TrendChart Properties Example

Customize trend chart behavior.

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The TrendChart provides users with the ability to visualize data trends over time by manipulating various elements.

Summary

The TrendChart provides users with the ability to visualize data trends over time by manipulating various elements. Users can add or remove pens, annotate data points, manage grid visibility, and adjust time scaling options, all during runtime.

Technical Information

Key Features

Adding and Removing Pens:

Users can dynamically add pens representing different tags that act as variables in the software using the `AddPen(string tagName)` function. Pens can also be dynamically removed from the chart with the `RemovePens(object sender, System.Windows.Input.InputEventArgs e)` function.

Annotations:
Annotations can be added to the TrendChart for further clarification or notes on specific data points through the "Add Annotation" buttons, which in turn use the `SelectedAssetEvent(object sender, string level, string asset)` function.

Grid Management:
Users can toggle the visibility of a grid in the background of the chart by pressing the Grid button in the Plot Control section.

Zoom and Navigation:
The chart supports zooming in and out, allowing users to focus on specific data ranges. This is controlled by user interaction. Users can also change the time range plotted on the chart by using the + and - icons in the Plot Control section.

Alarm Management:
Users can turn alarms associated with the chart on or off using the `Client.TrendChart.DisableShowAlarms` object, which is controlled through the Alarm button in the Plot Control section.

Real-time vs. Paused Mode:
Users can switch between real-time data monitoring and a paused view using the `RealTimeChart(object sender, System.Windows.Input.InputEventArgs e)` function, present in the code-behind section of the TrendPage.

Y Scale Customization:
The Y scale can be customized through several options:

- **Combine**: Merges the scales of multiple pens using the `Combine(object sender, System.Windows.Input.InputEventArgs e)` function.
- **Auto**: Automatically adjusts the Y scale based on data values with the `SetAuto(object sender, System.Windows.Input.InputEventArgs e)` function.
- **Default**: Sets the Y scale to a fixed range using the `SetDefaultScale(object sender, System.Windows.Input.InputEventArgs e)` function.

Tag Groups Combo Box:
The combo box in the Tag Group section allows users to create, select, and load different tag groups easily, managed by the `ComboBoxSelectionChanged(object sender, EventArgs args)` function.

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