

Exaquantum - Displaying Trend Data from a URL

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Chapter 1 Introduction

Users running applications that use Exaquantum data can directly run Exaquantum Trend pages from their custom application.

Method 1 Create an ad-hoc trend by passing tag names in the URL

Method 2 Load an existing trend by passing a trend name in the URL.

The two methods shown above can also be accomplished by using a Windows Batch (BAT) file containing the commands.

The custom application can when required display the relevant trend information by passing the required details via a URL or by using a Batch file as shown in the examples contained within this guide.

1.1 Audience

This guide is intended for system integrators, administrators and users.

Chapter 2 Displaying Trend Data

There are two methods of displaying Exaquantum Web trends.

Adhoc

Creates an ad hoc trend by passing tag names in the URL.

In this case is it possible to display a single trend chart containing up to eight pens over a specified time range.

Load

Loads an existing trend by passing a trend name in the URL.

In this case is it possible to display a saved single or multiple trend chart with either the time range as saved with the trend or as specified in the URL.

2.1 Displaying Trend Data Directly From the URL (Adhoc Method)

Using the methods mentioned above, it possible to display a single trend chart containing up to eight pens.

References to the **Server Name** (TESTSVR), **Port Number** (8000) and **Tag Names** shown in the examples should be replaced as required, depending upon the system configuration that has been set up.

2.2 Example of a Single Pen Trend

The example shown below allows for a Single Pen trend to be displayed, by either passing the information via a URL into a browser or by the execution of a Windows Batch (BAT) File.

The sample tag is a simple tag that steps up/down from Min to Max and then repeats.

2.2.1 Direct Entry of URL into Browser

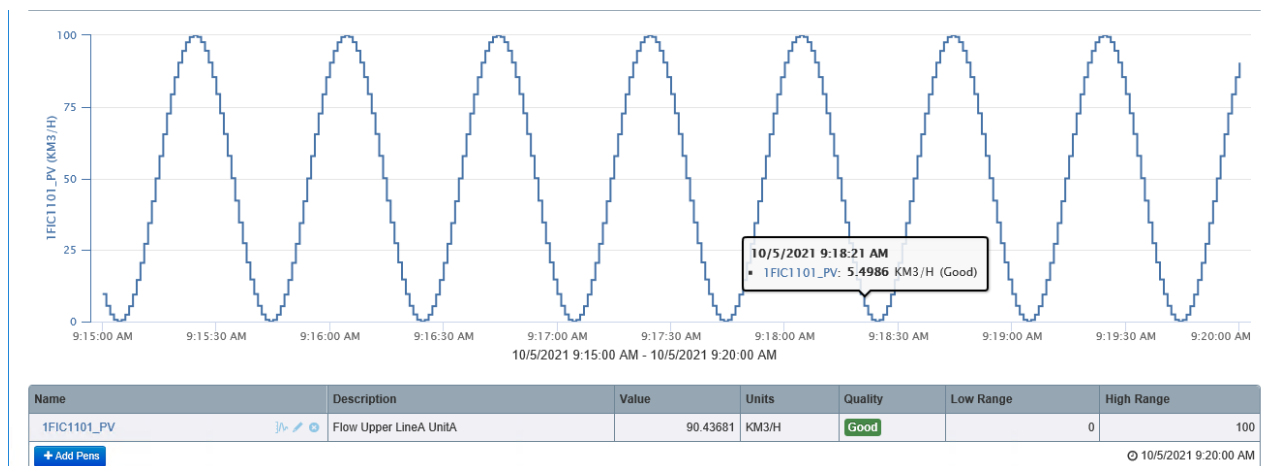
http://TESTSVR:8000\ExaquantumWeb\Trend\adhoc?Tag=Root.Area1.Block1.Group1.1FIC1101_PV

2.2.2 From within a Batch File

The text shown in below is the content of the Batch File

```
set arg1=Root.Area1.Block1.Group1.1FIC1101_PV
Start iexplore.exe "http://TESTSVR:8000\ExaquantumWeb\Trend\adhoc?Tag=%arg1%"
```

%arg1% refers to the Tag 'Root.Area1.Block1.Group1.1FIC1101_PV' as defined in the arguments section at the beginning of the Batch (BAT) file.



2.3 Example of a Two Pen Trend

The example shown below allows for a Two Pen trend to be displayed, by either passing the information via a URL into a browser or by the execution of a Windows Batch (BAT) File.

The sample tags are simple tags that step up/down from Min to Max and then repeats.

2.3.1 Direct Entry of URL into Browser

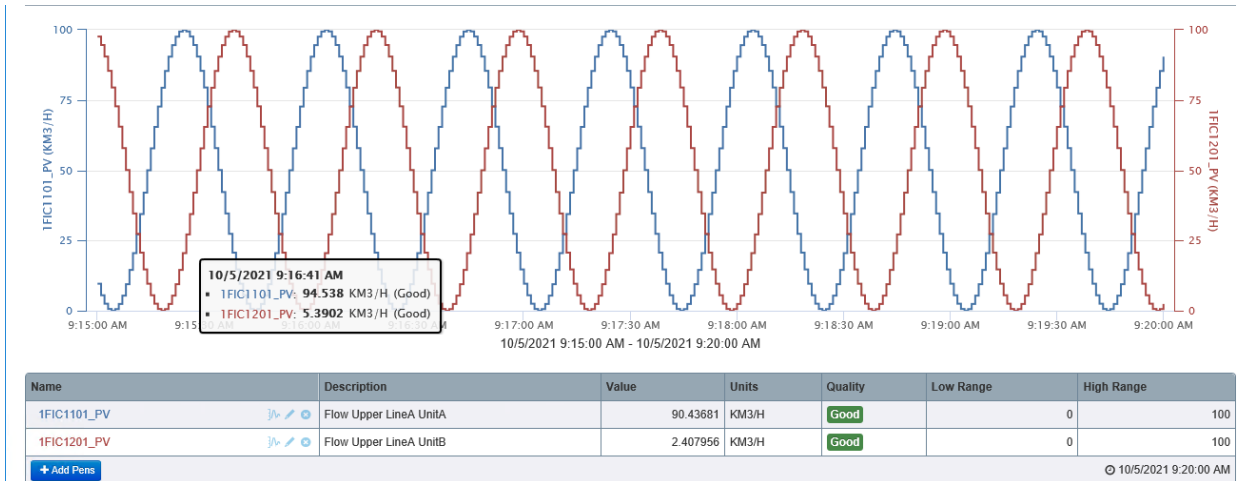
http://TESTSVR:8000\ExaquantumWeb\Trend\adhoc?Tag=Root.Area1.Block1.Group1.1FIC1101_PV&Tag=Root.Ar
ea1.Block1.Group2.1FIC1201_PV

2.3.2 From Within a Batch File

The text shown below is the content of the Batch File

```
set arg1=Root.Area1.Block1.Group1.1FIC1101_PV
set arg2=Root.Area1.Block1.Group2.1FIC1201_PV
Start iexplore.exe "http://TESTSVR:8000\ExaquantumWeb\Trend\adhoc?Tag=%arg1%&Tag=%arg2%"
```

%arg1% and %arg2% refer to the Tags 'Root.Area1.Block1.Group1.1FIC1101_PV' and 'Root.Area1.Block1.Group2.1FIC1201_PV' as defined in the arguments section at the beginning of the Batch (BAT) file.



2.4 Example of an Eight Pen Trend

The example shown below allows for an Eight Pen trend to be displayed, by either passing the information via a URL into a browser or by the execution of a Windows Batch (BAT) File.

There are Two sample tags that step up/down from Min to Max and Five sample tags that have static values.

2.4.1 Direct Entry of URL into Browser

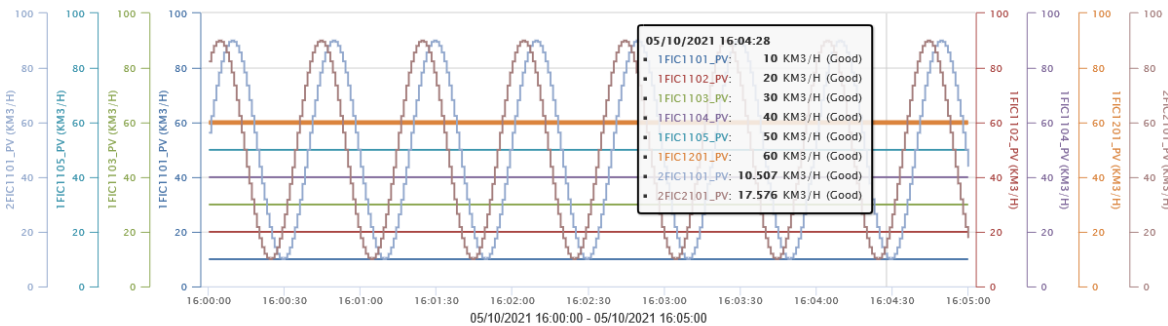
http://TESTSVR:8000\ExaquantumWeb\Trend\adhoc?Tag=Root.Area1.Block1.Group1.1FIC1101_PV&Tag=Root.Area1.Block1.Group1.1FIC1102_PV&Tag=Root.Area1.Block1.Group1.1FIC1103_PV&Tag=Root.Area1.Block1.Group1.1FIC1104_PV&Tag=Root.Area1.Block1.Group1.1FIC1105_PV&Tag=Root.Area1.Block1.Group1.1FIC1201_PV&Tag=Root.Area1.Block1.Group2.2FIC1101_PV&Tag=Root.Area1.Block1.Group2.2FIC2101_PV

2.4.2 From Within a Batch File

The text shown below is the content of the Batch File.

```
set arg1=Root.Area1.Block1.Group1.1FIC1101_PV
set arg2=Root.Area1.Block1.Group1.1FIC1102_PV
set arg3=Root.Area1.Block1.Group1.1FIC1103_PV
set arg4=Root.Area1.Block1.Group1.1FIC1104_PV
set arg5=Root.Area1.Block1.Group1.1FIC1105_PV
set arg6=Root.Area1.Block1.Group1.1FIC1201_PV
set arg7=Root.Area1.Block1.Group2.2FIC1101_PV
set arg8=Root.Area1.Block1.Group2.2FIC2101_PV
Start iexplore.exe
"http://TESTSVR:8000\ExaquantumWeb\Trend\adhoc?Tag=%arg1%&Tag=%arg2%&Tag=%arg3%&Tag=%arg4%&Tag=%arg5%&Tag=%arg6%&Tag=%arg7%&Tag=%arg8%"
```

%arg1% thru %arg8% refer to the Tags as defined in the arguments section at the beginning of the Batch (BAT) file.



Name	Description	Value	Units	Quality	Low Range	High Range
1FIC1101_PV	Flow Upper LineA UnitA	10	KM3/H	Good	0	100
1FIC1102_PV	Flow Upper LineA UnitA	20	KM3/H	Good	0	100
1FIC1103_PV	Flow Upper LineA UnitA	30	KM3/H	Good	0	100
1FIC1104_PV	Flow Upper LineA UnitA	40	KM3/H	Good	0	100
1FIC1105_PV	Flow Upper LineA UnitA	50	KM3/H	Good	0	100
1FIC1201_PV	Flow Upper LineA UnitB	60	KM3/H	Good	0	100
2FIC1101_PV	Flow Lower LineB UnitC	43.8087	KM3/H	Good	0	100
2FIC2101_PV	Flow Lower LineC UnitD	17.68807	KM3/H	Good	0	100

2.5 Displaying Trend Data Directly From the URL (Load Method)

The load method is similar to the Adhoc method, with the exception that references to the Tag Name are replaced by the name or TrendID of a Saved Trend as described below.

The trend is created by either passing the TrendName or TrendID via a URL into a browser or by the execution of a Windows Batch (BAT) File.

2.5.1 Direct Entry of URL Into Browser

<http://<servername>:<port>/ExaquantumWeb/Trend/Load?name=<trendName>>

Or

<http://<servername>:<port>/ExaquantumWeb/Trend/Load?id=<trendID>>

2.5.2 From within a Batch File

<http://<servername>:<port>/ExaquantumWeb/Trend/Load?name=<trendName>>

Or

<http://<servername>:<port>/ExaquantumWeb/Trend/Load?id=<trendID>>

2.6 Displaying Trend Data Including Time Range and Trend Mode

When displaying Trend Data directly from a URL, as well as specifying the tags you can also specify a Time Range and the Trend Mode.

2.6.1 Adhoc Method

An adhoc trend may be displayed using the URL “ExaquantumWeb/Trend/Adhoc” with one or more arguments to describe the pens to display and the time range in the form:

```
http://<servername>:<port>/ExaquantumWeb/Trend/Adhoc?tag=<tagname1>&tag=<tagname2>...&tag=<tagname8>&isLive=<0/1>&startTime=<Date/Time>&endTime=<Date/Time>
```

2.6.2 Load Method

A saved trend may be displayed using the URL “ExaquantumWeb/Trend/Load” with one or more arguments to describe the trend chart to display and the time range in the form:

```
http://<servername>:<port>/ExaquantumWeb/Trend/Load?name=<trendName>&isLive=<0/1>&startTime=<Date/Time>&endTime=<Date/Time>
```

Or

```
http://<servername>:<port>/ExaquantumWeb/Trend/Load?id=<trendID>&isLive=<0/1>&startTime=<Date/Time>&endTime=<Date/Time>
```

2.6.3 Arguments and Syntax for Adhoc and Saved Trends

A subset of the argument information available for creating an adhoc trend or loading a saved trend is shown below.

The Full list and Syntax can be found in the following document :
Exaquantum Engineering Guide – Volume 4 Web Authoring (IM 36J04A15-04E)
Chapter 13 - Working with Exaquantum Web Trends

Parameter	Description
Tag (adhoc only)	Specify tags plotted on the trend. Tag names may be either: <ul style="list-style-type: none"> • Intrinsic e.g. Tag=Root.Folder.TagName1 or Tag=Root.Folder.TagName1. Aggregations.Hour.Mean • RBNS e.g. Tag=RBNS.Server1.Folder.TagName1 or Tag=RBNS.Server1.Folder.TagName1. Aggregations.Hour.Mean
isLive	isLive is a boolean value When true the trend is displayed in Live mode. When false the trend is displayed in Historical mode.
startTime	StartTime can be configured in the following ways: Absolute Time Relative Time The possible formats are:

Parameter	Description
	Absolute Time: yyyy-MM-dd-HH-mm-ss eg. starttime=2016-12-21-16-32-33 Relative Time: NOW-<minutes> eg. starttime=NOW-60
endTime	EndTime can be configured in the same way as startTime except that for Relative Time "NOW" can be used.
Id (load only, see Note 1 below)	This is the unique id of the saved trend. If set this setting will override the Name setting
Name (load only, see Note 1 below)	This is the name of the saved trend.

Chapter 3 Further Reading

Further more detailed information can be found within the following documentation

Exaquantum Engineering Guide – Volume 4 Web Authoring (IM 36J04A15-04E)

Chapter 13 - Working with Exaquantum Web Trends

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Highlights

The Highlights section gives details of the changes made since the previous issue of this document.

- **Summary of Changes**

This is Issue 1.0 of the document related to Product Library version 11.0.

- **Detail of Changes**

The changes are as follows:

Chapter/Section/Page	Change