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APPLICATION NOTE No. 008		
NTP Server sharing a common GPS module between multiple clients		
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Description

Two types of NetCube are used: one NetCube connected to a GPS module receives the time via satellite in its NTP server embedded. Other NetCube act as NTP clients and synchronize their time with the NetCube NTP server. Those client NetCube send time synchronization strings each second onto their COM port, thus duplicating the GPS module!

This setup allows the user to synchronize many machines via their COM port and hence share the GPS module between them and save costs.

Additionally the same COM port can be used to update the firmware of the machines connected. During such a remote maintenance, the time synchronisation is of course disabled.

Logical behaviour (pseudo-code)

Client side :

```

Loop
  If more than 60 seconds elapsed since last NTP synchronisation
    Synchronize with NTP server
  End if
  If time synchronisation is active
    Wait precisely the tick of the next second
    Send the synchronisation message (following GPS protocol)
  End if
End loop
  
```

Overview of the installation

