



User DataPoint Tutorial – Using User DataPoints and Formulas

A User DataPoint is an Engine level DataPoint used to store data. Although all DataPoints can contain Formulas, the exercise will lead you through a few examples of using Formulas with User DataPoints.

Requirements

In order to complete this exercise you must have the following:

- PC with Windows 2000 Professional or Windows 2000 Server
- I/Gear v5.2 or greater Installed

Goals

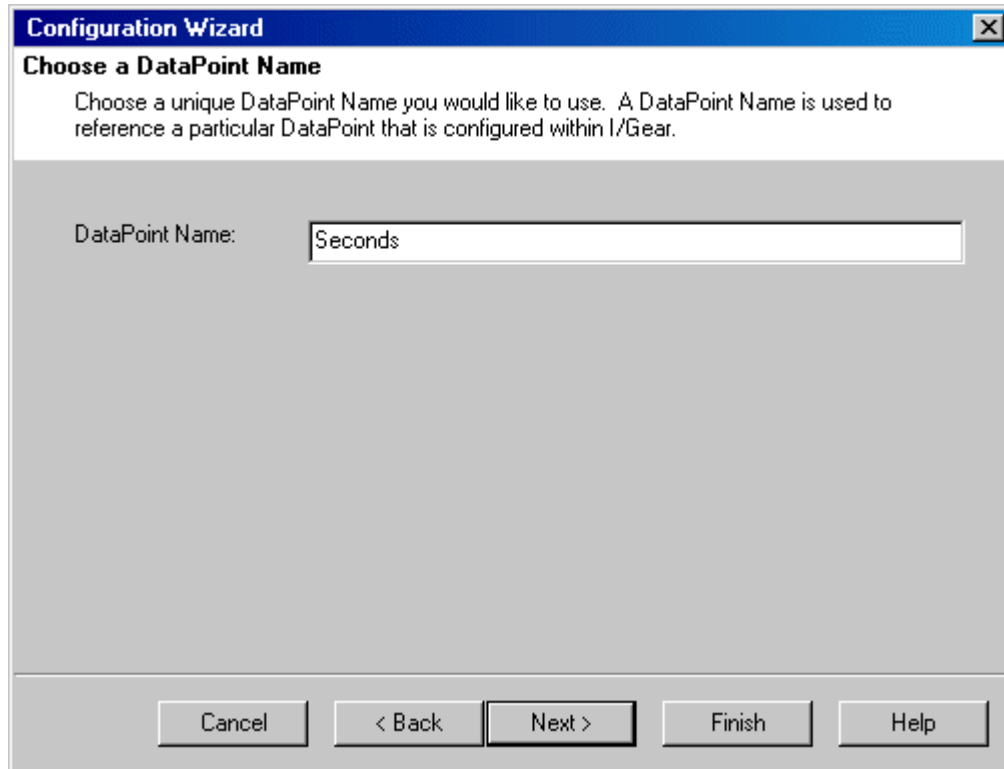
By the end of this exercise, you will know how to:

- Create a New User DataPoint
- Use a Formula with a User DataPoint.
- Use the {Me} Reference in a Formula.
- Reference other DataPoints in a Formula.

Step 1 – Create a User DataPoint Formula to Return the Second of the Hour.

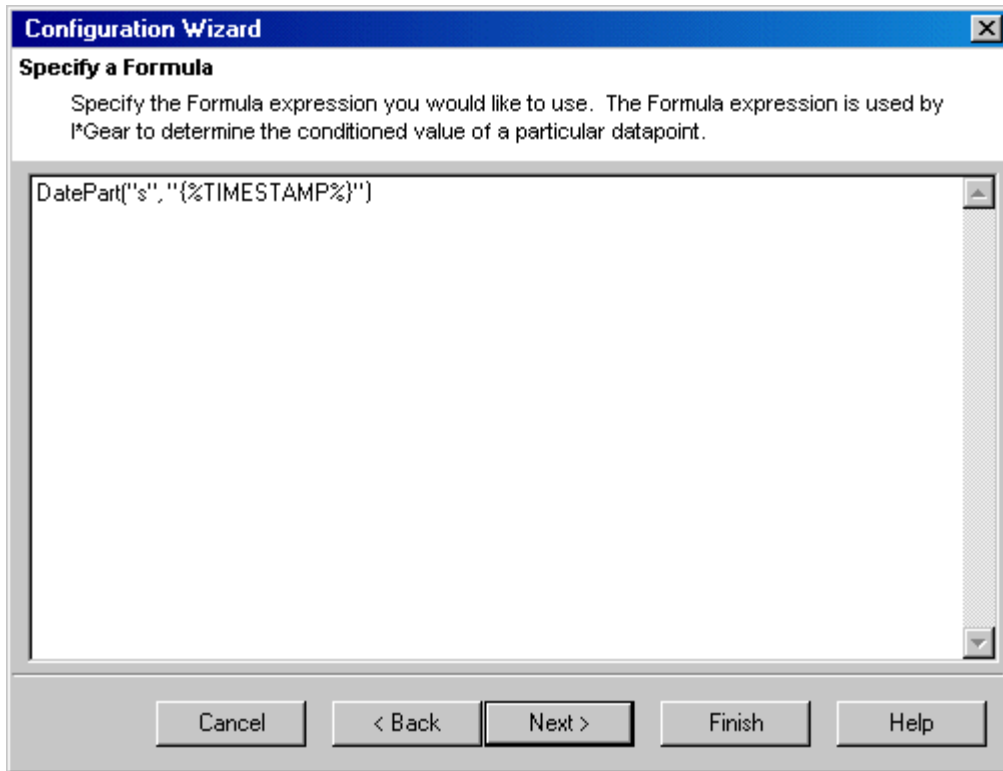
This exercise will lead you through creating a new User DataPoint that will return the current second of the system time. It will utilize a System DataPoint to obtain the current time. It will then use a date function to return the number of seconds.

1. Expand the Server Component Tree.
2. Right-click **User DataPoints** and select **New User DataPoint...** from the pop-up menu.
3. When the Configuration Wizard opens, click Next.
4. On the **Choose a DataPoint Name** screen, enter **Seconds** and click Next.



5. On the **Default Value** screen, leave the Default Value field blank and click Next. The Default Value of the DataPoint is the Raw Data value it will have upon creation and after the Server is restarted. In this example, it will not be necessary to have a Raw Data value.

6. On the **Specify a Formula** screen, enter the Formula shown below.



This formula uses the **DatePart (interval, Date)** function. As the name suggests, this function returns a specific part of the date or time passed to it. The parameter **Date** is the date and/or time. The parameter **interval** is a string indicating which part of **sDate** you wish to return. In this instance, you specified “s”. This indicates that you want to return the seconds. Below is a list of available intervals for the sPart recognized by the **DatePart** function.

Setting	Description
yyyy	Returns the four-digit year.
q	Returns the quarter of the year. (1-4)
m	Returns the month in numbered format (1-12)
d	Returns the day of the month. (1-31)
w	Returns the weekday in numbered format (1-7)
ww	Returns the week of the year. (1-52)
h	Returns the hour of the day. (0-23)
n	Returns the minute of the hour. (0-59)
s	Returns the seconds of the minute. (0-59)

You can also returns parts of Dates by using any of the following functions:

Function	Description
Year (Date)	Returns the four-digit year.
Month (Date)	Returns the numerical month of the year.
MonthName(Date)	Returns the name of the month.
Weekday (Date)	Returns the numerical weekday.

WeekdayName (<i>Date</i>)	Returns the name of the weekday.
Day (<i>Date</i>)	Returns the day of the month.
Hour (<i>Date</i>)	Returns the hour of the day.
Minute (<i>Date</i>)	Returns the minute of the hour.
Second (<i>Date</i>)	Returns the seconds of the minute.

When finished, click Next.

7. Click Finish on the **Completing the User DataPoint Configuration Wizard** screen.

You have now created a User DataPoint that will return the seconds of the current time. Make sure that the Auto-Refresh option is enabled and select the new DataPoint in the Component Tree. The Value of the **Seconds** DataPoint should reflect the seconds of the current system time. The Value will update as the time changes.