

Time Synchronization in PGC5000 Series Data System

May 27, 2015

Measurement made easy

Time Synchronization in the current data system

Time synchronization is supported in the PGC5000 with Version 3.0.3.12 and later software.

This feature can be implemented either through a Modbus link direct from the PGC5000 (acting as a Modbus Slave), or from a connection to the VistaGateway either using an OPC connection or a Modbus connection.

With an OPC connection, the tag that is connected and written to by an OPC Client is the following.

Note: OPC connection not available direct from PGC5000.
SetAnalyzerDate

This is a Canonical Date Type 7 (i.e. DATE).

With a Modbus master connection, the time is set by adding the following entry to the Modbus Map.

AnalyzerName.SetAnalyzerClock,1,40001,DATE,

This will then reserve 7 registers in the following order.

- 40001 Hour
- 40002 Minute
- 40003 Second
- 40004 Day of month
- 40005 Month
- 40006 Year
- 40007 Day of week



The time and date information must be written starting with hour and finished with the day of the week register. The latter will trigger the setting of time.

Backwards compatibility and legacy interfacing

This interface is supported on the PGC5000 Direct Modbus TCP from the VistaGateway Modbus Client application, and OPC server application. If you use a VistaGateway, you only have to write to one set of registers or OPC tag. If you are writing direct to the PGC5000 then you must write to each PGC5000's Modbus interface because each PGC5000 acts as a Modbus slave.

If you have legacy instruments (such as the model 3100 or PGC2000 Series) then you must use a VistaGateway or a Modbus enabled router. However, the Modbus enabled router does not support the PGC5000 but you can write through the Modbus enabled router to the PGC5000 using the Ethernet switch with the PGC5000 being the actual Modbus slave. For additional information, please contact pat.mcmillion@us.abb.com.

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