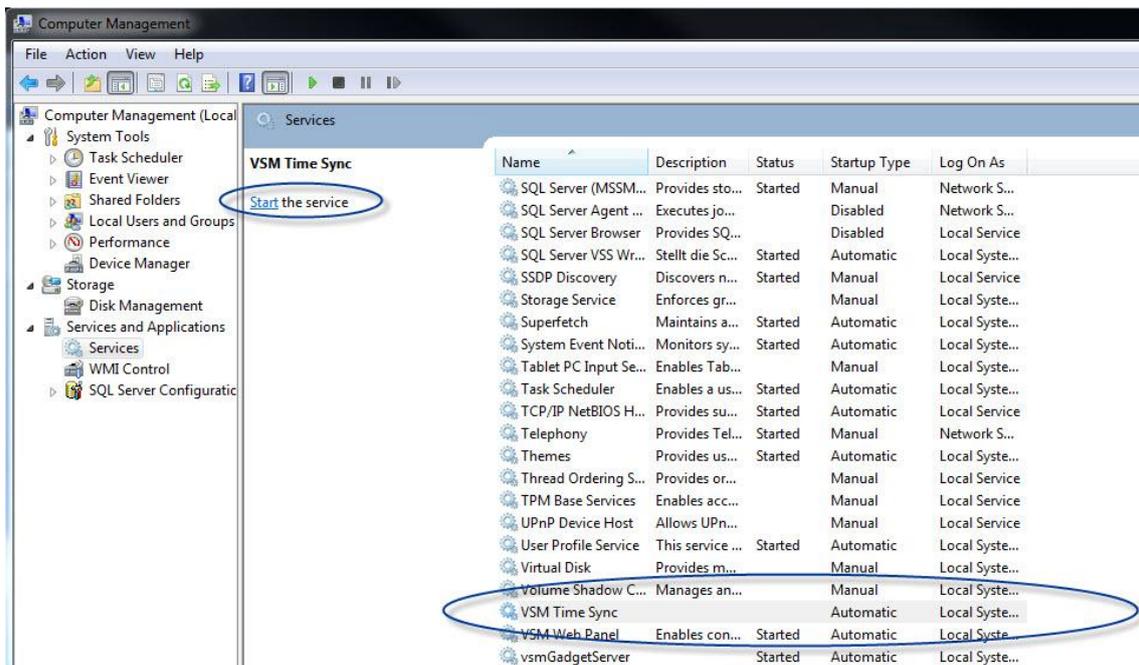
Select the *vsmTimeSync* folder on the VSM drive as installation destination.



Selecting *vsmTimeSync* folder as destination

2 Starting the vsmTimeSync Service

vsmTimeSync is started through the Windows *Computer Management*. The service is automatically listed under *Services* after the installation and can be started from that list.

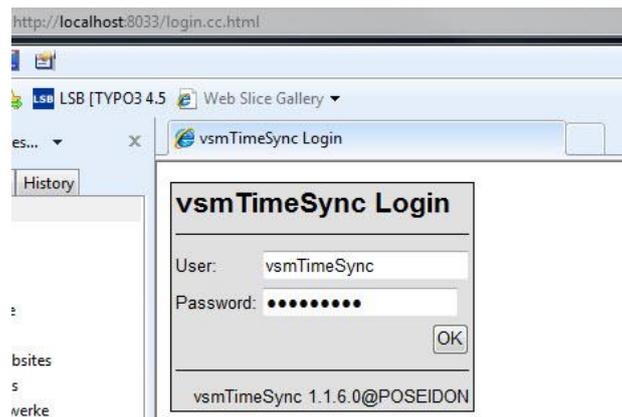


Starting *vsmTimeSync* service

3 Configuring vsmTimeSync through a Web-Browser

3.1 Login

To configure vsmTimeSync through a web browser, first enter the address <http://localhost:8033> in the browser. Next, enter vsmTimeSync as *User* name and the name of the server in capitals as *Password*, for example SERVER-1A.



vsmTimeSync Login

3.2 Configuring vsmTimeSync



vsmTimeSync view

Enter the IP address of the host server in the field following *Host Computer* and select *Host Computer* (if the server is a client connected to the host server). The function *LTC/RTC Interface on...* can only be used if a LTC interface is available. Select *None* if the user is currently logged in on the host server.

Allow other clients to synchronise to this computer can only be selected on the host server. Without it, it is impossible to establish a connection from the client to the host. To finish the input process, press *Apply*.

Configuration

Synchronize to:

Host Computer:
 LTC/RTC Interface on COM3 ▾
 None

Allow other clients to synchronize to this computer

Server settings

The functions *Refresh* and *Logout* are located in the very right of the vsmTimeSync view and refresh the view or end the session, respectively.

3.3 Status Display

3.3.1 Host-Server Status

Under *Status*, the status of the host server that is used to synchronize to is shown.

Status

vsmTimeSync Version: 1.1.6.0
 Alpermann+Velte Card present: No

Status view

The currently running vsmTimeSync version number can be found after *vsmTimeSync Version*. *Alpermann+Velte Card present* checks whether a card from the manufacturer Alpermann+Velte is available. The IP addresses of all PCs connected to the host server are shown after *Recent Client Connections*.

Messages

28.04.2011 13:09:41: vsmTimeSync v1.1.6.0 starting

Display of all current client connections

3.3.2 Clients Status

The current date and time of the client PC is shown after *Current Time*. *Current Difference* is the current time difference between the client PC and the host server. The average difference is shown after *Mean Difference*, the maximum difference after *Maximum Difference*.

3.4 Messages Display

Messages

28.04.2011 13:09:41: vsmTimeSync v1.1.6.0 starting

History display

The paragraph *Messages* contains information pertaining to valid connections, time differences, and failure notices, listed in chronological order.

The information following *Synchronizing with [IP-Address] every 10 seconds* indicates that a connection with the host has been established. The following text indicates that time synchronization is running while showing the time difference at the same time:

18.02.2011 07:56:27: Current Time adjustment value: 155001 ticks (on), TimeInterrupt Interval: 156001

18.02.2011 02:01:14: System time set to 2011-02-18 02:01:15.163

18.02.2011 02:01:14: Difference = 1031 ms, Setting system time to 2011-02-18 02:01:15.163!

Synchronization display

If the attribute *Allow other clients to synchronize to this computer* is not ticked (see chapter 21.3.2 vsmTimeSync Configuration), the following text will be displayed:

18.02.2011 08:02:43: ServerConnection error: No connection could be made because the target machine actively refused it 192.168.16.13:8031

No connection to the server

In this case, the time is influenced either by the Windows time service or another program, causing the following warning:

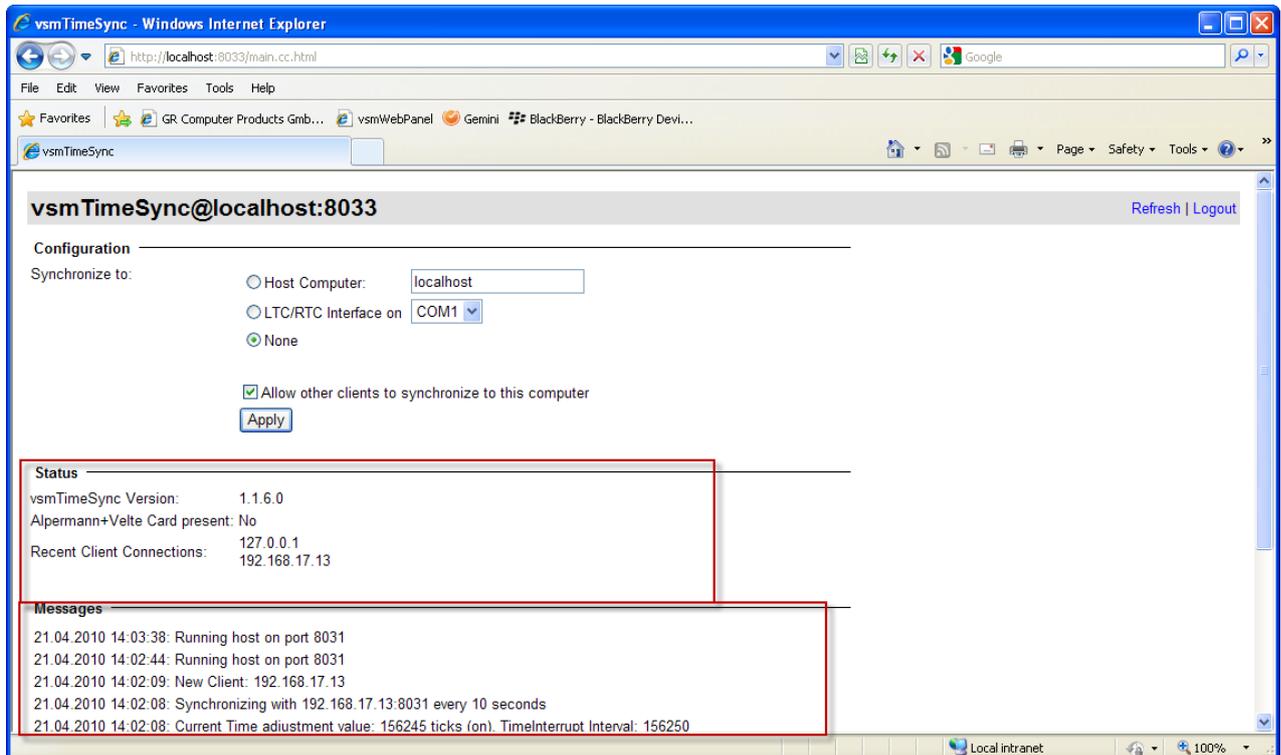
17.02.2011 15:36:27: WARNING: Time was adjusted from outside!

Warning message

4 vsmTimeSync Online

4.1 Synchronization vsmTimeSync – Server

Once these settings have been made for all VSM servers as described above, the clients can be viewed in the host server's status display.



Server synchronization

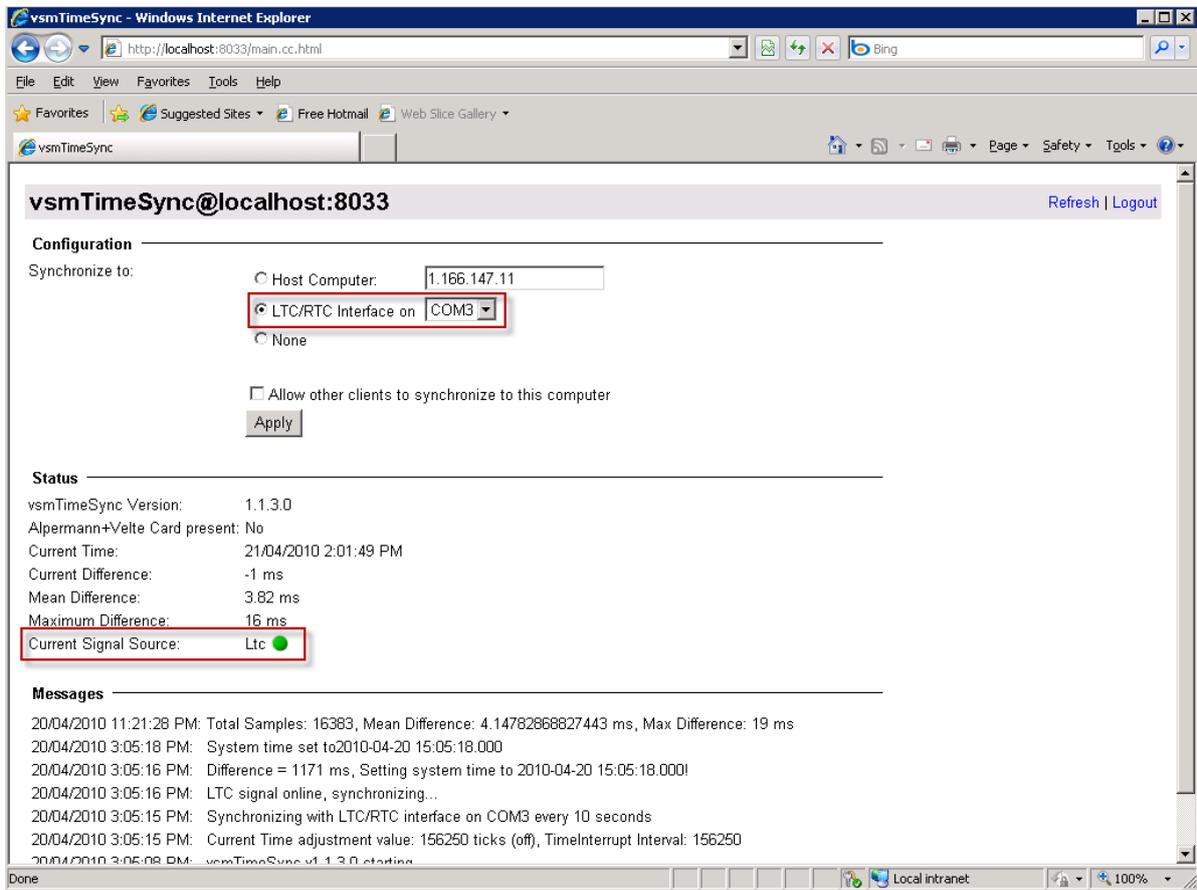
4.2 Synchronization vsmTimeSync – LTC Interface

As current servers no longer feature serial ports, a driver must be installed to set-up another USB com-port. This driver can be found under www.ftdichip.com. Download the file *CDM 2.08.02.0 WHQL Certified* (Drivers, VCP) from the website and install it on the server.

Next, connect the LTC interface and the server with a USB cable (also see *vsmGear – Complete Hardware Guide*).

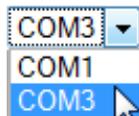
4.2.1 Configuration and Status Display

A LTC/RTC interface connected with vsmTimeSync is displayed as follows:



Connection to LTC/RTC interface

The attribute *LTC/RTC Interface* is selected, and *Current Signal Source* with a green dot is displayed instead of the current clients. This indicates a functioning LTC connection.



LTC drop down menu

After the entry *LTC/RTC Interface on*, the com-port can be selected through a drop down menu.

A green dot indicates a valid connection, while the kind of connection, LTC or RTC, is indicated in front of it. A red dot and *None* indicates that neither a LTC nor a RTC interface is connected. A red dot with either *RTC* or *LTC* indicates that no RTC connection is available.

4.2.2 Messages Display

The beginning of the synchronization with a LTC/RTC interface is indicated under *Messages* with the text *Synchronizing with LTC/RTC interface on COM3 every 10 seconds und LTC signal online, synchronizing...* . The message *LTC signal offline, going idle...* indicates that no LTC connection is available. If the USB cable was removed and plugged into another USB port, or if the LTC interface was turned off, the following message will appear: *Failed to open port COM3: The port 'COM3' does not exist.*

The screenshot below shows the notification about the status of the synchronization.

18.02.2011 11:11:32: Current Time adjustment value: 156294 ticks (on), TimeInterrupt Interval: 156001
Synchronization status



Please note: If the USB cable has been removed and plugged in again, the com-port changes.

