

HyperLynx PI PowerScope Automation

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Rev 1.6

PSApplication

Object representing HyperLynx PI PowerScope.

Set Scope = CreateObject("PowerScope.PSApplication")

Properties

Visible – PowerScope window visibility. Boolean.

Scope.Visible = true

Tabs – Collection of open tabs. Read-only. (See also: Collection, Tab).

Set Tabs = Scope.Tabs

ActiveTab – Object representing active tab. (See also: Tab).

Set Tab = Scope.ActiveTab

Viewer – Object representing 2D/3D view. Read-only. (See also: View).

Set View = Scope.Viewer

Units – Measurement system units. Can be one of following values:

unitsMetric – Metric units

unitsEnglish – English units

Scope.Units = unitsMetric

Methods

LoadGraph FilePath Once – If parameter Once is true, PowerScope searches for a tab containing already loaded this .tps file and just activates it. If tab is not found or if parameter Once is false, PowerScope creates a new tab, activates it and loads tps. file into new tab. Returns TRUE in case of success, FALSE otherwise.

Scope.LoadGraph("C:\MentorGraphics\9.3HL\SDD_HOME\hyperlynx\HypFiles\vcc.tps", true)

RunModal – Switches PowerScope to modal mode.

Scope.RunModal()

Close – Closes PowerScope window.

Scope.Close()

BringToTop – Brings PowerScope window to top.

Scope.BringToTop()

Collection

Object representing set of similar items.

Properties

Count – Number of items in the collection. Read-only.

For I = 1 To Tabs.Count

Methods

Item Index – Returns object by index. Index is 1-based.

Set Tab = Tabs.Item(1)

Tab

Object representing PowerScope tab.

Properties

Name – Tab name. String.

Set Name = Tab.Name

Graphs – Collection graphs, displayed in this Tab. Read-only. (See also: Collection, Graph).

Set Graphs = Tab.Graphs

Methods

LoadGraph FilePath – Loads graphs from specified .tps file and append them to this Tab. Returns TRUE in case of success, FALSE otherwise.

Tab.LoadGraph("C:\MentorGraphics\9.3HL\SDD_HOME\hyperlynx\HypFiles\vcc.tps")

Save FilePath – Saves all visible graphs to specified .tps file. Returns TRUE in case of success, FALSE otherwise.

Tab.Save("C:\MentorGraphics\9.3HL\SDD_HOME\hyperlynx\HypFiles\vcc.tps")

ShowGraph Name Show – Shows/hides graphs by name. Name can contain wildcards * and ?.

Tab.ShowGraph("", true)

Close – Closes tab.

Scope.ActiveTab.Close()

Graph

Object representing graph object . It represents Layer object for DC Drop analysis or TP Plane for Plane-Noise simulation.

Properties

Name – Graph name. String. Read-only.

Set Name = Graph.Name

Visible – Graph visibility. Boolean.

If Graph.Visible Then

View

Object representing 2D/3D window.

Properties

TopViewMode – 2D Top View mode. Boolean.

Viewer.TopViewMode = true

NavigationMode – Navigation mode. Can be one of following values:

navigationTurn – Turn navigation mode

navigationPan – Pan navigation mode

navigationZoom – Zoom navigation mode

navigationInspect – Inspect navigation mode

Viewer.NavigationMode = navigationPan

RenderingMode – Graph surface rendering mode. Can be one of following values:

renderSolid – render surfaces with solid fill

renderSolidWireframe – render mesh wireframe over solid fill

renderWireframe – render mesh wireframe without hiding invisible surface parts

renderWireframeHideInvisible – render mesh wireframe with hiding invisible surface parts

Viewer.RenderingMode = renderSolid

GraphType – Switches graph type to show. Can be one of following values:

graphPlaneNoiseVoltage – Available only if PSApplication.Mode is modePlaneNoise.

graphPlaneNoiseSurfaceAndCapacitorCurrents – Available only if PSApplication.Mode is modePlaneNoise.

graphPlaneNoiseSurfaceCurrent – Available only if PSApplication.Mode is modePlaneNoise.

graphDCDropVoltage – Available only if PSApplication.Mode is modeDCDrop.

graphDCDropCurrentDistribution – Available only if PSApplication.Mode is modeDCDrop.

graphDCDropCurrentDensity – Available only if PSApplication.Mode is modeDCDrop.

Viewer.GraphType = graphDCDropVoltage

IsGraphTypeAvailable Type – Available graph types depend on the current PowerScope mode. This method returns TRUE, if given graph type can be displayed in current mode. Full list of graph types is listed in the description of View.GraphType property. (See also: PSApplication.Mode, View.GraphType).

If Viewer.IsGraphTypeAvailable(graphDCDropVoltage) Then Viewer.GraphType = graphDCDropVoltage

Span – Quantity of measurement units corresponding to the full scale (please see legend in the lower left corner of PowerScope).

*Viewer.Span = 2 * Viewer.Span*

Origin – Lower value on PowerScope scale (please see legend in the lower left corner of PowerScope).

Viewer.Origin = 1000

AutoSpanAndOrigin – Mode to adjust Span and Origin values automatically. Boolean.

Viewer.AutoSpanAndOrigin = true

Methods

Copy – Copies view snapshot to the clipboard. Returns TRUE in case of success, FALSE otherwise.

Viewer.Copy()

FitToView – Fits currently rendered graphs to viewport.

Viewer.FitToView()

FitToRect X0 Y0 X1 Y1 – Fits specified rectangular area to viewport.

Viewer.FitToRect(0,0,5,5)

FixBalloon X Y – Fix balloon at specified point (in Inspect mode).

Viewer.FixBalloon(3, 3)

SaveSnapshot filePath imageFormat imageWigth imageHeight – Saves snapshot image to file. Image width and height are optional parameters, by default viewer 3D window size is used. The following image formats are supported:

imageBMP –Windows/Linux

imagePNG –Windows only

imageJPEG –Windows only

imageGIF –Windows only

Viewer.SaveSnapshot("snapshot.png", imagePNG, 640, 480)