TrendWorX64 Viewer Commanding

APPLICATION NOTE

August 2014

Description: Guide to using Commands with a TrendWorX64 Viewer.
General Requirement: Familiarity with the TrendWorX64 Viewer, Commanding in general and/or enabling Commands through the Asset Navigator Control.

Introduction

Before the introduction of Commanding you were required to use scripting to interact with controls like the TrendWorX64 Viewer. Commanding provides a simpler, more intuitive, and easier to maintain way to send these commands to controls.

This document will go over the commands that can be sent to a TrendWorX64 Viewer. More information about Commanding in general or with respect to other controls can be found in other application notes or in the help files.

If you are unfamiliar with any aspects of Commanding, please refer to the application note entitled, "GENESIS64 – Commanding Introduction" to get started.

> **NOTE:** All properties named **Index** are zero-based, meaning the first object always has an Index of 0.

> **NOTE:** The TrendWorX64 Viewer can only receive commands. It cannot send any.

Commands for a TrendWorX64 Viewer Target

Create Pen

This command adds a new pen to the TrendWorX64 Viewer. The **Pen** parameter can be configured with a dialog that will help you choose the point and settings you want.

> **NOTE:** The Create Pen command is backwards compatible with older systems where Create Pen had more parameters, **PenName**, **PointName**, **Description**, and **Parameters**.

Delete Pen

The Delete Pen command will remove a pen from a TrendWorX64 Viewer. The method of deletion is specified by the **Delete** parameter.

- **Delete: Specific** – Use either the **Name** of the pen (as shown in the configuration tree) or the **Index** to specify which pen is deleted. If both the Name and the Index are specified, the Name takes priority.
- **Delete: All** – Delete every pen in the viewer.
- **Delete: Selected** – Only the currently selected pens will be deleted. Pens can be selected in the legend.

If no pen is found for the given parameters (such as when doing a Delete: Selected with nothing selected, or a Delete: Specific for an Index that doesn't exist), nothing will happen.

Edit Pen

The Edit Pen command will change the settings of a pen in the TrendWorX64 Viewer. **PenName** determines the pen to edit (the name is shown in the configuration tree of the TrendWorX64 Viewer), or **Index** if PenName is left blank. The **Properties** parameter sets the new settings for your pen. Click the "…" button to see a dialog that will help you choose the settings you want.

Export Statistic

The Export Statistic command just shows the Export Statistics dialog using default options (no intermediate dialog is displayed).

Load Trend Configuration

The Load Trend Configuration command will load a pre-created TrendWorX64 Viewer configuration into the targeted TrendWorX64 Viewer.

Navigate

The Navigate command will navigate forward or back through the TrendWorX64 Viewer in Freeze mode. The **Navigate** property determines how to navigate.

- **Navigate: Back** – Go back one increment, same as the "Back" button in the ribbon.
- **Navigate: Forward** - Go forward one increment, same as the "Forward" button in the ribbon.
- **Navigate: Home** – Jump to the original (starting) time range.
- **Navigate: End or Now** – Jump to the current time. ("End" and "Now" are identical with regards to a TrendWorX64 Viewer.)

If the TrendWorX64 Viewer is not in freeze mode the Navigate command will have no effect.

The **Steps** parameter is not applicable to the TrendWorX64 Viewer.

Print

The Print command prints some or all of the TrendWorX64 Viewer. **Area** determines whether you are printing the whole control or just the current view (chart). **WhiteBackground** will force the printer to use a white background, even if the normal background color is different.

ShowPrintDialog will determine whether the printer dialog is shown, otherwise the default or specified printer and settings will be used and the print will happen immediately. **PrinterName** specifies a specific printer to use instead of the default.

> **NOTE:** Both the **ShowPrintDialog** and the **PrinterName** parameters are ignored in Silverlight environments. The runtime print dialog will always be shown.

> **NOTE:** The Print Configuration command is not supported in Windows RT or Windows Phone environments.

Refresh

The Refresh command causes the data to be refreshed in the TrendWorX64 Viewer. Historical data will be re-queried from the historical server. The refresh will have no effect on live (DA) data.

The **Area** parameter determines whether the entire control is refreshed or just the current view (chart).

Save Configuration

The Save Configuration command will save the TrendWorX64 Viewer configuration to the specified **FileName**. When **Overwrite** is True, an existing file with the specified name will be overwritten.

> **NOTE:** No message will be shown if the specified file already exists and Overwrite is set to False. The save action will simply not do anything in that case.

> **NOTE:** The Save Configuration command is not supported in Silverlight, Windows RT, or Windows Phone environments.

Select Element

The Select Element command allows you to change the tab or select a grid of the TrendWorX64 Viewer. **Element** specifies the whether you are selecting a tab or grid. **ElementName** or **Index** are used to specify the particular tab or grid to be selected.

- **Element: Tab** – Activates the specified tab.
- **Element**: **View** – Activates the specified chart. This command is most useful if you have more than one chart object within a TrendWorX64 Viewer tab. The selected chart will receive any subsequent commands.
- **Element: Row** or **Element**: **Object** – These Element options are not applicable to the TrendWorX64 Viewer.

Set Freeze Mode

This command freezes or unfreezes the TrendWorX64 Viewer.

- **Action: Freeze** – Puts the viewer into freeze mode.
- **Action: Unfreeze** – Takes the viewer out of freeze mode.
- **Action: Toggle** – If the viewer is frozen, unfreeze it. If it's unfrozen, freeze it.

Set Period

The Set Period command sets the trend period of the TrendWorX64 Viewer, per the **Period** parameter. This is the same setting as the Trend Period specified in configuration mode on the Chart object's "Time & Rate" tab.

Set Time Range

The Set Time Range command sets the trend period (like the "Set Period" command), but using a specific **StartTime** and **EndTime** rather than a time period.

Unlike Set Period, this command will automatically put the viewer into Freeze mode, if it is not already.

Set Visibility

The Set Visibility command allows you to hide or show pens in the TrendWorX64 Viewer. For a TrendWorX64 Viewer target, the **ObjectType** must be set to Pen. Column and Visual ObjectTypes do not apply to the TrendWorX64 Viewer.

ObjectName is the name of the pen whose visibility you want to change. If ObjectName is not specified, **Index** is used.

The **Visibility** property specifies whether you want the command to show the column, hide it, or toggle between hidden and shown.

Zoom

This command sets the zoom level of the viewer.

- **Action: Set** – Sets the zoom level as set with **Unit** and **Zoom**.
- **Action: Reset** – Resets to the default zoom level. Ignores other parameters.

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- **Unit: Percentage** – Zooms in or out to the given percentage value in the **Zoom** parameter.
- **Unit: Scale** – Zooms into the scale specified in the **Zoom** parameter (for example, Zoom of 2 zooms out to a level of twice the initial period, Zoom of 0.5 zooms in to half the initial period).
- **Unit: None** or **Unit: Level** – These Unit types are not applicable to the TrendWorX64 Viewer.

- **Axis: Time** – Only zoom on the time axis.
- **Axis: Value** – Only zoom on the value axis.
- **Axis: Both** – Zoom on both axes at the same time.