

# Interface Definition of the NETRONIC Visual Scheduling Widget – Standard Edition (VSW SE)

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Valid for the VSW SE as of version 8.2.0

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## 1 Object Model

The object model of the Visual Scheduling Widget Base is designed for resource planning in general, but is extended to cover presentations of all views, activities view, resources view, skilled resources view, and loads view.

The model is extensible on any JavaScript object. There are no special constructor functions for creating objects of a specific VSW Base type. Hence, the objects can be easily created with or without using the *new* keyword. The objects must provide the properties required by the corresponding VSW type and optionally those that are to deviate from the default values.

In this document you will find some UML diagrams that illustrate briefly the relationships between the object type currently under consideration and the associated ones. **Only those object properties are listed that are essential for understanding the concept of this data model.** The **dark blue shaped types** in these diagrams are the ones that can be processed with the methods *add...*, *update...* and *remove...* of the widget. To do this, they explicitly provide identifiers in the form of the ID property. In contrast, the **light blue types** include dependent objects without their own identifiers.

A compact description of the model can be found in the document "A Model for Resource Planning HTML5 Gantt Charts" delivered with this product (please see the file *ResourcePlanningModel.pdf*).

### **A note on the order in which you should add and remove objects in order to achieve a high-performance application:**

The decisive factor here is the object type. The following sequence of types should be followed when adding objects:

- Symbols
- DateLines
- TooltipTemplates
- TableRowDefinitions
- Calendars
- PeriodHighlighters
- Curves
- Skills
- Resources
- Activities
- Allocations
- Links
- Entities
- HierarchySupplementaryDefinitions

When removing objects, please proceed in the reverse order.

### **A note on using object references in *add*, *update*, and *remove* methods:**

Internally, object references are preserved by their ID property values. Therefore, you can or even should use new object references when updating an object. Internally the object reference for an existing ID then is updated. When a callback is triggered, object references within the callback arguments are the same as the last given reference on an *add* or *update* method. When using one of the *remove* methods with object references, these will be reduced to their ID property values, so it is not important to handle over the same object reference as in the last *add* or *update* method.

### **A note on the old "PM\_" prefix of the object properties:**

The old "PM\_" prefix has been removed from the object properties for simplicity. However, there is no need to change existing code as the old notation of the properties will continue to be supported.

**For notes on using dates in properties and on using CSS custom properties for coloring**, please see DateAsString or ColorAsString in the chapter "Data Types".

## 2 Object Types

### 2.1 Activity

UML Diagram	<pre> classDiagram     class Activity {         +Start         +End         +ParentID         +Entries         +BaselineStart         +BaselineEnd         +DueDate         +ReleaseDate         +EarliestStart         +LatestStart         +EarliestEnd         +LatestEnd         +Progress         +PredictedEnd     }     class ActivityEntry {         +Start         +End     }     Activity "0..*" *-- ActivityEntry     Activity --&gt; Activity : parent   </pre>
Explanation	An Activity object defines the properties of a single activity.
Members	<a href="#">AllocationRowsCollapseState</a> <a href="#">AllocationRowsCollapsible</a> <a href="#">AllowedBarDragModes</a> <a href="#">AllowedRowDragModes</a> <a href="#">BarDesign</a> <a href="#">BarHeight</a> <a href="#">BarOpacity</a> <a href="#">BarPatternColor</a> <a href="#">BarPatternType</a> <a href="#">BarSelectable</a> <a href="#">BarShape</a> <a href="#">BarShapeSymbolID</a> <a href="#">BarShapeSymbolWidth</a> <a href="#">BarText</a> <a href="#">BarTextColor</a> <a href="#">BarTextFormat</a> <a href="#">BarTextPrefixSymbolHeight</a> <a href="#">BarTextPrefixSymbolID</a> <a href="#">BarTextPrefixSymbolWidth</a> <a href="#">BarTextWrapMode</a> <a href="#">BarTooltipTemplateID</a> <a href="#">BarTopOffset</a> <a href="#">BaselineBorderColor</a> <a href="#">BaselineColor</a> <a href="#">BaselineEnd</a> <a href="#">BaselineNonworkingTimeColor</a> <a href="#">BaselineStart</a> <a href="#">BorderColor</a> <a href="#">BorderDashArray</a> <a href="#">CalendarGridColor</a>

<a href="#">CalendarGridID</a>
<a href="#">CalendarID</a>
<a href="#">CollapsedRowDesign</a>
<a href="#">CollapseState</a>
<a href="#">Color</a>
<a href="#">CurveCollapseState</a>
<a href="#">DueDate</a>
<a href="#">DueDateAllowedDragModes</a>
<a href="#">DueDateColor</a>
<a href="#">DueDateSymbolHeight</a>
<a href="#">DueDateSymbolID</a>
<a href="#">DueDateSymbolWidth</a>
<a href="#">EarliestDragStart</a>
<a href="#">EarliestEnd</a>
<a href="#">EarliestEndColor</a>
<a href="#">EarliestStart</a>
<a href="#">EarliestStartColor</a>
<a href="#">Editable</a>
<a href="#">End</a>
<a href="#">Entries</a>
<a href="#">ExpandedRowDesign</a>
<a href="#">HasAllocationRows</a>
<a href="#">HasChildren</a>
<a href="#">ID</a>
<a href="#">LatestDragEnd</a>
<a href="#">LatestEnd</a>
<a href="#">LatestEndColor</a>
<a href="#">LatestStart</a>
<a href="#">LatestStartColor</a>
<a href="#">LeftBarSymbolHeight</a>
<a href="#">LeftBarSymbolID</a>
<a href="#">LeftBarSymbolWidth</a>
<a href="#">LinkSourceDate</a>
<a href="#">LinkTargetDate</a>
<a href="#">MinimumRowHeight</a>
<a href="#">MustEndOn</a>
<a href="#">MustEndOnColor</a>
<a href="#">MustStartOn</a>
<a href="#">MustStartOnColor</a>
<a href="#">NonworkingTimeColor</a>
<a href="#">ParentID</a>
<a href="#">PeriodHighlighterID</a>
<a href="#">PredictedEnd</a>
<a href="#">PredictedEndColor</a>
<a href="#">Progress</a>
<a href="#">ProgressBackgroundColor</a>
<a href="#">ProgressColor</a>
<a href="#">ProgressNonworkingTimeColor</a>
<a href="#">ReleaseDate</a>
<a href="#">ReleaseDateAllowedDragModes</a>

	<a href="#">ReleaseDateColor</a> <a href="#">ReleaseDateSymbolHeight</a> <a href="#">ReleaseDateSymbolID</a> <a href="#">ReleaseDateSymbolWidth</a> <a href="#">RightBarSymbolHeight</a> <a href="#">RightBarSymbolID</a> <a href="#">RightBarSymbolWidth</a> <a href="#">RowCollapsible</a> <a href="#">RowSelectable</a> <a href="#">RowSymbolColumnBackgroundColor</a> <a href="#">RowSymbolIDs</a> <a href="#">RowTooltipTemplateID</a> <a href="#">SnapTargetsForEnd</a> <a href="#">SnapTargetsForStart</a> <a href="#">SortCode</a> <a href="#">Start</a> <a href="#">Status1Color</a> <a href="#">Status1Visible</a> <a href="#">Status2Color</a> <a href="#">Status2Visible</a> <a href="#">Status3Color</a> <a href="#">Status3Visible</a> <a href="#">Status4Color</a> <a href="#">Status4Visible</a> <a href="#">StatusFrameColor</a> <a href="#">StatusFrameVisible</a> <a href="#">TableColor</a> <a href="#">TableRowDefinitionID</a> <a href="#">TableText</a> <a href="#">TableTextColor</a> <a href="#">TextColor</a> <a href="#">TopLeftBarSymbolID</a> <a href="#">TopRightBarSymbolID</a> <a href="#">ViewArea</a>
See also	<a href="#">Method.addActivities</a> <a href="#">Method.updateActivities</a> <a href="#">Method.removeActivities</a>
Used by	<a href="#">Callback.visibilityFilterForActivities</a>

## AllocationRowsCollapseState

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">Enum.CollapseState</a>
Default	CollapseState.Unchanged
Explanation	Specifies whether the allocation rows below the activity row should be shown expanded or collapsed when displayed.
See also	<a href="#">Callback.onCollapseStateChanged</a> <a href="#">Option.allocationRowsVisibleInActivitiesView</a>

## AllocationRowsCollapsible

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">boolean</a>
Default	<a href="#">Option.defaultActivityAllocationRowsCollapsible</a>
Explanation	If set to true, then the row representing this activity row will be interactively collapsible when allocation rows exist. Otherwise no arrow symbol will be displayed.

## AllowedBarDragModes

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">Enum.BarDragModes</a>
Default	<a href="#">Option.defaultActivityAllowedBarDragModes</a>
Explanation	This property determines the allowed bar drag modes for this activity in the activities view (these can be overwritten using the callback canDrag).
See also	<a href="#">Callback.canDrag</a>

## AllowedRowDragModes

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">Enum.RowDragModes</a>
Default	<a href="#">Option.defaultActivityAllowedRowDragModes</a>
Explanation	This property determines the allowed row drag modes for this activity (these can be overwritten using the callback canDrag).
See also	<a href="#">Callback.canDrag</a>

## BarDesign

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">Enum.BarDesigns</a>
Default	<a href="#">Option.defaultActivityBarDesign</a>
Explanation	This property determines the default design for activity bars including or excluding entries, complex shape, symbols, status, constraints, baseline, progress, and text.

## BarHeight

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0 \dots \leq 1000$
Default	<a href="#">Option.defaultActivityBarHeight</a>
Explanation	Height of the bars in pixels.



	This property is useful, when more than one line of text is shown inside. Proposal: For one line take 22, for two lines 38, for three lines 54, and so on. When no progress bar is needed, then you can subtract 4 from the value.
See also	<a href="#">Activity.BarShapeSymbolID</a> <a href="#">Activity.BarText</a> <a href="#">Activity.BarTextFormat</a>
Used by	<a href="#">Activity.BarShapeSymbolWidth</a>

## BarOpacity

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">number</a>
Data Range	$\geq 0.0 \dots \leq 1.0$
Default	1.0
Explanation	Specifies the opacity of the entire activity bar (including the visualization of the progress bar, symbols, constraint dates, and baseline bar).

## BarPatternColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	"white"
Explanation	Color for the pattern when this is visible by using property BarPatternType.
See also	<a href="#">Activity.BarPatternType</a>

## BarPatternType

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">Enum.PatternType</a>
Default	PatternType.None
Explanation	If set, then a pattern is shown on top of the fill color and behind the text.
See also	<a href="#">Activity.BarPatternColor</a>

## BarSelectable

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">boolean</a>
Default	<a href="#">Option.defaultActivityBarSelectable</a>
Explanation	If set to true, then the bar representing this activity will be selectable.

## BarShape

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">Enum.ActivityBarShape</a>
Default	<a href="#">Option.defaultActivityBarShape</a>
Explanation	This option defines which shape should be used by default for the visualization activity bars.
See also	<a href="#">Activity.BarShapeSymbolID</a> <a href="#">Activity.BarText</a> <a href="#">Activity.Entries</a>

## BarShapeSymbolID

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	If the bar shape named Symbol is used, then the symbol defined here will be shown. The symbol will be resized to the height defined in property BarHeight and to the width defined in property BarShapeSymbolWidth.
See also	<a href="#">Activity.BarHeight</a> <a href="#">Activity.BarShape</a> <a href="#">Activity.BarShapeSymbolWidth</a> <a href="#">Symbol.ID</a>

## BarShapeSymbolWidth

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	<a href="#">Activity.BarHeight</a>
Explanation	Width of the symbol defined in property BarShapeSymbolID when the bar shape named Symbol is used. Unit is pixels at a zoom factor of 100%.
See also	<a href="#">Activity.BarShapeSymbolID</a>

## BarText

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">string</a>
Default	undefined
Explanation	Text to be displayed in the bar when Regular or Rectangle bar shape is selected. This property is overlaid by BarTextFormat. <b>Note:</b> Several immediately consecutive spaces are always combined into one space by the browsers. If the individual spaces are to be preserved, then each of them must be replaced by the Unicode character \u00A0.

See also	<a href="#">Activity.BarHeight</a> <a href="#">Activity.BarShape</a> <a href="#">Activity.BarTextFormat</a>
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## BarTextColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	"white"
Explanation	Color for the texts of the bar.
See also	<a href="#">Activity.Color</a>

## BarTextFormat

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">string</a>
Default	<a href="#">Option.defaultActivityBarTextFormat</a>
Explanation	<p>This property describes the format of the text of the bar. If not set, then the value of property BarText is displayed.</p> <p>This string contains the placeholders for object values surrounded by double curly braces <code>{{ }}</code>. For example, based on the following string a tooltip with a table containing three rows of key-value pairs is created, where the values are taken from the properties "name" and "firstName" of the referenced object:</p> <pre>{{name}}, {{firstName}}</pre> <p>As an escape, the use of three open curly braces <code>{{{</code> are displayed as <code>{{</code>.</p> <p>Additionally, the property name can be extended to contain the desired property type as in <code>{{Start:date}}</code>. At the moment only the types 'date' and 'number' are possible besides 'string' (other property types are converted automatically with <code>toString()</code>). The type 'date' converts date values by default using the same format as other dates in the timescale and at the dragging date line captions. You can add another colon followed by a format name, that is defined by the options <code>intlDateTimeFormatOptionsMap</code> or <code>intlNumberFormatOptionsMap</code>, resp.</p> <p>The referenced object is the object on which the tooltip will be shown. For period highlighter entries and allocation entries the referenced object is the main object and not the entry object.</p> <p>It is possible to access related objects by using the following keywords within the property accessor string: <code>&gt;Parent</code>, <code>&gt;Calendar</code>.</p> <p>It is also possible to access variables that are defined by the option <code>applicationVariablesMap</code> by using <code>?variableName</code>.</p>

	If the value reached is an object, you can then access a property value by using a prefixed dot: <code>.propertyName</code> and you can use <code>[...]</code> to access a property value, a map entry or an array entry. Within <code>[...]</code> you can use a literal like <code>5</code> or <code>A</code> (with or without quotes) or even curly braces <code>{{...}}</code> with the same rules as above.
See also	<a href="#">Activity.BarHeight</a> <a href="#">Activity.BarText</a> <a href="#">Option.applicationVariablesMap</a>

## BarTextPrefixSymbolHeight

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	12
Explanation	Height of the bar symbol before the text in pixels at a zoom factor of 100%. The height can be set bigger than the actual bar height and the symbol then will be shown above the bar shape.
See also	<a href="#">Activity.BarTextPrefixSymbolID</a> <a href="#">Activity.BarTextPrefixSymbolWidth</a>

## BarTextPrefixSymbolID

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of the symbol to be shown before the text inside of the activity bar. The symbol will be shown vertically centered inside the bar.
See also	<a href="#">Activity.BarTextPrefixSymbolHeight</a> <a href="#">Activity.BarTextPrefixSymbolWidth</a> <a href="#">Activity.LeftBarSymbolID</a> <a href="#">Symbol.ID</a>

## BarTextPrefixSymbolWidth

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	12
Explanation	Width of the bar symbol before the text in pixels at a zoom factor of 100%.
See also	<a href="#">Activity.BarTextPrefixSymbolHeight</a> <a href="#">Activity.BarTextPrefixSymbolID</a>

## BarTextWrapMode

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">Enum.TextWrapMode</a>
Default	TextWrapMode.None
Explanation	Specifies whether the text inside the bar is wrapped.

## BarTooltipTemplateID

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultActivityBarTooltipTemplateID</a>
Explanation	ID of a tooltip template. The template is used for tooltips that appear on the activity bars.

## BarTopOffset

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">PixelsAsNumber</a>
Default	0
Explanation	Offset of the bar in pixels relative to its upper side. A negative number will shift the bar upwards, a positive number will shift the bar downwards. It is taken into account in rows with multiple activity bars inside, e.g., in collapsed rows where the bars of the child rows are visible.

## BaselineBorderColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#808080"
Explanation	Color for the border of the baseline bar.

## BaselineColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#C8C8C8"
Explanation	Color for the working time periods of the baseline bar. The nonworking time periods of the bar will be colored with the same color as long as the property BaselineNonworkingTimeColor is undefined.
Used by	<a href="#">Activity.BaselineNonworkingTimeColor</a>

## BaselineEnd

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	Baseline end date of activity.
See also	<a href="#">Option.activityBaselineBarsVisible</a>

## BaselineNonworkingTimeColor

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">ColorAsString</a>   <a href="#">CalculatedColorAsString</a>
Default	<a href="#">Activity.BaselineColor</a>
Explanation	Color for the nonworking time periods of the baseline bar.  <b>Special value:</b> If set to "calculated", a color will be calculated using the color defined by the BaselineColor property.

## BaselineStart

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	Baseline start date of activity.
See also	<a href="#">Option.activityBaselineBarsVisible</a>

## BorderColor

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">ColorAsString</a>   <a href="#">CalculatedColorAsString</a>
Default	"gray"
Explanation	Color for the border of the bar. If set to "calculated", a color will be calculated using the color defined by the Color property. This can be useful in situations where two bars are positioned next to each other and a graphical indicator is needed to visually distinguish the two bars.
Used by	<a href="#">Allocation.BorderColor</a>

## BorderDashArray

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">DashArrayAsString</a>
Default	"none"

Explanation	Pattern of dashes and gaps for drawing the border line of bars.
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## CalendarGridColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.calendarGridColor</a>
Explanation	Specifies a color used to color the vertical stripes representing the nonworking times for the activity object inside the diagram. If allocation rows are visible the color is used for these rows, too.

## CalendarGridID

Object Type	<a href="#">Activity</a>
Deprecated	Use property <a href="#">Activity.PeriodHighlighterID</a> instead.

## CalendarID

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultCalendarID</a>
Explanation	Corresponding calendar.
See also	<a href="#">Activity.PeriodHighlighterID</a> <a href="#">Option.activityCalendarsEnabled</a>

## CollapsedRowDesign

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">Enum.RowDesigns</a>
Default	<a href="#">Option.defaultActivityCollapsedRowDesign</a>
Explanation	Specifies how the time area is filled when the row is collapsed and visible.
See also	<a href="#">Activity.BarBottomOutsideText</a> <a href="#">Activity.BarTopOutsideText</a>

## CollapseState

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">Enum.CollapseState</a>
Default	<code>CollapseState.Unchanged</code>
Explanation	Specifies whether the row of the activity should be expanded or collapsed when displayed.
See also	<a href="#">Callback.onCollapseStateChanged</a>

	<a href="#">HierarchySupplementaryDefinition.InitiallyCollapsed</a>
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## Color

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#646464"
Explanation	Color for the working time periods of the bar. The nonworking time periods of the bar will be colored with the same color as long as the property NonworkingTimeColor is undefined.
See also	<a href="#">Activity.BarTextColor</a> <a href="#">Activity.NonworkingTimeColor</a> <a href="#">ActivityEntry.NonworkingTimeColor</a>
Used by	<a href="#">Activity.NonworkingTimeColor</a> <a href="#">ActivityEntry.Color</a>

## CurveCollapseState

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">Enum.CollapseState</a>
Default	CollapseState.Unchanged
Explanation	Specifies whether the curves in a activity row should be expanded or collapsed when displayed (only applicable, when option curvePanelsVisibleInActivitiesView is set).
See also	<a href="#">Callback.onCurveCollapseStateChanged</a> <a href="#">Option.curvePanelsVisibleInActivitiesView</a>

## DueDate

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	Due date of the activity. As soon as a due date is specified, the built-in Diamond shape appears automatically. Another symbol can be selected via the ReleaseDateSymbolID property. The center of the symbol is aligned with the due date. If a connection line should be drawn between a due date and a release date, then activate option releaseDueDateConnectionsVisible.
See also	<a href="#">Option.releaseDueDateConnectionsVisible</a>

## DueDateAllowedDragModes

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">Enum.BarDragModes</a>



Default	BarDragModes.None
Explanation	Determines the allowed drag mode for the due date of this activity in the activities view (these can be overwritten using the callback canDrag). In this context only BarDragModes.None and BarDragModes.DragHorizontally are used.
See also	<a href="#">Callback.canDrag</a>

## DueDateColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	"black"
Explanation	Color for the due date symbol.

## DueDateSymbolHeight

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	12
Explanation	Height of the due date symbol in pixels at a zoom factor of 100%. Currently, the default symbol cannot be sized.
See also	<a href="#">Activity.DueDateSymbolID</a>

## DueDateSymbolID

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	internal diamond symbol
Explanation	Identifier of the symbol to be shown at the due date of the activity.
See also	<a href="#">Activity.DueDateSymbolHeight</a> <a href="#">Activity.DueDateSymbolWidth</a> <a href="#">Symbol.ID</a>

## DueDateSymbolWidth

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	12
Explanation	Width of the due date symbol in pixels at a zoom factor of 100%. Currently, the default symbol cannot be sized.
See also	<a href="#">Activity.DueDateSymbolID</a>

## EarliestDragStart

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	If set, then the time before the given date is grayed, when beginning to drag the activity bar. If the option <code>dragDatesLimitingInteraction</code> is set to true, then the bar itself cannot be dragged before the date.
See also	<a href="#">Option.dragDatesLimitingInteraction</a> <a href="#">Option.dragDatesShownForSingleSelectedObject</a>

## EarliestEnd

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	If defined, an additional symbol will be displayed to indicate this date.

## EarliestEndColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.defaultActivityConstraintSymbolColor</a>
Explanation	Color for the EarliestEnd constraint symbol.

## EarliestStart

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	If defined, an additional symbol will be displayed to indicate this date.

## EarliestStartColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.defaultActivityConstraintSymbolColor</a>
Explanation	Color for the EarliestStart constraint symbol.

## Editable

Object Type	<a href="#">Activity</a>
Deprecated	Use property <a href="#">Activity.AllowedBarDragModes</a> instead.

## End

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	End date of the activity.
See also	<a href="#">Activity.Start</a> <a href="#">Allocation.End</a>

## Entries

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ActivityEntry[]</a>
Default	undefined
Explanation	Array of activity entries. If used, then the entries will be shown as colored rectangles within the bar representation of the activity. Additionally, the property <code>BarShape</code> must be set to <code>Regular</code> or <code>Rectangle</code> .
See also	<a href="#">Activity.BarShape</a>

## ExpandedRowDesign

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">Enum.RowDesigns</a>
Default	<a href="#">Option.defaultActivityExpandedRowDesign</a>
Explanation	Specifies how the time area is filled when the row is expanded and visible.

## HasAllocationRows

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then the row representing this activity will be collapsible/expandable for allocation rows even when no allocations exist referencing this activity. This serves for lazy loading.

## HasChildren

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then the row representing this activity will be collapsible/expandable even when there are no children defined. This serves for lazy loading.

## ID

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	required
Explanation	Identifier of the activity.
See also	<a href="#">Allocation.ActivityID</a>

## LatestDragEnd

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	If set, then the time after the given date is grayed, when beginning to drag the activity bar. If the option <a href="#">dragDatesLimitingInteraction</a> is set to true, then the bar itself cannot be dragged after the date.
See also	<a href="#">Option.dragDatesLimitingInteraction</a> <a href="#">Option.dragDatesShownForSingleSelectedObject</a>

## LatestEnd

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	If defined, an additional symbol will be displayed to indicate this date.

## LatestEndColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.defaultActivityConstraintSymbolColor</a>
Explanation	Color for the LatestEnd constraint symbol.

## LatestStart

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	If defined, an additional symbol will be displayed to indicate this date.

## LatestStartColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.defaultActivityConstraintSymbolColor</a>
Explanation	Color for the LatestStart constraint symbol.

## LeftBarSymbolHeight

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	12
Explanation	Height of the left bar symbol in pixels at a zoom factor of 100%. The height can be set bigger than the actual bar height and the symbol then will be shown above the bar shape.
See also	<a href="#">Activity.LeftBarSymbolID</a>

## LeftBarSymbolID

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of the symbol to be shown at the left side of the activity bar. The symbol will be shown vertically centered inside the bar. It is drawn over any existing bar text. If BarTextPrefixSymbolID is used instead, the bar text starts after the symbol.
See also	<a href="#">Activity.BarTextPrefixSymbolID</a> <a href="#">Activity.LeftBarSymbolHeight</a> <a href="#">Activity.LeftBarSymbolWidth</a> <a href="#">Activity.RightBarSymbolID</a> <a href="#">Symbol.ID</a>

## LeftBarSymbolWidth

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">PixelsAsNumber</a>

Data Range	> 0
Default	12
Explanation	Width of the left bar symbol in pixels at a zoom factor of 100%.
See also	<a href="#">Activity.LeftBarSymbolID</a>

## LinkSourceDate

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	Additional date serving as an additional “start point” to connect a link.
See also	<a href="#">Link.RelationType</a>

## LinkTargetDate

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	Additional date serving as an additional “end point” to connect a link.
See also	<a href="#">Link.RelationType</a>

## MinimumRowHeight

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	<a href="#">Option.defaultActivityMinimumRowHeight</a>
Explanation	<p>Minimum height of the activity row in pixels. This property is useful when more than one line of text is shown inside the table cells. Proposal: For one line take 36, for two lines 52, for three lines 68, and so on. To have the same height also, when no bar is placed in the row, take the maximum bar height adding 20 (e.g. 42) as minimum.</p> <p>For using word wrapping in table cells, it is necessary to use a table row definition by setting the property <code>TableRowDefinitionID</code> and setting the property <code>WrapMode</code> in a contained table cell definition.</p>
See also	<a href="#">Activity.TableRowDefinitionID</a> <a href="#">TableCellDefinition.WrapMode</a>

## MustEndOn

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	null

Explanation	If a date is specified, an additional symbol will be displayed to indicate this date.
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## MustEndOnColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.defaultActivityConstraintSymbolColor</a>
Explanation	Color for the MustEndOn constraint symbol.

## MustStartOn

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	null
Explanation	If a date is specified, an additional symbol is displayed to indicate this date.

## MustStartOnColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.defaultActivityConstraintSymbolColor</a>
Explanation	Color for the MustStartOn constraint symbol.

## NonworkingTimeColor

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">ColorAsString</a>   <a href="#">CalculatedColorAsString</a>
Default	<a href="#">Activity.Color</a>
Explanation	Color for the nonworking time periods of the bar. If set to "calculated", a color will be calculated using the color defined by the Color property.
See also	<a href="#">Activity.Color</a> <a href="#">ActivityEntry.Color</a>
Used by	<a href="#">ActivityEntry.NonworkingTimeColor</a>

## ParentID

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of the parent of the activity. This serves for setting up a hierarchy of activities.

	<p>If this property is undefined the current activity will be considered as a root node of the activity hierarchy. When the ID is not known then the object will not be visible including its subtree! This will change when an object with the ID is added later and vice versa.</p> <p>We recommend using only a low number of hierarchy levels and we do not guarantee correct function beyond approx. 100 levels including hierarchy levels created by using HierarchySupplementaryDefinitions.</p>
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## PeriodHighlighterID

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Reference to a period highlighter object that contains colored time periods. This can be used to show shifts or exceptions to the that defines work and non-work times.
See also	<a href="#">Activity.CalendarID</a> <a href="#">ObjectType.PeriodHighlighter</a>

## PredictedEnd

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	A date that indicates the predicted end of the activity. This date is used to display a bar between this date and the end of the activity.

## PredictedEndColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#646464"
Explanation	Color for the predicted end bar.

## Progress

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">number</a>
Data Range	0.0 and 100.0
Default	0.0
Unit	Percent
Explanation	Used to display a completion layer.



## ProgressBackgroundColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.defaultActivityProgressBackgroundColor</a>
Explanation	Color for the background of the progress bar region.

## ProgressColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#646464"
Explanation	Color for the working time periods of the progress bar. The nonworking time periods of the bar will be colored with the same color as long as the property ProgressNonworkingTimeColor is undefined.
See also	<a href="#">Activity.ProgressNonworkingTimeColor</a>
Used by	<a href="#">Allocation.ProgressNonworkingTimeColor</a>

## ProgressNonworkingTimeColor

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">ColorAsString</a>   <a href="#">CalculatedColorAsString</a>
Default	undefined
Explanation	Color for the nonworking time periods of the progress bar.  <b>Special value:</b> If set to "calculated", a color will be calculated using the color defined by the ProgressColor property.
See also	<a href="#">Activity.ProgressColor</a>

## ReleaseDate

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	Release date of the activity. As soon as a release date is specified, the built-in Diamond shape appears automatically. Another symbol can be selected via the ReleaseDateSymbolID property. The center of the symbol is aligned with the release date. If a connection line should be drawn between a due date and a release date, then activate option releaseDueDateConnectionsVisible.
See also	<a href="#">Activity.ReleaseDateSymbolID</a> <a href="#">Option.releaseDueDateConnectionsVisible</a>

## ReleaseDateAllowedDragModes

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">Enum.BarDragModes</a>
Default	BarDragModes.None
Explanation	Determines the allowed drag mode for the release date of this activity in the activities view (these can be overwritten using the callback canDrag). In this context, only BarDragModes.None and BarDragModes.DragHorizontally are used.
See also	<a href="#">Callback.canDrag</a>

## ReleaseDateColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	"black"
Explanation	Color for the release date symbol.

## ReleaseDateSymbolHeight

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	12
Explanation	Height of the release date symbol in pixels at a zoom factor of 100%. Currently, the default symbol height cannot be adjusted.
See also	<a href="#">Activity.ReleaseDateSymbolID</a>

## ReleaseDateSymbolID

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	internal diamond symbol
Explanation	Identifier of the symbol to be shown at the release date of the activity.
See also	<a href="#">Activity.ReleaseDate</a> <a href="#">Activity.ReleaseDateSymbolHeight</a> <a href="#">Activity.ReleaseDateSymbolWidth</a> <a href="#">Symbol.ID</a>

## ReleaseDateSymbolWidth

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">PixelsAsNumber</a>

Data Range	> 0
Default	12
Explanation	Width of the release date symbol in pixels at a zoom factor of 100%. Currently, the default symbol width cannot be adjusted.
See also	<a href="#">Activity.ReleaseDateSymbolID</a>

## RightBarSymbolHeight

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	12
Explanation	Height of the release date symbol in pixels at a zoom factor of 100%. The height can be set bigger than the actual bar height and the symbol then will be shown above the bar shape.
See also	<a href="#">Activity.RightBarSymbolID</a>

## RightBarSymbolID

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of the symbol to be shown at the right side of the activity bar. The symbol will be shown vertically centered inside the bar. It is drawn over any existing bar text.
See also	<a href="#">Activity.LeftBarSymbolID</a> <a href="#">Activity.RightBarSymbolHeight</a> <a href="#">Activity.RightBarSymbolWidth</a> <a href="#">Symbol.ID</a>

## RightBarSymbolWidth

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	12
Explanation	Width of the right bar symbol in pixels at a zoom factor of 100%.
See also	<a href="#">Activity.RightBarSymbolID</a>

## RowCollapsible

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">boolean</a>

Default	<a href="#">Option.defaultActivityRowCollapsible</a>
Explanation	If set to true, then the row representing this activity will be interactively collapsible when children exist.

## RowSelectable

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">boolean</a>
Default	<a href="#">Option.defaultActivityRowSelectable</a>
Explanation	If set to true, then the row representing this activity will be selectable.

## RowSymbolColumnBackgroundColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">TableRowDefinition.SymbolColumnBackgroundColor</a>   <a href="#">Option.symbolColumnBackgroundColor</a>
Explanation	Determines the color of the symbol column within this table row.

## RowSymbolIDs

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">IdentifierAsString[]</a>
Default	undefined
Explanation	<p>Array of identifiers of the symbols to be shown in the table symbol cell of the beginning of the table row.</p> <p>The symbols will be arranged one below the other. However, if the cell is not high enough to hold all symbols, then the remaining symbols are also arranged side-by-side. If this still does not fit, an additional “show more” symbol will be displayed.</p> <p>An empty string (“”) will cause an “empty” symbol to be displayed. By this placeholder, you can reserve space for a symbol that may be shown at a later time.</p> <p><b>Note:</b> Each symbol will be resized to an image with a width and height of 16 pixels each at a zoom level of 100%.</p>
See also	<a href="#">Symbol.ID</a>

## RowTooltipTemplateID

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultActivityRowTooltipTemplateID</a>
Explanation	<p>ID of a tooltip template.</p> <p>The template is used for tooltips that appear on the activity table rows.</p>

## SnapTargetsForEnd

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">Enum.SnapTargets</a>
Default	<a href="#">Option.defaultActivitySnapTargetsForEnd</a>
Explanation	When dragging horizontally, then the visible end date of this allocation will optionally be snapping to date lines and calendar grids. The user can override an active snapping by pressing the ALT key while dragging.
See also	<a href="#">Option.maximumSnapDistance</a>

## SnapTargetsForStart

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">Enum.SnapTargets</a>
Default	<a href="#">Option.defaultActivitySnapTargetsForStart</a>
Explanation	When dragging horizontally, then the visible start date of this activity will optionally be snapping to date lines and calendar grids. The user can override an active snapping by pressing the ALT key while dragging.
See also	<a href="#">Option.maximumSnapDistance</a>

## SortCode

Object Type	<a href="#">Activity</a>
Data Types	<a href="#">number</a>   <a href="#">string</a>   <a href="#">Date</a>
Default	undefined
Explanation	If set, then the value will be used when sorting activity rows. The value type can be anyone that can be compared using JavaScript.
See also	<a href="#">Option.activityRowSortCodePropertyName</a> <a href="#">Option.activityRowSortMode</a>

## Start


Object Type	<a href="#">Activity</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	Start date of the activity.
See also	<a href="#">Activity.End</a> <a href="#">Allocation.Start</a>

## Status1Color

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>

Default	undefined
Explanation	Color for the status symbol to the right of the bar. If undefined, no symbol appears. Only visible, when property Status1Visible is true.
See also	<a href="#">Activity.Status1Visible</a>


## Status1Visible

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true and the corresponding status color is set in property Status1Color, then a predefined symbol is displayed to the right of the bar. 
See also	<a href="#">Activity.Status1Color</a>

## Status2Color

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	undefined
Explanation	Color for the status symbol to the right of the bar. If undefined, no symbol appears. Only visible, when property Status2Visible is true.
See also	<a href="#">Activity.Status2Visible</a>

## Status2Visible


Object Type	<a href="#">Activity</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true and the corresponding status color is set in property Status2Color, then a predefined symbol is displayed to the right of the bar. 
See also	<a href="#">Activity.Status2Color</a>

## Status3Color

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	undefined
Explanation	Color for the status symbol to the right of the bar. If undefined, no symbol appears. Only visible, when property Status3Visible is true.

See also	<a href="#">Activity.Status3Visible</a>
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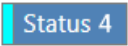
## Status3Visible

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true and the corresponding status color is set in property Status3Color, then a predefined symbol is displayed to the right of the bar. 
See also	<a href="#">Activity.Status3Color</a>

## Status4Color

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	undefined
Explanation	Color for the status symbol to the right of the bar. If undefined, no symbol appears. Only visible, when property Status4Visible is true.
See also	<a href="#">Activity.Status4Visible</a>

## Status4Visible

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true and the corresponding status color is set in property Status4Color, then a predefined symbol is displayed to the left of the bar. <b>Note:</b> This property may be used with rectangle bar shapes only! 
See also	<a href="#">Activity.Status4Color</a>

## StatusFrameColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.defaultActivityStatusFrameColor</a>
Explanation	Color for the status frame that will be shown when property StatusFrameVisible is set.
See also	<a href="#">Activity.StatusFrameVisible</a>

## StatusFrameVisible

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then a frame is shown around the bar.
See also	<a href="#">Activity.StatusFrameColor</a>

## TableColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	"gray"
Explanation	Color for the table row. The color gray depends on the level.

## TableRowDefinitionID

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultActivityTableRowDefinitionID</a>
Explanation	Identifier of a TableRowDefinition object that defines the composition of the table row.
See also	<a href="#">Activity.MinimumRowHeight</a> <a href="#">Activity.TableText</a> <a href="#">HierarchySupplementaryDefinition.TableRowDefinitionID</a>

## TableText

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">string</a>
Default	undefined
Explanation	Text to display in the table row. <b>Note:</b> Several immediately consecutive spaces are always combined into one space by the browsers. If the individual spaces are to be preserved, then each of them must be replaced by the Unicode character \u00A0.
See also	<a href="#">Activity.TableRowDefinitionID</a>

## TableTextColor

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">ColorAsString</a>
Default	"black"



Explanation	Color for the table row texts.
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## TextColor

Object Type	<a href="#">Activity</a>
Deprecated	Use property <a href="#">Activity.BarTextColor</a> instead.

## TopLeftBarSymbolID

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of the symbol to be shown at the top left side of the activity bar. It protrudes 5 pixels vertically into the bar shape. The symbol is scaled to a height of 12 pixels for a visual zoom factor of 100%.
See also	<a href="#">Symbol.ID</a>

## TopRightBarSymbolID

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of the symbol to be shown at the top right side of the activity bar. It protrudes 5 pixels vertically into the bar shape. The symbol is scaled to a height of 12 pixels for a visual zoom factor of 100%.
See also	<a href="#">Symbol.ID</a>

## ViewArea

Object Type	<a href="#">Activity</a>
Data Type	<a href="#">Enum.ViewArea</a>
Default	ViewArea.Main
Explanation	If set to Top, then the resource and its children are shown in a separate top view area in the resources view. Only settable on resource with no ParentID set.
See also	<a href="#">ObjectType.Link</a> <a href="#">Option.mainViewAreaVisibleInActivitiesView</a> <a href="#">Option.topViewAreaVisibleInActivitiesView</a>

## 2.2 ActivityEntry

Explanation	Objects of this type are only used within the array of the Entries property of Activity objects. Entries serve to split bars into several colored phases. The application hereby can mark several phases like a startup or runtime phase. By using the properties
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	RelativeTopOffset and Height it is additionally possible to show additional information in same manner as the progress that is provided by an activity bar by default.
Members	<a href="#">Color</a> <a href="#">End</a> <a href="#">Height</a> <a href="#">NonworkingTimeColor</a> <a href="#">PatternColor</a> <a href="#">PatternType</a> <a href="#">RelativeTopOffset</a> <a href="#">Start</a>
Used by	<a href="#">Callback.onClicked</a> <a href="#">Callback.onShowContextMenu</a> <a href="#">Callback.onShowTooltip</a>

## Color

Object Type	<a href="#">ActivityEntry</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Activity.Color</a>
Explanation	<p>Color for the working time periods of the bar.</p> <p>The nonworking time periods of the bar will be colored with the same color as long as the property NonworkingTimeColor of the appropriate activity is undefined.</p>
See also	<a href="#">Activity.NonworkingTimeColor</a>

## End

Object Type	<a href="#">ActivityEntry</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	End date of the activity entry. This date itself is not(!) part of the interval described by this entry. If not defined, then this entry will not be visible.

## Height

Object Type	<a href="#">ActivityEntry</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	0 ... 1000
Default	<a href="#">Option.defaultActivityBarHeight</a>
Explanation	Height of the activity entry.

## NonworkingTimeColor

Object Type	<a href="#">ActivityEntry</a>
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Data Types	<a href="#">ColorAsString</a>   <a href="#">CalculatedColorAsString</a>
Default	<a href="#">Activity.NonworkingTimeColor</a>
Explanation	<p>Color for the nonworking time periods of the bar.</p> <p>If undefined, the value of the corresponding activity will be used. If that one is also undefined, then the nonworking time periods of the bar will be colored with the same color as the working times.</p> <p>If set to "calculated", a color will be calculated using the color defined by the Color property.</p>
See also	<a href="#">Activity.Color</a>

## PatternColor

Object Type	<a href="#">ActivityEntry</a>
Data Type	<a href="#">ColorAsString</a>
Default	"white"
Explanation	Color for the pattern when this is visible by using property PatternType.
See also	<a href="#">ActivityEntry.PatternType</a>

## PatternType

Object Type	<a href="#">ActivityEntry</a>
Data Type	<a href="#">Enum.PatternType</a>
Default	PatternType.None
Explanation	If set, then a pattern is shown on top of the fill color and behind the text.
See also	<a href="#">ActivityEntry.PatternColor</a>

## RelativeTopOffset

Object Type	<a href="#">ActivityEntry</a>
Data Type	<a href="#">PixelsAsNumber</a>
Default	0
Explanation	Offset of the entry in pixels relative to the upper side of the corresponding activity bar. A positive number moves the entry down, a negative number moves it up.

## Start

Object Type	<a href="#">ActivityEntry</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	Start date of the activity entry. If not defined, then this entry will not be visible.

## 2.3 Allocation

UML Diagram	<pre> classDiagram     class Activity {         +Start         +End         +ParentID     }     class Allocation {         +ActivityID         +ResourceID         +Entries     }     class Resource {         +ParentID     }     class AllocationEntry {         +Start         +End     }     Activity "0..1" -- "0..*" Allocation     Allocation "0..*" -- "0..1" Resource     Allocation "0..*" *-- "0..*" AllocationEntry     Activity --&gt; Activity : parent     Resource --&gt; Resource : parent   </pre>
Explanation	<p>An allocation object defines an allocation of one activity to one resource. Objects of this type are only used within the array of the Entries property of Allocation objects.</p>
Members	<ul style="list-style-type: none"> <li><a href="#">ActivityID</a></li> <li><a href="#">AllowedBarDragModes</a></li> <li><a href="#">AllowedBarDragModesInActivitiesView</a></li> <li><a href="#">AllowedRowDragModes</a></li> <li><a href="#">AllowedRowDragModesInActivitiesView</a></li> <li><a href="#">BarDesign</a></li> <li><a href="#">BarHeight</a></li> <li><a href="#">BarOpacity</a></li> <li><a href="#">BarPatternColor</a></li> <li><a href="#">BarPatternType</a></li> <li><a href="#">BarSelectable</a></li> <li><a href="#">BarShape</a></li> <li><a href="#">BarShapeSymbolID</a></li> <li><a href="#">BarShapeSymbolWidth</a></li> <li><a href="#">BarText</a></li> <li><a href="#">BarTextColor</a></li> <li><a href="#">BarTextFormat</a></li> <li><a href="#">BarTextPrefixSymbolHeight</a></li> <li><a href="#">BarTextPrefixSymbolID</a></li> <li><a href="#">BarTextPrefixSymbolWidth</a></li> <li><a href="#">BarTextWrapMode</a></li> <li><a href="#">BarTooltipTemplateID</a></li> <li><a href="#">BarTopOffset</a></li> <li><a href="#">BorderColor</a></li> <li><a href="#">BorderDashArray</a></li> <li><a href="#">Color</a></li> <li><a href="#">EarliestDragStart</a></li> <li><a href="#">EarliestEnd</a></li> <li><a href="#">EarliestEndColor</a></li> <li><a href="#">EarliestStart</a></li> <li><a href="#">EarliestStartColor</a></li> <li><a href="#">End</a></li> <li><a href="#">EndIsSnapTarget</a></li> <li><a href="#">Entries</a></li> <li><a href="#">ID</a></li> </ul>

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<a href="#">LatestEnd</a>
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	<a href="#">SuitableResourceIDs</a> <a href="#">TableRowDefinitionID</a> <a href="#">TableText</a> <a href="#">TextColor</a> <a href="#">TopLeftBarSymbolID</a> <a href="#">TopRightBarSymbolID</a>
See also	<a href="#">Method.addAllocations</a> <a href="#">Method.updateAllocations</a> <a href="#">Method.removeAllocations</a>
Used by	<a href="#">Callback.visibilityFilterForAllocations</a>

## ActivityID

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of an activity.
See also	<a href="#">Activity.ID</a>

## AllowedBarDragModes

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">Enum.BarDragModes</a>
Default	<a href="#">Option.defaultAllocationAllowedBarDragModes</a>
Explanation	This property determines the allowed bar drag modes for this allocation in the resources view and in skilled resources view (these can be overwritten using the callback canDrag).
See also	<a href="#">Callback.canDrag</a>

## AllowedBarDragModesInActivitiesView

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">Enum.BarDragModes</a>
Default	<a href="#">Option.defaultAllocationAllowedBarDragModesInActivitiesView</a>
Explanation	This property determines the allowed bar drag modes for this allocation in the activities view (these can be overwritten using the callback canDrag).
See also	<a href="#">Callback.canDrag</a>

## AllowedRowDragModes

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">Enum.RowDragModes</a>
Default	<a href="#">Option.defaultAllocationAllowedRowDragModes</a>

Explanation	This property determines the allowed row drag modes for this allocation in resources view and in skilled resources view (these can be overwritten using the callback canDrag).
See also	<a href="#">Callback.canDrag</a>

## AllowedRowDragModesInActivitiesView

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">Enum.RowDragModes</a>
Default	<a href="#">Option.defaultAllocationAllowedRowDragModesInActivitiesView</a>
Explanation	This property determines the allowed row drag modes for this allocation in the activities view (these can be overwritten using the callback canDrag).
See also	<a href="#">Callback.canDrag</a>

## BarDesign

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">Enum.BarDesigns</a>
Default	<a href="#">Option.defaultAllocationBarDesign</a>
Explanation	This property determines the default design for allocation bars including or excluding entries, complex shape, symbols, status, constraints, progress, and text.
See also	<a href="#">Option.allocationBarDesignOfOtherActivity</a> <a href="#">Option.allocationBarDesignOfOtherSkill</a>

## BarHeight

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0 \dots \leq 1000$
Default	<a href="#">Option.defaultAllocationBarHeight</a>
Explanation	Height of the bars in pixels. This is useful, when more than one line of text is shown inside. Proposal: For one line take 22, for two lines 38, for three lines 54, and so on. When no progress bar is needed, then you can subtract 4 from the value.
See also	<a href="#">Allocation.BarShapeSymbolID</a> <a href="#">Allocation.BarText</a>

## BarOpacity

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">number</a>
Data Range	$\geq 0.0 \dots \leq 1.0$
Default	1.0

Explanation	Specifies the opacity of the entire activity bar (including the visualization of the progress bar, symbols, constraint dates, and baseline bar).
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## BarPatternColor

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">ColorAsString</a>
Default	"white"
Explanation	Color for the pattern when this is visible by using property BarPatternType.
See also	<a href="#">Allocation.BarPatternType</a>

## BarPatternType

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">Enum.PatternType</a>
Default	PatternType.None
Explanation	If set, then a pattern is shown on top of the fill color and behind the text.
See also	<a href="#">Allocation.BarPatternColor</a>

## BarSelectable

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">boolean</a>
Default	<a href="#">Option.defaultAllocationBarSelectable</a>
Explanation	If set to true, then the bar representing this allocation will be selectable.

## BarShape

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">Enum.AllocationBarShape</a>
Default	<a href="#">Option.defaultAllocationBarShape</a>
Explanation	This option defines which shape should be used by default for the visualization allocation bars.
See also	<a href="#">Allocation.BarShapeSymbolID</a> <a href="#">Allocation.BarText</a> <a href="#">Allocation.Entries</a>

## BarShapeSymbolID

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString</a>



Default	undefined
Explanation	If the bar shape named Symbol is used, then the symbol defined here will be shown. The symbol will be resized to the height defined in property BarHeight and to the width defined in property BarShapeSymbolWidth.
See also	<a href="#">Allocation.BarHeight</a> <a href="#">Allocation.BarShape</a> <a href="#">Allocation.BarShapeSymbolWidth</a> <a href="#">Symbol.ID</a>

## BarShapeSymbolWidth

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	12
Explanation	Width of the symbol defined in property BarShapeSymbolID when the bar shape named Symbol is used. Unit is pixels at a zoom factor of 100%.
See also	<a href="#">Allocation.BarShapeSymbolID</a>

## BarText

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">string</a>
Default	undefined
Explanation	Text to be displayed in the bar when Regular or Rectangle bar shape is selected. This property is overlaid by BarTextFormat. <b>Note:</b> Several immediately consecutive spaces are always combined into one space by the browsers. If the individual spaces are to be preserved, then each of them must be replaced by the Unicode character \u00A0.
See also	<a href="#">Allocation.BarHeight</a> <a href="#">Allocation.BarShape</a> <a href="#">Allocation.BarTextFormat</a>

## BarTextColor

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">ColorAsString</a>   <a href="#">CalculatedColorAsString</a>
Default	"white"
Explanation	Color for the texts of the bar.

## BarTextFormat

Object Type	<a href="#">Allocation</a>
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Data Type	<a href="#">string</a>
Default	<a href="#">Option.defaultAllocationBarTextFormat</a>
Explanation	<p>This property describes the format of the text of the bar. If not set, then the value of property BarText is displayed.</p> <p>This string contains the placeholders for object values surrounded by double curly braces <code>{{ }}</code>. For example, based on the following string a tooltip with a table containing three rows of key-value pairs is created, where the values are taken from the properties "name" and "firstName" of the referenced object:</p> <pre>{{name}}, {{firstName}}</pre> <p>As an escape, the use of three open curly braces <code>{{{</code> are displayed as <code>{{</code>.</p> <p>Additionally, the property name can be extended to contain the desired property type as in <code>{{Start:date}}</code>. At the moment only the types 'date' and 'number' are possible besides 'string' (other property types are converted automatically with <code>toString()</code>). The type 'date' converts date values by default using the same format as other dates in the timescale and at the dragging date line captions. You can add another colon followed by a format name, that is defined by the options <code>intlDateTimeFormatOptionsMap</code> or <code>intlNumberFormatOptionsMap</code>, resp.</p> <p>The referenced object is the object on which the tooltip will be shown. For period highlighter entries and allocation entries the referenced object is the main object and not the entry object.</p> <p>It is possible to access related objects by using the following keywords within the property accessor string:</p> <ul style="list-style-type: none"> <li>• On allocations: <code>&gt;Activity</code>, <code>&gt;Resource</code></li> <li>• On activities: <code>&gt;Parent</code>, <code>&gt;Calendar</code></li> <li>• On resources: <code>&gt;Parent</code>, <code>&gt;Calendar</code>, <code>&gt;LoadCurve</code>, <code>&gt;CapacityCurve</code></li> <li>• Additionally on resources in SkilledResources view: <code>&gt;Skill</code></li> </ul> <p>It is also possible to access variables that are defined by the option <code>applicationVariablesMap</code> by using <code>?variableName</code>.</p> <p>If the value reached is an object, you can then access a property value by using a prefixed dot: <code>.propertyName</code> and you can use <code>[...]</code> to access a property value, a map entry or an array entry. Within <code>[...]</code> you can use a literal like <code>5</code> or <code>A</code> (with or without quotes) or even curly braces <code>{{...}}</code> with the same rules as above.</p>
See also	<a href="#">Allocation.BarText</a> <a href="#">Option.applicationVariablesMap</a>

## BarTextPrefixSymbolHeight

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	12

Explanation	Height of the bar symbol before the text in pixels at a zoom factor of 100%. The height can be set bigger than the actual bar height and the symbol then will be shown above the bar shape.
See also	<a href="#">Allocation.BarTextPrefixSymbolID</a>

## BarTextPrefixSymbolID

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of the symbol to be shown before the text inside of the allocation bar. The symbol will be shown vertically centered inside the bar.
See also	<a href="#">Allocation.BarTextPrefixSymbolHeight</a> <a href="#">Allocation.BarTextPrefixSymbolWidth</a> <a href="#">Symbol.ID</a>

## BarTextPrefixSymbolWidth

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	12
Explanation	Width of the bar symbol before the text in pixels at a zoom factor of 100%.
See also	<a href="#">Allocation.BarTextPrefixSymbolID</a>

## BarTextWrapMode

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">Enum.TextWrapMode</a>
Default	TextWrapMode.None
Explanation	Specifies whether the text inside the bar is wrapped.

## BarTooltipTemplateID

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultAllocationBarTooltipTemplateID</a>
Explanation	ID of a tooltip template. The template is used for tooltips that appear on the allocation bars.
See also	<a href="#">Allocation.SkilledBarTooltipTemplateID</a> <a href="#">Allocation.SkilledRowTooltipTemplateID</a>

## BarTopOffset

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">PixelsAsNumber</a>
Default	0
Explanation	Offset of the bar in pixels relative to its upper side. A negative number will shift the bar upwards, a positive number will shift the bar downwards.

## BorderColor

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">ColorAsString</a>   <a href="#">CalculatedColorAsString</a>
Default	<a href="#">Activity.BorderColor</a>
Explanation	<p>Color for the border of the bar.</p> <p>If set to "calculated", a color will be calculated using the color defined by the Color property. This can be useful in situations where two bars are positioned next to each other and a graphical indicator is needed to visually distinguish the two bars.</p> <p>If the option <code>decouplingOfAllocationPropertiesFromActivities</code> is set to false, then the default value is the current value of property <code>BorderColor</code> of corresponding activity.</p>
See also	<a href="#">Option.decouplingOfAllocationPropertiesFromActivities</a>

## BorderDashArray

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">DashArrayAsString</a>
Default	"none"
Explanation	Pattern of dashes and gaps for drawing the border line of bars.

## Color

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#646464"
Explanation	<p>Fallback color for the entries of the bar, see property <code>Color</code> of <code>AllocationEntry</code> objects. See also property <code>NonworkingTimeColor</code> for the coloring of the nonworking times.</p> <p>If undefined, either the value of the <code>Color</code> property of the referenced activity - if such a reference exists or else the value "#646464" will be used.</p> <p>If the option <code>decouplingOfAllocationPropertiesFromActivities</code> is set to false, then the default value is the current value of property <code>Color</code> of the referenced activity.</p>
See also	<a href="#">Allocation.NonworkingTimeColor</a> <a href="#">AllocationEntry.Color</a> <a href="#">Option.decouplingOfAllocationPropertiesFromActivities</a>

Used by	<a href="#">AllocationEntry.Color</a>
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## EarliestDragStart

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	If set, then the time before the given date is grayed, when beginning to drag the allocation bar. If the option <a href="#">dragDatesLimitingInteraction</a> is set to true, then the bar itself cannot be dragged before the date.
See also	<a href="#">Option.dragDatesLimitingInteraction</a> <a href="#">Option.dragDatesShownForSingleSelectedObject</a>

## EarliestEnd

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	If defined, an additional symbol will be displayed to indicate this date.

## EarliestEndColor

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.defaultAllocationConstraintSymbolColor</a>
Explanation	Color for the EarliestEnd constraint symbol.

## EarliestStart

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	If defined, an additional symbol will be displayed to indicate this date.

## EarliestStartColor

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.defaultAllocationConstraintSymbolColor</a>
Explanation	Color for the EarliestStart constraint symbol.

## End

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	The latest end date of contained entries. If not existing, then @Activity.End
Explanation	End date of the allocation.
See also	<a href="#">Activity.End</a> <a href="#">Allocation.Start</a>

## EndIsSnapTarget

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	If set to true, then the visible end date of this allocation in the resources view is used as a snap target for a dragged bar.
See also	<a href="#">Allocation.SnapTargetsForEnd</a> <a href="#">Allocation.SnapTargetsForStart</a> <a href="#">Option.maximumSnapDistance</a>

## Entries

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">AllocationEntry[]</a>
Default	undefined
Explanation	Array of allocation entries If used, then the entries will be shown as colored rectangles within the bar representation of the allocation. Additionally, the property BarShape must be set to Regular or Rectangle.
See also	<a href="#">Allocation.BarShape</a>

## ID

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	required
Explanation	Identifier of the Allocation.

## LatestDragEnd

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined

Explanation	If set, then the time after the given date is grayed, when beginning to drag the allocation bar. If the option <code>dragDatesLimitingInteraction</code> is set to true, then the bar itself cannot be dragged after the date.
See also	<a href="#">Option.dragDatesLimitingInteraction</a> <a href="#">Option.dragDatesShownForSingleSelectedObject</a>

## LatestEnd

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	If defined, an additional symbol will be displayed to indicate this date.

## LatestEndColor

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.defaultAllocationConstraintSymbolColor</a>
Explanation	Color for the LatestEnd constraint symbol.

## LatestStart

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	If defined, an additional symbol will be displayed to indicate this date.

## LatestStartColor

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.defaultAllocationConstraintSymbolColor</a>
Explanation	Color for the LatestStart constraint symbol.

## LeftBarSymbolHeight

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	12

Explanation	Height of the left bar symbol in pixels at a zoom factor of 100%. The height can be set bigger than the actual bar height and the symbol then will be shown above the bar shape.
See also	<a href="#">Allocation.LeftBarSymbolID</a> <a href="#">Allocation.LeftBarSymbolWidth</a>

## LeftBarSymbolID

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of the symbol to be shown at the left side of the allocation bar. The symbol will be shown vertically centered inside the bar. It is drawn over any existing bar text.
See also	<a href="#">Allocation.LeftBarSymbolHeight</a> <a href="#">Allocation.LeftBarSymbolWidth</a> <a href="#">Allocation.RightBarSymbolID</a> <a href="#">Symbol.ID</a>

## LeftBarSymbolWidth

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	12
Explanation	Width of the left bar symbol in pixels at a zoom factor of 100%.
See also	<a href="#">Allocation.LeftBarSymbolHeight</a> <a href="#">Allocation.LeftBarSymbolID</a>

## LinkSourceDate

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	Additional date serving as an additional “start point” to connect a link.
See also	<a href="#">Link.RelationType</a>

## LinkTargetDate

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	Additional date serving as an additional “end point” to connect a link.
See also	<a href="#">Link.RelationType</a>



## MinimumRowHeight

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	<a href="#">Option.defaultAllocationMinimumRowHeight</a>
Explanation	<p>Minimum height of the activity row in pixels. This property is useful when more than one line of text is shown inside the table cells. Proposal: For one line take 36, for two lines 52, for three lines 68, and so on. To have the same height even if no bar is placed in the row, take the maximum bar height adding 20 (e.g. 42) as the minimum.</p> <p>For using word wrapping in table cells, it is necessary to use a table row definition by setting the property <code>TableRowDefinitionID</code> and setting the property <code>TextWrapMode</code> in a contained <code>TableCellDefinition</code>.</p>
See also	<a href="#">TableCellDefinition.WrapMode</a> <a href="#">TableRowDefinition.ID</a>

## MustEndOn

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	If defined, an additional symbol will be displayed to indicate this date.

## MustEndOnColor

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.defaultAllocationConstraintSymbolColor</a>
Explanation	Color for the <code>MustEndOn</code> constraint symbol.

## MustStartOn

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	If defined, an additional symbol will be displayed to indicate this date.

## MustStartOnColor

Object Type	<a href="#">Allocation</a>
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Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.defaultAllocationConstraintSymbolColor</a>
Explanation	Color for the MustStartOn constraint symbol.

## NonworkingTimeColor

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">ColorAsString</a>   <a href="#">CalculatedColorAsString</a>
Default	"#646464"
Explanation	Color for the nonworking time periods of the bar. If set to "calculated", a color will be calculated using the color defined by the Color property. If undefined, nonworking times are colored like working times (taking the value of property Color).
See also	<a href="#">Allocation.Color</a>

## PredictedEnd

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	A date that indicates the predicted end of the activity. This date is used to display a bar between this date and the end of the allocation.
See also	<a href="#">Option.mainViewAreaVisibleInActivitiesView</a> <a href="#">Option.topViewAreaVisibleInActivitiesView</a>

## PredictedEndColor

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#646464"
Explanation	Color for the predicted end bar.

## Progress

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">number</a>
Data Range	$\geq 0.0$ and $\leq 100.0$
Default	0.0
Unit	Percent
Explanation	Used to display a completion layer.

	If the option <code>decouplingOfAllocationPropertiesFromActivities</code> is set to false, then the default value is the current value the property of same name in the reference activity.
See also	<a href="#">Option.decouplingOfAllocationPropertiesFromActivities</a>

## ProgressBackgroundColor

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.defaultAllocationProgressBackgroundColor</a>
Explanation	Color for the background of the progress bar region.

## ProgressColor

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#646464"
Explanation	Color for the working time periods of the progress bar. If the option <code>decouplingOfAllocationPropertiesFromActivities</code> is set to false, then the default value is the current value the property of same name in the reference activity.
See also	<a href="#">Allocation.ProgressNonworkingTimeColor</a> <a href="#">Option.decouplingOfAllocationPropertiesFromActivities</a>

## ProgressNonworkingTimeColor

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">ColorAsString</a>   <a href="#">CalculatedColorAsString</a>
Default	<a href="#">Activity.ProgressColor</a>
Explanation	Color for the nonworking time periods of the progress bar. If the option <code>decouplingOfAllocationPropertiesFromActivities</code> is set to false, then the default value is the current value the property of same name in the reference activity.
See also	<a href="#">Allocation.ProgressColor</a> <a href="#">Option.decouplingOfAllocationPropertiesFromActivities</a>

## ResourceID

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of a resource.
See also	<a href="#">Resource.ID</a>

## RightBarSymbolHeight

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	12
Explanation	Height of the release date symbol in pixels at a zoom factor of 100%. The height can be set bigger than the actual bar height and the symbol then will be shown above the bar shape.
See also	<a href="#">Allocation.RightBarSymbolID</a>

## RightBarSymbolID

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of the symbol to be shown at the right side of the allocation bar. The symbol will be shown vertically centered inside the bar. It is drawn over any existing bar text.
See also	<a href="#">Allocation.LeftBarSymbolID</a> <a href="#">Allocation.RightBarSymbolHeight</a> <a href="#">Allocation.RightBarSymbolWidth</a> <a href="#">Symbol.ID</a>

## RightBarSymbolWidth

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	12
Explanation	Width of the right bar symbol in pixels at a zoom factor of 100%.
See also	<a href="#">Allocation.RightBarSymbolID</a>

## RowDesign

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">Enum.RowDesigns</a>
Default	<a href="#">Option.defaultAllocationRowDesign</a>
Explanation	Specifies how the time area is filled when the row is visible.

## RowSelectable

Object Type	<a href="#">Allocation</a>
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Data Type	<a href="#">boolean</a>
Default	<a href="#">Option.defaultAllocationRowSelectable</a>
Explanation	If set to true, then the row representing this allocation will be selectable.

## RowSymbolColumnBackgroundColor

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">TableRowDefinition.SymbolColumnBackgroundColor</a>   <a href="#">Option.symbolColumnBackgroundColor</a>
Explanation	Determines the color of the symbol column within this table row.

## RowSymbolIDs

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString[]</a>
Default	undefined
Explanation	<p>Array of identifiers of the symbols to be shown in the table symbol cell of the beginning of the table row.</p> <p>The symbols will be arranged one below the other. However, if the cell is not high enough to hold all symbols, then the remaining symbols are also arranged side-by-side. If this still does not fit, an additional “show more” symbol will be displayed.</p> <p>An empty string (“”) will cause an “empty” symbol to be displayed. By this placeholder, you can reserve space for a symbol that may be shown at a later time.</p> <p><b>Note:</b> Each symbol will be resized to an image with a width and height of 16 pixels each at a zoom level of 100%.</p>
See also	<a href="#">Symbol.ID</a>

## RowTooltipTemplateID

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultAllocationRowTooltipTemplateID</a>
Explanation	<p>ID of a tooltip template.</p> <p>The template is used for tooltips that appear on the allocation table rows.</p>

## SkilledBarTooltipTemplateID

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultAllocationRowTooltipTemplateID</a>
Explanation	ID of a tooltip template.

	The template is used for tooltips that appear on the allocation bars in skilled resources view. It fallbacks to evaluation of the property BarTooltipTemplateID if not set.
See also	<a href="#">Allocation.BarTooltipTemplateID</a>

## SkilledRowTooltipTemplateID

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultAllocationRowTooltipTemplateID</a>
Explanation	ID of a tooltip template. The template is used for tooltips that appear on the allocation table rows. It fallbacks to evaluation of the property RowTooltipTemplateID if not set.
See also	<a href="#">Allocation.BarTooltipTemplateID</a>

## SkillID

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	When set to a valid ID of a Skill object, this influences the appearance of the bar within the resource rows in the skilled resources view.

## SnapTargetsForEnd

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">Enum.SnapTargets</a>
Default	<a href="#">Option.defaultAllocationSnapTargetsForEnd</a>
Explanation	When dragging horizontally, then the visible end date of this allocation will optionally be snapping to date lines, calendar grids, and start or end dates of other allocations in same row, when dragging lets these dates get near the end date. The user can override an active snapping by pressing the ALT key while dragging.
See also	<a href="#">Allocation.EndIsSnapTarget</a> <a href="#">Allocation.StartIsSnapTarget</a> <a href="#">Option.maximumSnapDistance</a>

## SnapTargetsForStart

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">Enum.SnapTargets</a>
Default	<a href="#">Option.defaultAllocationSnapTargetsForStart</a>
Explanation	When dragging horizontally, then the visible end date of this allocation will optionally be snapping to date lines, calendar grids, and start or end dates of other allocations in same row, when dragging lets these dates get near the start date. The user can override an active snapping by pressing the ALT key while dragging.

See also	<a href="#">Allocation.EndIsSnapTarget</a> <a href="#">Allocation.StartIsSnapTarget</a> <a href="#">Option.maximumSnapDistance</a>
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## SortCode

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">number</a>   <a href="#">string</a>   <a href="#">Date</a>
Default	undefined
Explanation	If set, then the value will be used when sorting allocation rows. The value type can be anyone that can be compared using JavaScript.
See also	<a href="#">Option.allocationRowSortCodePropertyName</a> <a href="#">Option.allocationRowSortMode</a>

## Start

Object Type	<a href="#">Allocation</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	The earliest start date of contained entries. If not existing, then @Activity.Start
Explanation	Start date of the allocation.
See also	<a href="#">Activity.Start</a> <a href="#">Allocation.End</a>


## StartIsSnapTarget

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	If set to true, then the visible start date of this allocation in the resources view is used as a snap target for a dragged bar.
See also	<a href="#">Allocation.SnapTargetsForEnd</a> <a href="#">Allocation.SnapTargetsForStart</a> <a href="#">Option.maximumSnapDistance</a>

## Status1Color

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">ColorAsString</a>
Default	undefined
Explanation	Color for the status symbol to the right of the bar. If undefined, no symbol appears. Only visible, when property Status1Visible is true.
See also	<a href="#">Allocation.Status1Visible</a>

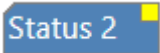
## Status1Visible

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true and the corresponding status color is set in property Status1Color, then a predefined symbol is displayed to the right of the bar. 
See also	<a href="#">Allocation.Status1Color</a>

## Status2Color

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">ColorAsString</a>
Default	undefined
Explanation	Color for the status symbol to the right of the bar. If undefined, no symbol appears. Only visible, when property Status2Visible is true.
See also	<a href="#">Allocation.Status2Visible</a>

## Status2Visible

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true and the corresponding status color is set in property Status2Color, then a predefined symbol is displayed to the right of the bar. 
See also	<a href="#">Allocation.Status2Color</a>

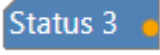
## Status3Color

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">ColorAsString</a>
Default	undefined
Explanation	Color for the status symbol to the right of the bar. If undefined, no symbol appears. Only visible, when property Status3Visible is true.
See also	<a href="#">Allocation.Status3Visible</a>

## Status3Visible

Object Type	<a href="#">Allocation</a>
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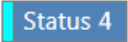


Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true and the corresponding status color is set in property Status3Color, then a predefined symbol is displayed to the right of the bar. 
See also	<a href="#">Allocation.Status3Color</a>

## Status4Color

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">ColorAsString</a>
Default	undefined
Explanation	Color for the status symbol to the left of the bar. If undefined, no symbol appears. Only visible, when property Status4Visible is true.
See also	<a href="#">Allocation.Status4Visible</a>

## Status4Visible

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true and the corresponding status color is set in property Status4Color, then a predefined symbol is displayed to the left of the bar. 
See also	<a href="#">Allocation.Status4Color</a>

## StatusFrameColor

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.defaultAllocationStatusFrameColor</a>
Explanation	Color for the status frame that will be shown when property StatusFrameVisible is set.
See also	<a href="#">Allocation.StatusFrameVisible</a>

## StatusFrameVisible

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then a frame is shown around the bar.
See also	<a href="#">Allocation.StatusFrameColor</a>

## SuitableActivityIDs

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString[]</a>
Default	undefined
Explanation	<p>An array of IDs of those activities to which the allocation could be assigned.</p> <p>If the array is defined, then all rows of activities that are not listed in that array will be covered by a half-transparent curtain.</p> <p>If the array is empty, all activity rows will be covered.</p> <p>If the array is not defined, then all rows are displayed in the normal way without any covering.</p>
See also	<a href="#">Entity.SuitableActivityIDs</a> <a href="#">Option.suitableActivityOverlayColor</a> <a href="#">Option.unsuitableActivityOverlayColor</a>

## SuitableResourceIDs

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString[]</a>
Default	undefined
Explanation	<p>An array of IDs of those resources to which the allocation could be assigned.</p> <p>If the array is defined, then all rows of resources that are not listed in that array will be covered by a half-transparent curtain.</p> <p>If the array is empty, all resource rows will be covered.</p> <p>If the array is not defined, then all rows are displayed in the normal way without any covering.</p>
See also	<a href="#">Entity.SuitableResourceIDs</a> <a href="#">Option.multipleBarDraggingEnabled</a> <a href="#">Option.suitableResourceOverlayColor</a> <a href="#">Option.unsuitableResourceOverlayColor</a>

## TableRowDefinitionID

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultAllocationTableRowDefinitionID</a>
Explanation	Identifier of a TableRowDefinition object that defines the composition of the table row.
See also	<a href="#">Allocation.TableText</a>

## TableText

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">string</a>

Default	undefined
Explanation	Text to display in the bar. <b>Note:</b> Several immediately consecutive spaces are always combined into one space by the browsers. If the individual spaces are to be preserved, then each of them must be replaced by the Unicode character \u00A0.
See also	<a href="#">Allocation.TableRowDefinitionID</a>

## TextColor

Object Type	<a href="#">Allocation</a>
Deprecated	Use property <a href="#">Allocation.BarTextColor</a> instead.

## TopLeftBarSymbolID

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of the symbol to be shown at the top left side of the allocation bar. It protrudes 5 pixels vertically into the bar shape. The symbol is scaled to a height of 12 pixels for a visual zoom factor of 100%.
See also	<a href="#">Symbol.ID</a>

## TopRightBarSymbolID

Object Type	<a href="#">Allocation</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of the symbol to be shown at the top right side of the allocation bar. It protrudes 5 pixels vertically into the bar shape. The symbol is scaled to a height of 12 pixels for a visual zoom factor of 100%.
See also	<a href="#">Symbol.ID</a>

## 2.4 AllocationEntry

Explanation	Objects of this type are only used within the array of the Entries property of Allocation objects. Entries serve to split bars into several colored phases. The application hereby can mark several phases like a startup or runtime phase. By using the properties RelativeTopOffset and Height it is additionally possible to show additional information in same manner as the progress that is provided by an allocation bar by default.
Members	<a href="#">Color</a> <a href="#">End</a> <a href="#">Height</a> <a href="#">NonworkingTimeColor</a> <a href="#">PatternColor</a>

	<a href="#">PatternType</a> <a href="#">RelativeTopOffset</a> <a href="#">Start</a>
Used by	<a href="#">Callback.onClicked</a> <a href="#">Callback.onDoubleClicked</a> <a href="#">Callback.onShowContextMenu</a> <a href="#">Callback.onShowTooltip</a>

## Color

Object Type	<a href="#">AllocationEntry</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Allocation.Color</a>
Explanation	Color for the working time periods of the bar.
See also	<a href="#">Allocation.Color</a> <a href="#">AllocationEntry.NonworkingTimeColor</a>

## End

Object Type	<a href="#">AllocationEntry</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	End date of the allocation entry. This date itself is not(!) part of the interval described by this entry. If not defined, then this entry will not be visible.

## Height

Object Type	<a href="#">AllocationEntry</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	0 ... 1000
Default	<a href="#">Option.defaultAllocationBarHeight</a>
Explanation	Height of the allocation entry.

## NonworkingTimeColor

Object Type	<a href="#">AllocationEntry</a>
Data Types	<a href="#">ColorAsString</a>   <a href="#">CalculatedColorAsString</a>
Default	Value of Color property.
Explanation	<p>Color for the nonworking time periods of the bar.</p> <p><b>Special value:</b>  If set to "calculated", a color will be calculated using the color defined by the Color property.</p>

See also	<a href="#">AllocationEntry.Color</a>
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## PatternColor

Object Type	<a href="#">AllocationEntry</a>
Data Type	<a href="#">ColorAsString</a>
Default	"white"
Explanation	Color for the pattern when this is visible by using property PatternType.
See also	<a href="#">AllocationEntry.PatternType</a>

## PatternType

Object Type	<a href="#">AllocationEntry</a>
Data Type	<a href="#">Enum.PatternType</a>
Default	PatternType.None
Explanation	If set, then a pattern is shown on top of the fill color and behind the text.
See also	<a href="#">AllocationEntry.PatternColor</a>

## RelativeTopOffset

Object Type	<a href="#">AllocationEntry</a>
Data Type	<a href="#">PixelsAsNumber</a>
Default	0
Explanation	Offset of the entry in pixels relative to the upper side of the corresponding allocation bar. A positive number moves the entry down, a negative number moves it up.

## Start

Object Type	<a href="#">AllocationEntry</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	Start date of the allocation entry. If not defined, then this entry will not be visible.

## 2.5 Calendar

UML Diagram	<pre> classDiagram     class Activity {         +CalendarID     }     class Calendar {         +Entries     }     class Resource {         +CalendarID     }     class CalendarEntry {         +Start         +End         +TimeType     }     Activity "0..*" --&gt; "0..1" Calendar     Resource "0..*" --&gt; "0..1" Calendar     CalendarEntry "0..*" -- &gt; Calendar   </pre>
Explanation	A Calendar object defines working and non-working times to be used with resources and activities. The calendar gets visible in the background of the rows in the time area as a colored calendar grid.
Members	<a href="#">Entries</a> <a href="#">ID</a>
See also	<a href="#">Method.addCalendars</a> <a href="#">Method.updateCalendars</a> <a href="#">Method.removeCalendars</a>

## Entries

Object Type	<a href="#">Calendar</a>
Data Type	<a href="#">CalendarEntry[]</a>
Default	undefined
Explanation	Array of calendar entry objects. The order of the entries inside the array is important! If undefined, the calendar consists of non-working times only.

## ID

Object Type	<a href="#">Calendar</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	required
Explanation	Identifier of the Calendar.

## 2.6 CalendarEntry

Explanation	A CalendarEntry object defines a single time period. It has to be referenced in the Entries array of a Calendar object. If several calendar entries describe the same time period, then the last entry wins.
Members	<a href="#">End</a> <a href="#">Start</a> <a href="#">TimeType</a>

## End

Object Type	<a href="#">CalendarEntry</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	End of the working time period.

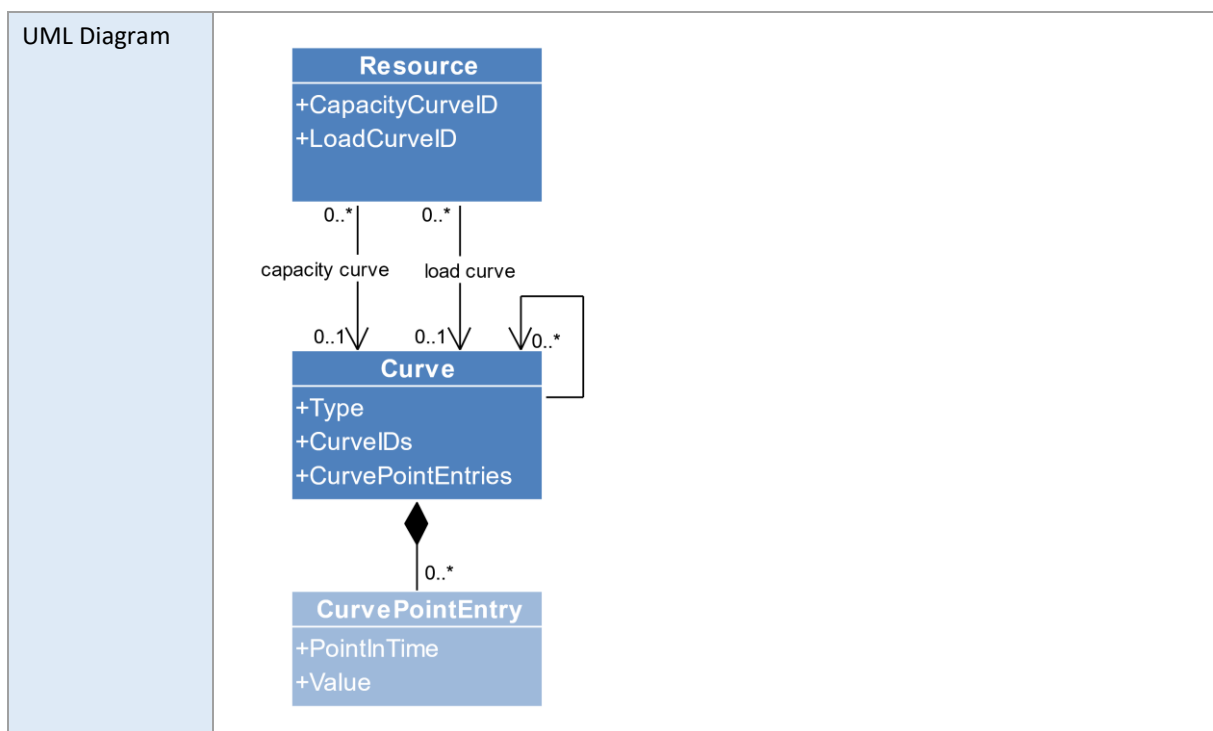
## Start

Object Type	<a href="#">CalendarEntry</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined
Explanation	Start of the working time period.

## TimeType

Object Type	<a href="#">CalendarEntry</a>
Data Type	<a href="#">Enum.TimeType</a>
Default	TimeType.WorkingTime
Explanation	

## 2.7 Curve



Explanation	<p>Curve objects serve to define values over time that can be shown as capacity or load inside resource and activity rows (see properties LoadCurveID and CapacityCurveID in Resource object). Additionally, it is possible to stack curves when using curve object of stack type. Currently, there are no curve types that calculate their values automatically.</p> <p>Curves are displayed in curves panes. Each pane can hold several curves (e.g. a capacity and a load curve). On the right side of a pane a numerical scale is displayed. By default, the minimum and maximum values for the tick markers are calculated automatically. However, this can be affected by setting the property ScaleMinimumValue and the property ScaleMaximumValue properties of the curves.</p>
Members	<a href="#">CurveIDs</a> <a href="#">CurvePointEntries</a> <a href="#">FillColor</a> <a href="#">ID</a> <a href="#">InterpolationType</a> <a href="#">OverloadColor</a> <a href="#">ScaleMaximumValue</a> <a href="#">ScaleMinimumValue</a> <a href="#">StrokeColor</a> <a href="#">StrokeDashArray</a> <a href="#">Type</a>
See also	<a href="#">Resource.LoadCurveID</a> <a href="#">Resource.CapacityCurveID</a> <a href="#">Method.addCurves</a> <a href="#">Method.updateCurves</a> <a href="#">Method.removeCurves</a>
Used by	<a href="#">Callback.onClicked</a>

## CurveIDs

Object Type	<a href="#">Curve</a>
Data Type	<a href="#">IdentifierAsString[]</a>
Default	undefined
Explanation	Array of curve IDs (in case of CurveStack and CurveList only)

## CurvePointEntries

Object Type	<a href="#">Curve</a>
Data Type	<a href="#">CurvePointEntry[]</a>
Default	undefined
Explanation	Array of point entries (in case of PointCurve only)

## FillColor

Object Type	<a href="#">Curve</a>
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Data Type	<a href="#">ColorAsString</a>
Default	"transparent"
Explanation	Color of the area below the curve. <b>Note:</b> If a curve is used as an inventory curve, then the default is "transparent".

## ID

Object Type	<a href="#">Curve</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	required
Explanation	Identifier of the Curve.

## InterpolationType

Object Type	<a href="#">Curve</a>
Data Type	<a href="#">Enum.CurveInterpolationType</a>
Default	CurveInterpolationType.StepAfter
Explanation	Type of interpolation. At the moment there are restrictions concerning putting curves of linear interpolation type into curve stacks. It is recommended to use this interpolation type only inside curve lists.

## OverloadColor

Object Type	<a href="#">Curve</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#E01818"
Explanation	Used, when the curve is used as the load curve that referenced directly by the property LoadCurveID at the object. Then the area above the capacity curve will be colored by this color when the load is higher than the capacity.

## ScaleMaximumValue

Object Type	<a href="#">Curve</a>
Data Type	<a href="#">number</a>
Default	-Infinity
Explanation	If this value here is greater than all values of this curve, then it defines the explicit maximum. Otherwise, the maximum of all curve values defines the overall maximum of this curve.  This, together with the ScaleMinimumValue property, allows you to set the range of values displayed for the curve window.
See also	<a href="#">Curve.ScaleMinimumValue</a>

	<a href="#">Option.higherCurvePanelsOnExceededScaleMaximumValue</a>
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## ScaleMinimumValue

Object Type	<a href="#">Curve</a>
Data Type	<a href="#">number</a>
Default	Infinity
Explanation	<p>If this value here is lower than all values of this curve, then it defines the explicit minimum. Otherwise, the minimum of all curve values defines the overall minimum of this curve.</p> <p>This, together with the ScaleMaximumValue property, allows you to set the range of values displayed for the curve window.</p>
See also	<a href="#">Curve.ScaleMaximumValue</a>

## StrokeColor

Object Type	<a href="#">Curve</a>
Data Type	<a href="#">ColorAsString</a>
Default	"transparent"
Explanation	Color of the curve line itself.

## StrokeDashArray

Object Type	<a href="#">Curve</a>
Data Type	<a href="#">DashArrayAsString</a>
Default	"none"
Explanation	Pattern of dashes and gaps for drawing the curve line.

## Type

Object Type	<a href="#">Curve</a>
Data Type	<a href="#">Enum.CurveType</a>
Default	CurveType.PointCurve
Explanation	<p>Type of the curve.</p> <p>A point curve contains a number of entries in the property CurvePointEntries.</p> <p>Curve stacks and curve lists contain a number of IDs of other curves in the property CurveIDs. A curve stacks stacks the contained curves in the order inside the array optically.</p> <p>A curve list shows the contained curves one by one at the same space, so it is recommended to use translucent colors for filling the curves.</p> <p>It is currently recommended not to put lists or stacks into other lists/stacks!</p>

## 2.8 CurvePointEntry

Members	<a href="#">PointInTime</a> <a href="#">Value</a>
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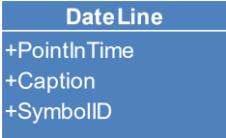
### PointInTime

Object Type	<a href="#">CurvePointEntry</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	required
Explanation	This property serves as an identifier of the point entry.

### Value

Object Type	<a href="#">CurvePointEntry</a>
Data Type	<a href="#">number</a>
Default	0.0
Explanation	Value of the curve at the given point in time.

## 2.9 DateLine

UML Diagram	 <pre> classDiagram     class DateLine {         +PointInTime         +Caption         +SymbolID     } </pre>
Explanation	A DateLine object is a pure presentation object and defines the properties of a single date line.
Members	<a href="#">Caption</a> <a href="#">CaptionColor</a> <a href="#">CaptionOrientation</a> <a href="#">CaptionPosition</a> <a href="#">Color</a> <a href="#">DashArray</a> <a href="#">Draggable</a> <a href="#">ID</a> <a href="#">InFrontOfBars</a> <a href="#">PointInTime</a> <a href="#">SymbolHeight</a> <a href="#">SymbolID</a> <a href="#">SymbolWidth</a> <a href="#">Width</a>
See also	<a href="#">Method.addDateLines</a> <a href="#">Method.updateDateLines</a> <a href="#">Method.removeDateLines</a>

## Caption

Object Type	<a href="#">DateLine</a>
Data Type	<a href="#">string</a>
Default	""
Explanation	Text for the caption of the date line. <b>Note:</b> Several immediately consecutive spaces are always combined into one space by the browsers. If the individual spaces are to be preserved, then each of them must be replaced by the Unicode character \u00A0.

## CaptionColor

Object Type	<a href="#">DateLine</a>
Data Type	<a href="#">ColorAsString</a>
Default	"black"
Explanation	Color of the caption.

## CaptionOrientation

Object Type	<a href="#">DateLine</a>
Data Type	<a href="#">Enum.DateLineCaptionOrientation</a>
Default	DateLineCaptionOrientation.Vertical
Explanation	Specifies whether the caption should be oriented vertically or horizontally. <b>Note:</b> If the caption position is TopCenter, TopLeft or TopRight and if the orientation is vertical, the caption orientation will still be positioned at the date line and not within the timescale.
See also	<a href="#">DateLine.CaptionPosition</a>

## CaptionPosition

Object Type	<a href="#">DateLine</a>
Data Type	<a href="#">Enum.DateLineCaptionPosition</a>
Default	DateLineCaptionPosition.Left
Explanation	Specifies where the caption should be positioned relative to the date line.
See also	<a href="#">DateLine.CaptionOrientation</a> <a href="#">Option.dateLineCaptionOptimizedPositioningEnabled</a>

## Color

Object Type	<a href="#">DateLine</a>
Data Type	<a href="#">ColorAsString</a>

Default	"black"
Explanation	Color of the line.

## DashArray

Object Type	<a href="#">DateLine</a>
Data Type	<a href="#">DashArrayAsString</a>
Default	"none"
Explanation	Pattern of dashes and gaps for drawing the date line. The value "none" indicates that no dashing is used. In this case, the line is drawn solid.

## Draggable

Object Type	<a href="#">DateLine</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then the date line is draggable and the callback onDrop is triggered, when dropping it at a new date.
See also	<a href="#">Callback.onDrop</a>

## ID

Object Type	<a href="#">DateLine</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	required
Explanation	Identifier of the date line.

## InFrontOfBars

Object Type	<a href="#">DateLine</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	Determines how the date line is displayed. If set to false, the date line will be overlapped by the bars. Otherwise, the line will be displayed in front of the bars.

## PointInTime

Object Type	<a href="#">DateLine</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	undefined

Explanation	Date, where the date line should become visible. The date line only gets visible, when the date is set and the date lies between the values of the widget options start and end.
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## SymbolHeight

Object Type	<a href="#">DateLine</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	12
Explanation	Height of the symbol referenced by property SymbolID. Unit is pixels at a zoom factor of 100%.
See also	<a href="#">DateLine.SymbolID</a>

## SymbolID

Object Type	<a href="#">DateLine</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	When set, then the referenced symbol will be visible at the top of the date line.
See also	<a href="#">DateLine.SymbolHeight</a> <a href="#">DateLine.SymbolWidth</a> <a href="#">Option.dateLineCaptionOptimizedPositioningEnabled</a> <a href="#">Symbol.ID</a>

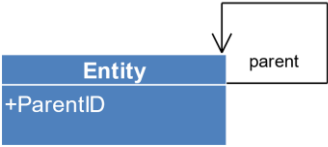
## SymbolWidth

Object Type	<a href="#">DateLine</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	12
Explanation	Width of the symbol referenced by property SymbolID in pixels at a zoom factor of 100%.
See also	<a href="#">DateLine.SymbolID</a>

## Width

Object Type	<a href="#">DateLine</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	≥ 0
Default	1
Explanation	Line width of the date line in pixels at a zoom factor of 100%.

## 2.10 Entity

UML Diagram	 <pre> classDiagram     class Entity {         +ParentID     }     Entity --&gt; Entity : parent         </pre> <p>The diagram shows a class named 'Entity' with a public attribute '+ParentID'. A self-referencing association arrow labeled 'parent' points from the class to itself.</p>
Explanation	An Entity object defines the properties of a single entity. Entities are shown in a separate table on the right side.
Members	<a href="#">AllowedRowDragModes</a> <a href="#">CollapseState</a> <a href="#">Duration</a> <a href="#">HasChildren</a> <a href="#">ID</a> <a href="#">MinimumRowHeight</a> <a href="#">ParentID</a> <a href="#">RowCollapsible</a> <a href="#">RowSelectable</a> <a href="#">RowSymbolColumnBackgroundColor</a> <a href="#">RowSymbolIDs</a> <a href="#">RowTooltipTemplateID</a> <a href="#">SortCode</a> <a href="#">SuitableActivityIDs</a> <a href="#">SuitableResourceIDs</a> <a href="#">TableColor</a> <a href="#">TableRowDefinitionID</a> <a href="#">TableText</a> <a href="#">TableTextColor</a>
See also	<a href="#">Method.addEntities</a> <a href="#">Method.updateEntities</a> <a href="#">Method.removeEntities</a>
Used by	<a href="#">Callback.visibilityFilterForEntities</a>

### AllowedRowDragModes

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">Enum.RowDragModes</a>
Default	<a href="#">Option.defaultEntityAllowedRowDragModes</a>
Explanation	This option determines the allowed row drag modes for this entity when the entities table is visible (these can be overwritten using the callback canDrag).
See also	<a href="#">Callback.canDrag</a>

### CollapseState

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">Enum.CollapseState</a>

Default	CollapseState.Unchanged
Explanation	Specifies whether the row of the entity should be expanded or collapsed when displayed the very first time.
See also	<a href="#">HierarchySupplementaryDefinition.InitiallyCollapsed</a>

## Duration

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">number</a>
Data Range	$\geq 0$
Default	undefined
Unit	Milliseconds
Explanation	Duration of the pure working time of the entity. This property is used, for example, when moving the entity from the entities table to the Gantt diagram to display a bar of correct length during interaction.

## HasChildren

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then the row representing this entity will be collapsible/expandable even when there are no children defined. This serves for lazy loading.

## ID

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	required
Explanation	Identifier of this entity

## MinimumRowHeight

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	<a href="#">Option.defaultEntityMinimumRowHeight</a>
Explanation	Minimum height of the entity row in pixels. This property is useful when more than one line of text is shown inside the table cells. Proposal: For one line take 36, for two lines 52, for three lines 68, and so on. To have the same height also, when no bar is placed in the row, take the maximum bar height adding 20 (e.g. 42) as minimum.



	For using word wrapping in table cells, it is necessary to use a table row definition by setting the property <code>TableRowDefinitionID</code> and setting the property <code>WrapMode</code> in a contained table cell definition.
See also	<a href="#">Entity.TableRowDefinitionID</a> <a href="#">TableCellDefinition.WrapMode</a>

## ParentID

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	<p>Identifier of the parent entity to build a hierarchy of entities.</p> <p>If this property is undefined the current entity will be considered as a root node of the entity hierarchy.</p> <p>We recommend using only a low number of hierarchy levels and we do not guarantee correct function beyond approx. 100 levels including hierarchy levels created by using <code>HierarchySupplementaryDefinitions</code>.</p>

## RowCollapsible

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">boolean</a>
Default	<a href="#">Option.defaultEntityRowCollapsible</a>
Explanation	If set to true, then the row representing this entity will be interactively collapsible when children exist.

## RowSelectable

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">boolean</a>
Default	<a href="#">Option.defaultEntityRowSelectable</a>
Explanation	If set to true, then the row representing this entity will be selectable.

## RowSymbolColumnBackgroundColor

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">TableRowDefinition.SymbolColumnBackgroundColor</a>   <a href="#">Option.symbolColumnBackgroundColor</a>
Explanation	Determines the color of the symbol column within this table row.

## RowSymbolIDs

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">IdentifierAsString[]</a>
Default	undefined
Explanation	<p>Array of identifiers of the symbols to be shown in the table symbol cell of the beginning of the table row.</p> <p>The symbols will be arranged one below the other. However, if the cell is not high enough to hold all symbols, then the remaining symbols are also arranged side-by-side. If this still does not fit, an additional “show more” symbol will be displayed.</p> <p>An empty string (“”) will cause an “empty” symbol to be displayed. By this placeholder, you can reserve space for a symbol that may be shown at a later time.</p> <p><b>Note:</b> Each symbol will be resized to an image with a width and height of 16 pixels each at a zoom level of 100%.</p>
See also	<a href="#">Symbol.ID</a>

## RowTooltipTemplateID

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultEntityRowTooltipTemplateID</a>
Explanation	<p>ID of a tooltip template.</p> <p>The template is used for tooltips that appear on the entity table rows.</p>

## SortCode

Object Type	<a href="#">Entity</a>
Data Types	<a href="#">number</a>   <a href="#">string</a>   <a href="#">Date</a>
Default	undefined
Explanation	If set, then the value will be used when sorting entity rows. The value type can be anyone that can be compared using JavaScript.
See also	<a href="#">Option.entityRowSortCodePropertyName</a> <a href="#">Option.entityRowSortMode</a>

## SuitableActivityIDs

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">IdentifierAsString[]</a>
Default	undefined
Explanation	<p>An array of IDs of those activities to which the entity could be dropped.</p> <ul style="list-style-type: none"> <li>• If the array is <b>defined</b>, then all rows of activities that are not listed in that array will be covered by a half-transparent curtain.</li> <li>• If the array is <b>empty</b>, all activity rows will be covered.</li> <li>• If the array is <b>not defined</b>, then all rows are displayed in the normal way without any covering.</li> </ul>

See also	<a href="#">Allocation.SuitableActivityIDs</a> <a href="#">Option.suitableActivityOverlayColor</a> <a href="#">Option.unsuitableActivityOverlayColor</a>
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## SuitableResourceIDs

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">IdentifierAsString[]</a>
Default	undefined
Explanation	<p>An array of IDs of those resources to which the entity could be dropped.</p> <ul style="list-style-type: none"> <li>• If the array is <b>defined</b>, then all rows of resources that are not listed in that array will be covered by a half-transparent curtain.</li> <li>• If the array is <b>empty</b>, all resource rows will be covered.</li> <li>• If the array is <b>not defined</b>, then all rows are displayed in the normal way without any covering.</li> </ul>
See also	<a href="#">Allocation.SuitableResourceIDs</a> <a href="#">Option.suitableResourceOverlayColor</a> <a href="#">Option.unsuitableResourceOverlayColor</a>

## TableColor

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">ColorAsString</a>
Default	level-dependent gray
Explanation	<p>Color for the table row.</p> <p>If undefined, a default value of the widget will be used.</p>

## TableRowDefinitionID

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultEntityTableRowDefinitionID</a>
Explanation	Identifier of a TableRowDefinition object that defines the composition of the table row.
See also	<a href="#">Entity.MinimumRowHeight</a> <a href="#">Entity.TableText</a> <a href="#">HierarchySupplementaryDefinition.TableRowDefinitionID</a>

## TableText

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">string</a>
Default	undefined
Explanation	Text to display in the table.

	<b>Note:</b> Several immediately consecutive spaces are always combined into one space by the browsers. If the individual spaces are to be preserved, then each of them must be replaced by the Unicode character \u00A0.
See also	<a href="#">Entity.TableRowDefinitionID</a>

## TableTextColor

Object Type	<a href="#">Entity</a>
Data Type	<a href="#">ColorAsString</a>
Default	"black"
Explanation	Color for the table row texts. If undefined, a default value of the widget will be used.

## 2.11 GroupingLevelDefinition

UML Diagram	<pre> classDiagram     class HierarchySupplementaryDefinition {         +HierarchyLevelSupplementaryDefinitions     }     class HierarchyLevelSupplementaryDefinition {         +GroupingLevelDefinitions         +PredefinedGroups     }     class GroupingLevelDefinition {         +GroupingCodeSource     }     class TableRowDefinition {         +CellDefinitions     }     class TableCellDefinition {         +TextSource         +Title     }     HierarchySupplementaryDefinition "1..*" *-- "0..*" HierarchyLevelSupplementaryDefinition     HierarchyLevelSupplementaryDefinition "0..*" *-- "0..*" GroupingLevelDefinition     TableRowDefinition "0..1" --&gt; "0..*" HierarchyLevelSupplementaryDefinition     TableRowDefinition "0..1" --&gt; "0..*" TableCellDefinition     </pre> <p>The diagram illustrates the following classes and their relationships:</p> <ul style="list-style-type: none"> <li><b>Hierarchy Supplementary Definition</b>: Contains <code>+HierarchyLevelSupplementaryDefinitions</code>. It has a composition relationship with <b>HierarchyLevel Supplementary Definition</b> (multiplicity 1..*).</li> <li><b>HierarchyLevel Supplementary Definition</b>: Contains <code>+GroupingLevelDefinitions</code> and <code>+PredefinedGroups</code>. It has a composition relationship with <b>GroupingLevel Definition</b> (multiplicity 0..*).</li> <li><b>GroupingLevel Definition</b>: Contains <code>+GroupingCodeSource</code>.</li> <li><b>TableRowDefinition</b>: Contains <code>+CellDefinitions</code>. It has an association relationship with <b>HierarchyLevel Supplementary Definition</b> (multiplicity 0..* at the HierarchyLevel Supplementary Definition end, 0..1 at the TableRowDefinition end) and an association relationship with <b>Table CellDefinition</b> (multiplicity 0..1 at the TableRowDefinition end, 0..* at the Table CellDefinition end).</li> <li><b>Table CellDefinition</b>: Contains <code>+TextSource</code> and <code>+Title</code>.</li> </ul>
Explanation	The GroupingLevelDefinition object defines the grouping criteria for all grouping levels of one hierarchy level as seen in a table on screen. The grouping level definition also defines the display of the resulting group lines. Used in a HierarchyLevelSupplementaryDefinition object.
Members	<a href="#">CodeToTextMap</a>

	<a href="#">DefaultCode</a> <a href="#">DefaultGroupingCode</a> <a href="#">GroupingCodeSource</a> <a href="#">GroupingCodeToTextMap</a> <a href="#">InitiallyCollapsed</a> <a href="#">MinimumRowHeight</a> <a href="#">TableBackgroundColor</a> <a href="#">TableColor</a> <a href="#">TableColorVisibleInTimeArea</a> <a href="#">TableRowDefinitionID</a> <a href="#">TableTextColor</a> <a href="#">TableTextFormat</a>
See also	<a href="#">Method.addGroupingLevelDefintions</a> <a href="#">Method.updateGroupingLevelDefinitions</a> <a href="#">Method.removeGroupingLevelDefinitions</a>

## CodeToTextMap

Object Type	<a href="#">GroupingLevelDefinition</a>
Deprecated	Use property <a href="#">GroupingLevelDefinition.GroupingCodeToTextMap</a> instead.

## DefaultCode

Object Type	<a href="#">GroupingLevelDefinition</a>
Deprecated	Use property <a href="#">GroupingLevelDefinition.DefaultGroupingCode</a> instead.

## DefaultGroupingCode

Object Type	<a href="#">GroupingLevelDefinition</a>
Data Type	<a href="#">string</a>
Default	""
Explanation	If this property is set, the value serves as a default grouping criterion, if not otherwise defined.

## GroupingCodeSource

Object Type	<a href="#">GroupingLevelDefinition</a>
Data Type	<a href="#">string</a>
Default	""
Explanation	Names a property of the objects under consideration, the content of which is used as a grouping criterion.

## GroupingCodeToTextMap

Object Type	<a href="#">GroupingLevelDefinition</a>
Data Types	<a href="#">Map</a>   <a href="#">Object</a>
Default	undefined
Explanation	If set then the object is used to map the group codes (key) to a long text (value) that will be shown on the table row representing the generated group.

## InitiallyCollapsed

Object Type	<a href="#">GroupingLevelDefinition</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If this property is set to true, then the generated group rows initially are shown collapsed.

## MinimumRowHeight

Object Type	<a href="#">GroupingLevelDefinition</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	value of appropriate default option for the table
Explanation	Minimum height of the group row in pixels. This property is useful when more than one line of text is shown inside the table cells. Proposal: For one line take 36, for two lines 52, for three lines 68, and so on. To have the same height also, when no bar is placed in the row, take the maximum bar height adding 20 (e.g. 42) as minimum.

## TableBackgroundColor

Object Type	<a href="#">GroupingLevelDefinition</a>
Deprecated	Use property <a href="#">GroupingLevelDefinition.TableColor</a> instead.

## TableColor

Object Type	<a href="#">GroupingLevelDefinition</a>
Data Type	<a href="#">ColorAsString</a>
Default	value of the higher group row
Explanation	Color for the table row.

## TableColorVisibleInTimeArea

Object Type	<a href="#">GroupingLevelDefinition</a>
-------------	---

Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, the time area row will be colored using the color defined by the TableColor property.

## TableRowDefinitionID

Object Type	<a href="#">GroupingLevelDefinition</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	<p>Identifier of a table row definition for the row.</p> <p>This setting can be overwritten by the property TableRowDefinitionID of the row object itself. This setting overwrites the appropriate default option value of the property TableRowDefinitionID of the row object.</p>

## TableTextColor

Object Type	<a href="#">GroupingLevelDefinition</a>
Data Type	<a href="#">ColorAsString</a>
Default	undefined
Explanation	Color for the table row texts.

## TableTextFormat

Object Type	<a href="#">GroupingLevelDefinition</a>
Data Type	<a href="#">string</a>
Default	undefined
Explanation	If this property is set, then text in table on generated group rows is formatted using the value. The string can contain the keyword <code>{{&gt;MapText}}</code> to include the value of the map that is defined by the property CodeToTextMap else will show the group code itself.

## 2.12 HierarchyLevelSupplementaryDefinition

UML Diagram	<pre> classDiagram     class HierarchySupplementaryDefinition {         +HierarchyLevelSupplementaryDefinitions     }     class HierarchyLevelSupplementaryDefinition {         +GroupingLevelDefinitions         +PredefinedGroups     }     class GroupingLevelDefinition {         +GroupingCodeSource     }     class TableRowDefinition {         +CellDefinitions     }     class TableCellDefinition {         +TextSource         +Title     }     HierarchySupplementaryDefinition "1" *-- "1..*" HierarchyLevelSupplementaryDefinition     HierarchyLevelSupplementaryDefinition "1" *-- "0..*" GroupingLevelDefinition     GroupingLevelDefinition "1" *-- "0..*" TableRowDefinition     HierarchyLevelSupplementaryDefinition "0..*" --&gt; "0..1" TableRowDefinition     TableRowDefinition "1" *-- "0..*" TableCellDefinition     </pre>
Explanation	Each HierarchyLevelSupplementaryDefinition object defines additional grouping for a level of row objects. Used in HierarchySupplementaryDefinition objects.
Members	<a href="#">GroupingLevelDefinitions</a> <a href="#">InitiallyCollapsed</a> <a href="#">PredefinedGroups</a> <a href="#">TableRowDefinitionID</a>
See also	<a href="#">Method.addHierarchyLevelSupplementaryDefinitions</a> <a href="#">Method.updateHierarchyLevelSupplementaryDefinitions</a> <a href="#">Method.removeHierarchyLevelSupplementaryDefintions</a>

## GroupingLevelDefinitions

Object Type	<a href="#">HierarchyLevelSupplementaryDefinition</a>
Data Type	<a href="#">GroupingLevelDefinition[]</a>
Default	undefined
Explanation	Array of grouping level definitions. By using more than one GroupingLevelDefinition object in the array you can define multiple grouping criteria for one hierarchy level at once.



## InitiallyCollapsed

Object Type	<a href="#">HierarchyLevelSupplementaryDefinition</a>
Data Type	<a href="#">boolean</a>
Default	undefined
Explanation	If this property is set to true, then the table rows in this hierarchy level will initially show collapsed. This property is only effective when the property CollapseState is not set to 0 or 1 on the affected table row object (Activity/Entity/Resource).

## PredefinedGroups

Object Type	<a href="#">HierarchyLevelSupplementaryDefinition</a>
Data Type	<a href="#">Object[]</a>
Default	undefined
Explanation	<p>If this property is set to an array, then each object in the array defines one or more predefined groups.</p> <p>In each object you can define which predefined group(s) to create by including some or all grouping codes up to the current hierarchy level. Additionally, you can set the following graphical properties for the predefined group: MinimumRowHeight, TableColor, TableTextColor.</p> <p>Example for second hierarchy level:</p> <pre>{   "GroupingCodeSourceOfLevel0": "a0",   "GroupingCodeSourceOfLevel1": "b1",   "TableColor": "lime" }</pre> <p>The property names in italics have to be replaced by the property names in your hierarchy level definitions on levels 0 and 1! This example defines a predefined group with code "b1" within another group with the code "a0". The group "a0" may be predefined or not. If it does not exist, it will be created additionally before creating "b1" using default coloring.</p> <p>In general, predefined groups are created before any other groups that are determined by grouping codes within the grouped row objects.</p>

## TableRowDefinitionID

Object Type	<a href="#">HierarchyLevelSupplementaryDefinition</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	If set, then the value overwrites the setting on an affected table row object (Activity/Entity/Resource).

## 2.13 HierarchySupplementaryDefinition

UML Diagram	<pre> classDiagram     class HierarchySupplementaryDefinition {         +HierarchyLevelSupplementaryDefinitions     }     class HierarchyLevelSupplementaryDefinition {         +GroupingLevelDefinitions         +PredefinedGroups     }     class GroupingLevelDefinition {         +GroupingCodeSource     }     class TableRowDefinition {         +CellDefinitions     }     class TableCellDefinition {         +TextSource         +Title     }     HierarchySupplementaryDefinition "1" *-- "n" HierarchyLevelSupplementaryDefinition     HierarchyLevelSupplementaryDefinition "1" *-- "n" GroupingLevelDefinition     GroupingLevelDefinition --&gt; TableRowDefinition     HierarchyLevelSupplementaryDefinition --&gt; TableRowDefinition     TableRowDefinition "1" *-- "n" TableCellDefinition   </pre>
Explanation	<p>A HierarchySupplementaryDefinition object defines the additional grouping of a complete hierarchy of row objects by using criteria that are taken from property values within the row objects. Each HierarchyLevelSupplementaryDefinition object defines all groupings for a hierarchy level of row objects. The hierarchy levels are already built by using the property ParentID of the row objects of type Activity, Entity, Resource. The ID of a HierarchySupplementaryDefinition object is set into one of the options activity/entity/resourceHierarchySupplementaryDefinitionID.</p> <p>A first simple definition for the first hierarchy level with only one grouping level only consists of a few properties set:</p> <pre> {   "ID": "HSD1",   "HierarchyLevelSupplementaryDefinitions": [     // hierarchy level 0     {       "GroupingLevelDefinitions": [         // first grouping level         {           "GroupingCodeSource": "_Grp1", // e.g. referencing an application-             // defined property           "TableBackgroundColor": "gold"         }       ]     }   ] }   </pre>

	<pre> ] } ] } </pre>
Members	<a href="#">GroupingLevelDefinitions</a> <a href="#">HierarchyLevelSupplementaryDefinitions</a> <a href="#">ID</a> <a href="#">InitiallyCollapsed</a> <a href="#">PredefinedGroups</a> <a href="#">TableRowDefinitionID</a>
See also	<a href="#">Method.addHierarchySupplementaryDefinitions</a> <a href="#">Method.updateHierarchySupplementaryDefinitions</a>

## GroupingLevelDefinitions

Object Type	<a href="#">HierarchySupplementaryDefinition</a>
Data Type	<a href="#">GroupingLevelDefinition[]</a>
Default	undefined
Explanation	<p>Array of grouping level definitions.</p> <p>By using more than one GroupingLevelDefinition object in the array you can define multiple grouping criteria for one hierarchy level at once.</p>

## HierarchyLevelSupplementaryDefinitions

Object Type	<a href="#">HierarchySupplementaryDefinition</a>
Data Type	<a href="#">HierarchyLevelSupplementaryDefinition[]</a>
Default	undefined
Explanation	<p>Array of hierarchy level supplementary definitions. The first object contains definitions for hierarchy level 0, the second defines level 1 and so on. If one hierarchy level should not be grouped additionally, then you can leave the array entry empty either by using an empty object or alternatively undefined/null.</p>

## ID

Object Type	<a href="#">HierarchySupplementaryDefinition</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	required
Explanation	Identifier of this hierarchy definition.

## InitiallyCollapsed

Object Type	<a href="#">HierarchySupplementaryDefinition</a>
Data Type	<a href="#">boolean</a>

Default	false
Explanation	<p>If this property is set to true, then the table rows in this hierarchy level will initially show collapsed.</p> <p>This property is only effective when the property CollapseState is not set to Expanded or Collapsed on the affected table row object (Activity/Entity/Resource).</p>
See also	<a href="#">Activity.CollapseState</a> <a href="#">Entity.CollapseState</a> <a href="#">Enum.CollapseState</a> <a href="#">Resource.CollapseState</a>

## PredefinedGroups

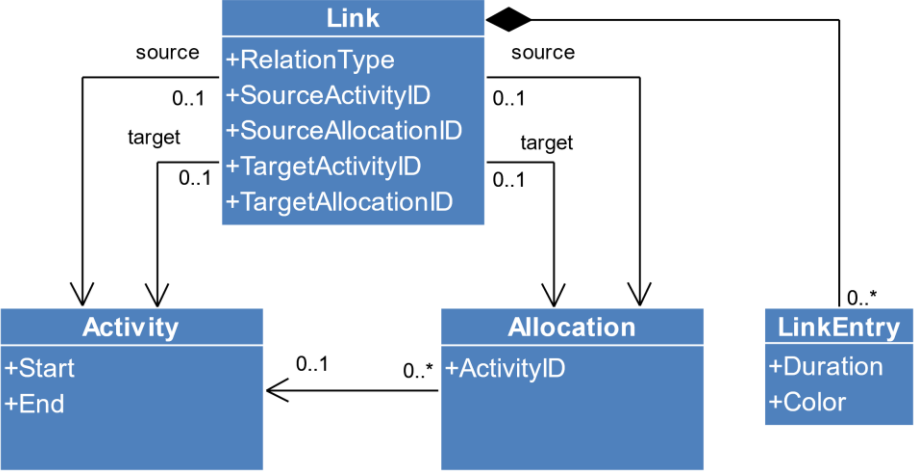
Object Type	<a href="#">HierarchySupplementaryDefinition</a>
Data Type	<a href="#">Object[]</a>
Default	undefined
Explanation	<p>If this property is set to an array, then each object in the array defines one or more predefined groups.</p> <p>In each object you can define which predefined group(s) to create by including some or all grouping codes up to the current hierarchy level. Additionally, you can set the following graphical properties for the predefined group: MinimumRowHeight, TableColor, TableTextColor.</p> <p>Example for second hierarchy level:</p> <pre>{   "GroupingCodeSourceOfLevel0": "a0",   "GroupingCodeSourceOfLevel1": "b1",   "TableColor": "lime" }</pre> <p>The property names in italics have to be replaced by the property names in your hierarchy level definitions on levels 0 and 1! This example defines a predefined group with code "b1" within another group with the code "a0". The group "a0" may be predefined or not. If it does not exist, it will be created additionally before creating "b1" using default coloring.</p> <p>In general, predefined groups are created before any other groups that are determined by grouping codes within the grouped row objects.</p>

## TableRowDefinitionID

Object Type	<a href="#">HierarchySupplementaryDefinition</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	If the value is set, it overwrites the setting of the affected table row object. (Activity/Entity/Resource).
See also	<a href="#">Activity.TableRowDefinitionID</a>

[Entity.TableRowDefinitionID](#)  
[Resource.TableRowDefinitionID](#)

## 2.14 Link

UML Diagram	 <pre> classDiagram     class Link {         +RelationType         +SourceActivityID         +SourceAllocationID         +TargetActivityID         +TargetAllocationID     }     class Activity {         +Start         +End     }     class Allocation {         +ActivityID     }     class LinkEntry {         +Duration         +Color     }     Link "0..1" -- "0..1" Activity : source, target     Link "0..1" -- "0..1" Allocation : source, target     Link *-- "0..*" LinkEntry     Allocation "0..*" -- "0..1" Activity   </pre>
Explanation	<p>A Link object defines the properties of a single link between activities or allocations.</p> <p>Links between activities are shown in activities view if the option <code>linksVisibleInActivitiesView</code> is true. Additionally, links between allocations are shown in activities view if the two options <code>definedAllocationLinksVisibleInActivitiesView</code> and <code>allocationRowsVisibleInActivitiesView</code> are also set to true.</p> <p>Links between allocations in resources view are shown if the option <code>linksVisibleInResourcesView</code> is true. By default, the links between activities are shown as allocation links, but if the option <code>definedAllocationLinksVisibleInResourcesView</code> is true, then the defined allocation links are shown in resources view instead.</p> <p>Links cannot connect bar objects that are in different view areas (see property <code>ViewArea</code> of activity and resource objects). Links that are defined that way are not rendered.</p> <p>A link can have several entries to color it section by section. To do this, each section is defined by a duration and a color.</p>
Members	<p><a href="#">Color</a>  <a href="#">DashArray</a>  <a href="#">Entries</a>  <a href="#">ID</a>  <a href="#">RelationType</a>  <a href="#">RoutingType</a>  <a href="#">Selectable</a>  <a href="#">SourceActivityID</a>  <a href="#">SourceAllocationID</a>  <a href="#">TargetActivityID</a>  <a href="#">TargetAllocationID</a>  <a href="#">TargetMarker</a>  <a href="#">TooltipTemplateID</a></p>

	<a href="#">Width</a>
See also	<a href="#">Method.addLinks</a> <a href="#">Method.updateLinks</a> <a href="#">Method.removeLinks</a> <a href="#">Activity.ViewArea</a> <a href="#">Resource.ViewArea</a>

## Color

Object Type	<a href="#">Link</a>
Data Type	<a href="#">ColorAsString</a>
Default	"black"
Explanation	Color for the line.
Used by	<a href="#">LinkEntry.Color</a>

## DashArray

Object Type	<a href="#">Link</a>
Data Type	<a href="#">DashArrayAsString</a>
Default	"none"
Explanation	<p>Pattern of dashes and gaps for drawing the link line.</p> <p>The value "none" indicates that no dashing is used. In this case, the link is drawn solid.</p>

## Entries

Object Type	<a href="#">Link</a>
Data Type	<a href="#">LinkEntry[]</a>
Default	undefined
Explanation	<p>Array of link entry objects. This serves to color link section-wise.</p> <p><b>Note:</b> The order of the entries inside the array is important.</p>

## ID

Object Type	<a href="#">Link</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	required
Explanation	Identifier of this link.

## RelationType

Object Type	<a href="#">Link</a>
-------------	----------------------

Data Type	<a href="#">Enum.RelationType</a>
Default	RelationType.FinishToStart
Explanation	The relation type is used for drawing.
See also	<a href="#">Activity.LinkSourceDate</a> <a href="#">Activity.LinkTargetDate</a> <a href="#">Allocation.LinkSourceDate</a> <a href="#">Allocation.LinkTargetDate</a>

## RoutingType

Object Type	<a href="#">Link</a>
Data Type	<a href="#">Enum.LinkRoutingType</a>
Default	<a href="#">Option.defaultLinkRoutingType</a>
Explanation	Type of the link routing.

## Selectable

Object Type	<a href="#">Link</a>
Data Type	<a href="#">boolean</a>
Default	<a href="#">Option.defaultLinkSelectable</a>
Explanation	If set to true, then the link will be selectable.

## SourceActivityID

Object Type	<a href="#">Link</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of the source activity. This property or SourceAllocationID has to be set. Please also note the explanations at the beginning of this Link Chapter.
See also	<a href="#">Link.SourceAllocationID</a>

## SourceAllocationID

Object Type	<a href="#">Link</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of the source allocation. This property or property SourceActivityID has to be set. Please, also note the explanations at the beginning of this Link Chapter.
See also	<a href="#">Link.SourceActivityID</a>

## TargetActivityID

Object Type	<a href="#">Link</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of the source activity. This property or property TargetAllocationID has to be set.
See also	<a href="#">Link.TargetAllocationID</a>

## TargetAllocationID

Object Type	<a href="#">Link</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of the target allocation. This property or property TargetActivityID has to be set. Please also note the explanations at the beginning of this of this Link Chapter.
See also	<a href="#">Link.TargetActivityID</a>

## TargetMarker

Object Type	<a href="#">Link</a>
Data Type	<a href="#">Enum.LinkMarker</a>
Default	<a href="#">Option.defaultLinkTargetMarker</a>
Explanation	Allows to change the marker at the end (target) of a link.

## TooltipTemplateID

Object Type	<a href="#">Link</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultLinkTooltipTemplateID</a>
Explanation	ID of a tooltip template. The template is used for tooltips that appear on the links.

## Width

Object Type	<a href="#">Link</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	1
Explanation	Line width of the link. The link arrow is also affected by this property.



## 2.15 LinkEntry

Explanation	A LinkEntry object defines a single time period expressed as a duration. It must be referenced in the Entries array of a Link object.
Members	<a href="#">Color</a> <a href="#">Duration</a>

### Color

Object Type	<a href="#">LinkEntry</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Link.Color</a>
Explanation	Color for the defined time period.

### Duration

Object Type	<a href="#">LinkEntry</a>
Data Type	<a href="#">number</a>
Data Range	$\geq 0$
Default	0
Explanation	Duration in milliseconds directly following the entry before this one in the array. If it is the first entry, then the time period starts at the date and time where the link starts. The duration given is taken as an absolute value (no working-time calendar is taken into account). This serves for marking times such as a transport time or cool down time after an activity or allocation is finished.

## 2.16 PeriodHighlighter

UML Diagram	<pre> classDiagram     class Activity {         +PeriodHighlighterID     }     class PeriodHighlighter {         +Entries     }     class Resource {         +PeriodHighlighterID     }     class PeriodHighlighterEntry {         +Start         +End     }     Activity "0..*" --&gt; "0..1" PeriodHighlighter     Resource "0..*" --&gt; "0..1" PeriodHighlighter     PeriodHighlighter "1" *-- "1..*" PeriodHighlighterEntry   </pre>
Explanation	A PeriodHighlighter object is a pure presentation object and defines the properties of a series of time periods that can be shown on each resource row and activity row. Each time period can be colored independently and can have a caption. Period highlighters also support the callbacks onShowTooltip, onDoubleClicked, and onShowContextMenu. In contrast to the grids created by Calendar objects, the time periods do not define work or non-work times, but only highlight time periods visually.

Members	<a href="#">Entries</a> <a href="#">ID</a>
See also	<a href="#">Activity.PeriodHighlighterID</a> <a href="#">Resource.PeriodHighlighterID</a> <a href="#">Method.addPeriodHighlighters</a> <a href="#">Method.updatePeriodHighlighters</a> <a href="#">Method.removePeriodHighlighters</a>
Used by	<a href="#">Callback.onClicked</a> <a href="#">Callback.onDoubleClicked</a> <a href="#">Callback.onShowTooltip</a>

## Entries

Object Type	<a href="#">PeriodHighlighter</a>
Data Type	<a href="#">PeriodHighlighterEntry[]</a>
Default	required
Explanation	Array of entries that contain single time periods.

## ID

Object Type	<a href="#">PeriodHighlighter</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	required
Explanation	Identifier of the period highlighter.

## 2.17 PeriodHighlighterEntry

Members	<a href="#">Caption</a> <a href="#">CaptionColor</a> <a href="#">Color</a> <a href="#">End</a> <a href="#">Start</a> <a href="#">TooltipTemplateID</a>
Used by	<a href="#">Callback.onClicked</a> <a href="#">Callback.onDoubleClicked</a> <a href="#">Callback.onShowContextMenu</a> <a href="#">Callback.onShowTooltip</a>

## Caption

Object Type	<a href="#">PeriodHighlighterEntry</a>
Data Type	<a href="#">string</a>
Default	""

Explanation	Text to show on the time period. <b>Note:</b> Several immediately consecutive spaces are always combined into one space by the browsers. If the individual spaces are to be preserved, then each of them must be replaced by the Unicode character \u00A0.
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## CaptionColor

Object Type	<a href="#">PeriodHighlighterEntry</a>
Data Type	<a href="#">ColorAsString</a>
Default	"white"
Explanation	Color of the caption for this time period.

## Color

Object Type	<a href="#">PeriodHighlighterEntry</a>
Data Type	<a href="#">ColorAsString</a>
Default	"rgba(0,0,0,0.1)"
Explanation	Color of this time period.

## End

Object Type	<a href="#">PeriodHighlighterEntry</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	required
Explanation	End of the time period.

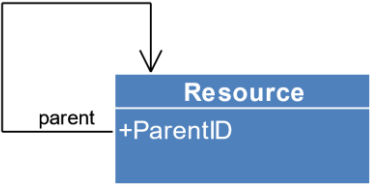
## Start

Object Type	<a href="#">PeriodHighlighterEntry</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	required
Explanation	Start of the time period.

## TooltipTemplateID

Object Type	<a href="#">PeriodHighlighterEntry</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultPeriodHighlighterEntryTooltipTemplateID</a>
Explanation	ID of a tooltip template. The template is used for tooltips that appear on the period highlighter entry.
See also	<a href="#">ObjectType.TooltipTemplate</a>

## 2.18 Resource

UML Diagram	 <pre> classDiagram     class Resource {         +ParentID     }     Resource --&gt; Resource : parent   </pre> <p>The diagram shows a class named 'Resource' with a public attribute '+ParentID'. A self-referencing association arrow labeled 'parent' points from the class back to itself.</p>
Explanation	A Resource object defines the properties of a single resource.
Members	<ul style="list-style-type: none"> <li><a href="#">AllocationRowsCollapseState</a></li> <li><a href="#">AllocationRowsCollapseStateInActivitiesView</a></li> <li><a href="#">AllocationRowsCollapsible</a></li> <li><a href="#">AllowedRowDragModes</a></li> <li><a href="#">CalendarGridColor</a></li> <li><a href="#">CalendarID</a></li> <li><a href="#">CapacityCurveID</a></li> <li><a href="#">CollapsedRowDesign</a></li> <li><a href="#">CollapseState</a></li> <li><a href="#">CollapseStateInLoadsView</a></li> <li><a href="#">CurveCollapseState</a></li> <li><a href="#">CurveTooltipTemplateID</a></li> <li><a href="#">ExpandedRowDesign</a></li> <li><a href="#">HasAllocationRows</a></li> <li><a href="#">HasChildren</a></li> <li><a href="#">HasCurves</a></li> <li><a href="#">ID</a></li> <li><a href="#">LoadCurveID</a></li> <li><a href="#">LoadCurvePaneHeight</a></li> <li><a href="#">MinimumRowHeight</a></li> <li><a href="#">ParentID</a></li> <li><a href="#">PeriodHighlighterID</a></li> <li><a href="#">RowCollapsible</a></li> <li><a href="#">RowSelectable</a></li> <li><a href="#">RowSymbolColumnBackgroundColor</a></li> <li><a href="#">RowSymbolIDs</a></li> <li><a href="#">RowTooltipTemplateID</a></li> <li><a href="#">SkilledRowTooltipTemplateID</a></li> <li><a href="#">SkillIDs</a></li> <li><a href="#">SortCode</a></li> <li><a href="#">TableColor</a></li> <li><a href="#">TableRowDefinitionID</a></li> <li><a href="#">TableText</a></li> <li><a href="#">TableTextColor</a></li> <li><a href="#">ViewArea</a></li> </ul>
See also	<ul style="list-style-type: none"> <li><a href="#">Method.addResources</a></li> <li><a href="#">Method.updateResources</a></li> <li><a href="#">Method.removeResources</a></li> </ul>

Used by	<a href="#">Callback.onCurveCollapseStateChanged</a>
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## AllocationRowsCollapseState

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">Enum.CollapseState</a>
Default	CollapseState.Unchanged
Explanation	Specifies whether the allocation rows of the resource should be expanded or collapsed when displayed.
See also	<a href="#">Callback.onCollapseStateChanged</a> <a href="#">Option.allocationRowsVisibleInResourcesView</a> <a href="#">Resource.AllocationRowsCollapseStateInActivitiesView</a>
Used by	<a href="#">Resource.AllocationRowsCollapseStateInActivitiesView</a>

## AllocationRowsCollapseStateInActivitiesView

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">Enum.CollapseState</a>
Default	<a href="#">Resource.AllocationRowsCollapseState</a>
Explanation	Specifies whether the allocation rows of the resource rows in the activities view should be expanded or collapsed when displayed.
See also	<a href="#">Callback.onCollapseStateChanged</a> <a href="#">Method.setResourcePropertiesForActivities</a> <a href="#">Option.allocationRowsVisibleInActivitiesView</a> <a href="#">Option.resourcesVisibleInActivitiesView</a> <a href="#">Resource.AllocationRowsCollapseState</a>

## AllocationRowsCollapsible

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">boolean</a>
Default	<a href="#">Option.defaultResourceAllocationRowCollapsible</a>
Explanation	If set to true, then the row representing this resource row will be interactively collapsible when allocation rows exist.

## AllowedRowDragModes

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">Enum.RowDragModes</a>
Default	<a href="#">Option.defaultResourceAllowedRowDragModes</a>
Explanation	This option determines the allowed row drag modes for this resource in resources view and loads view. It can be overwritten with the callback canDrag.
See also	<a href="#">Callback.canDrag</a>

	<a href="#">Option.defaultResourceAllowedRowDragModes</a>
--	---

## CalendarGridColor

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.calendarGridColor</a>
Explanation	Specifies a color used to color the vertical stripes representing the nonworking times for the resource object inside the diagram. If allocation rows are visible the color is used for these rows, too.

## CalendarID

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultCalendarID</a>
Explanation	Corresponding calendar.
See also	<a href="#">Resource.PeriodHighlighterID</a>

## CapacityCurveID

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of any curve representing the capacity of this resource. If the identifier references a curve stack, then the summed curve is shown with the color settings of the curve stack.
See also	<a href="#">ObjectType.Curve</a>

## CollapsedRowDesign

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">Enum.RowDesigns</a>
Default	<a href="#">Option.defaultResourceCollapsedRowDesign</a>
Explanation	Specifies how the time area is filled when the row is collapsed and visible.

## CollapseState

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">Enum.CollapseState</a>
Default	CollapseState.Unchanged

Explanation	Specifies whether the row of the resource should be expanded or collapsed when displayed in resources view and eventually in loads view.
See also	<a href="#">Callback.onCollapseStateChanged</a> <a href="#">HierarchySupplementaryDefinition.InitiallyCollapsed</a> <a href="#">Resource.CollapseStateInLoadsView</a>

## CollapseStateInLoadsView

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">Enum.CollapseState</a>
Default	undefined
Explanation	Specifies whether the row of the resource should be expanded or collapsed when displayed in the loads view. If undefined, then the property CollapseState is used for compatibility reasons.
See also	<a href="#">Callback.onCollapseStateChanged</a> <a href="#">Resource.CollapseState</a>

## CurveCollapseState

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">Enum.CollapseState</a>
Default	CollapseState.Unchanged
Explanation	Specifies whether the curves in a resource row should be expanded or collapsed when displayed.
See also	<a href="#">Callback.onCurveCollapseStateChanged</a>

## CurveTooltipTemplateID

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultResourceCurveTooltipTemplateID</a>
Explanation	ID of a tooltip template. The template is used for tooltips that appear on the curve area of resources.

## ExpandedRowDesign

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">Enum.RowDesigns</a>
Default	<a href="#">Option.defaultResourceExpandedRowDesign</a>
Explanation	Specifies how the time area is filled when the row is expanded and visible.

## HasAllocationRows

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then the row representing this resource will be collapsible/expandable for allocation rows even when no allocations exist referencing this resource. This serves for lazy loading.

## HasChildren

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then the row representing this resource will be collapsible/expandable even when there are no children defined. This serves for lazy loading.

## HasCurves

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then the row representing this resource will be collapsible/expandable for curves even where there are no curves defined. This serves for lazy loading.

## ID

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	required
Explanation	Identifier of the resource.
See also	<a href="#">Allocation.ResourceID</a>

## LoadCurveID

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Identifier of any curve representing the load of this resource. If the identifier references a curve stack, then all curves within the curve stack are shown with their individual color settings as a stack.
See also	<a href="#">ObjectType.Curve</a>



## LoadCurvePaneHeight

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	<a href="#">Option.defaultResourceLoadCurvePaneHeight</a>
Explanation	Height in pixels of the load curve pane.
See also	<a href="#">Option.maximumResourceLoadCurvePaneHeight</a> <a href="#">Option.minimumResourceLoadCurvePaneHeight</a>

## MinimumRowHeight

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	<a href="#">Option.defaultResourceMinimumRowHeight</a>
Explanation	<p>Minimum height of the resource row in pixels. This option is useful when more than one line of text is shown inside the table cells. Proposal: For one line take 36, for two lines 52, for three lines 68, and so on. To get the same height even if no bar is placed in the row, take the maximum bar height plus 20 (e.g. 42) as the minimum.</p> <p>To use row wrap in table cells, you must use a table row definition by setting the property <code>TableRowDefinitionID</code> and the property <code>WrapMode</code> in a contained table cell definition.</p>

## ParentID

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	<p>Identifier of a parent resource this resource is assigned to. If this property is defined, the parent resource will become a resource group (if not yet a resource group) and it will keep its role as a resource with a capacity of its own.</p> <p>If this property is undefined the current resource will be considered as a root node of the resource hierarchy.</p> <p>We recommend to use only a few number of hierarchy levels and we do not guarantee correct function beyond approx. 100 levels including hierarchy levels created by using <code>HierarchySupplementaryDefinitions</code>.</p>
See also	<a href="#">Resource.ViewArea</a>

## PeriodHighlighterID

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">IdentifierAsString</a>

Default	undefined
Explanation	Reference to a period highlighter object that contains colored time periods. This can be used to show shifts or exceptions to the that defines work and non-work times.
See also	<a href="#">ObjectType.PeriodHighlighter</a> <a href="#">Resource.CalendarID</a>

## RowCollapsible

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">boolean</a>
Default	<a href="#">Option.defaultResourceRowCollapsible</a>
Explanation	If set to true, then the row representing this resource will be interactively collapsible when children exist.

## RowSelectable

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">boolean</a>
Default	<a href="#">Option.defaultResourceRowSelectable</a>
Explanation	If set to true, then the row representing this resource will be selectable.

## RowSymbolColumnBackgroundColor

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">TableRowDefinition.SymbolColumnBackgroundColor</a>   <a href="#">Option.symbolColumnBackgroundColor</a>
Explanation	Determines the color of the symbol column within this table row.

## RowSymbolIDs

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">IdentifierAsString[]</a>
Default	undefined
Explanation	<p>Array of identifiers of the symbols to be shown in the table symbol cell of the beginning of the table row.</p> <p>The symbols will be arranged one below the other. However, if the cell is not high enough to hold all symbols, then the remaining symbols are also arranged side-by-side. If this still does not fit, an additional “show more” symbol will be displayed.</p> <p>An empty string (“”) will cause an “empty” symbol to be displayed. By this placeholder, you can reserve space for a symbol that may be shown at a later time.</p> <p><b>Note:</b> Each symbol will be resized to an image with a width and height of 16 pixels each at a zoom level of 100%.</p>
See also	<a href="#">Symbol.ID</a>

## RowTooltipTemplateID

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultResourceRowTooltipTemplateID</a>
Explanation	ID of a tooltip template. The template is used for the tooltip that appears in the table row when the mouse pointer hovers over it.

## SkilledRowTooltipTemplateID

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultSkilledResourceRowTooltipTemplateID</a>
Explanation	ID of a tooltip template. The template is used for the tooltip that appears in the entity table row. It accesses the evaluation of the property RowTooltipTemplateID if it is not set.

## SkillIDs

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">IdentifierAsString[]</a>
Default	undefined
Explanation	The resource object is shown as a row below the rows of the referenced Skill objects in the skilled resources view. If this property is set, the ParentID property must not be set!

## SortCode

Object Type	<a href="#">Resource</a>
Data Types	<a href="#">number</a>   <a href="#">string</a>   <a href="#">Date</a>
Default	undefined
Explanation	The value is used when sorting resource rows. The value type can be any that can be compared using JavaScript.
See also	<a href="#">Option.resourceRowSortCodePropertyName</a> <a href="#">Option.resourceRowSortMode</a>

## TableColor

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">ColorAsString</a>

Default	level-dependent gray
Explanation	Color for the table row.

## TableRowDefinitionID

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	Option.defaultResourceTableRowDefinitionID
Explanation	Identifier of a TableRowDefinition object, that defines the composition of the table row.
See also	<a href="#">HierarchySupplementaryDefinition.TableRowDefinitionID</a> <a href="#">Resource.TableText</a>

## TableText

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">string</a>
Default	undefined
Explanation	Text to display in the table row. <b>Note:</b> Several immediately consecutive spaces are always combined into one space by the browsers. If the individual spaces are to be preserved, then each of them must be replaced by the Unicode character \u00A0.
See also	<a href="#">Resource.TableRowDefinitionID</a>

## TableTextColor

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">ColorAsString</a>
Default	"black"
Explanation	Color for the table row texts. If undefined, a default value of the widget will be used.

## ViewArea

Object Type	<a href="#">Resource</a>
Data Type	<a href="#">Enum.ViewArea</a>
Default	ViewArea.Main
Explanation	If set to Top, then the resource and its children are shown in a separate top view area in the resources view. Only settable on resource with no ParentID set.
See also	<a href="#">ObjectType.Link</a> <a href="#">Option.mainViewAreaVisibleInLoadsView</a> <a href="#">Option.mainViewAreaVisibleInResourcesView</a> <a href="#">Option.topViewAreaVisibleInLoadsView</a> <a href="#">Option.topViewAreaVisibleInResourcesView</a>

	<a href="#">Resource.ParentID</a>
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## 2.19 Skill

UML Diagram	<pre> classDiagram     class Resource     class Skill     class Allocation     Resource "0..*" --&gt; "0..*" Skill     Allocation "0..*" --&gt; "0..1" Skill   </pre>
Explanation	<p>A Skill object is used for defining a skill for allocations and resources. It is visible when switching to the skilled resources view.</p> <p>In this view, skills are shown as rows in the highest hierarchy level with the associated resources in rows of the next hierarchy level. Since the property SkillIDs of resources can hold references to more than one skill, resources show up more than once in this view. Only resources without parent are visible within the skilled resources view.</p> <p>Each resource row shows the allocations assigned to it, but the allocations that reference the skill of the hierarchy parent row of the resource row are shown in full bar design while the others are shown with less details (see option <code>allocationBarDesignOfOtherSkill</code>). So, allocations also show up more than once in this view.</p>
Members	<ul style="list-style-type: none"> <li><a href="#">AllowedRowDragModes</a></li> <li><a href="#">CollapsedRowDesign</a></li> <li><a href="#">CollapseState</a></li> <li><a href="#">ID</a></li> <li><a href="#">MinimumRowHeight</a></li> <li><a href="#">RowCollapsible</a></li> <li><a href="#">RowSelectable</a></li> <li><a href="#">RowSymbolColumnBackgroundColor</a></li> <li><a href="#">RowSymbolIDs</a></li> <li><a href="#">RowTooltipTemplateID</a></li> <li><a href="#">SortCode</a></li> <li><a href="#">TableColor</a></li> <li><a href="#">TableColorVisibleInTimeArea</a></li> <li><a href="#">TableRowDefinitionID</a></li> <li><a href="#">TableText</a></li> <li><a href="#">TableTextColor</a></li> <li><a href="#">ViewArea</a></li> </ul>
See also	<ul style="list-style-type: none"> <li><a href="#">Option.allocationBarDesignOfOtherSkill</a></li> <li><a href="#">Method.addSkills</a></li> <li><a href="#">Method.updateSkills</a></li> <li><a href="#">Method.removeSkills</a></li> </ul>

## AllowedRowDragModes

Object Type	<a href="#">Skill</a>
Data Type	<a href="#">Enum.RowDragModes</a>
Default	<a href="#">Option.defaultSkillAllowedRowDragModes</a>

Explanation	This option determines the allowed row drag modes for this skill (these can be overwritten using the callback canDrag).
See also	<a href="#">Callback.canDrag</a> <a href="#">Option.defaultSkillAllowedRowDragModes</a>

## CollapsedRowDesign

Object Type	<a href="#">Skill</a>
Data Type	<a href="#">Enum.RowDesigns</a>
Default	<a href="#">Option.defaultSkillCollapsedRowDesign</a>
Explanation	Specifies how the time area is filled when the skill row is collapsed and visible. Only the flags BarsOfHiddenDescendantRows and BarsStacked are supported here.
See also	<a href="#">Option.defaultSkillCollapsedRowDesign</a>

## CollapseState

Object Type	<a href="#">Skill</a>
Data Type	<a href="#">Enum.CollapseState</a>
Default	CollapseState.Unchanged
Explanation	Specifies whether the row of the skill should be expanded or collapsed.
See also	<a href="#">Callback.onCollapseStateChanged</a>

## ID

Object Type	<a href="#">Skill</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	required
Explanation	Identifier of the skill.

## MinimumRowHeight

Object Type	<a href="#">Skill</a>
Data Type	<a href="#">PixelsAsNumber</a>
Default	<a href="#">Option.defaultSkillMinimumRowHeight</a>
Explanation	<p>Minimum height of the skill row.</p> <p>This option is useful when more than one line of text is shown inside the table cells. Proposal: For one line take 36, for two lines 52, for three lines 68, and so on. To have the same height also, when no bar is placed in the row, take the maximum bar height adding 20 (e.g., 42) as minimum.</p> <p>For using word wrapping in table cells, it is necessary to use a table row definition by setting the property TableRowDefinitionID and setting the property WrapMode in a contained table cell definition.</p>

See also	<a href="#">Skill.TableRowDefinitionID</a> <a href="#">TableCellDefinition.WrapMode</a>
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## RowCollapsible

Object Type	<a href="#">Skill</a>
Data Type	<a href="#">boolean</a>
Default	<a href="#">Option.defaultSkillRowCollapsible</a>
Explanation	If set to true, then the row representing this skill will be interactively collapsible when children exist.

## RowSelectable

Object Type	<a href="#">Skill</a>
Data Type	<a href="#">boolean</a>
Default	<a href="#">Option.defaultSkillRowSelectable</a>
Explanation	If set to true, then the row representing this skill will be selectable.

## RowSymbolColumnBackgroundColor

Object Type	<a href="#">Skill</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">TableRowDefinition.SymbolColumnBackgroundColor</a>   <a href="#">Option.symbolColumnBackgroundColor</a>
Explanation	Determines the color of the symbol column within this table row.

## RowSymbolIDs

Object Type	<a href="#">Skill</a>
Data Type	<a href="#">IdentifierAsString[]</a>
Default	undefined
Explanation	<p>Array of identifiers of the symbols to be shown in the table symbol cell of the beginning of the table row.</p> <p>The symbols will be arranged one below the other. However, if the cell is not high enough to hold all symbols, then the remaining symbols are also arranged side-by-side. If this still does not fit, an additional “show more” symbol will be displayed.</p> <p>An empty string (“”) will cause an “empty” symbol to be displayed. By this placeholder, you can reserve space for a symbol that may be shown at a later time.</p> <p><b>Note:</b> Each symbol will be resized to an image with a width and height of 16 pixels each at a zoom level of 100%.</p>

## RowTooltipTemplateID

Object Type	<a href="#">Skill</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultSkillRowTooltipTemplateID</a>
Explanation	ID of a tooltip template. The template is used for the tooltip that will appear on the table row when hovering the cursor above it.

## SortCode

Object Type	<a href="#">Skill</a>
Data Types	<a href="#">number</a>   <a href="#">string</a>   <a href="#">Date</a>
Default	undefined
Explanation	If set, then the value will be used when sorting skill rows. The value type can be any that can be compared using JavaScript.
See also	<a href="#">Option.skillRowSortCodePropertyName</a> <a href="#">Option.skillRowSortMode</a>

## TableColor

Object Type	<a href="#">Skill</a>
Data Type	<a href="#">ColorAsString</a>
Default	level-dependent gray
Explanation	Color for the table row.
See also	<a href="#">Skill.TableColorVisibleInTimeArea</a>

## TableColorVisibleInTimeArea

Object Type	<a href="#">Skill</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, the time area row will be colored using the color defined by the TableColor property.
See also	<a href="#">Skill.TableColor</a>

## TableRowDefinitionID

Object Type	<a href="#">Skill</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultSkillTableRowDefinitionID</a>
Explanation	Identifier of a TableRowDefinition object that defines the composition of the table row.



See also	<a href="#">Skill.MinimumRowHeight</a> <a href="#">Skill.TableText</a>
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## TableText

Object Type	<a href="#">Skill</a>
Data Type	<a href="#">string</a>
Default	undefined
Explanation	Text to display in the table row. <b>Note:</b> Several immediately consecutive spaces are always combined into one space by the browsers. If the individual spaces are to be preserved, then each of them must be replaced by the Unicode character \u00A0.
See also	<a href="#">Skill.TableRowDefinitionID</a>

## TableTextColor

Object Type	<a href="#">Skill</a>
Data Type	<a href="#">ColorAsString</a>
Default	"black"
Explanation	Color for the table row texts.

## ViewArea

Object Type	<a href="#">Skill</a>
Data Type	<a href="#">Enum.ViewArea</a>
Default	ViewArea.Main
Explanation	If this value is set to Top, the skill and its resources will be displayed in a separate top view area in the skilled resources view. See also options <a href="#">mainViewAreaVisibleInSkilledResourcesView</a> and <a href="#">topViewAreaVisibleInSkilledResourcesView</a> .
See also	<a href="#">Option.mainViewAreaVisibleInSkilledResourcesView</a> <a href="#">Option.topViewAreaVisibleInSkilledResourcesView</a>

## 2.20 Symbol

<p>UML Diagram</p>	<pre> classDiagram     class Activity {         +BarShapeSymbolID         +BarTextPrefixSymbolID         +DueDateSymbolID         +LeftBarSymbolID         +ReleaseDateSymbolID         +RightBarSymbolID         +RowSymbolIDs         +TopLeftBarSymbolID         +TopRightBarSymbolID     }     class Symbol {         +URL     }     class Allocation {         +BarShapeSymbolID         +BarTextPrefixSymbolID         +LeftBarSymbolID         +RightBarSymbolID         +RowSymbolIDs         +TopLeftBarSymbolID         +TopRightBarSymbolID     }     class Resource {         +RowSymbolIDs     }     class Entity {         +RowSymbolIDs     }     class DateLine {         +SymbolID     }     Activity "0..*" --&gt; "0..*" Symbol     Allocation "0..*" --&gt; "0..*" Symbol     Resource "0..*" --&gt; "0..*" Symbol     DateLine "0..*" --&gt; "0..*" Symbol     Entity "0..*" --&gt; "0..*" Symbol     </pre>
<p>Explanation</p>	<p>A Symbol object is a pure presentation object and defines the properties of a single symbol. Symbols are used by resources, activities, and allocations. They can be displayed at different locations inside the table and the diagram area.</p> <p><b>Note:</b> The symbols will be resized to an image with an appropriate width and height depending on their application. Therefore, when designing the symbols, you should ensure that they are clearly recognizable and visually distinguishable. For more details regarding the size, please see the descriptions of the properties related to symbols.</p> <p>For some users maybe it is not possible to use paths in the property URL at all, but instead you have the possibility to use 'Data URIs', that can be created using an online service to convert your SVG file to a string containing the SVG.</p> <p><b>A note regarding PDF export:</b> If you want to use our method saveAsPDF, then you will have to ensure that your SVG image files do not contain &lt;style&gt; tags, since the contained selectors may change the appearance of the exported SVG content. In case of existing &lt;style&gt; try to replace them by using style attributes on other tags. We can help if there are problems arising.</p>
<p>Members</p>	<p><a href="#">ClickableInEntitiesTable</a>  <a href="#">ClickableInTable</a>  <a href="#">ID</a>  <a href="#">TooltipTemplateID</a>  <a href="#">URL</a></p>
<p>See also</p>	<p><a href="https://websemantics.uk/tools/image-to-data-uri-converter/">https://websemantics.uk/tools/image-to-data-uri-converter/</a>  <a href="#">Method.addSymbols</a>  <a href="#">Method.updateSymbols</a>  <a href="#">Method.removeSymbols</a></p>

## ClickableInEntitiesTable

<p>Object Type</p>	<p><a href="#">Symbol</a></p>
<p>Data Type</p>	<p><a href="#">boolean</a></p>
<p>Default</p>	<p>false</p>
<p>Explanation</p>	<p>If set to true, then the symbol is clickable in the entities table.</p>

## ClickableInTable

Object Type	<a href="#">Symbol</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then the symbol is clickable in the table.

## ID

Object Type	<a href="#">Symbol</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	required
Explanation	Identifier of the symbol. If an identifier that is not defined is used as a reference, then no symbol appears.
See also	<a href="#">Activity.BarShapeSymbolID</a> <a href="#">Activity.BarTextPrefixSymbolID</a> <a href="#">Activity.DueDateSymbolID</a> <a href="#">Activity.LeftBarSymbolID</a> <a href="#">Activity.ReleaseDateSymbolID</a> <a href="#">Activity.RightBarSymbolID</a> <a href="#">Activity.RowSymbolIDs</a> <a href="#">Activity.TopLeftBarSymbolID</a> <a href="#">Activity.TopRightBarSymbolID</a> <a href="#">Allocation.BarShapeSymbolID</a> <a href="#">Allocation.BarTextPrefixSymbolID</a> <a href="#">Allocation.LeftBarSymbolID</a> <a href="#">Allocation.RightBarSymbolID</a> <a href="#">Allocation.RowSymbolIDs</a> <a href="#">Allocation.TopLeftBarSymbolID</a> <a href="#">Allocation.TopRightBarSymbolID</a> <a href="#">DateLine.SymbolID</a> <a href="#">Entity.RowSymbolIDs</a> <a href="#">Resource.RowSymbolIDs</a>

## TooltipTemplateID

Object Type	<a href="#">Symbol</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	ID of a tooltip template. The template is used for the tooltip that appears when the mouse pointer hovers over it.

## URL

Object Type	<a href="#">Symbol</a>
Data Type	<a href="#">string</a>
Default	required
Explanation	<p>URL of a SVG image containing the symbol.</p> <p>Two types of URLs are allowed:</p> <p>absolute URL (e.g. “https://www.aaazz.com/symbol.svg”)</p> <p>relative URL (e.g. “images/symbol.svg”) – In this case, the anchor path for the symbol directory is the application directory.</p> <p>Data URI (e.g. 'data:image/svg+xml;base64,...').</p>
See also	<p><a href="https://en.wikipedia.org/wiki/Data_URI_scheme">https://en.wikipedia.org/wiki/Data_URI_scheme</a></p> <p><a href="https://www.sarasoueidan.com/blog/svg-tips-for-designers/">https://www.sarasoueidan.com/blog/svg-tips-for-designers/</a></p> <p><a href="https://www.w3.org/TR/SVGTiny12">https://www.w3.org/TR/SVGTiny12</a></p>

## 2.21 TableCellDefinition

Members	<p><a href="#">BackgroundColor</a></p> <p><a href="#">BackgroundColorSource</a></p> <p><a href="#">HorizontalAlignment</a></p> <p><a href="#">HorizontalTitleAlignment</a></p> <p><a href="#">MaximumWidth</a></p> <p><a href="#">MinimumWidth</a></p> <p><a href="#">SymbolHeight</a></p> <p><a href="#">SymbolIDSource</a></p> <p><a href="#">SymbolWidth</a></p> <p><a href="#">TextColor</a></p> <p><a href="#">TextColorSource</a></p> <p><a href="#">TextFormat</a></p> <p><a href="#">TextSource</a></p> <p><a href="#">Title</a></p> <p><a href="#">TitleText</a></p> <p><a href="#">VerticalAlignment</a></p> <p><a href="#">Width</a></p> <p><a href="#">WrapMode</a></p>
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## BackgroundColor

Object Type	<a href="#">TableCellDefinition</a>
Data Type	<a href="#">ColorAsString</a>
Default	undefined
Explanation	<p>If set and property BackgroundColorSource is empty or the referenced property on a row object is empty, then this color overlays the background color of the table row defined in the property TableColor of the row object and the property BackgroundColor of the TableRowDefinition object.</p>
See also	<p><a href="#">TableCellDefinition.BackgroundColorSource</a></p> <p><a href="#">TableRowDefinition.BackgroundColor</a></p>

## BackgroundColorSource

Object Type	<a href="#">TableCellDefinition</a>
Data Type	<a href="#">string</a>
Default	undefined
Explanation	If set to an object's property name and the value of the referenced property on a row object is not empty, then the value there overlays the background color defined by property BackgroundColor and property TableCell of the row object.
See also	<a href="#">TableCellDefinition.BackgroundColor</a> <a href="#">TableRowDefinition.BackgroundColor</a> <a href="#">TableRowDefinition.TextColor</a>

## HorizontalAlignment

Object Type	<a href="#">TableCellDefinition</a>
Data Type	<a href="#">Enum.HorizontalAlignment</a>
Default	HorizontalAlignment.Left
Explanation	Horizontal alignment of the shown text. The first column is always shown with left alignment because of the tree symbols on the left side.
See also	<a href="#">TableCellDefinition.VerticalAlignment</a>

## HorizontalTitleAlignment

Object Type	<a href="#">TableCellDefinition</a>
Data Type	<a href="#">Enum.HorizontalAlignment</a>
Default	HorizontalAlignment.Center
Explanation	Horizontal alignment of the shown title text. In the entities table, the last column is always shown centered.

## MaximumWidth

Object Type	<a href="#">TableCellDefinition</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	Infinity
Explanation	Maximum width of the table cell when the cell width is changed interactively. The unit is pixels at a zoom factor of 100%.

## MinimumWidth

Object Type	<a href="#">TableCellDefinition</a>
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Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	3
Explanation	Minimum width of the table cell when the cell width is changed interactively. The unit is pixels at a zoom factor of 100%.

## SymbolHeight

Object Type	<a href="#">TableCellDefinition</a>
Data Type	<a href="#">PixelsAsNumber</a>
Default	undefined
Explanation	If set, then the symbol height is constant. If not set, then the symbol height is determined on each table row to fill the full height of that.
Used by	<a href="#">TableCellDefinition.SymbolWidth</a>

## SymbolIDSource

Object Type	<a href="#">TableCellDefinition</a>
Data Type	<a href="#">string</a>
Default	""
Explanation	Name of the property of the referencing activity, resource, or entity object from which the symbolID is taken. The symbol will be displayed in the cell inside a square that has the size of the minimum row height. The symbol will obey the HorizontalAlignment property. It is also possible to use the TextSource property along with this property, but there are the following restrictions: If using left alignment, the text will be indented so that it is to the right of the symbol. If using center or right alignment, the symbol will be overlapped by the text.
See also	<a href="#">TableCellDefinition.TextSource</a>

## SymbolWidth

Object Type	<a href="#">TableCellDefinition</a>
Data Type	<a href="#">PixelsAsNumber</a>
Default	<a href="#">TableCellDefinition.SymbolHeight</a>
Explanation	If set, then the symbol width is constant. If not set, then the symbol will be stretched to be square.

## TextColor

Object Type	<a href="#">TableCellDefinition</a>
Data Type	<a href="#">ColorAsString</a>
Default	undefined

Explanation	If set and property TextColorSource is empty or the referenced property on a row object is empty, then this color overlays the text color of the table row defined in the property TableTextColor of the row object.
See also	<a href="#">TableCellDefinition.TextColorSource</a> <a href="#">TableRowDefinition.TextColor</a>

## TextColorSource

Object Type	<a href="#">TableCellDefinition</a>
Data Type	<a href="#">string</a>
Default	undefined
Explanation	If set to an object's property name and the value of the referenced property on a row object is not empty, then the value there overlays the text color defined by property TextColor and property TableTextColor of the row object.
See also	<a href="#">TableCellDefinition.TextColor</a>

## TextFormat

Object Type	<a href="#">TableCellDefinition</a>
Data Type	<a href="#">string</a>
Default	undefined
Explanation	<p>String that describes the format of the content of the cell. This property overlays the property TextSource.</p> <p>This string contains the placeholders for object values surrounded by double curly braces <code>{{ }}</code>. For example, based on the following string the content for the table cell is created, in which the "name" and "firstName" properties of the referenced object are concatenated separated by a comma:</p> <pre>{{name}}, {{firstName}}</pre> <p>As an escape, the use of three open curly braces <code>{{{</code> are displayed as <code>{</code>.</p> <p>Additionally, the property name can be extended to contain the desired property type as in <code>{{Start:date}}</code>. At the moment only the types 'date' and 'number' are possible besides 'string' (other property types are converted automatically with <code>toString()</code>). The type 'date' converts date values by default using the same format as other dates in the timescale and at the dragging date line captions. You can add another colon followed by a format name, that is defined by the options <code>intlDateTimeFormatOptionsMap</code> or <code>intlNumberFormatOptionsMap</code>, resp.</p> <p>The referenced object is the object on which the tooltip will be shown. For period highlighter entries and allocation entries the referenced object is the main object and not the entry object.</p> <p>It is possible to access related objects by using the following keywords within the property accessor string:</p> <ul style="list-style-type: none"> <li>On activities: <code>&gt;Parent</code>, <code>&gt;Calendar</code></li> </ul>

	<ul style="list-style-type: none"> <li>• On resources: &gt;Parent, &gt;Calendar, &gt;LoadCurve, &gt;CapacityCurve</li> <li>• Additionally on resources in SkilledResources view: &gt;Skill</li> <li>• On entities: &gt;Parent</li> <li>• On allocations: &gt;Activity, &gt;Resource</li> <li>• On links: &gt;SourceActivity, &gt;TargetActivity, &gt;SourceAllocation, &gt;TargetAllocation</li> </ul> <p>It is also possible to access variables that are defined by the option <code>applicationVariablesMap</code> by using <code>?variableName</code>.</p> <p>If the value reached is an object, you can then access a property value by using a prefixed dot: <code>.propertyName</code> and you can use <code>[...]</code> to access a property value, a map entry or an array entry. Within <code>[...]</code> you can use a literal like <code>5</code> or <code>A</code> (with or without quotes) or even curly braces <code>{{...}}</code> with the same rules as above.</p>
See also	<a href="#">Option.applicationVariablesMap</a> <a href="#">TableCellDefinition.TextSource</a>

## TextSource

Object Type	<a href="#">TableCellDefinition</a>
Data Type	<a href="#">string</a>
Default	"" (when property <code>SymbolIDSource</code> is set)   "TableText"
Explanation	Property to take the text out of the referencing activity, resource, or entity object.
See also	<a href="#">TableCellDefinition.SymbolIDSource</a> <a href="#">TableCellDefinition.TextFormat</a>

## Title

Object Type	<a href="#">TableCellDefinition</a>
Deprecated	Use property <a href="#">TableCellDefinition.TitleText</a> instead.

## TitleText

Object Type	<a href="#">TableCellDefinition</a>
Data Type	<a href="#">string</a>
Default	""
Explanation	<p>If the table row definition containing this table cell definition is referenced by one of the options <code>tableRowDefinitionIDForTitleInActivities/Resources/LoadsView</code> or <code>tableRowDefinitionIDForTitleInEntitiesTable</code>, then the title defined here will be shown in the table title.</p> <p><b>Note:</b> Several immediately consecutive spaces are always combined into one space by the browsers. If the individual spaces are to be preserved, then each of them must be replaced by the Unicode character <code>\u00A0</code>.</p>
See also	<a href="#">Option.tableRowDefinitionIDForTitleInActivitiesView</a> <a href="#">Option.tableRowDefinitionIDForTitleInEntitiesTable</a> <a href="#">Option.tableRowDefinitionIDForTitleInLoadsView</a> <a href="#">Option.tableRowDefinitionIDForTitleInResourcesView</a>



## VerticalAlignment

Object Type	<a href="#">TableCellDefinition</a>
Data Type	<a href="#">Enum.VerticalAlignment</a>
Default	VerticalAlignment.FirstLineOnBaseline
Explanation	Vertical alignment of the shown text. This is only working when WrapMode is not set None.
See also	<a href="#">TableCellDefinition.HorizontalAlignment</a> <a href="#">TableCellDefinition.WrapMode</a>

## Width

Object Type	<a href="#">TableCellDefinition</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	200
Explanation	Width of the table cell in pixels at a zoom factor of 100%.

## WrapMode

Object Type	<a href="#">TableCellDefinition</a>
Data Type	<a href="#">Enum.TextWrapMode</a>
Default	TextWrapMode.None
Explanation	If set, then it possible to show more than one line of text using newline characters ('\n').
See also	<a href="#">Activity.MinimumRowHeight</a> <a href="#">Allocation.MinimumRowHeight</a> <a href="#">Entity.MinimumRowHeight</a> <a href="#">Skill.MinimumRowHeight</a> <a href="#">TableCellDefinition.VerticalAlignment</a>

## 2.22 TableRowDefinition

UML Diagram	<pre> classDiagram     class Activity {         +TableRowDefinitionID     }     class Resource {         +TableRowDefinitionID     }     class Entity {         +TableRowDefinitionID     }     class TableRowDefinition {         +CellDefinitions     }     class TableCellDefinition {         +TextSource         +Title     }     Activity "0..*" -- "0..1" TableRowDefinition     Resource "0..*" -- "0..1" TableRowDefinition     Entity "0..*" -- "0..1" TableRowDefinition     TableRowDefinition "0..*" *-- "0..*" TableCellDefinition     </pre>
Explanation	<p>A TableRowDefinition object defines the composition of a table row containing one or more cells. You can reference these objects with the property TableRowDefinitionID of Activity, Allocation, Entity, and Resource objects. There are options for each property defining a default value for the corresponding property.</p> <p>Additionally, it is possible to declare one table row definition to provide the table title for the views and the entities table by using the options <code>tableRowDefinitionIDForTitleInActivities/Resources/ LoadsView</code> or <code>tableRowDefinitionIDForTitleInEntitiesTable</code>.</p>
Members	<p><a href="#">BackgroundColor</a></p> <p><a href="#">CellDefinitions</a></p> <p><a href="#">ID</a></p> <p><a href="#">SymbolColumnBackgroundColor</a></p> <p><a href="#">TextColor</a></p>
See also	<p><a href="#">Option.defaultActivityTableRowDefinitionID</a></p> <p><a href="#">Option.defaultAllocationTableRowDefinitionID</a></p> <p><a href="#">Option.defaultEntityTableRowDefinitionID</a></p> <p><a href="#">Option.defaultResourceTableRowDefinitionID</a></p> <p><a href="#">Method.addTableRowDefinitions</a></p> <p><a href="#">Method.updateTableRowDefintions</a></p> <p><a href="#">Method.removeTableRowDefinitions</a></p>

## BackgroundColor

Object Type	<a href="#">TableRowDefinition</a>
Data Type	<a href="#">ColorAsString</a>
Default	undefined
Explanation	<p>Background color of the table row.</p> <p>The value is only used when not undefined and is overlaid by the background color of the table row defined in the property TableColor of the row object.</p>
See also	<p><a href="#">TableCellDefinition.BackgroundColor</a></p> <p><a href="#">TableCellDefinition.BackgroundColorSource</a></p>

## CellDefinitions

Object Type	<a href="#">TableRowDefinition</a>
Data Type	<a href="#">TableCellDefinition[]</a>
Default	{ TitleText: "", TextSource: "TableText", Width: 200, HorizontalAlignment: HorizontalAlignment.Left }
Explanation	Array of TableCellDefinition objects.

## ID

Object Type	<a href="#">TableRowDefinition</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	required
Explanation	Identifier of the table row definition.
See also	<a href="#">Allocation.MinimumRowHeight</a> <a href="#">Option.defaultAllocationTableRowDefinitionID</a>

## SymbolColumnBackgroundColor

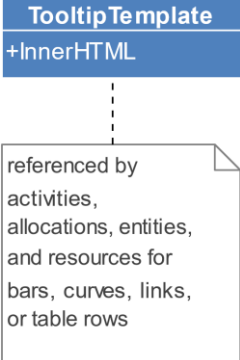
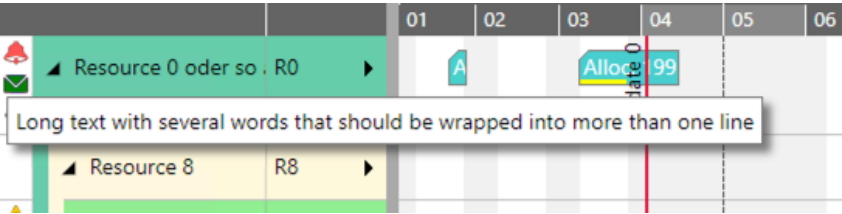
Object Type	<a href="#">TableRowDefinition</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.symbolColumnBackgroundColor</a>   <a href="#">Option.entitiesTableSymbolColumnBackgroundColor</a>
Explanation	Determines the color of the symbol column within this table row when the property RowSymbolColumnBackgroundColor is not set on the object where this table row definition is applied to.
Used by	<a href="#">Activity.RowSymbolColumnBackgroundColor</a> <a href="#">Allocation.RowSymbolColumnBackgroundColor</a> <a href="#">Entity.RowSymbolColumnBackgroundColor</a> <a href="#">Resource.RowSymbolColumnBackgroundColor</a> <a href="#">Skill.RowSymbolColumnBackgroundColor</a>

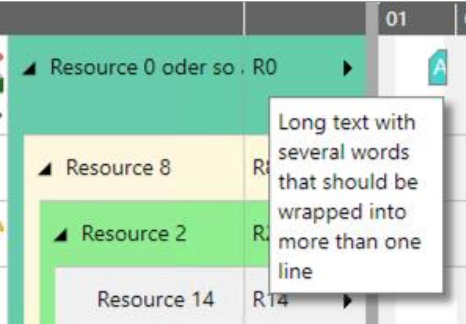
## TextColor

Object Type	<a href="#">TableRowDefinition</a>
Data Type	<a href="#">ColorAsString</a>
Default	undefined
Explanation	TextColor of the table row definition. The value is only used when not undefined and is overlaid by the text color of the table row defined in the property TableTextColor of the row object.
See also	<a href="#">TableCellDefinition.BackgroundColorSource</a>

[TableCellDefinition.TextColor](#)

## 2.23 TooltipTemplate

UML Diagram	 <pre> classDiagram     class TooltipTemplate {         +InnerHTML     }     </pre> <p>referenced by activities, allocations, entities, and resources for bars, curves, links, or table rows</p>
Explanation	<p>A <code>TooltipTemplate</code> object describes the appearance of a tooltip in the form of an HTML string. This string describes a DOM subtree and contains placeholders with references to the object properties to be displayed. At runtime, the placeholders are replaced by the values of the referenced object properties.</p> <p>There are two ways to apply a template:</p> <p>Either you can specify the template ID inside the out-parameter "tooltipTemplateID" of the <code>onShowTooltip</code> callback.</p> <p>Or you can use the properties <code>TooltipTemplateID</code>, <code>BarTooltipTemplateID</code>, <code>RowTooltipTemplateID</code>, and <code>CurveTooltipTemplateID</code> of the activities, resources, allocations, links, and entities. Additionally there exists the property <code>TooltipTemplateID</code> on period highlighter entries. All these properties have fallback options named:</p> <ul style="list-style-type: none"> <li>• <code>defaultActivityBar/AllocationBarTooltipTemplateID</code></li> <li>• <code>defaultActivityRow/AllocationRow/ResourceRow/EntityRowTooltipTemplateID</code></li> <li>• <code>defaultResourceCurve/Entity/PeriodHighlighterEntryTooltipTemplateID</code></li> </ul> <p>Here is an additional hint for designing the HTML markup.</p> <p>If you fill the markup with a normal table, you will get tooltips that are eventually very wide:</p> <pre>&lt;table&gt;&lt;tr&gt;&lt;td&gt;Long text with several words that should be wrapped into more than one line&lt;/td&gt;&lt;/tr&gt;&lt;/table&gt;</pre>  <p>In order to limit the width of the tooltip, you can set some attributes on the tags:</p> <pre>&lt;table style="word-wrap: break-word;"&gt;&lt;tr&gt;&lt;td style="max-width: 100px;"&gt;Long text with several words that should be wrapped into more than one line&lt;/td&gt;&lt;/tr&gt;&lt;/table&gt;</pre>

	 <p>Of course, you are free to use other HTML tags within the markup, also including images by using data URIs.</p>
Members	<a href="#">HTMLFormat</a> <a href="#">ID</a> <a href="#">InnerHTML</a>
See also	<a href="#">Option.defaultActivityBarTooltipTemplateID</a> <a href="#">Option.defaultAllocationBarTooltipTemplateID</a> <a href="#">Option.defaultActivityRowTooltipTemplateID</a> <a href="#">Option.defaultResourceRowTooltipTemplateID</a> <a href="#">Option.defaultEntityRowTooltipTemplateID</a> <a href="#">Option.defaultAllocationRowTooltipTemplateID</a> <a href="#">Option.defaultResourceCurveTooltipTemplateID</a> <a href="#">PeriodHighlighterEntry.TooltipTemplateID</a> <a href="#">Option.defaultResourceCurveTooltipTemplateID</a> <a href="#">Method.addTooltipTemplates</a> <a href="#">Method.updateTooltipTemplates</a> <a href="#">Method.removeTooltipTemplates</a>

## HTMLFormat

Object Type	<a href="#">TooltipTemplate</a>
Data Type	<a href="#">string</a>
Explanation	<p>String that describes the HTML format of the content of a tooltip.</p> <p>This string contains the placeholders for object values surrounded by double curly braces <code>{{ }}</code>. For example, based on the following string a tooltip with a table containing three rows of key-value pairs is created, where the values are taken from the properties "name", "firstName", and "age" of the referenced object:</p> <pre>&lt;table&gt;   &lt;tr&gt;&lt;td&gt;Name: &lt;/td&gt;&lt;td&gt;{{name}}&lt;/td&gt;&lt;/tr&gt;   &lt;tr&gt;&lt;td&gt;First name: &lt;/td&gt;&lt;td&gt;{{firstName}}&lt;/td&gt;&lt;/tr&gt;   &lt;tr&gt;&lt;td&gt;Age: &lt;/td&gt;&lt;td&gt;{{age}}&lt;/td&gt;&lt;/tr&gt; &lt;/table&gt;</pre> <p>As an escape, the use of three open curly braces <code>{{{</code> are displayed as <code>{{{</code>.</p> <p>Additionally, the property name can be extended to contain the desired property type as in <code>{{Start:date}}</code>. At the moment only the types 'date' and 'number' are possible besides</p>

	<p>'string' (other property types are converted automatically with toString()). The type 'date' converts date values by default using the same format as other dates in the timescale and at the dragging date line captions. You can add another colon followed by a format name, that is defined by the options intlDateTimeFormatOptionsMap or intlNumberFormatOptionsMap, resp.</p> <p>The referenced object is the object on which the tooltip will be shown. For period highlighter entries and allocation entries the referenced object is the main object and not the entry object.</p> <p>It is possible to access related objects by using the following keywords within the property accessor string:</p> <ul style="list-style-type: none"> <li>• On activities: &gt;Parent, &gt;Calendar</li> <li>• On resources: &gt;Parent, &gt;Calendar, &gt;LoadCurve, &gt;CapacityCurve</li> <li>• On entities: &gt;Parent</li> <li>• On allocations: &gt;Activity, &gt;Resource</li> <li>• On links: &gt;SourceActivity, &gt;TargetActivity, &gt;SourceAllocation, &gt;TargetAllocation</li> </ul> <p>It is also possible to access variables that are defined by the option applicationVariablesMap by using ?<i>variableName</i>.</p> <p>It is also possible to access other objects that are otherwise reachable by the callback arguments of the callback onShowTooltip by using the following keywords at the beginning of the property accessor string:</p> <ul style="list-style-type: none"> <li>• On allocations: #Entry</li> <li>• On period highlighters: #Entry, #RowObject.</li> <li>• On curves: #Date, #Capacity, #Load, #SingleLoads. For #SingleLoads you have to add .<i>curveID</i> to get the curve value for a single curve.</li> <li>• On resources and allocation rows in the skilled resources view: #Skill.</li> </ul> <p>If the value reached is an object, you can then access a property value by using a prefixed dot: .<i>propertyName</i> and you can use [...] to access a property value, a map entry or an array entry. Within [...] you can use a literal like 5 or A (with or without quotes) or even curly braces {{...}} with the same rules as above.</p> <p>Also, the keyword {{<i>@symbolID</i>}} is a placeholder for a defined symbol and can be used in &lt;image src="..."&gt; to show a symbol if needed (other URLs to external images are also possible).</p>
See also	<a href="#">Option.applicationVariablesMap</a>

## ID

Object Type	<a href="#">TooltipTemplate</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	required
Explanation	Identifier of the tooltip template.

## InnerHTML

Object Type	<a href="#">TooltipTemplate</a>
Deprecated	Use property <a href="#">TooltipTemplate.HTMLFormat</a> instead.

### 3 Widget

This is the central object that an application interacts with. Here are methods to add, update and remove the data objects mentioned above and there also are many options and callbacks to refine the appearance of the widget.

You can instantiate the widget pure or by using jQuery UI.

- **Pure:**

At first the widget has to be instantiated using a call like **`new netronic.nVSW.VSWWidget(document.querySelector("#gantDiv"), options)`**, where 'options' is an optional object containing first settings if needed (otherwise it can be left undefined). After that you can set additional options and use the provided methods on the returned widget object.

**Note:** You will have to call the method `destroy` when you remove the container element finally from the DOM to clear all internal objects and remove all sub-elements from the container element.

- **With jQuery UI:**

When jQuery UI is loaded, then it is possible to instantiate the widget by using a call like **`$("#gantDiv").nVSWWidget(options)`**, where 'options' is an optional object containing first settings if needed (otherwise it can be left undefined). After that you can set additional options and use the provided methods using the typical jQuery UI syntax `$("#gantDiv").nVSWWidget(methodNameAsString, params)` or by getting the widget instance object first by using `$("#gantDiv").nVSWWidget("instance")` and call the methods object-oriented on it.

Please see <https://learn.jquery.com/jquery-ui/> to learn how to work with jQuery and jQuery UI widgets in general.

**Note:** Please do not use option keys on instantiation (!) that take an object as a value, when you want to use the object further on, because jQueryUI makes a deep copy of the options object here. This is not the case when using the method "option".

**Note:** Please be aware that there is an automatic destroyal of the instance when the DOM element is removed from DOM. This makes it unnecessary to call the method `destroy` within the application.



## 3.1 Options

Explanation	<p>The following options can be set and get at any time within a session using the "option" method.</p> <p><b>A note regarding the old "pm_" prefix of the widget options:</b></p> <p>The old "pm_" prefix has been removed from the widget options for simplicity. However, there is no need to change existing code as the old notation of the options will continue to be supported.</p>
Members	<p><a href="#">activityBarTopOffsetAndHeightScaleFactor</a></p> <p><a href="#">activityBaselineBarsVisible</a></p> <p><a href="#">activityCalendarsEnabled</a></p> <p><a href="#">activityHierarchySupplementaryDefinitionID</a></p> <p><a href="#">activityRowSortCodePropertyName</a></p> <p><a href="#">activityRowSortMode</a></p> <p><a href="#">activityTableRowDefinitionIDForTitle</a></p> <p><a href="#">additionalDateInterpretedAsEmpty</a></p> <p><a href="#">additionalDateStringInterpretedAsEmpty</a></p> <p><a href="#">allocationBarDesignOfOtherActivity</a></p> <p><a href="#">allocationBarDesignOfOtherSkill</a></p> <p><a href="#">allocationBarTopOffsetAndHeightScaleFactor</a></p> <p><a href="#">allocationRowSortCodePropertyName</a></p> <p><a href="#">allocationRowSortMode</a></p> <p><a href="#">allocationRowsVisibleInActivitiesView</a></p> <p><a href="#">allocationRowsVisibleInResourcesView</a></p> <p><a href="#">allocationRowsVisibleInSkilledResourcesView</a></p> <p><a href="#">allocationSelectableOnlyOnOneResourceAtATime</a></p> <p><a href="#">applicationStyleDefinition</a></p> <p><a href="#">applicationVariablesMap</a></p> <p><a href="#">asynchronousInteractiveTimeAreaStretching</a></p> <p><a href="#">asynchronousRendering</a></p> <p><a href="#">barSortModeForOptimizedRowDesign</a></p> <p><a href="#">bottomRowMarginInTimeArea</a></p> <p><a href="#">calendarGridColor</a></p> <p><a href="#">clickCallbackTriggeringOnRowInTimeArea</a></p> <p><a href="#">commonViewAreaVisible</a></p> <p><a href="#">currentDate</a></p> <p><a href="#">cursorDateLineVisible</a></p> <p><a href="#">curvePanelsCollapsibleInResourcesView</a></p> <p><a href="#">curvePanelsCollapsibleInSkilledResourcesView</a></p> <p><a href="#">curvePanelsResizable</a></p> <p><a href="#">curvePanelsVisibleInActivitiesView</a></p> <p><a href="#">dateLineCaptionOptimizedPositioningEnabled</a></p> <p><a href="#">dateLineGridColor</a></p> <p><a href="#">dateLineGridDashArray</a></p> <p><a href="#">dateLineGridMode</a></p> <p><a href="#">dateLineGridWidth</a></p> <p><a href="#">decouplingOfAllocationPropertiesFromActivities</a></p> <p><a href="#">defaultActivityAllocationRowsCollapsible</a></p> <p><a href="#">defaultActivityAllowedBarDragModes</a></p>

<a href="#">defaultActivityAllowedRowDragModes</a>
<a href="#">defaultActivityBarDesign</a>
<a href="#">defaultActivityBarHeight</a>
<a href="#">defaultActivityBarSelectable</a>
<a href="#">defaultActivityBarShape</a>
<a href="#">defaultActivityBarTextFormat</a>
<a href="#">defaultActivityBarTooltipTemplateID</a>
<a href="#">defaultActivityCollapsedRowDesign</a>
<a href="#">defaultActivityConstraintSymbolColor</a>
<a href="#">defaultActivityExpandedRowDesign</a>
<a href="#">defaultActivityMinimumRowHeight</a>
<a href="#">defaultActivityProgressBackgroundColor</a>
<a href="#">defaultActivityRowCollapsible</a>
<a href="#">defaultActivityRowSelectable</a>
<a href="#">defaultActivityRowTooltipTemplateID</a>
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<a href="#">defaultActivitySnapTargetsForStart</a>
<a href="#">defaultActivityStatusFrameColor</a>
<a href="#">defaultActivityTableRowDefinitionID</a>
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<a href="#">defaultAllocationAllowedBarDragModesInActivitiesView</a>
<a href="#">defaultAllocationAllowedRowDragModes</a>
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<a href="#">defaultAllocationBarTextFormat</a>
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<a href="#">defaultAllocationRowTooltipTemplateID</a>
<a href="#">defaultAllocationSnapTargetsForEnd</a>
<a href="#">defaultAllocationSnapTargetsForStart</a>
<a href="#">defaultAllocationStatusFrameColor</a>
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<a href="#">defaultAllowedAllocationBarDragModes</a>
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<a href="#">defaultEntityAllowedRowDragModes</a>
<a href="#">defaultEntityMinimumRowHeight</a>
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<a href="#">defaultEntityRowSelectable</a>
<a href="#">defaultEntityRowTooltipTemplateID</a>
<a href="#">defaultEntityTableRowDefinitionID</a>
<a href="#">defaultLinkRoutingType</a>

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[defaultLinkTargetMarker](#)  
[defaultLinkTooltipTemplateID](#)  
[defaultLoadCurvePaneColor](#)  
[defaultLoadCurvePaneHeight](#)  
[defaultPeriodHighlighterEntryTooltipTemplateID](#)  
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[defaultResourceAllowedRowDragModes](#)  
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[defaultResourceCurveTooltipTemplateID](#)  
[defaultResourceExpandedRowDesign](#)  
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[defaultResourceLoadCurvePaneHeight](#)  
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[defaultSkilledAllocationRowTooltipTemplateID](#)  
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[defaultSkillTableRowDefinitionID](#)  
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[definedAllocationLinksVisibleInSkilledResourcesView](#)  
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[entitiesTableHeaderBackgroundColor](#)

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[entityRowSortMode](#)  
[entityTableRowDefinitionIDForTitle](#)  
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[firstDayOfWeek](#)  
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[forcedActivityAllowedRowDragModes](#)  
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[forcedEntityAllowedRowDragModes](#)  
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[licenseKey](#)  
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[linksVisibleInResourcesView](#)  
[linksVisibleInSkilledResourcesView](#)  
[linksWithDanglingStartOrEndVisible](#)  
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<a href="#">loggingVerboseLevel</a>
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<a href="#">mainViewAreaVisibleInLoadsView</a>
<a href="#">mainViewAreaVisibleInResourcesView</a>
<a href="#">mainViewAreaVisibleInSkilledResourcesView</a>
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<a href="#">maximumResourceLoadCurvePaneHeight</a>
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<a href="#">tableHeaderTextColor</a>
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<a href="#">tableRowDefinitionIDForTitleInEntitiesTable</a>
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<a href="#">tableRowDefinitionIDForTitleInResourcesView</a>
<a href="#">tableRowDefinitionIDForTitleInSkilledResourcesView</a>
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<a href="#">timeStepUnitFactor</a>
<a href="#">timeZone</a>
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<a href="#">tonedDownOverlayColor</a>
<a href="#">tooltipDelay</a>
<a href="#">topBarSymbolsVisible</a>

	<a href="#">topRowMarginInTimeArea</a> <a href="#">topViewAreaVisible</a> <a href="#">topViewAreaVisibleInActivitiesView</a> <a href="#">topViewAreaVisibleInLoadsView</a> <a href="#">topViewAreaVisibleInResourcesView</a> <a href="#">topViewAreaVisibleInSkilledResourcesView</a> <a href="#">treeViewLineColor</a> <a href="#">treeViewLineDashArray</a> <a href="#">treeVisualizationMode</a> <a href="#">triggeringOfOnClickedInTimeAreaOfRow</a> <a href="#">triggeringOfOnCollapseStateChangedByUpdateCalls</a> <a href="#">triggeringOfOnShowContextMenuInTimeAreaOfRow</a> <a href="#">triggeringOfOnShowTooltipForEntriesInBarsEnabled</a> <a href="#">unsuitableActivityOverlayColor</a> <a href="#">unsuitableResourceOverlayColor</a> <a href="#">version</a> <a href="#">viewType</a> <a href="#">visualZoomFactor</a> <a href="#">watermarkOpacity</a> <a href="#">watermarkSymbolID</a> <a href="#">weekNumbering</a> <a href="#">workDate</a> <a href="#">workDateLineCaption</a> <a href="#">worldViewExtent</a> <a href="#">worldViewPosition</a> <a href="#">worldViewVisible</a>
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## activityBarTopOffsetAndHeightScaleFactor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">number</a>
Data Range	> 0 ... ≤ 10
Default	1
Explanation	This option modifies both the top offset and the height of the activity bars by the specified factor. Values lower than 1 can help to implement a more compact layout.

## activityBaselineBarsVisible

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	If set to false, no baseline bars are displayed for the activities.
See also	<a href="#">Activity.BaselineEnd</a> <a href="#">Activity.BaselineStart</a>

## activityCalendarsEnabled

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	If set to true, calendars assigned to activities by setting the activity property CalendarID are displayed in the Activities View.
See also	<a href="#">Activity.CalendarID</a>

## activityHierarchySupplementaryDefinitionID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	ID of a HierarchySupplementaryDefinition object that will be used to specify grouping parameters for hierarchy of activity objects.

## activityRowSortCodePropertyName

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">string</a>
Default	"SortCode"
Explanation	Name of a data property to be used as sort criteria while sorting activity rows. The values of the addressed property in the activities can contain strings, numbers, or date values.  If using interactive vertical row dragging, the specified data property must contain values of number type.
See also	<a href="#">Activity.SortCode</a> <a href="#">Option.activityRowSortMode</a> <a href="#">Option.interactiveSwitchingOfSortOrderEnabled</a> <a href="#">Option.sortingIndicatorVisible</a>

## activityRowSortMode

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.RowSortMode</a>
Default	RowSortMode.None
Explanation	If a mode other than None is selected, activity rows are sorted in ascending or descending order. Additionally, it is possible to sort by start date.  The prerequisite for automatic calculation of sort codes after vertical dragging of activity rows is the use of ascending mode.
See also	<a href="#">Activity.SortCode</a> <a href="#">Option.activityRowSortCodePropertyName</a> <a href="#">Option.interactiveSwitchingOfSortOrderEnabled</a>



	<a href="#">Option.sortingIndicatorVisible</a>
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## activityTableRowDefinitionIDForTitle

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.tableRowDefinitionIDForTitleInActivitiesView</a> instead.

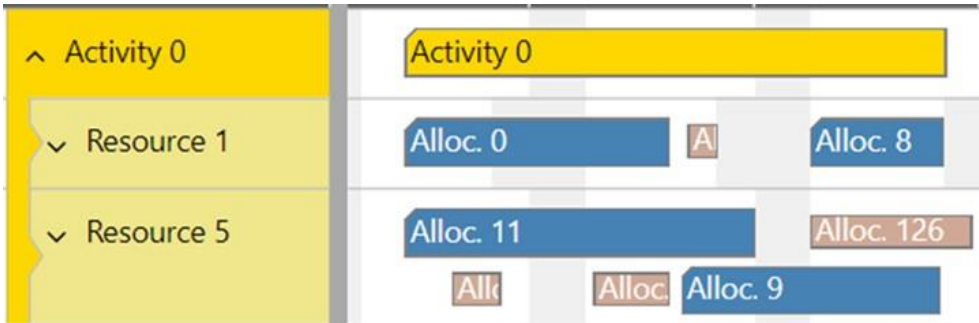
## additionalDateInterpretedAsEmpty

Object Type	<a href="#">Widget.Option</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>   <a href="#">null</a>
Default	null
Explanation	If set, then on properties of date type the value can be set to the value given here and will be interpreted as being null/undefined/"". If given as a string, the date is converted to a Date object internally and each date will be checked by comparing the date values.

## additionalDateStringInterpretedAsEmpty

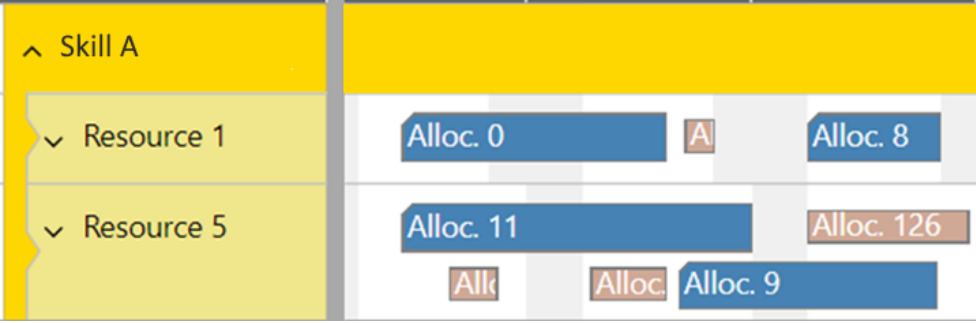
Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">string</a>
Default	""
Explanation	If set, then on properties of date type the value can be set to the value given here and will be interpreted as being null/undefined/"". Each date string will be checked by comparing the strings.

## allocationBarDesignOfOtherActivity

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.BarDesigns</a>
Default	<a href="#">BarDesigns.DefaultReduced</a>   <a href="#">BarDesigns.Text</a>
Explanation	<p>If the <code>resourcesVisibleInActivitiesView</code> option is set to true, the bars of all allocations that refer to the respective resource appear in the activities view, regardless of whether they also refer to the activity currently being viewed or not. The design specified by this option is used for all allocation bars whose allocations refer to an activity other than the one currently being viewed (see the small pale bars in the following figure).</p> 

See also	<a href="#">Allocation.BarDesign</a> <a href="#">Option.defaultAllocationBarDesign</a> <a href="#">Option.resourcesVisibleInActivitiesView</a>
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## allocationBarDesignOfOtherSkill

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.BarDesigns</a>
Default	BarDesigns.DefaultReduced   BarDesigns.Text
Explanation	<p>The value is used for allocation bars that are shown in the SkilledResourcesView in a skill-specific resource row with a different skill.</p> <p>In the skilled resources view, all allocations are displayed regardless of whether they refer to a resource with the skill currently being viewed or not. The design specified by this option is used for all allocation bars whose allocations refer to a resource with a skill other than the one currently being viewed (see the small pale bars in the following figure).</p> 
See also	<a href="#">Allocation.BarDesign</a> <a href="#">ObjectType.Skill</a> <a href="#">Option.defaultAllocationBarDesign</a> <a href="#">Option.reducedBarTopOffsetAndHeightScaleFactor</a> <a href="#">Option.tonedDownOverlayColor</a>

## allocationBarTopOffsetAndHeightScaleFactor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">number</a>
Data Range	> 0 and ≤ 10
Default	1
Explanation	<p>This option modifies both the top offset and the height of the allocation bars in activities view, resources view, and skilled resources view by the specified factor.</p> <p>Values lower than 1 can help to implement a more compact layout.</p>

## allocationRowSortCodePropertyName

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">string</a>
Default	"SortCode"
Explanation	Name of a data property to be used as sort criteria while sorting allocation rows. The values of the addressed property in the allocations can contain strings, numbers, or date values.
See also	<a href="#">Allocation.SortCode</a> <a href="#">Option.allocationRowSortMode</a> <a href="#">Option.interactiveSwitchingOfSortOrderEnabled</a> <a href="#">Option.sortingIndicatorVisible</a>

## allocationRowSortMode

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.RowSortMode</a>
Default	RowSortMode.None
Explanation	If the mode is not None, allocation rows are sorted in ascending or descending order. Additionally, it is possible to sort by start date.
See also	<a href="#">Allocation.SortCode</a> <a href="#">Option.allocationRowSortCodePropertyName</a> <a href="#">Option.interactiveSwitchingOfSortOrderEnabled</a> <a href="#">Option.sortingIndicatorVisible</a>

## allocationRowsVisibleInActivitiesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	<p>If set to true, then allocations are shown as own rows below the row of the referenced activity in activities view. The application additionally can group the allocation rows by using the option resourcesVisibleInActivitiesView.</p> <p>It is a prerequisite to use the ascending mode for dragging allocation rows vertically.</p>
See also	<a href="#">Activity.AllocationRowsCollapseState</a> <a href="#">Option.defaultAllocationTableRowDefinitionID</a> <a href="#">Option.definedAllocationLinksVisibleInActivitiesView</a> <a href="#">Option.resourcesVisibleInActivitiesView</a> <a href="#">Resource.AllocationRowsCollapseStateInActivitiesView</a>

## allocationRowsVisibleInResourcesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>

Default	false
Explanation	If set to true, then allocations are shown as own rows below the row of the referenced resource in resources view.
See also	<a href="#">Resource.AllocationRowsCollapseState</a>

## allocationRowsVisibleInSkilledResourcesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then allocations are shown as own rows below the row of the referenced resource in skilled resources view.

## allocationSelectableOnlyOnOneResourceAtATime

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then only allocations of one resource at a time can be selected.

## applicationStyleDefinition

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">string</a>
Default	null
Explanation	If set, then the contained text builds the content of a HTML style placed within the HEAD object inside the DOM. You can use <code>{{?...}}</code> to address application variables, see option <code>applicationVariablesMap</code> . This option allows it to define CSS variables. CSS variables can be used instead of a color name within color properties and options.
See also	<a href="https://developer.mozilla.org/en-US/docs/Web/CSS/Using_CSS_custom_properties">https://developer.mozilla.org/en-US/docs/Web/CSS/Using_CSS_custom_properties</a> <a href="#">Option.applicationVariablesMap</a>

## applicationVariablesMap

Object Type	<a href="#">Widget.Option</a>
Data Types	<a href="#">Map</a>   <a href="#">Object</a>
Default	null
Explanation	If set, then the keys serve as variable names in text formatting The values can be of type string, number, Date, boolean, Object. Every key name must start with a letter and must not contain a dot.
See also	<a href="#">Activity.BarTextFormat</a> <a href="#">Allocation.BarTextFormat</a> <a href="#">Option.applicationStyleDefinition</a>

	<a href="#">TableCellDefinition.TextFormat</a> <a href="#">TooltipTemplate.HTMLFormat</a>
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## asynchronousInteractiveTimeAreaStretching

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, rendering the time area will be delayed when the user stretches it by using the zoom out button of the timescale, by using the mouse wheel, or by using the appropriate touch gesture. This can be used to fasten the update behavior in case of diagrams with complex or many bars. That way, the diagram will become more reactive.

## asynchronousRendering

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then the rows are filled with bars asynchronously when scrolling vertically or resizing a view.

## barSortModeForOptimizedRowDesign

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.BarSortMode</a>
Default	BarSortMode.StartAndEnd
Explanation	Determines how the bars are sorted in a row where the bars are shown vertically optimized, means that they do not overlap each other.

## bottomRowMarginInTimeArea

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	5
Explanation	Height of the margin between the bottom row border and bars above in pixels. The value is also used for the vertical margins of curve panes.
See also	<a href="#">Option.subRowDistanceInTimeArea</a> <a href="#">Option.topRowMarginInTimeArea</a>

## calendarGridColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#f0f0f0"
Explanation	Specifies a color used to color the vertical stripes representing the nonworking times inside the diagram.
See also	<a href="#">Option.entitiesTableTitleTextColor</a> <a href="#">Option.timescaleBackgroundColor</a> <a href="#">Option.timescaleWeekendBackgroundColor</a>
Used by	<a href="#">Activity.CalendarGridColor</a> <a href="#">Resource.CalendarGridColor</a>

## clickCallbackTriggeringOnRowInTimeArea

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.triggeringOfOnClickedInTimeAreaOfRow</a> instead.
See also	<a href="#">Callback.onClicked</a> <a href="#">Callback.onDoubleClicked</a>

## commonViewAreaVisible

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.mainViewAreaVisible</a> instead.

## currentDate

Object Type	<a href="#">Widget.Option</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>   <a href="#">null</a>
Default	null
Explanation	A darkened area from the beginning of the time scale to this date is displayed. The area can be attributed by using the options <a href="#">pastBackgroundFillColor</a> , <a href="#">pastBackgroundLineColor</a> , <a href="#">pastBackgroundLineWidth</a> , <a href="#">pastBackgroundLineDashArray</a> .
See also	<a href="#">Option.pastBackgroundFillColor</a> <a href="#">Option.pastBackgroundLineColor</a> <a href="#">Option.pastBackgroundLineDashArray</a> <a href="#">Option.pastBackgroundLineWidth</a>

## cursorDateLineVisible

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false

Explanation	If this option is set to true, an additional labeled date line follows the mouse cursor.
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## curvePanesCollapsibleInResourcesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	Specifies whether the curve panes can be collapsed or expanded interactively.

## curvePanesCollapsibleInSkilledResourcesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	Specifies whether the curve panes can be interactively collapsed or expanded.

## curvePanesResizable

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, the user can interactively change the height of the curve panes.
See also	<a href="#">Callback.onCurvePaneResized</a> <a href="#">Option.maximumLoadCurvePaneHeight</a> <a href="#">Option.maximumResourceLoadCurvePaneHeight</a> <a href="#">Option.minimumLoadCurvePaneHeight</a> <a href="#">Option.minimumResourceLoadCurvePaneHeight</a>

## curvePanesVisibleInActivitiesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	<p>If this option is set to true, a curve pane is displayed in the activities view for each activity row. In each pane the curves of the resource first found in an allocation related to the corresponding activity are displayed.</p> <p><b>Note:</b> This option has to be set when the widget is instantiated. If it is set later, it has no effect.</p>
See also	<a href="#">Activity.CurveCollapseState</a>

## dateLineCaptionOptimizedPositioningEnabled

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	Specifies whether the captions and symbols of date lines should be arranged optimized to avoid overlapping.
See also	<a href="#">DateLine.CaptionPosition</a> <a href="#">DateLine.SymbolID</a>

## dateLineGridColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#505050" (on weekly or daily grid)   "#646464" (on automatic grid)
Explanation	Color of the date line grid.
See also	<a href="#">Option.dateLineGridMode</a>

## dateLineGridDashArray

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">DashArrayAsString</a>
Default	"2,1" (on daily grid)   "4,1" (on weekly or automatic grid)
Explanation	Pattern of dashes and gaps for drawing the date line grid. The value "none" indicates that no dashing is used. In this case, the grid lines are drawn solid
See also	<a href="#">Option.dateLineGridMode</a>

## dateLineGridMode

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.DateLineGridModes</a>
Default	DateLineGridModes.Weekly
Explanation	This option determines the distance of the date lines shown.
See also	<a href="#">Option.dateLineGridColor</a> <a href="#">Option.dateLineGridDashArray</a> <a href="#">Option.dateLineGridWidth</a>

## dateLineGridWidth

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>



Data Range	$\geq 0$
Default	1
Explanation	Width of the date line grid in pixels.
See also	<a href="#">Option.dateLineGridMode</a>

## decouplingOfAllocationPropertiesFromActivities

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	If set to true, then there is no internal inheritance of allocation property values of properties Progress, Start, End, Color, NonworkingColor, BorderColor from the values of the same properties of the assigned activity. This results in a performance gain when updating activities.
See also	<a href="#">Allocation.BorderColor</a> <a href="#">Allocation.Color</a> <a href="#">Allocation.Progress</a> <a href="#">Allocation.ProgressColor</a> <a href="#">Allocation.ProgressNonworkingTimeColor</a>

## defaultActivityAllocationRowsCollapsible

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	This option holds the default for the property AllocationRowsCollapsible of Activity objects.
Used by	<a href="#">Activity.AllocationRowsCollapsible</a>

## defaultActivityAllowedBarDragModes

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.BarDragModes</a>
Default	BarDragModes.DragHorizontally
Explanation	This option holds the default for the property AllowedBarDragModes of Activity objects.
See also	<a href="#">Callback.canDrag</a>
Used by	<a href="#">Activity.AllowedBarDragModes</a>

## defaultActivityAllowedRowDragModes

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.RowDragModes</a>

Default	RowDragModes.None
Explanation	This option holds the default for the property AllowedRowDragModes of Activity objects.
Used by	<a href="#">Activity.AllowedRowDragModes</a>

## defaultActivityBarDesign

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.BarDesigns</a>
Default	BarDesigns.Default
Explanation	This option determines the default design for activity bars including or excluding entries, complex shape, symbols, status, constraints, baseline, progress, and text.
Used by	<a href="#">Activity.BarDesign</a>

## defaultActivityBarHeight

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$ and $\leq 1000$
Default	22
Explanation	Default height of the activity bars in pixels.
Used by	<a href="#">Activity.BarHeight</a> <a href="#">ActivityEntry.Height</a>

## defaultActivityBarSelectable

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	This option holds the default for the property BarSelectable of Activity objects.
Used by	<a href="#">Activity.BarSelectable</a>

## defaultActivityBarShape

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.BarShape</a>
Default	BarShape.Regular
Explanation	This option defines which shape should be used by default for the visualization of activity bars.
Used by	<a href="#">Activity.BarShape</a>

## defaultActivityBarTextFormat

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">String</a>
Default	undefined
Explanation	This option holds the default value for the property BarTextFormat of Activity objects.
Used by	<a href="#">Activity.BarTextFormat</a>

## defaultActivityBarTooltipTemplateID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	""
Explanation	ID of a TooltipTemplate object that will be used when an activity object has set the property BarTooltipTemplateID to "".
See also	<a href="#">ObjectType.TooltipTemplate</a>
Used by	<a href="#">Activity.BarTooltipTemplateID</a>

## defaultActivityCollapsedRowDesign

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.RowDesigns</a>
Default	RowDesigns.Bars & RowDesigns.BarsStacked & RowDesigns.CalendarGrid
Explanation	This option holds the default for the property CollapsedRowDesign of Activity objects.
Used by	<a href="#">Activity.CollapsedRowDesign</a>

## defaultActivityConstraintSymbolColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#646464"
Explanation	Specifies the color used by default for the symbols visualizing the constraint dates (EarliestStart/End, LatestStart/End, MustStart/EndOn).
Used by	<a href="#">Activity.EarliestEndColor</a> <a href="#">Activity.EarliestStartColor</a> <a href="#">Activity.LatestEndColor</a> <a href="#">Activity.LatestStartColor</a> <a href="#">Activity.MustEndOnColor</a> <a href="#">Activity.MustStartOnColor</a>

## defaultActivityExpandedRowDesign

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.RowDesigns</a>
Default	RowDesigns.Bars & RowDesigns.BarsStacked & RowDesigns.CalendarGrid
Explanation	This option holds the default for the property ExpandedRowDesign of Activity objects.
Used by	<a href="#">Activity.ExpandedRowDesign</a>

## defaultActivityMinimumRowHeight

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	42
Explanation	Default minimum height of the activity rows in pixels.
Used by	<a href="#">Activity.MinimumRowHeight</a>

## defaultActivityProgressBackgroundColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"transparent"
Explanation	Color for the background of the progress bar region for activities.
Used by	<a href="#">Activity.ProgressBackgroundColor</a>

## defaultActivityRowCollapsible

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	This option holds the default for the property RowCollapsible of Activity objects.
Used by	<a href="#">Activity.RowCollapsible</a>

## defaultActivityRowSelectable

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	This option holds the default for the property RowSelectable of Activity objects.
Used by	<a href="#">Activity.RowSelectable</a>

## defaultActivityRowTooltipTemplateID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	""
Explanation	ID of a TooltipTemplate object that will be used when an activity object has set the property RowTooltipTemplateID to "".
See also	<a href="#">ObjectType.TooltipTemplate</a>
Used by	<a href="#">Activity.RowTooltipTemplateID</a>

## defaultActivitySnapTargetsForEnd

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.SnapTargets</a>
Default	SnapTargets.CalendarGrids
Explanation	This option holds the default for the property SnapTargetsForEnd of Activity objects.
Used by	<a href="#">Activity.SnapTargetsForEnd</a>

## defaultActivitySnapTargetsForStart

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.SnapTargets</a>
Default	SnapTargets.CalendarGrids
Explanation	This option holds the default for the property SnapTargetsForStart of Activity objects.
Used by	<a href="#">Activity.SnapTargetsForStart</a>

## defaultActivityStatusFrameColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"red"
Explanation	This option holds the default color for the property StatusFrameColor of Activity objects.
Used by	<a href="#">Activity.StatusFrameColor</a>

## defaultActivityTableRowDefinitionID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	one table cell for property TableText of the referenced object in it
Explanation	ID of a TableRowDefinition object that will be used when an activity object has set the property TableRowDefinitionID to "".
See also	<a href="#">ObjectType.TableRowDefinition</a>

Used by	<a href="#">Activity.TableRowDefinitionID</a> <a href="#">Option.tableRowDefinitionIDForTitleInActivitiesView</a>
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## defaultAllocationAllowedBarDragModes

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.BarDragModes</a>
Default	BarDragModes.DragAutoHorOrVer
Explanation	This option holds the default for the property AllowedBarDragModes of Allocation objects.
See also	<a href="#">Callback.canDrag</a>
Used by	<a href="#">Allocation.AllowedBarDragModes</a>

## defaultAllocationAllowedBarDragModesInActivitiesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.BarDragModes</a>
Default	BarDragModes.DragHorizontally
Explanation	This option holds the default for the property AllowedBarDragModesInAllocationView of Allocation objects.
Used by	<a href="#">Allocation.AllowedBarDragModesInActivitiesView</a>

## defaultAllocationAllowedRowDragModes

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.RowDragModes</a>
Default	RowDragModes.None
Explanation	This option holds the default for the property AllowedRowDragModes of Allocation objects.
Used by	<a href="#">Allocation.AllowedRowDragModes</a>

## defaultAllocationAllowedRowDragModesInActivitiesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.RowDragModes</a>
Default	RowDragModes.None
Explanation	This option holds the default for the property AllowedRowDragModesInActivitiesView of Allocation objects.
Used by	<a href="#">Allocation.AllowedRowDragModesInActivitiesView</a>

## defaultAllocationBarDesign

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.BarDesigns</a>
Default	BarDesigns.Default
Explanation	This option determines the default design for activity bars including or excluding entries, complex shape, symbols, status, constraints, baseline, progress, and text.
See also	<a href="#">Option.allocationBarDesignOfOtherActivity</a> <a href="#">Option.allocationBarDesignOfOtherSkill</a>
Used by	<a href="#">Allocation.BarDesign</a>

## defaultAllocationBarHeight

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	≥ 0 and ≤ 1000
Default	22
Explanation	Default height of the Allocation bars in pixels.
Used by	<a href="#">Allocation.BarHeight</a> <a href="#">AllocationEntry.Height</a>

## defaultAllocationBarSelectable

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	This option holds the default for the property BarSelectable of Allocation objects.
Used by	<a href="#">Allocation.BarSelectable</a>

## defaultAllocationBarShape

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.BarShape</a>
Default	BarShape.Regular
Explanation	This option defines which shape should be used by default for the visualization of Allocation bars.
Used by	<a href="#">Allocation.BarShape</a>

## defaultAllocationBarTextFormat

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">string</a>

Default	null
Explanation	This option holds the default value for the property BarTextFormat of Allocation objects.
Used by	<a href="#">Allocation.BarTextFormat</a>

## defaultAllocationBarTooltipTemplateID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	""
Explanation	ID of a TooltipTemplate object that will be used when an Allocation object has set the property BarTooltipTemplateID to "".
See also	<a href="#">ObjectType.TooltipTemplate</a>
Used by	<a href="#">Allocation.BarTooltipTemplateID</a>

## defaultAllocationConstraintSymbolColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#646464"
Explanation	Specifies the color used by default for the symbols visualizing the constraint dates (EarliestStart/End, LatestStart/End, MustStart/EndOn).
Used by	<a href="#">Allocation.EarliestEndColor</a> <a href="#">Allocation.EarliestStartColor</a> <a href="#">Allocation.LatestEndColor</a> <a href="#">Allocation.LatestStartColor</a> <a href="#">Allocation.MustEndOnColor</a> <a href="#">Allocation.MustStartOnColor</a>

## defaultAllocationMinimumRowHeight

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	42
Explanation	Default minimum height of the Allocation rows in pixels.
Used by	<a href="#">Allocation.MinimumRowHeight</a>

## defaultAllocationProgressBackgroundColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"transparent"



Explanation	Color for the background of the progress bar region for activities.
Used by	<a href="#">Allocation.ProgressBackgroundColor</a>

## defaultAllocationRowDesign

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.RowDesigns</a>
Default	RowDesigns.Bars & RowDesigns.CalendarGrid
Explanation	This option holds the default for the property RowDesign of Allocation objects.
Used by	<a href="#">Allocation.RowDesign</a>

## defaultAllocationRowSelectable

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	This option holds the default for the property RowSelectable of Allocation objects.
Used by	<a href="#">Allocation.RowSelectable</a>

## defaultAllocationRowTooltipTemplateID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	""
Explanation	ID of a TooltipTemplate object that will be used when an Allocation object has set the property RowTooltipTemplateID to "".
See also	<a href="#">ObjectType.TooltipTemplate</a>
Used by	<a href="#">Allocation.RowTooltipTemplateID</a> <a href="#">Allocation.SkilledBarTooltipTemplateID</a> <a href="#">Allocation.SkilledRowTooltipTemplateID</a>

## defaultAllocationSnapTargetsForEnd

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.SnapTargets</a>
Default	SnapTargets.CalendarGrids
Explanation	This option holds the default for the property SnapTargetsForEnd of Allocation objects.
Used by	<a href="#">Allocation.SnapTargetsForEnd</a>

## defaultAllocationSnapTargetsForStart

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.SnapTargets</a>
Default	SnapTargets.CalendarGrids
Explanation	This option holds the default for the property SnapTargetsForStart of Allocation objects.
Used by	<a href="#">Allocation.SnapTargetsForStart</a>

## defaultAllocationStatusFrameColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"red"
Explanation	This option holds the default color for the property StatusFrameColor of Allocation objects.
Used by	<a href="#">Allocation.StatusFrameColor</a>

## defaultAllocationTableRowDefinitionID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	one table cell for property TableText of the referenced allocation object in it
Explanation	ID of a TableRowDefinition object that will be used in allocation rows when an allocation object has set the TableRowDefinition property ID to "".
See also	<a href="#">ObjectType.TableRowDefinition</a> <a href="#">Option.allocationRowsVisibleInActivitiesView</a> <a href="#">TableRowDefinition.ID</a>
Used by	<a href="#">Allocation.TableRowDefinitionID</a>

## defaultAllowedActivityBarDragModes

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.defaultActivityAllowedBarDragModes</a> instead.

## defaultAllowedAllocationBarDragModes

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.defaultAllocationAllowedBarDragModes</a> instead.

## defaultAllowedEntityRowDragModes

Object Type	<a href="#">Widget.Option</a>
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Deprecated	Use option <a href="#">Option.defaultEntityAllowedRowDragModes</a> instead.
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## defaultCalendarID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	Specifies a default calendar to be used in the widget. If calendars are defined on activities or resources they will override this calendar. If there is no calendar defined on an activity or a resource and if this default calendar ID is null, then the calendar is assumed to be one with constantly non-working time only.
Used by	<a href="#">Activity.CalendarID</a> <a href="#">Resource.CalendarID</a>

## defaultEntityAllowedRowDragModes

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.RowDragModes</a>
Default	RowDragModes.DragOutside
Explanation	This option holds the default for the property AllowedRowDragModes of Entity objects.
Used by	<a href="#">Entity.AllowedRowDragModes</a>

## defaultEntityMinimumRowHeight

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	42
Explanation	Default minimum height of the entity rows in pixels.
Used by	<a href="#">Entity.MinimumRowHeight</a>

## defaultEntityRowCollapsible

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	This option holds the default for the property RowCollapsible of Entity objects.
Used by	<a href="#">Entity.RowCollapsible</a>

## defaultEntityRowSelectable

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	This option holds the default for the property RowSelectable of Entity objects.
Used by	<a href="#">Entity.RowSelectable</a>

## defaultEntityRowTooltipTemplateID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	""
Explanation	ID of a TooltipTemplate object that will be used when an entity object has set the property RowTooltipTemplateID to "".
See also	<a href="#">ObjectType.TooltipTemplate</a>
Used by	<a href="#">Entity.RowTooltipTemplateID</a>

## defaultEntityTableRowDefinitionID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	one table cell for property TableText of the referenced entity object in it
Explanation	ID of a TableRowDefinition object that will be used when an entity object has set the property TableRowDefinitionID to "".
See also	<a href="#">ObjectType.TableRowDefinition</a>
Used by	<a href="#">Entity.TableRowDefinitionID</a> <a href="#">Option.tableRowDefinitionIDForTitleInEntitiesTable</a>

## defaultLinkRoutingType

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.LinkRoutingType</a>
Default	LinkRoutingType.Curved
Explanation	This option holds the default for the property RoutingType of Links objects.
Used by	<a href="#">Link.RoutingType</a>

## defaultLinkSelectable

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false

Explanation	This option holds the default for the property Selectable of link objects.
Used by	<a href="#">Link.Selectable</a>

## defaultLinkTargetMarker

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.LinkMarker</a>
Default	LinkMarker.FilledArrow
Explanation	This option holds the default for the property LinkTargetMarker of link objects.
Used by	<a href="#">Link.TargetMarker</a>

## defaultLinkTooltipTemplateID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	""
Explanation	ID of a TooltipTemplate object that will be used when a link object has set the property TooltipTemplateID to "".
Used by	<a href="#">Link.TooltipTemplateID</a>

## defaultLoadCurvePaneColor

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.defaultResourceLoadCurvePaneColor</a> instead.

## defaultLoadCurvePaneHeight

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.defaultResourceLoadCurvePaneHeight</a> instead.

## defaultPeriodHighlighterEntryTooltipTemplateID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	""
Explanation	ID of a TooltipTemplate object that will be used when a period highlighter entry object has set the property TooltipTemplateID to "".
Used by	<a href="#">PeriodHighlighterEntry.TooltipTemplateID</a>

## defaultResourceAllocationRowCollapsible

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	This option holds the default for the property AllocationRowsCollapsible of Resource objects.
Used by	<a href="#">Resource.AllocationRowsCollapsible</a>

## defaultResourceAllowedRowDragModes

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.RowDragModes</a>
Default	RowDragModes.None
Explanation	This option holds the default for the property AllowedRowDragModes of Resource objects.
See also	<a href="#">Resource.AllowedRowDragModes</a>
Used by	<a href="#">Resource.AllowedRowDragModes</a>

## defaultResourceCollapsedRowDesign

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.RowDesigns</a>
Default	RowDesigns.Bars   RowDesigns.BarsStacked   RowDesigns.CalendarGrid
Explanation	This option holds the default for the property CollapsedRowDesign of Resource objects.
Used by	<a href="#">Resource.CollapsedRowDesign</a>

## defaultResourceCurveTooltipTemplateID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	""
Explanation	ID of a TooltipTemplate object that will be used when a resource object has set the property CurveTooltipTemplateID to "".
See also	<a href="#">ObjectType.TooltipTemplate</a>
Used by	<a href="#">Resource.CurveTooltipTemplateID</a>

## defaultResourceExpandedRowDesign

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.RowDesigns</a>
Default	RowDesigns.Bars & RowDesigns.BarsStacked & RowDesigns.CalendarGrid

Explanation	This option holds the default for the property ExpandedRowDesign of Resource objects.
Used by	<a href="#">Resource.ExpandedRowDesign</a>

## defaultResourceLoadCurvePaneColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"rgba(43,86,158,0.2)"
Explanation	Color for the background of the load curve pane.

## defaultResourceLoadCurvePaneHeight

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	50
Explanation	Default value for property LoadCurvePaneHeight of Resource objects.
Used by	<a href="#">Resource.LoadCurvePaneHeight</a>

## defaultResourceMinimumRowHeight

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	42
Explanation	Default minimum height of the resource rows in pixels.
Used by	<a href="#">Resource.MinimumRowHeight</a>

## defaultResourceRowCollapsible

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	This option holds the default for the property RowCollapsible of Resource objects.
Used by	<a href="#">Resource.RowCollapsible</a>

## defaultResourceRowSelectable

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>

Default	true
Explanation	This option holds the default for the property RowSelectable of Resource objects.
Used by	<a href="#">Resource.RowSelectable</a>

## defaultResourceRowTooltipTemplateID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	""
Explanation	ID of a TooltipTemplate object that will be used when a resource object has set the property RowTooltipTemplateID to "".
See also	<a href="#">ObjectType.TooltipTemplate</a>
Used by	<a href="#">Resource.RowTooltipTemplateID</a>

## defaultResourceTableRowDefinitionID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	one table cell for property TableText of the referenced resource object in it
Explanation	ID of a TableRowDefinition object that will be used when a resource object has set the property TableRowDefinitionID to "".
See also	<a href="#">ObjectType.TableRowDefinition</a>
Used by	<a href="#">Option.defaultResourceTableRowDefinitionIDInActivitiesView</a> <a href="#">Option.tableRowDefinitionIDForTitleInResourcesView</a> <a href="#">Resource.TableRowDefinitionID</a>

## defaultResourceTableRowDefinitionIDInActivitiesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultResourceTableRowDefinitionID</a>
Explanation	ID of a TableRowDefinition object that will be used when a resource object has set the property TableRowDefinitionID to "" within activities view.

## defaultSkillAllowedRowDragModes

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.RowDragModes</a>
Default	RowDragModes.None
Explanation	This option holds the default for the property AllowedRowDragModes of Skill objects.
See also	<a href="#">Skill.AllowedRowDragModes</a>
Used by	<a href="#">Skill.AllowedRowDragModes</a>



## defaultSkillCollapsedRowDesign

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.RowDesigns</a>
Default	RowDesigns.Empty
Explanation	This option holds the default for the property CollapsedRowDesign of Skill objects. Only the flags BarsOfHiddenDescendantRows and BarsStacked are processed.
See also	<a href="#">Skill.CollapsedRowDesign</a>
Used by	<a href="#">Skill.CollapsedRowDesign</a>

## defaultSkilledAllocationBarTooltipTemplateID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	""
Explanation	ID of a TooltipTemplate object that will be used when an allocation object has set the property SkilledBarTooltipTemplateID to "".

## defaultSkilledAllocationRowTooltipTemplateID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	""
Explanation	ID of a TooltipTemplate object that will be used when an allocation object has set the property SkilledRowTooltipTemplateID to "".

## defaultSkilledResourceRowTooltipTemplateID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	""
Explanation	ID of a TooltipTemplate object that will be used when a resource object has set the property SkilledRowTooltipTemplateID to "".
Used by	<a href="#">Resource.SkilledRowTooltipTemplateID</a>

## defaultSkillMinimumRowHeight

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Default	42
Explanation	Default minimum height of the skill rows.

Used by	<a href="#">Skill.MinimumRowHeight</a>
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## defaultSkillRowCollapsible

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	This option holds the default for the property RowCollapsible of Skill objects.
Used by	<a href="#">Skill.RowCollapsible</a>

## defaultSkillRowSelectable

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	This option holds the default for the property RowSelectable of Skill objects.
Used by	<a href="#">Skill.RowSelectable</a>

## defaultSkillRowTooltipTemplateID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	""
Explanation	ID of a TooltipTemplate object that will be used when an resource object has set the property SkilledRowTooltipTemplateID to "".
Used by	<a href="#">Skill.RowTooltipTemplateID</a>

## defaultSkillTableRowDefinitionID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	one table cell with value of property TableText of the referenced Skill object in it
Explanation	ID of a TableRowDefinition object that will be used when a Skill object has set the property TableRowDefinitionID to "".
Used by	<a href="#">Option.tableRowDefinitionIDForTitleInSkilledResourcesView</a> <a href="#">Skill.TableRowDefinitionID</a>

## defaultUpdateMode

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.UpdateModes</a>

Default	UpdateModes.Default
Explanation	Specifies the default for the parameter updateMode in all update methods.
See also	<a href="#">Method.updateActivities</a> <a href="#">Method.updateAllocations</a> <a href="#">Method.updateCalendars</a> <a href="#">Method.updateCurves</a> <a href="#">Method.updateDateLines</a> <a href="#">Method.updateEntities</a> <a href="#">Method.updateHierarchySupplementaryDefinitions</a> <a href="#">Method.updateLinks</a> <a href="#">Method.updatePeriodHighlighters</a> <a href="#">Method.updateResources</a> <a href="#">Method.updateSkills</a> <a href="#">Method.updateSymbols</a> <a href="#">Method.updateTableRowDefinitions</a> <a href="#">Method.updateTooltipTemplates</a>

## defaultValuesForActivityEntryProperties

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Object</a>
Default	null
Explanation	Specifies an object with default values used for all properties of ActivityEntry objects.

## defaultValuesForActivityProperties

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Object</a>
Default	null
Explanation	Specifies an object with default values used for all properties of Activity objects except ID.

## defaultValuesForAllocationEntryProperties

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Object</a>
Default	null
Explanation	Specifies an object with default values used for all properties of AllocationEntry objects.

## defaultValuesForAllocationProperties

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Object</a>
Default	null

Explanation	Specifies an object with default values used for all properties of Allocation objects except ID.
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## defaultValuesForEntityProperties

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Object</a>
Default	null
Explanation	Specifies an object with default values used for all properties of Entity objects except ID.

## defaultValuesForLinkProperties

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Object</a>
Default	null
Explanation	Specifies an object with default values used for all properties of Link objects except ID.

## defaultValuesForResourceProperties

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Object</a>
Default	null
Explanation	Specifies an object with default values used for all properties of Resource objects except ID.

## defaultValuesForSkillProperties

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Object</a>
Default	null
Explanation	Specifies an object with default values used for all properties of Skill objects except ID.

## definedAllocationLinksVisibleInActivitiesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true and the options <a href="#">linksVisibleInActivitiesView</a> and <a href="#">allocationRowsVisibleInActivitiesView</a> are also true, then links that are defined between allocations are shown additionally.
See also	<a href="#">Option.allocationRowsVisibleInActivitiesView</a> <a href="#">Option.linksVisibleInActivitiesView</a>








## definedAllocationLinksVisibleInResourcesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true and the option <code>linksVisibleInResourcesView</code> is also true, then links that are defined between allocations are shown instead of calculated allocation links defined by activity links.
See also	<a href="#">Option.linksVisibleInResourcesView</a>

## definedAllocationLinksVisibleInSkilledResourcesView








Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true and the option <code>linksVisibleInSkilledResourcesView</code> is also true, then links that are defined between allocations are shown instead of calculated allocation links defined by activity links.
See also	<a href="#">Option.linksVisibleInSkilledResourcesView</a>

## detailedActivityConstraintSymbolsEnabled

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	<p>If set to true, there will be shown different symbols for the constraint dates depending on their constraint types:</p> <p>EarliestStart  </p> <p>LatestStart  </p> <p>MustStartOn  </p> <p>EarliestEnd  </p> <p>LatestEnd  </p> <p>MustEndOn  </p> <p>Otherwise, a simple down arrow will be shown:  </p> <p><b>Note:</b> The application must set the option <code>topRowMarginInTimeArea</code> when detailed symbols are used.</p>

See also	<a href="#">Option.topRowMarginInTimeArea</a>
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## allocationConstraintSymbolsEnabled

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	<p>If set to true, there will be shown different symbols for the constraint dates depending on their constraint types:</p> <p>EarliestStart  </p> <p>LatestStart  </p> <p>MustStartOn  </p> <p>EarliestEnd  </p> <p>LatestEnd  </p> <p>MustEndOn  </p> <p>Otherwise, a simple down arrow will be shown:  </p> <p><b>Note:</b> The application must set the option topRowMarginInTimeArea when detailed symbols are used.</p>
See also	<a href="#">Option.topRowMarginInTimeArea</a>

## dragDatesLimitingInteraction

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then bars cannot be dragged before the value in the property EarliestDragStart and later than LatestDragEnd, respectively.
See also	<a href="#">Activity.EarliestDragStart</a> <a href="#">Activity.LatestDragEnd</a> <a href="#">Allocation.EarliestDragStart</a> <a href="#">Allocation.LatestDragEnd</a>

## dragDatesShownForSingleSelectedObject

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false

Explanation	If set to true, then the drag limiting dates are additionally shown when one single activity bar or allocation bar is selected.
See also	<a href="#">Activity.EarliestDragStart</a> <a href="#">Activity.LatestDragEnd</a> <a href="#">Allocation.EarliestDragStart</a> <a href="#">Allocation.LatestDragEnd</a>

## editable

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	If set to false, nothing can be edited.

## end

Object Type	<a href="#">Widget.Option</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	actual value of option start plus 4 weeks
Explanation	End date of the considered time area. When this option is not set on first rendering, then a warning is triggered. It is strongly recommended to set start and end together in one option call using a literal object as the argument. This way VSW reacts faster.
See also	<a href="#">Callback.onLogWarning</a> <a href="#">Option.startAndEnd</a>

## entitiesTableCellContentTopOffset

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	21
Explanation	Top offset for cell content in table cells of entities table. This number is valid for the base line of the first line of text inside the table cell and is only taken into account when it is lower than half of default row height and half of an optional row maximum height.

## entitiesTableColumnSeparatorColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#a0a0a0"
Explanation	Specifies a color used to color the column separators in the entities table. If a string is given, then the widget uses the color for all view types.

## entitiesTableHeaderBackgroundColor

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.entitiesTableTitleBackgroundColor</a> instead.
See also	<a href="#">Option.entitiesTableSymbolColumnTitleVisible</a>

## entitiesTableHeaderColumnSeparatorColor

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.entitiesTableTitleColumnSeparatorColor</a> instead.

## entitiesTableHeaderHighlightingColor

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.entitiesTableTitleHighlightingColor</a> instead.

## entitiesTableHeaderTextColor

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.entitiesTableTitleTextColor</a> instead.

## entitiesTableShownFullScreen

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	When set then the entities table is shown in full screen mode.

## entitiesTableSymbolColumnBackgroundColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"white"
Explanation	If set then the symbol column of the entities table will show this color in the background.
Used by	<a href="#">Option.entitiesTableSymbolColumnTitleBackgroundColor</a> <a href="#">TableRowDefinition.SymbolColumnBackgroundColor</a>



## entitiesTableSymbolColumnTitleBackgroundColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.entitiesTableSymbolColumnBackgroundColor</a>
Explanation	If set then the symbol column title of the entities table will show this color in the background when the option <a href="#">entitiesTableSymbolColumnTitleVisible</a> is set to true.
See also	<a href="#">Option.entitiesTableSymbolColumnTitleVisible</a>

## entitiesTableSymbolColumnTitleSymbolIDs

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString[]</a>
Default	null
Explanation	<p>Array of identifiers of the symbols to be shown in the entities table in the title cell of the symbol column. They will only appear when the option <a href="#">entitiesTableSymbolColumnTitleVisible</a> is set to true.</p> <p>The symbols will be arranged one below the other. However, if the cell is not high enough to hold all symbols, then the remaining symbols are also arranged side-by-side. If this still does not fit, an additional “show more” symbol will be displayed.</p> <p>An empty string (“”) will cause an “empty” symbol to be displayed. By this placeholder, you can reserve space for a symbol that may be shown at a later time.</p> <p><b>Note:</b> Each symbol will be resized to an image with a width and height of 16 pixels each at a zoom level of 100%.</p>
See also	<a href="#">Option.entitiesTableSymbolColumnTitleVisible</a>

## entitiesTableSymbolColumnTitleVisible

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, the symbols specified in the option <a href="#">entitiesTableSymbolColumnTitleSymbolIDs</a> will be displayed in the title cell of the symbol column, provided the option <a href="#">entitiesTableSymbolColumnVisible</a> is also set to true. Otherwise, the title cell will have the same color as defined in the <a href="#">entitiesTableHeaderBackgroundColor</a> option.
See also	<a href="#">Option.entitiesTableHeaderBackgroundColor</a> <a href="#">Option.entitiesTableSymbolColumnTitleBackgroundColor</a> <a href="#">Option.entitiesTableSymbolColumnTitleSymbolIDs</a>

## entitiesTableSymbolColumnVisible

Object Type	<a href="#">Widget.Option</a>
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Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, a special column at the left of the entities table will be displayed to show the row symbols of the entities.

## entitiesTableSymbolColumnWidth

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 22$
Default	22
Explanation	Width of the symbol column in the entities table. If set to a value less than the default, it will be set to the default automatically to ensure that the symbols always remain visible as long as the symbol column is visible.

## entitiesTableTitleBackgroundColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#646464"
Explanation	Specifies a color used to color the background of the entities table header.

## entitiesTableTitleColumnSeparatorColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"white"
Explanation	Specifies a color used to color the column separators in the entities table header.

## entitiesTableTitleHeight

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	60
Explanation	Specifies the height of the entities table.

## entitiesTableTitleHighlightingColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>

Default	"#f7c365"
Explanation	Specifies the color to be used during the interaction, e.g. to highlight the separation line between two adjacent columns when altering the column widths.

## entitiesTableTitleTextColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"white"
Explanation	Specifies a color used to color the text in the entities table header.
See also	<a href="#">Option.calendarGridColor</a>

## entitiesTableTreeViewLineColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"black"
Explanation	Determines the color of tree view lines in the entities table.
See also	<a href="#">Option.entitiesTableTreeVisualizationMode</a>

## entitiesTableTreeViewLineDashArray

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">DashArrayAsString</a>
Default	"none"
Explanation	Pattern of dashes and gaps for drawing the tree view lines in the entities table.
See also	<a href="#">Option.entitiesTableTreeVisualizationMode</a>

## entitiesTableTreeVisualizationMode

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.TreeVisualizationMode</a>
Default	TreeVisualizationMode.ColoredIndentation
Explanation	Determines how the tree of objects is visualized in the entities table.
See also	<a href="#">Option.entitiesTableTreeViewLineColor</a> <a href="#">Option.entitiesTableTreeViewLineDashArray</a>

## entitiesTableViewWidth

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>

Data Range	> 0
Default	null
Explanation	This setting defines the width of the entities table view when it becomes visible initially. Null means that VSW calculates the width automatically at instantiation.

## entitiesTableVisibleInActivitiesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	This option lets appear/disappear the entities table on the right side in the activities view.

## entitiesTableVisibleInResourcesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	This option lets appear/disappear the entities table on the right side in the resources view.

## entitiesTableVisibleInSkilledResourcesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	This option lets appear/disappear the entities table on the right side in the skilled resources view.

## entitiesTableWidth

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use object type <a href="#">ObjectType.TableRowDefinition</a> instead.

## entitiesTitleText

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">string</a>
Default	undefined
Explanation	This text will be shown in the table header. It will appear only in one the following two cases: If using the TableRowDefinition objects for defining the table and the property tableRowDefinitionIDForTitleInEntitiesTable is not set.

	<p>or</p> <p>If using the deprecated callback <code>onDetermineColumnDefinitions</code> and there additionally the flag <code>hasColumnTitles</code> is <b>not</b> set in the callback (see there).</p> <p><b>Note:</b> Several immediately consecutive spaces are always combined into one space by the browsers. If the individual spaces are to be preserved, then each of them must be replaced by the Unicode character <code>\u00A0</code>.</p>
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## entityHierarchySupplementaryDefinitionID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	null
Explanation	ID of a <code>HierarchySupplementaryDefinition</code> object that will be used to specify grouping parameters for hierarchy of entity objects.

## entityRowSortCodePropertyName

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">string</a>
Default	"SortCode"
Explanation	<p>Name of a data property to be used as sort criteria while sorting entity rows. The values of the addressed property in the entities can contain strings, numbers, or date values.</p> <p>If using interactive vertical row dragging, the specified data property must contain values of number type.</p>
See also	<a href="#">Entity.SortCode</a> <a href="#">Option.entityRowSortMode</a> <a href="#">Option.firstDayOfWeek</a> <a href="#">Option.interactiveSwitchingOfSortOrderEnabled</a> <a href="#">Option.sortingIndicatorVisible</a>

## entityRowSortMode

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.RowSortMode</a>
Default	<code>RowSortMode.None</code>
Explanation	<p>If set to a mode unequal to <code>None</code> entity rows are sorted ascending or descending.</p> <p>The prerequisite for automatic calculation of sort codes after vertical dragging of entity rows is to use the ascending mode.</p>
See also	<a href="#">Entity.SortCode</a> <a href="#">Option.entityRowSortCodePropertyName</a> <a href="#">Option.interactiveSwitchingOfSortOrderEnabled</a>

## entityTableRowDefinitionIDForTitle

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.tableRowDefinitionIDForTitleInEntitiesTable</a> instead.

## finishedAllocationBarsShownUnstackedInBackground

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then allocation bars with progress set to the value 100 are shown without vertical stacking (see BarsStacked value in @Enum.RowDesigns) and optically behind other bars.

## firstDayOfWeek

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.DayOfWeek</a>
Data Range	0 - 6
Default	null
Explanation	Specifies the first day of a week. If not null, this option overwrites the settings of the options “weekNumbering” and “locale”, respectively.
See also	<a href="#">Option.entityRowSortCodePropertyName</a> <a href="#">Option.locale</a> <a href="#">Option.weekNumbering</a>

## fixedTableColumnWidth

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	30
Explanation	This setting defines the width of the fixed table column that contains the numeric scale for the curves in each row.

## forcedActivityAllowedBarDragModes

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use a promise object in the callback <a href="#">Callback.canDrag</a> instead.

## forcedActivityAllowedRowDragModes

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use a promise object in the callback <a href="#">Callback.canDrag</a> instead.

## forcedAllocationAllowedBarDragModes

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use a promise object in the callback <a href="#">Callback.canDrag</a> instead.

## forcedAllocationAllowedBarDragModesInActivitiesView

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use a promise object in the callback <a href="#">Callback.canDrag</a> instead.

## forcedEntityAllowedRowDragModes

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use a promise object in the callback <a href="#">Callback.canDrag</a> instead.

## forcedResourceAllowedRowDragModes

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use a promise object in the callback <a href="#">Callback.canDrag</a> instead.

## ignoreCalendarOnActivityBarInteractions

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then the activity calendar is not taken into account when dragging an activity bar.

## ignoreCalendarOnAllocationBarInteractions

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then the resource calendar is not taken into account when dragging an allocation bar.

## interactiveActivationOfLoggingEnabled

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, the loggingEnabled option can be toggled between true and false using the keyboard shortcut Shift+Ctrl+Alt+L.
See also	<a href="#">Option.loggingEnabled</a> <a href="#">Option.loggingVerboseLevel</a>

## interactiveSwitchingOfSortOrderEnabled

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	<p>If set to true, the user can change the sort order of the rows by clicking or tapping into a column of the table title. When unsorted or sorted by another column, then the sort order is expected to change to ascending. If sorted ascending already, it is expected to change to descending. When sorted descending already, it is expected to change to be unsorted again. The latter mode change can be switched to ascending by using the option <code>rowSortModeNoneEnabledOnInteractiveSwitchingOfSortOrder</code>.</p> <p>The requested mode change triggers the callback <code>onRowSortingChangeRequested</code>. The application will have to change the appropriate sorting options itself to set a realize a changed sort.</p> <p>The current sorting can be made visible by setting the option <code>sortingIndicatorVisible</code> to true additionally.</p>
See also	<a href="#">Option.activityRowSortCodePropertyName</a> <a href="#">Option.activityRowSortMode</a> <a href="#">Option.allocationRowSortCodePropertyName</a> <a href="#">Option.allocationRowSortMode</a> <a href="#">Option.entityRowSortCodePropertyName</a> <a href="#">Option.entityRowSortMode</a> <a href="#">Option.resourceRowSortCodePropertyName</a> <a href="#">Option.resourceRowSortMode</a> <a href="#">Option.sortingIndicatorVisible</a>

## intlDateTimeFormatOptionsMap

Object Type	<a href="#">Widget.Option</a>
Data Types	<a href="#">Map</a>   <a href="#">Object</a>
Default	null
Explanation	<b>Optional, default: null</b> – If set, then the content is used to define options for objects of type <code>Intl.DateTimeFormat</code> .



	<p>The object itself can be a literal one or a standard Map object. The properties/keys define names for a format, the options of which are defined as value. The value therefore is another object (description see second parameter of constructor function of Intl.DateTimeFormat). The format names can be used in the properties TableCellDefinition.TextFormat, Activity/Allocation.BarTextFormat, TooltipTemplate.HTMLFormat, and the options defaultActivity/AllocationBarTextFormat. For the case that no format name is defined or it cannot be defined (this is the case for dates shown while dragging or numbers in the scale of curves), you can define a format with the name "default". This is then used in these cases. Every format name must start with a letter and must not contain a dot.</p> <p>The options should not contain a property named timeZone, since this is filled in by the VSW itself using the value of the option "timeZone". Also, the first parameter for the constructor of Intl.DateTimeFormat objects is filled with the value of the option "locale".</p>
See also	<a href="https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Intl/DateTimeFormat">https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Intl/DateTimeFormat</a>

## intlNumberFormatOptionsMap

Object Type	<a href="#">Widget.Option</a>
Data Types	<a href="#">Map</a>   <a href="#">Object</a>
Default	null
Explanation	<p>If set, then the content is used to define options for objects of type Intl.NumberFormat.</p> <p>The object itself can be a literal one or a standard Map object. The properties/keys define names for a format, the options of which are defined as value. The value therefore is another object (description see second parameter of constructor function of Intl.NumberFormat). The format names can be used in the properties TableCellDefinition.TextFormat, Activity/Allocation.BarTextFormat, TooltipTemplate.HTMLFormat, and the options defaultActivity/AllocationBarTextFormat. For the case that no format name is defined or it cannot be defined (this is the case for dates shown while dragging or numbers in the scale of curves), you can define a format with the name "default". This is then used in these cases. Every format name must start with a letter and must not contain a dot.</p> <p>The first parameter for the constructor of Intl.NumberFormat objects is filled with the value of the option "locale".</p>
See also	<a href="https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Intl/NumberFormat">https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Intl/NumberFormat</a>

## licenseKey

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">string</a>
Default	required
Explanation	<p>Without a license key, the widget will not work at all. Please contact NETRONIC to get a license. This option must be set at the very beginning of the widget initialization and cannot be changed later at runtime.</p>
See also	<a href="https://www.netronic.com">https://www.netronic.com</a>

## linesShownInLoadCurvePanels

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If this option is set to true, in all load curve panels horizontal auxiliary lines are displayed for each tick mark of the numerical scales in the table. These lines help the user to read the curve values.

## linksVisibleInActivitiesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	If set to false, the activities view does not show links. When true, it shows at least activity links.
See also	<a href="#">Option.definedAllocationLinksVisibleInActivitiesView</a>

## linksVisibleInResourcesView

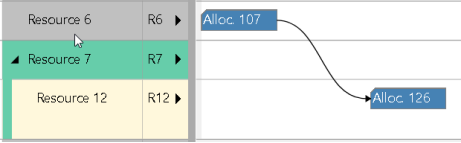

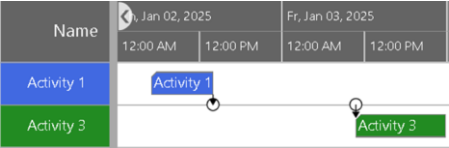
Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, the resources view shows links.
See also	<a href="#">Option.definedAllocationLinksVisibleInResourcesView</a>

## linksVisibleInSkilledResourcesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, the skilled resources view shows links.
See also	<a href="#">Option.definedAllocationLinksVisibleInSkilledResourcesView</a>

## linksWithDanglingStartOrEndVisible

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false

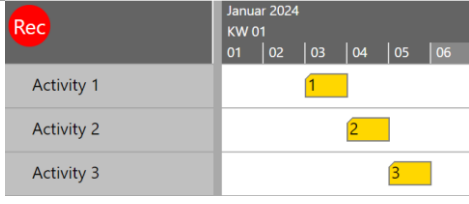
Explanation	<p>If set to true, links are visible even when their source or target bar is invisible due to filtering or collapsed rows. In this case, the dangling start or end of the link retains its position in time.</p>  <p>true:</p>  <p>Additionally, links then are even visible when the object of their source or target bar is not added to the data model. In this case, the dangling start or end of the link is drawn vertically.</p> <p>true:</p> 
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## locale

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">LanguageAsString</a>
Default	"en-US"
Explanation	<p>This option will be used for showing the textual parts for date values in the timescale and for formatting date and time values in the timescale and numbers in the numeric scales of curves.</p> <p>You must specify the language at least and can append a country. If the country is not known, then the universal language texts for that locale are used automatically as a fallback. Also it is allowed to use both uppercase and lowercase for all letters.</p>
See also	<a href="#">Option.firstDayOfWeek</a>

## loggingEnabled

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	<p>If this option is set to true, the current state of the widget is stored internally and from then on all calls to the API are logged. Also, a logging icon is displayed in the table area header to indicate that logging is taking place.</p>

	 <p>If frequent callback triggers are also to be recorded, then the loggingVerboseLevel must be set greater than 0.</p>
See also	<a href="#">Option.interactiveActivationOfLoggingEnabled</a> <a href="#">Option.loggingVerboseLevel</a>

## loggingVerboseLevel

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">number</a>
Data Range	0   10   20   30
Default	0
Explanation	<p>Specifies which types of callback triggers to record. Non-frequent callback triggers are always logged.</p> <ul style="list-style-type: none"> <li>0 - Non-frequent callback triggers are recorded.</li> <li>10 - Non-frequent, canDrag and onShowTooltip callback triggers are recorded.</li> <li>20 - Non-frequent, canDrag, onShowTooltip and onDrag callback triggers are recorded.</li> <li>30 - Non-frequent, canDrag, onShowTooltip, onDrag, visibilityFilter and compareObject callback triggers are recorded.</li> </ul>
See also	<a href="#">Option.interactiveActivationOfLoggingEnabled</a> <a href="#">Option.loggingEnabled</a>

## mainViewAreaVisible

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.mainViewAreaVisibleInResourcesView</a> instead.

## mainViewAreaVisibleInActivitiesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	<p>When set to false, then in activities view the main view area is invisible. The main view area contains the rows for activities with ViewArea set to Main. If option topViewAreaVisibleInActivitiesView is also false, then the main view area will be visible nevertheless.</p>
See also	<a href="#">Activity.ViewArea</a> <a href="#">Allocation.PredictedEnd</a> <a href="#">Option.topViewAreaVisibleInActivitiesView</a>

## mainViewAreaVisibleInLoadsView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	When set to false, then in loads view the main view area is invisible. The main view area contains the rows for resources with ViewArea set to Main. If option <a href="#">topViewAreaVisibleInLoadsView</a> is also false, then the main view area will be visible nevertheless.
See also	<a href="#">Option.topViewAreaVisibleInLoadsView</a> <a href="#">Resource.ViewArea</a>

## mainViewAreaVisibleInResourcesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	When set to false, then in resources view the main view area is invisible. The main view area contains the rows for resources with ViewArea set to Main. If <a href="#">topViewAreaVisibleInResourcesView</a> is also false, then the main view area will be visible nevertheless.
See also	<a href="#">Option.topViewAreaVisibleInResourcesView</a> <a href="#">Resource.ViewArea</a>

## mainViewAreaVisibleInSkilledResourcesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	When set to false, then in skilled resources view the main view area is invisible. The main view area contains the rows for skills with ViewArea set to Main. If <a href="#">topViewAreaVisibleInSkilledResourcesView</a> is also false, then the main view area will be visible nevertheless.
See also	<a href="#">Option.topViewAreaVisibleInSkilledResourcesView</a> <a href="#">Skill.ViewArea</a>

## maximumLoadCurvePaneHeight

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.maximumResourceLoadCurvePaneHeight</a> instead.
See also	<a href="#">Option.curvePanelsResizable</a>

## maximumResourceLoadCurvePaneHeight

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	200
Explanation	Value for maximum of property LoadCurvePaneHeight of Resource objects.
See also	<a href="#">Option.curvePanelsResizable</a> <a href="#">Option.minimumResourceLoadCurvePaneHeight</a> <a href="#">Resource.LoadCurvePaneHeight</a>

## maximumSnapDistance

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	8
Explanation	Maximum distance in pixels of a currently dragged bar to a snap target, within which a dragged bar will get snapped to the snap target.
See also	<a href="#">Activity.SnapTargetsForEnd</a> <a href="#">Activity.SnapTargetsForStart</a> <a href="#">Allocation.EndIsSnapTarget</a> <a href="#">Allocation.SnapTargetsForEnd</a> <a href="#">Allocation.SnapTargetsForStart</a> <a href="#">Allocation.StartIsSnapTarget</a>

## maximumTimeResolutionUnit

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.TimeUnit</a>
Default	<a href="#">Option.timeStepUnit</a>   TimeUnit.Seconds
Explanation	<p>default: value of option timeStepUnit or "seconds"</p> <p>Unit for maximum time resolution in the time area. Used together with option maximumTimeResolutionUnitFactor.</p> <p>Neither interactively nor by using the method setTimeResolutionForView can the time area display a finer time resolution than defined here.</p> <p>When you set this option and do not set the options timeStepUnit/-Factor, this value here also changes the default value of timeStepUnit! This is done for compatibility reasons.</p>
See also	<a href="#">Option.maximumTimeResolutionUnitFactor</a> <a href="#">Option.timeStepUnit</a>
Used by	<a href="#">Option.timeStepUnit</a> <a href="#">Option.timeStepUnitFactor</a>

## maximumTimeResolutionUnitFactor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">number</a>
Data Range	$\geq 1$
Default	<a href="#">Option.timeStepUnitFactor</a>   1
Explanation	<p>Number of units for maximum time resolution in the time area. Integer values are recommended. Used together with option maximumTimeResolutionUnit.</p> <p>When you set this option and do not set the options timeStepUnit/-Factor, this value here also changes the default value of timeStepUnitFactor! This is done for compatibility reasons.</p>
See also	<a href="#">Option.maximumTimeResolutionUnit</a> <a href="#">Option.timeStepUnit</a>

## maximumTopViewAreaHeightRatio

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">number</a>
Data Range	$\geq -0.8 \dots \leq 0.8$
Default	0.5
Explanation	<p>If positive, this value determines the maximum height of the top view area expressed as a fraction of the full view height. If negative, the absolute value instead determines the maximum height of the common view area (so the common view area can be used for unassigned resource allocations alternatively. Vertical scroll bars are shown in both view areas if necessary.</p>
See also	<a href="#">Option.topViewAreaVisibleInActivitiesView</a> <a href="#">Option.topViewAreaVisibleInLoadsView</a> <a href="#">Option.topViewAreaVisibleInResourcesView</a> <a href="#">Option.topViewAreaVisibleInSkilledResourcesView</a>

## minimumLoadCurvePaneHeight

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.minimumResourceLoadCurvePaneHeight</a> instead.
See also	<a href="#">Option.curvePanelsResizable</a>

## minimumResourceLoadCurvePaneHeight

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$> 0$
Default	30
Explanation	Value for minimum of property LoadCurvePaneHeight of Resource objects.

See also	<a href="#">Option.curvePanelsResizable</a> <a href="#">Option.maximumResourceLoadCurvePaneHeight</a> <a href="#">Resource.LoadCurvePaneHeight</a>
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## multipleBarDraggingEnabled

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	<p>If set to true, all selected bars are dragged at once. Also see callback options <code>canDrag</code>, <code>onDragStart</code>, <code>onDrop</code>.</p> <p>Currently, the allocation/activity properties <code>EarliestDragStart</code> and <code>LatestDragEnd</code> are not supported when dragging multiple bars. The allocation property <code>SuitableResourceIDs</code> is supported. When dragging starts, the allowed drag modes are inherited by default from the allocation/activity that is being dragged directly. This is modifiable by using the callback <code>canDrag</code> or one of the options <code>forceActivity/AllocationAllowedBarDragModes</code>.</p>
See also	<a href="#">Allocation.SuitableResourceIDs</a> <a href="#">Callback.canDrag</a> <a href="#">Callback.onDragStart</a> <a href="#">Callback.onDrop</a>

## multipleSelectionEnabled

Object Type	<a href="#">Widget.Option</a>
Data Types	<a href="#">boolean</a>   <a href="#">number</a>
Data Range	false = 0, true = 1, 2
Default	1
Explanation	<p>If set to 1, then multiple bars or rows can be selected either by clicking on the appropriate object representations while pressing the CTRL key or by tapping (the CTRL key then is used reversely) or by dragging a rectangle with the mouse. If set to 0, it is only possible to select one bar or row at once and it is possible to pan the table area or the time area by using the mouse. Panning by touch is possible always, see also option <code>timeAreaPanningMode</code>. Additionally, if set to 2 instead of 1, then the behavior for dragging a bar selection rectangle is differentiated for a selection left-to-right from right-to-left. If left-to-right, only the bars that are completely inside the rectangle are selected. If right-to-left, all bars that are completely or partially inside the rectangle are selected.</p>
See also	<a href="#">Option.timeAreaPanningMode</a>

## nonworkingTimesCalendarIDs

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString[]</a>
Default	null
Explanation	<p>This option defines the IDs of calendars considered in the calculation of the common non-working time, means that a non-working time will get invisible only, when all calendars contain it.</p>



See also	<a href="#">Option.nonworkingTimeVisible</a>
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## nonworkingTimeVisible

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	This option defines whether the common non-working time is visible. The common time is calculated by all calendar information that are relevant to the visualization. Therefore, the calendars of visible activities and resources are used or alternatively, the IDs of calendars considered are specified via option nonWorkingTimesCalendarIDs.
See also	<a href="#">Option.nonworkingTimesCalendarIDs</a>

## objectHighlightFlashingEnabled

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	Specifies whether or not the frame displayed around an object that has been scrolled to by using the scrollToObject method should flash or around objects after using the method highlightObjects.
See also	<a href="#">Method.highlightObjects</a> <a href="#">Method.scrollToObject</a>

## objectHighlightingColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#7f0000"
Explanation	Color of the frame displayed around an object that has been scrolled to by using the method scrollToObject or around objects after using the method highlightObjects.
See also	<a href="#">Method.highlightObjects</a> <a href="#">Method.scrollToObject</a>

## onCollapseStateChangedTriggeredByUpdateCalls

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.triggeringOfOnCollapseStateChangedByUpdateCalls</a> instead.

## pastBackgroundFillColor

Object Type	<a href="#">Widget.Option</a>
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Data Type	<a href="#">ColorAsString</a>
Default	"rgba(0,0,0,0.2)"
Explanation	This option defines the color of the darkened area between timescale start and value of the option currentDate.
See also	<a href="#">Option.currentDate</a>

## pastBackgroundLineColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"darkgrey"
Explanation	This option defines the color of the date line at the value of the option currentDate.
See also	<a href="#">Option.currentDate</a>

## pastBackgroundLineDashArray

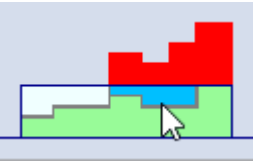
Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">DashArrayAsString</a>
Default	"1,1"
Explanation	Pattern of dashes and gaps for drawing the date line at the value of the option currentDate.
See also	<a href="#">Option.currentDate</a>

## pastBackgroundLineWidth

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	1
Explanation	This option defines the width of the date line at the value of the option currentDate.
See also	<a href="#">Option.currentDate</a>

## patternShownOnOverloadCurves

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If to true, overloads will be displayed incurves using a red hatch pattern: <div> </div>

	<p>Otherwise overloads will be represented by red areas:</p>  <p>Attention: Due to shortcomings of the browsers, this option has no impact on IE, Edge, and Microsoft's WebBrowser Control!</p>
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## preventDefaultOnContextMenuEvents

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	This option determines whether "contextmenu" triggered by the browser's DOM should get a call to preventDefault(). If set to false, then the system default behavior is not prevented (useful for Microsoft Dynamics 365 Finance and Operations).

## progressBarHeight

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	4
Explanation	Determines the height of all progress bars within allocation bars and activity bars.

## progressBarWidthCalculationMode


Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.ProgressBarWidthCalculationMode</a>
Default	ProgressBarWidthCalculationMode.ConsiderWorkingTimesOnly
Explanation	This option determines how the widths of the progress bars are calculated.

## reducedBarTopOffsetAndHeightScaleFactor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">number</a>
Data Range	$> 0.0 \dots \leq 1.0$
Default	1.0
Explanation	This option is used as a scale factor for bars where the flag LessenedHeight in property BarDesign of an Activity or Allocation object is set to true or Allocation object is set to true or when visualizing allocations of other skill in SkilledResources view.

See also	<a href="#">Option.allocationBarDesignOfOtherSkill</a> <a href="#">Widget.BarDesigns</a>
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## releaseDueDateConnectionsVisible

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	<p>If set to true and an activity has set both a ReleaseDate and a DueDate, a line will be displayed to visually connect both dates:</p> 
See also	<a href="#">Activity.DueDate</a> <a href="#">Activity.ReleaseDate</a>

## resetValueForDifferentialUpdate

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">any</a>
Default	null
Explanation	Determines a value that will be replaced by “undefined” for differential updates when using an update method with flag UpdateModes.DifferentialValues set.

## resourceHierarchySupplementaryDefinitionID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	undefined
Explanation	ID of a HierarchySupplementaryDefinition object that will be used to specify grouping parameters for hierarchy of resource objects in resources view.

## resourceHierarchySupplementaryDefinitionIDInLoadsView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	null
Explanation	ID of a HierarchySupplementaryDefinition objects object that will be used to specify grouping parameters for hierarchy of resource objects in loads view.

## resourceRowSortCodePropertyName

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">string</a>
Default	"SortCode"
Explanation	<p>Name of a data property to be used as sort criteria while sorting resource rows. The values of the addressed property in the resources can contain strings, numbers, or date values.</p> <p>If using interactive vertical row dragging, the specified data property must contain values of number type.</p>
See also	<a href="#">Option.interactiveSwitchingOfSortOrderEnabled</a> <a href="#">Option.resourceRowSortMode</a> <a href="#">Option.sortingIndicatorVisible</a> <a href="#">Resource.SortCode</a>

## resourceRowSortMode

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.RowSortMode</a>
Default	RowSortMode.None
Explanation	<p>If set to a mode unequal to None resource rows are sorted ascending or descending. The prerequisite for automatic calculation of sort codes after vertical dragging of resource rows is to use the ascending mode.</p>
See also	<a href="#">Option.interactiveSwitchingOfSortOrderEnabled</a> <a href="#">Option.resourceRowSortCodePropertyName</a> <a href="#">Resource.SortCode</a>

## resourcesVisibleInActivitiesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	<p>If set to true additional to the option <code>allocationRowsVisibleInActivitiesView</code>, then the allocation rows in activities view will be shown grouped by the respective assigned resource. The resource rows show all assigned allocations and not only the ones that are assigned to the referenced activity. The application can define the appearance of allocation bars that are assigned to other activities by using the option <code>allocationBarDesignOfOtherActivity</code>.</p>
See also	<a href="#">Option.allocationBarDesignOfOtherActivity</a> <a href="#">Option.allocationRowsVisibleInActivitiesView</a> <a href="#">Resource.AllocationRowsCollapseStateInActivitiesView</a>

## resourceTableRowDefinitionIDForTitle

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.tableRowDefinitionIDForTitleInResourcesView</a> instead.

## rowSortModeNoneEnabledOnInteractiveSwitchingOfSortOrder

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	If set to true, then a sort mode can interactively be switched back to unsorted.

## scrollOffsetsChangedCallbackTimeDelay

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">number</a>
Data Range	$\geq 0$
Default	500
Unit	Milliseconds
Explanation	This value determines the time delay in milliseconds for triggering the callbacks <a href="#">onVerticalScrollOffsetChanged</a> and <a href="#">onTimeAreaViewParametersChanged</a> .
See also	<a href="#">Callback.onTimeAreaViewParametersChanged</a> <a href="#">Callback.onVerticalScrollOffsetChanged</a>

## scrollToObjectAnimationEnabled

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then scrolling to the target position is animated when using the method <a href="#">scrollToObject</a> .
See also	<a href="#">Method.scrollToObject</a>

## scrollToObjectHighlightFlashingEnabled

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.objectHighlightFlashingEnabled</a> instead.

## scrollToObjectHighlightingColor

Object Type	<a href="#">Widget.Option</a>
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Deprecated	Use option <a href="#">Option.objectHighlightingColor</a> instead.
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## selectionColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#ffa000"
Explanation	Specifies a color used to highlight selected bars, links or table rows.

## separationLinesInColoredIndentation

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then vertical separation lines are shown between the colored indentation rectangles at the beginning of the scrollable part of the tables.

## skillRowSortCodePropertyName

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">string</a>
Default	"SortCode"
Explanation	Name of a data property to be used as sort criteria while sorting skill rows. The values of the addressed property in the skills can contain strings, numbers, or date values.  If using interactive vertical row dragging, the specified data property must contain values of number type.
See also	<a href="#">Option.skillRowSortMode</a> <a href="#">Skill.SortCode</a>

## skillRowSortMode

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.RowSortMode</a>
Default	RowSortMode.None
Explanation	If set to a mode unequal to None, skill rows are sorted ascending or descending. It is a prerequisite to use the ascending mode for dragging skill rows vertically.
See also	<a href="#">Option.skillRowSortCodePropertyName</a> <a href="#">Skill.SortCode</a>

## sortingIndicatorVisible

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then the current sort mode is visible in the table title by showing a small arrow in the appropriate column: Up arrow for ascending order and down arrow for descending order.
See also	<a href="#">Option.activityRowSortCodePropertyName</a> <a href="#">Option.activityRowSortMode</a> <a href="#">Option.allocationRowSortCodePropertyName</a> <a href="#">Option.allocationRowSortMode</a> <a href="#">Option.entityRowSortCodePropertyName</a> <a href="#">Option.interactiveSwitchingOfSortOrderEnabled</a> <a href="#">Option.resourceRowSortCodePropertyName</a>

## splitterHighlightingColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#ffa000"
Explanation	Specifies a color used to highlight the splitters when a splitter is dragged. This refers to the splitters between the table or entities table and the Gantt area.

## start

Object Type	<a href="#">Widget.Option</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>
Default	beginning of today when widget is instantiated
Explanation	<p>Start of the considered time area.</p> <p>When this option is not set on first rendering, then a warning is triggered.</p> <p>It is strongly recommended to set start and end together in one option call using a literal object as the argument. This way VSW reacts faster.</p>
See also	<a href="#">Callback.onLogWarning</a> <a href="#">Option.startAndEnd</a>

## subRowDistanceInTimeArea

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	5
Explanation	<p>Vertical distance between two bars in pixels.</p> <p><b>Note:</b> Symbols are drawn inside this distance.</p>



See also	<a href="#">Option.bottomRowMarginInTimeArea</a> <a href="#">Option.topRowMarginInTimeArea</a>
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## suitableActivityOverlayColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"transparent"
Explanation	This option determines the color that is added to activity rows that are mentioned in the allocation/entity property SuitableActivityIDs when dragging.
See also	<a href="#">Allocation.SuitableActivityIDs</a> <a href="#">Entity.SuitableActivityIDs</a> <a href="#">Option.unsuitableActivityOverlayColor</a>

## suitableResourceOverlayColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"transparent"
Explanation	This option determines the color that is added to resource rows that are mentioned in the allocation/entity property SuitableResourceIDs when dragging.
See also	<a href="#">Allocation.SuitableResourceIDs</a> <a href="#">Entity.SuitableResourceIDs</a> <a href="#">Option.unsuitableResourceOverlayColor</a>

## symbolColumnBackgroundColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"white"
Explanation	If set then the symbol column of the activities/resources table will show this color in the background.
Used by	<a href="#">Activity.RowSymbolColumnBackgroundColor</a> <a href="#">Allocation.RowSymbolColumnBackgroundColor</a> <a href="#">Entity.RowSymbolColumnBackgroundColor</a> <a href="#">Option.symbolColumnTitleBackgroundColor</a> <a href="#">Resource.RowSymbolColumnBackgroundColor</a> <a href="#">Skill.RowSymbolColumnBackgroundColor</a> <a href="#">TableRowDefinition.SymbolColumnBackgroundColor</a>

## symbolColumnTitleBackgroundColor

Object Type	<a href="#">Widget.Option</a>
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Data Type	<a href="#">ColorAsString</a>
Default	<a href="#">Option.symbolColumnBackgroundColor</a>
Explanation	If set then the symbol column title of the activities/resources table will show this color in the background when the option symbolColumnTitleVisible is set to true.
See also	<a href="#">Option.symbolColumnTitleVisible</a>

## symbolColumnTitleSymbolIDs

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString[]</a>
Default	null
Explanation	<p>Array of identifiers of the symbols to be shown in the table in the title cell of the symbol column. They will only appear when the option symbolColumnTitleVisible is set to true.</p> <p>The symbols will be arranged one below the other. However, if the cell is not high enough to hold all symbols, then the remaining symbols are also arranged side-by-side. If this still does not fit, an additional “show more” symbol will be displayed.</p> <p>An empty string (“”) will cause an “empty” symbol to be displayed. By this placeholder, you can reserve space for a symbol that may be shown at a later time.</p> <p><b>Note:</b> Each symbol will be resized to an image with a width and height of 16 pixels each at a zoom level of 100%.</p>
See also	<a href="#">Option.symbolColumnTitleVisible</a>

## symbolColumnTitleVisible

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, the symbols specified in the option symbolColumnTitleSymbolIDs will be displayed in the title cell of the symbol column, provided the option symbolColumnVisible is also set to true. Otherwise, the title cell will have the same color as defined in the tableHeaderBackgroundColor option.
See also	<a href="#">Option.symbolColumnTitleBackgroundColor</a> <a href="#">Option.symbolColumnTitleSymbolIDs</a> <a href="#">Option.tableHeaderBackgroundColor</a>

## symbolColumnVisible

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, a special column at the left of the table will be displayed to show the row symbols of the activities in the Activities view and of the resources in the Resources or Loads view.

## symbolColumnWidth

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 22$
Default	22
Explanation	Width of the symbol column in the Activities, Resources and Loads view. If set to a value less than the default, it will be set to the default automatically to ensure that the symbols always remain visible as long as the symbol column is visible.

## tableCellContentTopOffset

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	21
Explanation	Top offset for cell content in table cells of left table. This number is valid for the base line of the first line of text inside the table cell and is only taken into account when it is lower than half of default row height and half of an optional row maximum height.

## tableColumnSeparatorColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#a0a0a0"
Explanation	Specifies a color used to color the column separators in the table of the Gantt diagram. If a string is given, then the widget uses the color for all view types.

## tableHeaderBackgroundColor

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.tableTitleBackgroundColor</a> instead.
See also	<a href="#">Option.symbolColumnTitleVisible</a>

## tableHeaderColumnSeparatorColor

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.tableTitleColumnSeparatorColor</a> instead.

## tableHeaderHighlightingColor

Object Type	<a href="#">Widget.Option</a>
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Deprecated	Use option <a href="#">Option.tableTitleHighlightingColor</a> instead.
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## tableHeaderTextColor

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.tableTitleTextColor</a> instead.

## tableRowDefinitionIDForTitleInActivitiesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">string</a>
Default	<a href="#">Option.defaultActivityTableRowDefinitionID</a>
Explanation	ID of a TableRowDefinition object that will be used to show the table title in the activities view. In parallel, it is currently only possible to interactively change the column widths for the TableRowDefinition object that is referenced here.
See also	<a href="#">TableCellDefinition.TitleText</a>

## tableRowDefinitionIDForTitleInEntitiesTable

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">string</a>
Default	<a href="#">Option.defaultEntityTableRowDefinitionID</a>
Explanation	ID of a TableRowDefinition object that will be used to show the table title in the entities table. In parallel, it is currently only possible to interactively change the column widths for the TableRowDefinition object that is referenced here.
See also	<a href="#">TableCellDefinition.TitleText</a>

## tableRowDefinitionIDForTitleInLoadsView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">string</a>
Default	<a href="#">Option.tableRowDefinitionIDForTitleInResourcesView</a>   <a href="#">Option.defaultResourceTableRowDefinitionID (when undefined)</a>
Explanation	ID of a TableRowDefinition object that will be used to show the table title in the resources view. In parallel, it is currently only possible to interactively change the column widths for the TableRowDefinition object that is referenced here.
See also	<a href="#">TableCellDefinition.TitleText</a>

## tableRowDefinitionIDForTitleInResourcesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>

Default	<a href="#">Option.defaultResourceTableRowDefinitionID</a>
Explanation	ID of a TableRowDefinition object that will be used to show the table title in the resources view. In parallel, it is currently only possible to interactively change the column widths for the TableRowDefinition object that is referenced here.
See also	<a href="#">TableCellDefinition.TitleText</a>
Used by	<a href="#">Option.tableRowDefinitionIDForTitleInLoadsView</a>

## tableRowDefinitionIDForTitleInSkilledResourcesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">IdentifierAsString</a>
Default	<a href="#">Option.defaultSkillTableRowDefinitionID</a>
Explanation	ID of a TableRowDefinition object that will be used to show the table title in the resources view. In parallel, it is currently only possible to interactively change the column widths for the TableRowDefinition object that is referenced here.

## tableTitleAndTimescaleHeight

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	60
Explanation	Specifies the height of the left table and the timescale.

## tableTitleBackgroundColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#646464"
Explanation	Specifies a color used to color the background of the table header of the Gantt diagram.

## tableTitleColumnSeparatorColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"white"
Explanation	Specifies a color used to color the column separators in the table header of the Gantt diagram.

## tableTitleHighlightingColor

Object Type	<a href="#">Widget.Option</a>
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Data Type	<a href="#">ColorAsString</a>
Default	"#f7c365"
Explanation	Specifies the color to be used during the interaction, e.g. to highlight the separation line between two adjacent columns when altering the column widths.

## tableTitleTextColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"white"
Explanation	Specifies a color used to color the text in the table header of the Gantt diagram.

## tableViewWidth

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	null
Explanation	This option defines the width of the table view in all views. A change to the vertical splitter is not changing this option. Null means that VSW determines the width automatically taking the table width into account that will be calculated by table row definitions in use.
See also	<a href="#">Option.tableViewWidthsSynchronized</a>

## tableViewWidthInActivitiesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	null
Explanation	This option defines the width of the table view in activities view. A change to the vertical splitter is not changing this option. The tableViewWidthsSynchronized option must be set to false, otherwise the table view widths of all other views will be affected as well. Null means that VSW determines the width automatically taking the table width into account that will be calculated by table row definitions in use.
See also	<a href="#">Option.tableViewWidthsSynchronized</a>

## tableViewWidthInLoadsView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$

Default	null
Explanation	<p>This option defines the width of the table view in loads view. A change to the vertical splitter is not changing this option.</p> <p>The tableViewWidthsSynchronized option must be set to false, otherwise the table view widths of all other views will be affected as well.</p> <p>Null means that VSW determines the width automatically taking the table width into account that will be calculated by table row definitions in use.</p>
See also	<a href="#">Option.tableViewWidthsSynchronized</a>

## tableViewWidthInResourcesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	null
Explanation	<p>This option defines the width of the table view in resources view. A change to the vertical splitter is not changing this option.</p> <p>The tableViewWidthsSynchronized option must be set to false, otherwise the table view widths of all other views will be affected as well.</p> <p>Null means that VSW determines the width automatically taking the table width into account that will be calculated by table row definitions in use.</p>
See also	<a href="#">Option.tableViewWidthsSynchronized</a>

## tableViewWidthInSkilledResourcesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	null
Explanation	<p>This option defines the width of the table view in skilled resources view. A change to the vertical splitter is not changing this option.</p> <p>The tableViewWidthsSynchronized option must be set to false, otherwise the table view widths of all other views will be affected as well.</p> <p>Null means that VSW determines the width automatically taking the table width into account that will be calculated by table row definitions in use.</p>
See also	<a href="#">Option.tableViewWidthsSynchronized</a>

## tableViewWidthsSynchronized

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	This option defines whether an interactive change of the table view width sets the view width of all views or not.
See also	<a href="#">Option.tableViewWidth</a>

	<a href="#">Option.tableViewWidthInActivitiesView</a> <a href="#">Option.tableViewWidthInLoadsView</a> <a href="#">Option.tableViewWidthInResourcesView</a> <a href="#">Option.tableViewWidthInSkilledResourcesView</a>
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## tableViewWidth

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use object type <a href="#">ObjectType.TableRowDefinition</a> instead.

## timeAreaBackgroundColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"white"
Explanation	Specifies a color used to color the background of the time area.

## timeAreaPanningMode

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.PanningMode</a>
Default	PanningMode.HorAndVer
Explanation	Specifies, how the widget reacts to user interactions inside the empty space of the time area. <b>Note:</b> When panning with the mouse, this option is only considered if the option <code>multipleSelectionEnabled</code> is set to false.
See also	<a href="#">Option.multipleSelectionEnabled</a>

## timescaleBackgroundColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#646464"
Explanation	Specifies a color used to color the background of the timescale.
See also	<a href="#">Option.calendarGridColor</a>

## timescaleHighlightingColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"#f7c365"



Explanation	Specifies the color to be used during the interaction on the timescale, e.g. to highlight the time period under the mouse cursor.
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## timescaleInteractionMode

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.TimescaleInteractionModes</a>
Default	TimescaleInteractionModes.Default
Explanation	Specifies which interactions are allowed on the timescale.

## timescaleInteractionsEnabled

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.timescaleInteractionMode</a> instead.

## timescaleNavigationMode

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.TimescaleNavigationMode</a>
Default	TimescaleNavigationMode.Latest
Explanation	Mode of navigation in the timescale.

## timescaleTextColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"white"
Explanation	Specifies a color used to color the text in the timescale.

## timescaleTickColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"white"
Explanation	Specifies a color used to color the ticks in the timescale.

## timescaleWeekendBackgroundColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>

Default	"#888888"
Explanation	Specifies a color used to color the background of the weekend cells of the timescale.
See also	<a href="#">Option.calendarGridColor</a>

## timeStepUnit

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.TimeUnit</a>
Default	<a href="#">Option.maximumTimeResolutionUnit</a>
Explanation	<p>Unit for time steps on horizontal drag interactions of bars. Used together with option <code>timeStepUnitFactor</code>.</p> <p>Instead of the enumeration, a number can also be specified that represents seconds</p> <p>When using a time unit "day" or above, the stepping is done day-by-day without concerning nonworking times within the period.</p> <p>When you set this option and do not set the option <code>maximumTimeResolutionUnit/-Factor</code>, the value here also changes the default value of <code>maximumTimeResolutionUnit!</code> This is done for compatibility reasons.</p> <p><b>Note:</b> Currently, the dates of the bars as well as the dates in the calendar must not be defined finer than this unit together with the option <code>timeStepUnitFactor</code> indicate. Otherwise, unexpected jumps may occur when moving bars.</p>
See also	<a href="#">Option.maximumTimeResolutionUnit</a> <a href="#">Option.maximumTimeResolutionUnitFactor</a> <a href="#">Option.timeStepUnitFactor</a>
Used by	<a href="#">Option.maximumTimeResolutionUnit</a>

## timeStepUnitFactor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">number</a>
Data Range	$\geq 1$
Default	<a href="#">Option.maximumTimeResolutionUnit</a>
Explanation	<p>Number of units for a single time step on horizontal drag interactions of bars. Used together with option <code>timeStepUnit</code>. Integer values are recommended.</p> <p><b>Note:</b> Currently, the dates of the bars as well as the dates in the calendar must not be defined finer than this factor together with the option <code>timeStepUnit</code> indicate. Otherwise, unexpected jumps may occur when moving bars.</p>
See also	<a href="#">Option.timeStepUnit</a>
Used by	<a href="#">Option.maximumTimeResolutionUnitFactor</a>

## timeZone

Object Type	<a href="#">Widget.Option</a>
Data Types	<a href="#">string</a>   <a href="#">null</a>
Default	undefined

Explanation	This option determines the time zone for which dates are shown in the timescale. If set to undefined, then local time zone of the browser is used. When using this option, it is necessary to load the JavaScript libraries Moment.js and Moment Timezone at application startup. The possible values are all the ones that Moment Timezone knows (based on IANA TimeZone database e.g. "Europe/Berlin"), see also link for a detailed list of allowed zone names).
See also	<a href="https://en.wikipedia.org/wiki/List_of_tz_database_time_zones">https://en.wikipedia.org/wiki/List_of_tz_database_time_zones</a> <a href="https://www.iana.org/time-zones">https://www.iana.org/time-zones</a>

## titleText

Object Type	<a href="#">Widget.Option</a>
Data Types	<a href="#">string</a>   <a href="#">null</a>
Default	undefined
Explanation	<p>This text will be shown in the table header.</p> <p>It will appear only in one the following two cases:</p> <p>If using the TableRowDefinition objects for defining the table and the property activityTableRowDefinitionIDForTitle or resourceTableRowDefinitionIDForTitle appropriate to the corresponding view type is <b>not</b> set.</p> <p>or</p> <p>If using the deprecated callback onDetermineComumnDefinitions and there additionally the flag hasColumnTitles is set to <b>false</b> in the callback (see there).</p> <p><b>Note:</b> Several immediately consecutive spaces are always combined into one space by the browsers. If the individual spaces are to be preserved, then each of them must be replaced by the Unicode character \u00A0.</p>

## tonedDownOverlayColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"rgba(64,64,64,0.5)"
Explanation	This option is used as the overlay color for bars where the flag TonedDownColoring in property BarDesign of an Activity or Allocation object is set to true or when visualizing allocations of other skill in SkilledResources.
See also	<a href="#">Option.allocationBarDesignOfOtherSkill</a> <a href="#">Widget.BarDesigns</a>

## tooltipDelay

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">number</a>
Data Range	$\geq 0$
Default	500

Unit	Milliseconds
Explanation	This option determines the delay in milliseconds until a tooltip becomes visible.

## topBarSymbolsVisible

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	If set to false, then no symbols are shown at the top left and top right of allocation bars and activity bars.

## topRowMarginInTimeArea

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	> 0
Default	10
Explanation	Height of the margin between the top row border and bars in pixels. <b>Note:</b> Symbols are drawn inside this margin.  When one of the options <a href="#">detailedActivity/AllocationConstraintSymbolsEnabled</a> is set to true, then the value here should be set to a value of 15 or above in order to avoid an vertical overlap.
See also	<a href="#">Option.bottomRowMarginInTimeArea</a> <a href="#">Option.detailedActivityConstraintSymbolsEnabled</a> <a href="#">Option.detailedAllocationConstraintSymbolsEnabled</a> <a href="#">Option.subRowDistanceInTimeArea</a>

## topViewAreaVisible

Object Type	<a href="#">Widget.Option</a>
Deprecated	Use option <a href="#">Option.topViewAreaVisibleInResourcesView</a> instead.

## topViewAreaVisibleInActivitiesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then activities in the activities view are shown in a separate top view area, that have the property ViewArea set to Top.
See also	<a href="#">Activity.ViewArea</a> <a href="#">Allocation.PredictedEnd</a> <a href="#">Option.mainViewAreaVisibleInActivitiesView</a>

	<a href="#">Option.maximumTopViewAreaHeightRatio</a>
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## topViewAreaVisibleInLoadsView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then resources in the loads view are shown in a separate top view area, that have the property ViewArea set to Top.
See also	<a href="#">Option.mainViewAreaVisibleInLoadsView</a> <a href="#">Option.maximumTopViewAreaHeightRatio</a> <a href="#">Resource.ViewArea</a>

## topViewAreaVisibleInResourcesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then resources in the resources view are shown in a separate top view area, that have the property ViewArea set to Top.
See also	<a href="#">Option.mainViewAreaVisibleInResourcesView</a> <a href="#">Option.maximumTopViewAreaHeightRatio</a> <a href="#">Resource.ViewArea</a>

## topViewAreaVisibleInSkilledResourcesView

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then skills in the skilled resources view are shown in a separate top view area, that have the property ViewArea set to Top. See also options mainViewAreaVisibleInSkilledResourcesView and maximumTopViewAreaHeightRatio.
See also	<a href="#">Option.mainViewAreaVisibleInSkilledResourcesView</a> <a href="#">Option.maximumTopViewAreaHeightRatio</a> <a href="#">Skill.ViewArea</a>

## treeViewLineColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"black"
Explanation	Determines the color of tree view lines in the left table.
See also	<a href="#">Option.treeVisualizationMode</a>

## treeViewLineDashArray

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">DashArrayAsString</a>
Default	"none"
Explanation	Pattern of dashes and gaps for drawing the tree view lines in the left table.
See also	<a href="#">Option.treeVisualizationMode</a>

## treeVisualizationMode

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.TreeVisualizationMode</a>
Default	TreeVisualizationMode.ColoredIndentation
Explanation	Determines how the tree of objects is visualized in the left table.
See also	<a href="#">Option.treeViewLineColor</a> <a href="#">Option.treeViewLineDashArray</a>

## triggeringOfOnClickedInTimeAreaOfRow

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	When set to true, then the callbacks onClicked and onDoubleClicked are triggered on time area background of a row and in the curve pane area of a row.

## triggeringOfOnCollapseStateChangedByUpdateCalls

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	Defines whether the callback onCollapseStateChanged is also triggered by calling update methods.

## triggeringOfOnShowContextMenuInTimeAreaOfRow

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	true
Explanation	Defines whether the callback onShowContextMenuInTimeAreaOfRow is also triggered by calling update methods.

## triggeringOfOnShowTooltipForEntriesInBarsEnabled

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then the callback onShowTooltip is triggered for each entry of an activity bar or an allocation bar.

## unsuitableActivityOverlayColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"rgba(0,0,0,0.2)"
Explanation	This option determines the color that is added to activity rows that are NOT mentioned in the allocation/entity property SuitableActivityIDs when dragging.
See also	<a href="#">Allocation.SuitableActivityIDs</a> <a href="#">Entity.SuitableActivityIDs</a> <a href="#">Option.suitableActivityOverlayColor</a>

## unsuitableResourceOverlayColor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">ColorAsString</a>
Default	"rgba(0,0,0,0.2)"
Explanation	This option determines the color that is added to resource rows that are NOT mentioned in the allocation/entity property SuitableResourceIDs when dragging.
See also	<a href="#">Allocation.SuitableResourceIDs</a> <a href="#">Entity.SuitableResourceIDs</a> <a href="#">Option.suitableResourceOverlayColor</a>

## version

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">string</a>
Default	MAJOR.MINOR.PATCH
Explanation	This option holds the version number of the widget set by NETRONIC. Usually it is formatted using the semantic versioning format.
See also	<a href="https://semver.org">https://semver.org</a> <a href="#">Option.customVersion</a>

## viewType

Object Type	<a href="#">Widget.Option</a>
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Data Type	<a href="#">Enum.ViewType</a>
Default	ViewType.Activities
Explanation	This option determines the type of view that is shown: activities view, resources view, or loads view.

## visualZoomFactor

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">number</a>
Data Range	> 0.0
Default	1.0
Explanation	Factor used to zoom in (>1) and out (<1) the whole widget.

## watermarkOpacity

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">number</a>
Data Range	≥ 0.0 ... ≤ 1.0
Default	0.2
Explanation	Opacity of the watermark.
See also	<a href="#">Option.watermarkSymbolID</a>

## watermarkSymbolID

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">string</a>
Default	null
Explanation	Identifier of the symbol to be shown in the time area of the Gantt chart. The symbol is stretched while maintaining the ratio between width and height of the symbol so that it is as large as possible.
See also	<a href="#">Option.watermarkOpacity</a>

## weekNumbering

Object Type	<a href="#">Widget.Option</a>
Data Types	<a href="#">string</a>   <a href="#">null</a>
Data Range	"ISO8601"   "USA"
Default	null
Explanation	This option determines the week numbering scheme (ISO8601: January 4 must be in the first week of the year, USA: January 1 must be in the first week of the year).



	This option determines also the first day of the week (ISO8601: Monday, USA: Sunday). If set to null, then the implicit setting of the option "locale" is used. And that setting can also be overwritten by the option "firstDayOfWeek".
See also	<a href="#">Option.firstDayOfWeek</a>

## workDate

Object Type	<a href="#">Widget.Option</a>
Data Types	<a href="#">Date</a>   <a href="#">DateAsString</a>   <a href="#">null</a>
Default	null
Explanation	Date on which the work date line will be displayed. If outside of the time range between start and end of the time area, then no line will be visible. <b>Note:</b> The work date line is a simple line only. There are no further properties like color, line width, or line pattern to be set. If such properties are needed, then a DateLine object should be used.
See also	<a href="#">ObjectType.DateLine</a>

## workDateLineCaption

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">string</a>
Default	""
Explanation	Text to be displayed at the work date line. <b>Note:</b> Several immediately consecutive spaces are always combined into one space by the browsers. If the individual spaces are to be preserved, then each of them must be replaced by the Unicode character \u00A0.

## worldViewExtent

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">PixelsAsNumber</a>
Data Range	$\geq 0$
Default	150
Explanation	Defines the extent of the world view in pixels.

## worldViewPosition

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">Enum.WorldViewPosition</a>
Default	WorldViewPosition.Bottom
Explanation	Defines the position of the world view within the widget.

## worldViewVisible

Object Type	<a href="#">Widget.Option</a>
Data Type	<a href="#">boolean</a>
Default	false
Explanation	If set to true, then a world view is visible at the bottom of the Gantt chart. Only the table row background colors and bar colors are shown. Also, date lines and separation lines between left table, timescale, top view area are shown. Additionally, selections are shown and frames for the visible parts shown in the widget (separately for table and time area). These frames can also be dragged to modify the visible parts.

## 3.2 Methods

Members	<a href="#">about</a> <a href="#">addActivities</a> <a href="#">addAllocations</a> <a href="#">addCalendars</a> <a href="#">addCurves</a> <a href="#">addDateLines</a> <a href="#">addEntities</a> <a href="#">addHierarchySupplementaryDefinitions</a> <a href="#">addLinks</a> <a href="#">addPeriodHighlighters</a> <a href="#">addResources</a> <a href="#">addSkills</a> <a href="#">addSymbols</a> <a href="#">addTableRowDefinitions</a> <a href="#">addTooltipTemplates</a> <a href="#">addWorkingTime</a> <a href="#">calculateWorkingTime</a> <a href="#">cancelSaveAsPDF</a> <a href="#">destroy</a> <a href="#">determineObjectByPageCoordinates</a> <a href="#">fitTimeAreaIntoView</a> <a href="#">getSelectedObjects</a> <a href="#">highlightObjects</a> <a href="#">option</a> <a href="#">processOnDrop</a> <a href="#">removeActivities</a> <a href="#">removeAll</a> <a href="#">removeAllocations</a> <a href="#">removeCalendars</a> <a href="#">removeCurves</a> <a href="#">removeDateLines</a> <a href="#">removeEntities</a> <a href="#">removeHierarchySupplementaryDefinitionsOrIDs</a> <a href="#">removeLinks</a> <a href="#">removePeriodHighlighters</a> <a href="#">removeResources</a>
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	<a href="#">removeSkills</a> <a href="#">removeSymbols</a> <a href="#">removeTableRowDefinitions</a> <a href="#">removeTooltipTemplates</a> <a href="#">render</a> <a href="#">saveAsPDF</a> <a href="#">scrollToDate</a> <a href="#">scrollToObject</a> <a href="#">scrollViewAreaHorizontally</a> <a href="#">scrollViewAreaVertically</a> <a href="#">selectObjects</a> <a href="#">setCollapseStatesForEntityRows</a> <a href="#">setCollapseStatesForRows</a> <a href="#">setResourcePropertiesForActivities</a> <a href="#">setResourcePropertiesForSkills</a> <a href="#">setTimeResolutionForView</a> <a href="#">updateActivities</a> <a href="#">updateAllocations</a> <a href="#">updateCalendars</a> <a href="#">updateCurves</a> <a href="#">updateDateLines</a> <a href="#">updateEntities</a> <a href="#">updateHierarchySupplementaryDefinitions</a> <a href="#">updateLinks</a> <a href="#">updatePeriodHighlighters</a> <a href="#">updateResources</a> <a href="#">updateSkills</a> <a href="#">updateSymbols</a> <a href="#">updateTableRowDefinitions</a> <a href="#">updateTooltipTemplates</a>
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## about

Object Type	<a href="#">Widget.Method</a>
Explanation	Opens a popup dialog that shows the licenses of all libraries used. This dialog can also be made visible directly by the user by pressing Shift+Ctrl+Alt+F12.

## addActivities

Object Type	<a href="#">Widget.Method</a>	
Parameter	activities	<a href="#">Activity[]</a>
Explanation	Add activities. Changes will not become visible until the method "render" is called.	
See also	<a href="#">Method.render</a>	

## addAllocations

Object Type	<a href="#">Widget.Method</a>	
Parameter	allocations	<a href="#">Allocation[]</a>
Explanation	Add allocations. Changes will not become visible until the method "render" is called.	
See also	<a href="#">Method.render</a>	

## addCalendars

Object Type	<a href="#">Widget.Method</a>	
Parameter	calendars	<a href="#">Calendar[]</a>
Explanation	Add calendars. Changes will not become visible until the method "render" is called.	
See also	<a href="#">Method.render</a>	

## addCurves

Object Type	<a href="#">Widget.Method</a>	
Parameter	curves	<a href="#">Curve[]</a>
Explanation	Add curves. Changes will not become visible until the method "render" is called.	
See also	<a href="#">Method.render</a>	

## addDateLines

Object Type	<a href="#">Widget.Method</a>	
Parameter	dateLines	<a href="#">DateLine[]</a>
Explanation	Add date lines. Changes will not become visible until the method "render" is called.	
See also	<a href="#">Method.render</a>	

## addEntities

Object Type	<a href="#">Widget.Method</a>	
Parameter	entities	<a href="#">Entity[]</a>
Explanation	Add entities. Changes will not become visible until the method "render" is called.	
See also	<a href="#">Method.render</a>	

## addHierarchySupplementaryDefinitions

Object Type	<a href="#">Widget.Method</a>		
Parameter	hierarchySupplementaryDefinitions	<a href="#">HierarchySupplementaryDefinition[]</a>	
Explanation	Add hierarchy supplementary definitions. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## addLinks

Object Type	<a href="#">Widget.Method</a>		
Parameter	links	<a href="#">Link[]</a>	
Explanation	Add links. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## addPeriodHighlighters

Object Type	<a href="#">Widget.Method</a>		
Parameter	periodHighlighters	<a href="#">PeriodHighlighter[]</a>	
Explanation	Add period highlighters. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## addResources

Object Type	<a href="#">Widget.Method</a>		
Parameter	resources	<a href="#">Resource[]</a>	
Explanation	Add resources. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## addSkills

Object Type	<a href="#">Widget.Method</a>		
Parameter	skills	<a href="#">Skill[]</a>	
Explanation	Add skills. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## addSymbols

Object Type	<a href="#">Widget.Method</a>		
Parameter	symbols	<a href="#">Symbol[]</a>	
Explanation	Add symbols. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## addTableRowDefinitions

Object Type	<a href="#">Widget.Method</a>		
Parameter	TableRowDefinitions	<a href="#">TableRowDefinition[]</a>	
Explanation	Add table row definitions. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## addTooltipTemplates

Object Type	<a href="#">Widget.Method</a>		
Parameter	TooltipTemplates	<a href="#">TooltipTemplate[]</a>	
Explanation	Add tooltip templates. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## addWorkingTime

Object Type	<a href="#">Widget.Method</a>		
Parameter	calendarID	<a href="#">number</a>	
	start	<a href="#">Date</a>   <a href="#">DateAsString</a>	
	workingTime	<a href="#">number</a>	milliseconds
Return Type	<a href="#">Date</a>		
Explanation	Add a working time given in milliseconds to a date and returns a new date object with the calculated date.		

## calculateWorkingTime

Object Type	<a href="#">Widget.Method</a>		
Parameter	calendarID	<a href="#">number</a>	
	start	<a href="#">Date</a>   <a href="#">DateAsString</a>	
	end	<a href="#">Date</a>   <a href="#">DateAsString</a>	
Return Type	<a href="#">number</a>		

Explanation	Calculates the working time of a time period given by a start and an end date. The working time returned is given in milliseconds.
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## cancelSaveAsPDF

Object Type	<a href="#">Widget.Method</a>
Explanation	Cancels the execution of the saveAsPDF method.

## destroy

Object Type	<a href="#">Widget.Method</a>
Explanation	Destroys the widget instance including all DOM elements and internal objects. The garbage collection of JavaScript will remove the objects from memory later asynchronously.

## determineObjectByPageCoordinates

Object Type	<a href="#">Widget.Method</a>		
Parameter	pageX	<a href="#">number</a>	
	pageY	<a href="#">number</a>	
Return Type	<a href="#">Object</a>   undefined		
Explanation	<p>Determines the object the DOM representation of which is hit by the given page coordinates. The returned object resembles callbackArgs of some interaction callbacks like onClicked. Hereby an application can implement its own interactions if necessary.</p> <p>If an object is returned, it has the following properties:</p> <pre>"objectType" : ObjectType, "object" : Object null, "visualType" : VisualType, "cellIndex" : number, /**1 "date": Date, /**2 "capacity": number, /**3 "load": number, /**3 "singleLoads": Object, /**3 "entry": ActivityEntry AllocationEntry  PeriodHighlighterEntry, /**4 "entryIndex": number, /**4 "curve": Curve, /**3 "periodHighlighter": PeriodHighlighter, /**5 "hierarchySupplementaryDefinitionID": string, /**6 "hierarchyLevelSupplementaryDefinitionIndex": number, /**6 "groupingLevelDefinitionIndex": number, /**6 "groupingCodes": string[] /**6</pre> <p>The objectType property can only be Activity, Allocation, Resource, Link, and Entity. If a curve or a period highlighter is hit, then the visualType property is set accordingly.</p>		

	<p>*1: Only available when the table is hit.</p> <p>*2: Only available when the time area is hit.</p> <p>*3: Only available when a curve area inside the time area is hit.</p> <p>*4: Only available when an activity bar, an allocation bar or a period highlighter entry is hit.</p> <p>*5: Only available when a period highlighter is hit.</p> <p>*6: Only available when a group is hit.</p>
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## fitTimeAreaIntoView

Object Type	<a href="#">Widget.Method</a>		
Parameter	start	<a href="#">Date</a>   <a href="#">DateAsString</a>   undefined	
	end	<a href="#">Date</a>   <a href="#">DateAsString</a>   undefined	
Return Type	<a href="#">Promise</a>		
Explanation	Fits the time area into the visible area. If start and/or end dates are given, then only the time between these are fitted into the visible area. Not given dates are internally replaced by start and end date of the complete time area.		

## getSelectedObjects

Object Type	<a href="#">Widget.Method</a>		
Return Type	<a href="#">Object</a>		
Explanation	<p>Gets all currently selected objects. The result is an object with the following properties:</p> <pre>{   objects : Object[],   objectType : ObjectType undefined,   visualType : VisualType undefined }</pre> <p>When no objects are currently selected, then the array is empty and the type properties are set to undefined.</p>		
See also	<a href="#">Method.selectObjects</a>		

## highlightObjects

Object Type	<a href="#">Widget.Method</a>		
Parameter	objectType	<a href="#">Enum.ObjectType</a>	
	objectsOrIDs	<a href="#">IdentifierAsString[]</a>   <a href="#">Object[]</a>	
	visualType	<a href="#">Enum.VisualType</a>	
Explanation	Highlights the given objects or the objects addressed by the given IDs. In the activities view only activities and allocations can be highlighted. In the resources view only resources and allocations can be highlighted. In the loads view only resources can be highlighted.		



	<p>When objects are provided, these can be the original objects that are registered by one of the add or update methods, or they can be new (literal) objects, since only the properties ID and SkillID (in skilled resources view for resources and allocations) are read on them.</p> <p>When skilled resources view is visible, it is allowed to provide a SkillID property to highlight a specific graphical object in the view.</p> <p>The parameter visualType is only required for objects of type Activity or Allocation. In this case you can define whether the rows (VisualType.Row) or the bars (VisualType.Bar) should be highlighted.</p> <p><b>Note:</b> In the resources view, VisualType.Row can be applied only to allocations that reside in separate rows (allocation rows), but not to allocations inside resources rows.</p> <p>The highlighting is shown by a flashing frame around the objects. The highlighting ends automatically when changing the data or with any user interaction or by using the method scrollToObject.</p>
See also	<p><a href="#">Method.scrollToObject</a></p> <p><a href="#">Method.selectObjects</a></p> <p><a href="#">Option.objectHighlightFlashingEnabled</a></p> <p><a href="#">Option.objectHighlightingColor</a></p>

## option

Object Type	<a href="#">Widget.Method</a>		
Parameter	key	<a href="#">Object</a>   <a href="#">string</a>	
	value	any	
Explanation	<p>Gets the value of an option by using option(key). (Alternatively the application can use options.optionName on the widget instance for getting the value.)</p> <p>Sets the value of a single option by using option(key, value).</p> <p>Sets the values of several options at once by using option ({ key1: value1, key2: value2, ... }).</p> <p>Using the latter notation ensures that any internal rendering that may be necessary is called only once to gain performance.</p> <p><b>Note:</b> Do not overwrite the default values in the prototype.</p> <p>If the option value is an object, please do not change inner properties without setting the option explicitly, because the widget will not be informed about the changes implicitly.</p>		
See also	<a href="https://api.jqueryui.com/jquery.widget/#method-option">https://api.jqueryui.com/jquery.widget/#method-option</a>		

## processOnDrop

Object Type	<a href="#">Widget.Method</a>		
Parameter	callbackArgs	<a href="#">Object</a>	

Explanation	<p>This method is meant to simplify the application development, when the dragged object(s) should be updated without changes (e.g. no additional scheduling by the application).</p> <p>The application typically calls it within the callback handler of the callback onDrop.</p> <p>The method handles these situations:</p> <ul style="list-style-type: none"> <li>• Dragged table rows of all appropriate object types (modifying properties ParentID, SortCode; on sibling objects also). For resources in skilled resources view the method setResourcePropertiesForSkills is used). For resources in activities view the method setResourcePropertiesForActivities is used).</li> <li>• Dragged allocation bars vertically and horizontally (modifying properties ActivityID or ResourceID, and/or modifying AllocationEntry properties Start/End).</li> <li>• Dragged activity bars vertically and horizontally (modifying properties ParentID, Start/End, LinkSourceDate, LinkTargetDate, and eventually modifying ActivityEntry properties Start/End).</li> <li>• Dragged date lines (modifying property PointInTime).</li> </ul> <p>The affected objects are modified directly (without copying the data objects), and the appropriate update methods and the render method are called internally afterwards.</p> <p>The method cannot help the application in making the modified data persistent! So, the method is only helping in some cases.</p>
See also	<a href="#">Callback.onDrop</a>

## removeActivities

Object Type	<a href="#">Widget.Method</a>		
Parameter	activitiesOrIDs	<a href="#">Activity[]</a>   <a href="#">IdentifierAsString[]</a>	
Explanation	Removes activities. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## removeAll

Object Type	<a href="#">Widget.Method</a>		
Parameter	objectType	<a href="#">Enum.ObjectType</a>   undefined	
Explanation	Removes all objects or just all objects of the given object type. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## removeAllocations

Object Type	<a href="#">Widget.Method</a>
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Parameter	allocationsOrIDs	<a href="#">Allocation[]</a>   <a href="#">IdentifierAsString[]</a>	
Explanation	Removes allocations. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## removeCalendars

Object Type	<a href="#">Widget.Method</a>		
Parameter	calendarsOrIDs	<a href="#">Calendar[]</a>   <a href="#">IdentifierAsString[]</a>	
Explanation	Removes calendars. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## removeCurves

Object Type	<a href="#">Widget.Method</a>		
Parameter	curvesOrIDs	<a href="#">Curve[]</a>   <a href="#">IdentifierAsString[]</a>	
Explanation	Removes curves. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## removeDateLines

Object Type	<a href="#">Widget.Method</a>		
Parameter	dateLinesOrIDs	<a href="#">DateLine[]</a>   <a href="#">IdentifierAsString[]</a>	
Explanation	Removes date lines. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## removeEntities

Object Type	<a href="#">Widget.Method</a>		
Parameter	entitiesOrIDs	<a href="#">Entity[]</a>   <a href="#">IdentifierAsString[]</a>	
Explanation	Removes entities. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## removeHierarchySupplementaryDefinitionsOrIDs

Object Type	<a href="#">Widget.Method</a>		
Parameter	hierarchySupplementaryDefinitionsOrIDs	<a href="#">HierarchySupplementaryDefinition[]</a>	<a href="#">IdentifierAsString[]</a>
Explanation	Removes hierarchy supplementary definitions. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## removeLinks

Object Type	<a href="#">Widget.Method</a>		
Parameter	linksOrIDs	<a href="#">Link[]</a>	<a href="#">IdentifierAsString[]</a>
Explanation	Removes links. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## removePeriodHighlighters

Object Type	<a href="#">Widget.Method</a>		
Parameter	PeriodHighlightersOrIDs	<a href="#">PeriodHighlighter[]</a>	<a href="#">IdentifierAsString[]</a>
Explanation	Removes links. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## removeResources

Object Type	<a href="#">Widget.Method</a>		
Parameter	resourcesOrIDs	<a href="#">Resource[]</a>	<a href="#">IdentifierAsString[]</a>
Explanation	Removes resources. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## removeSkills

Object Type	<a href="#">Widget.Method</a>		
Parameter	skillsOrIDs	<a href="#">Skill[]</a>	<a href="#">IdentifierAsString[]</a>
Explanation	Removes skills. Changes will not become visible until the method "render" is called.		

See also	<a href="#">Method.render</a>
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## removeSymbols

Object Type	<a href="#">Widget.Method</a>		
Parameter	symbolOrIDs	<a href="#">Symbol[]</a>   <a href="#">IdentifierAsString[]</a>	
Explanation	Removes symbols. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## removeTableRowDefinitions

Object Type	<a href="#">Widget.Method</a>		
Parameter	tableRowDefinitionsOrIDs	<a href="#">TableRowDefinition[]</a>   <a href="#">IdentifierAsString[]</a>	
Explanation	Removes table row definitions. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## removeTooltipTemplates

Object Type	<a href="#">Widget.Method</a>		
Parameter	tooltipTemplatesOrIDs	<a href="#">TooltipTemplate[]</a>   <a href="#">IdentifierAsString[]</a>	
Explanation	Removes tooltip templates. Changes will not become visible until the method "render" is called.		
See also	<a href="#">Method.render</a>		

## render

Object Type	<a href="#">Widget.Method</a>		
Explanation	Refreshes the view after changes to data objects. Changes to data objects must have been previously communicated to the widget via the appropriate Add, Remove and Update methods. When the application does not call the render method, then it is called automatically when the application goes idle.		
See also	<a href="#">Method.addActivities</a> <a href="#">Method.addAllocations</a> <a href="#">Method.addCalendars</a> <a href="#">Method.addCurves</a> <a href="#">Method.addDateLines</a> <a href="#">Method.addEntities</a> <a href="#">Method.addHierarchySupplementaryDefinitions</a>		

	<a href="#">Method.addLinks</a> <a href="#">Method.addPeriodHighlighters</a> <a href="#">Method.addResources</a> <a href="#">Method.addSkills</a> <a href="#">Method.addSymbols</a> <a href="#">Method.addTableRowDefinitions</a> <a href="#">Method.addTooltipTemplates</a> <a href="#">Method.removeActivities</a> <a href="#">Method.removeAllocations</a> <a href="#">Method.removeCalendars</a> <a href="#">Method.removeCurves</a> <a href="#">Method.removeDateLines</a> <a href="#">Method.removeEntities</a> <a href="#">Method.removeHierarchySupplementaryDefinitionsOrIDs</a> <a href="#">Method.removeLinks</a> <a href="#">Method.removePeriodHighlighters</a> <a href="#">Method.removeResources</a> <a href="#">Method.removeSkills</a> <a href="#">Method.removeSymbols</a> <a href="#">Method.removeTableRowDefinitions</a> <a href="#">Method.removeTooltipTemplates</a> <a href="#">Method.updateActivities</a> <a href="#">Method.updateAllocations</a> <a href="#">Method.updateCalendars</a> <a href="#">Method.updateCurves</a> <a href="#">Method.updateDateLines</a> <a href="#">Method.updateEntities</a> <a href="#">Method.updateHierarchySupplementaryDefinitions</a> <a href="#">Method.updateLinks</a> <a href="#">Method.updatePeriodHighlighters</a> <a href="#">Method.updateResources</a> <a href="#">Method.updateSkills</a> <a href="#">Method.updateSymbols</a> <a href="#">Method.updateTableRowDefinitions</a> <a href="#">Method.updateTooltipTemplates</a>
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## saveAsPDF

Object Type	<a href="#">Widget.Method</a>		
Parameter	filename	<a href="#">string</a>	
	options	<a href="#">Object</a>	
Return Type	<a href="#">Promise</a>		
Explanation	<p>Saves the entire chart into a PDF document that is downloaded after creation. Possibly the browser asks whether to wait for completion or not.</p> <p>Additional libraries are needed: PDFKit, SVG-to-PDFKit, and blob-stream. For the properties bottomHTML and topHTML html2canvas is needed additionally.</p>		

The method returns a Promise object that the application can use, for instance, to react to the finish of the processing (e.g., to make a waiting screen disappear).

The optional file name has to be pure (without any path information), and the file will be saved to the downloads folder of the browser by default. If no file name is specified, a new one is generated automatically.

The optional options object can be used to specify additional properties for the export. The following properties are allowed:

- "author" : string (default: undefined)
- "bottomHTML" : string (default: undefined)
- "bottomPageMargin" : number (  $\geq 0$ ; default 10; in millimeters)
- "bottomText" : string (default: undefined)
- "bottomTimescaleVisible" : boolean (default: false)
- "cutMarksVisible" : boolean (default: false)
- "horPageCountLimit" : number (default: 0=not active, if "zoomFactorInPercent" is 0, then 1) \*
- "keywords" : string (default: undefined)
- "leftPageMargin" : number (  $\geq 0$ ; default 10; in millimeters)
- "ownerPassword" : string (default: undefined; if defined, you can edit the document in an appropriate application by entering this password)
- "pageFormat" : string (default: "A4"; possible values "A0"/"A1"/"A2"/"A3"/"A4"/"A5"/"A6"/"Legal"/"Letter" or "w\*h" with width and height in millimeters)
- "pageOrientation" : number (default: Portrait; see enumeration PageOrientation)
- "permissionToAnnotate" : boolean (default: true; if false, then it will not be possible to annotate text in the document)
- "permissionToAssembleDocument" : boolean (default: true; if false, then it will not be possible to combine the document with others)
- "permissionToCopy" : boolean (default: true; if false, then it will not be possible to copy text using the clipboard)
- "permissionToCopyForContentAccessibility" : boolean (default: true; if false, then it will not be possible to copy content for accessibility)
- "permissionToModify" : boolean (default: true; if false, then the PDF document can only be changed by the owner)
- "permissionToPrint" : string (default: "highResolution"; possible values are "lowResolution", "highResolution", "none"; if not set to "lowResolution" or "highResolution", then it will not be possible to print the document)
- "printingMode" : number (default: Cutting, see enumeration PrintingMode)
- "rightPageMargin" : number (  $\geq 0$ ; default 10; in millimeters)
- "subject" : string (default: undefined)
- "title" : string (default: undefined)
- "topHTML" : string (default: undefined)
- "topPageMargin" : number (  $\geq 0$ ; default 10; in millimeters)
- "topText" : string (default: undefined)
- "userPassword" : string (default: undefined; if given, then it is possible to read the PDF document only by entering the password in an appropriate viewer application)
- "verPageCountLimit" : number (default: 0=not active, if "zoomFactorInPercent" is 0, then 1) \*
- "watermarkSymbolID" : string (default: undefined)

- "zoomFactorInPercent" : number (default: 0=not active, else > 0) \*

In printing mode **Single**, the widget content is placed in one single page (zoomFactorInPercent and hor/verPageCountLimit not respected). In printing mode **Paging**, table and timescale are repeated on each page. In printing mode **Cutting**, the pages are filled that way you can cut the pages and glue them.

\* If the zoomFactorInPercent is 0 and at least one of hor/verPageCountLimit are 0/undefined, then this limit value(s) will be set to 1. This way, only a minimum of parameters has to be set to get the expected output. Without setting any parameter, you will get a single page as output.

The properties bottom/left/right/topPageMargin define the margins that are left blank on each page of the PDF document. This serves for a proper layout for printing it later.

The properties bottomText/topText allow to specify additional texts for top/bottom frame area.

The keywords `{{#PageNo}}`, `{{#PageCount}}`, `{{#Date}}` maybe used as placeholders. These texts are only usable if the corresponding properties topHTML/bottomHTML are not specified. The text is shown using the font family inherited from the div element of the widget and a font size of 10px.

The properties bottomHTML/topHTML allow to specify additional HTML content for top/bottom frame area. The keywords `{{#PageNo}}`, `{{#PageCount}}`, `{{#Date}}` maybe used as placeholders. Also the keyword `{{@symbolID}}` is a placeholder for a defined symbol and can be used in `<image src="...">` to show a symbol if needed (other URLs to external images are also possible). If topHTML or bottomHTML is used, then topText and bottomText are not usable, respectively. Text is shown using the font family and size inherited from the div element of the widget if the style is not modified within the HTML.

**Note:** Ensure that the given HTML is valid.

The property bottomTimescaleVisible determines showing an additional timescale at the bottom of the chart in the PDF document.

The property cutMarksVisible determines showing marks at the four corners of each page in order to make it possible to cut the empty margins of printed pages and put the pages together. This only makes sense in printing mode Cutting.

The properties horPageCountLimit and verPageCountLimit determine a zoom factor for the chart indirectly by setting the limits of page count. It is possible to set one of the limits only or to leave them both zero.

The properties pageFormat and pageOrientation determine the size and orientation of each page in the PDF document.

The property watermarkSymbolID allows to put a watermark on each page.

The property zoomFactorInPercent determines the zoom factor for the chart, when not left zero.

The properties author, keywords, subject, title, permissionTo... are put into the PDF document properties.



See also	<a href="#">Callback.onSaveAsPDFProgress</a> <a href="#">Enum.PageOrientation</a> <a href="#">Enum.PrintingMode</a> <a href="#">Method.cancelSaveAsPDF</a>
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## scrollToDate

Object Type	<a href="#">Widget.Method</a>		
Parameter	date	<a href="#">Date</a>   <a href="#">DateAsString</a>	
	offset	<a href="#">string</a>   undefined	
Return Type	<a href="#">Promise</a>		
Explanation	<p>Scrolls to the given date. If the parameter offset is set, the view will be scrolled back by the given offset to get a distance between the left margin of the time area view and the given date. The offset can be a string with</p> <ul style="list-style-type: none"> <li>• a number that specifies a number of pixels (e.g. "50px").</li> <li>• a percentage string that specifies the size of the offset as a percentage of the time area view width (e.g. "10%").</li> </ul>		

## scrollToObject

Object Type	<a href="#">Widget.Method</a>		
Parameter	objectType	<a href="#">Enum.ObjectType</a>	
	objectId	<a href="#">Object</a>   <a href="#">string</a>	
	targetPositionInView	<a href="#">Enum.TargetPositions</a>	
	highlightingEnabled	<a href="#">boolean</a>	
Return Type	<a href="#">Promise</a>		
Explanation	<p>Scrolls to the object (activity/allocation/entity/ resource). If the object is not visible because of being a hidden row or being within a collapsed row, the corresponding rows are expanded automatically.</p> <p>When an object is provided, this can be the original object that is registered by one of the add or update methods, or it can be a new (literal) object, since only the properties ID and SkillID (in skilled resources view for resources and allocations) is read on it. When skilled resources view is visible, it is allowed to provide a SkillID property to highlight a scroll to a specific graphical object in the view. When the SkillID is not given, the allocation bar in the assigned skill is addressed or the resource row of the first mentioned skill in property SkillID, resp.</p> <p>The third and the fourth parameter are optional. targetPositionInView (default is Necessary) determines the position of the object in the view after scrolling to it. Value Necessary means that the object will be made visible using the only necessary scrolling.</p> <p>If highlightingEnabled is set to true (default), then a (eventually blinking) frame is shown until another method is used or a user interaction takes place.</p>		
See also	<a href="#">Option.objectHighlightFlashingEnabled</a> <a href="#">Option.objectHighlightingColor</a> <a href="#">Option.scrollToObjectAnimationEnabled</a>		

## scrollViewAreaHorizontally

Object Type	<a href="#">Widget.Method</a>		
Parameter	viewArea	<a href="#">Enum.HorizontallyScrollableViewArea</a>	
	scrollPosition	<a href="#">Enum.HorizontalScrollPosition</a>	
Explanation	Scrolls the specified view area horizontally to the left or right.		

## scrollViewAreaVertically

Object Type	<a href="#">Widget.Method</a>		
Parameter	viewArea	<a href="#">Enum.VerticallyScrollableViewArea</a>	
	scrollPosition	<a href="#">Enum.VerticalScrollPosition</a>	
Explanation	Scrolls the specified view area vertically to the top or bottom.		

## selectObjects

Object Type	<a href="#">Widget.Method</a>		
Parameter	objectType	<a href="#">Enum.ObjectType</a>	
	objectsOrIDs	<a href="#">Object[]</a>   <a href="#">IdentifierAsString[]</a>	
	visualType	<a href="#">Enum.VisualType</a>	
Explanation	<p>Selects the given objects or the objects addressed by the given IDs. When objects are provided, these can be the original objects that are registered by one of the add or update methods, or they can be new (literal) objects, since only the properties ID and SkillID (in skilled resources view for resources and allocations, see below) are read from them.</p> <p>In the activity mode, only activities and links can be selected. In the resource mode, only resources and allocations can be selected.</p> <p>The parameter visualType is only required in the activity mode if objects of type Activity are to be selected. In this case you can define whether the activity rows (VisualType.Row) or the activity bars (VisualType.Bar) should be selected.</p> <p>It is possible to select objects that are hidden in the collapsed parent object. The selectionChanged callback (see options) is not called by the widget.</p> <p>When skilled resources view is visible, it is allowed to provide a SkillID property to select a specific graphical object in the view.</p>		
See also	<a href="#">Method.getSelectedObjects</a>		

## setCollapseStatesForEntityRows

Object Type	<a href="#">Widget.Method</a>		
Parameter	newCollapseState	<a href="#">Enum.CollapseState</a>	
	fromLevel	<a href="#">number</a>   undefined	
	toLevel	<a href="#">number</a>   undefined	

Explanation	Sets the collapse state of the rows in the entities table. <ul style="list-style-type: none"> <li>• If both fromLevel and toLevel are <b>not</b> set, all entity rows at all levels are considered.</li> <li>• If both fromLevel and toLevel are set, only entity rows within the given level range are considered.</li> <li>• If only fromLevel is set, only entity rows on this level are considered.</li> </ul>
See also	<a href="#">Method.setCollapseStatesForRows</a>

## setCollapseStatesForRows

Object Type	<a href="#">Widget.Method</a>		
Parameter	viewType	<a href="#">Enum.ViewType</a>	
	newCollapseState	<a href="#">Enum.CollapseState</a>	
	fromLevel	<a href="#">number</a>   undefined	
	toLevel	<a href="#">number</a>   undefined	
	collapseStateTargets	<a href="#">Enum.CollapseStateTargets</a>   undefined	
Explanation	Sets the collapse state of targets in the rows of the given view type. <ul style="list-style-type: none"> <li>• If both fromLevel and toLevel are <b>not</b> set, all rows at all levels are considered.</li> <li>• If both fromLevel and toLevel are set, only rows within the given level range are considered.</li> <li>• If only fromLevel is set, only rows on this level are considered.</li> </ul> By the collapseStateTargets can be specified, whether the rows themselves (default), the allocation rows or the curve panes are affected.		
See also	<a href="#">Method.setCollapseStatesForEntityRows</a>		

## setResourcePropertiesForActivities

Object Type	<a href="#">Widget.Method</a>		
Parameter	resourceProperties	<a href="#">Object[]</a>	
Explanation	Sets some additional graphical attributes and states for resources referenced by their ID shown below a referenced activity in the activities view.  The objects in the array have the following profile: <pre>                 {                 ID : IdentifierAsString,                 ActivityID: IdentifierAsString,                 AllocationRowsCollapseState : number   undefined,                 CurveCollapseState : number   undefined,                 RowSymbolIDs : IdentifierAsString[]   undefined                 SortCode : number   string   Date   undefined,                 TableColor : ColorAsString   undefined,                 TableRowDefinitionID : IdentifierAsString   undefined                 }                 </pre>		

	<p>If a property is set, then this setting will be used only for the resource row below the referenced activity. If a property is not set, then the property value with the same name within the resource referenced by the ID will be used.</p> <p>This method can be used define some graphical attributes or states that are different between the resource rows below different activity rows.</p>
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## setResourcePropertiesForSkills

Object Type	<a href="#">Widget.Method</a>		
Parameter	resourceProperties	<a href="#">Object[]</a>	
Explanation	<p>Sets some additional graphical attributes and states for resources referenced by their ID shown below a referenced skill.</p> <p>The objects in the array have the following profile:</p> <pre>{   ID : IdentifierAsString,   SkillID: IdentifierAsString,   AllocationRowsCollapseState : number   undefined,   CurveCollapseState : number   undefined,   RowSymbolIDs : IdentifierAsString[]   undefined   SortCode : number   string   Date   undefined,   TableColor : ColorAsString   undefined,   TableRowDefinitionID : IdentifierAsString   undefined }</pre> <p>If a property is set, then this setting will be used only for the resource row below the referenced skill. If a property is not set, then the property value with the same name within the resource referenced by the ID will be used.</p> <p>This method can be used define some graphical attributes or states that are different between the resource rows below different skill rows.</p>		

## setTimeResolutionForView

Object Type	<a href="#">Widget.Method</a>		
Parameter	unit	<a href="#">Enum.TimeUnit</a>   <a href="#">TimeUnitAsString</a>	
	unitCount	<a href="#">number</a>   undefined	
	start	<a href="#">Date</a>   undefined	
Explanation	<p>Sets the resolution in the time area view. If unitCount is undefined, then 1 is used. If start is undefined, then the current visible start is used.</p> <p><b>Note:</b> The time resolution cannot be set finer than the maximum time resolution defined by the options maximumTimeResolutionUnit and -Factor!</p>		

## updateActivities

Object Type	<a href="#">Widget.Method</a>
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Parameter	activities	<a href="#">Activity[]</a>	
	updateMode	<a href="#">Enum.UpdateModes</a>	optional
Explanation	<p>Update activities.</p> <p>If values in the activity object change, the changes must be communicated to the widget using the update method.</p> <p>Allowed changes are modification of all properties except the ID.</p> <p>Changes will not become visible until the method "render" is called.</p>		
See also	<a href="#">Method.render</a> <a href="#">Option.defaultUpdateMode</a>		

## updateAllocations

Object Type	<a href="#">Widget.Method</a>		
Parameter	allocations	<a href="#">Allocation[]</a>	
	updateMode	<a href="#">Enum.UpdateModes</a>	optional
Explanation	<p>Updates allocations.</p> <p>If values in the allocation object change, the changes must be communicated to the widget using the update method.</p> <p>Allowed changes are modification of all properties except the ID.</p> <p>Changes will not become visible until the method "render" is called.</p>		
See also	<a href="#">Method.render</a> <a href="#">Option.defaultUpdateMode</a>		

## updateCalendars

Object Type	<a href="#">Widget.Method</a>		
Parameter	calendars	<a href="#">Calendar[]</a>	
	updateMode	<a href="#">Enum.UpdateModes</a>	optional
Explanation	<p>Updates calendars visually.</p> <p>If values in the calendar object change, the changes must be communicated to the widget using the update method.</p> <p>Allowed changes are modification of all properties except the ID.</p> <p>Changes will not become visible until the method "render" is called.</p>		
See also	<a href="#">Method.render</a> <a href="#">Option.defaultUpdateMode</a>		

## updateCurves

Object Type	<a href="#">Widget.Method</a>		
Parameter	curves	<a href="#">Curve[]</a>	
	updateMode	<a href="#">Enum.UpdateModes</a>	optional
Explanation	<p>Updates curves.</p> <p>If values in the curve object change, the changes must be communicated to the widget using the update method.</p>		

	Allowed changes are modification of all attributes except the ID and the Type. Changes will not become visible until the method "render" is called.
See also	<a href="#">Method.render</a> <a href="#">Option.defaultUpdateMode</a>

## updateDateLines

Object Type	<a href="#">Widget.Method</a>		
Parameter	datalines	<a href="#">DateLine[]</a>	
	updateMode	<a href="#">Enum.UpdateModes</a>	optional
Explanation	<p>Updates date lines.</p> <p>If values in the date line object change, the changes must be communicated to the widget using the update method.</p> <p>Allowed changes are modification of all attributes except the ID.</p> <p>Changes will not become visible until the method "render" is called.</p>		
See also	<a href="#">Method.render</a> <a href="#">Option.defaultUpdateMode</a>		

## updateEntities

Object Type	<a href="#">Widget.Method</a>		
Parameter	entities	<a href="#">Entity[]</a>	
	updateMode	<a href="#">Enum.UpdateModes</a>	optional
Explanation	<p>Updates entities.</p> <p>If values in the Entity object change, the changes must be communicated to the widget using the update method.</p> <p>Allowed changes are modification of all properties except the ID.</p> <p>Changes will not become visible until the method "render" is called..</p>		
See also	<a href="#">Method.render</a> <a href="#">Option.defaultUpdateMode</a>		

## updateHierarchySupplementaryDefinitions

Object Type	<a href="#">Widget.Method</a>		
Parameter	hierarchySupplementaryDefinitions	<a href="#">HierarchySupplementaryDefinition[]</a>	
	updateMode	<a href="#">Enum.UpdateModes</a>	optional
Explanation	<p>Updates hierarchy supplementary definitions.</p> <p>If values in the hierarchy supplementary Definition object change, the changes must be communicated to the widget using the update method.</p> <p>Allowed changes are modification of all properties except the ID.</p> <p>Changes will not become visible until the method "render" is called.</p>		
See also	<a href="#">Method.render</a> <a href="#">Option.defaultUpdateMode</a>		

## updateLinks

Object Type	<a href="#">Widget.Method</a>		
Parameter	links	<a href="#">Link[]</a>	
	updateMode	<a href="#">Enum.UpdateModes</a>	optional
Explanation	<p>Updates links.</p> <p>If values in the link[] object change, the changes must be communicated to the widget using the update method.</p> <p>Allowed changes are modification of all properties except the ID.</p> <p>Changes will not become visible until the method "render" is called.</p>		
See also	<a href="#">Method.render</a> <a href="#">Option.defaultUpdateMode</a>		

## updatePeriodHighlighters

Object Type	<a href="#">Widget.Method</a>		
Parameter	periodHighlighter	<a href="#">PeriodHighlighter[]</a>	
	updateMode	<a href="#">Enum.UpdateModes</a>	optional
Explanation	<p>Updates period highlighters.</p> <p>If values in the period highlighter object change, the changes must be communicated to the widget using the update method.</p> <p>Allowed changes are modification of all properties except the ID.</p> <p>Changes will not become visible until the method "render" is called.</p>		
See also	<a href="#">Method.render</a> <a href="#">Option.defaultUpdateMode</a>		

## updateResources

Object Type	<a href="#">Widget.Method</a>		
Parameter	updateResources	<a href="#">Resource[]</a>	
	updateMode	<a href="#">Enum.UpdateModes</a>	optional
Explanation	<p>Updates resources.</p> <p>If values in the resource object change, the changes must be communicated to the widget using the update method.</p> <p>Allowed changes are modification of all properties except the ID.</p> <p>Changes will not become visible until the method "render" is called.</p>		
See also	<a href="#">Method.render</a> <a href="#">Option.defaultUpdateMode</a>		

## updateSkills

Object Type	<a href="#">Widget.Method</a>		
Parameter	updateSkills	<a href="#">Skill[]</a>	
	updateMode	<a href="#">Enum.UpdateModes</a>	optional

Explanation	<p>Updates skills.</p> <p>If values in the skill object change, the changes must be communicated to the widget using the update method.</p> <p>Allowed changes are modification of all properties except the ID.</p> <p>Changes will not become visible until the method "render" is called..</p>		
See also	<p><a href="#">Method.render</a></p> <p><a href="#">Option.defaultUpdateMode</a></p>		

## updateSymbols

Object Type	<a href="#">Widget.Method</a>		
Parameter	updateSymbols	<a href="#">Symbol[]</a>	
	updateMode	<a href="#">Enum.UpdateModes</a>	optional
Explanation	<p>Updates symbols.</p> <p>If values in the symbol object change, the changes must be communicated to the widget using the update method.</p> <p>Allowed changes are modification of all properties but ID.</p> <p>Changes will not become visible until the method "render" is called.</p>		
See also	<p><a href="#">Method.render</a></p> <p><a href="#">Option.defaultUpdateMode</a></p>		

## updateTableRowDefinitions

Object Type	<a href="#">Widget.Method</a>		
Parameter	tableRowDefinitions	<a href="#">TableRowDefinition[]</a>	
	updateMode	<a href="#">Enum.UpdateModes</a>	
Explanation	<p>Updates table row definitions.</p> <p>If values in the table row definition object change, the changes must be communicated to the widget using the update method.</p> <p>Allowed changes are modification of all properties but ID.</p> <p>updateMode is optional.</p> <p>Changes will not become visible until the method "render" is called.</p>		
See also	<p><a href="#">Method.render</a></p> <p><a href="#">Option.defaultUpdateMode</a></p>		

## updateTooltipTemplates

Object Type	<a href="#">Widget.Method</a>		
Parameter	tableTooltipTemplates	<a href="#">TooltipTemplate[]</a>	
	updateMode	<a href="#">Enum.UpdateModes</a>	
Explanation	<p>Updates table row definitions.</p> <p>If values in the tooltip tempate object change, the changes must be communicated to the widget using the update method.</p> <p>Allowed changes are modification of all properties but ID.</p> <p>updateMode is optional.</p>		



	Changes will not become visible until the method "render" is called.
See also	<a href="#">Method.render</a> <a href="#">Option.defaultUpdateMode</a>

### 3.3 Callbacks

Explanation	<p>For simplicity reasons, we have implemented callbacks instead of events. They can be set in the same way as all other "regular" options.</p> <p>All function assignments to callback definition properties are optional. The properties itself are undefined before.</p> <p>When we speak of a Promise object within of the callbacks, you can use a standard Promise object or a jQuery Promise.</p>
Members	<ul style="list-style-type: none"> <li><a href="#">canDrag</a></li> <li><a href="#">canSelect</a></li> <li><a href="#">compareActivities</a></li> <li><a href="#">compareAllocations</a></li> <li><a href="#">compareEntities</a></li> <li><a href="#">compareObjects</a></li> <li><a href="#">compareResources</a></li> <li><a href="#">compareSkills</a></li> <li><a href="#">determineGroupingCode</a></li> <li><a href="#">onClicked</a></li> <li><a href="#">onCloseContextMenu</a></li> <li><a href="#">onCollapseStateChanged</a></li> <li><a href="#">onCurveCollapseStateChanged</a></li> <li><a href="#">onCurvePaneResized</a></li> <li><a href="#">onDetermineColumnsDefinitions</a></li> <li><a href="#">onDoubleClicked</a></li> <li><a href="#">onDrag</a></li> <li><a href="#">onDragEnd</a></li> <li><a href="#">onDragStart</a></li> <li><a href="#">onDrop</a></li> <li><a href="#">onLogError</a></li> <li><a href="#">onLogWarning</a></li> <li><a href="#">onRowSortingChangeRequested</a></li> <li><a href="#">onSaveAsPDFProgress</a></li> <li><a href="#">onSelectionChanged</a></li> <li><a href="#">onShowContextMenu</a></li> <li><a href="#">onShowTooltip</a></li> <li><a href="#">onTableCellDefinitionWidthChanged</a></li> <li><a href="#">onTimeAreaViewParametersChanged</a></li> <li><a href="#">onVerticalScrollOffsetChanged</a></li> <li><a href="#">visibilityFilter</a></li> <li><a href="#">visibilityFilterForActivities</a></li> <li><a href="#">visibilityFilterForAllocations</a></li> <li><a href="#">visibilityFilterForEntities</a></li> <li><a href="#">visibilityFilterForResources</a></li> </ul>

	<a href="#">visibilityFilterForSkills</a>
See also	<a href="https://api.jquery.com/promise/">https://api.jquery.com/promise/</a>

## canDrag

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	
	object	<a href="#">Object</a>	
	visualType	<a href="#">Enum.VisualType</a>	
	allowedDragModes	<a href="#">Enum.BarDragModes</a>   <a href="#">Enum.RowDragModes</a>	in   out
	promise	<a href="#">Promise</a>   undefined	out
	selectedObjects	Object[]   undefined	
	startPropertyName	<a href="#">string</a>	*1
	endPropertyName	<a href="#">string</a>	*1
	activityID	<a href="#">IdentifierAsString</a>   undefined	*2
	skillID	<a href="#">IdentifierAsString</a>   undefined	*3
	event	<a href="#">Event</a>	
	Explanation	<p>This function is called when the user is moving the mouse cursor over an activity/allocation/entity or touches an activity/allocation/entity with a finger.</p> <p>Argument entry and entry index is only available if objectType == ObjectType.Allocation or if visualType == VisualType.PeriodHighlighter.</p> <p>Arguments startPropertyName and endPropertyName are only set if touching/dragging an activity bar.</p> <p>If the application returns a Promise object in args.promise, then the allowedDragModes will be updated, when the Promise is resolved or rejected. Rejection is the same as resolving with None. When resolving the promise, the application has to provide an argument as following:</p> <pre>{   "allowedDragModes": BarDragModes   RowDragModes }</pre> <p>As an alternative to the promise, the same was formerly possible by setting the options forcedActivity/AllocationAllowedBarDragModes or forcedActivity/Entity/Resource-AllowedRowDragModes, resp., to None.</p> <p>If the option multipleBarDraggingEnabled is set to true and more than one bar is selected, the property selectedObjects will contains all selected objects, so that the application can determine the value for allowedDragModes.</p> <p>If the mouse touches a date symbol or bar of an activity, then the properties start/endPropertyName contain the name of the property to be modified when dragging or dropping the symbol or bar, resp.</p>	

	<p>This callback is called only once every time when the mouse enters the visual representation of the object bar.</p> <p>*1: Only set if touching/dragging an activity bar.  *2: Only for allocations in activities view, when resource rows are visible.  *3: Only for allocations in skilled resources view.</p>
See also	<a href="#">Activity.AllowedBarDragModes</a> <a href="#">Activity.AllowedRowDragModes</a> <a href="#">Activity.DueDateAllowedDragModes</a> <a href="#">Activity.ReleaseDateAllowedDragModes</a> <a href="#">Allocation.AllowedBarDragModes</a> <a href="#">Allocation.AllowedBarDragModesInActivitiesView</a> <a href="#">Allocation.AllowedRowDragModes</a> <a href="#">Allocation.AllowedRowDragModesInActivitiesView</a> <a href="#">Entity.AllowedRowDragModes</a> <a href="#">Option.defaultActivityAllowedBarDragModes</a> <a href="#">Option.defaultAllocationAllowedBarDragModes</a> <a href="#">Option.multipleBarDraggingEnabled</a> <a href="#">Resource.AllowedRowDragModes</a> <a href="#">Skill.AllowedRowDragModes</a>

## canSelect

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	
	object	<a href="#">Object</a>	
	visualType	<a href="#">Enum.VisualType</a>	
	otherSelectedObjects	Object[]	
	activityID	<a href="#">IdentifierAsString</a>   undefined	*1
	skillID	<a href="#">IdentifierAsString</a>   undefined	*2
	event	<a href="#">Event</a>	DOM interface
	cancel	<a href="#">boolean</a>	out
Explanation	<p>This function is called when the user moves the mouse cursor onto the graphical representation of an object.</p> <p>*1: Only for allocations in activities view, when resource rows are visible.  *2: Only for allocations in skilled resources view.</p>		

## compareActivities

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	ObjectType.Activity
	objectA	<a href="#">Object</a>	
	objectB	<a href="#">Object</a>	

	viewType	<a href="#">Enum.ViewType</a>	
	hierarchySupplementaryDefinitionID	<a href="#">string</a>	*
	groupingLevelDefinitionIndex	<a href="#">number</a>	
	groupingCodeA	<a href="#">string</a>	*
	groupingCodeB	<a href="#">string</a>	*
	isLowerThanB	<a href="#">boolean</a>	in   out
Explanation	<p>This function is called when an activity is added or when its parent is changed during its update. Currently, only objects that appear as table rows can be sorted using this callback. The comparison is always performed only between siblings of same object type. The result will determine the sorting of the rows in the view.</p> <p>The function should compare objectA and objectB and write the result into isALowerThanB: true, when A is lower than B and false, when A is greater than B.</p> <p>In case of grouping rows objectA and objectB are null and instead groupingCodeA and groupingCodeB together with the properties hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex are set.</p> <p>* Only set when this callback is referencing grouping rows. The properties objectA and objectB are then always null.</p>		

## compareAllocations

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	ObjectType.Allocation
	objectA	<a href="#">Object</a>	
	objectB	<a href="#">Object</a>	
	viewType	<a href="#">Enum.ViewType</a>	
	activityID	<a href="#">IdentifierAsString</a>   undefined	*1
	skillID	<a href="#">IdentifierAsString</a>   undefined	*2
	isLowerThanB	<a href="#">boolean</a>	in   out
Explanation	<p>This function is called when an allocation is added or when its referenced activity row or resource row is changed during its update and allocation rows are visible. Currently, only objects that appear as table rows can be sorted using this callback. The comparison is always performed only between siblings of same object type. The result will determine the sorting of the rows in the view.</p> <p>The function should compare objectA and objectB and write the result into isALowerThanB: true, when A is lower than B and false, when A is greater than B.</p> <p>*1: Only for allocations in activities view, when resource rows are visible. *2: Only for allocations in skilled resources view.</p>		

## compareEntities

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	ObjectType.Entity
	objectA	<a href="#">Object</a>	
	objectB	<a href="#">Object</a>	
	viewType	<a href="#">Enum.ViewType</a>	
	hierarchySupplementaryDefinitionID	<a href="#">string</a>	*
	hierarchyLevelSupplementaryDefinitionIndex	<a href="#">number</a>	*
	groupingLevelDefinitionIndex	<a href="#">number</a>	*
	groupingCodeA	<a href="#">string</a>	
	groupingCodeB	<a href="#">string</a>	
isLowerThanB	<a href="#">boolean</a>	in   out	
Explanation	<p>This function is called when an entity is added or when its parent is changed during its update. The comparison is always performed only between siblings of same object type. The result will determine the sorting of the rows in the view.</p> <p>The function should compare objectA and objectB and write the result into isALowerThanB: true, when A is lower than B and false, when A is greater than B.</p> <p>In case of grouping rows objectA and objectB are null and instead groupingCodeA and groupingCodeB together with the properties hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex are set.</p> <p>* Only set when this callback is referencing grouping rows. The properties objectA and objectB then always are null.</p>		

## compareObjects

Object Type	<a href="#">Widget.Callback</a>
Deprecated	Deprecated for performance reasons. Use <a href="#">Widget.compareActivities</a> , <a href="#">Widget.compareAllocations</a> , <a href="#">Widget.compareEntities</a> , or <a href="#">Widget.compareResources</a> instead.

## compareResources

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	ObjectType.Resource
	objectA	<a href="#">Object</a>	
	objectB	<a href="#">Object</a>	
	viewType	<a href="#">Enum.ViewType</a>	
	hierarchySupplementaryDefinitionID	<a href="#">string</a>	*1

	hierarchyLevelSupplementaryDefinitionIndex	<a href="#">number</a>	*1
	groupingLevelDefinitionIndex	<a href="#">number</a>	*1
	groupingCodeA	<a href="#">string</a>	
	groupingCodeB	<a href="#">string</a>	
	activityID	<a href="#">IdentifierAsString</a>   undefined	*2
	skillID	<a href="#">IdentifierAsString</a>   undefined	*3
	isLowerThanB	<a href="#">boolean</a>	in   out
Explanation	<p>This function is called when a resource is added or when its parent is changed during its update. The comparison is always performed only between siblings of same object type. The result will determine the sorting of the rows in the view.</p> <p>The function should compare objectA and objectB and write the result into isALowerThanB: true, when A is lower than B and false, when A is greater than B.</p> <p>In case of grouping rows objectA and objectB are null and instead groupingCodeA and groupingCodeB together with the properties hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex are set.</p> <p>*1 Only set when this callback is referencing grouping rows. The properties objectA and objectB then always are null.</p> <p>*2: Only for resources in activities view, when resource rows are visible.</p> <p>*3: Only for resources in skilled resources view.</p>		

## compareSkills

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	ObjectType.Skill
	objectA	<a href="#">Object</a>	
	objectB	<a href="#">Object</a>	
	viewType	<a href="#">Enum.ViewType</a>	
	isLowerThanB	<a href="#">boolean</a>	in   out
Explanation	<p>This function is called when a skill object is added or when its parent is changed during its update. The comparison is always performed only between siblings of same object type. The result will determine the sorting of the rows in the view.</p> <p>The function should compare objectA and objectB and write the result into isALowerThanB: true, when A is lower than B and false, when A is greater than B.</p> <p>In case of grouping rows objectA and objectB are null and instead groupingCodeA and groupingCodeB together with the properties hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex are set.</p>		

## determineGroupingCode

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	
	object	<a href="#">Object</a>	

	hierarchySupplementaryDefinitionID	<a href="#">string</a>	
	hierarchyLevelSupplementaryDefinitionIndex	<a href="#">number</a>	
	groupingLevelDefinition	<a href="#">Object</a>	
	groupingLevelDefinitionIndex	<a href="#">number</a>	
	code	<a href="#">string</a>	in   out
	text	<a href="#">string</a>	out
Explanation	This function is called to determine grouping information like grouping code and long text.		

## onClicked

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	
	object	<a href="#">Object</a>   null	
	visualType	<a href="#">Enum.VisualType</a>	
	date	<a href="#">Date</a>   undefined	date at mouse cursor
	entry	<a href="#">ActivityEntry</a>   <a href="#">AllocationEntry</a>   <a href="#">PeriodHighlighterEntry</a>	*1
	entryIndex	<a href="#">number</a>	*1
	curve	<a href="#">Curve</a>	Curve is only available when clicked on a curve; the "object" parameter will then hold the corresponding resource.
	periodHighlighter	<a href="#">PeriodHighlighter</a>	PeriodHighlighter is only available when clicked on a PeriodHighlighterEntry; the "object" parameter will then hold the corresponding resource.

			ding resource/activity
	cellIndex	<a href="#">number</a>	CellIndex is only available when clicked on a table cell; zero-based index of the cell.
	symbolIndex	<a href="#">number</a>	SymbolIndex only available when clicked on a symbol; zero-based index of the symbol.
	hierarchySupplementaryDefinitionID	<a href="#">string</a>	*2
	hierarchyLevelSupplementaryDefinitionIndex	<a href="#">number</a>	*2
	groupingLevelDefinitionIndex	<a href="#">number</a>	*2
	groupingCodes	string[]	*2
	activityID	<a href="#">IdentifierAsString</a>   undefined	*3
	skillID	<a href="#">IdentifierAsString</a>   undefined	*4
	event	<a href="#">Event</a>	DOM interface
	symbolIndex	<a href="#">number</a>	
Explanation	<p>This function is called when an object is clicked by the user.</p> <p>In case of a grouping row, object is null and instead groupingCodes together with the properties hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex are set.</p> <p>*1: Only available for ObjectType.Allocation or VisualType.PeriodHighlighter.  *2: Only set when this callback is referencing grouping rows. The properties objectA and objectB then always are null.  *3: Only for allocations and resources in activities view, when resource rows are visible.  *4: Only for allocations and resources in skilled resources view.</p>		
See also	<a href="#">Option.clickCallbackTriggeringOnRowInTimeArea</a>		

## onCloseContextMenu

Object Type	<a href="#">Widget.Callback</a>
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Explanation	When a context menu is visible in the application and the user starts a new action elsewhere in the widget, the widget sends this event in order to close the open context menu.
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## onCollapseStateChanged

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	
	object	<a href="#">Object</a>   null	
	newCollapseState	<a href="#">Enum.CollapseState</a>	
	interactively	<a href="#">boolean</a>	
	isForAllocationRows	<a href="#">boolean</a>	
	hierarchySupplementaryDefinitionID	<a href="#">string</a>	*1
	hierarchyLevelSupplementaryDefinitionIndex	<a href="#">number</a>	*1
	groupingLevelDefinitionIndex	<a href="#">number</a>	*1
	groupingCodes	string[]	*1
	activityID	<a href="#">IdentifierAsString</a>   undefined	*2
	skillID	<a href="#">IdentifierAsString</a>   undefined	*3
	promise	<a href="#">Promise</a>   undefined	out
Explanation	<p>This function is called when a group was expanded or collapsed either in the table of the Gantt diagram or of the entities table. This callback can be triggered:</p> <ul style="list-style-type: none"> <li>• by the user clicking on the appropriate symbol in the resource, activity or entity row</li> <li>• by automatic row expansion when dragging objects</li> <li>• by using the method <code>scrollToObject</code></li> <li>• by setting the property <code>CollapseState</code> on a resource, an activity, a skill, or an entity object and option <code>onCollapseStateChangedTriggeredByUpdateCalls</code> is not set to false.</li> </ul> <p>If the application sets the <code>promise</code> property, then the update of the DOM is delayed until the promise is resolved.</p> <p>*1: Only set when this callback is referencing grouping rows. The properties <code>objectA</code> and <code>objectB</code> then always are null.</p> <p>*2: Only for allocations and resources in activities view, when resource rows are visible.</p> <p>*3: Only for allocations and resources in skilled resources view.</p>		
See also	<a href="#">Activity.AllocationRowsCollapseState</a> <a href="#">Activity.CollapseState</a> <a href="#">Resource.AllocationRowsCollapseState</a> <a href="#">Resource.AllocationRowsCollapseStateInActivitiesView</a> <a href="#">Resource.CollapseState</a> <a href="#">Resource.CollapseStateInLoadsView</a> <a href="#">Skill.CollapseState</a>		

## onCurveCollapseStateChanged

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	
	object	<a href="#">Object</a>	
	newCollapseState	<a href="#">Enum.CollapseState</a>	
	resource	<a href="#">Resource</a>   undefined	
	activityID	<a href="#">IdentifierAsString</a>   undefined	*1
	skillID	<a href="#">IdentifierAsString</a>   undefined	*2
	promise	<a href="#">Promise</a>   undefined	out
Explanation	<p>This function is called when a curves pane was expanded or collapsed table of the Gantt diagram. This callback is triggered by the user clicking on the appropriate symbol in the resource or activity row.</p> <p>The property "resource" is only set, when the object is not the resource itself.</p> <p>The application can update the property CurveCollapseState of the object if needed.</p> <p>If the application sets the promise property, then the update of the DOM is delayed until the promise is resolved.</p> <p>*1: Only for allocations and resources in activities view, when resource rows are visible. *2: Only for allocations and resources in skilled resources view.</p>		
See also	<a href="#">Activity.CurveCollapseState</a> <a href="#">Resource.CurveCollapseState</a>		

## onCurvePaneResized

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	
	object	<a href="#">Object</a>	
	newHeight	<a href="#">PixelsAsNumber</a>	
	cancel	<a href="#">boolean</a>	out
Explanation	<p>This function is called after the height of a curve pane has been changed interactively. If the application wants to undo the resize, it can set the property "cancel" to true.</p>		
See also	<a href="#">Option.curvePanelsResizable</a>		

## onDetermineColumnsDefinitions

Object Type	<a href="#">Widget.Callback</a>
Deprecated	Use object type <a href="#">ObjectType.TableRowDefinition</a> instead for the same purpose.

## onDoubleClicked

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	
	object	<a href="#">Object</a>   null	
	visualType	<a href="#">Enum.VisualType</a>	
	date	<a href="#">Date</a>   undefined	at mouse cursor
	entry	<a href="#">AllocationEntry</a>   <a href="#">PeriodHighlighterEntry</a>	*1
	entryIndex	<a href="#">number</a>	*1
	periodHighlighter	<a href="#">PeriodHighlighter</a>	
	cellIndex	<a href="#">number</a>	
	symbolIndex	<a href="#">number</a>	
	hierarchySupplementaryDefinitionID	<a href="#">string</a>	*2
	hierarchyLevelSupplementaryDefinitionIndex	<a href="#">number</a>	*2
	groupingLevelDefinitionIndex	<a href="#">number</a>	*2
	activityID	<a href="#">IdentifierAsString</a>   undefined	*3
	skillID	<a href="#">IdentifierAsString</a>   undefined	*4
groupingCodes	string[]		
Explanation	<p>This function is called when an object is double-clicked by the user.</p> <p>PeriodHighlighter is only available when clicked on a PeriodHighlighterEntry; the "object" parameter will then hold the corresponding resource/activity.</p> <p>CellIndex is only available when clicked on a table cell; zero-based index of the cell.</p> <p>SymbolIndex is only available when clicked on a symbol; zero-based index of the symbol.</p> <p>In case of a grouping row, object is null and instead groupingCodes together with the properties hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex are set.</p> <p>*1: Available only if objectType == ObjectType.Allocation or if visualType == VisualType.PeriodHighlighter. *2: In skilled resources view the property skillID is set when double-clicking on a resource row, allocation row, or allocation bar.</p> <p>*3: Only for allocations and resources in activities view, when resource rows are visible.</p> <p>*4: Only for allocations and resources in skilled resources view.</p>		
See also	<a href="#">Option.clickCallbackTriggeringOnRowInTimeArea</a>		

## onDrag

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	
	object	<a href="#">Object</a>   null	

	visualType	<a href="#">Enum.VisualType</a>	
	dragMode	<a href="#">Enum.BarDragModes</a>   <a href="#">Enum.RowDragModes</a>	*1
	rowInsertionMode	<a href="#">Enum.RowInsertionMode</a>	*2
	newRowObjectType	<a href="#">Enum.ObjectType</a>	*1
	newRowObject	<a href="#">Object</a>	*1
	newRowObjectIsSuitableActivity	<a href="#">boolean</a>	*1
	newRowObjectIsSuitableResource	<a href="#">boolean</a>	*1
	newStart	<a href="#">Date</a>	*3
	newEnd	<a href="#">Date</a>	*3
	newDate	<a href="#">Date</a>	*4
	startPropertyName	<a href="#">string</a>	*5
	endPropertyName	<a href="#">string</a>	*5
	activityID	<a href="#">IdentifierAsString</a>   undefined	*6
	newActivityID	<a href="#">IdentifierAsString</a>   undefined	*6
	skillID	<a href="#">IdentifierAsString</a>   undefined	*7
	newSkillID	<a href="#">IdentifierAsString</a>   undefined	*7
	event	<a href="#">Event</a>	
	dropAllowed	<a href="#">boolean</a>	out
	cancel	<a href="#">boolean</a>	out
	promise	<a href="#">Promise</a>   undefined	out
Explanation	<p>This function is called when the user drags an activity, allocation, allocation entry, or entity (called anew on every new move of the mouse/finger). If args.dropAllowed is set to false on return of the callback, then a forbidden cursor is shown within the widget and a drop will be ignored.</p> <p>If args.cancel is set to true, then the drag action will be canceled.</p> <p>If an allocation is dragged, then the additional property newRowObjectIsSuitableResource gives the information whether the dragged object is over a suitable resource. Then the application can transfer the value to the property dropAllowed if wishful.</p> <p>If a date symbol or bar of an activity is dragged, then the properties start/endPropertyName contain the name of the property to be modified when dragging or dropping the symbol or bar, resp.</p> <p>If a row is dragged, the property rowInsertionMode tells about the current insertion mode relative to the object in property newRowObject.</p> <p>In case of a grouping row, object is null and instead groupingCodes together with the properties hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex are set.</p> <p>If a Promise object is returned in callbackArgs.promise, then the application can announce the properties cancel and dropAllowed asynchronously by resolving the promise with an object as first parameter of the following form:</p> <pre>{   cancel : boolean undefined,</pre>		

	<p>dropAllowed : boolean undefined          }.</p> <p>*1: Only when dragging bars or rows.          *2: Only when dragging rows.          *3: Only when dragging bars.          *4: Only for date line.          *5: Only when dragging activity bars.          *6: Only for allocations and resources in activities view, when resource rows are visible.          *7: Only for allocations and resources in skilled resources view.</p>
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## onDragEnd

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	
	object	<a href="#">Object</a>   null	
	visualType	<a href="#">Enum.VisualType</a>	
	dragMode	<a href="#">Enum.BarDragModes</a>   <a href="#">Enum.RowDragModes</a>	
	startPropertyName	<a href="#">string</a>	*1
	endPropertyName	<a href="#">string</a>	*1
	activityID	<a href="#">IdentifierAsString</a>   undefined	*2
	skillID	<a href="#">IdentifierAsString</a>   undefined	*3
	event	<a href="#">Event</a>	
Explanation	<p>This function is called when the user ends dragging an activity, allocation, allocation entry, or entity (please check args.objectType!) even when dropping is not allowed on the new row.</p> <p>If a date symbol or bar of an activity was dragged, then the properties start/endPropertyName contain the name of the property to be modified when dragging or dropping the symbol or bar, resp.</p> <p>*1: Only set if touching/dragging an activity bar.          *2: Only for allocations and resources in activities view, when resource rows are visible.          *3: Only for allocations and resources in skilled resources view.</p>		

## onDragStart

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	
	object	<a href="#">Object</a>   null	
	visualType	<a href="#">Enum.VisualType</a>	
	dragMode	<a href="#">Enum.BarDragModes</a>   <a href="#">Enum.RowDragModes</a>	
	startPropertyName	<a href="#">string</a>	*1

	endPropertyName	<a href="#">string</a>	*1
	activityID	<a href="#">IdentifierAsString</a>   undefined	*2
	skillID	<a href="#">IdentifierAsString</a>   undefined	*3
	event	<a href="#">Event</a>	DOM interface
	cancel	<a href="#">boolean</a>	out
Explanation	<p>This function is called when the user starts to drag an activity, allocation, allocation entry, or entity (please check args.objectType!). If args.cancel is set to true, then the drag action will be canceled.</p> <p>If a date symbol or bar of an activity will be dragged, then the properties start/endPropertyName contain the name of the property to be modified when dragging or dropping the symbol or bar, resp.</p> <p>*1: Only set if touching/dragging an activity bar.  *2: Only for allocations and resources in activities view, when resource rows are visible.  *3: Only for allocations and resources in skilled resources view.</p>		
See also	<a href="#">Option.multipleBarDraggingEnabled</a>		

## onDrop

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	
	object	<a href="#">Object</a>   null	
	visualType	<a href="#">Enum.VisualType</a>	
	dragMode	<a href="#">Enum.BarDragModes</a>   <a href="#">Enum.RowDragModes</a>	*1
	rowInsertionMode	<a href="#">Enum.RowInsertionMode</a>	*2
	newRowObjectType	<a href="#">Enum.ObjectType</a>	*3
	newRowObject	<a href="#">Object</a>	*3
	newStart	<a href="#">Date</a>	*3
	newEnd	<a href="#">Date</a>	*3
	newDate	<a href="#">Date</a>	*4
	newSortCode	<a href="#">number</a>	*2
	startPropertyName	<a href="#">string</a>	*5
	endPropertyName	<a href="#">string</a>	*5
	activityID	<a href="#">IdentifierAsString</a>   undefined	*6
	newActivityID	<a href="#">IdentifierAsString</a>   undefined	*6
	skillID	<a href="#">IdentifierAsString</a>   undefined	*7
	newSkillID	<a href="#">IdentifierAsString</a>   undefined	*7
	event	<a href="#">Event</a>	
	cancel	<a href="#">boolean</a>	out
	promise	<a href="#">Promise</a>   undefined	out
workingTimeDistance	<a href="#">number</a>	milliseconds	

	coupledObjects	Allocation[]   Activity[]	
	startsAndEndsOfCoupledObjects	Object[]	*3
	startsAndEndsOfEntries	Object[]	*3
	otherNewSortCodesForSiblingObjects	Object[]	*2
Explanation	<p>This function is called when an activity/allocation/entity is dropped by the user after dragging it (but only when dropping was allowed by the last triggered onDrag callback). When the function sets a Promise object into args.promise, then the widget disables dragging of the dropped bar until the promise is resolved or rejected. It is also possible to cancel the interaction.</p> <p>If the promise is resolved, then it is possible to call it with an arguments object, which offers cancel the interaction at last: args = {"cancel" : boolean}</p> <p>When using a promise, then the application should ensure that it will be resolved/rejected later in any way, since the drag action lasts active until then. Maybe there should be a timer for time out.</p> <p>If the option multipleBarDraggingEnabled is set to true and more than one object has been dragged, then the properties coupledObjects and startsAndEndsOfCoupledObjects are set. The latter one contains objects of the form:</p> <pre>{   object : Allocation Activity,   newStart : Date,   newEnd : Date }</pre> <p><b>Note:</b> If one of the properties newStart or newEnd hat a value of null, then the user dragged this object outside of the visible time area and there is no working time in the calendar to calculate the appropriate date.</p> <p>If a date symbol or bar of an activity is dropped, then the properties start/endPropertyName contain the name of the property to be modified when dragging or dropping the symbol or bar, resp.</p> <p>The property startsAndEndsOfEntries contains an array of objects of the following form:{ EntryIndex : Integer, NewStart : Date, NewEnd : Date}When multiple bars are dragged and dropped, this also applies to coupled objects: In the objects of the property startsAndEndsOfCoupledObjects there also exists a property named startsAndEndsOfEntries.</p> <p>If the visualType is Row, then the property rowInsertionMode is set. If the sort mode for this type of row object is set to Ascending (see options activity/entity/resource/skillSortMode), then also the properties newSortCode and otherNewSortCodesForSiblingObjects is set. The latter is an array of objects of the following form:</p> <pre>{   object : Activity Entity Resource,   newSortCode : number }</pre> <p>This array contains items for all sibling objects for which is new sort code is needed.</p>		

	<p>The method processOnDrop allows to reduce the effort implementing the event handler.</p> <p>*1: Only when dragging bars or rows.                  *2: Only when dragging rows.                  *3: Only when dragging bars.                  *4: Only for date line.                  *5: Only when dragging activity bars.                  *6: Only for allocations and resources in activities view, when resource rows are visible.                  *7: Only for allocations and resources in skilled resources view.</p>
See also	<p><a href="#">DateLine.Draggable</a>  <a href="#">Method.processOnDrop</a>  <a href="#">Option.multipleBarDraggingEnabled</a></p>

## onLogError

Object Type	<a href="#">Widget.Callback</a>		
Args	commandName	<a href="#">string</a>	
	commandCounter	<a href="#">number</a>	
	error	<a href="#">Error</a>	
	rethrow	<a href="#">boolean</a>	out
Explanation	<p>If set, then this function is called when an exception occurs on any method described below that is called on the widget or on setting an option. By default, the exception is re-thrown afterwards.</p> <p>The commandName property of the argument object contains one of the method or callback names.</p> <p>The commandCounter can be used to bundle errors of the same command.</p> <p>You can use this in your application to send the error from the client to the application server and make it persistent there. Normally no error exception should be triggered at all.</p> <p>If the property "rethrow" is set to false, then the exception will not be re-thrown.</p> <p>Since the most exceptions do not occur intentionally there is no numbering like in warnings. Exceptions also occur when setting unallowed values to options. Exceptions should not occur when the VSW is used as defined in this document.</p>		
See also	<a href="#">Callback.onLogWarning</a>		

## onLogWarning

Object Type	<a href="#">Widget.Callback</a>		
Args	commandName	<a href="#">string</a>	
	commandCounter	<a href="#">number</a>	
	code	<a href="#">Enum.WarningCode</a>	



	description	<a href="#">string</a>	
Explanation	<p>If set then this function is triggered when data is inconsistent among other incidents.</p> <p>The <code>commandName</code> property of the argument object contains the pure current method name. The description contains an English text like "Option "xyz" is unknown", "Object ID empty", or "Object with ID "xyz" not unique".</p> <p>The <code>commandCounter</code> can be used to bundle errors of the same command.</p> <p>You can use this in your application to debug your application or to send the warning from the client to the application server and make it persistent there. Normally no warning should be triggered at all.</p>		
See also	<a href="#">Callback.onLogError</a> <a href="#">Option.end</a> <a href="#">Option.start</a>		

## onRowSortingChangeRequested

Object Type	<a href="#">Widget.Callback</a>		
Args	<code>objectType</code>	<a href="#">Enum.ObjectType</a>	
	<code>sortMode</code>	<a href="#">Enum.RowSortMode</a>	in   out
	<code>sortCodeSource</code>	<a href="#">string</a>	in   out
	<code>cancel</code>	<a href="#">boolean</a>	
	<code>event</code>	<a href="#">Event</a>	
Explanation	<p>This function is triggered when the user clicks or taps on a column in the table title and the option <code>interactiveSwitchingOfSortOrderEnabled</code> is set to true.</p> <p>The application then can change the sort mode or the sort code source property name when necessary. Alternatively, it is possible to abort a change by setting the property "cancel" to true.</p>		

## onSaveAsPDFProgress

Object Type	<a href="#">Widget.Callback</a>		
Args	<code>pageCount</code>	<a href="#">number</a>	
	<code>currentPageNumber</code>	<a href="#">number</a>	
	<code>promise</code>	<a href="#">Promise</a>   undefined	out
Explanation	<p>This function is called constantly during the execution of the <code>saveAsPDF</code> method. Especially when saving a diagram to many pages, this callback is helpful for the application to be continuously informed about the progress of the processing.</p> <p>If a promise is returned by the application in the corresponding property, then VSW will wait for resolution before continuing the process. This serves to have the chance to show an updated progress dialog.</p>		
See also	<a href="#">Method.saveAsPDF</a>		

## onSelectionChanged

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	
	object	<a href="#">Object</a>   null	
	selectedObjects	<a href="#">Object[]</a>	in   out
	visualType	<a href="#">Enum.VisualType</a>	
	previousSelectedObjects	<a href="#">Object[]</a>   null	
	previousSelectedObjectType	<a href="#">Enum.ObjectType</a>   null	
	reason	<a href="#">Enum.SelectionChangedReason</a>	
	reasonObject	<a href="#">Object</a>   undefined	
	reasonObjectType	<a href="#">Enum.ObjectType</a>   undefined	
	event	<a href="#">Event</a>	DOM interface
	cancel	<a href="#">boolean</a>	in   out, Default: false
Explanation	<p>This function is called when the user selects/deselects an object solely or in addition. The property "selectedObjects" holds the new selection completely and can be changed by the application, while the previously selected objects (if any) are contained in the property "previouslySelectedObjects".</p> <p>The application can also decide whether to accept a selection change by validating the reason properly eventually together with the causing object (e.g. clicking on an object or the background, showing a context menu, or starting a drag action).</p> <p>The property selectedObjects contains the new selection on input. This can be modified and will then determine the actual objects to select. Here it is allowed to return not only the objects that are registered by add or update methods, but also literal objects that contain the properties ID and eventually SkillID. The latter one is used in skilled resources view to select resources or allocations only below the addressed skill row.</p>		

## onShowContextMenu

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	
	object	<a href="#">Object</a>   null	
	visualType	<a href="#">Enum.VisualType</a>	
	date	<a href="#">Date</a>   undefined	
	event	<a href="#">Event</a>	
	entry	<a href="#">ActivityEntry</a>   <a href="#">AllocationEntry</a>   <a href="#">PeriodHighlighterEntry</a>	*1
	entryIndex	<a href="#">number</a>	*1
	hierarchySupplementaryDefinitionID	<a href="#">string</a>	*2
	hierarchyLevelSupplementaryDefinitionIndex	<a href="#">number</a>	*2
	groupingLevelDefinitionIndex	<a href="#">number</a>	*2

	groupingCodes	string[]	*2
	activityID	<a href="#">IdentifierAsString</a>   undefined	*3
	skillID	<a href="#">IdentifierAsString</a>   undefined	*4
	promise	<a href="#">Promise</a>   undefined	out
	timePeriodStart	<a href="#">Date</a>   undefined	
	timePeriodEnd	<a href="#">Date</a>   undefined	
Explanation	<p>This function is called when a context menu can appear. If the function sets a Promise object at args.promise, then the widget will internally hold the state of a context menu being open until the promise is resolved or rejected. Possible items are resources, activities, allocations, allocation entries (only when shown as separate bars instead of allocation bars), links, timescale, empty time area, and period highlighters.</p> <p>In case of a grouping row, the object is null and instead groupingCodes are set along with the properties hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex.</p> <p>In the case of the time scale, the start and end dates of the associated time period are supplied in addition to the date actually hit (see args.timePeriodStart and args.timePeriodEnd).</p> <p>*1: Available only if objectType == ObjectType.Allocation or if visualType == VisualType.PeriodHighlighter.</p> <p>*2: Only set when this callback is referencing grouping rows. The properties objectA and objectB then always are null.</p> <p>*3: Only for allocations and resources in activities view, when resource rows are visible.</p> <p>*4: Only for allocations and resources in skilled resources view.</p>		

## onShowTooltip

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	
	object	<a href="#">Object</a>   null	
	visualType	<a href="#">Enum.VisualType</a>	
	visualSubtype	<a href="#">Enum.VisualSubtype</a>	
	cellIndex	<a href="#">number</a>   undefined	*1
	event	<a href="#">Event</a>	DOM Interface
	date	<a href="#">Date</a>	at mouse cursor
	capacity	<a href="#">number</a>	*2
	load	<a href="#">number</a>	*2
	singleLoads	<a href="#">Object</a>	
	entry	<a href="#">AllocationEntry</a>   <a href="#">ActivityEntry</a>   <a href="#">PeriodHighlighterEntry</a>	*3
	entryIndex	<a href="#">number</a>	*3
	periodHighlighter	<a href="#">PeriodHighlighter</a>	
hierarchySupplementaryDefinitionID	<a href="#">string</a>	*4	

	hierarchyLevelSupplementaryDefinitionIndex	<a href="#">number</a>	*4
	groupingLevelDefinitionIndex	<a href="#">number</a>	*4
	groupingCodes	string[]	*4
	innerHTML	<a href="#">string</a>	*5
	tooltipTemplateID	<a href="#">string</a>	
	activityID	<a href="#">IdentifierAsString</a>   undefined	*6
	skillID	<a href="#">IdentifierAsString</a>   undefined	*7
	promise	<a href="#">Object</a>   null	out
Explanation	<p>This function is called when a tooltip can appear (i.e. when the mouse cursor hovers over an object). The tooltip itself is to be shown by the application. Possible objects are activities, allocations, links, period highlighters, and resources.</p> <p>If you want to avoid showing a tooltip, you will have set the properties innerHTML and tooltipTemplateID to "" or null.</p> <p>In case of a grouping row object is null and instead groupingCodes together with the properties hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex are set.</p> <p>Please be aware that the property object contains the reference to the row object when the mouse cursor is over a curve or a period highlighter entry. In these cases the property visualType is set to Curve or PeriodHighlighterEntry, resp., and other properties are filled accordingly.</p> <p>When the application sets a Promise object into args.promise, then the widget will renew the text now provided as first parameter in the call to Promise.resolve.</p> <p>In order to triggering the callback for each allocation bar entry or activity bar entry, you must set the option <b>triggeringOfOnShowTooltipForEntriesInBars</b>. If set to true, the properties entry and entryIndex contains the appropriate value.</p> <p>*1: Only available when on a table cell; zero-based index of the cell.  *2: Only set when this callback is referencing grouping rows. The properties objectA and objectB then always are null.  *3: Available only if objectType == ObjectType.Allocation or if visualType == VisualType.PeriodHighlighter.  *4: Only set when this callback is referencing grouping rows. The properties objectA and objectB then always are null.  *5: Text to be displayed inside a tooltip window. This text has to be formatted compliant to the formatting rules for the contents of HTML &lt;div&gt; elements. <b>Line breaks</b> can be inserted by adding a &lt;br&gt; tag to the text. Embracing substrings by &lt;b&gt; and &lt;/b&gt; tags will show <b>bold texts</b>. The same way you can use the &lt;table&gt; and the corresponding &lt;tr&gt; and &lt;td&gt; tags to <b>tabulate</b> the tooltip contents. If your original text contains the symbols "&lt;" or "&gt;" - i.e. those symbols should be displayed as they are and must not be interpreted as parts of HTML tag – then you have to replace the symbols by escape sequence codes (replace "&lt;" by "&amp;lt;" and "&gt;" by "&amp;gt;").  *6: Only for allocations and resources in activities view, when resource rows are visible.  *7: Only for allocations and resources in skilled resources view.</p>		

## onTableCellDefinitionWidthChanged

Object Type	<a href="#">Widget.Callback</a>		
Args	tableType	<a href="#">Enum.TableType</a>	
	tableRowDefinition	<a href="#">Object</a>	
	cellIndex	<a href="#">number</a>	
	newWidth	<a href="#">PixelsAsNumber</a>	
	oldWidth	<a href="#">PixelsAsNumber</a>	
Explanation	<p>If set, then this function is called when the user has changed the width of a table column. This callback will only work, when the table columns were defined by TableRowDefinition objects. You then are able to update the cell definition inside of the appropriate TableRowDefinition object e.g. for gaining persistency inside the application.</p>		

## onTimeAreaViewParametersChanged

Object Type	<a href="#">Widget.Callback</a>		
Args	horizontalScrollOffset	<a href="#">PixelsAsNumber</a>	
	width	<a href="#">PixelsAsNumber</a>	
	start	<a href="#">Date</a>	
	end	<a href="#">Date</a>	
	timeResolutionUnit	<a href="#">Enum.TimeUnit</a>	seconds   minutes   hours   days
	timeResolutionUnitCount	<a href="#">number</a>	
	tableViewWidth	<a href="#">PixelsAsNumber</a>	current width in pixels, not to be confused with the option tableViewWidth
	entitiestableViewWidth	<a href="#">PixelsAsNumber</a>	current width in pixels, not to be confused with the option entitiestableViewWidth
Explanation	<p>This function is called when the visible time area changes either by changing the visible start or by changing the resolution. There is an internal delay that is defined by option scrollOffsetsChangedCallbackTimeDelay.</p> <p>The values of the properties “start” and “end” can be used in the method fitTimeAreaIntoView to restore the current view at a later time. Alternatively the values</p>		

	<p>of the properties "timeResolutionUnit" and "timeResolutionUnitCount" can be used for the method setTimeResolutionForView.</p> <p>The callbackArgs parameter scrollOffset is deprecated and replaced above by horizontalScrollOffset.</p>
See also	<a href="#">Method.fitTimeAreaIntoView</a> <a href="#">Option.scrollOffsetsChangedCallbackTimeDelay</a>

## onVerticalScrollOffsetChanged

Object Type	<a href="#">Widget.Callback</a>		
Args	tableType	<a href="#">Enum.TableType</a>	
	scrollOffset	<a href="#">PixelsAsNumber</a>	
	rowObjectTypeAtTop	<a href="#">Enum.ObjectType</a>	
	rowObjectAtTop	<a href="#">Object</a>	
	topViewScrollOffset	<a href="#">PixelsAsNumber</a>	
	topViewRowObjectAtTop	<a href="#">Object</a>	
Explanation	This function is called when the visible area is scrolled vertically or when the row object visible at top has changed. There is an internal delay that is defined by option scrollOffsetsChangedCallbackTimeDelay		
See also	<a href="#">Option.scrollOffsetsChangedCallbackTimeDelay</a>		

## visibilityFilter

Object Type	<a href="#">Widget.Callback</a>
Deprecated	Deprecated for performance reasons. Use options visibilityFilterFor ... instead.

## visibilityFilterForActivities

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	ObjectType.Activity
	object	<a href="#">Activity</a>	
	result	<a href="#">boolean</a>	out Default: true
Explanation	This function is called to hide objects. The result has to be set in the property named "result": true means visible and false means invisible. Setting the option with the same or another value again, triggers the visibility check for all activities immediately.		

## visibilityFilterForAllocations

Object Type	<a href="#">Widget.Callback</a>
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Args	objectType	<a href="#">Enum.ObjectType</a>	ObjectType.Allocation
	object	<a href="#">Allocation</a>	
	result	<a href="#">boolean</a>	out, Default: true
Explanation	This function is called to hide objects. The result has to be set in the property named "result": true means visible and false means invisible. Setting the option with the same or another value again, triggers the visibility check for all allocations immediately.		

### visibilityFilterForEntities

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	ObjectType.Entity
	object	<a href="#">Entity</a>	
	result	<a href="#">boolean</a>	out, Default: false
Explanation	This function is called to hide objects. The result has to be set in the property named "result": true means visible and false means invisible. Setting the option with the same or another value again, triggers the visibility check for all entities immediately.		

### visibilityFilterForResources

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	ObjectType.Resource
	object	<a href="#">Object</a>	
	result	<a href="#">boolean</a>	out, Default: true
Explanation	This function is called to hide objects. The result has to be set in the property named "result": true means visible and false means invisible. Setting the option with the same or another value again, triggers the visibility check for all resources immediately.		

### visibilityFilterForSkills

Object Type	<a href="#">Widget.Callback</a>		
Args	objectType	<a href="#">Enum.ObjectType</a>	ObjectType.Skill
	object	<a href="#">Object</a>	
	result	<a href="#">boolean</a>	out, Default: true

Explanation	This function is called to hide objects. The result has to be set in the property named "result": true means visible and false means invisible. Setting the option with the same or another value again, triggers the visibility check for all skills immediately.
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### 3.4 Enumerations

Explanation	<p>Enumerations in VSW are defined as literal objects using properties as the speaking name with number values. The application always can use the number value directly, but using the speaking name, the source code is somewhat more self-explaining.</p> <p>The names of the enumerations follow the rule that they are formulated in the singular if the enumeration values each define a single mode or similar. However, if the values are made up of combinable flags (using the   operator, aka bitwise OR operator), the names are formulated in the plural.</p>
Members	<ul style="list-style-type: none"> <li><a href="#">ActivityBarDragModes</a></li> <li><a href="#">ActivityBarShape</a></li> <li><a href="#">AllocationBarDragModes</a></li> <li><a href="#">AllocationBarShape</a></li> <li><a href="#">BarDesigns</a></li> <li><a href="#">BarDragModes</a></li> <li><a href="#">BarShape</a></li> <li><a href="#">BarSortMode</a></li> <li><a href="#">CollapseState</a></li> <li><a href="#">CollapseStateTargets</a></li> <li><a href="#">CurveInterpolationType</a></li> <li><a href="#">CurveType</a></li> <li><a href="#">DateLineCaptionOrientation</a></li> <li><a href="#">DateLineCaptionPosition</a></li> <li><a href="#">DateLineGridModes</a></li> <li><a href="#">DayOfWeek</a></li> <li><a href="#">HorizontalAlignment</a></li> <li><a href="#">HorizontallyScrollableViewArea</a></li> <li><a href="#">HorizontalScrollPosition</a></li> <li><a href="#">LinkMarker</a></li> <li><a href="#">LinkRoutingType</a></li> <li><a href="#">ObjectType</a></li> <li><a href="#">PageOrientation</a></li> <li><a href="#">PanningMode</a></li> <li><a href="#">PatternType</a></li> <li><a href="#">PrintingMode</a></li> <li><a href="#">ProgressBarWidthCalculationMode</a></li> <li><a href="#">RelationType</a></li> <li><a href="#">RowDesigns</a></li> <li><a href="#">RowDragModes</a></li> <li><a href="#">RowInsertionMode</a></li> <li><a href="#">RowSortMode</a></li> <li><a href="#">SelectionChangedReason</a></li> <li><a href="#">SnapTargets</a></li> <li><a href="#">TableType</a></li> </ul>



	<a href="#">TargetPositions</a> <a href="#">TextWrapMode</a> <a href="#">TimescaleInteractionModes</a> <a href="#">TimescaleNavigationMode</a> <a href="#">TimeType</a> <a href="#">TimeUnit</a> <a href="#">TreeVisualizationMode</a> <a href="#">UpdateModes</a> <a href="#">VerticalAlignment</a> <a href="#">VerticallyScrollableViewArea</a> <a href="#">VerticalScrollPosition</a> <a href="#">ViewArea</a> <a href="#">ViewType</a> <a href="#">VisualSubtype</a> <a href="#">VisualType</a> <a href="#">WarningCode</a> <a href="#">WorldViewPosition</a>
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## ActivityBarDragModes

Object Type	<a href="#">Widget.Enum</a>
Flags	Values are flags, they can be combined by using bitwise OR operators.
Deprecated	See <a href="#">Enum.BarDragModes</a>
Code	<pre>netronic.nVSW.ActivityBarDragModes = {     // Note: flags!     // These values can be combined by using bitwise OR operators. };</pre>

## ActivityBarShape

Object Type	
Deprecated	See <a href="#">Enum.BarShape</a>
Code	<pre>netronic.nVSW.ActivityBarShape = { };</pre>
Used by	<a href="#">Activity.BarShape</a>

## AllocationBarDragModes

Object Type	<a href="#">Widget.Enum</a>
Flags	Values are flags, they can be combined by using bitwise OR operators.
Deprecated	See <a href="#">Enum.BarDragModes</a>
Code	<pre>netronic.nVSW.AllocationBarDragModes = {     // Note: flags!     // These values can be combined by using bitwise OR operators. };</pre>

## AllocationBarShape

Object Type	<a href="#">Widget.Enum</a>
Deprecated	See <a href="#">Enum.BarShape</a>
Code	netronic.nVSW.AllocationBarShape = { };
Used by	<a href="#">Allocation.BarShape</a>

## BarDesigns

Object Type	<a href="#">Widget.Enum</a>		
Flags	Values are flags, they can be combined by using bitwise OR operators.		
Values	0	Simple	
	1	Entries	Bit 0
	2	ComplexShape	Bit 1 currently only Regular is changed to Rectangle when unset
	4	Symbols	Bit 2
	8	Status	Bit 3
	16	Constraints	Bit 4
	32	ReleaseAndDueDateSymbols	Bit 5 ignored on allocations
	64	Baseline	Bit 6 ignored on allocations
	128	ProgressAndPredictedEnd	Bit 7
	256	Text	Bit 8
	65535	Default	Bits 0 to 15 this value leaves some bits reserved for future extensions
	65536	TonedDownColoring	Bit 16
	131072	ReducedHeight	Bit 17
16711680	DefaultReduced	Bits 16 to 23	
Code	<pre>netronic.nVSW.BarDesigns = {     // Note: flags!     // These values can be combined by using bitwise OR operators.     Simple: 0,     Entries: 1,     ComplexShape: 2,     Symbols: 4,     Status: 8,     Constraints: 16,     ReleaseAndDueDateSymbols: 32,     Baseline: 64,     ProgressAndPredictedEnd: 128,     Text: 256,     Default: 65535,     TonedDownColoring: 65536,     ReducedHeight: 131072,     DefaultReduced: 16711680 };</pre>		





See also	<a href="#">Option.reducedBarTopOffsetAndHeightScaleFactor</a> <a href="#">Option.tonedDownOverlayColor</a>
Used by	<a href="#">Activity.BarDesign</a> <a href="#">Allocation.BarDesign</a> <a href="#">Option.allocationBarDesignOfOtherActivity</a> <a href="#">Option.allocationBarDesignOfOtherSkill</a> <a href="#">Option.defaultActivityBarDesign</a> <a href="#">Option.defaultAllocationBarDesign</a>

## BarDragModes

Object Type	<a href="#">Widget.Enum</a>																					
Flags	Values are flags, they can be combined by using bitwise OR operators.																					
Values	<table border="1"> <tr> <td>0</td> <td>None</td> <td>No action allowed (not combinable).</td> </tr> <tr> <td>1</td> <td>DragStart</td> <td>The user can resize the bar at the start date.</td> </tr> <tr> <td>2</td> <td>DragEnd</td> <td>The user can resize the bar at the end date.</td> </tr> <tr> <td>4</td> <td>DragHorizontally</td> <td>The user only can drag horizontally.</td> </tr> <tr> <td>8</td> <td>DragVertically</td> <td>The user only can drag vertically.</td> </tr> <tr> <td>16</td> <td>DragAutoHorOrVer</td> <td>When starting to drag, the user can decide to drag horizontally or vertically. After that the drag direction is fixed and can be overridden by pressing the SHIFT key.</td> </tr> <tr> <td>256</td> <td>DragSmartHorOrVer</td> <td>Like DragAutoHorOrVer, but additionally the user can change the drag direction afterwards by moving the cursor in the other direction. So the user can e.g. first choose a row and then choose a time range for a bar, but in the same drag action.</td> </tr> </table>	0	None	No action allowed (not combinable).	1	DragStart	The user can resize the bar at the start date.	2	DragEnd	The user can resize the bar at the end date.	4	DragHorizontally	The user only can drag horizontally.	8	DragVertically	The user only can drag vertically.	16	DragAutoHorOrVer	When starting to drag, the user can decide to drag horizontally or vertically. After that the drag direction is fixed and can be overridden by pressing the SHIFT key.	256	DragSmartHorOrVer	Like DragAutoHorOrVer, but additionally the user can change the drag direction afterwards by moving the cursor in the other direction. So the user can e.g. first choose a row and then choose a time range for a bar, but in the same drag action.
0	None	No action allowed (not combinable).																				
1	DragStart	The user can resize the bar at the start date.																				
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256	DragSmartHorOrVer	Like DragAutoHorOrVer, but additionally the user can change the drag direction afterwards by moving the cursor in the other direction. So the user can e.g. first choose a row and then choose a time range for a bar, but in the same drag action.																				
Code	<pre>netronic.nVSW.BarDragModes = {     // Note: flags!     // These values can be combined by using bitwise OR operators.     None: 0,     DragStart: 1,     DragEnd: 2,     DragHorizontally: 4,     DragVertically: 8,     DragAutoHorOrVer: 16,     DragSmartHorOrVer: 256 };</pre>																					
Used by	<a href="#">Activity.AllowedBarDragModes</a> <a href="#">Activity.DueDateAllowedDragModes</a> <a href="#">Activity.ReleaseDateAllowedDragModes</a> <a href="#">Allocation.AllowedBarDragModes</a> <a href="#">Allocation.AllowedBarDragModesInActivitiesView</a> <a href="#">Callback.canDrag</a> <a href="#">Callback.onDrag</a> <a href="#">Callback.onDragEnd</a> <a href="#">Callback.onDragStart</a> <a href="#">Callback.onDrop</a>																					

	<a href="#">Option.defaultActivityAllowedBarDragModes</a> <a href="#">Option.defaultAllocationAllowedBarDragModes</a> <a href="#">Option.defaultAllocationAllowedBarDragModesInActivitiesView</a>
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## BarShape

Object Type	<a href="#">Widget.Enum</a>		
Values	0	Regular	
	1	Summary	
	2	Diamond	
	3	Rectangle	
	4	Symbol	
Explanation	<p>If the Regular, Summary or Rectangle shape is used, the bar extends over the time span defined either by the entries - if any are specified - or by the start and end of the object. The bar text is displayed as far as there is space for it within the bar.</p> <p>If the Diamond or Symbol shape is used, the shape is positioned at the start date of the same time span. In this case, the bar text is shown only when the bar is visible within an expanded row.</p>		
Code	<pre>netronic.nVSW.BarShape = {     Regular: 0,     Summary: 1,     Diamond: 2,     Rectangle: 3,     Symbol: 4 };</pre>		
Used by	<a href="#">Option.defaultActivityBarShape</a> <a href="#">Option.defaultAllocationBarShape</a>		

## BarSortMode

Object Type	<a href="#">Widget.Enum</a>		
Values	0	StartAndEnd	Bars are sorted such, that the earlier the start, the earlier the bar is placed. If two bars have the same start, the longer bar is placed first.
	1	ByCompareObjects	Bars are sorted by using the callback compareObjects.
	2	ByCompareObjectsOnSameStart	Bars are sorted as in StartAndEnd, but for two bars with the same start, the result of callback compareFunc is used.
Code	<pre>netronic.nVSW.BarSortMode = {     StartAndEnd: 0,     ByCompareObjects: 1,     ByCompareObjectsOnSameStart: 2 };</pre>		
Used by	<a href="#">Option.barSortModeForOptimizedRowDesign</a>		

## CollapseState

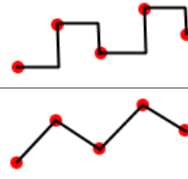
Object Type	<a href="#">Widget.Enum</a>		
Values	-1	Unchanged	(when used on startup, allocation rows will be shown collapsed, other row types will be shown expanded, and curves will be shown collapsed.)
	0	Expanded	
	1	Collapsed	
Code	<pre>netronic.nVSW.CollapseState = {     Unchanged: -1,     Expanded: 0,     Collapsed: 1 };</pre>		
See also	<a href="#">HierarchySupplementaryDefinition.InitiallyCollapsed</a>		
Used by	<a href="#">Activity.AllocationRowsCollapseState</a> <a href="#">Activity.CollapseState</a> <a href="#">Activity.CurveCollapseState</a> <a href="#">Callback.onCollapseStateChanged</a> <a href="#">Callback.onCurveCollapseStateChanged</a> <a href="#">Entity.CollapseState</a> <a href="#">Method.setCollapseStatesForEntityRows</a> <a href="#">Method.setCollapseStatesForRows</a> <a href="#">Resource.AllocationRowsCollapseState</a> <a href="#">Resource.AllocationRowsCollapseStateInActivitiesView</a> <a href="#">Resource.CollapseState</a> <a href="#">Resource.CollapseStateInLoadsView</a> <a href="#">Resource.CurveCollapseState</a> <a href="#">Skill.CollapseState</a>		

## CollapseStateTargets

Object Type	<a href="#">Widget.Enum</a>		
Flags	Values are flags, they can be combined by using bitwise OR operators.		
Values	1	Default	
	1	Rows	
	2	AllocationRows	
	4	CurvePanels	
Code	<pre>netronic.nVSW.CollapseStateTargets = {     // Note: flags!     // These values can be combined by using bitwise OR operators.     Default: 1,     Rows: 1,     AllocationRows: 2,     CurvePanels: 4 };</pre>		
Used by	<a href="#">Method.setCollapseStatesForRows</a>		

## CurveInterpolationType

Object Type	<a href="#">Widget.Enum</a>	
Values	0	StepAfter
	1	Linear
Code	<pre>netronic.nVSW.CurveInterpolationType = {     StepAfter: 0,     Linear: 1 };</pre>	
See also	<a href="#">Resource.InventoryCurveID</a>	
Used by	<a href="#">Curve.InterpolationType</a>	

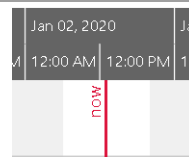
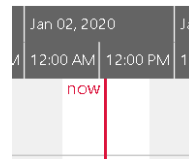


## CurveType

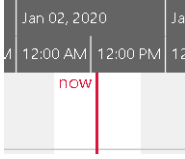

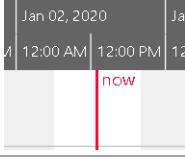
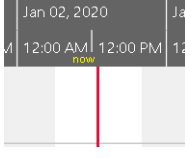
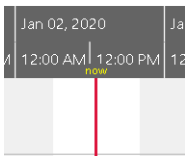
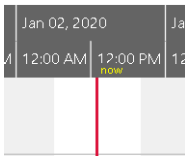
Object Type	<a href="#">Widget.Enum</a>	
Values	0	PointCurve
	3	CurveStack
	4	CurveList
Code	<pre>netronic.nVSW.CurveType = {     PointCurve: 0,     CurveStack: 3,     CurveList: 4 };</pre>	
Used by	<a href="#">Curve.Type</a>	

## DateLineCaptionOrientation

Object Type	<a href="#">Widget.Enum</a>	
Values	1	Horizontal
	2	Vertical
Code	<pre>netronic.nVSW.DateLineCaptionOrientation = {     Horizontal: 1,     Vertical: 2 };</pre>	
Used by	<a href="#">DateLine.CaptionOrientation</a>	



## DateLineCaptionPosition

Object Type	<a href="#">Widget.Enum</a>		
Values	1	Left	
	2	Center	
	4	Right	
	9	TopLeft	 inside timescale area
	10	TopCenter	 inside timescale area
	12	TopRight	 inside timescale area
	Code	<pre>netronic.nVSW.DateLineCaptionPosition = {   Left: 1,   Center: 2,   Right: 4,   TopLeft: 9,   TopCenter: 10,   TopRight: 12 };</pre>	
Used by	<a href="#">DateLine.CaptionPosition</a>		

## DateLineGridModes

Object Type	<a href="#">Widget.Enum</a>	
Values	0	None
	1	Auto
	2	Weekly
	4	Daily

Code	<pre>netronic.nVSW.DateLineGridModes = {     None: 0,     Auto: 1,     Weekly: 2,     Daily: 4 };</pre>
Used by	<a href="#">Option.dateLineGridMode</a>

## DayOfWeek

Object Type	<a href="#">Widget.Enum</a>	
Values	0	Sunday
	1	Monday
	2	Tuesday
	3	Wednesday
	4	Thursday
	5	Friday
	6	Saturday
Code	<pre>netronic.nVSW.DayOfWeek = {     Sunday: 0,     Monday: 1,     Tuesday: 2,     Wednesday: 3,     Thursday: 4,     Friday: 5,     Saturday: 6 };</pre>	
Used by	<a href="#">Option.firstDayOfWeek</a>	

## HorizontalAlignment

Object Type	<a href="#">Widget.Enum</a>	
Values	0	Left
	1	Center
	2	Right
Code	<pre>netronic.nVSW.HorizontalAlignment = {     Left: 0,     Center: 1,     Right: 2 };</pre>	
Used by	<a href="#">TableCellDefinition.HorizontalAlignment</a> <a href="#">TableCellDefinition.HorizontalTitleAlignment</a>	

## HorizontallyScrollableViewArea

Object Type	<a href="#">Widget.Enum</a>	
Values	0	Table
	1	TimeArea



	2	EntitiesTable	
Code	<pre>netronic.nVSW.HorizontallyScrollableViewArea = {     Table: 0,     TimeArea: 1,     EntitiesTable: 2 };</pre>		
Used by	<a href="#">Method.scrollViewAreaHorizontally</a>		

## HorizontalScrollPosition

Object Type	<a href="#">Widget.Enum</a>		
Values	1	Left	
	2	Right	
Code	<pre>netronic.nVSW.HorizontalScrollPosition = {     Left: 1,     Right: 2 };</pre>		
Used by	<a href="#">Method.scrollViewAreaHorizontally</a>		

## LinkMarker

Object Type	<a href="#">Widget.Enum</a>		
Values	0	None	
	1	FilledArrow	
Code	<pre>netronic.nVSW.LinkMarker = {     None: 0,     FilledArrow: 1 };</pre>		
Used by	<a href="#">Link.TargetMarker</a> <a href="#">Option.defaultLinkTargetMarker</a>		

## LinkRoutingType

Object Type	<a href="#">Widget.Enum</a>		
Values	1	Curved	
	2	Orthogonal	
Code	<pre>netronic.nVSW.LinkRoutingType = {     Curved: 1,     Orthogonal: 2 };</pre>		
Used by	<a href="#">Link.RoutingType</a> <a href="#">Option.defaultLinkRoutingType</a>		

## ObjectType

Object Type	<a href="#">Widget.Enum</a>		
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Values	-2	TimeArea	
	-1	Timescale	
	0	None	
	1	Activity	
	2	Allocation	
	5	Resource	
	6	Link	
	7	Curve	
	13	Entity	
	14	PeriodHighlighter	
	15	Symbol	
	16	DateLine	
	17	TooltipTemplate	
	18	TableRowDefintion	
	20	Calendar	
21	HierarchySupplementaryDefiniton		
22	Skill		
Code	<pre>netronic.nVSW.ObjectType = {   TimeArea: -2,   Timescale: -1,   None: 0,   Activity: 1,   Allocation: 2,   Resource: 5,   Link: 6,   Curve: 7,   Entity: 13,   PeriodHighlighter: 14,   Symbol: 15,   DateLine: 16,   TooltipTemplate: 17,   TableRowDefintion: 18,   Calendar: 20,   HierarchySupplementaryDefinition: 21,   Skill: 22 };</pre>		
Used by	<a href="#">Callback.canDrag</a> <a href="#">Callback.canSelect</a> <a href="#">Callback.compareActivities</a> <a href="#">Callback.compareAllocations</a> <a href="#">Callback.compareEntities</a> <a href="#">Callback.compareResources</a> <a href="#">Callback.compareSkills</a> <a href="#">Callback.determineGroupingCode</a> <a href="#">Callback.onClicked</a> <a href="#">Callback.onCollapseStateChanged</a> <a href="#">Callback.onCurveCollapseStateChanged</a> <a href="#">Callback.onCurvePaneResized</a> <a href="#">Callback.onDoubleClicked</a> <a href="#">Callback.onDrag</a> <a href="#">Callback.onDragEnd</a>		

	<a href="#">Callback.onDragStart</a> <a href="#">Callback.onDrop</a> <a href="#">Callback.onRowSortingChangeRequested</a> <a href="#">Callback.onSelectionChanged</a> <a href="#">Callback.onShowContextMenu</a> <a href="#">Callback.onShowTooltip</a> <a href="#">Callback.onVerticalScrollOffsetChanged</a> <a href="#">Callback.visibilityFilterForActivities</a> <a href="#">Callback.visibilityFilterForAllocations</a> <a href="#">Callback.visibilityFilterForEntities</a> <a href="#">Callback.visibilityFilterForResources</a> <a href="#">Callback.visibilityFilterForSkills</a> <a href="#">Method.highlightObjects</a> <a href="#">Method.removeAll</a> <a href="#">Method.scrollToObject</a> <a href="#">Method.selectObjects</a>
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## PageOrientation

Object Type	<a href="#">Widget.Enum</a>	
Values	0	Portrait
	1	Landscape
Code	<pre>netronic.nVSW.PageOrientation = {     Portrait: 0,     Landscape: 1 };</pre>	
See also	<a href="#">Method.saveAsPDF</a>	

## PanningMode

Object Type	<a href="#">Widget.Enum</a>	
Values	0	None
	1	HorizontallyOnly
	2	VerticallyOnly
	3	HorAndVer
	4	AutoHorOrVer
Code	<pre>netronic.nVSW.PanningMode = {     None: 0,     HorizontallyOnly: 1,     VerticallyOnly: 2,     HorAndVer: 3,     AutoHorOrVer: 4 };</pre>	
Used by	<a href="#">Option.timeAreaPanningMode</a>	

## PatternType

Object Type	<a href="#">Widget.Enum</a>		
Values	-1	None	
	0	VerticalHatch	
	1	ForwardHatch	
	2	BackwardHatch	
Code	<pre>netronic.nVSW.PatternType = {     None: -1,     VerticalHatch: 0,     ForwardHatch: 1,     BackwardHatch: 2 };</pre>		
Used by	<a href="#">Activity.BarPatternType</a> <a href="#">ActivityEntry.PatternType</a> <a href="#">Allocation.BarPatternType</a> <a href="#">AllocationEntry.PatternType</a>		

## PrintingMode

Object Type	<a href="#">Widget.Enum</a>		
Values	0	Single	
	1	Cutting	
	2	Paging	
Explanation	See the linked blog post for an overview of the different modes.		
Code	<pre>netronic.nVSW.PrintingMode = {     Single: 0,     Cutting: 1,     Paging: 2 };</pre>		
See also	<a href="https://blog.netronic.com/more-powerful-features-for-html5-gantt-charts-release-5.0-of-the-vsw">https://blog.netronic.com/more-powerful-features-for-html5-gantt-charts-release-5.0-of-the-vsw</a> <a href="#">Method.saveAsPDF</a>		

## ProgressBarWidthCalculationMode

Object Type	<a href="#">Widget.Enum</a>		
Values	0	ConsiderWorkingTimesOnly	If this value is used, it is assumed that there is no progress during non-working times.
	1	ConsiderWorkingAndNonworkingTimes	If this value is used, it is assumed that there is progress during both working and non-working times.
Code	<pre>netronic.nVSW.ProgressBarWidthCalculationMode = {     ConsiderWorkingTimesOnly: 0,     ConsiderWorkingAndNonworkingTimes: 1 };</pre>		
Used by	<a href="#">Option.progressBarWidthCalculationMode</a>		

## RelationType

Object Type	<a href="#">Widget.Enum</a>	
Values	0	FinishToStart
	1	FinishToFinish
	2	StartToStart
	3	StartToFinish
	4	SourceDateToStart
	5	SourceDateToFinish
	8	FinishToTargetDate
	10	StartToTargetDate
	12	SourceDateToTargetDate
Code	<pre>netronic.nVSW.RelationType = {   FinishToStart: 0,   FinishToFinish: 1,   StartToStart: 2,   StartToFinish: 3,   SourceDateToStart: 4,   SourceDateToFinish: 5,   FinishToTargetDate: 8,   StartToTargetDate: 10,   SourceDateToTargetDate: 12 };</pre>	
Used by	<a href="#">Link.RelationType</a>	

## RowDesigns

Object Type	<a href="#">Widget.Enum</a>		
Flags	Values are flags, they can be combined by using bitwise OR operators.		
Values	0	Empty	
	1	Bars	Shows bars assigned to row object directly.  In the activities view, the bar in an activity row represents the same object as the row itself. In the resources view, the bars represent the allocations that are assigned to the resource represented by the row. In the loads view, no bars are displayed as a matter of principle. For allocation rows in the activities view or resources view the bars represent the same object as the row itself. If this flag is set then the bars are shown, else they remain invisible.
	2	BarsStacked	Shows all bars without horizontal overlapping by separating the bars vertically in sub rows.  When bars are shown in this row then they will be shown stacked vertically so that

			they do not overlap graphically when they allocate common time ranges. When bars are stacked the row is getting higher. If the flag is not set, the bars will graphically overlap and the row height is kept stable.
	4	BarsInHiddenDescendantRows	Shows bars of other hidden descendant rows.  This flag is only effective when the row is shown in collapsed state but does no harm when the row is shown in expanded state. Bars of hidden rows below the collapsed row are projected into the row.
	8	CalendarGrid	Shows calendar grid of row object.  If this flag is set, then the calendar assigned to the object represented by the row is made visible through a so-called calendar grid.
Code	<pre>netronic.nVSW.RowDesigns = {     // Note: flags!     // These values can be combined by using bitwise OR operators.     Empty: 0,     Bars: 1,     BarsStacked: 2,     BarsInHiddenDescendantRows: 4,     CalendarGrid: 8 };</pre>		
Used by	<a href="#">Activity.CollapsedRowDesign</a> <a href="#">Activity.ExpandedRowDesign</a> <a href="#">Allocation.RowDesign</a> <a href="#">Option.defaultActivityCollapsedRowDesign</a> <a href="#">Option.defaultActivityExpandedRowDesign</a> <a href="#">Option.defaultAllocationRowDesign</a> <a href="#">Option.defaultResourceCollapsedRowDesign</a> <a href="#">Option.defaultResourceExpandedRowDesign</a> <a href="#">Option.defaultSkillCollapsedRowDesign</a> <a href="#">Resource.CollapsedRowDesign</a> <a href="#">Resource.ExpandedRowDesign</a> <a href="#">Skill.CollapsedRowDesign</a>		

## RowDragModes

Object Type	<a href="#">Widget.Enum</a>		
Flags	Values are flags, they can be combined by using bitwise OR operators.		
Values	0	None	
	8	DragVertically	Dragging is possible within the same table.
	32	DragOutside	Dragging is possible leaving the table. Currently this is only possible for entities in the entities table.
	64	DragOnSameLevelOnly	When set additionally to DragVertically, then a row can only be dropped on the

			same level as it was before. Not combinable with DragInSameTableParentOnly.
	128	DragInSameTableParentOnly	When set additionally to DragVertically, then a row can only be dropped below the same parent within the table. Not combinable with DragOnSameLevelOnly.
Code	<pre>netronic.nVSW.RowDragModes = {     // Note: flags!     // These values can be combined by using bitwise OR operators.     None: 0,     DragVertically: 8,     DragOutside: 32,     DragOnSameLevelOnly: 64,     DragInSameTableParentOnly: 128 };</pre>		
Used by	<a href="#">Activity.AllowedRowDragModes</a> <a href="#">Allocation.AllowedRowDragModes</a> <a href="#">Allocation.AllowedRowDragModesInActivitiesView</a> <a href="#">Callback.canDrag</a> <a href="#">Callback.onDrag</a> <a href="#">Callback.onDragEnd</a> <a href="#">Callback.onDragStart</a> <a href="#">Callback.onDrop</a> <a href="#">Entity.AllowedRowDragModes</a> <a href="#">Option.defaultActivityAllowedRowDragModes</a> <a href="#">Option.defaultAllocationAllowedRowDragModes</a> <a href="#">Option.defaultAllocationAllowedRowDragModesInActivitiesView</a> <a href="#">Option.defaultEntityAllowedRowDragModes</a> <a href="#">Option.defaultResourceAllowedRowDragModes</a> <a href="#">Option.defaultSkillAllowedRowDragModes</a> <a href="#">Resource.AllowedRowDragModes</a> <a href="#">Skill.AllowedRowDragModes</a>		

## RowInsertionMode

Object Type	<a href="#">Widget.Enum</a>		
Values	0	None	
	1	InsertAsChild	
	2	InsertAsNextSibling	
	3	InsertAsPreviousSibling	
Code	<pre>netronic.nVSW.RowInsertionMode = {     None: 0,     InsertAsChild: 1,     InsertAsNextSibling: 2,     InsertAsPreviousSibling: 3 };</pre>		
Used by	<a href="#">Callback.onDrag</a> <a href="#">Callback.onDrop</a>		

## RowSortMode

Object Type	<a href="#">Widget.Enum</a>		
Values	0	None	Rows are not sorted internally, but the application can sort by defining one of the compare callback options.
	1	Ascending	Rows are sorted ascending by the value of the defined sort code property.
	2	Descending	Rows are sorted descending by the value of the defined sort code property.
	3	AscendingStartAndEnd	Only available to activity and allocation objects
Code	<pre>netronic.nVSW.RowSortMode = {   None: 0,   Ascending: 1,   Descending: 2,   AscendingStartAndEnd: 3 };</pre>		
Used by	<a href="#">Callback.onRowSortingChangeRequested</a> <a href="#">Option.activityRowSortMode</a> <a href="#">Option.allocationRowSortMode</a> <a href="#">Option.entityRowSortMode</a> <a href="#">Option.resourceRowSortMode</a> <a href="#">Option.skillRowSortMode</a>		

## SelectionChangedReason

Object Type	<a href="#">Widget.Enum</a>		
Values	0	Click	
	1	BackgroundClick	
	2	ContextMenu	
	3	DragStart	
Code	<pre>netronic.nVSW.SelectionChangedReason = {   Click: 0,   BackgroundClick: 1,   ContextMenu: 2,   DragStart: 3 };</pre>		
Used by	<a href="#">Callback.onSelectionChanged</a>		

## SnapTargets

Object Type	<a href="#">Widget.Enum</a>		
Flags	Values are flags, they can be combined by using bitwise OR operators.		
Values	0	None	
	1	Start	only valid for bars representing allocations
	2	End	only valid for bars representing allocations
	4	DateLines	



	8	CalendarGrids	
	16	DateLineGrids	
Code	<pre>netronic.nVSW.SnapTargets = {   // Note: flags!   // These values can be combined by using bitwise OR operators.   None: 0,   Start: 1,   End: 2,   DateLines: 4,   CalendarGrids: 8,   DateLineGrids: 16 };</pre>		
Used by	<a href="#">Activity.SnapTargetsForEnd</a> <a href="#">Activity.SnapTargetsForStart</a> <a href="#">Allocation.SnapTargetsForEnd</a> <a href="#">Allocation.SnapTargetsForStart</a> <a href="#">Option.defaultActivitySnapTargetsForEnd</a> <a href="#">Option.defaultActivitySnapTargetsForStart</a> <a href="#">Option.defaultAllocationSnapTargetsForEnd</a> <a href="#">Option.defaultAllocationSnapTargetsForStart</a>		

## TableType

Object Type	<a href="#">Widget.Enum</a>		
Values	0	Gantt	
	1	Entities	
Code	<pre>netronic.nVSW.TableType = {   Gantt: 0,   Entities: 1 };</pre>		
Used by	<a href="#">Callback.onTableCellDefinitionWidthChanged</a> <a href="#">Callback.onVerticalScrollOffsetChanged</a>		

## TargetPositions

Object Type	<a href="#">Widget.Enum</a>		
Flags	Values are flags, they can be combined by using bitwise OR operators.		
Values	0	Necessary	
	1	Left	
	2	HCenter	
	4	Right	
	8	Top	
	16	VCenter	
	32	Bottom	
	64	NoHScroll	
Code	<pre>netronic.nVSW.TargetPositions = {   // Note: flags!   // These values can be combined by using bitwise OR operators.   Necessary: 0, </pre>		

	<pre> Left: 1, HCenter: 2, Right: 4, Top: 8, VCenter: 16, Bottom: 32, NoHScroll: 64 };                 </pre>
Used by	<a href="#">Method.scrollToObject</a>

## TextWrapMode

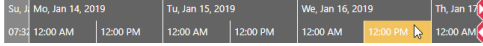
Object Type	<a href="#">Widget.Enum</a>		
Values	0	None	no wrapping at all
	1	Line	text is wrapped at \n
Code	<pre> netronic.nVSW.TextWrapMode = {     None: 0,     Line: 1 };                 </pre>		
Used by	<a href="#">Activity.BarTextWrapMode</a> <a href="#">Allocation.BarTextWrapMode</a> <a href="#">TableCellDefinition.WrapMode</a>		

## TimescaleInteractionModes

Object Type	<a href="#">Widget.Enum</a>		
Flags	Values are flags, they can be combined by using bitwise OR operators.		
Values	0	None	no interactions at all
	1	ScrollingByButtons	horizontal scrolling by using scrolling buttons
	2	Rescaling	rescaling by time period selection, up-button or or mouse wheel
	3	Default	all interactions
Code	<pre> netronic.nVSW.TimescaleInteractionModes = {     // Note: flags!     // These values can be combined by using bitwise OR operators.     None: 0,     ScrollingByButtons: 1,     Rescaling: 2,     Default: 3 };                 </pre>		
Used by	<a href="#">Option.timescaleInteractionMode</a>		

## TimescaleNavigationMode

Object Type	<a href="#">Widget.Enum</a>		
Values	0	Latest	Use the latest version of the timescale navigation. 

			<p>A click onto the left and right button scrolls the chart sideward by the width of the view.</p> <p>A click onto the up button reduces the timescale resolution.</p>
	1	LegacyVersion	<p>Use the legacy version of the timescale navigation.</p>  <p>A click onto the left and right button scrolls the chart sideward by the widths of one unit in the upper timescale ribbon</p>
Explanation	<p>Identical in both modes:</p> <ul style="list-style-type: none"> <li>• Use the mouse wheel for increasing and reducing the timescale resolution.</li> <li>• A click onto a highlighted period (see orange area) fits this period completely into the view.</li> </ul>		
Code	<pre>netronic.nVSW.TimescaleNavigationMode = {   Latest: 0,   LegacyVersion: 1 };</pre>		
Used by	<a href="#">Option.timescaleNavigationMode</a>		

## TimeType

Object Type	<a href="#">Widget.Enum</a>		
Values	1	WorkingTime	
	2	NonworkingTime	
Code	<pre>netronic.nVSW.TimeType = {   WorkingTime: 1,   NonworkingTime: 2 };</pre>		
Used by	<a href="#">CalendarEntry.TimeType</a>		

## TimeUnit

Object Type	<a href="#">Widget.Enum</a>		
Values	0	Seconds	
	1	Minutes	
	2	Hours	
	3	Days	
	4	Weeks	
	5	Months	
	6	Quarters	
	7	Years	
Code	<pre>netronic.nVSW.TimeUnit = {   Seconds: 0,   Minutes: 1,   Hours: 2,   Days: 3,</pre>		

	<pre> Weeks: 4, Months: 5, Quarters: 6, Years: 7 };                 </pre>
Used by	<a href="#">Callback.onTimeAreaViewParametersChanged</a> <a href="#">Method.setTimeResolutionForView</a> <a href="#">Option.maximumTimeResolutionUnit</a> <a href="#">Option.timeStepUnit</a>

## TreeVisualizationMode

Object Type	<a href="#">Widget.Enum</a>		
Values	0	ColoredIndentation	
	1	TreeViewLines	
Code	<pre> netronic.nVSW.TreeVisualizationMode = {     ColoredIndentation: 0,     TreeViewLines: 1 };                 </pre>		
Used by	<a href="#">Option.entitiesTableTreeVisualizationMode</a> <a href="#">Option.treeVisualizationMode</a>		

## UpdateModes

Object Type	<a href="#">Widget.Enum</a>		
Flags	Values are flags, they can be combined by using bitwise OR operators.		
Values	0	Default	
	0	UpdateOnly	deprecated, use Default
	1	ImplicitAddObjects	If an object to be updated does not exist, it will be added automatically.
	2	DifferentialValues	If set, then the object data given in the update method can contain only changed property values. If a property is omitted, it will be supplemented by the value of the property in the current object. If a property value shall be set to undefined explicitly, please use a null value instead or another value that can be set by the option <code>resetValueForDifferentialUpdate</code> .*
Explanation	<p>* When using this flag, the application will have to use simple objects in the update methods, because the VSW will modify them and supplement missing property values. Also, these objects have to be different to the ones given in former calls to the appropriate add or update method.</p> <p><b>Note:</b> Sub objects in arrays such as entries must be fully defined despite the active update mode.</p>		
Code	<pre> netronic.nVSW.UpdateModes = {     // Note: flags!     // These values can be combined by using bitwise OR operators.     Default: 0,     UpdateOnly: 0,     ImplicitAddObjects: 1, };                 </pre>		

	DifferentialValues: 2 };
Used by	<a href="#">Method.updateActivities</a> <a href="#">Method.updateAllocations</a> <a href="#">Method.updateCalendars</a> <a href="#">Method.updateCurves</a> <a href="#">Method.updateDateLines</a> <a href="#">Method.updateEntities</a> <a href="#">Method.updateHierarchySupplementaryDefinitions</a> <a href="#">Method.updateLinks</a> <a href="#">Method.updatePeriodHighlighters</a> <a href="#">Method.updateResources</a> <a href="#">Method.updateSkills</a> <a href="#">Method.updateSymbols</a> <a href="#">Method.updateTableRowDefinitions</a> <a href="#">Method.updateTooltipTemplates</a> <a href="#">Option.defaultUpdateMode</a>

## VerticalAlignment

Object Type	<a href="#">Widget.Enum</a>		
Values	0	FirstLineOnBaseline	
	1	AllLinesCenteredAroundBaseline	
Code	<pre>netronic.nVSW.VerticalAlignment = {     FirstLineOnBaseline: 0,     AllLinesCenteredAroundBaseline: 1 };</pre>		
Used by	<a href="#">TableCellDefinition.VerticalAlignment</a>		

## VerticallyScrollableViewArea

Object Type	<a href="#">Widget.Enum</a>		
Values	-1	Top	
	0	Main	
	2	EntitiesTable	
Code	<pre>netronic.nVSW.VerticallyScrollableViewArea = {     Top: -1,     Main: 0,     EntitiesTable: 2 };</pre>		
Used by	<a href="#">Method.scrollViewAreaVertically</a>		

## VerticalScrollPosition

Object Type	<a href="#">Widget.Enum</a>		
Values	1	Top	
	2	Bottom	

Code	<pre>netronic.nVSW.VerticalScrollPosition = {     Top: 1,     Bottom: 2 };</pre>
Used by	<a href="#">Method.scrollViewAreaVertically</a>

## ViewArea

Object Type	<a href="#">Widget.Enum</a>		
Values	-1	Top	
	0	Main	
	0	Default	For compatibility reasons
Code	<pre>netronic.nVSW.ViewArea = {     Top: -1,     Main: 0,     Default: 0 };</pre>		
Used by	<a href="#">Activity.ViewArea</a> <a href="#">Resource.ViewArea</a> <a href="#">Skill.ViewArea</a>		

## ViewType

Object Type	<a href="#">Widget.Enum</a>		
Values	0	Activities	
	1	Resources	
	2	Loads	
	3	Skills	
Code	<pre>netronic.nVSW.ViewType = {     Activities: 0,     Resources: 1,     Loads: 2,     Skills: 3 };</pre>		
Used by	<a href="#">Callback.compareActivities</a> <a href="#">Callback.compareAllocations</a> <a href="#">Callback.compareEntities</a> <a href="#">Callback.compareResources</a> <a href="#">Callback.compareSkills</a> <a href="#">Method.setCollapseStatesForRows</a> <a href="#">Option.viewType</a>		

## VisualSubtype

Object Type	<a href="#">Widget.Enum</a>		
Values	1	ActivityDueDateSymbol	
	2	ActivityReleaseDateSymbol	

Code	<pre>netronic.nVSW.VisualSubtype = {     ActivityDueDateSymbol: 1,     ActivityReleaseDateSymbol: 2 };</pre>
Used by	<a href="#">Callback.onShowTooltip</a>

## VisualType

Object Type	<a href="#">Widget.Enum</a>	
Values	-1	Background
	0	Bar
	1	Row
	2	Curve
	3	Link
	4	PeriodHighlighter
	5	DateLine
	6	Timescale
Code	<pre>netronic.nVSW.VisualType = {     Background: -1,     Bar: 0,     Row: 1,     Curve: 2,     Link: 3,     PeriodHighlighter: 4,     DateLine: 5,     Timescale: 6 };</pre>	
Used by	<a href="#">Callback.canDrag</a> <a href="#">Callback.canSelect</a> <a href="#">Callback.onClicked</a> <a href="#">Callback.onDoubleClicked</a> <a href="#">Callback.onDrag</a> <a href="#">Callback.onDragEnd</a> <a href="#">Callback.onDragStart</a> <a href="#">Callback.onDrop</a> <a href="#">Callback.onSelectionChanged</a> <a href="#">Callback.onShowContextMenu</a> <a href="#">Callback.onShowTooltip</a> <a href="#">Method.highlightObjects</a> <a href="#">Method.selectObjects</a>	

## WarningCode

Object Type	<a href="#">Widget.Enum</a>	
Values	W1000	EmptyIDatIndex
		When adding, updating, or removing objects an empty ID was detected (the index in array of object references is mentioned in the description text). The object reference will be ignored.

	W1001	ExistingIDAtIndex	When adding objects an ID was detected that already exists (the key is mentioned in the description text). The object reference will be ignored.
	W1002	DuplicateIDAtIndex	When adding or updating objects an ID was detected that is duplicate within the given array (the key is mentioned in the description text). When adding objects, the second object reference will be ignored. When updating objects, the first object reference will be ignored.
	W1003	CyclicByParentID	When adding or updating activity, resource, or entity objects one object has a given ParentID that leads to a cycle (the key is mentioned in the description text). Additionally, an exception will then be thrown after processing the whole given array of objects, because the VSW cannot work with such a cycle in object relations.
	W1021	UnknownID	When using the method scrollToObject, then the given object ID is unknown.
	W1022	ObjectNotVisibleInView	When using the method scrollToObject, then the object referenced by the given object ID has no presentation in the current view.
	W1100	UnknownOptionName	The option name given when setting or getting options is unknown to the VSW.
	W1101	RequiredOptionUnset	A required option (namely "start" or "end") is unset by the application. The internally calculated value is mentioned in the description text.
	W4000	HTMLCanvasFailedOnSaveAsPDF	When saving a PDF and at least one of the options topHTML or bottomHTML is used, then it was not possible to create a canvas from the HTML content, because of an image URL that references a file on the disk, which is not allowed by the browser security settings. Please replace the URL by another one. The PDF will be created without a top or bottom text.
Code	<pre>netronic.nVSW.WarningCode = {   EmptyIDAtIndex: W1000,   ExistingIDAtIndex: W1001,   DuplicateIDAtIndex: W1002,   CyclicByParentID: W1003,   UnknownID: W1021,   ObjectNotVisibleInView: W1022,   UnknownOptionName: W1100,   RequiredOptionUnset: W1101,   HTMLCanvasFailedOnSaveAsPDF: W4000 };</pre>		
Used by	<a href="#">Callback.onLogWarning</a>		



## WorldViewPosition

Object Type	<a href="#">Widget.Enum</a>		
Values	1	Left	
	2	Right	
	3	Top	
	4	Bottom	
Code	<pre>netronic.nVSW.WorldViewPosition = {   Left: 1,   Right: 2,   Top: 3,   Bottom: 4 };</pre>		
Used by	<a href="#">Option.worldViewPosition</a>		

## 3.5 Common Types

Members	<a href="#">boolean</a> <a href="#">CalculatedColorAsString</a> <a href="#">ColorAsString</a> <a href="#">DashArrayAsString</a> <a href="#">Date</a> <a href="#">DateAsString</a> <a href="#">Error</a> <a href="#">Event</a> <a href="#">Function</a> <a href="#">IdentifierAsString</a> <a href="#">LanguageAsString</a> <a href="#">Map</a> <a href="#">number</a> <a href="#">Object</a> <a href="#">PixelsAsNumber</a> <a href="#">Promise</a> <a href="#">string</a> <a href="#">TimeUnitAsString</a>
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## boolean

Common Type	<a href="#">Widget.CommonType</a>
Explanation	JavaScript standard primitive type. Allowed values are true and false.
See Also	<a href="https://developer.mozilla.org/en-US/docs/Glossary/Boolean/JavaScript">https://developer.mozilla.org/en-US/docs/Glossary/Boolean/JavaScript</a>
Used by	<a href="#">Activity.AllocationRowsCollapsible</a> <a href="#">Activity.BarSelectable</a> <a href="#">Activity.HasAllocationRows</a> <a href="#">Activity.HasChildren</a> <a href="#">Activity.RowCollapsible</a> <a href="#">Activity.RowSelectable</a>

<a href="#">Activity.Status1Visible</a>
<a href="#">Activity.Status2Visible</a>
<a href="#">Activity.Status3Visible</a>
<a href="#">Activity.Status4Visible</a>
<a href="#">Activity.StatusFrameVisible</a>
<a href="#">Allocation.BarSelectable</a>
<a href="#">Allocation.EndIsSnapTarget</a>
<a href="#">Allocation.RowSelectable</a>
<a href="#">Allocation.StartIsSnapTarget</a>
<a href="#">Allocation.Status1Visible</a>
<a href="#">Allocation.Status2Visible</a>
<a href="#">Allocation.Status3Visible</a>
<a href="#">Allocation.Status4Visible</a>
<a href="#">Allocation.StatusFrameVisible</a>
<a href="#">Callback.canSelect</a>
<a href="#">Callback.compareActivities</a>
<a href="#">Callback.compareAllocations</a>
<a href="#">Callback.compareEntities</a>
<a href="#">Callback.compareResources</a>
<a href="#">Callback.compareSkills</a>
<a href="#">Callback.onCollapseStateChanged</a>
<a href="#">Callback.onCurvePaneResized</a>
<a href="#">Callback.onDrag</a>
<a href="#">Callback.onDragStart</a>
<a href="#">Callback.onDrop</a>
<a href="#">Callback.onLogError</a>
<a href="#">Callback.onRowSortingChangeRequested</a>
<a href="#">Callback.onSelectionChanged</a>
<a href="#">Callback.visibilityFilterForActivities</a>
<a href="#">Callback.visibilityFilterForAllocations</a>
<a href="#">Callback.visibilityFilterForEntities</a>
<a href="#">Callback.visibilityFilterForResources</a>
<a href="#">Callback.visibilityFilterForSkills</a>
<a href="#">DateLine.Draggable</a>
<a href="#">DateLine.InFrontOfBars</a>
<a href="#">Entity.HasChildren</a>
<a href="#">Entity.RowCollapsible</a>
<a href="#">Entity.RowSelectable</a>
<a href="#">GroupingLevelDefinition.InitiallyCollapsed</a>
<a href="#">GroupingLevelDefinition.TableColorVisibleInTimeArea</a>
<a href="#">HierarchyLevelSupplementaryDefinition.InitiallyCollapsed</a>
<a href="#">HierarchySupplementaryDefinition.InitiallyCollapsed</a>
<a href="#">Link.Selectable</a>
<a href="#">Method.scrollToObject</a>
<a href="#">Option.activityBaselineBarsVisible</a>
<a href="#">Option.activityCalendarsEnabled</a>
<a href="#">Option.allocationRowsVisibleInActivitiesView</a>
<a href="#">Option.allocationRowsVisibleInResourcesView</a>
<a href="#">Option.allocationRowsVisibleInSkilledResourcesView</a>
<a href="#">Option.allocationSelectableOnlyOnOneResourceAtATime</a>

	<a href="#">Option.asynchronousInteractiveTimeAreaStretching</a>
	<a href="#">Option.asynchronousRendering</a>
	<a href="#">Option.cursorDateLineVisible</a>
	<a href="#">Option.curvePanelsCollapsibleInResourcesView</a>
	<a href="#">Option.curvePanelsCollapsibleInSkilledResourcesView</a>
	<a href="#">Option.curvePanelsResizable</a>
	<a href="#">Option.curvePanelsVisibleInActivitiesView</a>
	<a href="#">Option.dateLineCaptionOptimizedPositioningEnabled</a>
	<a href="#">Option.decouplingOfAllocationPropertiesFromActivities</a>
	<a href="#">Option.defaultActivityAllocationRowsCollapsible</a>
	<a href="#">Option.defaultActivityBarSelectable</a>
	<a href="#">Option.defaultActivityRowCollapsible</a>
	<a href="#">Option.defaultActivityRowSelectable</a>
	<a href="#">Option.defaultAllocationBarSelectable</a>
	<a href="#">Option.defaultAllocationRowSelectable</a>
	<a href="#">Option.defaultEntityRowCollapsible</a>
	<a href="#">Option.defaultEntityRowSelectable</a>
	<a href="#">Option.defaultLinkSelectable</a>
	<a href="#">Option.defaultResourceAllocationRowCollapsible</a>
	<a href="#">Option.defaultResourceRowCollapsible</a>
	<a href="#">Option.defaultResourceRowSelectable</a>
	<a href="#">Option.defaultSkillRowCollapsible</a>
	<a href="#">Option.defaultSkillRowSelectable</a>
	<a href="#">Option.definedAllocationLinksVisibleInActivitiesView</a>
	<a href="#">Option.definedAllocationLinksVisibleInResourcesView</a>
	<a href="#">Option.definedAllocationLinksVisibleInSkilledResourcesView</a>
	<a href="#">Option.detailedActivityConstraintSymbolsEnabled</a>
	<a href="#">Option.detailedAllocationConstraintSymbolsEnabled</a>
	<a href="#">Option.dragDatesLimitingInteraction</a>
	<a href="#">Option.dragDatesShownForSingleSelectedObject</a>
	<a href="#">Option.editable</a>
	<a href="#">Option.entitiesTableShownFullScreen</a>
	<a href="#">Option.entitiesTableSymbolColumnTitleVisible</a>
	<a href="#">Option.entitiesTableSymbolColumnVisible</a>
	<a href="#">Option.entitiesTableVisibleInActivitiesView</a>
	<a href="#">Option.entitiesTableVisibleInResourcesView</a>
	<a href="#">Option.entitiesTableVisibleInSkilledResourcesView</a>
	<a href="#">Option.finishedAllocationBarsShownUnstackedInBackground</a>
	<a href="#">Option.ignoreCalendarOnActivityBarInteractions</a>
	<a href="#">Option.ignoreCalendarOnAllocationBarInteractions</a>
	<a href="#">Option.interactiveActivationOfLoggingEnabled</a>
	<a href="#">Option.interactiveSwitchingOfSortOrderEnabled</a>
	<a href="#">Option.linesShownInLoadCurvePanels</a>
	<a href="#">Option.linksVisibleInActivitiesView</a>
	<a href="#">Option.linksVisibleInResourcesView</a>
	<a href="#">Option.linksVisibleInSkilledResourcesView</a>
	<a href="#">Option.linksWithDanglingStartOrEndVisible</a>
	<a href="#">Option.loggingEnabled</a>
	<a href="#">Option.mainViewAreaVisibleInActivitiesView</a>
	<a href="#">Option.mainViewAreaVisibleInLoadsView</a>

	<a href="#">Option.mainViewAreaVisibleInResourcesView</a> <a href="#">Option.mainViewAreaVisibleInSkilledResourcesView</a> <a href="#">Option.multipleBarDraggingEnabled</a> <a href="#">Option.multipleSelectionEnabled</a> <a href="#">Option.nonworkingTimeVisible</a> <a href="#">Option.objectHighlightFlashingEnabled</a> <a href="#">Option.patternShownOnOverloadCurves</a> <a href="#">Option.preventDefaultOnContextMenuEvents</a> <a href="#">Option.releaseDueDateConnectionsVisible</a> <a href="#">Option.resourcesVisibleInActivitiesView</a> <a href="#">Option.rowSortModeNoneEnabledOnInteractiveSwitchingOfSortOrder</a> <a href="#">Option.scrollToObjectAnimationEnabled</a> <a href="#">Option.separationLinesInColoredIndentation</a> <a href="#">Option.sortingIndicatorVisible</a> <a href="#">Option.symbolColumnTitleVisible</a> <a href="#">Option.symbolColumnVisible</a> <a href="#">Option.tableViewWidthsSynchronized</a> <a href="#">Option.topBarSymbolsVisible</a> <a href="#">Option.topViewAreaVisibleInActivitiesView</a> <a href="#">Option.topViewAreaVisibleInLoadsView</a> <a href="#">Option.topViewAreaVisibleInResourcesView</a> <a href="#">Option.topViewAreaVisibleInSkilledResourcesView</a> <a href="#">Option.triggeringOfOnClickedInTimeAreaOfRow</a> <a href="#">Option.triggeringOfOnCollapseStateChangedByUpdateCalls</a> <a href="#">Option.triggeringOfOnShowContextMenuInTimeAreaOfRow</a> <a href="#">Option.triggeringOfOnShowTooltipForEntriesInBarsEnabled</a> <a href="#">Option.worldViewVisible</a> <a href="#">Resource.AllocationRowsCollapsible</a> <a href="#">Resource.HasAllocationRows</a> <a href="#">Resource.HasChildren</a> <a href="#">Resource.HasCurves</a> <a href="#">Resource.RowCollapsible</a> <a href="#">Resource.RowSelectable</a> <a href="#">Skill.RowCollapsible</a> <a href="#">Skill.RowSelectable</a> <a href="#">Skill.TableColorVisibleInTimeArea</a> <a href="#">Symbol.ClickableInEntitiesTable</a> <a href="#">Symbol.ClickableInTable</a>
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## CalculatedColorAsString

Common Type	<a href="#">Widget.CommonType</a>
Explanation	In some properties it is possible to show colors that are calculated internally by taking other color settings into account. This is indicated by some special color value not declared by HTML but by VSW itself. One example is the string "calculated".
Used by	<a href="#">Activity.BaselineNonworkingTimeColor</a> <a href="#">Activity.BorderColor</a> <a href="#">Activity.NonworkingTimeColor</a> <a href="#">Activity.ProgressNonworkingTimeColor</a>

	<a href="#">ActivityEntry.NonworkingTimeColor</a> <a href="#">Allocation.BarTextColor</a> <a href="#">Allocation.BorderColor</a> <a href="#">Allocation.NonworkingTimeColor</a> <a href="#">Allocation.ProgressNonworkingTimeColor</a> <a href="#">AllocationEntry.NonworkingTimeColor</a>
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## ColorAsString

Common Type	<a href="#">Widget.CommonType</a>
Explanation	<p>Each object property that controls the color of an element can be set a value of type string that represents a "CSS color value". You have the following options for specifying a color value:</p> <ul style="list-style-type: none"> <li>• a predefined color name thar CSS supports, such as "red", "green", or blue</li> <li>• a hexadecimal notation, such as "#FF0000", "#00FF00", or "#0000FF"</li> <li>• an RGB or RGBA notation, such as "rgb(255, 0, 0)", "rgb(0, 255, 0)", or "rgba(0, 0, 255, 0.5)"</li> <li>• an HSL and HSLA notation, such as "hsl(0, 100%, 50%)", "hsl(120, 100%, 50%)", or "hsla(240, 100%, 50%, 0.5)"</li> <li>• In addition, you can also use CSS Custom properties. How to do that is described in a blog post.</li> </ul> <p>The default value specified for properties is automatically applied when the Color property value is set to null. Therefore, if you query the property, you will get back the value null and not the color value specified as default.</p>
See Also	<a href="#">CSS Custom Properties</a>
Used by	<a href="#">Activity.BarPatternColor</a> <a href="#">Activity.BarTextColor</a> <a href="#">Activity.BaselineBorderColor</a> <a href="#">Activity.BaselineColor</a> <a href="#">Activity.BaselineNonworkingTimeColor</a> <a href="#">Activity.BorderColor</a> <a href="#">Activity.CalendarGridColor</a> <a href="#">Activity.Color</a> <a href="#">Activity.DueDateColor</a> <a href="#">Activity.EarliestEndColor</a> <a href="#">Activity.EarliestStartColor</a> <a href="#">Activity.LatestEndColor</a> <a href="#">Activity.LatestStartColor</a> <a href="#">Activity.MustEndOnColor</a> <a href="#">Activity.MustStartOnColor</a> <a href="#">Activity.NonworkingTimeColor</a> <a href="#">Activity.PredictedEndColor</a> <a href="#">Activity.ProgressBackgroundColor</a> <a href="#">Activity.ProgressColor</a> <a href="#">Activity.ProgressNonworkingTimeColor</a> <a href="#">Activity.ReleaseDateColor</a> <a href="#">Activity.RowSymbolColumnBackgroundColor</a> <a href="#">Activity.Status1Color</a>

	<a href="#">Activity.Status2Color</a>
	<a href="#">Activity.Status3Color</a>
	<a href="#">Activity.Status4Color</a>
	<a href="#">Activity.StatusFrameColor</a>
	<a href="#">Activity.TableColor</a>
	<a href="#">Activity.TableTextColor</a>
	<a href="#">ActivityEntry.Color</a>
	<a href="#">ActivityEntry.NonworkingTimeColor</a>
	<a href="#">ActivityEntry.PatternColor</a>
	<a href="#">Allocation.BarPatternColor</a>
	<a href="#">Allocation.BarTextColor</a>
	<a href="#">Allocation.BorderColor</a>
	<a href="#">Allocation.Color</a>
	<a href="#">Allocation.EarliestEndColor</a>
	<a href="#">Allocation.EarliestStartColor</a>
	<a href="#">Allocation.LatestEndColor</a>
	<a href="#">Allocation.LatestStartColor</a>
	<a href="#">Allocation.MustEndOnColor</a>
	<a href="#">Allocation.MustStartOnColor</a>
	<a href="#">Allocation.NonworkingTimeColor</a>
	<a href="#">Allocation.PredictedEndColor</a>
	<a href="#">Allocation.ProgressBackgroundColor</a>
	<a href="#">Allocation.ProgressColor</a>
	<a href="#">Allocation.ProgressNonworkingTimeColor</a>
	<a href="#">Allocation.RowSymbolColumnBackgroundColor</a>
	<a href="#">Allocation.Status1Color</a>
	<a href="#">Allocation.Status2Color</a>
	<a href="#">Allocation.Status3Color</a>
	<a href="#">Allocation.Status4Color</a>
	<a href="#">Allocation.StatusFrameColor</a>
	<a href="#">AllocationEntry.Color</a>
	<a href="#">AllocationEntry.NonworkingTimeColor</a>
	<a href="#">AllocationEntry.PatternColor</a>
	<a href="#">Curve.FillColor</a>
	<a href="#">Curve.OverloadColor</a>
	<a href="#">Curve.StrokeColor</a>
	<a href="#">DateLine.CaptionColor</a>
	<a href="#">DateLine.Color</a>
	<a href="#">Entity.RowSymbolColumnBackgroundColor</a>
	<a href="#">Entity.TableColor</a>
	<a href="#">Entity.TableTextColor</a>
	<a href="#">GroupingLevelDefinition.TableColor</a>
	<a href="#">GroupingLevelDefinition.TableTextColor</a>
	<a href="#">Link.Color</a>
	<a href="#">LinkEntry.Color</a>
	<a href="#">Option.calendarGridColor</a>
	<a href="#">Option.dateLineGridColor</a>
	<a href="#">Option.defaultActivityConstraintSymbolColor</a>
	<a href="#">Option.defaultActivityProgressBackgroundColor</a>
	<a href="#">Option.defaultActivityStatusFrameColor</a>

	<a href="#">Option.defaultAllocationConstraintSymbolColor</a>
	<a href="#">Option.defaultAllocationProgressBackgroundColor</a>
	<a href="#">Option.defaultAllocationStatusFrameColor</a>
	<a href="#">Option.defaultResourceLoadCurvePaneColor</a>
	<a href="#">Option.entitiesTableColumnSeparatorColor</a>
	<a href="#">Option.entitiesTableSymbolColumnBackgroundColor</a>
	<a href="#">Option.entitiesTableSymbolColumnTitleBackgroundColor</a>
	<a href="#">Option.entitiesTableTitleBackgroundColor</a>
	<a href="#">Option.entitiesTableTitleColumnSeparatorColor</a>
	<a href="#">Option.entitiesTableTitleHighlightingColor</a>
	<a href="#">Option.entitiesTableTitleTextColor</a>
	<a href="#">Option.entitiesTableTreeViewLineColor</a>
	<a href="#">Option.objectHighlightingColor</a>
	<a href="#">Option.pastBackgroundFillColor</a>
	<a href="#">Option.pastBackgroundLineColor</a>
	<a href="#">Option.selectionColor</a>
	<a href="#">Option.splitterHighlightingColor</a>
	<a href="#">Option.suitableActivityOverlayColor</a>
	<a href="#">Option.suitableResourceOverlayColor</a>
	<a href="#">Option.symbolColumnBackgroundColor</a>
	<a href="#">Option.symbolColumnTitleBackgroundColor</a>
	<a href="#">Option.tableColumnSeparatorColor</a>
	<a href="#">Option.tableTitleBackgroundColor</a>
	<a href="#">Option.tableTitleColumnSeparatorColor</a>
	<a href="#">Option.tableTitleHighlightingColor</a>
	<a href="#">Option.tableTitleTextColor</a>
	<a href="#">Option.timeAreaBackgroundColor</a>
	<a href="#">Option.timescaleBackgroundColor</a>
	<a href="#">Option.timescaleHighlightingColor</a>
	<a href="#">Option.timescaleTextColor</a>
	<a href="#">Option.timescaleTickColor</a>
	<a href="#">Option.timescaleWeekendBackgroundColor</a>
	<a href="#">Option.tonedDownOverlayColor</a>
	<a href="#">Option.treeViewLineColor</a>
	<a href="#">Option.unsuitableActivityOverlayColor</a>
	<a href="#">Option.unsuitableResourceOverlayColor</a>
	<a href="#">PeriodHighlighterEntry.CaptionColor</a>
	<a href="#">PeriodHighlighterEntry.Color</a>
	<a href="#">Resource.CalendarGridColor</a>
	<a href="#">Resource.RowSymbolColumnBackgroundColor</a>
	<a href="#">Resource.TableColor</a>
	<a href="#">Resource.TableTextColor</a>
	<a href="#">Skill.RowSymbolColumnBackgroundColor</a>
	<a href="#">Skill.TableColor</a>
	<a href="#">Skill.TableTextColor</a>
	<a href="#">TableCellDefinition.BackgroundColor</a>
	<a href="#">TableCellDefinition.TextColor</a>
	<a href="#">TableRowDefinition.BackgroundColor</a>
	<a href="#">TableRowDefinition.SymbolColumnBackgroundColor</a>
	<a href="#">TableRowDefinition.TextColor</a>

## DashArrayAsString

Common Type	<a href="#">Widget.CommonType</a>
Explanation	Pattern of dashes and gaps for drawing a line expressed as a string. The value "none" indicates that no dashing is used. In this case, the line is drawn solid.
See Also	<a href="https://www.w3.org/TR/SVG11/painting.html#StrokeDasharrayProperty">https://www.w3.org/TR/SVG11/painting.html#StrokeDasharrayProperty</a> <a href="https://developer.mozilla.org/en-US/docs/Web/SVG/Attribute/stroke-dasharray">https://developer.mozilla.org/en-US/docs/Web/SVG/Attribute/stroke-dasharray</a>
Used by	<a href="#">Activity.BorderDashArray</a> <a href="#">Allocation.BorderDashArray</a> <a href="#">Curve.StrokeDashArray</a> <a href="#">DateLine.DashArray</a> <a href="#">Link.DashArray</a> <a href="#">Option.dateLineGridDashArray</a> <a href="#">Option.entitiesTableTreeViewLineDashArray</a> <a href="#">Option.pastBackgroundLineDashArray</a> <a href="#">Option.treeViewLineDashArray</a>

## Date

Common Type	<a href="#">Widget.CommonType</a>
Explanation	JavaScript standard type, derived from Object. The Date object internally always holds a number value that expresses the time in UTC.  Hints: <ul style="list-style-type: none"> <li>• There are several specialties to take into concern, e.g. the month numbering starts with 0, when using 'new Date(year, month, day)'. </li> <li>• It is important to know how to instantiate a Date object using a local time or UTC time. Browsers did not handle date strings consistently in the past. It is therefore recommended that the simplified ISO 8601 standard be used to provide an unambiguous definition. </li> <li>• Examples are 2019-05-03T08:13:28Z (UTC) or 2019-05-03T10:13:28+02:00 (MEST) for the same time point, i.e. the Date object converts these representations into the same number. </li> <li>• You can check whether a time string is valid by using '!isNaN(new Date(string).getTime())'. </li> <li>• You can compare two dates by using 'date1.getTime() === date2.getTime()' ('date1 === date2' only compares the Date objects, not the values they hold!). </li> </ul> <p>VSW shows all dates using local time, therefore Date values are formatted into a local representation, see @Option.locale and @Option.intlDateTimeFormatOptionsMap.</p>
See Also	<a href="https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Date">https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Date</a> <a href="https://www.ecma-international.org/ecma-262/5.1/#sec-15.9.1.15">https://www.ecma-international.org/ecma-262/5.1/#sec-15.9.1.15</a> <a href="#">DateAsString</a>
Used by	<a href="#">Activity.BaselineEnd</a> <a href="#">Activity.BaselineStart</a> <a href="#">Activity.DueDate</a>



	<a href="#">Activity.EarliestDragStart</a>
	<a href="#">Activity.EarliestEnd</a>
	<a href="#">Activity.EarliestStart</a>
	<a href="#">Activity.End</a>
	<a href="#">Activity.LatestDragEnd</a>
	<a href="#">Activity.LatestEnd</a>
	<a href="#">Activity.LatestStart</a>
	<a href="#">Activity.LinkSourceDate</a>
	<a href="#">Activity.LinkTargetDate</a>
	<a href="#">Activity.MustEndOn</a>
	<a href="#">Activity.MustStartOn</a>
	<a href="#">Activity.PredictedEnd</a>
	<a href="#">Activity.ReleaseDate</a>
	<a href="#">Activity.SortCode</a>
	<a href="#">Activity.Start</a>
	<a href="#">ActivityEntry.End</a>
	<a href="#">ActivityEntry.Start</a>
	<a href="#">Allocation.EarliestDragStart</a>
	<a href="#">Allocation.EarliestEnd</a>
	<a href="#">Allocation.EarliestStart</a>
	<a href="#">Allocation.End</a>
	<a href="#">Allocation.LatestDragEnd</a>
	<a href="#">Allocation.LatestEnd</a>
	<a href="#">Allocation.LatestStart</a>
	<a href="#">Allocation.LinkSourceDate</a>
	<a href="#">Allocation.LinkTargetDate</a>
	<a href="#">Allocation.MustEndOn</a>
	<a href="#">Allocation.MustStartOn</a>
	<a href="#">Allocation.PredictedEnd</a>
	<a href="#">Allocation.SortCode</a>
	<a href="#">Allocation.Start</a>
	<a href="#">AllocationEntry.End</a>
	<a href="#">AllocationEntry.Start</a>
	<a href="#">CalendarEntry.End</a>
	<a href="#">CalendarEntry.Start</a>
	<a href="#">Callback.onClicked</a>
	<a href="#">Callback.onDoubleClicked</a>
	<a href="#">Callback.onDrag</a>
	<a href="#">Callback.onDrop</a>
	<a href="#">Callback.onShowContextMenu</a>
	<a href="#">Callback.onShowTooltip</a>
	<a href="#">Callback.onTimeAreaViewParametersChanged</a>
	<a href="#">CurvePointEntry.PointInTime</a>
	<a href="#">DateLine.PointInTime</a>
	<a href="#">Entity.SortCode</a>
	<a href="#">Method.addWorkingTime</a>
	<a href="#">Method.calculateWorkingTime</a>
	<a href="#">Method.fitTimeAreaIntoView</a>
	<a href="#">Method.scrollToDate</a>
	<a href="#">Method.setTimeResolutionForView</a>

	<a href="#">Option.additionalDateInterpretedAsEmpty</a> <a href="#">Option.currentDate</a> <a href="#">Option.end</a> <a href="#">Option.start</a> <a href="#">Option.workDate</a> <a href="#">PeriodHighlighterEntry.End</a> <a href="#">PeriodHighlighterEntry.Start</a> <a href="#">Resource.SortCode</a> <a href="#">Skill.SortCode</a>
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## DateAsString

Common Type	<a href="#">Widget.CommonType</a>
Explanation	A string that is used to create a Date object internally and therefore the application can use these such strings as a replacement for Date objects. This is for convenience.
See Also	<a href="#">Date</a>
Used by	<a href="#">Activity.BaselineEnd</a> <a href="#">Activity.BaselineStart</a> <a href="#">Activity.DueDate</a> <a href="#">Activity.EarliestDragStart</a> <a href="#">Activity.EarliestEnd</a> <a href="#">Activity.EarliestStart</a> <a href="#">Activity.End</a> <a href="#">Activity.LatestDragEnd</a> <a href="#">Activity.LatestEnd</a> <a href="#">Activity.LatestStart</a> <a href="#">Activity.LinkSourceDate</a> <a href="#">Activity.LinkTargetDate</a> <a href="#">Activity.MustEndOn</a> <a href="#">Activity.MustStartOn</a> <a href="#">Activity.PredictedEnd</a> <a href="#">Activity.ReleaseDate</a> <a href="#">Activity.Start</a> <a href="#">ActivityEntry.End</a> <a href="#">ActivityEntry.Start</a> <a href="#">Allocation.EarliestDragStart</a> <a href="#">Allocation.EarliestEnd</a> <a href="#">Allocation.EarliestStart</a> <a href="#">Allocation.End</a> <a href="#">Allocation.LatestDragEnd</a> <a href="#">Allocation.LatestEnd</a> <a href="#">Allocation.LatestStart</a> <a href="#">Allocation.LinkSourceDate</a> <a href="#">Allocation.LinkTargetDate</a> <a href="#">Allocation.MustEndOn</a> <a href="#">Allocation.MustStartOn</a> <a href="#">Allocation.PredictedEnd</a> <a href="#">Allocation.Start</a>

	<a href="#">AllocationEntry.End</a> <a href="#">AllocationEntry.Start</a> <a href="#">CalendarEntry.End</a> <a href="#">CalendarEntry.Start</a> <a href="#">CurvePointEntry.PointInTime</a> <a href="#">DateLine.PointInTime</a> <a href="#">Method.addWorkingTime</a> <a href="#">Method.calculateWorkingTime</a> <a href="#">Method.fitTimeAreaIntoView</a> <a href="#">Method.scrollToDate</a> <a href="#">Option.additionalDateInterpretedAsEmpty</a> <a href="#">Option.currentDate</a> <a href="#">Option.end</a> <a href="#">Option.start</a> <a href="#">Option.workDate</a> <a href="#">PeriodHighlighterEntry.End</a> <a href="#">PeriodHighlighterEntry.Start</a>
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## Error

Common Type	<a href="#">Widget.CommonType</a>
Explanation	JavaScript standard type.
See Also	<a href="https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Error">https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Error</a>
Used by	<a href="#">Callback.onLogError</a>

## Event

Common Type	<a href="#">Widget.CommonType</a>
Explanation	Standard type of DOM Interface of the browser.
See Also	<a href="https://developer.mozilla.org/en-US/docs/Web/API/Event">https://developer.mozilla.org/en-US/docs/Web/API/Event</a>
Used by	<a href="#">Callback.canDrag</a> <a href="#">Callback.canSelect</a> <a href="#">Callback.onClicked</a> <a href="#">Callback.onDrag</a> <a href="#">Callback.onDragEnd</a> <a href="#">Callback.onDragStart</a> <a href="#">Callback.onDrop</a> <a href="#">Callback.onRowSortingChangeRequested</a> <a href="#">Callback.onSelectionChanged</a> <a href="#">Callback.onShowContextMenu</a> <a href="#">Callback.onShowTooltip</a>

## Function

Common Type	<a href="#">Widget.CommonType</a>
Explanation	JavaScript standard type, derived from Object. Function objects can be used like values or objects of other types.
See Also	<a href="https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Function">https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Function</a>

## IdentifierAsString

Common Type	<a href="#">Widget.CommonType</a>
Explanation	<p>Identifier of an object.</p> <p>Any content is allowed besides an empty string, a contained dot, or contained characters with code points 0 to 31 and 127. The first character should be a letter. Each object type has its own identifier name space, so it is allowed to use the same ID for each object type separately.</p> <p>When assigning an ID for an object, the identifier must have a value that cannot be an empty string, null or undefined. However, if the identifier is used as a reference to an object, then the empty string, null or undefined means that there is no object reference.</p>
Used by	<a href="#">Activity.BarShapeSymbolID</a> <a href="#">Activity.BarTextPrefixSymbolID</a> <a href="#">Activity.BarTooltipTemplateID</a> <a href="#">Activity.CalendarID</a> <a href="#">Activity.DueDateSymbolID</a> <a href="#">Activity.ID</a> <a href="#">Activity.LeftBarSymbolID</a> <a href="#">Activity.ParentID</a> <a href="#">Activity.PeriodHighlighterID</a> <a href="#">Activity.ReleaseDateSymbolID</a> <a href="#">Activity.RightBarSymbolID</a> <a href="#">Activity.RowTooltipTemplateID</a> <a href="#">Activity.TableRowDefinitionID</a> <a href="#">Activity.TopLeftBarSymbolID</a> <a href="#">Activity.TopRightBarSymbolID</a> <a href="#">Allocation.ActivityID</a> <a href="#">Allocation.BarShapeSymbolID</a> <a href="#">Allocation.BarTextPrefixSymbolID</a> <a href="#">Allocation.BarTooltipTemplateID</a> <a href="#">Allocation.ID</a> <a href="#">Allocation.LeftBarSymbolID</a> <a href="#">Allocation.ResourceID</a> <a href="#">Allocation.RightBarSymbolID</a> <a href="#">Allocation.RowTooltipTemplateID</a> <a href="#">Allocation.SkilledBarTooltipTemplateID</a> <a href="#">Allocation.SkilledRowTooltipTemplateID</a> <a href="#">Allocation.SkillID</a> <a href="#">Allocation.TableRowDefinitionID</a> <a href="#">Allocation.TopLeftBarSymbolID</a>

<a href="#">Allocation.TopRightBarSymbolID</a>
<a href="#">Calendar.ID</a>
<a href="#">Callback.canDrag</a>
<a href="#">Callback.canSelect</a>
<a href="#">Callback.compareAllocations</a>
<a href="#">Callback.compareResources</a>
<a href="#">Callback.onClicked</a>
<a href="#">Callback.onCollapseStateChanged</a>
<a href="#">Callback.onCurveCollapseStateChanged</a>
<a href="#">Callback.onDoubleClicked</a>
<a href="#">Callback.onDrag</a>
<a href="#">Callback.onDragEnd</a>
<a href="#">Callback.onDragStart</a>
<a href="#">Callback.onDrop</a>
<a href="#">Callback.onShowContextMenu</a>
<a href="#">Callback.onShowTooltip</a>
<a href="#">Curve.ID</a>
<a href="#">DateLine.ID</a>
<a href="#">DateLine.SymbolID</a>
<a href="#">Entity.ID</a>
<a href="#">Entity.ParentID</a>
<a href="#">Entity.RowTooltipTemplateID</a>
<a href="#">Entity.TableRowDefinitionID</a>
<a href="#">GroupingLevelDefinition.TableRowDefinitionID</a>
<a href="#">HierarchyLevelSupplementaryDefinition.TableRowDefinitionID</a>
<a href="#">HierarchySupplementaryDefinition.ID</a>
<a href="#">HierarchySupplementaryDefinition.TableRowDefinitionID</a>
<a href="#">Link.ID</a>
<a href="#">Link.SourceActivityID</a>
<a href="#">Link.SourceAllocationID</a>
<a href="#">Link.TargetActivityID</a>
<a href="#">Link.TargetAllocationID</a>
<a href="#">Link.TooltipTemplateID</a>
<a href="#">Option.activityHierarchySupplementaryDefinitionID</a>
<a href="#">Option.defaultActivityBarTooltipTemplateID</a>
<a href="#">Option.defaultActivityRowTooltipTemplateID</a>
<a href="#">Option.defaultActivityTableRowDefinitionID</a>
<a href="#">Option.defaultAllocationBarTooltipTemplateID</a>
<a href="#">Option.defaultAllocationRowTooltipTemplateID</a>
<a href="#">Option.defaultAllocationTableRowDefinitionID</a>
<a href="#">Option.defaultCalendarID</a>
<a href="#">Option.defaultEntityRowTooltipTemplateID</a>
<a href="#">Option.defaultEntityTableRowDefinitionID</a>
<a href="#">Option.defaultLinkTooltipTemplateID</a>
<a href="#">Option.defaultPeriodHighlighterEntryTooltipTemplateID</a>
<a href="#">Option.defaultResourceCurveTooltipTemplateID</a>
<a href="#">Option.defaultResourceRowTooltipTemplateID</a>
<a href="#">Option.defaultResourceTableRowDefinitionID</a>
<a href="#">Option.defaultResourceTableRowDefinitionIDInActivitiesView</a>
<a href="#">Option.defaultSkilledAllocationBarTooltipTemplateID</a>

	<a href="#">Option.defaultSkilledAllocationRowTooltipTemplateID</a> <a href="#">Option.defaultSkilledResourceRowTooltipTemplateID</a> <a href="#">Option.defaultSkillRowTooltipTemplateID</a> <a href="#">Option.defaultSkillTableRowDefinitionID</a> <a href="#">Option.entityHierarchySupplementaryDefinitionID</a> <a href="#">Option.resourceHierarchySupplementaryDefinitionID</a> <a href="#">Option.resourceHierarchySupplementaryDefinitionIDInLoadsView</a> <a href="#">Option.tableRowDefinitionIDForTitleInResourcesView</a> <a href="#">Option.tableRowDefinitionIDForTitleInSkilledResourcesView</a> <a href="#">PeriodHighlighter.ID</a> <a href="#">PeriodHighlighterEntry.TooltipTemplateID</a> <a href="#">Resource.CalendarID</a> <a href="#">Resource.CapacityCurveID</a> <a href="#">Resource.CurveTooltipTemplateID</a> <a href="#">Resource.ID</a> <a href="#">Resource.LoadCurveID</a> <a href="#">Resource.ParentID</a> <a href="#">Resource.PeriodHighlighterID</a> <a href="#">Resource.RowTooltipTemplateID</a> <a href="#">Resource.SkilledRowTooltipTemplateID</a> <a href="#">Resource.TableRowDefinitionID</a> <a href="#">Skill.ID</a> <a href="#">Skill.RowTooltipTemplateID</a> <a href="#">Skill.TableRowDefinitionID</a> <a href="#">Symbol.ID</a> <a href="#">Symbol.TooltipTemplateID</a> <a href="#">TableRowDefinition.ID</a> <a href="#">TooltipTemplate.ID</a>
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## LanguageAsString

Common Type	<a href="#">Widget.CommonType</a>
Explanation	Possible values: "da" = "da-DK" "de" = "de-DE" "en-GB" "en" = "en-US" "es" = "es-ES" "fi" = "fi-FI" "fr" = "fr-FR" "it" = "it-IT" "ja" = "ja-JP" "nl" = "nl-NL" "no" = "no-NO" "pl" = "pl-PL" "pt-BR" "pt" = "pt-PT" "ru" = "ru-RU"

	"sv" = "sv-SV" "th" = "th-TH" "zh" = "zh-CN"
Used by	<a href="#">Option.locale</a>

## Map

Common Type	<a href="#">Widget.CommonType</a>
Explanation	JavaScript standard type derived from Object type. In VSW the application alternatively can use literal objects to provide values for keys.
See Also	<a href="https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Map">https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Map</a>
Used by	<a href="#">GroupingLevelDefinition.GroupingCodeToTextMap</a> <a href="#">Option.applicationVariablesMap</a> <a href="#">Option.intlDateTimeFormatOptionsMap</a> <a href="#">Option.intlNumberFormatOptionsMap</a>

## number

Common Type	<a href="#">Widget.CommonType</a>
Explanation	Standard JavaScript primitive type.
See Also	<a href="https://developer.mozilla.org/en-US/docs/Glossary/Number">https://developer.mozilla.org/en-US/docs/Glossary/Number</a>
Used by	<a href="#">Activity.BarOpacity</a> <a href="#">Activity.Progress</a> <a href="#">Activity.SortCode</a> <a href="#">Allocation.BarOpacity</a> <a href="#">Allocation.Progress</a> <a href="#">Allocation.SortCode</a> <a href="#">Callback.compareActivities</a> <a href="#">Callback.compareEntities</a> <a href="#">Callback.compareResources</a> <a href="#">Callback.determineGroupingCode</a> <a href="#">Callback.onClicked</a> <a href="#">Callback.onCollapseStateChanged</a> <a href="#">Callback.onDoubleClicked</a> <a href="#">Callback.onDrop</a> <a href="#">Callback.onLogError</a> <a href="#">Callback.onLogWarning</a> <a href="#">Callback.onSaveAsPDFProgress</a> <a href="#">Callback.onShowContextMenu</a> <a href="#">Callback.onShowTooltip</a> <a href="#">Callback.onTableCellDefinitionWidthChanged</a> <a href="#">Callback.onTimeAreaViewParametersChanged</a> <a href="#">Curve.ScaleMaximumValue</a> <a href="#">Curve.ScaleMinimumValue</a> <a href="#">CurvePointEntry.Value</a>

	<a href="#">Entity.Duration</a> <a href="#">Entity.SortCode</a> <a href="#">LinkEntry.Duration</a> <a href="#">Method.addWorkingTime</a> <a href="#">Method.calculateWorkingTime</a> <a href="#">Method.determineObjectByPageCoordinates</a> <a href="#">Method.setCollapseStatesForEntityRows</a> <a href="#">Method.setCollapseStatesForRows</a> <a href="#">Method.setTimeResolutionForView</a> <a href="#">Option.activityBarTopOffsetAndHeightScaleFactor</a> <a href="#">Option.allocationBarTopOffsetAndHeightScaleFactor</a> <a href="#">Option.loggingVerboseLevel</a> <a href="#">Option.maximumTimeResolutionUnitFactor</a> <a href="#">Option.maximumTopViewAreaHeightRatio</a> <a href="#">Option.multipleSelectionEnabled</a> <a href="#">Option.reducedBarTopOffsetAndHeightScaleFactor</a> <a href="#">Option.scrollOffsetsChangedCallbackTimeDelay</a> <a href="#">Option.timeStepUnitFactor</a> <a href="#">Option.tooltipDelay</a> <a href="#">Option.visualZoomFactor</a> <a href="#">Option.watermarkOpacity</a> <a href="#">Resource.SortCode</a> <a href="#">Skill.SortCode</a>
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## Object

Common Type	<a href="#">Widget.CommonType</a>
Explanation	Standard JavaScript type, that is the basis for all objects. Objects can be instantiated by using literal { }, by calling Object.create or by using the keyword 'new'.
See Also	<a href="https://developer.mozilla.org/en-US/docs/Glossary/Object">https://developer.mozilla.org/en-US/docs/Glossary/Object</a>
Used by	<a href="#">Callback.canDrag</a> <a href="#">Callback.canSelect</a> <a href="#">Callback.compareActivities</a> <a href="#">Callback.compareAllocations</a> <a href="#">Callback.compareEntities</a> <a href="#">Callback.compareResources</a> <a href="#">Callback.compareSkills</a> <a href="#">Callback.determineGroupingCode</a> <a href="#">Callback.onClicked</a> <a href="#">Callback.onCollapseStateChanged</a> <a href="#">Callback.onCurveCollapseStateChanged</a> <a href="#">Callback.onCurvePaneResized</a> <a href="#">Callback.onDoubleClicked</a> <a href="#">Callback.onDrag</a> <a href="#">Callback.onDragEnd</a> <a href="#">Callback.onDragStart</a> <a href="#">Callback.onDrop</a> <a href="#">Callback.onSelectionChanged</a>



	<a href="#">Callback.onShowContextMenu</a> <a href="#">Callback.onShowTooltip</a> <a href="#">Callback.onTableCellDefinitionWidthChanged</a> <a href="#">Callback.onVerticalScrollOffsetChanged</a> <a href="#">Callback.visibilityFilterForResources</a> <a href="#">Callback.visibilityFilterForSkills</a> <a href="#">GroupingLevelDefinition.GroupingCodeToTextMap</a> <a href="#">Method.option</a> <a href="#">Method.processOnDrop</a> <a href="#">Method.saveAsPDF</a> <a href="#">Method.scrollToObject</a> <a href="#">Option.applicationVariablesMap</a> <a href="#">Option.defaultValuesForActivityEntryProperties</a> <a href="#">Option.defaultValuesForActivityProperties</a> <a href="#">Option.defaultValuesForAllocationEntryProperties</a> <a href="#">Option.defaultValuesForAllocationProperties</a> <a href="#">Option.defaultValuesForEntityProperties</a> <a href="#">Option.defaultValuesForLinkProperties</a> <a href="#">Option.defaultValuesForResourceProperties</a> <a href="#">Option.defaultValuesForSkillProperties</a> <a href="#">Option.intlDateTimeFormatOptionsMap</a> <a href="#">Option.intlNumberFormatOptionsMap</a>
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## PixelsAsNumber

Common Type	<a href="#">Widget.CommonType</a>
Explanation	A number that is interpreted to be the number of pixels at a zoom factor of 100%. This number most of the times is positive like in widths, heights, or extents. Often it can be negative when used for offsets.
Used by	<a href="#">Activity.BarHeight</a> <a href="#">Activity.BarShapeSymbolWidth</a> <a href="#">Activity.BarTextPrefixSymbolHeight</a> <a href="#">Activity.BarTextPrefixSymbolWidth</a> <a href="#">Activity.BarTopOffset</a> <a href="#">Activity.DueDateSymbolHeight</a> <a href="#">Activity.DueDateSymbolWidth</a> <a href="#">Activity.LeftBarSymbolHeight</a> <a href="#">Activity.LeftBarSymbolWidth</a> <a href="#">Activity.MinimumRowHeight</a> <a href="#">Activity.ReleaseDateSymbolHeight</a> <a href="#">Activity.ReleaseDateSymbolWidth</a> <a href="#">Activity.RightBarSymbolHeight</a> <a href="#">Activity.RightBarSymbolWidth</a> <a href="#">ActivityEntry.Height</a> <a href="#">ActivityEntry.RelativeTopOffset</a> <a href="#">Allocation.BarHeight</a> <a href="#">Allocation.BarShapeSymbolWidth</a> <a href="#">Allocation.BarTextPrefixSymbolHeight</a> <a href="#">Allocation.BarTextPrefixSymbolWidth</a>

[Allocation.BarTopOffset](#)  
[Allocation.LeftBarSymbolHeight](#)  
[Allocation.LeftBarSymbolWidth](#)  
[Allocation.MinimumRowHeight](#)  
[Allocation.RightBarSymbolHeight](#)  
[Allocation.RightBarSymbolWidth](#)  
[AllocationEntry.Height](#)  
[AllocationEntry.RelativeTopOffset](#)  
[Callback.onCurvePaneResized](#)  
[Callback.onTableCellDefinitionWidthChanged](#)  
[Callback.onTimeAreaViewParametersChanged](#)  
[Callback.onVerticalScrollOffsetChanged](#)  
[DateLine.SymbolHeight](#)  
[DateLine.SymbolWidth](#)  
[DateLine.Width](#)  
[Entity.MinimumRowHeight](#)  
[GroupingLevelDefinition.MinimumRowHeight](#)  
[Link.Width](#)  
[Option.bottomRowMarginInTimeArea](#)  
[Option.dateLineGridWidth](#)  
[Option.defaultActivityBarHeight](#)  
[Option.defaultActivityMinimumRowHeight](#)  
[Option.defaultAllocationBarHeight](#)  
[Option.defaultAllocationMinimumRowHeight](#)  
[Option.defaultEntityMinimumRowHeight](#)  
[Option.defaultResourceLoadCurvePaneHeight](#)  
[Option.defaultResourceMinimumRowHeight](#)  
[Option.defaultSkillMinimumRowHeight](#)  
[Option.entitiesTableCellContentTopOffset](#)  
[Option.entitiesTableSymbolColumnWidth](#)  
[Option.entitiesTableTitleHeight](#)  
[Option.entitiesTableViewWidth](#)  
[Option.fixedTableColumnWidth](#)  
[Option.maximumResourceLoadCurvePaneHeight](#)  
[Option.maximumSnapDistance](#)  
[Option.minimumResourceLoadCurvePaneHeight](#)  
[Option.pastBackgroundLineWidth](#)  
[Option.progressBarHeight](#)  
[Option.subRowDistanceInTimeArea](#)  
[Option.symbolColumnWidth](#)  
[Option.tableCellContentTopOffset](#)  
[Option.tableTitleAndTimescaleHeight](#)  
[Option.tableViewWidth](#)  
[Option.tableViewWidthInActivitiesView](#)  
[Option.tableViewWidthInLoadsView](#)  
[Option.tableViewWidthInResourcesView](#)  
[Option.tableViewWidthInSkilledResourcesView](#)  
[Option.topRowMarginInTimeArea](#)  
[Option.worldViewExtent](#)  
[Resource.LoadCurvePaneHeight](#)

	<a href="#">Resource.MinimumRowHeight</a> <a href="#">Skill.MinimumRowHeight</a> <a href="#">TableCellDefinition.MaximumWidth</a> <a href="#">TableCellDefinition.MinimumWidth</a> <a href="#">TableCellDefinition.SymbolHeight</a> <a href="#">TableCellDefinition.SymbolWidth</a> <a href="#">TableCellDefinition.Width</a>
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## Promise

Common Type	<a href="#">Widget.CommonType</a>
Explanation	<p>A Promise object is used to manage asynchronous operations and represents the eventual completion or failure of an asynchronous operation and allows for sequential execution of code based on the result of the promise.</p> <p>When we speak of a Promise object within the callbacks, you can use a standard Promise object or other “thenables” like a thenable object returned by jQuery’s <code>Deferred.promise()</code>.</p> <p>A Promise object can have one of the following states:</p> <ol style="list-style-type: none"> <li>1. Pending: The Promise is created and in a pending state, waiting for the asynchronous operation to complete.</li> <li>2. Fulfilled: The asynchronous operation has been successfully completed, and the Promise is fulfilled. The result of the operation is available.</li> <li>3. Rejected: The asynchronous operation has failed, and the Promise is rejected. An error reason is provided.</li> </ol> <p>A Promise object is created using the Promise class. The constructor expects a function with two parameters of Function type: <code>resolve</code> and <code>reject</code>. The function is then called asynchronously by the Promise object and either <code>resolve</code> or <code>reject</code> is called to set the state of the Promise.</p> <pre>const myPromise = new Promise((resolve, reject) =&gt; {   // Asynchronous operation   setTimeout(() =&gt; {     const success = true; // Success indicator      if (success)       resolve();     else       reject('Error in operation!');   }, 2000); });</pre> <p>Hint:</p> <ul style="list-style-type: none"> <li>• When an exception occurs within code running inside a promise, then the Promise will convert this to calling <code>reject(error)</code>.</li> </ul> <p>Promises help make asynchronous code more readable and manageable, especially when multiple asynchronous operations need to be executed sequentially or in parallel.</p>

See Also	<a href="https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Promise">https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Promise</a>
Used by	<a href="#">Callback.canDrag</a> <a href="#">Callback.onCollapseStateChanged</a> <a href="#">Callback.onCurveCollapseStateChanged</a> <a href="#">Callback.onDrag</a> <a href="#">Callback.onDrop</a> <a href="#">Callback.onSaveAsPDFProgress</a> <a href="#">Callback.onShowContextMenu</a>

## string

Common Type	<a href="#">Widget.CommonType</a>
Explanation	JavaScript standard primitive type.
See Also	<a href="https://developer.mozilla.org/en-US/docs/Glossary/String">https://developer.mozilla.org/en-US/docs/Glossary/String</a>
Used by	<a href="#">Activity.BarText</a> <a href="#">Activity.BarTextFormat</a> <a href="#">Activity.SortCode</a> <a href="#">Activity.TableText</a> <a href="#">Allocation.BarText</a> <a href="#">Allocation.BarTextFormat</a> <a href="#">Allocation.SortCode</a> <a href="#">Allocation.TableText</a> <a href="#">Callback.canDrag</a> <a href="#">Callback.compareActivities</a> <a href="#">Callback.compareEntities</a> <a href="#">Callback.compareResources</a> <a href="#">Callback.determineGroupingCode</a> <a href="#">Callback.onClicked</a> <a href="#">Callback.onCollapseStateChanged</a> <a href="#">Callback.onDoubleClicked</a> <a href="#">Callback.onDrag</a> <a href="#">Callback.onDragEnd</a> <a href="#">Callback.onDragStart</a> <a href="#">Callback.onDrop</a> <a href="#">Callback.onLogError</a> <a href="#">Callback.onLogWarning</a> <a href="#">Callback.onRowSortingChangeRequested</a> <a href="#">Callback.onShowContextMenu</a> <a href="#">Callback.onShowTooltip</a> <a href="#">DateLine.Caption</a> <a href="#">Entity.SortCode</a> <a href="#">Entity.TableText</a> <a href="#">GroupingLevelDefinition.DefaultGroupingCode</a> <a href="#">GroupingLevelDefinition.GroupingCodeSource</a> <a href="#">GroupingLevelDefinition.TableTextFormat</a> <a href="#">Method.option</a> <a href="#">Method.saveAsPDF</a>

	<a href="#">Method.scrollToDate</a>
	<a href="#">Method.scrollToObject</a>
	<a href="#">Option.activityRowSortCodePropertyName</a>
	<a href="#">Option.additionalDateStringInterpretedAsEmpty</a>
	<a href="#">Option.allocationRowSortCodePropertyName</a>
	<a href="#">Option.applicationStyleDefinition</a>
	<a href="#">Option.defaultActivityBarTextFormat</a>
	<a href="#">Option.defaultAllocationBarTextFormat</a>
	<a href="#">Option.entitiesTitleText</a>
	<a href="#">Option.entityRowSortCodePropertyName</a>
	<a href="#">Option.licenseKey</a>
	<a href="#">Option.resourceRowSortCodePropertyName</a>
	<a href="#">Option.skillRowSortCodePropertyName</a>
	<a href="#">Option.tableRowDefinitionIDForTitleInActivitiesView</a>
	<a href="#">Option.tableRowDefinitionIDForTitleInEntitiesTable</a>
	<a href="#">Option.tableRowDefinitionIDForTitleInLoadsView</a>
	<a href="#">Option.timeZone</a>
	<a href="#">Option.titleText</a>
	<a href="#">Option.version</a>
	<a href="#">Option.watermarkSymbolID</a>
	<a href="#">Option.weekNumbering</a>
	<a href="#">Option.workDateLineCaption</a>
	<a href="#">PeriodHighlighterEntry.Caption</a>
	<a href="#">Resource.SortCode</a>
	<a href="#">Resource.TableText</a>
	<a href="#">Skill.SortCode</a>
	<a href="#">Skill.TableText</a>
	<a href="#">Symbol.URL</a>
	<a href="#">TableCellDefinition.BackgroundColorSource</a>
	<a href="#">TableCellDefinition.SymbolIDSource</a>
	<a href="#">TableCellDefinition.TextColorSource</a>
	<a href="#">TableCellDefinition.TextFormat</a>
	<a href="#">TableCellDefinition.TextSource</a>
	<a href="#">TableCellDefinition.TitleText</a>
	<a href="#">TooltipTemplate.HTMLFormat</a>

## TimeUnitAsString

Common Type	<a href="#">Widget.CommonType</a>
Explanation	<p>Possible values are:</p> <ul style="list-style-type: none"> <li>"Seconds"</li> <li>"Minutes"</li> <li>"Hours"</li> <li>"Days"</li> <li>"Weeks"</li> <li>"Months"</li> <li>"Quarters"</li> <li>"Years"</li> </ul>

Used by	<a href="#">Method.setTimeResolutionForView</a>
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## 4 Changes

The library follows the semantic versioning approach for changes. Version numbers assigned according to this scheme allow conclusions about what has changed from one version to another.

The version number elements of MAJOR.MINOR.PATCH are incremented as follows:

1. MAJOR is incremented when API incompatible changes are released,
2. MINOR is incremented when new functionality compatible with the previous API is released, and
3. PATCH is incremented when the changes include API-compatible bug fixes only.

### 8.2.0

Explanation	<p>MINOR: Visualization of a link now also, when source bar or target bar do not exist. See option <a href="#">Option.linksWithDanglingStartOrEndVisible</a>.</p> <p>MINOR: Hover effects unified for several graphical objects:</p> <ul style="list-style-type: none"> <li>• Clickable symbols in the symbol column of a table (see also properties <code>ClickableInTable</code> and <code>ClickableInEntitiesTable</code> for Symbol objects)</li> <li>• Buttons for collapsing/expanding child rows</li> <li>• Table column headers when sorting can be switched interactively</li> <li>• Splitters</li> <li>• Timescale ribbon cells and navigation buttons in the timescale</li> <li>• Bars</li> <li>• Draggable date lines</li> <li>• Cursors on table rows for row dragging now follow the same schema as for bar dragging.</li> </ul> <p>MINOR: New property <code>TooltipTemplateID</code> for Symbol objects for showing own context-specific tooltips on symbols.</p>
Release Date	2024-07-05
See also	<a href="#">Symbol.ClickableInEntitiesTable</a> <a href="#">Symbol.ClickableInTable</a> <a href="#">Symbol.TooltipTemplateID</a>

### 8.1.7

Explanation	PATCH: When using <code>onCurveCollapseStateChanged</code> with a Promise, then all curve collapse/expand buttons could only be pressed once (since version 8.1.0).
Release Date	2024-07-02

### 8.1.6

Explanation	<p>PATCH: When changing from a very big time resolution to a far smaller one (e.g. from seconds to days), then sometimes there was an exception that lead to missing separation lines on screen.</p> <p>PATCH: The fixed table title was not shown after switching the view type when the table had a horizontal scroll offset greater than zero (since version 8.1.0).</p>
Release Date	2024-07-01

### 8.1.5

Explanation	PATCH: When using a fixed table header (see options titleText and entitiesTitleText), then this was shifted horizontally when the table was scrolled horizontal to the right end. PATCH: When collapsing and expanding a row with bars in child rows with a time distance under the animation duration, then the bars vanished.
Release Date	2024-06-27

### 8.1.4

Explanation	PATCH: Now the option multipleSelectionEnabled with value 0 is supported again (issue since version 8.1.0). PATCH: When selecting bars by dragging a rectangle with the mouse while some rows are filtered out, eventually selection frames of bars were shown.
Release Date	2024-06-25

### 8.1.3

Explanation	PATCH: Fixed long-running loop when using option dateLineCaptionOptimizedPositioningEnabled set to true in Firefox.
Release Date	2024-05-27

### 8.1.2

Explanation	PATCH: Fixed exception when dragging a selected bar while another selected bar was not visible due to a collapsed row. PATCH: Fixed exception when dragging an allocation bar vertically with property SuitableResourceIDs set. PATCH: Fixed exception when a curve with no points was used in a curve stack.
Release Date	2024-05-22

### 8.1.1

Explanation	PATCH: Fixed exception in PDF export. PATCH: Under some circumstances it was possible to select activity bars and allocation bars at the same time by using selection by dragging a rectangle. PATCH: When the chart exceeded 100.000 pixels in horizontal direction, the selection rectangle for selecting bars using mouse dragging was not visible. PATCH: When switching top view area on, draggable date line were not shown fully. PATCH: When dragging an entity into the time area, the vertical scroll offset of that was not considered for the shown bar phantom.
Release Date	2024-04-30



### 8.1.0

Explanation	<p>MINOR: Internal redesign of DOM structure to support overlay scrollbar behavior of Firefox and Safari directly. This concerned Firefox on Windows 11 having a latency on mouse interactions because of special handling in our code, and it concerned Safari where no scrollbars were shown anymore. As a result, scrolling now shows no latency anymore on all browsers and platforms, but especially on Firefox.</p> <p>MINOR: Hovering with the mouse cursor over the collapse/expand symbols or the sorting indicators in the table now shows a shadow as known from other software.</p> <p>MINOR: Now it is possible to resize curve pane heights on resource rows interactively:</p> <ul style="list-style-type: none"> <li>• PATCH: Renamed options to better fit the naming schema (old names are allowed to use but deprecated):</li> <li>• defaultLoadCurvePaneHeight -&gt; defaultResourceLoadCurvePaneHeight</li> <li>• defaultLoadCurvePaneColor -&gt; defaultResourceLoadCurvePaneColor</li> <li>• MINOR: New options curvePanelsResizable, minimumLoadCurvePaneHeight, maximumLoadCurvePaneHeight.</li> <li>• MINOR: New Resource property LoadCurvePaneHeight.</li> <li>• MINOR: New callback onCurvePaneResized.</li> </ul> <p>PATCH: When changing the property Selectable on a selected link to false, then the link did not get unselected. Same when changing the option defaultLinkSelectable to false.</p> <p>PATCH: Now it is possible to work with modularized D3 (not to mix up with ES modules!), when using AMD or a packer utility like Webpack.</p>
Release Date	2024-04-02

### 8.0.6

Explanation	PATCH: Under some circumstances it was possible to select activity bars and allocation bars at the same time by using selection by dragging a rectangle.
Release Date	2024-04-26

### 8.0.5

Explanation	<p>PATCH: The callbacks onTimeAreaViewParametersChanged and onVerticalScrollOffsetChanged now are delayed when an interaction is active.</p> <p>PATCH: The callback onShowTooltip now is triggered also when the mouse is moved horizontally from one entry to another one on the same period highlighter representation.</p>
Release Date	2024-03-26

### 8.0.4

Explanation	<p>PATCH: A grouping code 0 (given as a number) was not shown correctly as a grouping row title.</p> <p>PATCH: When all children rows below a grouping row were filtered out (aka got invisible), then the grouping row and its ancestors remained visible.</p> <p>PATCH: In some cases, the optimized placement of a date line caption did not work correctly directly after adding the appropriate date line.</p>
Release Date	2024-03-14

### 8.0.3

Explanation	<p>PATCH: When shrinking the time area resolution, the optimized placement of date line captions did not work correctly.</p> <p>PATCH: Fixed mixed selection of bars or rows of different type.</p> <p>PATCH: Fixed eventual exception when switching views.</p> <p>PATCH: When stretching the time area to a huge extent the bars were not displayed correctly anymore after horizontal scrolling.</p> <p>PATCH: When switching views then eventually link target marker were positioned with a surprising animation.</p> <p>PATCH: Fixed eventual exception when switching grouping off for the current view.</p> <p>PATCH: Fixed partly false values for properties groupingCodeA and groupingCodeB in the compare callbacks when using more than one grouping level.</p> <p>PATCH: Fixed an exception when trying to drag an allocation in activities view with visible resource rows while using the property SuitableResourceIDs and not using the property SuitableActivityIDs at the same time.</p>
Release Date	2024-02-23

### 8.0.2

Explanation	<p>PATCH: Fixed issue with sorted rows when a row object was updated.</p> <p>PATCH: When dragging an entity row into the Gantt area, a collapsed entity row laying on the mouse Y coordinate expanded unexpectedly.</p> <p>PATCH: When dragging an entity or bar onto a resource row with no child rows in the Gantt area, then a callback onCollapseStateChanged was triggered without making sense.</p> <p>PATCH: When using tree view lines within a view showing allocation rows, then the lines were broken under certain circumstances.</p> <p>PATCH: The new bar drag mode DragSmartHorOrVer did not work when switching interactively from horizontal dragging to vertical dragging.</p> <p>PATCH: When using the method processOnDrop after dragging multiple bars at once, all objects falsely got the same start and end dates.</p> <p>PATCH: Fixed issue with allowed target rows when dragging multiple allocation bars at once while using one of the allocation properties SuitableResourceIDs and SuitableActivityIDs.</p> <p>PATCH: Fixed hanging while auto scrolling was active while row dragging.</p> <p>PATCH: When a bar contained a longer text clipped at the end of the bar, then the appropriate tooltip appeared too far at the right side, when the tooltip could not be positioned above, below, or left of the bar.</p> <p>PATCH: When using the method saveAsPDF, a following call to it was blocked, when the PDF file could not be saved e.g. because the user aborted it.</p> <p>PATCH: After tooltips for curve values were shown, the defined delay for showing all tooltips was ignored from then on.</p> <p>PATCH: After switching allocation rows off and on while using the option visibilityFilterForAllocations the chart did not show the allocation rows anymore and the collapse/expand button on the parent rows disappeared.</p>
Release Date	2024-01-31

### 8.0.1

Explanation	<p>PATCH: Fixed missing creation of baseline bars, due date symbols, release date symbols, or entries shown the time area of parent rows of hidden child rows when changing one of the options <code>activityBaselineBarsVisible</code>, <code>defaultValuesForAllocationEntryProperties</code>, and <code>defaultActivityBarDesign</code>.</p> <p>PATCH: In activities view with shown resources (see <a href="#">Option.resourcesVisibleInActivitiesView</a>) curves now are not shown any longer on activity rows (see <a href="#">Option.curvePanelsVisibleInActivitiesView</a>).</p> <p>PATCH: On images referenced by Symbol objects that are not quadratic, they were extended with transparent background to be a quadratic image when being used on a bar. Now this is not the case anymore, so that non-quadratic images now are shown at full size when the corresponding width property on the bar object is set.</p> <p>PATCH: Extended <code>callbackArgs</code> of callbacks <code>onDrag</code> and <code>onDrop</code> by missing properties <code>newSkillID</code> or <code>newActivityID</code>, resp., when the view contains multiplied objects.</p> <p>PATCH: Fixed issues when using <code>SuitableResourceIDs</code> in <code>SkilledResourcesView</code>.</p> <p>PATCH: Fixed issues when using <code>SuitableResourceIDs</code> and/or <code>SuitableActivityIDs</code> in <code>ActivitiesView</code> with option <code>resourcesVisibleInActivitiesView</code> set to true.</p> <p>PATCH: Fixed issues when dragging allocation bars with drag mode <code>DragSmartHorOrVer</code> and additionally using <code>SuitableResourceIDs</code> and/or <code>SuitableActivityIDs</code>.</p> <p>PATCH: Fixed issue with frames of selected bars remaining visible when the corresponding rows got filtered out.</p> <p>PATCH: Fixed exception on starting to drag a bar after changing one of the options <code>start</code> or <code>end</code> when the bar was positioned outside the visible time range before the change.</p> <p>PATCH: Fixed missing update of rows when switching one of the options for <code>topViewAreaVisible</code> and <code>mainViewAreaVisible</code>.</p> <p>PATCH: Fixed an issue within calendar handling when an entry was doubled that additionally was the latest one.</p> <p>PATCH: Fixed an issue with missing links and date lines after changing option <code>start</code>.</p> <p>PATCH: Fixed missing scrollbars on macOS. <b>ATTENTION: Unfortunately, the issue remains open for Safari and will be addressed with the next minor release since it needs more effort. It seems that current Safari versions have a glitch here.</b></p>
Release Date	2024-01-12

### 8.0.0

Explanation	<p><b>MAJOR: Library dependencies reduced:</b></p> <ul style="list-style-type: none"> <li><b>MAJOR, BREAKING CHANGE:</b> Only a breaking change, when using AMD (e.g. by using <code>Require.js</code>): The dependency for the library <code>D3.js</code> is now refined to request only some specific sub-libraries (see chapter “System Requirements”). Additionally, the minimum supported version of <code>D3.js</code> now is <code>6.0.0</code>.</li> <li><b>MINOR:</b> No inclusion of parts of <code>core.js</code> and <code>polyfill-library</code> anymore.</li> </ul> <p><b>MAJOR, BREAKING CHANGE:</b> When the property <code>AllocationRowsCollapseState</code> on activity or resource objects is not set or set to <code>-1</code> on startup, then the allocation rows are now shown collapsed. In the past they were shown expanded. The change was done to gain startup performance.</p> <p><b>MINOR:</b> Now it is possible to use the widget without <code>jQuery</code> and <code>jQuery UI</code> and therefore they are no dependencies to these libraries anymore.</p> <p><b>MINOR:</b> Now it is possible to group allocation rows in activities view by the assigned resources:</p>
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	<ul style="list-style-type: none"> <li>• MINOR: New options <a href="#">Option.resourcesVisibleInActivitiesView</a>, <a href="#">Option.allocationBarDesignOfOtherActivity</a>, <a href="#">Option.defaultResourceTableRowDefinitionIDInActivitiesView</a>.</li> <li>• MINOR: New method <a href="#">Method.setResourcePropertiesForActivities</a>.</li> <li>• MINOR: New property <a href="#">Resource.AllocationRowsCollapseStateInActivitiesView</a>.</li> <li>• MINOR: New row sort mode for allocations and activities that sorts the rows by ascending start date, see <a href="#">Option.activityRowSortMode</a>, <a href="#">Option.allocationRowSortMode</a>, <a href="#">Enum.RowSortMode</a>.</li> </ul> <p>MINOR: For coloring links partition-wise, there is a new property in Link object <a href="#">Link.Entries</a> and the new object type <a href="#">@LinkEntry</a>.</p> <p>MINOR: A new bar drag mode named <a href="#">DragSmartHorOrVer</a> (see <a href="#">Enum.BarDragModes</a>) allows to drag bars focused horizontally or vertically and change the direction after choosing the desired row or time range within the same action.</p> <p>MINOR: Skill objects now can show allocation bars when the resources are collapsed:</p> <ul style="list-style-type: none"> <li>• MINOR: New property <a href="#">Skill.CollapsedRowDesign</a> for skill objects.</li> <li>• MINOR: New <a href="#">Option.defaultSkillCollapsedRowDesign</a>.</li> </ul> <p>MINOR: New <a href="#">Option.finishedAllocationBarsShownUnstackedInBackground</a>.</p> <p>MINOR: New <a href="#">Option.linksWithDanglingStartOrEndVisible</a>.</p> <p>MINOR: New <a href="#">Option.tableColumnSeparatorColor</a> and <a href="#">Option.entitiesTableColumnSeparatorColor</a> for coloring the separators between adjacent table columns.</p> <p>MINOR: The keyword <code>{{@symbolID}}</code> as placeholder for a defined symbol is now also available in <a href="#">TooltipTemplate.HTMLFormat</a> property of the <a href="#">@TooltipTemplate</a> object.</p> <p>MINOR: New <a href="#">Option.allocationSelectableOnlyOnOneResourceAtATime</a>.</p> <p>MINOR: New property <a href="#">TableCellDefinition.VerticalAlignment</a> for <a href="#">TableCellDefinition</a> objects.</p> <p>MINOR: Simplification of API:</p> <ul style="list-style-type: none"> <li>• MINOR: The enumeration <a href="#">Enum.BarDragModes</a> replaces <a href="#">ActivityBarDragModes</a> and <a href="#">AllocationBarDragModes</a>.</li> <li>• MINOR: The enumeration <a href="#">Enum.BarShape</a> replaces <a href="#">ActivityBarShape</a> and <a href="#">AllocationBarShape</a>.</li> <li>• MINOR: The callbackArgs parameter <code>scrollOffset</code> in <a href="#">Callback.onTimeAreaViewParametersChanged</a> was renamed to <code>horizontalScrollOffset</code>. <code>scrollOffset</code> is deprecated now.</li> </ul> <p>PATCH: Performance enhancements of about 30% in average when loading data and when switching views.</p> <p>PATCH: The function applied to options <code>visibilityFilterForActivities</code>, <code>visibilityFilterForAllocations</code>, <code>visibilityFilterForEntities</code>, <code>visibilityFilterForResources</code>, <code>visibilityFilterForSkills</code> was not always called at any time it was necessary.</p> <p>PATCH: When whole rows were made invisible by using the options <code>visibilityFilterForActivities</code>, <code>visibilityFilterForAllocations</code>, <code>visibilityFilterForEntities</code>, <code>visibilityFilterForResources</code>, <code>visibilityFilterForSkills</code> then the selection frames of selected bars remained visible.</p> <p>Documentation: This document now is generated from a content management system. This leads to far more hyperlinks than before. We have also tried to find reference errors and provide better explanations for data types and some other options and properties. In the future it will be easier for us to extend this document.</p> <p>Documentation: Explanations for methods <code>option</code> and <code>destroy</code> now included in this document.</p>
Release Date	2023-11-17

### 7.1.3

Explanation	<p>PATCH: Several fixes for the callback options visibilityFilterFor... and compare...</p> <p>PATCH: Fixed issue of impossible row insertion position as previous sibling on row drag &amp; drop.</p> <p>PATCH: Fixed unhandled promise rejection within method fitTimeAreaIntoView with start &gt; end.</p> <p>PATCH: Fixed missing rendering of links when time area was stretched asynchronously.</p> <p>PATCH: Fixed exception in method scrollToObject for a not existing skill object.</p>
Release Date	2023-11-06

### 7.1.2

Explanation	<p>PATCH: Fixed missing onCurveCollapseStateChanged callbacks when option onCollapseStateChangedTriggeredByUpdateCalls is true (since version 6.4.0).</p> <p>PATCH: When the time area was stretched while using the option asynchronousInteractiveTimeAreaStretching, the selection frames of bars were not updated horizontally.</p> <p>PATCH: Fixed exception when using one of the methods scrollToObject or fitTimeAreaIntoView after adding, updating, or removing data objects without a call to the render method in between.</p> <p>PATCH: Fixed missing detection of row insertion mode InsertAsChild, when the target row is less high than default on row dragging.</p>
Release Date	2023-09-27

### 7.1.1

Explanation	<p>PATCH: The tooltip did not vanish later if an Allocation or Activity object was updated, while the tooltip was currently shown on just that object.</p> <p>PATCH: When dragging a bar, then the vertical drag lines did not show the time anymore when using the timeZone option "UTC".</p> <p>PATCH: Options maximumTimeResolutionUnit and timeStepUnit did not accept a value of the enumeration TimeUnit.</p> <p>PATCH: Fixed the data modification behavior in method processOnDrop after resizing bar that contain entries.</p> <p>PATCH: Texts and symbols were not shown in skill rows when accessed by a TableRowDefinition object.</p>
Release Date	2023-09-07

### 7.1.0

Explanation	<p>MINOR: New options and properties for completion of skilled resources view:</p> <ul style="list-style-type: none"> <li>• new callback options compareSkills and visibilityFilterForSkills</li> <li>• new options skillRowSortPropertyName, skillRowSortMode, defaultSkillAllowedRowDragModes, mainViewAreaVisibleInSkilledResourcesView, topViewAreaVisibleInSkilledResourcesView</li> <li>• new Skill object properties SortCode, TableCellVisibleInTimeArea, ViewArea</li> <li>• new property SortCode for objects used in method setResourcePropertiesForSkills.</li> </ul>
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	<p>MINOR: New options, properties, and enumerations for completion of row dragging:</p> <ul style="list-style-type: none"> <li>• new options <code>defaultAllocationAllowedRowDragModes</code> and <code>defaultAllocationAllowedRowDragModesInActivitiesView</code></li> <li>• new Allocation object properties <code>AllowedRowDragModes</code> and <code>AllowedRowDragModesInActivitiesView</code></li> <li>• new value <code>DragInSameTableParentOnly</code> for enumeration <code>RowDragModes</code>.</li> </ul> <p>MINOR: The callback <code>onDrag</code> now allows to return a Promise object to determine the value of the property <code>dropAllowed</code> asynchronously.</p> <p>MINOR: The callback <code>onDrop</code> now provides information about the new start and end dates of entries when dragging activity bars or allocation bars.</p> <p>MINOR: The new method <code>processOnDrop</code> is meant to simplify the application development, when the dragged object(s) should be updated without changes (e.g. no additional scheduling by the application).</p> <p>MINOR: New methods <code>setCollapseStatesForRows</code> and <code>setCollapseStatesForEntityRows</code>.</p> <p>PATCH: Options <code>defaultResourceMinimumRowHeight</code>, <code>defaultSkillMinimumRowHeight</code>, and <code>defaultSkillRowCollapsible</code> did not work in skilled resources view.</p> <p>PATCH: Methods <code>serializeCollapseStates</code> and <code>deserializeCollapseStates</code> did not work in skilled resources view.</p> <p>PATCH: Tooltips faded in without delay (since version 7.0.0).</p> <p>PATCH: Snapping did not work correctly for dragging and sizing of bars.</p>
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## 7.0.2

Explanation	<p>PATCH: When resizing a table column interactively, the texts within the column were not clipped accordingly under some circumstances.</p> <p>PATCH: Sometimes clicking or tapping on the expand button within the table was ignored when using Firefox.</p> <p>PATCH: The rectangle drawn by properties <code>Status1Color</code> and <code>Status1Visible</code> on allocation bars and activity bars now is fixed in height to be the same as the bottom of the circle drawn by properties <code>Status3Color/Status3Visible</code>. Background: Beginning with version 8.0.0 it was stretched to the height of bar, while the height was taken from options <code>defaultAllocationBarHeight</code> or <code>defaultActivityBarHeight</code>, resp., in previous versions.</p> <p>PATCH: Options <code>defaultSkilledAllocationBarTooltipTemplateID</code> and <code>defaultSkilledAllocationRowTooltipTemplateID</code> did not work.</p>
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## 7.0.1

Explanation	<p>PATCH: Symbols in table cells were wrongly positioned vertically when the row height was lower than default.</p> <p>PATCH: Fixed exception when scrolling vertically and some rows were filtered out.</p> <p>PATCH: Calendar weekend grid was falsely visible in skill rows and grouping rows.</p> <p>PATCH: Bars with reduced height were not drawn vertically centered (see property <code>BarDesign</code> of Allocation and Activity objects and flag <code>BarDesigns.ReducedHeight</code>).</p>
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## 7.0.0

Explanation	<p>MAJOR: New view type <code>SkilledResourcesView</code>:</p> <ul style="list-style-type: none"> <li>• New object type <code>Skill</code>, new methods <code>add/update/removeSkills</code> and <code>setResourcePropertiesForSkills</code>, new enum value <code>Skill</code> for <code>ObjectType</code>, new</li> </ul>
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property SkillID for Allocation objects, and new property SkillIDs for Resource objects.

- New options `allocationRowsVisibleInSkilledResourcesView`, `definedAllocationLinksVisibleInSkilledResourcesView`, `entitiesTableVisibleInSkilledResourcesView`, `linksVisibleInSkilledResourcesView`, `tableRowDefinitionIDForTitleInSkilledResourcesView`, `tableViewWidthInSkilledResourcesView` in analogy to the resources view.
- New options `defaultValuesForSkillProperties`, `defaultSkillMinimumRowHeight`, `defaultSkillRowCollapsible`, `defaultSkillRowSelectable`, `defaultSkillRowTooltipTemplateID`, `defaultSkillTableRowDefinitionID`.
- New callback argument `SkillID` on callbacks `onClicked`, `onDoubleClicked`, `canDrag`, `onDragStart`, `onDrag`, `onDragEnd`, `onDrop`, `onCollapseStateChanged`, `onCurveCollapseStateChanged`, and `onShowContextMenu` when referencing a resource row or an allocation row or bar.
- New possibility to select, highlight, or scroll to a skilled object (see methods `selectObjects`, `highlightObjects`, `scrollToObject` and callback `onSelectionChanged`).
- New properties `SkilledRowTooltipTemplateID` on resources and allocations, and `SkilledBarTooltipTemplateID` on allocations. New options `defaultSkilledResourceRow/SkilledAllocationRow/SkilledAllocationBarTooltipTemplateID`.
- New option `allocationBarDesignOfOtherSkill` for showing allocation bars differently when they belong to another skill than the resource shown below a skill row.
- New accessor `>Skill` for formats used on resources in the new view type (see property `BarTextFormat` of Allocation objects, property `TextFormat` of `TableCellDefinition` objects, or property `HTMLFormat` of `TooltipTemplates`) and new accessor `#Skill` for `TooltipTemplate` objects on resource rows for referencing the current skill the cursor is hovering above.

#### MAJOR (BREAKING CHANGE):

- **Now by default there is no fallback of allocation property values to activity property values anymore. We decided to change the behavior since this improves the performance when updating activities. Also, many customers did not use these fallbacks at all. If the old behavior is needed for your application, you can set the option `decouplingOfAllocationPropertiesFromActivities` to `false`.**

#### MINOR: Streamlining and simplification of API:

- **The prefix "PM\_" has been removed from object property names and analogously "pm\_" from option names. However, there is no need to change existing code immediately as the former notation will continue to be supported.**
- New properties `BarPatternType` and `BarPatternColor` for Allocation objects analog to Activity objects.
- Property `TextColor` renamed to `BarTextColor` on Allocation and Activity objects.
- New property `callbackArgs.code` in callback `onLogWarning` and new enumeration `WarningCode` to help developers to understand why the warning has occurred. Also, new warnings are established.
- The callback `canDrag` now can handle a promise. This replaces the now deprecated options `forcedActivity/Allocation/Resource/EntityAllowedBar/RowDragModes`.
- The word "nonworking" now consequently is documented and usable with this spelling. In the code it is allowed to use "nonWorking" everywhere.
- The options `onCollapseStateChangedTriggeredByUpdateCalls` and `clickCallbackTriggeringOnRowInTimeArea` were renamed to `triggeringOfOnCollapseStateChangedByUpdateCallsEnabled` and `triggeringOfOnClickedInTimeAreaOfRow`, resp., for better differentiation to callback options beginning with the prefix "on" and for unified naming.



	<p>MINOR: Possibility to switch off complexity of bars for gaining performance:</p> <ul style="list-style-type: none"> <li>• New options defaultActivityBarDesign, defaultAllocationBarDesign, tonedDownOverlayColor, reducedBarTopOffsetAndHeightScaleFactor.</li> <li>• New property BarDesign on Activity and Allocation objects.</li> <li>• New enumeration BarDesigns.</li> </ul> <p>MINOR: More flexibility for showing text:</p> <ul style="list-style-type: none"> <li>• New option application Variables Map for flexible replacements in formatted text.</li> <li>• New options intlDateTimeFormatOptionsMap and intlNumberFormatOptionsMap for flexible formatting of dates and numbers.</li> <li>• New property TextFormat for TableCellDefinition objects.</li> <li>• New property BarTextFormat for Activity and Allocation objects. New options defaultActivity/AllocationBarTextFormat.</li> <li>• (Property InnerHTML of TooltipTemplate objects renamed to HTMLFormat.)</li> <li>• New formatting options for property HTMLFormat of TooltipTemplate objects.</li> <li>• New accessor [...] for property accessor strings to get array or map content with dynamic value inside the brackets (see property BarTextFormat of Activities/Allocations, property TextFormat of TableCellDefinitions, or property HTMLFormat of TooltipTemplates).</li> </ul> <p>MINOR: Extended graphical representation:</p> <ul style="list-style-type: none"> <li>• New property TableColorVisibleInTimeArea for the GroupingLevelDefinition object.</li> <li>• New option separationLinesInColoredIndentation.</li> <li>• New properties SymbolHeight and SymbolWidth for TableCellDefinition objects.</li> <li>• New option applicationStyleDefinition e.g. for defining CSS variables.</li> <li>• The color of the three dots in the table symbol column was always black. To improve the readability, the dots now are automatically colored white if the background color of the symbol column cell is a darker one.</li> <li>• New option defaultLoadCurvePaneHeight and Resource property LoadCurvePaneHeight.</li> </ul> <p>MINOR: Open-source libraries File-Saver and css-element-queries are not included in the code anymore because they were replaced by own code.</p> <p>PATCH: Bars with zero-width were not easy to click or drag.</p> <p>PATCH: Texts of overlapping bars were drawn overlaid.</p> <p>PATCH: Sometimes when dragging a date line, the end of the interaction was not recognized.</p> <p>PATCH: In Firefox the drag cursor of a draggable date line was not visible.</p> <p>This document: Now also the important method "option" is described with some hints, despite it is implemented by the base widget within jQueryUI.</p>
See also	<a href="#">Release Notes - Version 7.0</a> (Blog Post)

## 6.4.4

Explanation	<p>PATCH: Several fixes for issues concerning collapsing or expanding child rows, allocation rows, or curve panes in an invisible view.</p> <p>PATCH: The widget did not resize anymore when the parent of its DIV element was changed.</p> <p>PATCH: Bars with zero-width were not visible anymore (since version 6.4.2).</p>
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### 6.4.3

Explanation	<p>PATCH: Sometimes rows were vanishing when the appropriate data objects were removed and added again together with option asynchronousRendering set to true (since version 6.4.0).</p> <p>PATCH: Links eventually were not updated correctly in the chart when row objects were removed and added again within the vertical range of the appropriate link.</p> <p>PATCH: Fixed a hanging cursor on Firefox when clicking on a bar once or twice and then a context menu or a dialog got visible (since version 6.4.0).</p> <p>PATCH: The property PM_CollapseStateInLoadsView of Resource objects did not work anymore.</p>
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### 6.4.2

Explanation	<p>PATCH: The callback onDoubleClicked was not triggered on Firefox when the chart was bigger and vertically scrolled to the end.</p> <p>PATCH: The option preventDefaultOnContextMenuEvents did not work for the callback onShowContextMenu referencing the timescale.</p> <p>PATCH: Fixed display glitches when using the bar shape Regular on activities and allocations with entries that are shown within the coordinate range of the bevel.</p>
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### 6.4.1

Explanation	<p>PATCH: Setting options ending with ...AllowedRow/BarDragModes with value null falsely set the value to 0. This partly led to an inability to drag rows or bars, resp. (since version 6.4.0).</p> <p>PATCH: When bars overlapped in time only when considering the constraint or the predicted end date, then they were not placed in different sub rows.</p> <p>PATCH: Bars were not visible, when only a constraint or the predicted end date of a bar was inside the time range between options start and end.</p>
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### 6.4.0

Explanation	<p>MINOR: New possibility to sort the table interactively by table columns, see new options interactiveSwitchingOfSortOrderEnabled, sortingIndicatorVisible, rowSortModeNoneEnabledOnInteractiveSwitchingOfSortOrder, and new callback onRowSortingChangeRequested.</p> <p>MINOR: New option nonWorkingTimesCalendarIDs.</p> <p>MINOR: New triggering of callback onShowContextMenu when the user clicks the secondary button of the mouse or presses the finger on the timescale.</p> <p>MINOR: New options asynchronousRendering and asynchronousInteractiveTimeAreaStretching for more performance when many objects are visible on the screen.</p> <p>MINOR: New method determineObjectByPageCoordinates.</p> <p>MINOR: Additional keywords &gt;SourceAllocation and &gt;TargetAllocation in tooltip templates for links.</p> <p>PATCH/MINOR: Because of an unwanted change of behavior with version 6.1.0, a new option triggeringOfOnShowTooltipForEntriesInBarsEnabled is implemented.</p>
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	<p>PATCH: In Firefox the resize cursor for the vertical splitters hung under certain circumstances (since version 6.3.7).</p> <p>PATCH: Eventually a bar could not be resized interactively at the end date when it started before the date in widget option “start”.</p> <p>PATCH: The keyword #Entry did not work in TooltipTemplate objects for activity bars or allocation bars.</p> <p>PATCH: The method cancelSaveAsPDF did not work correctly when used while the first page was saved to the PDF document.</p> <p>PATCH: When dropping a row near the horizontal separation line, it could happen that the callback onDrop mentioned the neighbored row instead of the targeted one.</p> <p>PATCH: Fixed exception that occurred when hovering over a period highlighter entry in activities view with allocation rows visible.</p> <p>PATCH: The output parameter allowedDragModes of callback canDrag did not work fully.</p>
See also	<a href="#">Release Notes - Version 6.4</a> (Blog Post)

### 6.3.7

Explanation	<p>PATCH: The callbacks onDragStart, onDrag, onDrop, onDragEnd did not contain the property named ‘event’ like in other interaction callbacks.</p> <p>PATCH: The later addition or update of row objects did not update the horizontal scroll bar of the appropriate table.</p> <p>PATCH: Fixed problem when user presses Escape key while dragging a vertical splitter, a column separator in the table title, or a dateline.</p> <p>PATCH: Fixed exception in Safari when a warning was generated internally (see callback onLogWarning).</p> <p>PATCH: On macOS the cursor for row drag&amp;drop was not the correct one (only an up arrow instead of an up-and-down arrow).</p>
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### 6.3.6

Explanation	<p>PATCH: Row dragging did not work when using the callback canDrag to enable DragVertically for individual row objects exclusively.</p> <p>PATCH: Interactive resizing of columns did not work correctly when using a visual zoom factor unequal to 1.</p> <p>PATCH: The callback onShowTooltip was not called for every table cell again when moving the mouse cursor.</p> <p>PATCH: In all callbacks where the table cell index was included in the arguments (onShowTooltip, onShowContextMenu, onClicked, onDoubleClicked), the horizontal table scroll offset and the visual zoom factor were not considered.</p> <p>PATCH: Dragging date lines within Firefox was not possible anymore and fixed missing cursor image when hovering a collapse/expand button within Firefox (since version 6.2.3).</p> <p>PATCH: Scrolling using a trackpad was not accurate.</p>
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### 6.3.5

Explanation	<p>PATCH: Method getSelectedObjects did not return selected links.</p> <p>PATCH: Row dragging did not work for entities when using option pm_defaultEntityAllowedRowDragModes set to DragVertically only.</p>
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	PATCH: When using one of the options for filtering visibility of row objects it could happen, that bars for invisible rows were drawn. Since version 6.3.3.
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### 6.3.4

Explanation	<p>PATCH: The callback canDrag was triggered too often.</p> <p>PATCH: The callback onShowTooltip was not called always, when the mouse cursor left a bar.</p> <p>PATCH: When using a bar shape for an allocation different from the default one, this was not always visible on the first allocation entry after updating an allocation object.</p> <p>PATCH: Fixed rare exception when positioning links between invisible bars.</p>
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### 6.3.3

Explanation	<p>PATCH: Performance improvements for several remove... method calls and for artificial links from activity links in resources view.</p> <p>PATCH: Fixed not working press gesture directly following a double-click.</p> <p>PATCH: Fixed missing cursor icon when hovering an application-defined release or due date symbol of an activity bar.</p> <p>PATCH: The library html2canvas was required at start-up of VSW but is only necessary when saving a PDF file and using the PDF options topHTML or bottomHTML.</p> <p>Additionally: This document now lists polyfill-library as included resource (see chapter 2.3 REF_Ref119501929 \r \h 2.3).</p>
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### 6.3.2

Explanation	Internal Release
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### 6.3.1

Explanation	<p>PATCH: Performance improvements for several update... method calls.</p> <p>PATCH: The curve values displayed in the tooltips did not exactly match the definition in the curve entries due to JavaScript side effects when adding and subtracting values.</p> <p>PATCH: When dragging a row with allowed drag mode DragOnSameLevelOnly target rows are not expanded automatically when the level is below the one of the dragged row.</p> <p>PATCH: Period highlighters were not visible on allocation rows in activities view.</p> <p>PATCH: Rows were too high, when more than one zero-width bar with same start date existed there.</p> <p>PATCH: Fixed exception when calling one of the methods selectObjects and highlightObjects with an allocation object in activities view.</p> <p>Additionally: Added missing return values (Promise objects) to the description of methods fitTimeAreaIntoView, scrollToDate, scrollToObject in this document.</p>
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### 6.3.0

Explanation	<p>MINOR: Activity, entity, and resource rows optionally can be dragged and dropped vertically inside the appropriate table now:</p> <ul style="list-style-type: none"> <li>• New options pm_defaultActivity/ResourceAllowedRowDragModes.</li> <li>• New options pm_forcedActivity/Entity/ResourceAllowedRowDragModes (suitable for cases where the callback handler of the application for canDrag cannot provide property changes on callback arguments on return).</li> <li>• New property PM_AllowedRowDragModes in Activity and Resource objects.</li> <li>• New enum values DragVertically and DragOnSameLevelOnly for RowDragModes.</li> <li>• New properties in callbackArgs when callbacks onDrag and onDrop are triggered. Furthermore, for this now exists the new enum RowInsertionMode.</li> <li>• Precalculation of sort code value when sort mode is set to be ascending (see new options activity/entity/resourceRowSortMode).</li> </ul> <p>MINOR: Sorting now also is possible by using a definable property in objects instead of implementing an appropriate compare callback:</p> <ul style="list-style-type: none"> <li>• New options activity/allocation/entity/resourceRowSortCodePropertyName and activity/allocation/entity/resourceRowSortMode.</li> <li>• New enum RowSortMode.</li> <li>• New property PM_SortCode for Activity/Allocation/Entity/Resource objects serving as default property for new options above.</li> </ul> <p>MINOR: New property PM_BorderDashArray of Activity and Allocation objects.</p> <p>MINOR: New callback options visibilityFilterForActivities/Allocations/Resources/Entities. These ones replace the now deprecated option visibilityFilter for performance reasons.</p> <p>MINOR: New callback options compareActivities/Allocations/Resources/Entities. These ones replace the now deprecated option compareObjects for performance reasons.</p> <p>MINOR: New options defaultValuesForObjectProperties with <i>Object</i> standing for Activity, ActivityEntry, Allocation, AllocationEntry, Entity, Link, Resource.</p> <p>MINOR: New property entitiesTableViewWidth for callback onTimeAreaViewParameters-Changed.</p> <p>MINOR: New option loggingVerboseLevel.</p> <p>MINOR: New property commandCounter for callbacks onLogWarning and onLogError.</p> <p>MINOR: Symbols on date lines are now also placed optimized. See option pm_dateLineCaptionOptimizedPositioningEnabled.</p> <p>MINOR: Automatic recognition of duplicate IDs and cycles in hierarchy when using ParentIDs on adding or updating objects, see callback options onLogWarning and onLogError.</p> <p>PATCH: Fixed issues with cursor icon when hovering draggable splitters, column separators, and date lines.</p> <p>PATCH: Fixed internal exception after calling method saveAsPDF.</p>
See also	<a href="#">Release Notes - Version 6.3</a> (Blog Post)

### 6.2.8

Explanation	<p>PATCH: Fixed missing tooltips on curves when using Firefox (since 7.5.3).</p> <p>PATCH: Sometimes it was not possible to drag the bar onto the original position when interactively dragging bars with options timeStepUnit and timeStepUnitFactor set to coarser values (since 7.5.2).</p> <p>PATCH: It was impossible to gain keyboard focus when using Firefox and clicking or tapping into widget element (since 7.5.3).</p>
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	<p>PATCH: When starting a web application from file system, the PDF export failed in whole when a URL was used inside top or bottom HTML strings. Now only a warning is triggered.</p> <p>PATCH: Dragging of bars was not always possible when using a hatch pattern.</p> <p>PATCH: The callback onShowContextMenu was not triggered on period highlighter entries.</p> <p>PATCH: It was not possible to access neither row object properties using #RowObject nor period highlighter properties in tooltip templates assigned to period highlighter entries.</p> <p>PATCH: When showing allocation rows in activities view, selecting bars by drawing a rectangle optically selected activity and allocation bars.</p> <p>PATCH: When option editable was set to false, you could nevertheless drag entities into the time area. Additionally, changing the option editable at run-time had no effect.</p> <p>PATCH: When dragging entities into the time area with options timeStepUnit and timeStepUnitFactor set to coarser values, then the calendar was not continuously considered.</p> <p>PATCH: Dragging bars with option timeStepUnit set to “year” did not work at all.</p> <p>PATCH: Option pm_barSortModeForOptimizedRowDesign did not work.</p> <p>PATCH: When changing option pm_bottomRowMarginInTimeArea, row heights were not updated concerning a currently visible curve pane.</p> <p>PATCH: When clicking/tapping onto a curve, sometimes an exception occurred, and sometimes selected elements were not deselected.</p> <p>PATCH: Neither the callback onSelectionChanged was triggered nor selected entities were deselected, when the user clicked/tap on the time area background or on curves.</p> <p>Attention: When using option pm_dateLineCaptionOptimizedPositioningEnabled, the optimization of caption positions does not work when symbols are used on the date lines! This will be fixed with upcoming version 7.6.0.</p>
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## 6.2.7

Explanation	<p>PATCH: More performance when using add methods for Activity, Entity, Resource objects.</p> <p>PATCH: Fixed additional horizontal scrollbar for top view area in Firefox (since version 6.2.3).</p>
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## 6.2.6

Explanation	<p>PATCH: Fixed functionality of property PM_BorderColor of Activity objects when entries are existing.</p> <p>PATCH: Fixed missing values when evaluating a TooltipTemplate for a tooltip (since version 6.2.3).</p> <p>In this document now the number of possible hierarchy levels are explicitly described as being limited to a maximum of approx. 100 (see property ParentID of Activity, Entity, and Resource objects) because of possible performance issues.</p>
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## 6.2.5

Explanation	<p>PATCH: Fixed false empty triggering of callback onShowTooltip when moving the mouse pointer from one bar to another one (since version 6.2.1).</p> <p>PATCH: Fixed internal exception when adding resources, entities, or activities with IDs that were removed before under some circumstances (since version 6.2.1).</p>
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	<p>PATCH: Fixed not visible links in resources view when using activity links and adding allocation objects again after removing all existing allocation objects before (since version 6.2.1).</p> <p>PATCH: Fixed a false triggering of a UI event “contextmenu” when using Firefox additional to triggering the callback onShowContextMenu (since version 6.2.3).</p> <p>PATCH: Fixed issue of rows remaining invisible after updating the property ParentID of Activity, Entity, or Resource objects (since version 6.2.1).</p> <p>PATCH: Fixed false interpretation of property permissionToPrint in options object of method saveAsPDF.</p>
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## 6.2.4

Explanation	<p>PATCH: When dragging bars vertically, the drag date lines showed the dates temporarily (since version 6.2.3).</p> <p>PATCH: Fixed exception when dragging entity object into the time area at the lower end of the chart.</p> <p>PATCH: Fixed an update issue when using the callback visibilityFilter to hide activity bars on collapsed activity rows and showing the bars in ancestor rows.</p> <p>PATCH: Fixed a performance issue when using the callback visibilityFilter with a big number of allocations.</p> <p>PATCH: The about dialog now shows the open-source library “core-js” as an included component.</p>
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## 6.2.3

Explanation	<p>PATCH: The widget now supports showing scroll bars when using Firefox beginning with version 100 on Windows 11.</p> <p>PATCH: When using Firefox the inner DIV elements of the widget were focusable by using the Tab key. Now this is prevented.</p> <p>PATCH: Fixed an exception when the user clicked into the background of a row within the time area.</p> <p>PATCH: The callback onShowTooltip was triggered too often after leaving the curve area of a row.</p>
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## 6.2.2

Explanation	<p>PATCH: The property cellIndex was not working as expected in callback onShowTooltip. Additionally, it was not documented by accident.</p> <p>PATCH: When showing the context menu on a currently selected object all selected objects were deselected (since version 6.2.1).</p> <p>PATCH: When using a newer version of D3, the dragged bar was not surrounded by a flashing rectangle anymore.</p> <p>PATCH: The shown symbol for the ReleaseDate property of Activity objects was overdrawn by the activity bar when the dates in properties Start and End were in same range.</p> <p>PATCH: Interactively resizing bars with options timeStepUnit and timeStepUnitFactor set to coarser values was not showing a smooth phantom.</p> <p>Attention: The widget does not show scroll bars when using Firefox beginning with version 100 on Windows 11. This will be fixed in a later patch release. As a workaround</p>
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	you can change the setting “Always show scrollbars” in System Preferences > Accessibility > Visual Effects.
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## 6.2.1

Explanation	<p>PATCH: Much more performance when changing the property ParentID of Activity, Entity, or Resource objects.</p> <p>PATCH: Activity links in resources view under circumstances remained invisible when added in startup phase of widget.</p> <p>PATCH: When using activity links in resources view, these were not selectable interactively.</p> <p>PATCH: When using multiple bar dragging with one of the options or properties concerning ...AllowedBarDragModes set to DragHor+DragVer, horizontal dragging of bars in more than one resource row at the same time did not work as expected.</p> <p>PATCH: In some cases, the mouse cursor was not cleared when leaving a bar on screen.</p> <p>PATCH: The context menu of the browser is suppressed now on the timescale and in the fixed symbol column of the table when using the secondary mouse button.</p> <p>Additionally: The predefined text for topHTML in the PDF options dialog was corrected.</p> <p>Additionally: This reference guide now shows small class diagrams for each data object type.</p>
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## 6.2.0

Explanation	<p>MINOR: New options topText, bottomText, topHTML, bottomHTML, ownerPassword, userPassword, and permissionTo..., author, title, subject, keywords for method saveAsPDF. (For using topHTML and bottomHTML the additional open-source library “html2canvas” is needed.)</p> <p>MINOR: New option pm_dateLineCaptionOptimizedPositioningEnabled.</p> <p>MINOR: New property PredefinedGroups for HierachyLevelSupplementaryDefinition objects.</p> <p>MINOR: Renaming of the following properties in GroupingLevelDefinition objects for alignment with a fallback to the older property names:</p> <ul style="list-style-type: none"> <li>• CodeToTextMap to GroupingCodeToTextMap,</li> <li>• CodeSource to GroupingCodeSource,</li> <li>• TableBackgroundColor to TableColor.</li> </ul> <p>MINOR: New properties ScaleMinimumValue and ScaleMaximumValue for Curve objects.</p> <p>MINOR: New option pm_linesShownInLoadCurvePanels.</p> <p>MINOR: New property SuitableResourceIDs for Entity objects and new property SuitableActivityIDs for Allocation and Entity objects.</p> <p>MINOR: New callbacks onLogError and onLogWarning.</p> <p>PATCH: Fixed positioning when dragging a date line or the vertical splitter and the option visualZoomFactor was set to value unequal to 1.</p> <p>PATCH: When saving a PDF document, symbols shown at the top of date lines were not exported.</p> <p>PATCH: More performance when updating activity objects.</p> <p>Additionally: The Sample App now contains an example for a PDF options dialog.</p> <p>Additionally: The Sample App now references current versions of 3rd party libraries.</p>
See also	<a href="#">Release Notes - Version 6.2</a> (Blog Post)

### 6.1.11

Explanation	<p>PATCH: The world view sometimes was scaled to high, so that the view rectangles were not visible fully.</p> <p>PATCH: When an active HierarchySupplementaryDefinition object was updated the changes did not get visible in the entities.</p> <p>PATCH: The mouse cursor changed too often on allocation bars with allocation entries since version 6.1.10.</p>
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### 6.1.10

Explanation	<p>PATCH: When dragging allocation bars horizontally erroneously the dragMode property in callback onDrop had flag DragVertically switched on.</p> <p>PATCH: A defined symbol on a date line was invisible when either width or height left undefined.</p> <p>PATCH: All resources were grayed on dragging multiple allocation bars when the property SuitableResourceIDs was empty on at least one of the Allocation objects. Now an empty value is interpreted consistently on single and multiple bar dragging.</p> <p>PATCH: The mouse cursor did not change to “resize” in certain cases on allocation bars.</p> <p>PATCH: When dragging an allocation bar vertically the non-working time was not updated, when it should be visible inside the bar.</p> <p>PATCH: Setting the option pm_symbolColumnNameTitleSymbolIDs with the same value as before took too much time.</p>
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### 6.1.9

Explanation	<p>PATCH: After calling scrollToObject with an allocation the bar representing this allocation was not visible fully when it was out of sight before and is positioned below the first sub row.</p> <p>PATCH: When the option loggingEnabled was set to true in the initiation options of the widget, the red recording button was not shown on screen.</p> <p>PATCH: When using saveAsPDF without setting zoomFactorInPercent, horPageCountLimit, and verPageCountLimit, the resulting PDF document eventually contained more than page.</p>
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### 6.1.8

Explanation	<p>PATCH: After calling method selectObjects the time area did not work normally, e.g. rescaling by using the timescale did not update the time area anymore.</p> <p>PATCH: When a row object shows a selection frame the sensible area around the collapse/expand button was smaller than without the selection frame.</p> <p>PATCH: In a special case the call to fitTimeAreaIntoView started an animation for horizontal scrolling and hindered a following call to scrollToObject.</p>
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### 6.1.7

Explanation	<p>PATCH: Fixed false scroll position when method scrollToObject was called with option pm_scrollToObjectAnimationEnabled set to true.</p>
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	<p>PATCH: Now horizontal scrolling to begin of the time area is avoided when scrollToObject is called for an activity or an allocation object that has no defined start date. In this case now only vertical scrolling is done.</p> <p>PATCH: Setting a non-existent ID into the property ParentID of an activity, resource, or entity object using an update method was not working anymore.</p> <p>PATCH: Internal exceptions now are visible in browser again.</p> <p>PATCH: After calling the method scrollToObject with an entity object, highlighting was not working anymore.</p> <p>PATCH: In TooltipTemplate objects used for curve tooltips the reserved words #Load, #Capacity, #Date, #SingleLoads did not show the appropriate values.</p>
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### 6.1.6

Explanation	PATCH: Fixed missing triggering of callbacks onShowTooltip, onClicked, and onDoubleClicked when visualType is PeriodHighlighter and mouse cursor is on allocation rows.
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### 6.1.5

Explanation	PATCH: Fixed missing properties periodHighlighter and entryIndex on callbacks onShowTooltip, onClicked, and onDoubleClicked when visualType is PeriodHighlighter.
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### 6.1.4

Explanation	<p>PATCH: When using Allocation.SuitableResourceIDs on a bigger data model, it took too long to start dragging on bars.</p> <p>PATCH: When adding allocation rows right on expanding the containing row these remained invisible.</p>
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### 6.1.3

Explanation	PATCH: Fixed exception after updating activity objects while allocation rows are shown in activities view.
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### 6.1.2

Explanation	<p>PATCH: Fixed hanging mouse cursor when leaving links.</p> <p>PATCH: Fixed issue with actual time resolution when options maximumTimeResolutionUnit/-Factor were modified again after widget instantiation.</p> <p>PATCH: Fixed exception when dragging an activity bar where the property PM_HasAllocationRows of the activity is set to true without being assigned to existing allocations.</p>
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### 6.1.1

Explanation	<p>PATCH: The property <code>cellIndex</code> was missing in callback <code>onShowTooltip</code> at least for table rows representing entities.</p> <p>PATCH: Fixed missing update of allocation rows in activities view after updating <code>PeriodHighlighter</code> objects.</p> <p>PATCH: Time axis could not be shrunk enough anymore when using a big time resolution unit step.</p> <p>PATCH: Fixed internal exception handling.</p> <p>PATCH: Fixed crash, when start and end were set to null.</p>
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### 6.1.0

Explanation	<p>MINOR: New property <code>Entries</code> for Activity objects and new object type <code>ActivityEntry</code>.</p> <p>MINOR: New options <code>defaultUpdateMode</code> and <code>resetValueForDifferentialUpdate</code>. New value for enumeration <code>UpdateModes</code>.</p> <p>MINOR: New option <code>pm_timescaleInteractionMode</code>.</p> <p>MINOR: New property <code>DefaultCode</code> for <code>GroupingLevelDefinition</code> objects.</p> <p>MINOR: New option <code>pm_resourceHierarchySupplementaryDefinitionIDInLoadsView</code>.</p> <p>MINOR: New options <code>maximumTimeResolutionUnit</code> and <code>maximumTimeResolutionUnitFactor</code>. New values for options <code>maximumTimeResolutionUnit</code>, <code>timeStepUnit</code>, and for unit parameter of <code>setTimeResolutionInView</code> method. New enumeration <code>TimeUnit</code> as an alternative for string values.</p> <p>MINOR: In <code>TooltipTemplates</code> single curve values are now accessible by using <code>#SingleLoads.curveID</code>.</p> <p>MINOR: New option <code>onCollapseStateChangedTriggeredByUpdateCalls</code>.</p> <p>PATCH: Switching the grouping on or modifying the grouping now is much faster.</p> <p>PATCH: Fixed an issue with missing animation on grouping modifications.</p> <p>PATCH: Fixed an issue when modifying property <code>TableRowDefinitionID</code> in <code>HierarchyLevelSupplementaryDefinition</code> objects.</p> <p>PATCH: Fixed the visibility of allocation object values in tooltips generated by tooltip templates on allocation bars in resources view.</p> <p>PATCH: When an allocation referenced a non-existing resource, it could not be filtered in activities view.</p> <p>PATCH: Fixed world view issues concerning scaling and scroll bar visibility.</p> <p>PATCH: About box now only contains the libraries incorporated inside of VSW library files prefixed with "nwaf-". See revised chapter "System Requirements" for more details.</p>
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### 6.0.5

Explanation	<p>PATCH: When using the callback <code>visibilityFilter</code> for filtering allocation rows, then the containing row showed a collapse or expand button even when all allocation rows were invisible. Now a special symbol appears instead.</p> <p>PATCH: Fixed an issue in PDF export when the time range is huge.</p> <p>PATCH: Fixed an issue when modifying the property <code>PM_ViewArea</code> on row objects that have visible allocation rows.</p> <p>PATCH: Fixed an issue when the <code>visibilityFilter</code> was modified and allocation rows therefore became visible again.</p>
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## 6.0.4

Explanation	<p>PATCH: When changing the “start” or “end” option, the view start date is now preserved, if possible.</p> <p>PATCH: Fixed exception and malfunction concerning animation when changing objects in fast sequence.</p>
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## 6.0.3

Explanation	<p>PATCH: Period highlighter grids assigned to resources are now shown also in allocation rows of these resources, in analogy to calendar grids.</p> <p>PATCH: Fixed an issue with PDF export newly appeared with version 6.0.2.</p>
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## 6.0.2

Explanation	<p>PATCH: Parameters “entry” and “entryIndex” in callbacks onShowTooltip and onShowContextMenu working again.</p> <p>PATCH: The colorization for the grouping and hierarchy levels in the table was not working fully caused by vertical virtualization that is internally used to get more performance.</p> <p>PATCH: Sorting of rows now is triggered correctly when setting the callback option compareObjects using the same Function object.</p> <p>PATCH: Callback onVerticalScrollOffsetChanged now also works correctly when grouping is used.</p>
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## 6.0.1

Explanation	<p>PATCH: Missing parameter “date” in onClicked callback when time area background was clicked.</p> <p>PATCH: After changing the group criteria in the data of a row object with active grouping, the grouping was not updated.</p> <p>PATCH: When changing the data of an activity object while allocation rows are visible in the activities view, then the allocation rows for this activity object disappeared.</p> <p>PATCH: The new tree view feature did not work correctly when the top view area is visible and the property PM_ViewArea was changed.</p> <p>Additionally: The Sample App now demonstrates the new feature “grouping by criteria” (see also context menu of resource table rows).</p>
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## 6.0.0

Explanation	<p>MINOR: New additional grouping by criteria within the current parent-child hierarchy:</p> <ul style="list-style-type: none"> <li>• New objects HierarchySupplementaryDefinition, HierarchyLevelSupplementaryDefinition, GroupingLevelDefinition to specify grouping.</li> <li>• New options pm_activity/resource/entityHierarchySupplementaryDefinitionID to specify the active hierarchy supplementary definition object for additional grouping of activity/resource/entity objects appearing as rows in the appropriate table.</li> </ul>
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	<ul style="list-style-type: none"> <li>• New parameters for callbacks onClicked, onDoubleClicked, onShowContextMenu, onShowTooltip, compareObjects when grouping rows are affected.</li> <li>• New callback determineGroupingCode to specify grouping information.</li> </ul> <p>MINOR: New method highlightObjects and therefore renamed options pm_scrollToObjectHighlightingColor to pm_objectHighlightingColor and pm_scrollToObjectHighlightFlashingEnabled to pm_objectHighlightFlashingEnabled.</p> <p>MINOR: New bar shape named Symbol for allocation and activity bars:</p> <ul style="list-style-type: none"> <li>• New enum value named Symbol in enumerations AllocationBarShape and ActivityBarShape used in property PM_BarShape of allocation and activity objects.</li> <li>• New properties PM_BarShapeSymbolID and PM_BarShapeSymbolWidth for allocation and activity objects.</li> </ul> <p>MINOR: The bar shape named Diamond now is usable additionally for allocation bars.</p> <p>MINOR: To improve a more compact layout optionally there are new options pm_allocation/activityBarTopOffsetAndHeightScaleFactor, pm_entitiesTableCellContentTopOffset, pm_tableCellContentTopOffset, pm_tableTitleAndTimescaleHeight, pm_entitiesTableTitleHeight, pm_progressBarHeight.</p> <p>MINOR: New options treeVisualizationMode, pm_treeViewLineColor/DashArray, entitiesTableTreeVisualizationMode, pm_entitiesTableTreeViewLineColor/DashArray and new enumeration TreeVisualizationMode.</p> <p>MINOR: New property PM_StrokeDashArray for Curve objects.</p> <p>MINOR: New option pm_barSortModeForOptimizedRowDesign, new enumeration BarSortMode.</p> <p>MINOR: New option pm_clickCallbackTriggeringOnRowInTimeArea.</p> <p>MINOR: New property promise for callbackArgs object in callback onShowTooltip.</p> <p>MINOR: New options pm_symbolColumnNameTitleBackgroundColor and pm_entitiesTableSymbolColumnNameTitleBackgroundColor.</p> <p>MINOR: New property PM_RowSymbolColumnNameBackgroundColor for Activity, Allocation, Entity, and Resource objects and new property SymbolColumnNameBackgroundColor for TableRowDefinition objects.</p> <p>MINOR: Options pm_top/mainViewAreaVisible for resources view extended to pm_top/mainViewAreaVisibleInActivities/Loads/ResourcesView to cover activities view and loads view additionally.</p>
See also	<a href="#">Release Notes - Version 6.0</a> (Blog Post)

### 5.3.7

Explanation	Internal release.
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### 5.3.6

Explanation	PATCH: More performance for callback compareObjects by reducing the number of calls to the minimum. Additionally the callback arguments now contains the property viewType.
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### 5.3.5

Explanation	<p>PATCH: PDF export fixed (issue since 5.3.4).</p> <p>PATCH: The callback compareObjects was not called for allocation rows.</p> <p>PATCH: The callback onClicked was not called on curves anymore.</p>
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PATCH: In case where allocation rows are visible in resources view, collapsing a resource row did not lead allocation links disappear where needed.
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### 5.3.4

Explanation	<p>PATCH: Fixed graphical issue when canceling dragging of a date line.</p> <p>PATCH: Bars without start and end dates are not shown anymore.</p> <p>PATCH: Snapping while dragging a bar now also works for date line grids in mode Automatic.</p> <p>PATCH: World view now cannot get higher/wider than widget extent anymore.</p> <p>PATCH: Now update calls should be possible when in callback handler function for onSelectionChanged.</p> <p>PATCH: Fixed issue when dragging more than one allocation bar and the property SuitableResourceIDs is used at least on some of the allocations.</p> <p>PATCH: Setting one of the properties PM_CollapseState and PM_CollapseStateInLoadsView for Resource objects is now also working when resources view or loads view, resp., is not visible.</p>
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### 5.3.3

Explanation	<p>PATCH: Fixes snapping to start and end dates of other allocations when dragging an allocation.</p> <p>PATCH: Fixes an issue for the options pm_ignoreCalendarOnActivity/AllocationBar-Interactions when updating objects while dragging.</p> <p>PATCH: Fixes an eventual exception when option pm_activityBaselinesVisible was set.</p>
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### 5.3.2

Explanation	PATCH: Fixes issue for not showing about dialog anymore when pressing Shift+Ctrl+Alt+F12 since 5.3.1.
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### 5.3.1

Explanation	<p>PATCH: Property visualSubtype added to the argument of onShowTooltip.</p> <p>PATCH: The option pm_activityBaselineBarsVisible now works correctly when it is modified with resources view open and then switched to activities view.</p> <p>PATCH: Fixed issue when dragging a release date symbol or due date symbol in Firefox, when the symbol is user-defined.</p> <p>PATCH: Fixed issue when using method scrollToObject with an allocation object.</p>
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### 5.3.0

Explanation	<p>MINOR: New property PM_CollapseStateInLoadsView for Resource objects.</p> <p>MINOR: New options pm_symbolColumnBackgroundColor and pm_entitiesTableSymbolColumnBackgroundColor.</p> <p>MINOR: New option pm_ignoreCalendarOnActivityBarInteractions.</p>
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	<p>MINOR: New callback onSaveAsPDFProgress and new method cancelSaveAsPDF.</p> <p>MINOR: New enumeration PatternType, new properties PM_BarPatternType and PM_BarPatternColor on Activity objects, and new properties PM_PatternType and PM_PatternColor on AllocationEntry objects.</p> <p>MINOR: New options pm_dateLineGridColor, pm_dateLineGridDashArray, and pm_dateLineGridWidth.</p> <p>MINOR: New option pm_activityBaselineBarsVisible.</p> <p>MINOR: New link property PM_TargetMarker and new enumeration LinkMarker.</p> <p>PATCH: Fixed exception when modifying the property ParentID of an Activity, Entity, or Resource object with an ID of a non-existing object.</p> <p>PATCH: Fixed issues with colored background rectangles in the table when saving a PDF document.</p> <p>PATCH: Fixed issue when canceling dragging of a date line by pressing Escape key.</p> <p>PATCH: Fixed positioning issues when using bar diamond shapes.</p>
See also	<a href="#">Release Notes - Version 5.3</a> (Blog Post)

## 5.2.12

Explanation	PATCH: Fixed performance issue for removeAll(ObjectType.Resource) again and additionally removeAll(ObjectType.Allocation).
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## 5.2.11

Explanation	PATCH: Fixed performance issue for removeAll(ObjectType.Resource).
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## 5.2.10

Explanation	<p>PATCH: Issue fixed for invisible curve pane when resource has set property PM_CurveCollapseState to 0 and was added before its parent resource.</p> <p>PATCH: The scrollToDate method was missing the offset parameter.</p> <p>PATCH: Fixed issues when using curves of type List.</p> <p>PATCH: Fixed issues concerning symbols in table title.</p> <p>PATCH: Watermarks were not scaled on screen anymore since version 5.2.9.</p> <p>PATCH: When using the secondary mouse button while dragging the action now is canceled.</p> <p>PATCH: Fixed issue when sizing a table column interactively that has a background color.</p> <p>PATCH: Sometimes the saved PDF file showed collapsed allocation rows and vice versa.</p> <p>PATCH: Fixed exception when user clicked into timescale with visible world view.</p> <p>PATCH: Fixed issue of resolving object references in an applied tooltip template.</p>
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## 5.2.9

Explanation	<p>PATCH: Exception fixed concerning adding allocations after first refresh in resources view.</p> <p>PATCH: Issue fixed in method saveAsPDF concerning referenced SVG images not visible in PDF.</p> <p>PATCH: Infinite loop fixed in method saveAsPDF when many images are not loadable.</p>
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## 5.2.8

Explanation	PATCH: Performance issue fixed concerning allocation rows in resources view.
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## 5.2.7

Explanation	PATCH: Issue fixed for callback onShowContextMenu. PATCH: Issue fixed for callback visibilityFilter.
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## 5.2.6

Explanation	PATCH: Issue fixed concerning the callback visibilityFilter used with allocation. Additionally setting the filter did not re-render the widget content. PATCH: The callback arguments for the callbacks onClicked, onDoubleClicked, onShowContextMenu did not contain the property cellIndex when called for a table row.
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## 5.2.5

Explanation	PATCH: Fixed issue of not recognized setting option pm_allocationRowsVisibleInActivities/ResourcesView before first call to render method. Workaround was to change the view type twice. PATCH: Fixed issue with option visibilityFilter not being called immediately when set (issue was existent since 4.0.0).
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## 5.2.4

Explanation	PATCH: Supplemented missing property tableViewWidth in onTimeAreaViewParametersChanged callback. PATCH: In some situations, the allocation bar was not vanishing on the source row in resources view after dragging vertically to another row. PATCH: Delivered JavaScript files now are prefixed with a UTF8-BOM since in one case concerning Firefox they were misinterpreted as being encoded in ANSI. PATCH: Fixed hanging issue when updating resource objects or period highlighters within drag & drop interaction of allocation bars.
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## 5.2.3

Explanation	PATCH: Property PM_HasAllocationRows for Resource objects was missing in code and documentation. PATCH: Option pm_defaultResourceAllocationRowsCollapsible was missing in code and documentation. PATCH: Bars within a row object disappeared when the grandparent row object was collapsed, and the bars should remain visible (see PM_CollapsedRowDesign) and the parent row object was not collapsed.
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	PATCH: Property PM_AllocationRowsCollapseState of Resource objects was not working. This document lacked documentation for the properties PM_AllocationRowsCollapsible, PM_AllocationRowsCollapseState for Resource objects introduced with version 5.1.0.
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## 5.2.2

Explanation	PATCH: Crash fixed when calling saveAsPDF without any links in the chart.
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## 5.2.1

Explanation	<p>PATCH: New default for property TextSource in TableCellDefinition objects is "", when property SymbolIDSource is set, else the default is "TableText" as before. This is for convenience.</p> <p>PATCH: Animation on expanding/collapsing rows in loads view is enabled again.</p> <p>PATCH: The vertical splitter can now be dragged to the left until the table has a width of 0 even if fixed columns exist.</p> <p>PATCH: When dragging a bar to the border of time than the user cannot drag it out of sight anymore.</p> <p>PATCH: Fixed false property value false of property newRowObjectIsSuitableResource in onDrag callbacks.</p> <p>PATCH: The method selectObjects did not work for allocation bars anymore.</p> <p>PATCH: Symbols and status fields on bars now are stabilized in z-order also concerning the texts in the bars.</p> <p>PATCH: Enumeration ObjectType now is correctly documented.</p>
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## 5.1.x

Explanation	<p>MINOR: Now additional dates on allocation and activities can be defined either as link source or link target:</p> <ul style="list-style-type: none"> <li>• New properties LinkSourceDate/LinkTargetDate on activity and allocation objects.</li> <li>• New values for property RelationType on link objects: SourceDateStart, SourceDateEnd, EndTargetDate, StartTargetDate, SourceDateTargetDate.</li> </ul> <p>MINOR: Now it is possible to click and double click on symbols in the left fixed symbol column in a table. Therefore a new property symbolIndex was added to the callback arguments of the callbacks onClicked and onDoubleClicked.</p> <p>MINOR: New property PM_TooltipTemplateID on PeriodHighlighterEntry objects.</p> <p>MINOR: New option firstDayOfWeek.</p> <p>MINOR: New options to specify default tooltip templates: pm_defaultActivityBar/RowTooltipTemplateID, pm_defaultAllocationBar/RowTooltipTemplateID, pm_defaultEntityRowTooltipTemplateID, pm_defaultLinkTooltipTemplateID, pm_defaultPeriodHighlighterEntryTooltipTemplateID, pm_defaultResourceRow/CurveTooltipTemplateID.</p> <p>MINOR: New enumeration RelationType for links.</p> <p>MINOR (is a MAJOR change when updating from 5.1.0): New properties start/endPropertyName in callbackArgs of callbacks canDrag, onDragStart, onDrag, onDragEnd, onDrop.</p> <p>PATCH: Fixed performance issue that was existent since 5.1.0 because of implementation of allocation rows when using links.</p>
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	<p>PATCH: Fixed issues with tooltip template markup using keywords beginning with #, and concerning date formatting.</p> <p>PATCH: Fixed issue concerning eventually false week numbering in timescale.</p> <p>PATCH: Fixed issue in world view that occurred under certain circumstances when changing time resolution in main view.</p> <p>PATCH: Fixed issues concerning graphical links and missing animations after updating the data model.</p>
See also	<a href="#">Release Notes - Version 5.2</a> (Blog Post)

## 5.1.0

Explanation	<p>MINOR: Now it is possible to show allocations in own rows also in the resources view using the new option <code>pm_allocationRowsVisibleInResourcesView</code>.</p> <p>MINOR: Symbols shown for properties <code>ReleaseDate</code> and <code>DueDate</code> on Activity objects are now specifiable and draggable:</p> <ul style="list-style-type: none"> <li>• New properties <code>PM_ReleaseDateAllowedDragModes</code>, <code>PM_ReleaseDateSymbolHeight</code>, <code>PM_ReleaseDateSymbolID</code>, and <code>PM_ReleaseDateSymbolWidth</code> for the release date.</li> <li>• New properties <code>PM_DueDateAllowedDragModes</code>, <code>PM_DueDateSymbolHeight</code>, <code>PM_DueDateSymbolID</code>, and <code>PM_DueDateSymbolWidth</code> for the due date.</li> <li>• New property <code>propNames</code> in <code>callbackArgs</code> of callback <code>onDrop</code>. See MAJOR change in 5.2.0 to properties <code>startPropertyName</code> and <code>endPropertyName</code>.</li> </ul> <p>MINOR: New properties <code>Background/TextColor</code> on <code>TableRowDefinition</code> objects.</p> <p>MINOR: New argument <code>cellIndex</code> at callbacks <code>onClicked</code> and <code>onDoubleClicked</code>.</p> <p>MINOR: New methods <code>scrollViewAreaHorizontally</code> and <code>scrollViewAreaVertically</code>.</p> <p>MINOR: New locales added for Japanese, Russian, Thai, and Chinese.</p> <p>MINOR: Clarification of options and properties concerning title, a.o. renaming <code>Header</code> to <code>Title</code> (compatibility is given):</p> <ul style="list-style-type: none"> <li>• New option names are <code>pm_tableTitleBackgroundColor</code>, <code>pm_tableTitleTextColor</code>, <code>pm_tableTitleColumnSeparatorColor</code>, <code>pm_tableTitleHighlightingColor</code>, <code>pm_entitiesTableTitleBackgroundColor</code>, <code>pm_entitiesTableTitleTextColor</code>, <code>pm_entitiesTableTitleColumnSeparatorColor</code>, <code>pm_entitiesTableTitleHighlightingColor</code>. Old option names remain in the interface, but are marked as deprecated.</li> </ul> <p>MINOR: Property <code>Title</code> of <code>TableCellDefinition</code> objects renamed to <code>TitleText</code> (compatibility is given).</p> <p>PATCH: Method <code>selectObjects</code> did not work for allocation objects in activities view.</p>
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## 5.0.2

Explanation	<p>PATCH: Wrong coloring of allocation bars.</p> <p>PATCH: After updating links, they have not been rendered correctly.</p>
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## 5.0.1

Explanation	PATCH: Fix for issue when dragging an entity without a non-zero duration.
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## 5.0.0

Explanation	<p>MINOR: New method saveAsPDF.</p> <p>MINOR: Now allocation rows can be made visible in activities view by using the new option <code>pm_allocationRowsVisibleInActivitiesView</code>. Additionally other additions were made in this environment:</p> <ul style="list-style-type: none"> <li>• New options <code>pm_defaultAllocationTableRowDefinitionID</code>, <code>pm_defaultAllocationMinimumRowHeight</code>, <code>pm_defaultAllocationRowSelectable</code>, <code>pm_defaultActivityAllocationRowsCollapsible</code>, <code>pm_defaultAllocationRowDesign</code>, <code>pm_defaultAllocationAllowedBarDragModesInActivitiesView</code>, <code>pm_forcedAllocationAllowedBarDragModesInActivitiesView</code>.</li> <li>• New properties <code>PM_AllocationRowsCollapsible</code>, <code>PM_AllocationRowsCollapseState</code>, <code>PM_HasAllocationRows</code> on Activity objects.</li> <li>• New properties <code>PM_MinimumRowHeight</code>, <code>PM_RowSelectable</code>, <code>PM_RowDesign</code>, <code>PM_AllowedBarDragModesInActivitiesView</code>, <code>TableText</code> on Allocation objects.</li> <li>• New callbackArgs property <code>isForAllocationRows</code> in callback <code>onCollapseStateChanged</code>.</li> </ul> <p>MINOR: Now links can be defined between allocations:</p> <ul style="list-style-type: none"> <li>• New properties <code>Source/TargetAllocationID</code> for links.</li> <li>• New options <code>pm_definedAllocationLinksVisibleInActivitiesView/ResourcesView</code>.</li> </ul> <p>MINOR: New optional parameter for method <code>removeAll</code>.</p> <p>MINOR: New options <code>pm_watermarkSymbolID</code> and <code>pm_watermarkOpacity</code>.</p> <p>MINOR: New properties <code>PM_StatusFrameColor/Visible</code> for activities and allocations. New options <code>pm_defaultActivity/AllocationStatusFrameColor</code>.</p> <p>MINOR: New property <code>PM_BarOpacity</code> for Activity and Allocation objects.</p> <p>MINOR: New properties <code>Background/TextColor</code>, <code>Background/TextColorSource</code> on <code>TableCellDefinition</code> objects.</p> <p>MINOR: New options <code>tableViewWidthInActivitiesView/ResourcesView/LoadsView</code> and <code>tableViewWidthsSynchronized</code>.</p> <p>MINOR: New options <code>pm_symbolColumnNameVisible/SymbolIDs</code> as well as <code>pm_entitiesTableSymbolColumnNameVisible/SymbolIDs</code>.</p> <p>MINOR: New option <code>pm_scrollOffsetsChangedCallbackTimeDelay</code>.</p> <p>MINOR: Additional values for callback <code>onVerticalScrollOffsetChanged</code>.</p> <p>MINOR: Constraint dates are now also considered in the summary and in the diamond bar shape of allocations and activities. For the diamond shape, the <code>PredictedEnd</code> property is also taken into account.</p> <p>MINOR: Options <code>pm_activity/resourceTableRowDefinitionIDForTitle</code> renamed to <code>pm_tableRowDefinitionIDForTitleInActivitiesView/ResourcesView</code>. Option <code>pm_entityTableRowDefinitionIDForTitle</code> renamed to <code>pm_tableRowDefinitionIDForTitleInEntitiesTable</code>. Old option names are deprecated but accepted for compatibility reasons.</p> <p>MINOR: New option <code>pm_tableRowDefinitionIDForTitleInLoadsView</code>.</p> <p>MINOR: New option <code>tooltipDelay</code>.</p> <p>MAJOR: After dragging and dropping a draggable date line, the application now needs to update the date line object within the <code>onDrop</code> callback handler to apply the changed date. In older versions the date line incorrectly remained on the new date.</p> <p>MAJOR: Activity rows and resource rows do not show the calendar of an ancestor anymore when the represented objects do not have an own calendar.</p> <p>PATCH: Fix for issue with hidden rows when using method <code>scrollToObject</code>.</p> <p>PATCH: Several fixes concerning tooltips and captions of <code>PeriodHighlighterEntry</code> objects.</p>
See also	<a href="#">Release Notes - Version 5.0</a> (Blog Post)

## 4.0.5

Explanation	<p>PATCH: Fixed and improved appearance of bars while dragging and of dragged entities in time area also especially when using the options <code>timeStepUnit</code> and <code>timeStepUnitFactor</code> for a more intuitive user experience.</p> <p>PATCH: Fixed cursor issue on entities table, not being updated correctly when moving the mouse.</p> <p>PATCH: Fixed issue concerning snapping when dragging bars in collapsed rows and bars of collapsed sub rows are shown.</p> <p>PATCH: Fixed issue concerning snapping when dragging bars and start dates or end dates of other bars contain millisecond values. Now these start dates and end dates are rounded down or up, resp., to full seconds.</p> <p>PATCH: Property date of <code>callbackArgs</code> in callback <code>onShowTooltip</code> was not existent since 4.0.3.</p>
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## 4.0.4

Explanation	<p>PATCH: Fixed crash when using world view together with bar symbols.</p> <p>PATCH: Canceling of deselection of all objects in a callback handler for <code>callback onSelectionChanged</code> now possible. Additionally, new properties for <code>callbackArgs</code> named <code>reason</code>, <code>reasonObject</code>, <code>reasonObjectType</code>.</p> <p>PATCH: Zooming out of the currently visible time range by using the “up” button in the timescale resulted in an incorrect horizontal scroll offset.</p> <p>PATCH: Fixed issue when using the method <code>updateDateLines</code> (not all properties have been updated).</p> <p>PATCH: Fixed issue where the curves were not shown when adding a resource with property <code>PM_CurveCollapseState</code> set to 0.</p> <p>PATCH: Fixed issue with setting options <code>timeStepUnit</code> and <code>timeStepUnitFactor</code>.</p>
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## 4.0.3

Explanation	PATCH: Fixed naming issues for external dependencies “hammerjs” and “tinycolor2”.
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## 4.0.2

Explanation	<p>PATCH: Improved behavior for bar dragging.</p> <p>PATCH: Fixed issue concerning AMD for external dependency “jquery-ui/ui/widget” and “jquery”.</p>
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## 4.0.1

Explanation	<p>PATCH: Fixed a crash that occurred when the <code>pm_defaultActivityBarHeight</code> option was set when initializing the widget.</p> <p>PATCH: Default for option <code>viewType</code> now is <code>ViewType.Activities</code> again (since 4.0.0 it was set to <code>ViewType.Resources</code>).</p>
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## 4.0.0

Explanation	<p>MAJOR: To be treated as a bug fix, the property dragMode in the callback onDrop now contains the dragMode of the interaction that took place and not all allowed drag modes on the object!</p> <p>MINOR: New options multipleBarDraggingEnabled, pm_forcedActivityAllowedBarDragModes, pm_forcedAllocationAllowedBarDragModes. New properties coupledObjects and startsAndEndsOfCoupledObjects in callback onDrop. New property selectedObjects in callback canDrag.</p> <p>MINOR: When dragging a bar vertically the visible time span of it now is adapted according to the calendar of the current target row.</p> <p>MINOR: World view implemented. See options worldViewVisible, worldViewPosition, worldViewExtent.</p> <p>MINOR: Improved loading performance.</p> <p>MINOR: New options loggingEnabled and interactiveActivationOfLoggingEnabled.</p> <p>MINOR: New property SymbolIDSource in TableCellDefinition object.</p> <p>MINOR: New property newRowObjectIsSuitableResource for callbackArgs of callback onDrag.</p> <p>MINOR: When dropping a date line interactively, the resulting date is rounded to the best possible date that is represented by the X coordinate the line phantom is shown on.</p> <p>MINOR: New callback "visibilityFilter" triggered for filtering row objects of types Activity, Entity, Resource.</p> <p>MINOR: Additional parameters for method scrollToObject and new options pm_scrollToObjectAnimationEnabled, pm_scrollToObjectHighlightFlashingEnabled, and pm_scrollToObjectHighlightingColor.</p> <p>MINOR: New property HorizontalTitleAlignment in TableCellDefinition object.</p> <p>MINOR: New properties PM_BarTextPrefixSymbolID/Height/Width, PM_Left/RightBarSymbolID, PM_Left/RightBarSymbolWidth, PM_Left/RightBarSymbolHeight for Allocation and Activity objects.</p> <p>MINOR: Support for Polish (pl) and Portuguese (pt = pt-pt; pt-br) locales added.</p> <p>MINOR: New option pm_ignoreCalendarOnAllocationBarInteractions.</p> <p>MINOR: Option pm_commonViewAreaVisible renamed to pm_mainViewAreaVisible.</p> <p>PATCH: Many bug fixes.</p>
See also	<a href="#">Release Notes - Version 4.0</a> (Blog Post)

## 3.2.1

Explanation	PATCH: A click on a curve now triggers the callback onClicked again.
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## 3.1.3

Explanation	<p>PATCH: Texts in first scrollable table column (in left table and in entities table) was clipped too much on the right side.</p> <p>PATCH: In some cases, the SVG content was drawn over the horizontal scrollbars.</p> <p>PATCH: It is now allowed to drag bars even when they are drawn inside a visible collapsed row and belong to a hidden row.</p>
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### 3.1.2

Explanation	PATCH: Updates to calendar and curve objects now updates also the activities view.
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### 3.1.1

Explanation	PATCH: Performance issue and memory leaks removed.
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### 3.1.0

Explanation	<p>MINOR: New options pm_topRowMarginInTimeArea, pm_bottomRowMarginInTimeArea, pm_subRowDistanceInTimeArea, pm_topBarSymbolsVisible.</p> <p>MINOR: New option pm_linksVisibleInActivitiesView</p> <p>MINOR: New option timescaleNavigationMode</p> <p>MINOR: New link property PM_RoutingType and new option pm_defaultLinkRoutingType</p> <p>MINOR: New option pm_selectionColor</p> <p>MINOR: New option pm_splitterHighlightingColor</p>
See also	<a href="#">Release Notes - Version 3.1</a> (Blog Post)

### 3.0.0

Explanation	<p>MINOR: New objects TooltipTemplate, TableRowDefinition/TableCellDefinition, DateLine including add/update/remove methods and properties named PM_(Bar/Curve)TooltipTemplateID and PM_TableRowDefinitionID on several objects.</p> <p>MINOR: New properties like PM_RowSelectable/PM_BarSelectable, PM_RowCollapsible on several objects.</p> <p>MINOR: New property PM_ViewArea on Resource objects.</p> <p>MINOR: New properties BaselineStart/BaseLineEnd, DueDate, ReleaseDate plus color properties on Activity objects.</p> <p>MINOR: New properties PM_BarHeight, PM_BarTextWrapMode, PM_EndIsSnapTarget/ PM_StartIsSnapTarget, PM_SnapTargetsForStart/ PM_SnapTargetsForEnd on Activity and Allocation objects.</p> <p>MINOR: New properties PM_CollapsedRowDesign/ PM_ExpandedRowDesign, PM_CollapseState/PM_CurveCollapseState, PM_MinimumRowHeight on Activity and Resource objects.</p> <p>MINOR: New properties EarliestEnd/EarliestStart, LatestEnd/LatestStart, MustEndOn/MustStartOn plus color properties, and PM_EarliestDragStart/ PM_LatestDragEnd on Activity and Allocation objects.</p> <p>MINOR: New method setTimeResolutionForView.</p> <p>MINOR: Many new color options e.g. for coloring the timescale.</p>
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### 2.1.0

Explanation	<p>MINOR: New method about.</p> <p>MINOR: New message boxes for invalid, expiring, expired, not existing license.</p> <p>MINOR: New properties EarliestEnd/EarliestStart, LatestEnd/LatestStart,</p>
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	MustEndOn/MustStartOn plus color properties, and PM_EarliestDragStart/ PM_LatestDragEnd on Activity and Allocation objects. MINOR: New method setTimeResolutionForView. MINOR: Many new color options e.g. for coloring the timescale.
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## 2.0.0

Explanation	MAJOR: Now the setting of a license key is mandatory. MINOR: New method removeAll. MINOR: New option locale. MINOR: New allocation properties PM_ProgressColor and PM_ProgressNonworkingColor. PATCH: Activity property Editable now marked as deprecated. MINOR: New option pm_linksVisibleInResourcesView.
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## 1.0.0

Explanation	Initial release.
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## 5 System Requirements

The supported browsers are:

- Google Chrome (current version at delivery date of library)
- Microsoft Edge (current version >= 80, lower versions have problems with SVG support.)
- Mozilla Firefox (current version at delivery date of library)
- Apple Safari (current version at delivery date of library)

The libraries with the prefix **nwaf** depend on third-party open-source libraries. You can embed these libraries directly into your application or download them from a Content Delivery Network (CDN). You can find examples in the sample app we provide. Your application must comply with the licensing restrictions of each third-party library.

### 5.1 blob-stream

Library	blob-stream
Module	"blob-stream"
Supported Versions	0.1.3
Type	optional
Explanation	Needed only, when using method saveAsPDF (needed for receiving the PDF content generated by PDFKit). Provided standalone version contains libraries "stream", "emitter-component", and "blob".
License	MIT
URL	<a href="https://github.com/devongovett/blob-stream">https://github.com/devongovett/blob-stream</a>

### 5.2 D3.js

Library	D3.js
Module	"d3-array"*, "d3-axis", "d3-color"*, "d3-dispatch"*, "d3-ease", "d3-format", "d3-path"*, "d3-scale", "d3-selection", "d3-shape", "d3-time-format", "d3-time"*, "d3-timer", "d3-transition"
Supported Versions	6.x.x   7.x.x, currently tested up to 7.8.5
Type	required
Explanation	Needed for handling SVG content.
License	ISC
URL	<a href="https://d3js.org/">https://d3js.org/</a>

### 5.3 Hammer.js

Library	Hammer.js
Module	"hammerjs"
Supported Versions	2.0.8

Type	required
Explanation	Needed for touch and mouse gesture handling.
License	MIT
URL	<a href="https://hammerjs.github.io/">https://hammerjs.github.io/</a>

## 5.4 html2canvas

Library	html2canvas
Module	"html2canvas"
Supported Versions	1.4.x
Type	optional
Explanation	Needed only, when using method saveAsPDF (needed for receiving the PDF content generated by PDFKit). Provided standalone version contains libraries "stream", "emitter-component", and "blob".
License	MIT
URL	<a href="https://html2canvas.hertzen.com/">https://html2canvas.hertzen.com/</a>

## 5.5 jQuery

Library	jQuery
Module	"jquery"
Supported Versions	3.x.x, currently tested up to 3.7.1
Type	optional
Explanation	Beginning with version 8.0.0 of VSW, the whole libraries for VSW do not need jQuery anymore. This library is only needed when the application uses the VSW as a jQuery UI widget. So, this library is no real dependency.
License	MIT
URL	<a href="https://jquery.com/">https://jquery.com/</a>

## 5.6 jQuery UI

Library	jQuery UI
Module	"jquery-ui/ui/widget"
Supported Versions	1.11.x   1.12.x   1.13.x, currently tested up to 1.13.2
Type	optional
Explanation	Beginning with version 8.0.0 of VSW, the whole libraries for VSW do not need jQuery UI anymore. This library is only needed when the application uses the VSW as a jQuery UI widget. So, this library is no real dependency. Hint: jQuery UI needs jQuery as a dependency.
License	MIT
URL	<a href="https://jqueryui.com/">https://jqueryui.com/</a>



## 5.7 Moment.js

Library	Moment.js
Module	"moment"
Supported Versions	2.x.x
Type	optional
Explanation	Needed only, when using option "timeZone". The developer can decide, which data to serve with Moment Timezone.
License	MIT
URL	<a href="https://momentjs.com/">https://momentjs.com/</a>

## 5.8 Moment.Timezone

Library	Moment.Timezone
Module	"moment-timezone"
Supported Versions	0.x.x
Type	optional
Explanation	Needed only, when using option "timeZone".
License	MIT
URL	<a href="https://momentjs.com/timezone/">https://momentjs.com/timezone/</a>

## 5.9 PDFKit

Library	PDFKit
Module	"pdfkit"
Supported Versions	0.12.1
Type	optional
Explanation	Needed only, when using method saveAsPDF (needed by SVG-to-PDFKit). Provided standalone version contains libraries "stream" and "emitter-component".
License	MIT
URL	<a href="https://pdfkit.org/">https://pdfkit.org/</a>

## 5.10 SVG-to-PDFKit

Library	SVG-to-PDFKit
Module	"svg-to-pdfkit"
Supported Versions	0.1.8 *
Type	optional

Explanation	<p>Needed only, when using method saveAsPDF.</p> <p>* There is a bug in all versions of SVG-to-PDFKit that lowers the performance from about 1 second per exported page to about 1 minute per page. We were able to find and fix this bug (see pull request). The patch is included in master version of the source code on GitHub, but there is no release yet. Therefore, we deliver the downloaded master version for your convenience.</p>
License	MIT
URL	<a href="https://github.com/alafr/SVG-to-PDFKit/">https://github.com/alafr/SVG-to-PDFKit/</a>
See Also	<a href="https://github.com/alafr/SVG-to-PDFKit/pull/143">https://github.com/alafr/SVG-to-PDFKit/pull/143</a>

## 5.11 TinyColor

Library	TinyColor
Module	"tinycolor2"
Supported Versions	1.4.1
Type	required
Explanation	Needed for calculating derived colors e.g. for coloring non-working times.
License	MIT
URL	<a href="https://bgrins.github.io/TinyColor/">https://bgrins.github.io/TinyColor/</a>

## 6 Information Material on Specific Topics

[Release Notes - Version 8.2](#) (Blog Post)

[Release Notes - Version 8.1](#) (Blog Post)

[Release Notes - Version 8.0](#) (Blog Post)

[Release Notes - Version 7.1](#) (Blog Post)

[Release Notes - Version 7.0](#) (Blog Post)

[Release Notes - Version 6.4](#) (Blog Post)

[Release Notes - Version 6.3](#) (Blog Post)

[Release Notes - Version 6.2](#) (Blog Post)

[Release Notes - Version 6.1](#) (Blog Post)

[Release Notes - Version 6.0](#) (Blog Post)

[Release Notes - Version 5.3](#) (Blog Post)

[Release Notes - Version 5.2](#) (Blog Post)

[Release Notes - Version 5.0](#) (Blog Post)

[Release Notes - Version 4.0](#) (Blog Post)

[Release Notes - Version 3.2](#) (Blog Post)

[Release Notes - Version 3.1](#) (Blog Post)

[Hello Gantt World - Build your first HTML5/JavaScript Gantt Chart within few minutes with the VSW](#) (Video)

[Update 3 of the Model for Resource Planning HTML5 Gantt Charts](#) (Blog Post)

[What is an activities and a resources view?](#) (Blog Post)

[Calendars – Individual resource working times in a HTML5 Gantt chart](#) (Blog Post)

[Links as the visualization of dependencies](#) (Blog Post)

[The art of designing bars to map semantics to Gantt charts](#) (Video)

[From awful to awesome progress visualization in Gantt charts](#) (Blog Post)

[Backlogs in HTML5 Gantt charts](#) (Blog Post)

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[CSS Custom Properties](#) (Blog Post)

[How to visualize skilled resources in an HTML5 Gantt chart](#) (Blog Post)