

### Purpose

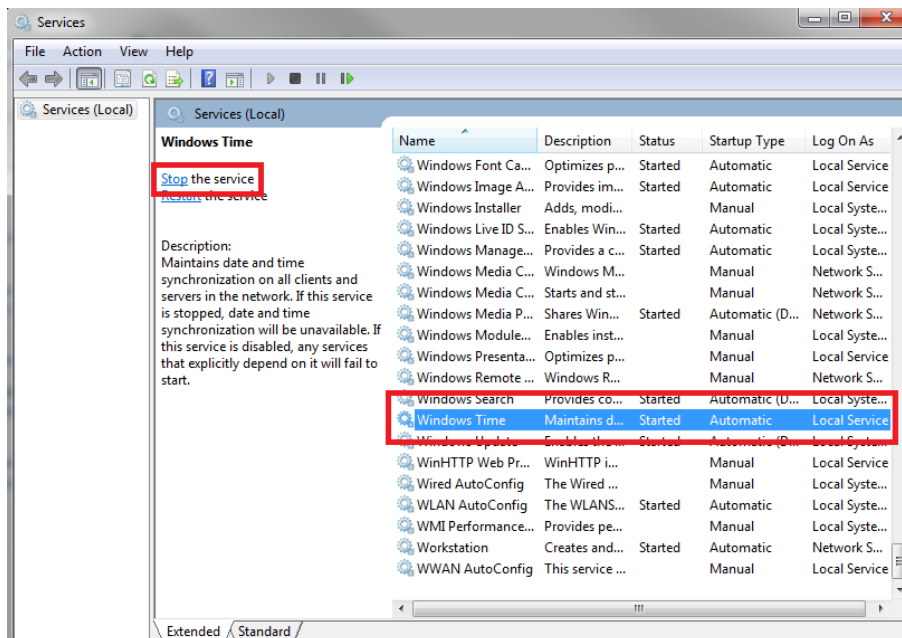
This document will describe how to setup a PC to be used as a SNTP (Simple Network Time Protocol) server. This will allow us to setup the Q.series controller to automatically synchronize to the PC's clock.

### Requirements:

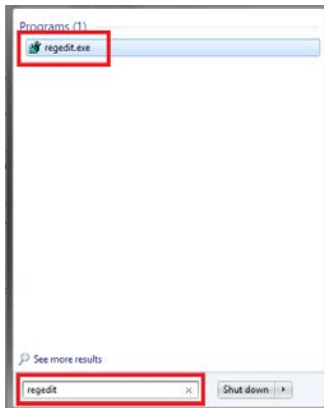
- PC that synchronizes its clock whenever it is connected to the internet.
- Q.series controller
- Ethernet cable

### Procedure

1. For this document we will be connected to a PC that has Windows 7 OS. For Windows XP users, skip to step 8 for setup instructions. For Windows 7 or Windows 8 users, continue to step 2.
2. Stop the "Windows Time" service: START > Control Panel > System and Security > Administrative Tools > Services:

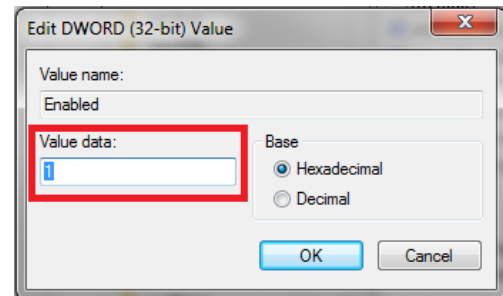
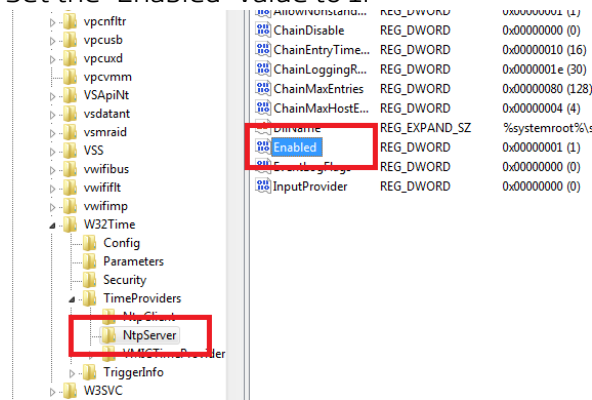


3. Open the registry editor: START > type "regedit".

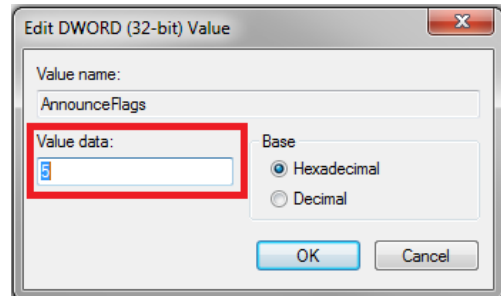
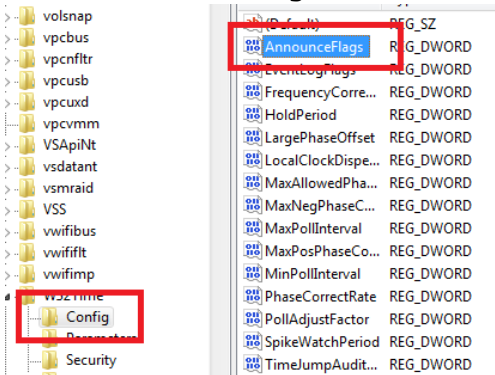


4. Search for the code:  
"HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\services\W32Time\TimeProvider  
s\NtpServer"

Set the "Enabled" value to 1:

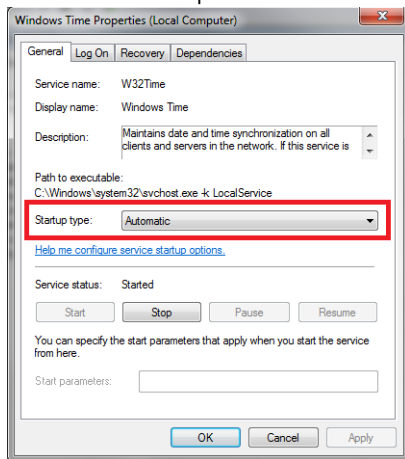


5. Search for the code:  
"HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\services\W32Time\Config"
- Set the "AnnounceFlags" value to 5:

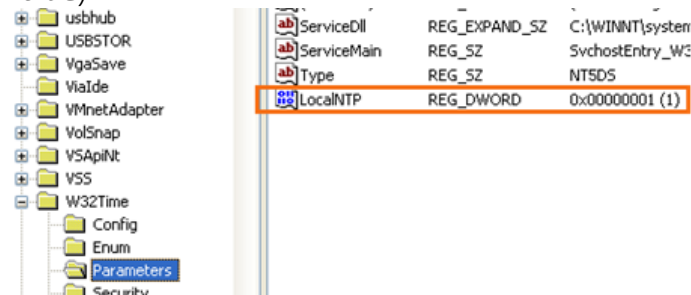


6. Close the Registry Editor.

7. Start the “Windows Time” and set the start type to “Automatic”:  
Move onto Step 11.

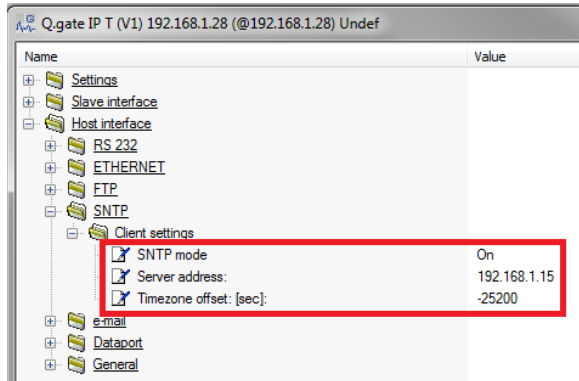


8. Follow these instructions if you have Windows XP.  
Open the registry editor: START > Run > type “regedit”.
9. Search for the code:  
“HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\Parameters”.  
Set the “LocalNTP” value to 1 (if “LocalNTP” value does not exist, create a new DWORD value)

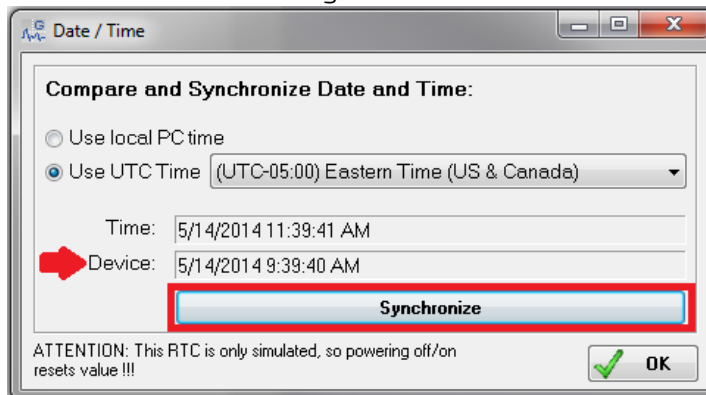


10. Add the exception for the Port in the firewall settings. Windows Firewall > Advanced Settings.
11. Inbound Rules > New Rule. Select Port, click Next.
12. Select UDP > Specific Port, 123. Click Next, allow the connection. Give the rule a name.
13. Restart the PC to apply changes.
14. Open test.commander.

- Go to the controller's settings: Host Interface > SNTP > Client Settings.  
SNTP mode: On  
Server address: static IP address of the PC  
Timezone offset: enter the offset from GMT in seconds (i.e. PST = GMT - 7:00 = -25200)



- Save the settings. Update the project to the controller.
- To check if the controller is properly synchronized after the controller has been updated, click on the Read Online Values from Controller.
- On the view online values page, click on the Set RTC button.
- If you attempt to manually synchronize the device to another time zone by clicking on the synchronize button shown below, it will not allow you to synch. This means that the device is indeed receiving its time from the PC.



**Contact us today if you have any further questions!**