



WeatherBug Driver Plug-in

Quick Start Guide

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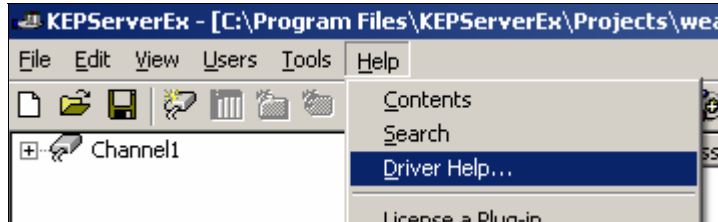
1. Introduction

This quick start guide will demonstrate how to set up a simple OPC server project with the WeatherBug driver plug-in.

In addition to this quick start guide, online help can be displayed from within both KEPServerEX and the WeatherBug driver plug-in.

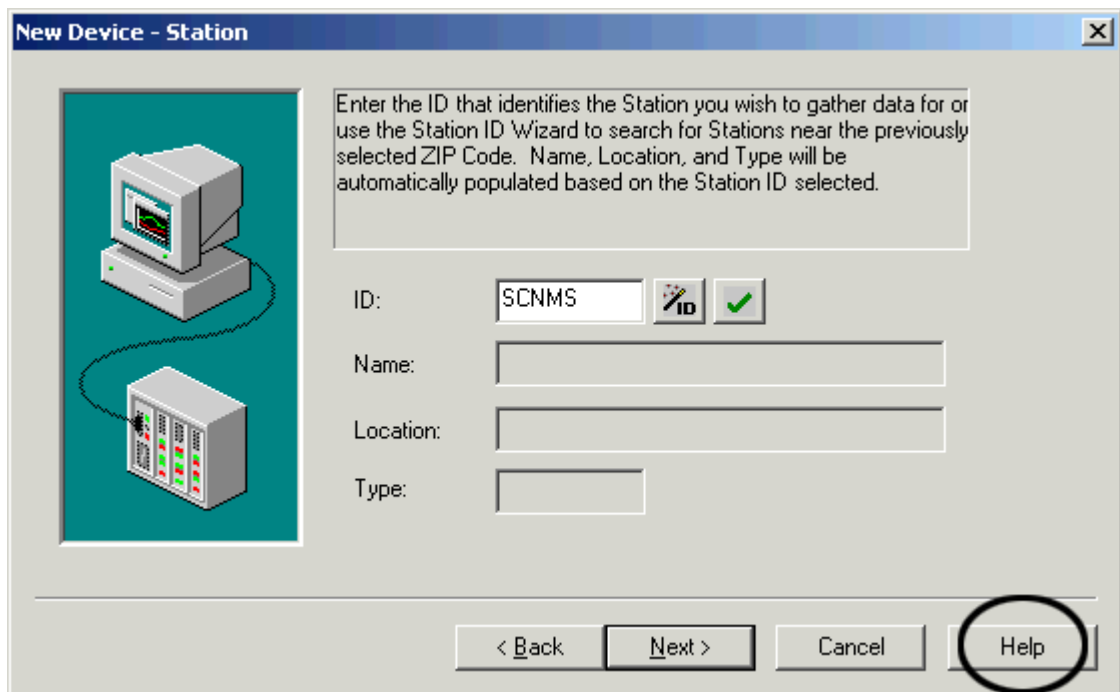
1.1 Viewing Help from within KEPServerEX

At the top of the main KEPServerEX screen, click Help | Contents to display help for KEPServerEX. To view WeatherBug driver help, click Help | Driver Help.



1.2 Viewing Help from within the WeatherBug Driver Plug-in

Context-sensitive help is available from any driver plug-in dialog. In any of the dialogs, click the **Help** button to view context-sensitive help.



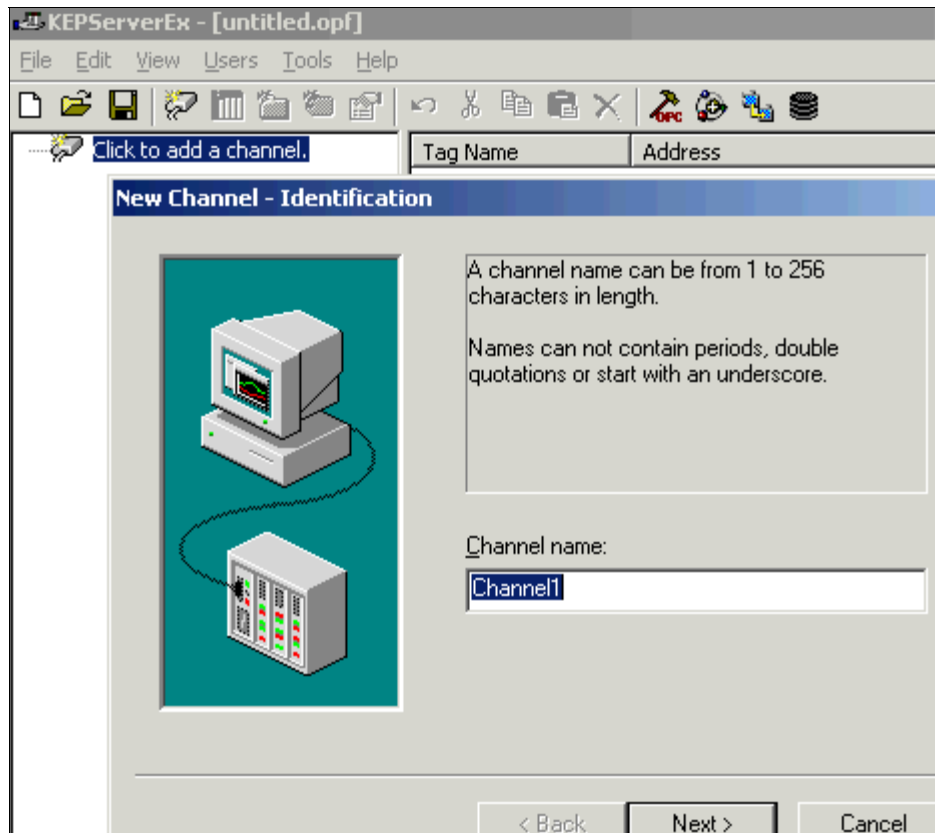
2. Creating an OPC Server Project

Your first step is to create an OPC server project that will receive data from WeatherBug and provide the data to your client or HMI. An OPC server project consists of at least one channel, and at least one device added to the channel. For our example, the “device” will be a connection to the WeatherBug service.

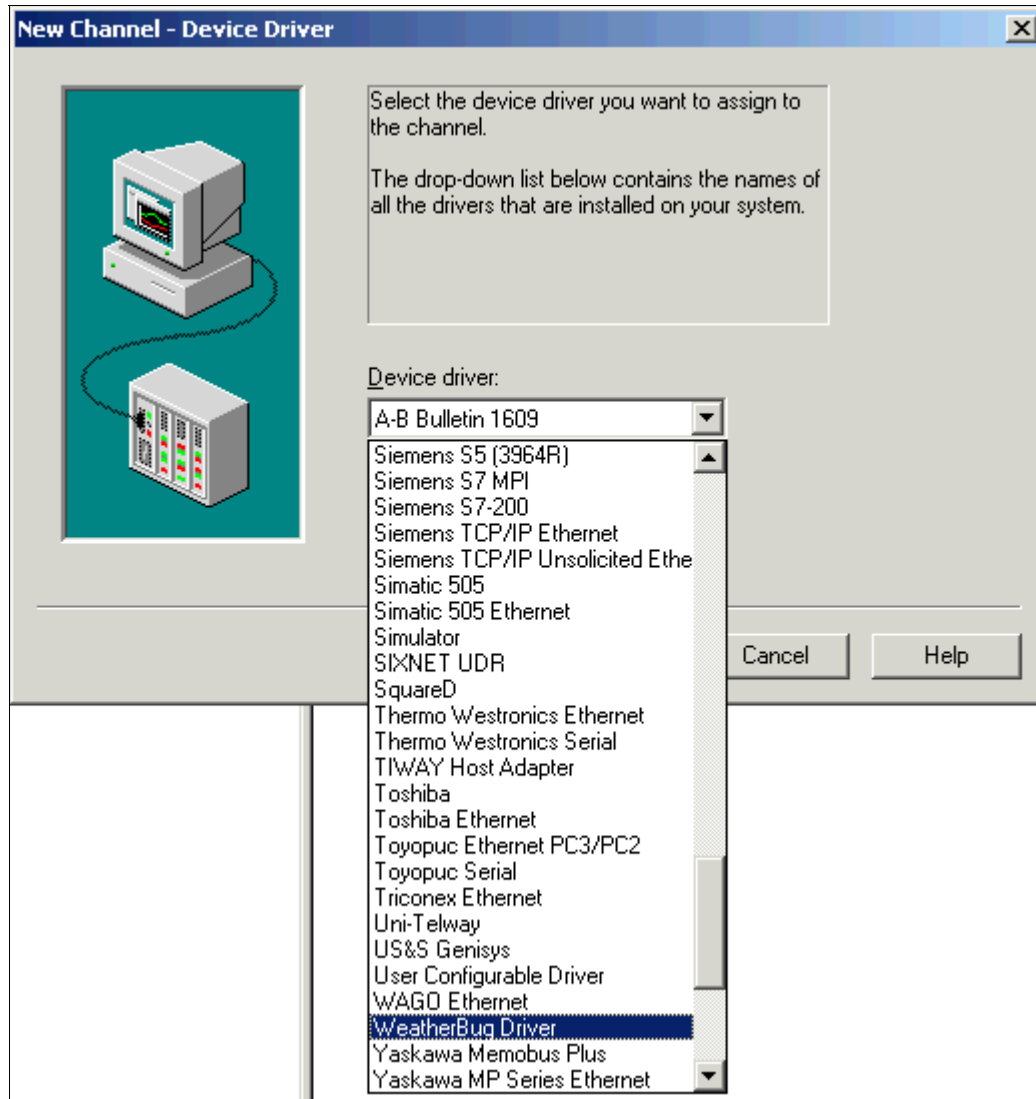
Follow the steps below to add a channel and then a device.

2.1 Adding a Channel to the OPC Server Project

1. Start KEPServerEX and click the prompt “Click to add a channel.” The New Channel dialog is displayed.



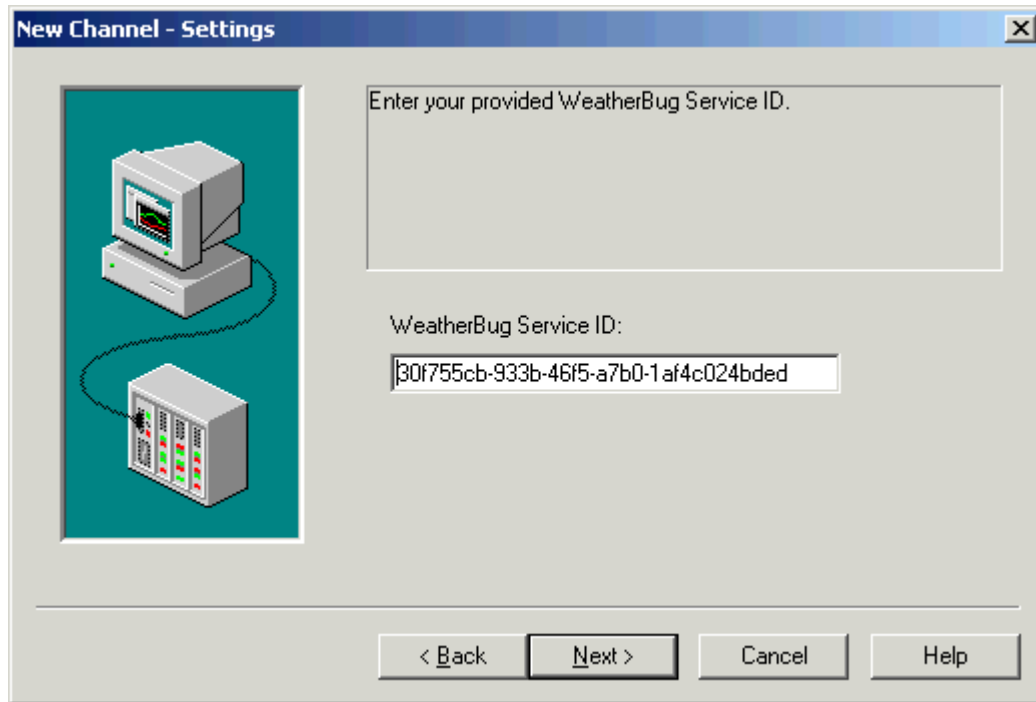
2. In the next dialog, select the WeatherBug driver plug-in.



3. Accept the default settings in the next two dialogs, Network Interface and Write Optimizations.

4. In the Settings dialog, the **WeatherBug Service ID** field will be filled in by default with a demo ID. This provides you with a working WeatherBug Service ID to use during an evaluation period. Click **Next** to continue.

Demo Period: When the demo period expires, the default service ID will no longer be valid and the quality for any tags you have created will turn to bad. However, when you purchase a license for the WeatherBug driver from Kepware, you will be given your own valid WeatherBug service ID. After entering the new service ID, the tags you have created will return to quality = good.



5. In the next dialog, click **Finish**.

2.2 Adding a Device to the Channel



1. Under the channel you just added, click the prompt "Click to add a device." The New Device – Name dialog is displayed.

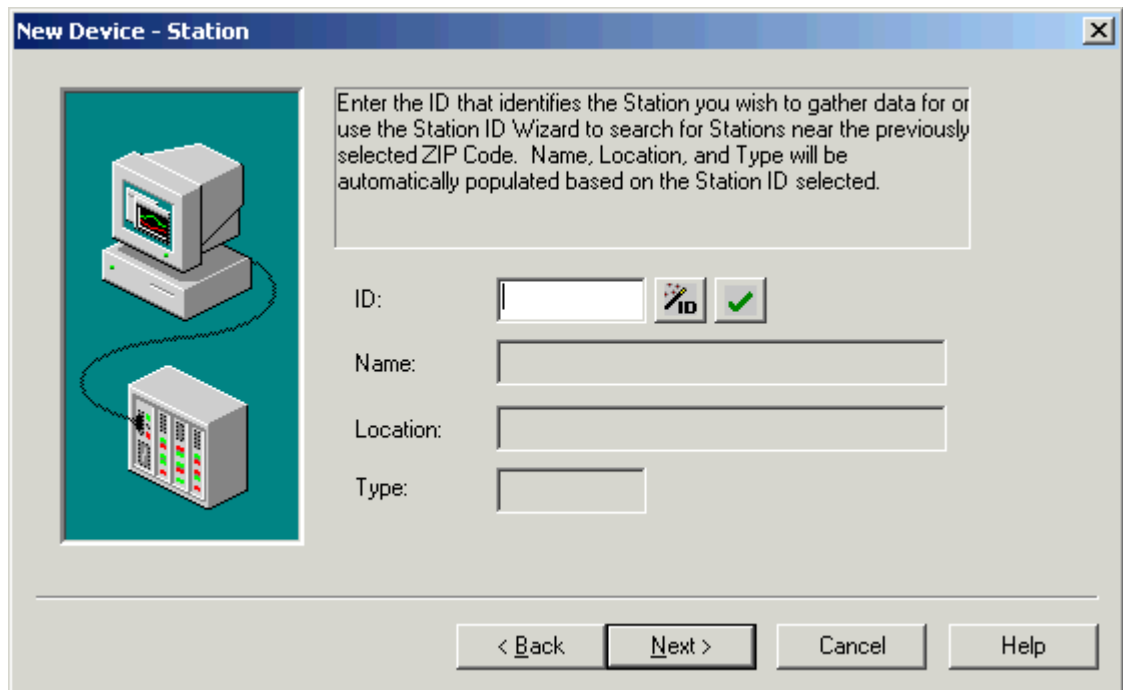



2. Complete the Name dialog and the next dialog, Timing.

3. The Zip Code dialog is next. Enter the 5-digit zip code of the location for which you are gathering data.



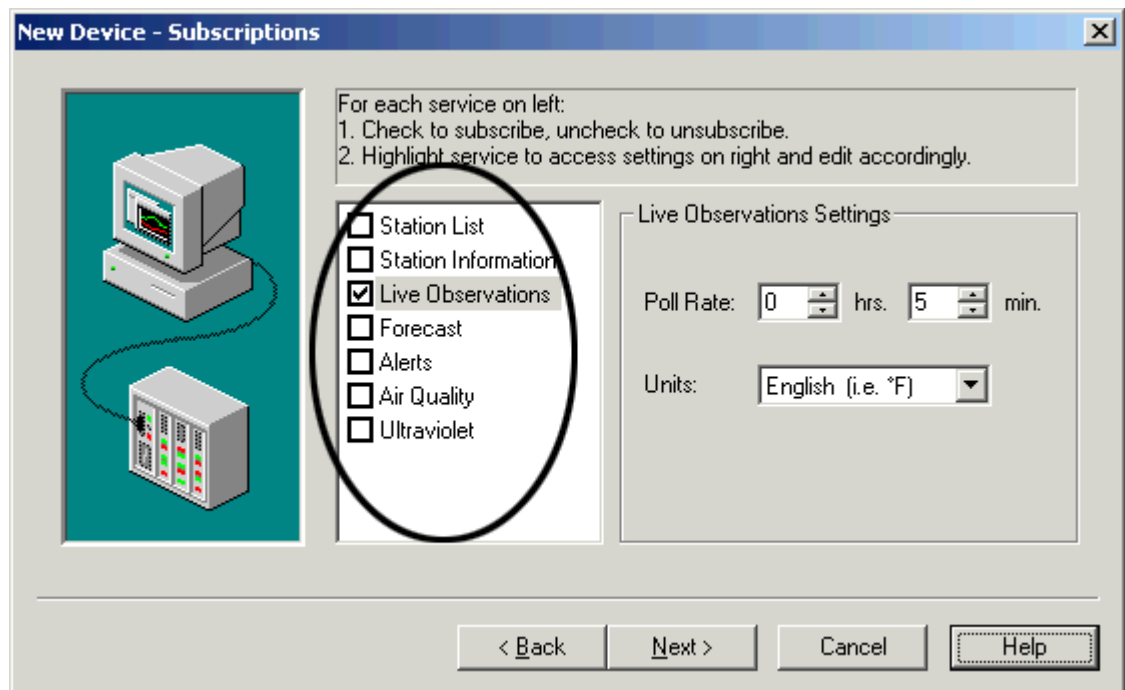
4. In the Station dialog, enter a station ID in the ID field then click the ID verification icon  –or– click the ID wizard icon  to search for stations in or near the zip code you entered in the previous dialog.



- If you click the ID wizard icon , the Station Wizard window will be displayed with stations in or near the zip code you entered previously (note: if the list of stations seems incomplete, click the **Refresh** button at the bottom of the window). To choose a station, scroll down to the station, click on it once then click **OK**. The **Name**, **Location** and **Type** fields on the Station dialog will be filled in automatically.

ID	Name	Location	Type	Distance
LSNGN	Alexander Hamilton Senior HS	Los Angeles, CA 90034	WeatherBug	3.973
NRTSH	Campbell Hall School	Valley Village, CA 91617	WeatherBug	4.556
NRTHH	Oakwood ES	North Hollywood, CA 91602	WeatherBug	4.694
SHRMN	Notre Dame HS	Sherman Oaks, CA 91423	WeatherBug	4.941
KSMO	Santa Monica Municipal Airport	Santa Monica, CA 90410	NWS	5.552
CNTMN	Crossroads School	Santa Monica, CA 90404	WeatherBug	5.711
SNTMN	Santa Monica HS	Santa Monica, CA 90405	WeatherBug	6.773
LSNGM	Berendo MS	Los Angeles, CA 90006	WeatherBug	7.114
LSNDP	Crenshaw SHS	Los Angeles, CA 90043	WeatherBug	7.159
MRNDL	USC Information Sciences Institute	Marina Del Rey, CA 90292	WeatherBug	7.666
KBUR	Burbank-Glendale-Pasadena Airport	Sun Valley, CA 91353	NWS	8.103
SNVLL	Sun Valley MS	Sun Valley, CA 91352	WeatherBug	8.217
KCQT	Los Angeles / USC Campus Downtown	Los Angeles, CA 90089	NWS	8.833
LSNGP	Betty Plasencia ES	Los Angeles, CA 90026	WeatherBug	8.94
KVNY	Van Nuys Airport	Van Nuys, CA 91409	NWS	9.708
LAJMS	John Muir MS	Los Angeles, CA 90044	WeatherBug	9.773
SNVLY	Village Christian School	Sun Valley, CA 91352	WeatherBug	10.32
KLAX	Los Angeles International Airport	El Segundo, CA 90009	NWS	10.46
LENNX	Jefferson ES	Lennox, CA 90304	WeatherBug	10.84
PCOIM	Pacoima MS	Pacoima, CA 91331	WeatherBug	11.40
NHILC	Vintage Math, Science, Tech	North Hills, CA 91343	WeatherBug	11.96
KHHR	Hawthorne Municipal Airport	Inglewood, CA 90310	NWS	12.27
NTTHR	Pinecrest School	Northridge, CA 91325	WeatherBug	12.94
YSNGL	St. Aloysius School	Los Angeles, CA 90001	WeatherBug	13.03

6. The Subscriptions dialog is displayed next. This dialog enables you to control the OPC data settings for the WeatherBug subscription services you are using. By default, the Live Observations service is displayed first. When you choose a subscription service on the left, the settings fields for that service will be displayed on the right.



7. In the next dialog, Summary, click **Finish**.

3. Automatic Tag Generation

The WeatherBug driver plug-in will automatically create a full set of tags when a device is added to an OPC channel. To see the tags that have been created for the device that you just added, expand the tree under “Device1”.

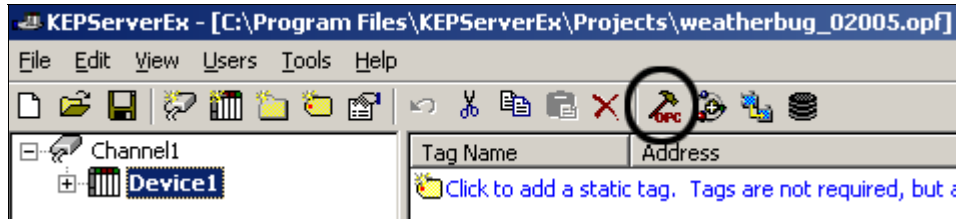
Note: In a WeatherBug OPC project, a “device” is a connection to the WeatherBug service.

The screenshot shows the KEPServerEx interface with a project named 'weatherbug_02005.opf'. The left pane shows a tree view with 'Channel1' expanded to 'Device1', which contains 'LiveOb' and 'Gust Time' (highlighted). The right pane displays a table of generated tags.

Tag Name	Address	Data Type
GustTimeAMPM	LiveOb.ob.gust-time.am-pm.abbrev	String
GustTimeDayAb...	LiveOb.ob.gust-time.day.abbrev	String
GustTimeDay	LiveOb.ob.gust-time.day.number	Long
GustTimeDayText	LiveOb.ob.gust-time.day.text	String
GustTimeHour24	LiveOb.ob.gust-time.hour.hour-24	Long
GustTimeHour	LiveOb.ob.gust-time.hour.number	Long
GustTimeMinute	LiveOb.ob.gust-time.minute.number	Long
GustTimeMonth...	LiveOb.ob.gust-time.month.abbrev	String
GustTimeMonth	LiveOb.ob.gust-time.month.number	Long
GustTimeMonth...	LiveOb.ob.gust-time.month.text	String
GustTimeSecond	LiveOb.ob.gust-time.second.number	Long
GustTimeTimeZo...	LiveOb.ob.gust-time.time-zone.abbrev	String
GustTimeTimeZo...	LiveOb.ob.gust-time.time-zone.offset	Long
GustTimeTimeZo...	LiveOb.ob.gust-time.time-zone.text	String
GustTimeYear	LiveOb.ob.gust-time.year.number	Long

4. OPC Server Data in Your HMI or Client

At this point, your OPC server project is receiving WeatherBug data. To view or work with the data, point your HMI or client application to the OPC server. In this example, we will start the Quick Client application using the Quick Client icon on the KEPServerEX screen (shown here).



The Quick Client screen opens and, as shown in the screenshot below, the tags in the OPC server project are available for use.

Item ID	Data Type	Value	Timestamp	Quality
Channel1.Device1.LiveOb.AuxTemp	Float	80	13:31:55:788	Good
Channel1.Device1.LiveOb.AuxTempRate	Float	-0.3	13:31:55:788	Good
Channel1.Device1.LiveOb.AuxTempRateUnits	String	°F	13:31:55:788	Good
Channel1.Device1.LiveOb.AuxTempUnits	String	°F	13:31:55:788	Good
Channel1.Device1.LiveOb.CityState	String	Scit...	13:31:55:788	Good
Channel1.Device1.LiveOb.DewPoint	Float	61.3	13:31:55:788	Good
Channel1.Device1.LiveOb.DewPointUnits	String	°F	13:31:55:788	Good
Channel1.Device1.LiveOb.Elevation	Long	3	13:31:55:788	Good
Channel1.Device1.LiveOb.ElevationUnits	String	ft	13:31:55:788	Good
Channel1.Device1.LiveOb.FeelsLike	Float	66.3	13:31:55:788	Good
Channel1.Device1.LiveOb.FeelsLikeUnits	String	°F	13:31:55:788	Good
Channel1.Device1.LiveOb.GustDirection	String	WSW	13:31:55:788	Good
Channel1.Device1.LiveOb.GustSpeed	Float	24	13:31:55:788	Good