Event Chart KB Extension

ThingWorx Event Chart KB Widget User Guide

Contents

Document Revision History

Revision Date	Description of Changes

Software Change Log

Version	Release Date	Changes
0.0.104	-	Beta release.
0.0.160	20.12.2017	Fix Repeater Issue, Responsive Issue, Color>20 Issue, Scaling Issue
0.0.166	20.12.2017	Fix IDE Drag & Drop style
0.0.181	23.12.2017	Add Start/End Date functionality

Prerequisites

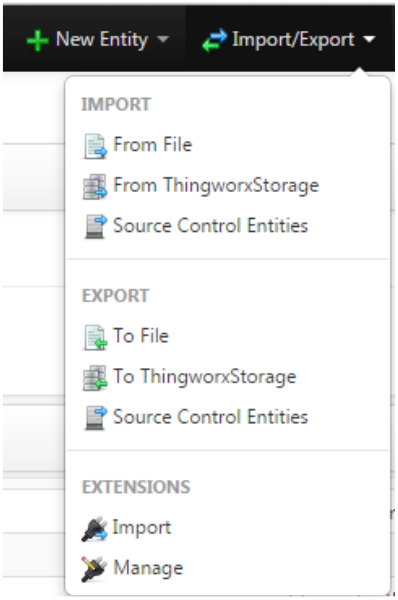
Prerequisites
ThingWorx 5.4.0 +

Tested On

ThingWorx Version	Browser	Status
ThingWorx 8.0.4-b46	Google Chrome Version 61.0.3163.100 (Official Build) (64-bit)	**PASS**
ThingWorx 8.0.4-b46	Mozilla Firefox Version 46.0	**PASS**
ThingWorx 8.0.4-b46	Opera 48.0.2685.52 (PGO)	**PASS**
ThingWorx 8.0.4-b46	IE 11.1176	**PASS**
ThingWorx 8.0.4-b46	Edge 25.10586	**PASS**
ThingWorx 8.0.4-b46	Safari Version 10.1.2 (12603.3.8)	**PASS**

Installing the Widgets

1. From a web browser, launch ThingWorx.
2. Log into ThingWorx as an administrator.
3. Go to Import/Export > Import.



4. Click Choose File and select the **twx-wdg-knorrbremse-eventchartkb.zip** from wherever you have saved it.
5. Click Import. **NOTE**: If an Import Successful message does not display, contact your ThingWorx System Administrator.
6. Click Yes to refresh Composer after importing the extension.

Building EventChartKB

As with any data-rendering widget in ThingWorx Composer, a EventChartKB widget must be placed in a mashup and configured with incoming data bindings. To build a EventChartKB:

1. Drag and drop EventChartKB widget into responsive container on mashup.
2. On the right, add a data source entity and, from the **Returned Data**, drag **All Data** to the eventchartkb and bind it to the **Data** property. This binding defines where the data is loaded from, when the eventchartkb is launched.

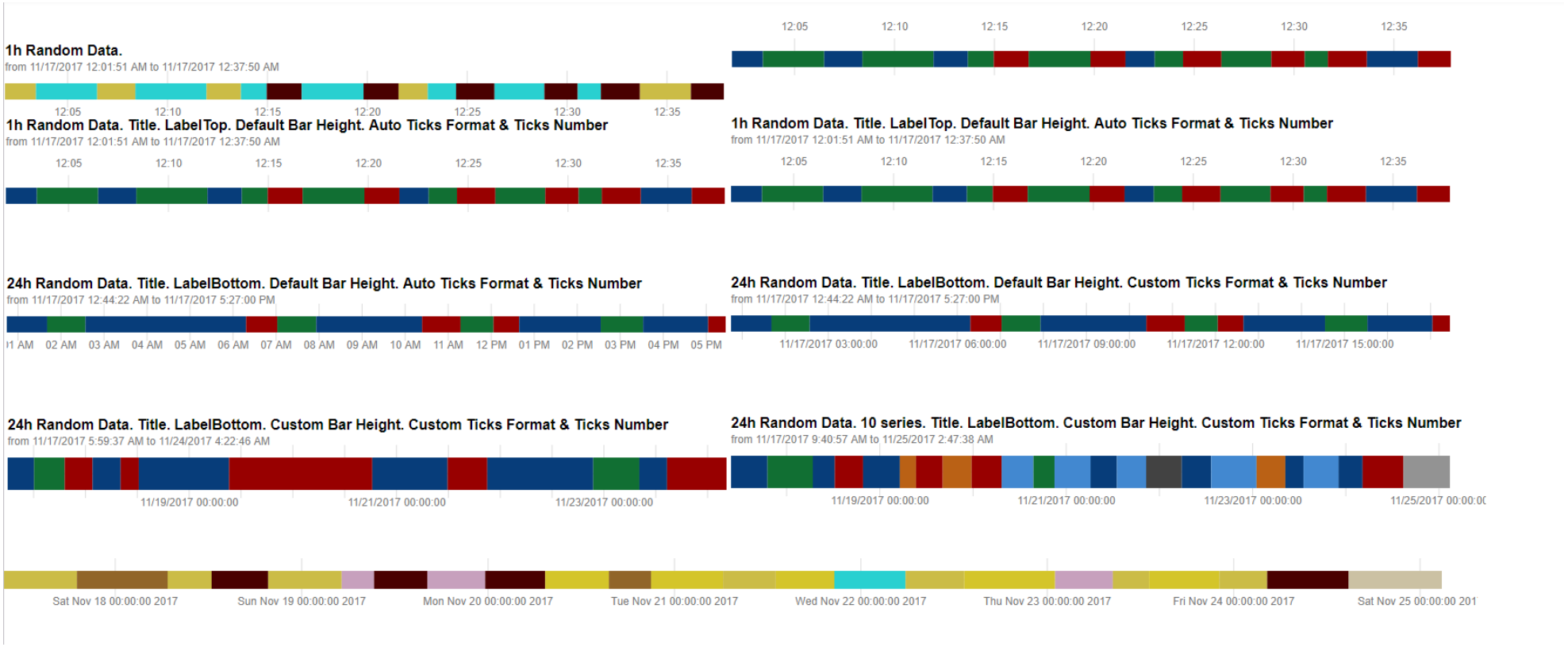
   Note: It is required to bind data which is an InfoTable with defined DataShape.
3. Configure widget properties properly (see Properties chapter).
4. Save and View the completed mashup.

Properties

Property Name	Description	Base Type	Default Value	Bindable (Y/N)?
Id*	A unique identifier used internally by ThingWorx.	INTEGER	eventchartkb -<id>	N
Type*	The widget type.	n/a	Event Chart KB	N
DisplayName*	A user-defined name to identify the grid when displayed.	STRING	eventchartkb -<id>	N
Description*	A user-defined description.	STRING	n/a	N
HasTitle	Defines if widget should render Title & Subtitle in the top-left position.	BOOLEAN	true	N
Title	(Available if **HasTitle** is checked!) Title of EventChartKB displayed in the top-left position of widget. • If the chart is bound to a data source, a filled arrow is displayed: ⬅ • If there is no data source, the arrow is unfilled: ⇦	STRING	Event Chart KB	Y
HasSubTitle	Defines if widget should render Title & Subtitle in the top-left position.	BOOLEAN	true	N
SubTitleFormat	(Available if **HasSubTitle** is checked!) SubTitle date format of EventChartKB displayed in the top-left position of widget. • If the chart is bound to a data source, a filled arrow is displayed: ⬅ • If there is no data source, the arrow is unfilled: ⇦	STRING	Event Chart KB	Y
StartDateTime	Static Start Date of X-Axis. If not defined start date is set to the first element of **Data** set.	DATETIME	Undefined	Y
EndDateTime	Static End Date of X-Axis. If not defined end date is set to the last element of **Data** set.	DATETIME	Undefined	Y
Start/EndDateTimeFormat	Style of Start & End Data data block.	STYLEDEFINITION	DefaultLoginStyle	N
XAxisField	Name of column from Data property, which will be assigned to X-Axis. This property is available after assigning data with DataShape to Data property. (Event column name)	VALUEFIELD	n/a	N

YAxisField	Name of column from Data property, which will be assigned to Y-Axis. This property is available after assigning data with DataShape to Data property. (Time-based column name)	VALUEFIELD	n/a	N
NumberOfSeries	Number of data series, which can be customized by user (minimum 1, maximum 20)	NUBMER	1	N
LegendBottom	Defines if labels for data ticks should be rendered in the bottom of chart	BOOLEAN	false	N
BarHeight	Height value of data bar in widget (in pixels)	INTEGER	18	N
TicksFormat	Custom Dateformat of X-Axis. No Value – automatic. It can be a construction of a following directives. : https://github.com/d3/d3-3.x-api-reference/blob/master/Time-Formatting.md	STRING	-	N
Ticks	Specifies an estimated number of ticks, according to the how good the x-axis can be divided. The arguments are also passed to the scale's tickFormat method to generate the default tick format. If no arguments are specified, returns the current tick arguments, which default to [10].	INTEGER	10	N
SeriesStyle1	Styling for Series Data number 1	STYLEDEFINITION	DefaultChartSeries1	N
SeriesStyle*[n-1]*	Styling for Series Data number *n-1*, where *n* is NumberOfSeries value. This property is generated automatically after changing NumberOfSeries property value to different than 1.	STYLEDEFINITION	DefaultChartSeries[n-1]	N
SeriesStyle*[n]*	Styling for Series Data number *n*, where *n* is NumberOfSeries value. This property is generated automatically after changing NumberOfSeries property value to different than 1.	STYLEDEFINITION	DefaultChartSeries[n]	N

Examples


1h Random Data.
from 11/17/2017 12:01:51 AM to 11/17/2017 12:37:50 AM
12:05 12:10 12:15 12:20 12:25 12:30 12:35
1h Random Data. Title. LabelTop. Default Bar Height. Auto Ticks Format & Ticks Number
from 11/17/2017 12:01:51 AM to 11/17/2017 12:37:50 AM
12:05 12:10 12:15 12:20 12:25 12:30 12:35
12:05 12:10 12:15 12:20 12:25 12:30 12:35
1h Random Data. Title. LabelTop. Default Bar Height. Auto Ticks Format & Ticks Number
from 11/17/2017 12:01:51 AM to 11/17/2017 12:37:50 AM
12:05 12:10 12:15 12:20 12:25 12:30 12:35
24h Random Data. Title. LabelBottom. Default Bar Height. Auto Ticks Format & Ticks Number
from 11/17/2017 12:44:22 AM to 11/17/2017 5:27:00 PM
01 AM 02 AM 03 AM 04 AM 05 AM 06 AM 07 AM 08 AM 09 AM 10 AM 11 AM 12 PM 01 PM 02 PM 03 PM 04 PM 05 PM
24h Random Data. Title. LabelBottom. Default Bar Height. Custom Ticks Format & Ticks Number
from 11/17/2017 12:44:22 AM to 11/17/2017 5:27:00 PM
11/17/2017 03:00:00 11/17/2017 06:00:00 11/17/2017 09:00:00 11/17/2017 12:00:00 11/17/2017 15:00:00
24h Random Data. Title. LabelBottom. Custom Bar Height. Custom Ticks Format & Ticks Number
from 11/17/2017 5:59:37 AM to 11/24/2017 4:22:46 AM
11/19/2017 00:00:00 11/21/2017 00:00:00 11/23/2017 00:00:00
24h Random Data. 10 series. Title. LabelBottom. Custom Bar Height. Custom Ticks Format & Ticks Number
from 11/17/2017 9:40:57 AM to 11/25/2017 2:47:38 AM
11/19/2017 00:00:00 11/21/2017 00:00:00 11/23/2017 00:00:00 11/25/2017 00:00:0
Sat Nov 18 00:00:00 2017 Sun Nov 19 00:00:00 2017 Mon Nov 20 00:00:00 2017 Tue Nov 21 00:00:00 2017 Wed Nov 22 00:00:00 2017 Thu Nov 23 00:00:00 2017 Fri Nov 24 00:00:00 2017 Sat Nov 25 00:00:00 201

Sample Data

1. From a web browser, launch ThingWorx.
2. Log into ThingWorx as an administrator.
3. Go to Import/Export > From File.
4. Choose **EventChartKBSampleEntities.twx** file and Import it.
5. Navigate to the **EventChartKBTestMashup**, open it and click on View Mashup.

Note:

Data is pushed to charts thanks to the **EventChartKBDataProviderMock** Thing and random data generator service written in Java Script.