Opendiem Training

Technical Note

Calculate kWh from Watts

Opendiem-TECH-0008

Revision	5.0.1		
Status	Initials	Date	Comment
Released	RAC	03/13/2012	

Technical Notes, Calculating kWh from Watts using the Calculator Service

Introduction

Watts, whether obtained from a hardware input, calculated from a current transducer, or estimated with a system variable, can be tracked by the Calculator Service and accumulated over time using the Data Profiler (eProfiler).

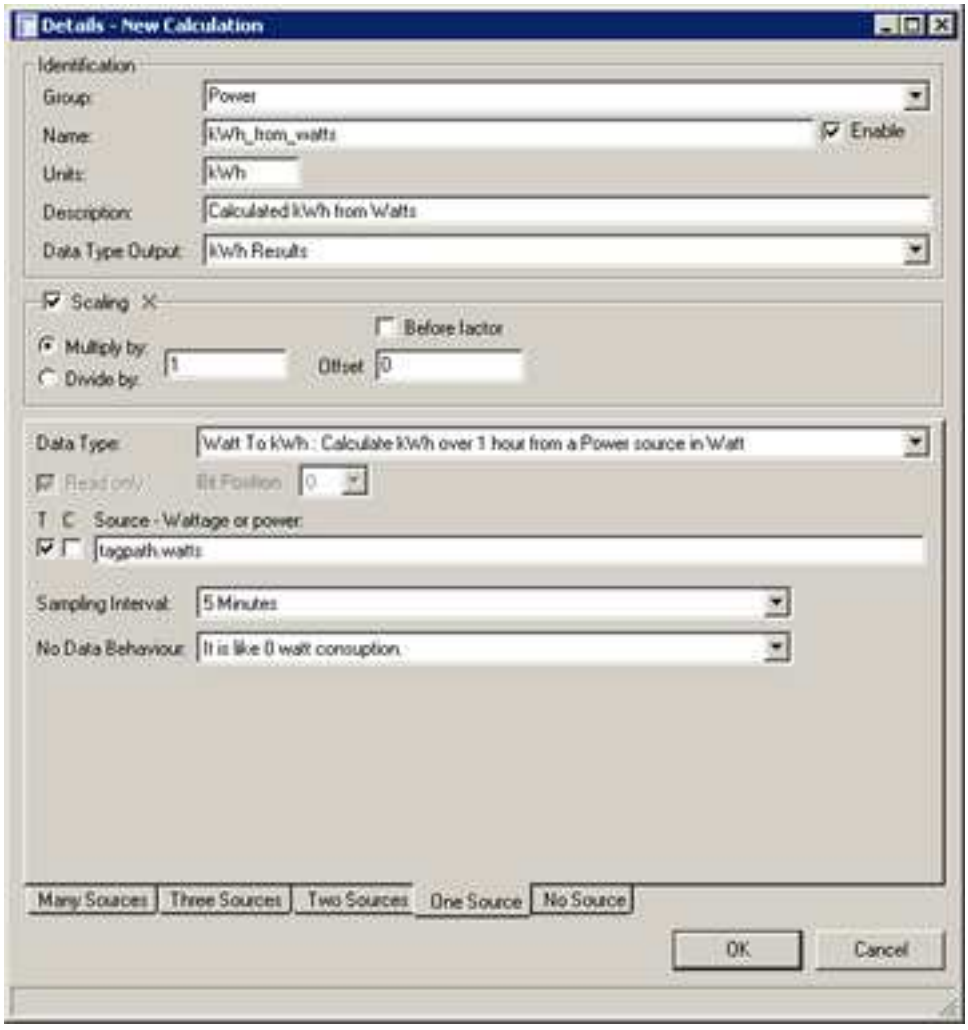
Instructions

Requires Opendiem™ v5.1 or greater.

1. Locate your “watt” variable (analog value) using the Engine Browser.

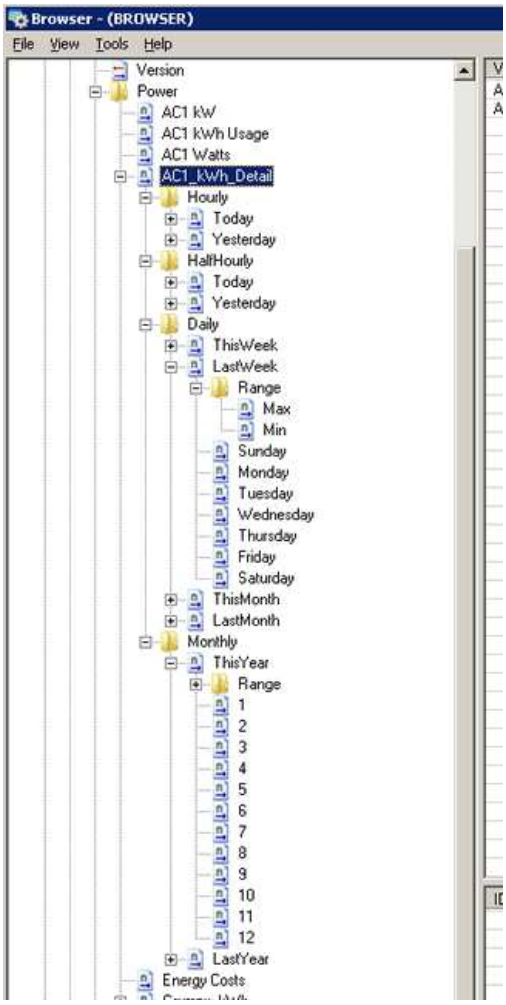
2. Open, or add a new, Calculator Service.

3. From the menu, choose Edit > Add… to create a new calculation (or hit F3) and fill out the form as shown. Note that the "One Source" tab is selected, and that once you choose "Watt to kwh" from the "Data Type" drop down menu the "Data Type Output" will fill in automatically. Drag your watt tag from the Engine Browser into the "Source" field and make sure the "T" (trigger) box is checked. Choose the "Sampling Interval" and how to treat an empty tag value under "No Data Behaviour".



4. In the sample above, note the calculation name and group. The new tag name will appear as "Calc.Power.kWh_from_watts". Next go to the Engine Browser and navigate to the new tag.

5. From the Browser you can begin expanding the tag wherever you see the + symbol.
    a. Variables available under this tag range from the current kWh reading (instantaneous) to accumulated readings for:
        i. Every ½ hour, today and yesterday.
        ii. Every hour, today and yesterday.
        iii. Every day (by day of the week), this week and last week.
        iv. Every day (by day of the month), this month and last month.
        v. Every month (by month), this year and last year.
    b. For each category there are also variables which indicate:
        i. The current value and min and max range.
        ii. The date and time of the last reading.
6. See the screen shot of the Browser tree on the next page. Each tag can be used on screens, trended, or accumulated using the Data Profiler service in WBC.



7. Screen Example:

Tabular Data Example

AC1 kWh Usage

	SUN	MON	TUE	WED	THU	FRI	SAT	Total
This Week	???	0.0	0.9	1.4	0.7	???	???	3.0
Last Week	???	???	???	???	???	???	???	0.0

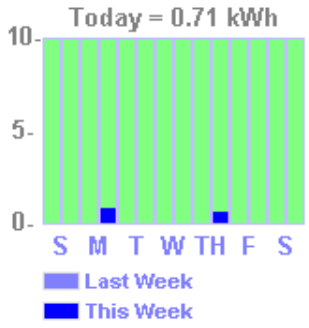
Tags will appear as ??? until data is available.

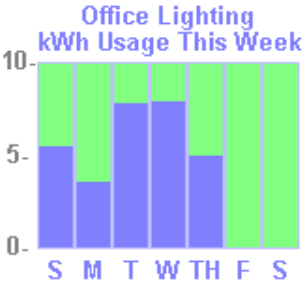
AC1 kWh Usage

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
This Month	???	0.0	3.0	???	???	???	???	???	???	???	???	???	3.0
Last Month	???	???	???	???	???	???	???	???	???	???	???	???	0.0

Bar Chart Examples

Use the "Flood" property to create live bar charts





This Week's Max: 7.9 kWh
Date: 3/22/12 12:00 AM
Last Week's Max: 11.3 kWh

Notes:

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