

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

Valid for the VSW SE as of version 9.0.6

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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 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:

- (1) Symbols / DateLines / TooltipTemplates / TableRowDefinitions (order within the group is not important)
- (2) Calendars / PeriodHighlighters / Curves (order within the group is not important)
- (3) Skills
- (4) Resources
- (5) Activities
- (6) Allocations
- (7) Links
- (-) Entities (can be added anywhere between step 3 and step 7)
- (8) HierarchySupplementaryDefinitions

When updating objects, the same sequence is recommended, when many objects are updated. But that also depends on the counts of existing objects.

When removing objects, please proceed in 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

Here you can find a list of object types that are used inside the widget API. If you see a suffix with two square brackets [], then this means that the API requests an array of these object types there.

The widget itself does not define classes for these object types but accepts any object in its methods. The objects provided to the methods then are used by reading the properties defined below for each object type. The application is free to define classes for some object types if necessary.

The objects can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: “my” or “app_”).

The objects that the application provides in all add... methods and update... methods (see [Widget.Methods](#)) are memorized by the widget and the same objects will be referenced in get... and determine... methods and in triggered callback functions (see [Widget.Callbacks](#)). This general behavior of the widget helps the application to work with its own objects.

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 --> Activity : parent </pre>
Explanation	<p>An Activity object defines the properties of a single activity.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: “my” or “app_”).</p>
Members	<p>AllocationRowsCollapseState</p> <p>AllocationRowsCollapsible</p> <p>AllowedBarDragModes</p> <p>AllowedRowDragModes</p> <p>AttachedDateLineIDs</p> <p>BarBottomOutsideText</p> <p>BarBottomOutsideTextColor</p> <p>BarBottomOutsideTextTooltipTemplateID</p>

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	ReleaseDateTooltipTemplateID RightBarSymbolHeight RightBarSymbolID RightBarSymbolWidth RowCollapsible RowSelectable RowSymbolColumnBackgroundColor RowSymbolIDs RowTooltipTemplateID SnapTargetsForEnd SnapTargetsForStart SortCode Start Status1Color Status1Visible Status2Color Status2Visible Status3Color Status3Visible Status4Color Status4Visible StatusFrameColor StatusFrameVisible TableColor TableColorVisibleInTimeArea TableRowDefinitionID TableText TableTextColor TextColor TopLeftBarSymbolHeight TopLeftBarSymbolID TopLeftBarSymbolWidth TopLeftBarSymbolYOffset TopRightBarSymbolHeight TopRightBarSymbolID TopRightBarSymbolWidth TopRightBarSymbolYOffset ViewArea
See also	Allocation.SuitableActivityIDs Entity.SuitableActivityIDs Link.SourceActivityID Link.TargetActivityID Method.addActivities Method.removeActivities Method.updateActivities
Used by	Callback.canDrag Callback.canSelect Callback.compareAllocations Callback.compareResources

	Callback.onClicked
	Callback.onCollapseStateChanged
	Callback.onCurveCollapseStateChanged
	Callback.onCurvePaneResized
	Callback.onDoubleClicked
	Callback.onDrag
	Callback.onDragEnd
	Callback.onDragStart
	Callback.onDrop
	Callback.onShowContextMenu
	Callback.onShowTooltip
	Callback.visibilityFilterForActivities

AllocationRowsCollapseState

Object Type	Activity
Data Type	Enum.CollapseState
Default	CollapseState.Unchanged
Explanation	Specifies whether the allocation rows below the activity row should be shown expanded or collapsed when displayed.
See also	Callback.onCollapseStateChanged Option.allocationRowsVisibleInActivitiesView Resource.AllocationRowsCollapseStateInActivitiesView

AllocationRowsCollapsible

Object Type	Activity
Data Type	boolean
Default	Value of Option.defaultActivityAllocationRowsCollapsible
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	Activity
Data Type	Enum.BarDragModes
Default	Value of Option.defaultActivityAllowedBarDragModes
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	Callback.canDrag Option.barsDraggable Option.editable

AllowedRowDragModes

Object Type	Activity
Data Type	Enum.RowDragModes
Default	Value of Option.defaultActivityAllowedRowDragModes
Explanation	This property determines the allowed row drag modes for this activity (these can be overwritten using the callback canDrag).
See also	Callback.canDrag Option.defaultResourceAllowedRowDragModes Option.defaultSkillAllowedRowDragModes Option.editable Option.rowsDraggable

AttachedDateLineIDs

Object Type	Activity
Data Type	IdentifierAsString[]
Default	Value of Option.defaultActivityAttachedDateLineIDs
Explanation	This property determines the IDs of date lines to show when the user hovers the pointer of the bar. The date lines then can show data from this data object as the date, the caption, and several presentation attributes.
See also	Callback.canDrag ObjectType.DateLine

BarBottomOutsideText

Object Type	Activity
Data Type	string
Default	undefined
Explanation	If set, then the given text is shown below the bar. The text is not clipped at the end of the bar. Therefore, this property is not combinable with the flag BarsInHiddenDescendantRows of the property CollapsedRowDesign .
See also	Activity.BarBottomOutsideTextColor Activity.BarBottomOutsideTextTooltipTemplateID Activity.CollapsedRowDesign Allocation.BarBottomOutsideTextColor Allocation.BarBottomOutsideTextTooltipTemplateID

BarBottomOutsideTextColor

Object Type	Activity
Data Type	string
Default	"black"
Explanation	This sets the color for the text shown by the property BarBottomOutsideTextColor .

See also	Activity.BarBottomOutsideText Allocation.BarBottomOutsideText
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BarBottomOutsideTextTooltipTemplateID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of Activity.BarTooltipTemplateID
Explanation	Tooltip template for the bar bottom outside text. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Activity.BarBottomOutsideText ObjectType.TooltipTemplate

BarDesign

Object Type	Activity
Data Type	Enum.BarDesigns
Default	Value of Option.defaultActivityBarDesign
Explanation	This property determines the default design for activity bars including or excluding entries, complex shape, symbols, status, constraints, baseline, progress, and text.
See also	Allocation.BarShownUnstackedInBackground Option.allocationBarDesignOfOtherActivity Option.allocationBarDesignOfOtherSkill Option.reducedBarTopOffsetAndHeightScaleFactor

BarHeight

Object Type	Activity
Data Type	PixelsAsNumber
Data Range	$\geq 0 \dots \leq 1000$
Default	Value of Option.defaultActivityBarHeight
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	Activity.BarShapeSymbolID Activity.BarText Activity.BarTextFormat Allocation.BarShapeSymbolID
Used by	Activity.BarShapeSymbolWidth ActivityEntry.Height

BarOpacity

Object Type	Activity
Data Type	number
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	Activity
Data Type	ColorAsString
Default	"white"
Explanation	Color for the pattern when this is visible by using property BarPatternType.
See also	Activity.BarPatternType

BarPatternType

Object Type	Activity
Data Type	Enum.PatternType
Default	PatternType.None
Explanation	If set, then a pattern is shown on top of the fill color and behind the text.
See also	Activity.BarPatternColor Allocation.BarPatternColor

BarSelectable

Object Type	Activity
Data Type	boolean
Default	Value of Option.defaultActivityBarSelectable
Explanation	If set to true, then the bar representing this activity will be selectable.

BarShape

Object Type	Activity
Data Type	Enum.ActivityBarShape
Default	Value of Option.defaultActivityBarShape
Explanation	This option defines which shape should be used by default for the visualization activity bars.
See also	Activity.BarShapeSymbolID Activity.BarText

	Activity.Entries Allocation.BarShapeSymbolID Allocation.BarText Allocation.Entries
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BarShapeSymbolID

Object Type	Activity
Data Type	IdentifierAsString
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	Activity.BarHeight Activity.BarShape Activity.BarShapeSymbolWidth Allocation.BarShapeSymbolWidth ObjectType.Symbol Symbol.ID

BarShapeSymbolWidth

Object Type	Activity
Data Type	PixelsAsNumber
Data Range	> 0
Default	Value of Activity.BarHeight
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	Activity.BarShapeSymbolID Allocation.BarShapeSymbolID

BarText

Object Type	Activity
Data Type	string
Default	undefined
Explanation	<p>Text to be displayed in the bar when Regular, Summary or Rectangle bar shape is selected.</p> <p>This property is overlaid by BarTextFormat.</p> <p>Note: 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>
See also	Activity.BarHeight Activity.BarShape Activity.BarTextFormat

	Allocation.BarHeight
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BarTextColor

Object Type	Activity
Data Type	ColorAsString
Default	"white"
Explanation	Color for the texts of the bar.
See also	Activity.Color

BarTextFormat

Object Type	Activity
Data Type	string
Default	Value of Option.defaultActivityBarTextFormat
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 {{ }}. 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 {{{ are displayed as {{.</p> <p>Additionally, the property name can be extended to contain the desired property type as in {{Start:date}}. Currently only the types 'date' and 'number' are possible besides '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: >Parent, >Calendar.</p> <p>It is also possible to access variables that are defined by the option applicationVariablesMap by using ?variableName.</p> <p>If the value reached is an object, you can then access a property value by using a prefixed dot: .propertyName 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>

See also	Activity.BarHeight Activity.BarText Allocation.BarText Option.applicationVariablesMap Option.intlDateTimeFormatOptionsMap Option.intlNumberFormatOptionsMap
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BarTextPrefixSymbolHeight

Object Type	Activity
Data Type	PixelsAsNumber
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	Activity.BarTextPrefixSymbolID Activity.BarTextPrefixSymbolWidth

BarTextPrefixSymbolID

Object Type	Activity
Data Type	IdentifierAsString
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	Activity.BarTextPrefixSymbolHeight Activity.BarTextPrefixSymbolWidth Activity.LeftBarSymbolID Allocation.BarTextPrefixSymbolHeight Allocation.BarTextPrefixSymbolWidth ObjectType.Symbol Symbol.ID

BarTextPrefixSymbolWidth

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

BarTextWrapMode

Object Type	Activity
Data Type	Enum.TextWrapMode
Default	TextWrapMode.None
Explanation	Specifies whether the text inside the bar is wrapped.

BarTooltipTemplateID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of Option.defaultActivityBarTooltipTemplateID
Explanation	ID of a tooltip template. The template is used for tooltips that appear on the activity bars.
See also	Allocation.SkilledBarTooltipTemplateID Allocation.SkilledRowTooltipTemplateID ObjectType.TooltipTemplate
Used by	Activity.BarBottomOutsideTextTooltipTemplateID Activity.BarTopOutsideTextTooltipTemplateID Activity.BaselineDueDateTooltipTemplateID Activity.BaselineReleaseDateTooltipTemplateID Activity.BaselineTooltipTemplateID Activity.DueDateTooltipTemplateID Activity.EarliestEndTooltipTemplateID Activity.EarliestStartTooltipTemplateID Activity.LatestEndTooltipTemplateID Activity.LatestStartTooltipTemplateID Activity.MustEndOnTooltipTemplateID Activity.MustStartOnTooltipTemplateID Activity.ReleaseDateTooltipTemplateID

BarTopOffset

Object Type	Activity
Data Type	PixelsAsNumber
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 only considered in rows with multiple activity bars inside, e.g., in collapsed rows where the bars of the child rows are visible. The visible height of a sub-row is reduced to the minimum, i.e. empty space above and below all bars in the sub-row is removed.

BarTopOutsideText

Object Type	Activity
Data Type	string
Default	undefined
Explanation	If set, then the given text is shown above the bar. The text is not clipped at the end of the bar. Therefore, this property is not combinable with the flag BarsInHiddenDescendantRows of the property CollapsedRowDesign.
See also	Activity.BarTopOutsideTextColor Activity.BarTopOutsideTextTooltipTemplateID Activity.CollapsedRowDesign Allocation.BarTopOutsideTextColor Allocation.BarTopOutsideTextTooltipTemplateID

BarTopOutsideTextColor

Object Type	Activity
Data Type	string
Default	"black"
Explanation	This sets the color for the text shown by the property BarTopOutsideTextColor.
See also	Activity.BarTopOutsideText Allocation.BarTopOutsideText

BarTopOutsideTextTooltipTemplateID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of Activity.BarTooltipTemplateID
Explanation	Tooltip template for the bar top outside text. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Activity.BarTopOutsideText ObjectType.TooltipTemplate

BaselineBorderColor

Object Type	Activity
Data Type	ColorAsString
Default	"#808080"
Explanation	Color for the border of the baseline bar.

BaselineColor

Object Type	Activity
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Data Type	ColorAsString
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.
See also	Activity.BaselineDueDateColor Activity.BaselineReleaseDateColor
Used by	Activity.BaselineNonworkingTimeColor

BaselineDueDate

Object Type	Activity
Data Types	Date DateAsString
Default	undefined
Explanation	Baseline due date of the activity. As soon as a baseline due date is specified, the due date symbol appears automatically, but smaller. Another symbol can be selected via the BaselineDueDateSymbolID property. The center of the symbol is aligned with the baseline due date.
See also	Activity.BaselineDueDateColor Activity.BaselineDueDateSymbolID Activity.BaselineDueDateTooltipTemplateID Activity.BaselineReleaseDate Activity.BaselineReleaseDateSymbolID

BaselineDueDateColor

Object Type	Activity
Data Type	ColorAsString
Default	Value of property BaselineColor
Explanation	Color for the baseline due date symbol, if the symbol is the internal diamond.
See also	Activity.BaselineColor Activity.BaselineDueDate

BaselineDueDateSymbolID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of property DueDateSymbolID
Explanation	Identifier of the symbol to be shown at the baseline due date of the activity.
See also	Activity.BaselineDueDate Activity.BaselineReleaseDateSymbolID Activity.DueDateSymbolID ObjectType.Symbol

BaselineDueDateTooltipTemplateID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of Activity.BarTooltipTemplateID
Explanation	Tooltip template for the baseline due date symbol. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Activity.BaselineDueDate ObjectType.TooltipTemplate

BaselineEnd

Object Type	Activity
Data Types	Date DateAsString
Default	undefined
Explanation	Baseline end date of activity.
See also	Activity.BaselineTooltipTemplateID Option.activityBaselineBarsVisible

BaselineNonworkingTimeColor

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

BaselineReleaseDate

Object Type	Activity
Data Types	Date DateAsString
Default	undefined
Explanation	Baseline release date of the activity. As soon as a baseline release date is specified, the release date symbol appears automatically but smaller. Another symbol can be selected via the BaselineReleaseDateSymbolID property. The center of the symbol is aligned with the baseline release date.
See also	Activity.BaselineDueDate Activity.BaselineReleaseDateColor Activity.BaselineReleaseDateTooltipTemplateID

BaselineReleaseDateColor

Object Type	Activity
Data Type	ColorAsString
Default	Value of BaselineColor
Explanation	Color for the baseline release date symbol, if the symbol is the internal diamond.
See also	Activity.BaselineColor Activity.BaselineReleaseDate

BaselineReleaseDateSymbolID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of property ReleaseDateSymbolID
Explanation	Identifier of the symbol to be shown at the baseline release date of the activity.
See also	Activity.BaselineDueDate Activity.BaselineDueDateSymbolID Activity.ReleaseDateSymbolID ObjectType.Symbol

BaselineReleaseDateTooltipTemplateID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of Activity.BarTooltipTemplateID
Explanation	Tooltip template for the baseline release date symbol. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Activity.BaselineReleaseDate ObjectType.TooltipTemplate

BaselineStart

Object Type	Activity
Data Types	Date DateAsString
Default	undefined
Explanation	Baseline start date of activity.
See also	Activity.BaselineTooltipTemplateID Option.activityBaselineBarsVisible

BaselineTooltipTemplateID

Object Type	Activity
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Data Type	IdentifierAsString
Default	Value of Activity.BarTooltipTemplateID
Explanation	Tooltip template for the baseline bar. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Activity.BaselineEnd Activity.BaselineStart ObjectType.TooltipTemplate

BorderColor

Object Type	Activity
Data Types	ColorAsString CalculatedColorAsString
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	Allocation.BorderColor

BorderDashArray

Object Type	Activity
Data Type	DashArrayAsString
Default	"none"
Explanation	Pattern of dashes and gaps for drawing the border line of bars.

BorderWidth

Object Type	Activity
Data Type	PixelsAsNumber
Data Range	≥ 0 (recommended ≤ 4)
Default	0 (for bar shape Summary) 1 (for bar shapes Diamond and Regular)
Explanation	Width of the border of the bar. It is recommended not to set the border width to a value of more than 4, as otherwise the bar texts will be difficult to read or progress bars are no longer clearly visible.

CalendarGridColor

Object Type	Activity
Data Type	ColorAsString
Default	Value of Option.calendarGridColor

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.
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CalendarGridID

Object Type	Activity
Deprecated	Use property Activity.PeriodHighlighterID instead.

CalendarID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of Option.defaultCalendarID
Explanation	The given calendar is taken to show a calendar grid where working times and non-working times are visible using different colors, so that the user can see immediately where the activity has working time.
See also	Activity.PeriodHighlighterID ObjectType.Calendar Option.activityCalendarsEnabled Resource.PeriodHighlighterID

CollapsedRowDesign

Object Type	Activity
Data Type	Enum.RowDesigns
Default	Value of Option.defaultActivityCollapsedRowDesign
Explanation	Specifies how the time area is filled when the row is collapsed and visible.
See also	Activity.BarBottomOutsideText Activity.BarTopOutsideText Enum.ViewType Option.defaultSkillCollapsedRowDesign

CollapseState

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

Color

Object Type	Activity
Data Type	ColorAsString
Default	"#646464"
Explanation	<p>Fallback color for the entries of the bar, see property Color of ActivityEntry objects. If no entries are defined, then color of the activity bar itself.</p> <p>The nonworking time periods of the bar will be colored with the same color if the property NonworkingTimeColor is undefined.</p>
See also	Activity.BarTextColor Activity.Color Activity.NonworkingTimeColor ActivityEntry.Color ActivityEntry.NonworkingTimeColor Allocation.BarShownUnstackedInBackground Allocation.Color Allocation.NonworkingTimeColor AllocationEntry.NonworkingTimeColor DateLine.ColorSource Symbol.Class Symbol.InclusionMode
Used by	Activity.NonworkingTimeColor ActivityEntry.Color Allocation.Color

CurveCollapseState

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

DueDate

Object Type	Activity
Data Types	Date DateAsString
Default	undefined
Explanation	<p>Due date of the activity.</p> <p>As soon as a due date is specified, the built-in Diamont shape appears automatically. Another symbol can be selected via the ReleaseDateSymbolID property. The center of the symbol is aligned with the due date.</p>

	If a connection line should be drawn between a due date and a release date, then activate option <code>releaseDueDateConnectionsVisible</code> .
See also	Activity.DueDateTooltipTemplateID Option.releaseDueDateConnectionsVisible

DueDateAllowedDragModes

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

DueDateColor

Object Type	Activity
Data Type	ColorAsString
Default	"black"
Explanation	Color for the due date symbol.

DueDateSymbolHeight

Object Type	Activity
Data Type	PixelsAsNumber
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	Activity.DueDateSymbolID

DueDateSymbolID

Object Type	Activity
Data Type	IdentifierAsString
Default	internal diamond symbol
Explanation	Identifier of the symbol to be shown at the due date of the activity.
See also	Activity.BaselineDueDateSymbolID Activity.DueDateSymbolHeight Activity.DueDateSymbolWidth ObjectType.Symbol Symbol.ID

DueDateSymbolWidth

Object Type	Activity
Data Type	PixelsAsNumber
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	Activity.DueDateSymbolID

DueDateTooltipTemplateID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of Activity.BarTooltipTemplateID
Explanation	Tooltip template for the due date symbol. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Activity.DueDate ObjectType.TooltipTemplate

EarliestDragStart

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

EarliestEnd

Object Type	Activity
Data Types	Date DateAsString
Default	undefined
Explanation	If defined, an additional symbol will be displayed to indicate this date. Please be aware to increase the top row margin so that the symbol has enough space.
See also	Activity.EarliestEndColor Activity.EarliestEndTooltipTemplateID Allocation.EarliestEndColor

	Allocation.EarliestEndTooltipTemplateID Option.detailedActivityConstraintSymbolsEnabled Option.topRowMarginInTimeArea
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EarliestEndColor

Object Type	Activity
Data Type	ColorAsString
Default	Value of Option.defaultActivityConstraintSymbolColor
Explanation	Color for the EarliestEnd constraint symbol.
See also	Activity.EarliestEnd

EarliestEndTooltipTemplateID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of Activity.BarTooltipTemplateID
Explanation	Tooltip template for the earliest end constraint flag. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Activity.EarliestEnd ObjectType.TooltipTemplate

EarliestStart

Object Type	Activity
Data Types	Date DateAsString
Default	undefined
Explanation	<p>If defined, an additional symbol will be displayed to indicate this date.</p> <p>Please be aware to increase the top row margin so that the symbol has enough space.</p>
See also	Activity.EarliestStartColor Activity.EarliestStartTooltipTemplateID Allocation.EarliestStartColor Allocation.EarliestStartTooltipTemplateID Option.detailedActivityConstraintSymbolsEnabled Option.topRowMarginInTimeArea

EarliestStartColor

Object Type	Activity
Data Type	ColorAsString
Default	Value of Option.defaultActivityConstraintSymbolColor
Explanation	Color for the EarliestStart constraint symbol.

See also	Activity.EarliestStart
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EarliestStartTooltipTemplateID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of Activity.BarTooltipTemplateID
Explanation	Tooltip template for the earliest start constraint flag. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Activity.EarliestStart ObjectType.TooltipTemplate

Editable

Object Type	Activity
Deprecated	Use property Activity.AllowedBarDragModes instead.

End

Object Type	Activity
Data Types	Date DateAsString
Default	Latest value in the End properties of contained entries undefined
Explanation	<p>End date of the activity.</p> <p>If not defined explicitly, the latest value in the End properties of contained ActivityEntry objects is calculated and used. If no end date can be determined at all, the activity will not become visible.</p> <p>The end date itself is not included in the time interval between start and end. This helps to calculate a duration and helps to show bars in a line, when an end date of one bar has the same value as the start date of a next bar. The same behavior also is true for all end dates used in the widget like e.g. in calendar entries, period highlighter entries, activity entries, allocations, allocation entries.</p>
See also	Activity.End Activity.Start ActivityEntry.End ActivityEntry.Start Allocation.End Allocation.Start AllocationEntry.Start
Used by	Allocation.End

Entries

Object Type	Activity
Data Type	ActivityEntry[]
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 BarShape must be set to Regular or Rectangle.
See also	Activity.BarShape

ExpandedRowDesign

Object Type	Activity
Data Type	Enum.RowDesigns
Default	Value of Option.defaultActivityExpandedRowDesign
Explanation	Specifies how the time area is filled when the row is expanded and visible.
See also	Enum.ViewType

HasAllocationRows

Object Type	Activity
Data Type	boolean
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	Activity
Data Type	boolean
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	Activity
Data Type	IdentifierAsString
Default	required
Explanation	Identifier of the activity.

LatestDragEnd

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

LatestEnd

Object Type	Activity
Data Types	Date DateAsString
Default	undefined
Explanation	If defined, an additional symbol will be displayed to indicate this date. Please be aware to increase the top row margin so that the symbol has enough space.
See also	Activity.LatestEndColor Activity.LatestEndTooltipTemplateID Allocation.LatestEndColor Allocation.LatestEndTooltipTemplateID Option.detailedActivityConstraintSymbolsEnabled Option.topRowMarginInTimeArea

LatestEndColor

Object Type	Activity
Data Type	ColorAsString
Default	Value of Option.defaultActivityConstraintSymbolColor
Explanation	Color for the LatestEnd constraint symbol.
See also	Activity.LatestEnd

LatestEndTooltipTemplateID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of Activity.BarTooltipTemplateID
Explanation	Tooltip template for the latest end constraint flag. This is an alternative to define a tooltip using the callback onShowTooltip .
See also	Activity.LatestEnd ObjectType.TooltipTemplate

LatestStart

Object Type	Activity
Data Types	Date DateAsString
Default	undefined
Explanation	If defined, an additional symbol will be displayed to indicate this date. Please be aware to increase the top row margin so that the symbol has enough space.
See also	Activity.LatestStartColor Activity.LatestStartTooltipTemplateID Allocation.LatestStartColor Allocation.LatestStartTooltipTemplateID Option.detailedActivityConstraintSymbolsEnabled Option.topRowMarginInTimeArea

LatestStartColor

Object Type	Activity
Data Type	ColorAsString
Default	Value of Option.defaultActivityConstraintSymbolColor
Explanation	Color for the LatestStart constraint symbol.
See also	Activity.LatestStart

LatestStartTooltipTemplateID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of Activity.BarTooltipTemplateID
Explanation	Tooltip template for the latest start constraint flag. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Activity.LatestStart ObjectType.TooltipTemplate

LeftBarSymbolHeight

Object Type	Activity
Data Type	PixelsAsNumber
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	Activity.LeftBarSymbolID Allocation.LeftBarSymbolID

LeftBarSymbolID

Object Type	Activity
Data Type	IdentifierAsString
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	Activity.BarTextPrefixSymbolID Activity.LeftBarSymbolHeight Activity.LeftBarSymbolWidth Activity.RightBarSymbolID Allocation.LeftBarSymbolHeight Allocation.LeftBarSymbolWidth Allocation.RightBarSymbolID ObjectType.Symbol Symbol.ID

LeftBarSymbolWidth

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

LinkSourceDate

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

LinkTargetDate

Object Type	Activity
Data Types	Date DateAsString
Default	undefined
Explanation	Additional date serving as an additional “end point” to connect a link.

See also	Link.RelationType
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MinimumRowHeight

Object Type	Activity
Data Type	PixelsAsNumber
Data Range	> 0
Default	Value of Option.defaultActivityMinimumRowHeight
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 of the height of all bars (default bar height is 22) plus 20, so e.g. 42.</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> <p>In general, the height of a row is determined by several facts: The height of bars and the stacking of bars determine a height, that then is overlaid by the value of this property. The height of any text inside a table column or a bar is not considered, even when using wrapping.</p>
See also	Activity.MaximumRowHeight Activity.TableRowDefinitionID TableCellDefinition.WrapMode

MustEndOn

Object Type	Activity
Data Types	Date DateAsString
Default	null
Explanation	<p>If a date is specified, an additional symbol will be displayed to indicate this date.</p> <p>Please be aware to increase the top row margin so that the symbol has enough space.</p>
See also	Activity.MustEndOnColor Activity.MustEndOnTooltipTemplateID Allocation.MustEndOnColor Allocation.MustEndOnTooltipTemplateID Option.detailedActivityConstraintSymbolsEnabled Option.topRowMarginInTimeArea

MustEndOnColor

Object Type	Activity
Data Type	ColorAsString

Default	Value of Option.defaultActivityConstraintSymbolColor
Explanation	Color for the MustEndOn constraint symbol.
See also	Activity.MustEndOn

MustEndOnTooltipTemplateID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of Activity.BarTooltipTemplateID
Explanation	Tooltip template for the must-end-on constraint flag. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Activity.MustEndOn ObjectType.TooltipTemplate

MustStartOn

Object Type	Activity
Data Types	Date DateAsString
Default	null
Explanation	If a date is specified, an additional symbol is displayed to indicate this date. Please be aware to increase the top row margin so that the symbol has enough space.
See also	Activity.MustStartOnColor Activity.MustStartOnTooltipTemplateID Allocation.MustStartOnColor Allocation.MustStartOnTooltipTemplateID Option.detailedActivityConstraintSymbolsEnabled Option.topRowMarginInTimeArea

MustStartOnColor

Object Type	Activity
Data Type	ColorAsString
Default	Value of Option.defaultActivityConstraintSymbolColor
Explanation	Color for the MustStartOn constraint symbol.
See also	Activity.MustStartOn

MustStartOnTooltipTemplateID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of Activity.BarTooltipTemplateID

Explanation	Tooltip template for the must-start-on constraint flag. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Activity.MustStartOn ObjectType.TooltipTemplate

NonworkingTimeColor

Object Type	Activity
Data Types	ColorAsString CalculatedColorAsString
Default	Value of Activity.Color
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	Activity.Color ActivityEntry.Color Allocation.Color
Used by	ActivityEntry.NonworkingTimeColor

ParentID

Object Type	Activity
Data Type	IdentifierAsString
Default	undefined
Explanation	Identifier of the parent of the activity. This serves for setting up a hierarchy of activities. 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. 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.
See also	Resource.ViewArea

PeriodHighlighterID

Object Type	Activity
Data Type	IdentifierAsString
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	Activity.CalendarID ObjectType.PeriodHighlighter

PredictedEnd

Object Type	Activity
Data Types	Date DateAsString
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	Activity
Data Type	ColorAsString
Default	"#646464"
Explanation	Color for the predicted end bar.

Progress

Object Type	Activity
Data Type	number
Data Range	0.0 and 100.0
Default	0.0
Unit	Percent
Explanation	Used to display a completion layer.

ProgressBackgroundColor

Object Type	Activity
Data Type	ColorAsString
Default	Value of Option.defaultActivityProgressBackgroundColor
Explanation	Color for the background of the progress bar region.

ProgressColor

Object Type	Activity
Data Type	ColorAsString
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	Activity.ProgressNonworkingTimeColor Allocation.ProgressNonworkingTimeColor
Used by	Allocation.ProgressNonworkingTimeColor

ProgressNonworkingTimeColor

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

ReleaseDate

Object Type	Activity
Data Types	Date DateAsString
Default	undefined
Explanation	<p>Release date of the activity.</p> <p>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.</p> <p>If a connection line should be drawn between a due date and a release date, then activate option releaseDueDateConnectionsVisible.</p>
See also	Activity.ReleaseDateSymbolID Activity.ReleaseDateTooltipTemplateID Option.releaseDueDateConnectionsVisible

ReleaseDateAllowedDragModes

Object Type	Activity
Data Type	Enum.BarDragModes
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	Callback.canDrag

ReleaseDateColor

Object Type	Activity
Data Type	ColorAsString
Default	"black"

Explanation	Color for the release date symbol.
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ReleaseDateSymbolHeight

Object Type	Activity
Data Type	PixelsAsNumber
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	Activity.ReleaseDateSymbolID

ReleaseDateSymbolID

Object Type	Activity
Data Type	IdentifierAsString
Default	internal diamond symbol
Explanation	Identifier of the symbol to be shown at the release date of the activity.
See also	Activity.BaselineReleaseDateSymbolID Activity.ReleaseDate Activity.ReleaseDateSymbolHeight Activity.ReleaseDateSymbolWidth Symbol.ID

ReleaseDateSymbolWidth

Object Type	Activity
Data Type	PixelsAsNumber
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	Activity.ReleaseDateSymbolID

ReleaseDateTooltipTemplateID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of Activity.BarTooltipTemplateID
Explanation	Tooltip template for the release date symbol. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Activity.ReleaseDate

	ObjectType.ToolTipTemplate
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RightBarSymbolHeight

Object Type	Activity
Data Type	PixelsAsNumber
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	Activity.RightBarSymbolID Allocation.RightBarSymbolID

RightBarSymbolID

Object Type	Activity
Data Type	IdentifierAsString
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	Activity.LeftBarSymbolID Activity.RightBarSymbolHeight Activity.RightBarSymbolWidth Allocation.LeftBarSymbolID Allocation.RightBarSymbolHeight Allocation.RightBarSymbolWidth ObjectType.Symbol Symbol.ID

RightBarSymbolWidth

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

RowCollapsible

Object Type	Activity
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Data Type	boolean
Default	Value of Option.defaultActivityRowCollapsible
Explanation	If set to true, then the row representing this activity will be interactively collapsible when children exist.

RowSelectable

Object Type	Activity
Data Type	boolean
Default	Value of Option.defaultActivityRowSelectable
Explanation	If set to true, then the row representing this activity will be selectable.

RowSymbolColumnBackgroundColor

Object Type	Activity
Data Type	ColorAsString
Default	Value of TableRowDefinition.SymbolColumnBackgroundColor Value of Option.symbolColumnBackgroundColor
Explanation	Determines the color of the symbol column within this table row.

RowSymbolIDs

Object Type	Activity
Data Type	IdentifierAsString[]
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>Note: 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	ObjectType.Symbol Option.symbolColumnVisible Symbol.ID

RowTooltipTemplateID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of Option.defaultActivityRowTooltipTemplateID

Explanation	ID of a tooltip template. The template is used for tooltips that appear on the activity table rows.
See also	ObjectType.ToolTipTemplate

SnapTargetsForEnd

Object Type	Activity
Data Type	Enum.SnapTargets
Default	Value of Option.defaultActivitySnapTargetsForEnd
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	Allocation.EndIsSnapTarget Allocation.StartIsSnapTarget Option.maximumSnapDistance

SnapTargetsForStart

Object Type	Activity
Data Type	Enum.SnapTargets
Default	Value of Option.defaultActivitySnapTargetsForStart
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	Allocation.EndIsSnapTarget Allocation.StartIsSnapTarget Option.maximumSnapDistance

SortCode

Object Type	Activity
Data Types	number string Date
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	Enum.BarSortMode Option.activityRowSortCodePropertyName Option.activityRowSortMode

Start

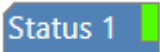
Object Type	Activity
Data Types	Date DateAsString

Default	Earliest value in the Start properties of contained entries undefined
Explanation	<p>Start date of the activity.</p> <p>If not defined explicitly, then the earliest value in the Start properties of contained ActivityEntry objects is calculated and used. If no start date can be determined at all, the activity will not become visible.</p>
See also	Activity.End Activity.Start ActivityEntry.End ActivityEntry.Start Allocation.End Allocation.Start AllocationEntry.End
Used by	Allocation.Start

Status1Color

Object Type	Activity
Data Type	ColorAsString
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	Activity.Status1Visible


Status1Visible

Object Type	Activity
Data Type	boolean
Default	false
Explanation	<p>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.</p> 
See also	Activity.Status1Color Allocation.Status1Color

Status2Color

Object Type	Activity
Data Type	ColorAsString
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	Activity.Status2Visible


Status2Visible

Object Type	Activity
Data Type	boolean
Default	false
Explanation	<p>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.</p> 
See also	Activity.Status2Color Allocation.Status2Color

Status3Color

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

Status3Visible

Object Type	Activity
Data Type	boolean
Default	false
Explanation	<p>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.</p> 
See also	Activity.Status3Color Allocation.Status3Color

Status4Color

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

Status4Visible

Object Type	Activity
Data Type	boolean
Default	false
Explanation	<p>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.</p> <p>Note: This property may be used with rectangle bar shapes only!</p> <div style="border: 1px solid black; padding: 2px; display: inline-block; background-color: #0070c0; color: white; margin-top: 5px;">Status 4</div>
See also	Activity.Status4Color Allocation.Status4Color

StatusFrameColor

Object Type	Activity
Data Type	ColorAsString
Default	Value of Option.defaultActivityStatusFrameColor
Explanation	Color for the status frame that will be shown when property StatusFrameVisible is set.
See also	Activity.StatusFrameVisible Allocation.StatusFrameVisible

StatusFrameVisible

Object Type	Activity
Data Type	boolean
Default	false
Explanation	If set to true, then a frame is shown around the bar.
See also	Activity.StatusFrameColor Allocation.StatusFrameColor

TableColor

Object Type	Activity
Data Type	ColorAsString
Default	level-dependent gray
Explanation	<p>Color for the table row.</p> <p>If not defined, a level-dependent gray value predefined in the widget is used.</p>
See also	Activity.TableColorVisibleInTimeArea Allocation.TableColorVisibleInTimeArea Entity.TableColorVisibleInTimeArea Resource.TableColorVisibleInTimeArea Skill.TableColorVisibleInTimeArea TableCellDefinition.BackgroundColorSource

TableColorVisibleInTimeArea

Object Type	Activity
Data Type	boolean
Default	false
Explanation	If set to true, the time area row will be colored using the color defined by the TableColor property.
See also	Activity.TableColor Allocation.TableColor Entity.TableColor Resource.TableColor Skill.TableColor

TableRowDefinitionID

Object Type	Activity
Data Type	IdentifierAsString
Default	Value of Option.defaultActivityTableRowDefinitionID
Explanation	Identifier of a TableRowDefinition object that defines the composition of the table row.
See also	Activity.MinimumRowHeight Activity.TableText Allocation.TableText Entity.MinimumRowHeight Entity.TableText ObjectType.TableRowDefinition Resource.TableText Skill.MinimumRowHeight Skill.TableText

TableText

Object Type	Activity
Data Type	string
Default	undefined
Explanation	<p>Text to display in the table row.</p> <p>Note: 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>
See also	Activity.TableRowDefinitionID TableCellDefinition.TextSource

TableTextColor

Object Type	Activity
Data Type	ColorAsString
Default	"black"
Explanation	Color for the table row texts.
See also	TableCellDefinition.TextColorSource

TextColor

Object Type	Activity
Deprecated	Use property Activity.BarTextColor instead.
See also	TableCellDefinition.TextColor TableCellDefinition.TextColorSource

TopLeftBarSymbolHeight

Object Type	Activity
Data Type	PixelsAsNumber
Data Range	> 0
Default	12
Explanation	Height of the top left bar symbol in pixels at a zoom factor of 100%.
See also	Activity.TopLeftBarSymbolID

TopLeftBarSymbolID

Object Type	Activity
Data Type	IdentifierAsString
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	Activity.TopLeftBarSymbolHeight Activity.TopLeftBarSymbolWidth Allocation.TopLeftBarSymbolHeight Allocation.TopLeftBarSymbolWidth ObjectType.Symbol Symbol.ID

TopLeftBarSymbolWidth

Object Type	Activity
Data Type	PixelsAsNumber

Data Range	> 0
Default	12
Explanation	Width of the top left bar symbol in pixels at a zoom factor of 100%.
See also	Activity.TopLeftBarSymbolID

TopLeftBarSymbolYOffset

Object Type	Activity
Data Type	PixelsAsNumber
Default	0
Explanation	Vertical offset of the top left bar symbol in pixels relative to the default position (2/3 of the symbol height above the bar).

TopRightBarSymbolHeight

Object Type	Activity
Data Type	PixelsAsNumber
Data Range	> 0
Default	12
Explanation	Height of the top right bar symbol in pixels at a zoom factor of 100%.
See also	Activity.TopRightBarSymbolID

TopRightBarSymbolID

Object Type	Activity
Data Type	IdentifierAsString
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	Activity.TopRightBarSymbolHeight Activity.TopRightBarSymbolWidth Allocation.TopRightBarSymbolHeight Allocation.TopRightBarSymbolWidth ObjectType.Symbol Symbol.ID

TopRightBarSymbolWidth

Object Type	Activity
Data Type	PixelsAsNumber
Data Range	> 0

Default	12
Explanation	Width of the top right bar symbol in pixels at a zoom factor of 100%.
See also	Activity.TopRightBarSymbolID

TopRightBarSymbolYOffset

Object Type	Activity
Data Type	PixelsAsNumber
Default	0
Explanation	Vertical offset of the top right bar symbol in pixels relative to the default position (2/3 of the symbol height above the bar).

ViewArea

Object Type	Activity
Data Type	Enum.ViewArea
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 setttable on resource with no ParentID set.
See also	ObjectType.Link Option.mainViewAreaVisibleInActivitiesView Option.topViewAreaVisibleInActivitiesView

2.2 ActivityEntry

Explanation	<p>Objects of this type are defined by the application and then put into the array of the Entries property of Activity objects. Therefore, they do not have their own ID property and there are no methods managing this object type. ActivityEntry objects serve to split bars into several colored stages. The application hereby can mark several stages like a startup or runtime stage. 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 activity bar by default.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: "my" or "app_").</p>
Members	Color End Height NonworkingTimeColor PatternColor PatternType RelativeTopOffset Start

Used by	Callback.onClicked Callback.onDoubleClicked Callback.onShowContextMenu Callback.onShowTooltip
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Color

Object Type	ActivityEntry
Data Type	ColorAsString
Default	Value of Activity.Color
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 if the property NonworkingTimeColor of the appropriate activity is undefined.</p>
See also	Activity.Color Activity.NonworkingTimeColor

End

Object Type	ActivityEntry
Data Types	Date DateAsString
Default	undefined
Explanation	<p>End date of the activity entry. If not defined, then this entry will not be visible.</p> <p>The end date itself is not included in the time interval between start and end. This helps to calculate a duration and helps to show bars in a line, when an end date of one bar has the same value as the start date of a next bar. The same behavior also is true for all end dates used in the widget like e.g. in calendar entries, period highlighter entries, activities, allocations, allocation entries.</p>
See also	Activity.End ActivityEntry.Start

Height

Object Type	ActivityEntry
Data Type	PixelsAsNumber
Data Range	0 ... 1000
Default	Value of Activity.BarHeight
Explanation	<p>Height of the activity entry.</p> <p>Hints: The height and vertical position of the activity bar are not modified by any value here. If the entry representation is partly or fully outside the activity bar, this can lead to glitches in the presentation when selecting or dragging a bar. This should be used carefully.</p>

NonworkingTimeColor

Object Type	ActivityEntry
Data Types	ColorAsString CalculatedColorAsString
Default	Value of Activity.NonworkingTimeColor
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	Activity.Color

PatternColor

Object Type	ActivityEntry
Data Type	ColorAsString
Default	"white"
Explanation	Color for the pattern when this is visible by using property PatternType.
See also	ActivityEntry.PatternType

PatternType

Object Type	ActivityEntry
Data Type	Enum.PatternType
Default	PatternType.None
Explanation	If set, then a pattern is shown on top of the fill color and behind the text.
See also	ActivityEntry.PatternColor AllocationEntry.PatternColor

RelativeTopOffset

Object Type	ActivityEntry
Data Type	PixelsAsNumber
Default	0
Explanation	<p>Offset of the entry in pixels relative to the upper side of the corresponding activity bar.</p> <p>A positive number moves the entry down; a negative number moves it up.</p> <p>Hints: The height and vertical position of the activity bar are not modified by any value here. If the entry representation is partly or fully outside the activity bar, this can lead to glitches in the presentation when selecting or dragging a bar. This should be used carefully.</p>

Start

Object Type	ActivityEntry
Data Types	Date DateAsString
Default	undefined
Explanation	Start date of the activity entry. If not defined, then this entry will not be visible.
See also	Activity.Start ActivityEntry.End

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 AllocationEntry -- > Allocation Activity --> Activity : parent Resource --> Resource : parent </pre>
Explanation	<p>An Allocation object defines an allocation of one activity to one resource.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: “my” or “app_”).</p>
Members	ActivityID AllowedBarDragModes AllowedBarDragModesInActivitiesView AllowedRowDragModes AllowedRowDragModesInActivitiesView AttachedDateLineIDs BarBottomOutsideText BarBottomOutsideTextColor BarBottomOutsideTextTooltipTemplateID BarDesign BarHeight BarOpacity BarPatternColor BarPatternType BarSelectable BarShape BarShapeSymbolID BarShapeSymbolWidth BarShownUnstackedInBackground BarText BarTextColor

[BarTextFormat](#)
[BarTextPrefixSymbolHeight](#)
[BarTextPrefixSymbolID](#)
[BarTextPrefixSymbolWidth](#)
[BarTextWrapMode](#)
[BarTooltipTemplateID](#)
[BarTopOffset](#)
[BarTopOutsideText](#)
[BarTopOutsideTextColor](#)
[BarTopOutsideTextTooltipTemplateID](#)
[BorderColor](#)
[BorderDashArray](#)
[BorderWidth](#)
[Color](#)
[EarliestDragStart](#)
[EarliestEnd](#)
[EarliestEndColor](#)
[EarliestEndTooltipTemplateID](#)
[EarliestStart](#)
[EarliestStartColor](#)
[EarliestStartTooltipTemplateID](#)
[End](#)
[EndIsSnapTarget](#)
[Entries](#)
[ID](#)
[LatestDragEnd](#)
[LatestEnd](#)
[LatestEndColor](#)
[LatestEndTooltipTemplateID](#)
[LatestStart](#)
[LatestStartColor](#)
[LatestStartTooltipTemplateID](#)
[LeftBarSymbolHeight](#)
[LeftBarSymbolID](#)
[LeftBarSymbolWidth](#)
[LinkSourceDate](#)
[LinkTargetDate](#)
[MinimumRowHeight](#)
[MustEndOn](#)
[MustEndOnColor](#)
[MustEndOnTooltipTemplateID](#)
[MustStartOn](#)
[MustStartOnColor](#)
[MustStartOnTooltipTemplateID](#)
[NonworkingTimeColor](#)
[PredictedEnd](#)
[PredictedEndColor](#)
[Progress](#)
[ProgressBackgroundColor](#)
[ProgressColor](#)

	ProgressNonworkingTimeColor ResourceID RightBarSymbolHeight RightBarSymbolID RightBarSymbolWidth RowDesign RowSelectable RowSymbolColumnBackgroundColor RowSymbolIDs RowTooltipTemplateID SkilledBarTooltipTemplateID SkilledRowTooltipTemplateID SkillID SnapTargetsForEnd SnapTargetsForStart SortCode Start StartIsSnapTarget Status1Color Status1Visible Status2Color Status2Visible Status3Color Status3Visible Status4Color Status4Visible StatusFrameColor StatusFrameVisible SuitableActivityIDs SuitableResourceIDs TableColor TableColorVisibleInTimeArea TableRowDefinitionID TableText TableTextColor TextColor TopLeftBarSymbolHeight TopLeftBarSymbolID TopLeftBarSymbolWidth TopLeftBarSymbolYOffset TopRightBarSymbolHeight TopRightBarSymbolID TopRightBarSymbolWidth TopRightBarSymbolYOffset
See also	Link.SourceAllocationID Link.TargetAllocationID Method.addAllocations Method.removeAllocations Method.updateAllocations

Used by	Callback.visibilityFilterForAllocations
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ActivityID

Object Type	Allocation
Data Type	IdentifierAsString
Default	undefined
Explanation	Identifier of an activity.

AllowedBarDragModes

Object Type	Allocation
Data Type	Enum.BarDragModes
Default	Value of Option.defaultAllocationAllowedBarDragModes
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	Callback.canDrag Option.barsDraggable Option.editable

AllowedBarDragModesInActivitiesView

Object Type	Allocation
Data Type	Enum.BarDragModes
Default	Value of Option.defaultAllocationAllowedBarDragModesInActivitiesView
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	Callback.canDrag Option.barsDraggable Option.editable

AllowedRowDragModes

Object Type	Allocation
Data Type	Enum.RowDragModes
Default	Value of Option.defaultAllocationAllowedRowDragModes
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	Callback.canDrag Option.editable Option.rowsDraggable

AllowedRowDragModesInActivitiesView

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

AttachedDateLineIDs

Object Type	Allocation
Data Type	IdentifierAsString[]
Default	Value of Option.defaultAllocationAttachedDateLineIDs
Explanation	This property determines the IDs of date lines to show when the user hovers the pointer of the bar. The date lines then can show data from this data object as the date, the caption, and several presentation attributes.
See also	Callback.canDrag ObjectType.DateLine

BarBottomOutsideText

Object Type	Allocation
Data Type	string
Default	undefined
Explanation	If set, then the given text is shown below the bar. The text is not clipped at the end of the bar but is clipped when another bar starts in the same vertical position.
See also	Allocation.BarBottomOutsideTextColor Allocation.BarBottomOutsideTextTooltipTemplateID

BarBottomOutsideTextColor

Object Type	Allocation
Data Type	string
Default	"black"
Explanation	This sets the color for the text shown by the property <code>BarBottomOutsideTextColor</code> .
See also	Allocation.BarBottomOutsideText

BarBottomOutsideTextTooltipTemplateID

Object Type	Allocation
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Data Type	IdentifierAsString
Default	Value of Allocation.BarTooltipTemplateID
Explanation	Tooltip template for the bar bottom outside text. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Allocation.BarBottomOutsideText ObjectType.TooltipTemplate

BarDesign

Object Type	Allocation
Data Type	Enum.BarDesigns
Default	Value of Option.defaultAllocationBarDesign
Explanation	This property determines the default design for allocation bars including or excluding entries, complex shape, symbols, status, constraints, progress, and text.
See also	Allocation.BarShownUnstackedInBackground Option.allocationBarDesignOfOtherActivity Option.allocationBarDesignOfOtherSkill Option.reducedBarTopOffsetAndHeightScaleFactor

BarHeight

Object Type	Allocation
Data Type	PixelsAsNumber
Data Range	$\geq 0 \dots \leq 1000$
Default	Value of Option.defaultAllocationBarHeight
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	Allocation.BarShapeSymbolID Allocation.BarText
Used by	AllocationEntry.Height

BarOpacity

Object Type	Allocation
Data Type	number
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	Allocation
Data Type	ColorAsString
Default	"white"
Explanation	Color for the pattern when this is visible by using property BarPatternType.
See also	Allocation.BarPatternType

BarPatternType

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

BarSelectable

Object Type	Allocation
Data Type	boolean
Default	Value of Option.defaultAllocationBarSelectable
Explanation	If set to true, then the bar representing this allocation will be selectable.

BarShape

Object Type	Allocation
Data Type	Enum.AllocationBarShape
Default	Value of Option.defaultAllocationBarShape
Explanation	This option defines which shape should be used by default for the visualization allocation bars.
See also	Allocation.BarShapeSymbolID Allocation.BarText Allocation.Entries

BarShapeSymbolID

Object Type	Allocation
Data Type	IdentifierAsString
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	Allocation.BarHeight Allocation.BarShape Allocation.BarShapeSymbolWidth ObjectType.Symbol Symbol.ID
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BarShapeSymbolWidth

Object Type	Allocation
Data Type	PixelsAsNumber
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	Allocation.BarShapeSymbolID

BarShownUnstackedInBackground

Object Type	Allocation
Data Type	boolean
Default	false
Explanation	When this property is set to true, then the allocation is shown in the first sub row behind other allocation bars. This serves to clarify the resource allocation when this allocation e.g. is already finished. The application must set other properties for coloring or bar design to put the allocation bar visually into the background.
See also	Allocation.BarDesign Allocation.Color

BarText

Object Type	Allocation
Data Type	string
Default	undefined
Explanation	<p>Text to be displayed in the bar when Regular, Summary or Rectangle bar shape is selected.</p> <p>This property is overlaid by BarTextFormat.</p> <p>Note: 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>
See also	Allocation.BarHeight Allocation.BarShape Allocation.BarTextFormat

BarTextColor

Object Type	Allocation
Data Type	ColorAsString
Default	"white"
Explanation	Color for the texts of the bar.

BarTextFormat

Object Type	Allocation
Data Type	string
Default	Value of Option.defaultAllocationBarTextFormat
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 {{ }}. 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 {{{ are displayed as {{.</p> <p>Additionally, the property name can be extended to contain the desired property type as in {{Start:date}}. Currently only the types 'date' and 'number' are possible besides '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"> • On allocations: >Activity, >Resource • On activities: >Parent, >Calendar • On resources: >Parent, >Calendar, >LoadCurve, >CapacityCurve • Additionally on resources in SkilledResources view: >Skill <p>It is also possible to access variables that are defined by the option applicationVariablesMap by using ?variableName.</p> <p>If the value reached is an object, you can then access a property value by using a prefixed dot: .propertyName 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>

See also	Allocation.BarText Option.applicationVariablesMap Option.intlDateTimeFormatOptionsMap Option.intlNumberFormatOptionsMap
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BarTextPrefixSymbolHeight

Object Type	Allocation
Data Type	PixelsAsNumber
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	Allocation.BarTextPrefixSymbolID

BarTextPrefixSymbolID

Object Type	Allocation
Data Type	IdentifierAsString
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	Allocation.BarTextPrefixSymbolHeight Allocation.BarTextPrefixSymbolWidth ObjectType.Symbol Symbol.ID

BarTextPrefixSymbolWidth

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

BarTextWrapMode

Object Type	Allocation
Data Type	Enum.TextWrapMode
Default	TextWrapMode.None

Explanation	Specifies whether the text inside the bar is wrapped.
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BarTooltipTemplateID

Object Type	Allocation
Data Type	IdentifierAsString
Default	Value of Option.defaultAllocationBarTooltipTemplateID
Explanation	ID of a tooltip template. The template is used for tooltips that appear on the allocation bars.
See also	Allocation.SkilledBarTooltipTemplateID Allocation.SkilledRowTooltipTemplateID ObjectType.TooltipTemplate
Used by	Allocation.BarBottomOutsideTextTooltipTemplateID Allocation.BarTopOutsideTextTooltipTemplateID Allocation.EarliestEndTooltipTemplateID Allocation.EarliestStartTooltipTemplateID Allocation.LatestEndTooltipTemplateID Allocation.LatestStartTooltipTemplateID Allocation.MustEndOnTooltipTemplateID Allocation.MustStartOnTooltipTemplateID

BarTopOffset

Object Type	Allocation
Data Type	PixelsAsNumber
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 only considered in rows with multiple allocation bars inside, which is not the case in allocation rows. The visible height of a sub-row is reduced to the possible minimum, i.e. empty space above and below all bars in the sub-row is removed.

BarTopOutsideText

Object Type	Allocation
Data Type	string
Default	undefined
Explanation	If set, then the given text is shown above the bar. The text is not clipped at the end of the bar but is clipped when another bar starts in the same vertical position.
See also	Allocation.BarTopOutsideTextColor Allocation.BarTopOutsideTextTooltipTemplateID

BarTopOutsideTextColor

Object Type	Allocation
Data Type	string
Default	"black"
Explanation	This sets the color for the text shown by the property BarTopOutsideTextColor.
See also	Allocation.BarTopOutsideText

BarTopOutsideTextTooltipTemplateID

Object Type	Allocation
Data Type	IdentifierAsString
Default	Value of Allocation.BarTooltipTemplateID
Explanation	Tooltip template for the bar top outside text. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Allocation.BarTopOutsideText ObjectType.TooltipTemplate

BorderColor

Object Type	Allocation
Data Types	ColorAsString CalculatedColorAsString
Default	Value of Activity.BorderColor
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 decouplingOfAllocationPropertiesFromActivities is set to false, then the default value is the current value of property BorderColor of corresponding activity.</p>
See also	Option.decouplingOfAllocationPropertiesFromActivities

BorderDashArray

Object Type	Allocation
Data Type	DashArrayAsString
Default	"none"
Explanation	Pattern of dashes and gaps for drawing the border line of bars.

BorderWidth

Object Type	Allocation
Data Type	PixelsAsNumber

Data Range	≥ 0 (recommended ≤ 4)
Default	1
Explanation	Width of the border of the bar. It is recommended not to set the border width to a value of more than 4, as otherwise the bar texts will be difficult to read or progress bars are no longer clearly visible.

Color

Object Type	Allocation
Data Type	ColorAsString
Default	Value of Activity.Color "#646464"
Explanation	Fallback color for the entries of the bar, see property Color of AllocationEntry objects. If no entries are defined, then color of the allocation bar itself. If the option <code>decouplingOfAllocationPropertiesFromActivities</code> is set to false, then the default value is the current value of property Color of the referenced activity. If no color can be determined, the value "#646464" will be used.
See also	Allocation.BarShownUnstackedInBackground Allocation.NonworkingTimeColor AllocationEntry.Color Option.decouplingOfAllocationPropertiesFromActivities
Used by	AllocationEntry.Color

EarliestDragStart

Object Type	Allocation
Data Types	Date DateAsString
Default	undefined
Explanation	If set, then the time before 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 before the date.
See also	Option.dragDatesLimitingInteraction Option.dragDatesShownForSingleSelectedObject

EarliestEnd

Object Type	Allocation
Data Types	Date DateAsString
Default	undefined
Explanation	If defined, an additional symbol will be displayed to indicate this date. Please be aware to increase the top row margin so that the symbol has enough space.
See also	Allocation.EarliestEndColor

	Allocation.EarliestEndTooltipTemplateID Option.detailedAllocationConstraintSymbolsEnabled Option.topRowMarginInTimeArea
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EarliestEndColor

Object Type	Allocation
Data Type	ColorAsString
Default	Value of Option.defaultAllocationConstraintSymbolColor
Explanation	Color for the EarliestEnd constraint symbol.
See also	Allocation.EarliestEnd

EarliestEndTooltipTemplateID

Object Type	Allocation
Data Type	IdentifierAsString
Default	Value of Allocation.BarTooltipTemplateID
Explanation	Tooltip template for the earliest end constraint flag. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Allocation.EarliestEnd ObjectType.TooltipTemplate

EarliestStart

Object Type	Allocation
Data Types	Date DateAsString
Default	undefined
Explanation	<p>If defined, an additional symbol will be displayed to indicate this date.</p> <p>Please be aware to increase the top row margin so that the symbol has enough space.</p>
See also	Allocation.EarliestStartColor Allocation.EarliestStartTooltipTemplateID Option.detailedAllocationConstraintSymbolsEnabled Option.topRowMarginInTimeArea

EarliestStartColor

Object Type	Allocation
Data Type	ColorAsString
Default	Value of Option.defaultAllocationConstraintSymbolColor
Explanation	Color for the EarliestStart constraint symbol.
See also	Allocation.EarliestStart

EarliestStartTooltipTemplateID

Object Type	Allocation
Data Type	IdentifierAsString
Default	Value of Allocation.BarTooltipTemplateID
Explanation	Tooltip template for the earliest start constraint flag. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Allocation.EarliestStart ObjectType.TooltipTemplate

End

Object Type	Allocation
Data Types	Date DateAsString
Default	latest end date of allocation entries Value of Activity.End undefined
Explanation	<p>End date of the allocation.</p> <p>If not defined explicitly, the latest end date of all entries is calculated and used. If this is not successful and the option decouplingOfAllocationPropertiesFromActivities is false, then Activity.End is used. If no end date can be determined at all, the allocation will not get visible.</p> <p>The end date itself is not included in the time interval between start and end. This helps to calculate a duration and helps to show bars in a line, when an end date of one bar has the same value as the start date of a next bar. The same behavior also is true for all end dates used in the widget like e.g. in calendar entries, period highlighter entries, activities, activity entries, allocation entries.</p>
See also	Activity.End Allocation.Start Option.decouplingOfAllocationPropertiesFromActivities

EndIsSnapTarget

Object Type	Allocation
Data Type	boolean
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	Allocation.SnapTargetsForEnd Allocation.SnapTargetsForStart Option.maximumSnapDistance

Entries

Object Type	Allocation
Data Type	AllocationEntry[]
Default	undefined
Explanation	<p>Array of allocation entries</p> <p>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.</p>
See also	Allocation.BarShape

ID

Object Type	Allocation
Data Type	IdentifierAsString
Default	required
Explanation	Identifier of the Allocation.

LatestDragEnd

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

LatestEnd

Object Type	Allocation
Data Types	Date DateAsString
Default	undefined
Explanation	<p>If defined, an additional symbol will be displayed to indicate this date.</p> <p>Please be aware to increase the top row margin so that the symbol has enough space.</p>
See also	Allocation.LatestEndColor Allocation.LatestEndTooltipTemplateID Option.detailedAllocationConstraintSymbolsEnabled Option.topRowMarginInTimeArea

LatestEndColor

Object Type	Allocation
Data Type	ColorAsString
Default	Value of Option.defaultAllocationConstraintSymbolColor
Explanation	Color for the LatestEnd constraint symbol.
See also	Allocation.LatestEnd

LatestEndTooltipTemplateID

Object Type	Allocation
Data Type	IdentifierAsString
Default	Value of Allocation.BarTooltipTemplateID
Explanation	Tooltip template for the latest end constraint flag. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Allocation.LatestEnd ObjectType.TooltipTemplate

LatestStart

Object Type	Allocation
Data Types	Date DateAsString
Default	undefined
Explanation	If defined, an additional symbol will be displayed to indicate this date. Please be aware to increase the top row margin so that the symbol has enough space.
See also	Allocation.LatestStartColor Allocation.LatestStartTooltipTemplateID Option.detailedAllocationConstraintSymbolsEnabled Option.topRowMarginInTimeArea

LatestStartColor

Object Type	Allocation
Data Type	ColorAsString
Default	Value of Option.defaultAllocationConstraintSymbolColor
Explanation	Color for the LatestStart constraint symbol.
See also	Allocation.LatestStart

LatestStartTooltipTemplateID

Object Type	Allocation
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Data Type	IdentifierAsString
Default	Value of Allocation.BarTooltipTemplateID
Explanation	Tooltip template for the latest start constraint flag. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Allocation.LatestStart ObjectType.TooltipTemplate

LeftBarSymbolHeight

Object Type	Allocation
Data Type	PixelsAsNumber
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	Allocation.LeftBarSymbolID Allocation.LeftBarSymbolWidth

LeftBarSymbolID

Object Type	Allocation
Data Type	IdentifierAsString
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	Allocation.LeftBarSymbolHeight Allocation.LeftBarSymbolWidth Allocation.RightBarSymbolID ObjectType.Symbol Symbol.ID

LeftBarSymbolWidth

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

LinkSourceDate

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

LinkTargetDate

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

MinimumRowHeight

Object Type	Allocation
Data Type	PixelsAsNumber
Data Range	≥ 0
Default	Value of Option.defaultAllocationMinimumRowHeight
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 of the height of all bars (default bar height is 22) plus 20, so e.g. 42.</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> <p>In general, the height of a row is determined by several facts: The height of bars and the stacking of bars determine a height, that then is overlaid by the value of this property. The height of any text inside a table column or a bar is not considered, even when using wrapping.</p>
See also	TableCellDefinition.WrapMode

MustEndOn

Object Type	Allocation
Data Types	Date DateAsString
Default	undefined
Explanation	<p>If defined, an additional symbol will be displayed to indicate this date.</p> <p>Please be aware to increase the top row margin so that the symbol has enough space.</p>

See also	Allocation.MustEndOnColor Allocation.MustEndOnTooltipTemplateID Option.detailedAllocationConstraintSymbolsEnabled Option.topRowMarginInTimeArea
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MustEndOnColor

Object Type	Allocation
Data Type	ColorAsString
Default	Value of Option.defaultAllocationConstraintSymbolColor
Explanation	Color for the MustEndOn constraint symbol.
See also	Allocation.MustEndOn

MustEndOnTooltipTemplateID

Object Type	Allocation
Data Type	IdentifierAsString
Default	Value of Allocation.BarTooltipTemplateID
Explanation	Tooltip template for the must-end-on constraint flag. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Allocation.MustEndOn ObjectType.TooltipTemplate

MustStartOn

Object Type	Allocation
Data Types	Date DateAsString
Default	undefined
Explanation	<p>If defined, an additional symbol will be displayed to indicate this date.</p> <p>Please be aware to increase the top row margin so that the symbol has enough space.</p>
See also	Allocation.MustStartOnColor Allocation.MustStartOnTooltipTemplateID Option.detailedAllocationConstraintSymbolsEnabled Option.topRowMarginInTimeArea

MustStartOnColor

Object Type	Allocation
Data Type	ColorAsString
Default	Value of Option.defaultAllocationConstraintSymbolColor
Explanation	Color for the MustStartOn constraint symbol.

See also	Allocation.MustStartOn
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MustStartOnTooltipTemplateID

Object Type	Allocation
Data Type	IdentifierAsString
Default	Value of Allocation.BarTooltipTemplateID
Explanation	Tooltip template for the must-start-on constraint flag. This is an alternative to define a tooltip using the callback onShowTooltip.
See also	Allocation.MustStartOn ObjectType.TooltipTemplate

NonworkingTimeColor

Object Type	Allocation
Data Types	ColorAsString CalculatedColorAsString
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	Allocation.Color

PredictedEnd

Object Type	Allocation
Data Types	Date DateAsString
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	Option.mainViewAreaVisibleInActivitiesView Option.topViewAreaVisibleInActivitiesView

PredictedEndColor

Object Type	Allocation
Data Type	ColorAsString
Default	"#646464"
Explanation	Color for the predicted end bar.

Progress

Object Type	Allocation
Data Type	number
Data Range	≥ 0.0 and ≤ 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	Option.decouplingOfAllocationPropertiesFromActivities

ProgressBackgroundColor

Object Type	Allocation
Data Type	ColorAsString
Default	Value of Option.defaultAllocationProgressBackgroundColor
Explanation	Color for the background of the progress bar region.

ProgressColor

Object Type	Allocation
Data Type	ColorAsString
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	Allocation.ProgressNonworkingTimeColor Option.decouplingOfAllocationPropertiesFromActivities

ProgressNonworkingTimeColor

Object Type	Allocation
Data Types	ColorAsString CalculatedColorAsString
Default	Value of Activity.ProgressColor
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	Allocation.ProgressColor Option.decouplingOfAllocationPropertiesFromActivities

ResourceID

Object Type	Allocation
Data Type	IdentifierAsString
Default	undefined
Explanation	Identifier of a resource.

RightBarSymbolHeight

Object Type	Allocation
Data Type	PixelsAsNumber
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	Allocation.RightBarSymbolID

RightBarSymbolID

Object Type	Allocation
Data Type	IdentifierAsString
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	Allocation.LeftBarSymbolID Allocation.RightBarSymbolHeight Allocation.RightBarSymbolWidth ObjectType.Symbol Symbol.ID

RightBarSymbolWidth

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

RowDesign

Object Type	Allocation
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Data Type	Enum.RowDesigns
Default	Value of Option.defaultAllocationRowDesign
Explanation	Specifies how the time area is filled when the row is visible.

RowSelectable

Object Type	Allocation
Data Type	boolean
Default	Value of Option.defaultAllocationRowSelectable
Explanation	If set to true, then the row representing this allocation will be selectable.

RowSymbolColumnBackgroundColor

Object Type	Allocation
Data Type	ColorAsString
Default	Value of TableRowDefinition.SymbolColumnBackgroundColor Value of Option.symbolColumnBackgroundColor
Explanation	Determines the color of the symbol column within this table row.

RowSymbolIDs

Object Type	Allocation
Data Type	IdentifierAsString[]
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>Note: 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	Option.symbolColumnVisible Symbol.ID

RowTooltipTemplateID

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

See also	ObjectType.ToolTipTemplate
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SkilledBarTooltipTemplateID

Object Type	Allocation
Data Type	IdentifierAsString
Default	Value of Option.defaultAllocationRowTooltipTemplateID
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	Allocation.BarTooltipTemplateID ObjectType.ToolTipTemplate

SkilledRowTooltipTemplateID

Object Type	Allocation
Data Type	IdentifierAsString
Default	Value of Option.defaultAllocationRowTooltipTemplateID
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	Allocation.BarTooltipTemplateID ObjectType.ToolTipTemplate

SkillID

Object Type	Allocation
Data Type	IdentifierAsString
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.
See also	Enum.ViewType ObjectType.Skill

SnapTargetsForEnd

Object Type	Allocation
Data Type	Enum.SnapTargets
Default	Value of Option.defaultAllocationSnapTargetsForEnd
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	Allocation.EndIsSnapTarget Allocation.StartIsSnapTarget Option.maximumSnapDistance
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SnapTargetsForStart

Object Type	Allocation
Data Type	Enum.SnapTargets
Default	Value of Option.defaultAllocationSnapTargetsForStart
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	Allocation.EndIsSnapTarget Allocation.StartIsSnapTarget Option.maximumSnapDistance

SortCode

Object Type	Allocation
Data Types	number string Date
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	Option.allocationRowSortCodePropertyName Option.allocationRowSortMode

Start

Object Type	Allocation
Data Types	Date DateAsString
Default	earliest start date of allocation entries Value of Activity.Start undefined
Explanation	<p>Start date of the allocation.</p> <p>If not defined explicitly, the latest start date of all entries is calculated and used. If this is not successful and the option <code>decouplingOfAllocationPropertiesFromActivities</code> is false, then <code>Activity.Start</code> is used. If no start date can be determined at all, the allocation will not get visible.</p>
See also	Activity.Start Allocation.End AllocationEntry.Start Option.decouplingOfAllocationPropertiesFromActivities

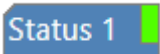
StartIsSnapTarget

Object Type	Allocation
Data Type	boolean
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	Allocation.SnapTargetsForEnd Allocation.SnapTargetsForStart Option.maximumSnapDistance

Status1Color

Object Type	Allocation
Data Type	ColorAsString
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	Allocation.Status1Visible

Status1Visible


Object Type	Allocation
Data Type	boolean
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	Allocation.Status1Color

Status2Color

Object Type	Allocation
Data Type	ColorAsString
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	Allocation.Status2Visible

Status2Visible

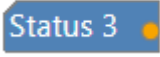
Object Type	Allocation
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Data Type	boolean
Default	false
Explanation	<p>If set to true and the corresponding status color is set in property Status2Color, then a predefined symbol is displayed to the right of the bar.</p> 
See also	Allocation.Status2Color

Status3Color

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

Status3Visible

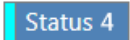
Object Type	Allocation
Data Type	boolean
Default	false
Explanation	<p>If set to true and the corresponding status color is set in property Status3Color, then a predefined symbol is displayed to the right of the bar.</p> 
See also	Allocation.Status3Color

Status4Color

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

Status4Visible

Object Type	Allocation
Data Type	boolean
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	Allocation.Status4Color

StatusFrameColor

Object Type	Allocation
Data Type	ColorAsString
Default	Value of Option.defaultAllocationStatusFrameColor
Explanation	Color for the status frame that will be shown when property StatusFrameVisible is set.
See also	Allocation.StatusFrameVisible

StatusFrameVisible

Object Type	Allocation
Data Type	boolean
Default	false
Explanation	If set to true, then a frame is shown around the bar.
See also	Allocation.StatusFrameColor

SuitableActivityIDs

Object Type	Allocation
Data Type	IdentifierAsString[]
Default	undefined
Explanation	An array of IDs of those activities to which the allocation could be assigned. 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. If the array is empty, all activity rows will be covered. If the array is not defined, then all rows are displayed in the normal way without any covering.
See also	Entity.SuitableActivityIDs ObjectType.Activity Option.suitableActivityOverlayColor Option.unsuitableActivityOverlayColor

SuitableResourceIDs

Object Type	Allocation
Data Type	IdentifierAsString[]
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	Entity.SuitableResourceIDs ObjectType.Resource Option.multipleBarDraggingEnabled Option.suitableResourceOverlayColor Option.unsuitableResourceOverlayColor

TableColor

Object Type	Allocation
Data Type	ColorAsString
Default	level-dependent gray
Explanation	<p>Color for the table row.</p> <p>If not defined, a level-dependent gray value predefined in the widget is used.</p>
See also	Allocation.TableColorVisibleInTimeArea TableCellDefinition.BackgroundColorSource

TableColorVisibleInTimeArea

Object Type	Allocation
Data Type	boolean
Default	false
Explanation	If set to true, the time area row will be colored using the color defined by the TableColor property.
See also	Allocation.TableColor

TableRowDefinitionID

Object Type	Allocation
Data Type	IdentifierAsString
Default	Value of Option.defaultAllocationTableRowDefinitionID
Explanation	Identifier of a TableRowDefinition object that defines the composition of the table row.
See also	Allocation.TableText ObjectType.TableRowDefinition

TableText

Object Type	Allocation
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Data Type	string
Default	undefined
Explanation	Text to display in the bar. Note: 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	Allocation.TableRowDefinitionID TableCellDefinition.TextSource

TableTextColor

Object Type	Allocation
Data Type	ColorAsString
Default	"black"
Explanation	Color for the table row texts.
See also	TableCellDefinition.TextColorSource

TextColor

Object Type	Allocation
Deprecated	Use property Allocation.BarTextColor instead.

TopLeftBarSymbolHeight

Object Type	Allocation
Data Type	PixelsAsNumber
Data Range	> 0
Default	12
Explanation	Height of the top left bar symbol in pixels at a zoom factor of 100%.
See also	Allocation.TopLeftBarSymbolID

TopLeftBarSymbolID

Object Type	Allocation
Data Type	IdentifierAsString
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	Allocation.TopLeftBarSymbolHeight Allocation.TopLeftBarSymbolWidth ObjectType.Symbol

	Symbol.ID
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TopLeftBarSymbolWidth

Object Type	Allocation
Data Type	PixelsAsNumber
Data Range	> 0
Default	12
Explanation	Width of the top left bar symbol in pixels at a zoom factor of 100%.
See also	Allocation.TopLeftBarSymbolID

TopLeftBarSymbolYOffset

Object Type	Allocation
Data Type	PixelsAsNumber
Default	0
Explanation	Vertical offset of the top left bar symbol in pixels relative to the default position (2/3 of the symbol height above the bar).

TopRightBarSymbolHeight

Object Type	Allocation
Data Type	PixelsAsNumber
Data Range	> 0
Default	12
Explanation	Height of the top right bar symbol in pixels at a zoom factor of 100%.
See also	Allocation.TopRightBarSymbolID

TopRightBarSymbolID

Object Type	Allocation
Data Type	IdentifierAsString
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	Allocation.TopRightBarSymbolHeight Allocation.TopRightBarSymbolWidth ObjectType.Symbol Symbol.ID

TopRightBarSymbolWidth

Object Type	Allocation
Data Type	PixelsAsNumber
Data Range	> 0
Default	12
Explanation	Width of the top right bar symbol in pixels at a zoom factor of 100%.
See also	Allocation.TopRightBarSymbolID

TopRightBarSymbolYOffset

Object Type	Allocation
Data Type	PixelsAsNumber
Default	0
Explanation	Vertical offset of the top right bar symbol in pixels relative to the default position (2/3 of the symbol height above the bar).

2.4 AllocationEntry

Explanation	<p>Objects of this type are defined by the application and then put into the array of the Entries property of Allocation objects. Therefore, they do not have their own ID property and there are no methods managing this object type. AllocationEntries serve to split bars into several colored stages. The application hereby can mark several stages 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.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: "my" or "app_").</p>
Members	Color End Height NonworkingTimeColor PatternColor PatternType RelativeTopOffset Start
Used by	Callback.onClicked Callback.onDoubleClicked Callback.onShowContextMenu Callback.onShowTooltip

Color

Object Type	AllocationEntry
Data Type	ColorAsString
Default	Value of Allocation.Color
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 if the property NonworkingTimeColor of the appropriate allocation is undefined.</p>
See also	Allocation.Color AllocationEntry.NonworkingTimeColor

End

Object Type	AllocationEntry
Data Types	Date DateAsString
Default	undefined
Explanation	<p>End date of the allocation entry. If not defined, then this entry will not be visible.</p> <p>The end date itself is not included in the time interval between start and end. This helps to calculate a duration and helps to show bars in a line, when an end date of one bar has the same value as the start date of a next bar. The same behavior also is true for all end dates used in the widget like e.g. in calendar entries, period highlighter entries, activities, activity entries, allocations.</p>
See also	AllocationEntry.Start

Height

Object Type	AllocationEntry
Data Type	PixelsAsNumber
Data Range	0 ... 1000
Default	Value of Allocation.BarHeight
Explanation	<p>Height of the allocation entry.</p> <p>Hints: The height and vertical position of the allocation bar are not modified by any value here. If the entry representation is partly or fully outside the allocation bar, this can lead to glitches in the presentation when selecting or dragging a bar. This should be used carefully.</p>

NonworkingTimeColor

Object Type	AllocationEntry
Data Types	ColorAsString CalculatedColorAsString
Default	Value of Color property.
Explanation	Color for the nonworking time periods of the bar.

	<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>Special value: If set to "calculated", a color will be calculated using the color defined by the Color property.</p>
See also	AllocationEntry.Color

PatternColor

Object Type	AllocationEntry
Data Type	ColorAsString
Default	"white"
Explanation	Color for the pattern when this is visible by using property PatternType.
See also	AllocationEntry.PatternType

PatternType

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

RelativeTopOffset

Object Type	AllocationEntry
Data Type	PixelsAsNumber
Default	0
Explanation	<p>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.</p> <p>Hints: The height and vertical position of the allocation bar are not modified by any value here. If the entry representation is partly or fully outside the allocation bar, this can lead to glitches in the presentation when selecting or dragging a bar. This should be used carefully.</p>

Start

Object Type	AllocationEntry
Data Types	Date DateAsString
Default	undefined
Explanation	Start date of the allocation entry. If not defined, then this entry will not be visible.

See also [Allocation.Start](#)
[AllocationEntry.End](#)

2.5 Calendar

UML Diagram	<pre> classDiagram class Activity { +CalendarID } class Calendar { +Entries } class Resource { +CalendarID } class CalendarEntry { +Start +End +TimeType } Activity "0..*" --> "0..1" Calendar Resource "0..1" --> "0..*" Calendar Calendar "0..*" *-- "0..*" CalendarEntry </pre>
Explanation	<p>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.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: “my” or “app_”).</p>
Members	Entries ID
See also	Activity.CalendarID Method.addCalendars Method.removeCalendars Method.updateCalendars Resource.CalendarID

Entries

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

ID

Object Type	Calendar
Data Type	IdentifierAsString
Default	required

Explanation	Identifier of the Calendar.
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2.6 CalendarEntry

Explanation	<p>Objects of this type are defined by the application and then put into the array of the Entries property of Calendar objects. Therefore, they do not have their own ID property and there are no methods managing this object type. A CalendarEntry object defines a single period. If several calendar entries describe the same or an overlapping period, then the last entry wins.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: “my” or “app_”).</p>
Members	End Start TimeType

End

Object Type	CalendarEntry
Data Types	Date DateAsString
Default	undefined
Explanation	<p>End of the working time period.</p> <p>The end date itself is not included in the time interval between start and end. This helps to calculate a duration and helps to show bars in a line, when an end date of one bar has the same value as the start date of a next bar. The same behavior also is true for all end dates used in the widget like e.g. in period highlighter entries, activities, activity entries, allocations, allocation entries.</p>

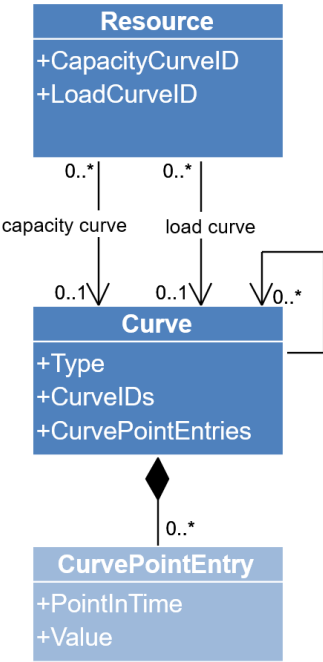
Start

Object Type	CalendarEntry
Data Types	Date DateAsString
Default	undefined
Explanation	Start of the working time period.

TimeType

Object Type	CalendarEntry
Data Type	Enum.TimeType
Default	TimeType.WorkingTime
Explanation	

2.7 Curve

UML Diagram	 <pre> classDiagram class Resource { +CapacityCurveID +LoadCurveID } class Curve { +Type +CurveIDs +CurvePointEntries } class CurvePointEntry { +PointInTime +Value } Resource "0..*" -- "0..*" Curve : capacity curve Resource "0..*" -- "0..*" Curve : load curve Curve "0..1" -- "0..1" Curve : self-referencing Curve "0..*" *-- "0..*" CurvePointEntry </pre> <p>The diagram illustrates the structure of the Curve class and its relationships. The Resource class contains two attributes: +CapacityCurveID and +LoadCurveID. It has two associations with the Curve class, labeled "capacity curve" and "load curve", both with multiplicity 0..* at the Resource end and 0..1 at the Curve end. The Curve class has three attributes: +Type, +CurveIDs, and +CurvePointEntries. It features a self-referencing association with multiplicity 0..1 at the start and 0..* at the end. Additionally, the Curve class has an aggregation relationship with the CurvePointEntry class, indicated by a filled diamond on the Curve side and a multiplicity of 0..* at the CurvePointEntry end. The CurvePointEntry class has two attributes: +PointInTime and +Value.</p>
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> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: "my" or "app_").</p>
Members	<ul style="list-style-type: none"> CurveIDs CurvePointEntries FillColor ID InterpolationType OverloadColor ScaleMaximumValue ScaleMinimumValue StrokeColor StrokeDashArray Type
See also	<ul style="list-style-type: none"> Method.addCurves

	Method.removeCurves Method.updateCurves Resource.CapacityCurveID Resource.InventoryCurveID Resource.LoadCurveID
Used by	Callback.onClicked

CurveIDs

Object Type	Curve
Data Type	IdentifierAsString[]
Default	undefined
Explanation	Array of curve IDs (in case of CurveStack and CurveList only)

CurvePointEntries

Object Type	Curve
Data Type	CurvePointEntry[]
Default	undefined
Explanation	Array of point entries (in case of PointCurve only)

FillColor

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

ID

Object Type	Curve
Data Type	IdentifierAsString
Default	required
Explanation	Identifier of the Curve.

InterpolationType

Object Type	Curve
Data Type	Enum.CurveInterpolationType
Default	CurveInterpolationType.StepAfter

Explanation	Type of interpolation. Currently 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.
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OverloadColor

Object Type	Curve
Data Type	ColorAsString
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	Curve
Data Type	number
Default	-Infinity
Explanation	<p>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.</p> <p>This, together with the ScaleMinimumValue property, allows you to set the range of values displayed for the curve window.</p>
See also	Curve.ScaleMinimumValue Option.higherCurvePanelsOnExceededScaleMaximumValue

ScaleMinimumValue

Object Type	Curve
Data Type	number
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	Curve.ScaleMaximumValue

StrokeColor

Object Type	Curve
Data Type	ColorAsString

Default	"#7F7F7F"
Explanation	Color of the curve line itself.

StrokeDashArray

Object Type	Curve
Data Type	DashArrayAsString
Default	"none"
Explanation	Pattern of dashes and gaps for drawing the curve line.

Type

Object Type	Curve
Data Type	Enum.CurveType
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

Explanation	<p>Objects of this type are defined by the application and then put into the array of the CurvePointEntries property of a Curve object. Therefore, they do not have their own ID and they are not managed by methods managing this object type. CurvePointEntries serve to define the curve by setting a value for each point in time. The entries are only used when the property Type of a Curve object is set to the value CurveType.PointCurve.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: "my" or "app_").</p>
Members	PointInTime Value

PointInTime


Object Type	CurvePointEntry
Data Types	Date DateAsString
Default	required

Explanation	This property serves as an identifier of the point entry.
See also	DateLine.PointInTimeSource

Value

Object Type	CurvePointEntry
Data Type	number
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	<p>A DateLine object is a pure presentation object and defines the properties of a single date line.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: “my” or “app_”).</p>
Members	AppearanceType Caption CaptionColor CaptionColorSource CaptionFormat CaptionOrientation CaptionPosition Color ColorSource DashArray DashArraySource Draggable ID InFrontOfBars IsVisibleInViewTypes PointInTime PointInTimeSource SymbolHeight SymbolID SymbolWidth TooltipTemplateID Width

	WidthSource
See also	Activity.AttachedDateLineIDs Allocation.AttachedDateLineIDs Method.addDateLines Method.removeDateLines Method.updateDateLines Option.workDate Widget.SnapTargets

AppearanceType

Object Type	DateLine
Data Type	Enum.DateLineAppearanceType
Default	DateLineAppearanceType.Permanent
Explanation	As default the date line is visible permanently. When set to PointerOverAttachedBar, then this date line is only shown when the ID is included in the string array in the property AttachedDateLineIDs of an Activity or Allocation object and the bar representation is currently hovered by the user.
See also	DateLine.CaptionColorSource DateLine.CaptionFormat DateLine.ColorSource DateLine.DashArraySource DateLine.Draggable DateLine.PointInTimeSource DateLine.WidthSource

Caption

Object Type	DateLine
Data Type	string
Default	""
Explanation	Text for the caption of the date line. Note: 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	DateLine
Data Type	ColorAsString
Default	"black"
Explanation	Color of the caption.
See also	DateLine.CaptionColorSource

CaptionColorSource

Object Type	DateLine
Data Type	string
Default	undefined
Explanation	Only available when the property AppearanceType is set to PointerOverAttachedBar: If set to an existing property name of the attached object, then the value of the referenced property will be taken. Otherwise, the value in the property CaptionColor is taken. It is possible to reference properties of sub objects by using a syntax like "PropBag.PropName" (also more than one level allowed).
See also	DateLine.AppearanceType DateLine.CaptionColor

CaptionFormat

Object Type	DateLine
Data Type	string
Default	undefined
Explanation	<p>Text format for the caption of the date line. If set then this property is preferred over using the property Caption. Using this property allows to show a formatted caption including values of properties in an attached Activity or Allocation object (see property AppearanceType).</p> <p>The string contains the placeholders for object values surrounded by double curly braces {{ }}. As an escape, the use of three open curly braces {{{ are displayed as {{.</p> <p>Additionally, the property name can be extended to contain the desired property type as in {{Start:date}}. Currently only the types 'date' and 'number' are possible besides '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>It is also possible to access variables that are defined by the option applicationVariablesMap by using ?variableName.</p> <p>If the value reached is an object, you can then access a property value by using a prefixed dot: .propertyName 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>
See also	DateLine.AppearanceType Option.intlDateTimeFormatOptionsMap Option.intlNumberFormatOptionsMap

CaptionOrientation

Object Type	DateLine
-------------	--------------------------

Data Type	Enum.DateLineCaptionOrientation
Default	DateLineCaptionOrientation.Vertical
Explanation	Specifies whether the caption should be oriented vertically or horizontally. Note: 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	DateLine.CaptionPosition

CaptionPosition

Object Type	DateLine
Data Type	Enum.DateLineCaptionPosition
Default	DateLineCaptionPosition.Left
Explanation	Specifies where the caption should be positioned relative to the date line.
See also	DateLine.CaptionOrientation Option.dateLineCaptionOptimizedPositioningEnabled

Color

Object Type	DateLine
Data Type	ColorAsString
Default	"black"
Explanation	Color of the line.
See also	DateLine.ColorSource

ColorSource

Object Type	DateLine
Data Type	string
Default	undefined
Explanation	Only available when the property AppearanceType is set to PointerOverAttachedBar: If set to an existing property name of the attached object, then the value of the referenced property will be taken. Otherwise, the value in the property Color is taken. It is possible to reference properties of sub objects by using a syntax like "PropBag.PropName" (also more than one level allowed).
See also	DateLine.AppearanceType DateLine.Color

DashArray

Object Type	DateLine
Data Type	DashArrayAsString
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.
See also	DateLine.DashArraySource

DashArraySource

Object Type	DateLine
Data Type	string
Default	undefined
Explanation	Only available when the property AppearanceType is set to PointerOverAttachedBar: If set to an existing property name of the attached object, then the value of the referenced property will be taken. Otherwise, the value in the property DashArray is taken. It is possible to reference properties of sub objects by using a syntax like "PropBag.PropName" (also more than one level allowed).
See also	DateLine.AppearanceType DateLine.DashArray

Draggable

Object Type	DateLine
Data Type	boolean
Default	false
Explanation	Only available, when the property AppearanceType is set to Permanent: 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	Callback.onDrop DateLine.AppearanceType

ID

Object Type	DateLine
Data Type	IdentifierAsString
Default	required
Explanation	Identifier of the date line.

InFrontOfBars

Object Type	DateLine
Data Type	boolean
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.

IsVisibleInViewTypes

Object Type	DateLine
Data Type	Enum.ViewTypesForDateLines
Default	ViewTypesForDateLines.AllViews
Explanation	Determines in which view type this date line is visible.

PointInTime

Object Type	DateLine
Data Types	Date DateAsString
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.
See also	DateLine.PointInTimeSource

PointInTimeSource

Object Type	DateLine
Data Type	string
Default	undefined
Explanation	Only available when the property AppearanceType is set to PointerOverAttachedBar: If set to an existing property name of the attached object, then the value of the referenced property will be taken. Otherwise, the value in the property PointInTime is taken. It is possible to reference properties of sub objects by using a syntax like "PropBag.PropName" (also more than one level allowed).
See also	DateLine.AppearanceType DateLine.PointInTime

SymbolHeight

Object Type	DateLine
Data Type	PixelsAsNumber
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	DateLine.SymbolID TableCellDefinition.SymbolIDSource TableCellDefinition.SymbolWidth

SymbolID

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

SymbolWidth

Object Type	DateLine
Data Type	PixelsAsNumber
Data Range	> 0
Default	12
Explanation	Width of the symbol referenced by property SymbolID in pixels at a zoom factor of 100%.
See also	DateLine.SymbolID TableCellDefinition.SymbolHeight TableCellDefinition.SymbolIDSource

TooltipTemplateID

Object Type	DateLine
Data Type	IdentifierAsString
Default	undefined
Explanation	ID of a tooltip template. The template is used for tooltips that appear on the date line.
See also	ObjectType.TooltipTemplate

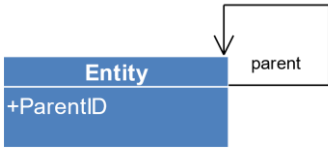
Width

Object Type	DateLine
Data Type	PixelsAsNumber
Data Range	≥ 0
Default	1
Explanation	Line width of the date line in pixels at a zoom factor of 100%.
See also	DateLine.WidthSource

WidthSource

Object Type	DateLine
Data Type	string
Default	undefined
Explanation	Only available when the property AppearanceType is set to PointerOverAttachedBar: If set to an existing property name of the attached object, then the value of the referenced property will be taken. Otherwise, the value in the property Width is taken. It is possible to reference properties of sub objects by using a syntax like "PropBag.PropName" (also more than one level allowed).
See also	DateLine.AppearanceType DateLine.Width

2.10 Entity

UML Diagram	 <pre> classDiagram class Entity { +ParentID } Entity --> 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 'Entity' class to itself.</p>
Explanation	<p>An Entity object defines the properties of a single entity. Entities are shown in a separate table on the right side.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: "my" or "app_").</p>
Members	AllowedRowDragModes CollapseState Duration HasChildren ID MinimumRowHeight ParentID RowCollapsible RowSelectable RowSymbolColumnBackgroundColor RowSymbolIDs RowTooltipTemplateID SortCode SuitableActivityIDs SuitableResourceIDs TableColor TableColorVisibleInTimeArea TableRowDefinitionID TableText TableTextColor
See also	Method.addEntities

	Method.removeEntities Method.updateEntities
Used by	Callback.visibilityFilterForEntities

AllowedRowDragModes

Object Type	Entity
Data Type	Enum.RowDragModes
Default	Value of Option.defaultEntityAllowedRowDragModes
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	Callback.canDrag Option.editable Option.rowsDraggable

CollapseState

Object Type	Entity
Data Type	Enum.CollapseState
Default	CollapseState.Unchanged
Explanation	Specifies whether the row of the entity should be expanded or collapsed when displayed the very first time.
See also	Callback.onCollapseStateChanged

Duration

Object Type	Entity
Data Type	number
Data Range	≥ 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	Entity
Data Type	boolean
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	Entity
Data Type	IdentifierAsString
Default	required
Explanation	Identifier of this entity

MinimumRowHeight

Object Type	Entity
Data Type	PixelsAsNumber
Data Range	> 0
Default	Value of Option.defaultEntityMinimumRowHeight
Explanation	<p>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. The height of any text inside a table column is not considered, even when using wrapping.</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	Entity.TableRowDefinitionID TableCellDefinition.WrapMode

ParentID

Object Type	Entity
Data Type	IdentifierAsString
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	Entity
Data Type	boolean
Default	Value of Option.defaultEntityRowCollapsible
Explanation	If set to true, then the row representing this entity will be interactively collapsible when children exist.

RowSelectable

Object Type	Entity
Data Type	boolean
Default	Value of Option.defaultEntityRowSelectable
Explanation	If set to true, then the row representing this entity will be selectable.

RowSymbolColumnBackgroundColor

Object Type	Entity
Data Type	ColorAsString
Default	Value of TableRowDefinition.SymbolColumnBackgroundColor Value of Option.symbolColumnBackgroundColor
Explanation	Determines the color of the symbol column within this table row.

RowSymbolIDs

Object Type	Entity
Data Type	IdentifierAsString[]
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>Note: 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	ObjectType.Symbol Option.entitiesTableSymbolColumnVisible Symbol.ID

RowTooltipTemplateID

Object Type	Entity
Data Type	IdentifierAsString
Default	Value of Option.defaultEntityRowTooltipTemplateID
Explanation	<p>ID of a tooltip template.</p> <p>The template is used for tooltips that appear on the entity table row.</p>
See also	ObjectType.TooltipTemplate

SortCode

Object Type	Entity
Data Types	number string Date
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	Option.entityRowSortCodePropertyName Option.entityRowSortMode

SuitableActivityIDs

Object Type	Entity
Data Type	IdentifierAsString[]
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"> • 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. • If the array is empty, all activity rows will be covered. • If the array is not defined, then all rows are displayed in the normal way without any covering.
See also	Allocation.SuitableActivityIDs ObjectType.Activity Option.suitableActivityOverlayColor Option.unsuitableActivityOverlayColor

SuitableResourceIDs

Object Type	Entity
Data Type	IdentifierAsString[]
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"> • 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. • If the array is empty, all resource rows will be covered. • If the array is not defined, then all rows are displayed in the normal way without any covering.
See also	Allocation.SuitableResourceIDs ObjectType.Resource Option.suitableResourceOverlayColor Option.unsuitableResourceOverlayColor

TableColor

Object Type	Entity
-------------	------------------------

Data Type	ColorAsString
Default	level-dependent gray
Explanation	Color for the table row. If not defined, a level-dependent gray value predefined in the widget is used.
See also	Entity.TableColorVisibleInTimeArea TableCellDefinition.BackgroundColorSource

TableColorVisibleInTimeArea

Object Type	Entity
Data Type	boolean
Default	false
Explanation	If set to true, the time area row will be colored using the color defined by the TableColor property.
See also	Entity.TableColor

TableRowDefinitionID

Object Type	Entity
Data Type	IdentifierAsString
Default	Value of Option.defaultEntityTableRowDefinitionID
Explanation	Identifier of a TableRowDefinition object that defines the composition of the table row.
See also	Entity.MinimumRowHeight Entity.TableText ObjectType.TableRowDefinition

TableText

Object Type	Entity
Data Type	string
Default	undefined
Explanation	Text to display in the table. Note: 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	Entity.TableRowDefinitionID TableCellDefinition.TextSource

TableTextColor

Object Type	Entity
Data Type	ColorAsString

Default	"black"
Explanation	Color for the table row texts. If undefined, a default value of the widget will be used.
See also	TableCellDefinition.TextColorSource

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" --> "0..*" HierarchyLevelSupplementaryDefinition TableRowDefinition "0..1" --> "0..*" TableCellDefinition </pre> <p>The diagram illustrates the structure of the GroupingLevelDefinition. It shows a hierarchy where a HierarchySupplementaryDefinition (containing an array of HierarchyLevelSupplementaryDefinitions) is composed of one or more HierarchyLevelSupplementaryDefinitions. Each HierarchyLevelSupplementaryDefinition contains an array of GroupingLevelDefinitions and a set of predefined groups. A TableRowDefinition (containing cell definitions) is associated with one or more HierarchyLevelSupplementaryDefinitions and one or more TableCellDefinitions. Each TableCellDefinition contains a text source and a title.</p>
Explanation	<p>Objects of this type are defined by the application and then put into the array of the GroupingLevelDefinitions property of a HierarchyLevelSupplementaryDefinition object. Therefore, they do not have their own ID property and there are no methods managing this object type. 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.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: "my" or "app_").</p>
Members	CodeToTextMap DefaultCode DefaultGroupingCode

	GroupingCodeSource GroupingCodeToTextMap InitiallyCollapsed MinimumRowHeight TableBackgroundColor TableColor TableColorVisibleInTimeArea TableRowDefinitionID TableTextColor TableTextFormat
See also	HierarchyLevelSupplementaryDefinition.GroupingLevelDefinitions

CodeToTextMap

Object Type	GroupingLevelDefinition
Deprecated	Use property GroupingLevelDefinition.GroupingCodeToTextMap instead.

DefaultCode

Object Type	GroupingLevelDefinition
Deprecated	Use property GroupingLevelDefinition.DefaultGroupingCode instead.

DefaultGroupingCode

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

GroupingCodeSource

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

GroupingCodeToTextMap

Object Type	GroupingLevelDefinition
Data Types	Map Object

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	GroupingLevelDefinition
Data Type	boolean
Default	false
Explanation	If this property is set to true, then the generated group rows initially are shown collapsed.

MinimumRowHeight

Object Type	GroupingLevelDefinition
Data Type	PixelsAsNumber
Data Range	> 0
Default	value of appropriate default option for the table
Explanation	<p>Minimum height of the group row in pixels.</p> <p>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 of the height of all bars (default bar height is 22) plus 20, so e.g. 42.</p>

TableBackgroundColor

Object Type	GroupingLevelDefinition
Deprecated	Use property GroupingLevelDefinition.TableColor instead.

TableColor

Object Type	GroupingLevelDefinition
Data Type	ColorAsString
Default	value of the higher group row
Explanation	Color for the table row.

TableColorVisibleInTimeArea

Object Type	GroupingLevelDefinition
Data Type	boolean
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	GroupingLevelDefinition
Data Type	IdentifierAsString
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>
See also	ObjectType.TableRowDefinition

TableTextColor

Object Type	GroupingLevelDefinition
Data Type	ColorAsString
Default	undefined
Explanation	Color for the table row texts.

TableTextFormat

Object Type	GroupingLevelDefinition
Data Type	string
Default	undefined
Explanation	<p>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>{{>MapText}}</code> to include the value of the map that is defined by the property CodeToTextMap else will show the group code itself.</p>

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 "0..*" *-- "0..*" GroupingLevelDefinition GroupingLevelDefinition "0..*" *-- "0..*" TableRowDefinition TableRowDefinition "0..1" --> "0..*" TableCellDefinition </pre>
Explanation	<p>Objects of this type are defined by the application and then put into the array of the HierarchyLevelSupplementaryDefinitions property of a HierarchySupplementaryDefinition object. Therefore, they do not have their own ID property and there are no methods managing this object type. Each HierarchyLevelSupplementaryDefinition object defines additional grouping for a level of row objects.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: “my” or “app_”).</p>
Members	GroupingLevelDefinitions InitiallyCollapsed PredefinedGroups TableRowDefinitionID
See also	HierarchySupplementaryDefinition.HierarchyLevelSupplementaryDefinitions

GroupingLevelDefinitions

Object Type	HierarchyLevelSupplementaryDefinition
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Data Type	GroupingLevelDefinition[]
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.
See also	ObjectType.GroupingLevelDefinition

InitiallyCollapsed

Object Type	HierarchyLevelSupplementaryDefinition
Data Type	boolean
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).

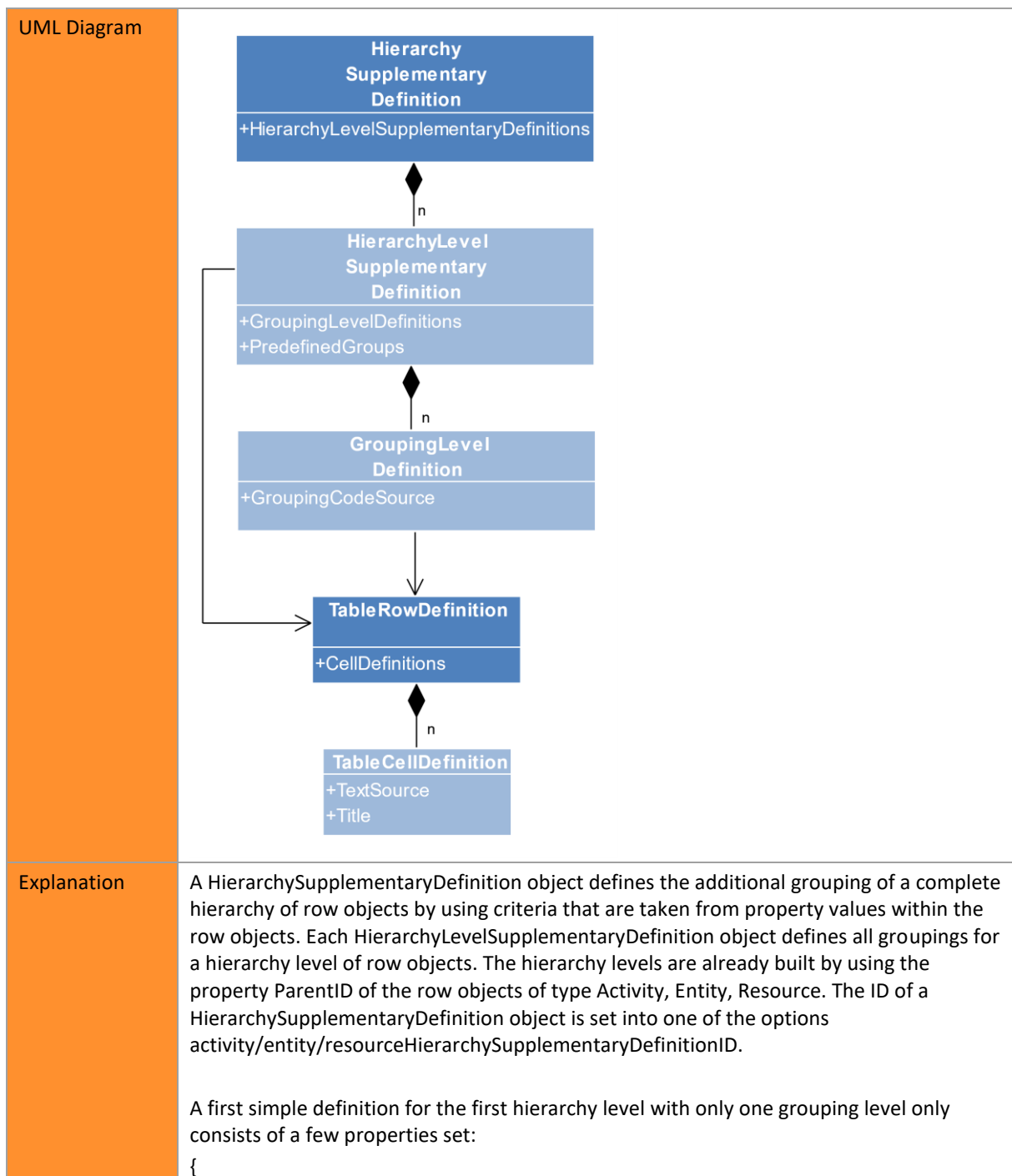
PredefinedGroups

Object Type	HierarchyLevelSupplementaryDefinition
Data Type	Object[]
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 <i>italics</i> 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	HierarchyLevelSupplementaryDefinition
Data Type	IdentifierAsString
Default	undefined
Explanation	If set, then the value overwrites the setting on an affected table row object (Activity/Entity/Resource).
See also	ObjectType.TableRowDefinition

2.13 HierarchySupplementaryDefinition



	<pre> "ID": "HSD1", "HierarchyLevelSupplementaryDefinitions": [// hierarchy level 0 { "GroupingLevelDefinitions": [// first grouping level { "GroupingCodeSource": "_Grp1", // e.g. referencing an application- // defined property "TableColor": "gold" }] }] } </pre> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: “my” or “app_”).</p>
Members	HierarchyLevelSupplementaryDefinitions ID
See also	Method.addHierarchySupplementaryDefinitions Method.removeHierarchySupplementaryDefinitions Method.updateHierarchySupplementaryDefinitions
Used by	Callback.compareActivities Callback.compareEntities Callback.compareResources Callback.determineGroupingCode Callback.onClicked Callback.onCollapseStateChanged Callback.onDoubleClicked Callback.onShowContextMenu Callback.onShowTooltip

HierarchyLevelSupplementaryDefinitions

Object Type	HierarchySupplementaryDefinition
Data Type	HierarchyLevelSupplementaryDefinition[]
Default	undefined
Explanation	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.
See also	ObjectType.HierarchyLevelSupplementaryDefinition

ID

Object Type	HierarchySupplementaryDefinition
Data Type	IdentifierAsString
Default	required
Explanation	Identifier of this hierarchy definition.

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 "1" -- "0..1" Activity : source Link "1" -- "0..1" Activity : target Link "1" -- "0..1" Allocation : source Link "1" -- "0..1" Allocation : target Link "1" *-- "0..*" LinkEntry Activity "0..1" -- "0..*" Allocation </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> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: "my" or "app_").</p>
Members	Color DashArray Entries

	ID RelationType RoutingType Selectable SourceActivityID SourceAllocationID TargetActivityID TargetAllocationID TargetMarker TooltipTemplateID Width
See also	Activity.ViewArea Method.addLinks Method.removeLinks Method.updateLinks Resource.ViewArea

Color

Object Type	Link
Data Type	ColorAsString
Default	"black"
Explanation	Color for the line.
Used by	LinkEntry.Color

DashArray

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

Entries

Object Type	Link
Data Type	LinkEntry[]
Default	undefined
Explanation	Array of link entry objects. This serves to color link section-wise. Note: The order of the entries inside the array is important.

ID

Object Type	Link
Data Type	IdentifierAsString
Default	required
Explanation	Identifier of this link.

RelationType

Object Type	Link
Data Type	Enum.RelationType
Default	RelationType.FinishToStart
Explanation	The relation type is used for drawing.
See also	Activity.LinkSourceDate Activity.LinkTargetDate Allocation.LinkSourceDate Allocation.LinkTargetDate

RoutingType

Object Type	Link
Data Type	Enum.LinkRoutingType
Default	Value of Option.defaultLinkRoutingType
Explanation	Type of the link routing.

Selectable

Object Type	Link
Data Type	boolean
Default	Value of Option.defaultLinkSelectable
Explanation	If set to true, then the link will be selectable.

SourceActivityID

Object Type	Link
Data Type	IdentifierAsString
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	Link.SourceAllocationID ObjectType.Activity

SourceAllocationID

Object Type	Link
Data Type	IdentifierAsString
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	Link.SourceActivityID ObjectType.Allocation

TargetActivityID

Object Type	Link
Data Type	IdentifierAsString
Default	undefined
Explanation	Identifier of the source activity. This property or property TargetAllocationID has to be set.
See also	Link.TargetAllocationID ObjectType.Activity

TargetAllocationID

Object Type	Link
Data Type	IdentifierAsString
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	Link.TargetActivityID ObjectType.Allocation

TargetMarker

Object Type	Link
Data Type	Enum.LinkMarker
Default	Value of Option.defaultLinkTargetMarker
Explanation	Allows to change the marker at the end (target) of a link.

TooltipTemplateID

Object Type	Link
Data Type	IdentifierAsString
Default	Value of Option.defaultLinkTooltipTemplateID
Explanation	ID of a tooltip template. The template is used for tooltips that appear on the links.
See also	ObjectType.TooltipTemplate

Width

Object Type	Link
Data Type	PixelsAsNumber
Data Range	≥ 0
Default	1
Explanation	Line width of the link. The link arrow is also affected by this property.

2.15 LinkEntry

Explanation	<p>Objects of this type are defined by the application and then put into the array of the Entries property of a Link object. Therefore, they do not have their own ID property and there are no methods managing this object type. A LinkEntry object defines a single period expressed as a duration in milliseconds. It must be referenced in the Entries array of a Link object.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: “my” or “app_”).</p>
Members	Color Duration

Color

Object Type	LinkEntry
Data Type	ColorAsString
Default	Value of Link.Color
Explanation	Color for the defined period.

Duration

Object Type	LinkEntry
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Data Type	number
Data Range	≥ 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 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 considered). This serves for marking a period 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..*" --> "0..1" PeriodHighlighter Resource "0..*" --> "0..1" PeriodHighlighter PeriodHighlighter "1" *-- "1..*" PeriodHighlighterEntry </pre>
Explanation	<p>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.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: “my” or “app_”).</p>
Members	Entries ID
See also	Activity.PeriodHighlighterID Method.addPeriodHighlighters Method.removePeriodHighlighters Method.updatePeriodHighlighters Resource.PeriodHighlighterID
Used by	Callback.onClicked Callback.onDoubleClicked Callback.onShowContextMenu Callback.onShowTooltip

Entries

Object Type	PeriodHighlighter
-------------	-----------------------------------

Data Type	PeriodHighlighterEntry[]
Default	required
Explanation	Array of entries that contain single time periods.

ID

Object Type	PeriodHighlighter
Data Type	IdentifierAsString
Default	required
Explanation	Identifier of the period highlighter.

2.17 PeriodHighlighterEntry

Explanation	<p>Objects of this type are defined by the application and then put into the array of the Entries property of a PeriodHighlighter object. Therefore, they do not have their own ID period and there are no methods managing this object type. The PeriodHighlighterEntry object defines a time range shown on a row of an Activity or Resource object, where the PeriodHighlighter is assigned by using the PeriodHighlighterID property of these objects.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: “my” or “app_”).</p>
Members	Caption CaptionColor Color End Start TooltipTemplateID
Used by	Callback.onClicked Callback.onDoubleClicked Callback.onShowContextMenu Callback.onShowTooltip

Caption

Object Type	PeriodHighlighterEntry
Data Type	string
Default	""
Explanation	<p>Text to show on the time period.</p> <p>Note: 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>

CaptionColor

Object Type	PeriodHighlighterEntry
Data Type	ColorAsString
Default	"white"
Explanation	Color of the caption for this time period.

Color

Object Type	PeriodHighlighterEntry
Data Type	ColorAsString
Default	"rgba(0,0,0,0.1)"
Explanation	Color of this time period.

End

Object Type	PeriodHighlighterEntry
Data Types	Date DateAsString
Default	required
Explanation	<p>End of the time period.</p> <p>The end date itself is not included in the time interval between start and end. This helps to calculate a duration and helps to show bars in a line, when an end date of one bar has the same value as the start date of a next bar. The same behavior also is true for all end dates used in the widget like e.g. in calendar entries, activities, activity entries, allocations, allocation entries.</p>

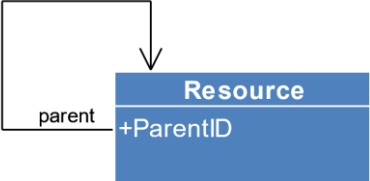
Start

Object Type	PeriodHighlighterEntry
Data Types	Date DateAsString
Default	required
Explanation	Start of the time period.

TooltipTemplateID

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

2.18 Resource

UML Diagram	 <pre> classDiagram class Resource { +ParentID } Resource --> 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	<p>A Resource object defines the properties of a single resource.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: “my” or “app_”).</p>
Members	<ul style="list-style-type: none"> AllocationRowsCollapseState AllocationRowsCollapseStateInActivitiesView AllocationRowsCollapsible AllocationRowsCollapsibleInActivitiesView AllowedRowDragModes CalendarGridColor CalendarID CapacityCurveID CollapsedRowDesign CollapseState CollapseStateInLoadsView CurveCollapseState CurveTooltipTemplateID ExpandedRowDesign HasAllocationRows HasChildren HasCurves ID LoadCurveID LoadCurvePaneHeight MinimumRowHeight ParentID PeriodHighlighterID RowCollapsible RowSelectable RowSymbolColumnBackgroundColor RowSymbolIDs RowTooltipTemplateID SkilledRowTooltipTemplateID SkillIDs SortCode TableColor TableColorVisibleInTimeArea TableRowDefinitionID TableText

	TableTextColor ViewArea
See also	Allocation.SuitableResourceIDs Entity.SuitableResourceIDs Method.addResources Method.removeResources Method.updateResources
Used by	Callback.onCurveCollapseStateChanged

AllocationRowsCollapseState

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

AllocationRowsCollapseStateInActivitiesView

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

AllocationRowsCollapsible

Object Type	Resource
Data Type	boolean
Default	Value of Option.defaultResourceAllocationRowCollapsible
Explanation	If set to true, then the row representing this resource row will be interactively collapsible when allocation rows exist.
Used by	Resource.AllocationRowsCollapsibleInActivitiesView

AllocationRowsCollapsibleInActivitiesView

Object Type	Resource
Data Type	boolean
Default	Value of Resource.AllocationRowsCollapsible
Explanation	If set to true, then the row representing this resource row will be interactively collapsible when allocation rows exist. This special property for the activities view helps in defining whether the collapse button show be visible or not separately from the appearance in the resource view.

AllowedRowDragModes

Object Type	Resource
Data Type	Enum.RowDragModes
Default	Value of Option.defaultResourceAllowedRowDragModes
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	Callback.canDrag Option.defaultResourceAllowedRowDragModes Option.editable Option.rowsDraggable

CalendarGridColor

Object Type	Resource
Data Type	ColorAsString
Default	Value of Option.calendarGridColor
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	Resource
Data Type	IdentifierAsString
Default	Value of Option.defaultCalendarID
Explanation	The given calendar is taken to show a calendar grid where working times and non-working times are visible using different colors, so that the user can see immediately where the resource has working time.
See also	ObjectType.Calendar Resource.PeriodHighlighterID

CapacityCurveID

Object Type	Resource
Data Type	IdentifierAsString
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	Enum.ViewType ObjectType.Curve

CollapsedRowDesign

Object Type	Resource
Data Type	Enum.RowDesigns
Default	Value of Option.defaultResourceCollapsedRowDesign
Explanation	Specifies how the time area is filled when the row is collapsed and visible.

CollapseState

Object Type	Resource
Data Type	Enum.CollapseState
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	Callback.onCollapseStateChanged Resource.CollapseStateInLoadsView

CollapseStateInLoadsView

Object Type	Resource
Data Type	Enum.CollapseState
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	Callback.onCollapseStateChanged Resource.CollapseState

CurveCollapseState

Object Type	Resource
Data Type	Enum.CollapseState

Default	CollapseState.Unchanged
Explanation	Specifies whether the curves in a resource row should be expanded or collapsed when displayed.
See also	Callback.onCurveCollapseStateChanged

CurveTooltipTemplateID

Object Type	Resource
Data Type	IdentifierAsString
Default	Value of Option.defaultResourceCurveTooltipTemplateID
Explanation	ID of a tooltip template. The template is used for tooltips that appear on the curve area of resources.
See also	ObjectType.TooltipTemplate

ExpandedRowDesign

Object Type	Resource
Data Type	Enum.RowDesigns
Default	Value of Option.defaultResourceExpandedRowDesign
Explanation	Specifies how the time area is filled when the row is expanded and visible.

HasAllocationRows

Object Type	Resource
Data Type	boolean
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	Resource
Data Type	boolean
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	Resource
Data Type	boolean

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	Resource
Data Type	IdentifierAsString
Default	required
Explanation	Identifier of the resource.

LoadCurveID

Object Type	Resource
Data Type	IdentifierAsString
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	Enum.ViewType ObjectType.Curve

LoadCurvePaneHeight

Object Type	Resource
Data Type	PixelsAsNumber
Data Range	> 0
Default	Value of Option.defaultResourceLoadCurvePaneHeight
Explanation	Height in pixels of the load curve pane.
See also	Option.maximumResourceLoadCurvePaneHeight Option.minimumResourceLoadCurvePaneHeight

MinimumRowHeight

Object Type	Resource
Data Type	PixelsAsNumber
Data Range	> 0
Default	Value of Option.defaultResourceMinimumRowHeight
Explanation	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 of the height of all bars (default bar height is 22) plus 20, so e.g. 42.

	<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> <p>In general, the height of a row is determined by several facts: The height of bars and the stacking of bars determine a height, that then is overlaid by the value of this property. The height of any text inside a table column or a bar is not considered, even when using wrapping.</p>
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ParentID

Object Type	Resource
Data Type	IdentifierAsString
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	Resource.ViewArea

PeriodHighlighterID

Object Type	Resource
Data Type	IdentifierAsString
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	ObjectType.PeriodHighlighter Resource.CalendarID

RowCollapsible

Object Type	Resource
Data Type	boolean
Default	Value of Option.defaultResourceRowCollapsible
Explanation	If set to true, then the row representing this resource will be interactively collapsible when children exist.

RowSelectable

Object Type	Resource
Data Type	boolean
Default	Value of Option.defaultResourceRowSelectable
Explanation	If set to true, then the row representing this resource will be selectable.

RowSymbolColumnBackgroundColor

Object Type	Resource
Data Type	ColorAsString
Default	Value of TableRowDefinition.SymbolColumnBackgroundColor Value of Option.symbolColumnBackgroundColor
Explanation	Determines the color of the symbol column within this table row.

RowSymbolIDs

Object Type	Resource
Data Type	IdentifierAsString[]
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>Note: 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	ObjectType.Symbol Option.symbolColumnVisible Symbol.ID

RowTooltipTemplateID

Object Type	Resource
Data Type	IdentifierAsString
Default	Value of Option.defaultResourceRowTooltipTemplateID
Explanation	<p>ID of a tooltip template.</p> <p>The template is used for the tooltip that appears in the table row when the mouse pointer hovers over it.</p>
See also	ObjectType.TooltipTemplate

SkilledRowTooltipTemplateID

Object Type	Resource
Data Type	IdentifierAsString
Default	Value of Option.defaultSkilledResourceRowTooltipTemplateID
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.
See also	ObjectType.TooltipTemplate

SkillIDs

Object Type	Resource
Data Type	IdentifierAsString[]
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!
See also	Enum.ViewType ObjectType.Skill

SortCode

Object Type	Resource
Data Types	number string Date
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	Option.resourceRowSortCodePropertyName Option.resourceRowSortMode

TableColor

Object Type	Resource
Data Type	ColorAsString
Default	level-dependent gray
Explanation	Color for the table row. If not defined, a level-dependent gray value predefined in the widget is used.
See also	Resource.TableColorVisibleInTimeArea TableCellDefinition.BackgroundColorSource

TableColorVisibleInTimeArea

Object Type	Resource
Data Type	boolean
Default	false
Explanation	If set to true, the time area row will be colored using the color defined by the TableColor property.
See also	Resource.TableColor

TableRowDefinitionID

Object Type	Resource
Data Type	IdentifierAsString
Default	Option.defaultResourceTableRowDefinitionID
Explanation	Identifier of a TableRowDefinition object, that defines the composition of the table row.
See also	ObjectType.TableRowDefinition Resource.TableText

TableText

Object Type	Resource
Data Type	string
Default	undefined
Explanation	Text to display in the table row. Note: 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	Resource.TableRowDefinitionID TableCellDefinition.TextSource

TableTextColor

Object Type	Resource
Data Type	ColorAsString
Default	"black"
Explanation	Color for the table row texts. If undefined, a default value of the widget will be used.
See also	TableCellDefinition.TextColorSource

ViewArea

Object Type	Resource
Data Type	Enum.ViewArea

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	ObjectType.Link Option.mainViewAreaVisibleInLoadsView Option.mainViewAreaVisibleInResourcesView Option.topViewAreaVisibleInLoadsView Option.topViewAreaVisibleInResourcesView Resource.ParentID

2.19 Skill

UML Diagram	<pre> classDiagram class Resource class Skill class Allocation Resource "0..*" --> "0..*" Skill Skill "0..1" --> "0..*" Allocation </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 allocationBarDesignOfOtherSkill). So, allocations also show up more than once in this view.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: “my” or “app_”).</p>
Members	AllowedRowDragModes CollapsedRowDesign CollapseState ID MinimumRowHeight RowCollapsible RowSelectable RowSymbolColumnBackgroundColor RowSymbolIDs RowTooltipTemplateID SortCode TableColor TableColorVisibleInTimeArea TableRowDefinitionID TableText TableTextColor

	ViewArea
See also	Allocation.SkillID Method.addSkills Method.removeSkills Method.updateSkills Option.allocationBarDesignOfOtherSkill Resource.SkillIDs
Used by	Callback.canDrag Callback.canSelect Callback.compareAllocations Callback.compareResources Callback.onClicked Callback.onCollapseStateChanged Callback.onCurveCollapseStateChanged Callback.onCurvePaneResized Callback.onDoubleClicked Callback.onDrag Callback.onDragEnd Callback.onDragStart Callback.onDrop Callback.onShowContextMenu Callback.onShowTooltip

AllowedRowDragModes

Object Type	Skill
Data Type	Enum.RowDragModes
Default	Value of Option.defaultSkillAllowedRowDragModes
Explanation	This option determines the allowed row drag modes for this skill (these can be overwritten using the callback canDrag).
See also	Callback.canDrag Option.defaultSkillAllowedRowDragModes Option.editable Option.rowsDraggable

CollapsedRowDesign

Object Type	Skill
Data Type	Enum.RowDesigns
Default	Value of Option.defaultSkillCollapsedRowDesign
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	Option.defaultSkillCollapsedRowDesign

CollapseState

Object Type	Skill
Data Type	Enum.CollapseState
Default	CollapseState.Unchanged
Explanation	Specifies whether the row of the skill should be expanded or collapsed.
See also	Callback.onCollapseStateChanged

ID

Object Type	Skill
Data Type	IdentifierAsString
Default	required
Explanation	Identifier of the skill.

MinimumRowHeight

Object Type	Skill
Data Type	PixelsAsNumber
Default	Value of Option.defaultSkillMinimumRowHeight
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 of the height of all bars (default bar height is 22) plus 20, so e.g. 42.</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> <p>In general, the height of a row is determined by several facts: The height of bars and the stacking of bars determine a height, that then is overlaid by the value of this property. The height of any text inside a table column or a bar is not considered, even when using wrapping.</p>
See also	Skill.TableRowDefinitionID TableCellDefinition.WrapMode

RowCollapsible

Object Type	Skill
Data Type	boolean
Default	Value of Option.defaultSkillRowCollapsible
Explanation	If set to true, then the row representing this skill will be interactively collapsible when children exist.

RowSelectable

Object Type	Skill
Data Type	boolean
Default	Value of Option.defaultSkillRowSelectable
Explanation	If set to true, then the row representing this skill will be selectable.

RowSymbolColumnBackgroundColor

Object Type	Skill
Data Type	ColorAsString
Default	Value of TableRowDefinition.SymbolColumnBackgroundColor Value of Option.symbolColumnBackgroundColor
Explanation	Determines the color of the symbol column within this table row.

RowSymbolIDs

Object Type	Skill
Data Type	IdentifierAsString[]
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>Note: 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	Skill
Data Type	IdentifierAsString
Default	Value of Option.defaultSkillRowTooltipTemplateID
Explanation	<p>ID of a tooltip template.</p> <p>The template is used for the tooltip that will appear on the table row when hovering the cursor above it.</p>
See also	ObjectType.TooltipTemplate

SortCode

Object Type	Skill
Data Types	number string Date

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	Option.skillRowSortCodePropertyName Option.skillRowSortMode

TableColor

Object Type	Skill
Data Type	ColorAsString
Default	level-dependent gray
Explanation	Color for the table row. If not defined, a level-dependent gray value predefined in the widget is used.
See also	Skill.TableColorVisibleInTimeArea

TableColorVisibleInTimeArea

Object Type	Skill
Data Type	boolean
Default	false
Explanation	If set to true, the time area row will be colored using the color defined by the TableColor property.
See also	Skill.TableColor

TableRowDefinitionID

Object Type	Skill
Data Type	IdentifierAsString
Default	Value of Option.defaultSkillTableRowDefinitionID
Explanation	Identifier of a TableRowDefinition object that defines the composition of the table row.
See also	ObjectType.TableRowDefinition Skill.MinimumRowHeight Skill.TableText

TableText

Object Type	Skill
Data Type	string
Default	undefined
Explanation	Text to display in the table row. Note: 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	Skill.TableRowDefinitionID
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TableTextColor

Object Type	Skill
Data Type	ColorAsString
Default	"black"
Explanation	Color for the table row texts.

ViewArea

Object Type	Skill
Data Type	Enum.ViewArea
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 mainViewAreaVisibleInSkilledResourcesView and topViewAreaVisibleInSkilledResourcesView .
See also	Option.mainViewAreaVisibleInSkilledResourcesView Option.topViewAreaVisibleInSkilledResourcesView

2.20 Symbol

UML Diagram	<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..*" --> "0..*" Symbol : +URL Allocation "0..*" --> "0..*" Symbol Resource "0..*" --> "0..*" Symbol Entity "0..*" --> "0..*" Symbol DateLine "0..*" --> "0..*" Symbol Symbol --> Symbol : +URL </pre>
Explanation	<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>An image contained in an PNG file or SVG file can use transparent backgrounds and can contain its own font includes. For the image you should avoid big empty borders around the graphics itself, because this results in smaller graphics on screen than maybe expected.</p>

	<p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: “my” or “app_”).</p> <p>Note: 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>If you want to use Font Awesome characters as images, please see the property InclusionMode for instructions.</p> <p>A note regarding PDF export: If you want to use our method saveAsPDF, then you will have to ensure that your SVG image files do not contain <style> tags, since the contained selectors may change the appearance of the exported SVG content. In case of existing <style> try to replace them by using style attributes on other tags. We can help if there are problems arising.</p>
Members	<p>Class</p> <p>ClickableInEntitiesTable</p> <p>ClickableInTable</p> <p>Color</p> <p>ID</p> <p>InclusionMode</p> <p>TooltipTemplateID</p> <p>URL</p>
See also	<p>Activity.BarShapeSymbolID</p> <p>Activity.BarTextPrefixSymbolID</p> <p>Activity.BaselineDueDateSymbolID</p> <p>Activity.BaselineReleaseDateSymbolID</p> <p>Activity.DueDateSymbolID</p> <p>Activity.LeftBarSymbolID</p> <p>Activity.RightBarSymbolID</p> <p>Activity.RowSymbolIDs</p> <p>Activity.TopLeftBarSymbolID</p> <p>Activity.TopRightBarSymbolID</p> <p>Allocation.BarShapeSymbolID</p> <p>Allocation.BarTextPrefixSymbolID</p> <p>Allocation.LeftBarSymbolID</p> <p>Allocation.RightBarSymbolID</p> <p>Allocation.TopLeftBarSymbolID</p> <p>Allocation.TopRightBarSymbolID</p> <p>Entity.RowSymbolIDs</p> <p>https://websemantics.uk/tools/image-to-data-uri-converter/</p> <p>Method.addSymbols</p> <p>Method.removeSymbols</p>

	Method.updateSymbols Resource.RowSymbolIDs
--	---

Class

Object Type	Symbol
Data Type	string
Default	""
Explanation	Only active when property InclusionMode is set to EmbeddingReference. When defining one or more CSS class names here, you can style the FontAwesome characters.
See also	Symbol.Color Symbol.InclusionMode

ClickableInEntitiesTable

Object Type	Symbol
Data Type	boolean
Default	false
Explanation	If set to true, then the symbol is clickable in the entities table.

ClickableInTable

Object Type	Symbol
Data Type	boolean
Default	false
Explanation	If set to true, then the symbol is clickable in the table.

Color

Object Type	Symbol
Data Type	string
Default	"black"
Explanation	Only active when property InclusionMode is set to EmbeddingReference. With this property, you can color the FontAwesome characters.
See also	Symbol.Class Symbol.InclusionMode

ID

Object Type	Symbol
Data Type	IdentifierAsString
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	Activity.BarShapeSymbolID Activity.BarTextPrefixSymbolID Activity.DueDateSymbolID Activity.LeftBarSymbolID Activity.ReleaseDateSymbolID Activity.RightBarSymbolID Activity.RowSymbolIDs Activity.TopLeftBarSymbolID Activity.TopRightBarSymbolID Allocation.BarShapeSymbolID Allocation.BarTextPrefixSymbolID Allocation.LeftBarSymbolID Allocation.RightBarSymbolID Allocation.RowSymbolIDs Allocation.TopLeftBarSymbolID Allocation.TopRightBarSymbolID DateLine.SymbolID Entity.RowSymbolIDs Resource.RowSymbolIDs

InclusionMode

Object Type	Symbol
Data Type	Enum.SymbolInclusionMode
Default	SymbolInclusionMode.Default
Explanation	<p>If set to EmbeddingReference, then the content of property URL is directly embedded into the DOM tree. This allows to use single characters Font Awesome using the method "SVG Symbols". There the symbols are invisibly preloaded. Advantage is the possible coloring or styling of the character by using the properties Color and Class. By default, the symbols will be black except the BarTextPrefixSymbol on activity and allocation bars, that will be painted using BarTextColor.</p> <p>Including Font Awesome characters are as easy as follows then:</p> <ol style="list-style-type: none"> 1. Include Font Awesome into your application by using a kit or these lines: <pre><script src="https://cdn.jsdelivr.net/npm/@fortawesome/fontawesome-free@6.7.2/js/solid.min.js"></script> <script src="https://cdn.jsdelivr.net/npm/@fortawesome/fontawesome-free@6.7.2/js/fontawesome.min.js" data-observe-mutations="false"></script></pre> 2. Please include the needed symbol into the HTML of your page like this: <pre><i data-fa-symbol="anchor" class="fas fa-anchor fa-fw"></i></pre> 3. Only if the symbols are to be shown directly in the first appearance of the page, you will have to ensure, that FontAwesome is loaded and the method i2svg is run once, by putting your code into this embrace: <pre>document.addEventListener("DOMContentLoaded", function () { window.FontAwesome.dom.i2svg().then(() => {</pre>

	<pre>// your code }; });</pre> <p>4. A Symbol object can then be defined like this:</p> <pre>{ "ID": "Symbol123", "URL": "#anchor", "InclusionMode": SymbolInclusionMode.EmbeddingReference, "Class": "app-symbol-color-anchor" }</pre> <p>To avoid that Font Awesome scans the HTML document over and over when VSW changes the DOM, please configure Font Awesome e.g. by setting data-observe-mutations="false" in the <include> tag. This saves much performance!</p>
See also	https://docs.fontawesome.com/web/add-icons/svg-symbols Symbol.Class Symbol.Color

TooltipTemplateID

Object Type	Symbol
Data Type	IdentifierAsString
Default	undefined
Explanation	ID of a tooltip template. The template is used for the tooltip that appears when the mouse pointer hovers over it.
See also	ObjectType.TooltipTemplate

URL

Object Type	Symbol
Data Type	string
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.aaazzz.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	https://en.wikipedia.org/wiki/Data_URI_scheme https://www.sarasoueidan.com/blog/svg-tips-for-designers/ https://www.w3.org/TR/SVGTiny12

2.21 TableCellDefinition

Explanation	<p>Objects of this type are defined by the application and then put into the array of the CellDefinitions property of a TableRowDefinition object. Therefore, they do not have their own ID property and there are no methods managing this object type. An object of this type serves to define the graphical attributes and the content of a table cell within the table row.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: “my” or “app_”).</p>
Members	BackgroundColor BackgroundColorSource HorizontalAlignment HorizontalTitleAlignment MaximumWidth MinimumWidth SymbolHeight SymbolIDSource SymbolWidth TextColor TextColorSource TextFormat TextSource Title TitleText VerticalAlignment Width WrapMode
See also	Callback.onTableCellDefinitionWidthChanged

BackgroundColor

Object Type	TableCellDefinition
Data Type	ColorAsString
Default	undefined
Explanation	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.
See also	TableCellDefinition.BackgroundColorSource TableRowDefinition.BackgroundColor

BackgroundColorSource

Object Type	TableCellDefinition
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Data Type	string
Default	undefined
Explanation	If set to a property name of the activity, allocation, resource, or entity object where the table row definition is assigned to 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 <code>TableColor</code> of the row object. So, this property setting makes it possible to color the cell differently depending on the value of the referenced property in every row. It is possible to reference properties of sub objects by using a syntax like “ <code>PropBag.PropName</code> ” (also more than one level allowed).
See also	Activity.TableColor Allocation.TableColor Entity.TableColor Resource.TableColor TableCellDefinition.BackgroundColor TableRowDefinition.BackgroundColor

HorizontalAlignment

Object Type	TableCellDefinition
Data Type	Enum.HorizontalAlignment
Default	<code>HorizontalAlignment.Left</code>
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	TableCellDefinition.VerticalAlignment

HorizontalTitleAlignment

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

MaximumWidth

Object Type	TableCellDefinition
Data Type	PixelsAsNumber
Data Range	≥ 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	TableCellDefinition
Data Type	PixelsAsNumber
Data Range	≥ 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	TableCellDefinition
Data Type	PixelsAsNumber
Default	undefined
Explanation	This property only is active, when a symbol is shown in the table cell. If set, then the symbol height is constant. If not set, then the symbol height is determined on each table row by its minimum row height.
See also	TableCellDefinition.SymbolIDSource TableCellDefinition.SymbolWidth
Used by	TableCellDefinition.SymbolWidth

SymbolIDSource

Object Type	TableCellDefinition
Data Type	string
Default	""
Explanation	<p>Name of the property of the referencing activity, allocation, resource, or entity object from which the symbol ID is taken. So, this property setting makes it possible to show different symbols depending on the value of the referenced property in every row. It is possible to reference properties of sub objects by using a syntax like "PropBag.PropName" (also more than one level allowed).</p> <p>The symbol will be displayed in the cell inside a square that has the size of the minimum row height. But you can define the size optionally using the properties SymbolWidth and SymbolHeight.</p> <p>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.</p>
See also	TableCellDefinition.SymbolHeight TableCellDefinition.SymbolWidth TableCellDefinition.TextSource

SymbolWidth

Object Type	TableCellDefinition
-------------	-------------------------------------

Data Type	PixelsAsNumber
Default	Value of TableCellDefinition.SymbolHeight
Explanation	This property only is active, when a symbol is shown in the table cell. If set, then the symbol width is constant. If not set, then the symbol will be stretched to be square.
See also	TableCellDefinition.SymbolHeight TableCellDefinition.SymbolIDSource

TextColor

Object Type	TableCellDefinition
Data Type	ColorAsString
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	TableCellDefinition.TextColorSource TableRowDefinition.TextColor

TextColorSource

Object Type	TableCellDefinition
Data Type	string
Default	undefined
Explanation	If the value is set to a property name of the activity, allocation, resource, or entity object where the table row definition is assigned to and the value of this property on the row object is not empty, then the value there overlays the text color defined by property TextColor and property TableTextColor of the row object. So, this property setting makes it possible to color the text differently depending on the value of the referenced property in every row. It is possible to reference properties of sub objects by using a syntax like "PropBag.PropName" (also more than one level allowed).
See also	Activity.TableTextColor Allocation.TableTextColor Entity.TableTextColor Resource.TableTextColor TableCellDefinition.TextColor

TextFormat

Object Type	TableCellDefinition
Data Type	string
Default	undefined
Explanation	String that describes the format of the content of the cell. This property overlays the property TextSource.

	<p>This string contains the placeholders for object values surrounded by double curly braces {{ }}. 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 {{{ are displayed as {{.</p> <p>Additionally, the property name can be extended to contain the desired property type as in {{Start:date}}. Currently only the types 'date' and 'number' are possible besides '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"> • On activities: >Parent, >Calendar • On resources: >Parent, >Calendar, >LoadCurve, >CapacityCurve • Additionally on resources in SkilledResources view: >Skill • On entities: >Parent • On allocations: >Activity, >Resource • On links: >SourceActivity, >TargetActivity, >SourceAllocation, >TargetAllocation <p>It is also possible to access variables that are defined by the option applicationVariablesMap by using ?variableName.</p> <p>If the value reached is an object, you can then access a property value by using a prefixed dot: .propertyName 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>
See also	Option.applicationVariablesMap Option.intlDateTimeFormatOptionsMap Option.intlNumberFormatOptionsMap TableCellDefinition.TextSource

TextSource

Object Type	TableCellDefinition
Data Type	string
Default	"" (when property SymbolIDSource is set) "TableText"
Explanation	Property to take the text out of the referencing activity, allocation, resource, or entity object. So, this property setting makes it possible to show different text dependent on the value of the referenced property in every row. It is possible to reference properties of

	sub objects by using a syntax like “PropBag.PropName” (also more than one level allowed).
See also	Activity.TableText Allocation.TableText Entity.TableText Resource.TableText TableCellDefinition.SymbolIDSource TableCellDefinition.TextFormat

Title

Object Type	TableCellDefinition
Deprecated	Use property TableCellDefinition.TitleText instead.

TitleText

Object Type	TableCellDefinition
Data Type	string
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>Note: 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	Option.tableRowDefinitionIDForTitleInActivitiesView Option.tableRowDefinitionIDForTitleInEntitiesTable Option.tableRowDefinitionIDForTitleInLoadsView Option.tableRowDefinitionIDForTitleInResourcesView

VerticalAlignment

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

Width

Object Type	TableCellDefinition
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Data Type	PixelsAsNumber
Data Range	≥ 0
Default	200
Explanation	Width of the table cell in pixels at a zoom factor of 100%.

WrapMode

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

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..1" *-- "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 tableRowDefinitionIDForTitleInActivities/Resources/ LoadsView or tableRowDefinitionIDForTitleInEntitiesTable.</p> <p>Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: “my” or “app_”).</p>

Members	BackgroundColor CellDefinitions ID SymbolColumnBackgroundColor TextColor TitleBackgroundColor TitleTextColor
See also	Activity.TableRowDefinitionID Allocation.TableRowDefinitionID Callback.onTableCellDefinitionWidthChanged Entity.TableRowDefinitionID GroupingLevelDefinition.TableRowDefinitionID HierarchyLevelSupplementaryDefinition.TableRowDefinitionID Method.addTableRowDefinitions Method.removeTableRowDefinitions Method.updateTableRowDefinitions Option.defaultActivityTableRowDefinitionID Option.defaultAllocationTableRowDefinitionID Option.defaultEntityTableRowDefinitionID Option.defaultResourceTableRowDefinitionID Resource.TableRowDefinitionID Skill.TableRowDefinitionID
Used by	Callback.onTableCellDefinitionWidthChanged

BackgroundColor

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

CellDefinitions

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

ID

Object Type	TableRowDefinition
Data Type	IdentifierAsString
Default	required
Explanation	Identifier of the table row definition.

SymbolColumnBackgroundColor

Object Type	TableRowDefinition
Data Type	ColorAsString
Default	Value of Option.symbolColumnBackgroundColor Value of Option.entitiesTableSymbolColumnBackgroundColor
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	Activity.RowSymbolColumnBackgroundColor Allocation.RowSymbolColumnBackgroundColor Entity.RowSymbolColumnBackgroundColor Resource.RowSymbolColumnBackgroundColor Skill.RowSymbolColumnBackgroundColor

TextColor

Object Type	TableRowDefinition
Data Type	ColorAsString
Default	undefined
Explanation	Text color of the table row definition. The value is only used when not undefined and is overlayed by the text color of the table row defined in the property TableTextColor of the row object.
See also	TableCellDefinition.TextColor

TitleBackgroundColor

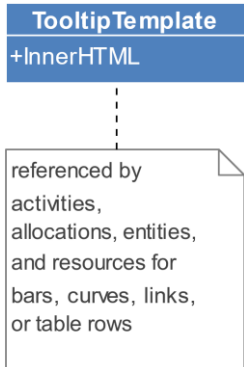
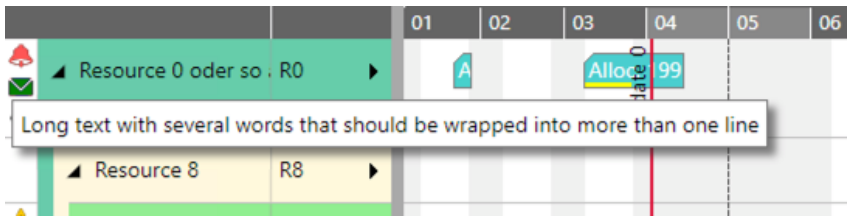
Object Type	TableRowDefinition
Data Type	ColorAsString
Default	"#646464"
Explanation	Background color of the table title.

TitleTextColor

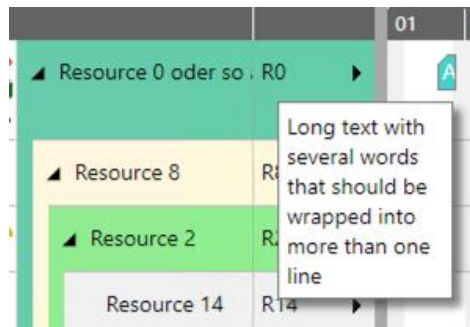
Object Type	TableRowDefinition
Data Type	ColorAsString

Default	"white"
Explanation	Text color of the table title.

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 TooltipTemplate 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 onShowTooltip callback.</p> <p>Or you can use the properties TooltipTemplateID, BarTooltipTemplateID, RowTooltipTemplateID, and CurveTooltipTemplateID of the activities, resources, allocations, links, and entities. Additionally there exists the property TooltipTemplateID on period highlighter entries. All these properties have fallback options named:</p> <ul style="list-style-type: none"> defaultActivityBar/AllocationBarTooltipTemplateID defaultActivityRow/AllocationRow/ResourceRow/EntityRowTooltipTemplateID defaultResourceCurve/Entity/PeriodHighlighterEntryTooltipTemplateID <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><table><tr><td>Long text with several words that should be wrapped into more than one line</td></tr></table></pre>  <p>In order to limit the width of the tooltip, you can set some attributes on the tags:</p>

```
<table style="word-wrap: break-word;"><tr><td style="max-width: 100px;">Long text  
with several words that should be wrapped into more than one line</td></tr></table>
```



Of course, you are free to use other HTML tags within the markup, also including images by using data URIs.

Each object of this type can include additional properties that are used inside the application. These additional properties are ignored by the widget. It is recommended to use an application-specific prefix for them to avoid that later versions of the widget interpret the values of those properties accidentally (examples for a prefix: “my” or “app_”).

Members

[HTMLFormat](#)
[ID](#)
[InnerHTML](#)
[IsInteractive](#)

See also

[Activity.BarBottomOutsideTextTooltipTemplateID](#)
[Activity.BarTooltipTemplateID](#)
[Activity.BarTopOutsideTextTooltipTemplateID](#)
[Activity.BaselineDueDateTooltipTemplateID](#)
[Activity.BaselineReleaseDateTooltipTemplateID](#)
[Activity.BaselineTooltipTemplateID](#)
[Activity.DueDateTooltipTemplateID](#)
[Activity.EarliestEndTooltipTemplateID](#)
[Activity.EarliestStartTooltipTemplateID](#)
[Activity.LatestEndTooltipTemplateID](#)
[Activity.LatestStartTooltipTemplateID](#)
[Activity.MustEndOnTooltipTemplateID](#)
[Activity.MustStartOnTooltipTemplateID](#)
[Activity.ReleaseDateTooltipTemplateID](#)
[Activity.RowTooltipTemplateID](#)
[Allocation.BarBottomOutsideTextTooltipTemplateID](#)
[Allocation.BarTooltipTemplateID](#)
[Allocation.BarTopOutsideTextTooltipTemplateID](#)
[Allocation.EarliestEndTooltipTemplateID](#)
[Allocation.EarliestStartTooltipTemplateID](#)
[Allocation.LatestEndTooltipTemplateID](#)
[Allocation.LatestStartTooltipTemplateID](#)
[Allocation.MustEndOnTooltipTemplateID](#)
[Allocation.MustStartOnTooltipTemplateID](#)
[Allocation.RowTooltipTemplateID](#)
[Allocation.SkilledBarTooltipTemplateID](#)

[Allocation.SkilledRowTooltipTemplateID](#)
[DateLine.TooltipTemplateID](#)
[Entity.RowTooltipTemplateID](#)
[Link.TooltipTemplateID](#)
[Method.addTooltipTemplates](#)
[Method.removeTooltipTemplates](#)
[Method.updateTooltipTemplates](#)
[Option.defaultActivityBarTooltipTemplateID](#)
[Option.defaultActivityRowTooltipTemplateID](#)
[Option.defaultAllocationBarTooltipTemplateID](#)
[Option.defaultAllocationRowTooltipTemplateID](#)
[Option.defaultEntityRowTooltipTemplateID](#)
[Option.defaultResourceCurveTooltipTemplateID](#)
[Option.defaultResourceRowTooltipTemplateID](#)
[PeriodHighlighterEntry.TooltipTemplateID](#)
[Resource.CurveTooltipTemplateID](#)
[Resource.RowTooltipTemplateID](#)
[Resource.SkilledRowTooltipTemplateID](#)
[Skill.RowTooltipTemplateID](#)
[Symbol.TooltipTemplateID](#)

HTMLFormat

Object Type	TooltipTemplate
Data Type	string
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 {{ }}. 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> <table> <tr><td>Name: </td><td>{{name}}</td></tr> <tr><td>First name: </td><td>{{firstName}}</td></tr> <tr><td>Age: </td><td>{{age}}</td></tr> </table> </pre> <p>As an escape, the use of three open curly braces {{{ are displayed as {{.</p> <p>Additionally, the property name can be extended to contain the desired property type as in {{Start:date}}. Currently only the types 'date' and 'number' are possible besides '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"> • On activities: >Parent, >Calendar • On resources: >Parent, >Calendar, >LoadCurve, >CapacityCurve • On entities: >Parent • On allocations: >Activity, >Resource • On links: >SourceActivity, >TargetActivity, >SourceAllocation, >TargetAllocation <p>It is also possible to access variables that are defined by the option applicationVariablesMap by using ?variableName.</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"> • On allocations: #Entry • On period highlighters: #Entry, #RowObject. • On curves: #Date, #Capacity, #Load, #FreeCapacity, #SingleLoads. For #SingleLoads you must add .curveID to get the curve value for a single curve. #FreeCapacity represents the capacity reduced by the load. • On resources and allocation rows in the skilled resources view: #Skill. <p>If the value reached is an object, you can then access a property value by using a prefixed dot: .propertyName 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 {{@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).</p>
See also	Option.applicationVariablesMap

ID

Object Type	TooltipTemplate
Data Type	IdentifierAsString
Default	required
Explanation	Identifier of the tooltip template.

InnerHTML

Object Type	TooltipTemplate
Deprecated	Use property TooltipTemplate.HTMLFormat instead.

IsInteractive

Object Type	TooltipTemplate
Data Type	boolean
Default	false
Explanation	<p>When set to false, which is the default, the tooltip is treated as being not interactive. This means that the user cannot interact with it e.g. by clicking into it. Therefore, the tooltip in this case does not accept pointer events and disappears when the pointer cursor leaves the rectangle of the object that made the tooltip appear before.</p> <p>When set to true, the tooltip is treated as being interactive. This means that the user can interact with it e.g. by clicking into it. The HTML therefore can include scrollable areas or hyperlinks or other input elements. The tooltip will disappear when the pointer cursor leaves the rectangle of the object that made the tooltip appear before only when the cursor moves away from the tooltip or when leaving the tooltip rectangle after entering it.</p>

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.

The widget is developed to run within a browser environment. It cannot be run in a Node.js environment.

The underlying libraries (all file names start with “nwaf-”) are provided in two flavors:

UMD (Universal Module Definition)

This is either the “classic” or the “AMD” (Asynchronous Module Definition) way for web applications like Require.js asynchronously. UMD (Universal Module Definition) therefore stands for “classic or AMD”. The libraries that implement the VSW are as follows:

```
nwaf-apptools.min.js (AMD module name: "nwaf_apptools")
nwaf-table.min.js (AMD module name: "nwaf_table")
nwaf-gantt.min.js (AMD module name: "nwaf_gantt")
nwaf-rab.min.js (AMD module name: "nwaf_rab")
```

The JavaScript files must be loaded in the order shown above, when used in an application working with the classic approach (HTML inclusion). There are four CSS files that must be loaded additionally by HTML <link> tags.

If using the AMD approach, the JavaScript files are loaded asynchronously (e.g. by using Require.js). In this case with the AMD module name "nwaf_rab" is the one to require. It exposes all enums and the VSWWidget object. This is also true when using application bundlers like Webpack.

After loading the libraries, you can instantiate the widget in **UMD flavor** pure or by using jQuery UI:

- **Pure:**

Use code like

```
const { VSWWidget } = netronic.nVSW;
```

```
const vsWidgetInstance =
```

```
  new VSWWidget(document.querySelector("#ganttDiv"), options),
```

where 'options' is an optional object containing first settings if needed (otherwise it can be omitted).

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.

Note: You can access the widget instance also by reading the property **_vsWidget** on the DIV element handed over to the constructor!

Note: Additionally for **TypeScript** applications, the type definition is provided with the file name “**vsw-se.d.ts**”.

- **With jQuery UI (not recommended anymore):**

After preloading jQuery and jQuery UI use a call like

```
$("#ganttDiv").nVSWWidget(options),
```

where 'options' is an optional object containing first settings if needed (otherwise it can be omitted).

After that you can set additional options and use the provided methods using the typical jQuery UI syntax `$("#ganttDiv").nVSWWidget(methodNameAsString, params)` or by getting the widget instance object first by using `$("#ganttDiv").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.

ESM (ECMAScript Module)

You can load the libraries within the JavaScript file using an import statement or the import function. This needs an application that uses ES modules at all. The modules that implement the VSW are as follows:

nwaf-apptools.esm.min.mjs (internal name for import map: "nwaf_apptools")
 nwaf-table.esm.min.mjs (internal name for import map: "nwaf_table")
 nwaf-gantt.esm.min.mjs (internal name for import map: "nwaf_gantt")
 nwaf-rab.esm.min.mjs (recommended name for import map: "nwaf_rab")

They are loaded by import only "nwaf-rab.esm.min.mjs". CSS definitions are embedded inside the JavaScript code of the libraries. The module with the name "nwaf_rab" is the one exporting all enums and the VSWidget object. The use of an import map is necessary.

After loading the libraries you can instantiate the widget in **ESM flavor** like this:

Use code like

```
import { VSWidget } from "nwaf_rab";  
const vsWidgetInstance =  
  new VSWidget(document.querySelector("#ganttDiv"), options),
```

where 'options' is an optional object containing first settings if needed (otherwise it can be omitted). After that you can set additional options and use the provided methods on the returned widget object.

Note: You will have to use an import map in the HTML file to map the symbolic module name to a real file name. Have a look into the provided ESM variant of the SampleApp for how to define the import map. Same is true for the **TypeScript** variant of the SampleApp, for which the appropriate type definition is provided with the file name "**vsw-se.esm.d.ts**" additionally.

Note: You can access the widget instance also by reading the property **_vsWidget** on the DIV element handled over to the constructor!

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.

General hints:

The initial options at instantiation should at least contain the following ones:

licenseKey (for getting the widget to work)

start/end (to define the time range to be visible at least by using the horizontal scroll bar. These settings can be overwritten later.)

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>A note regarding the old "pm_" prefix of the widget options: The old "pm_" prefix has been removed from the widget options for simplicity. We hardly recommend to change existing code as the old notation of the options will not be supported with the release of the next feature version due to performance reasons!</p>
Members	activityBarSortModeForStackedRowDesign activityBarTopOffsetAndHeightScaleFactor activityBaselineBarsVisible activityCalendarsEnabled activityHierarchySupplementaryDefinitionID activityRowSortCodePropertyName activityRowSortMode activityTableRowDefinitionIDForTitle additionalDateInterpretedAsEmpty additionalDateStringInterpretedAsEmpty allocationBarDesignOfOtherActivity allocationBarDesignOfOtherSkill allocationBarSortModeForStackedRowDesign allocationBarTopOffsetAndHeightScaleFactor allocationRowSortCodePropertyName allocationRowSortMode allocationRowsVisibleInActivitiesView allocationRowsVisibleInResourcesView allocationRowsVisibleInSkilledResourcesView allocationSelectableOnlyOnOneResourceAtATime applicationStyleDefinition applicationVariablesMap asynchronousInteractiveTimeAreaStretching asynchronousRendering automaticDestroyingOnDOMNodeRemoved barsDraggable barSortModeForOptimizedRowDesign bottomRowMarginInTimeArea calendarGridColor calendarGridWeekendColor clickCallbackTriggeringOnRowInTimeArea collapseExpandButtonSymbolsMode commonViewAreaVisible currentDate cursorDateLineVisible curvePanelsCollapsibleInResourcesView curvePanelsCollapsibleInSkilledResourcesView curvePanelsResizable curvePanelsVisibleInActivitiesView dateLineCaptionOptimizedPositioningEnabled dateLineGridColor

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	treeViewLineColor
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	triggeringOfOnShowContextMenuInTimeAreaOfRow
	triggeringOfOnShowTooltipForEntriesInBarsEnabled
	unsuitableActivityOverlayColor
	unsuitableResourceOverlayColor
	version
	viewType
	visualZoomFactor
	watermarkOpacity
	watermarkSymbolID
	weekNumbering
	workDate
	workDateLineCaption
	worldViewExtent
	worldViewPosition
	worldViewVisible

activityBarSortModeForStackedRowDesign

Object Type	Widget.Option
Data Type	Enum.BarSortMode
Default	BarSortMode.StartAndEnd
Explanation	<p>Determines how the activity bars are sorted in a row where the bars are shown vertically stacked, means that they do not visually overlap each other.</p> <p>When the bars are not shown vertically stacked, then they will be shown sorted by start and end. This means that a bar that starts earlier than another bar is placed behind the latter bar. For bars that start at the same time, the longer bar is placed behind the shorter one.</p>

See also	Enum.BarSortMode Enum.RowDesigns
----------	---

activityBarTopOffsetAndHeightScaleFactor

Object Type	Widget.Option
Data Type	number
Data Range	$> 0 \dots \leq 10$
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	Widget.Option
Data Type	boolean
Default	true
Explanation	If set to false, no baseline bars are displayed for the activities.
See also	Activity.BaselineEnd Activity.BaselineStart

activityCalendarsEnabled

Object Type	Widget.Option
Data Type	boolean
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	Activity.CalendarID

activityHierarchySupplementaryDefinitionID

Object Type	Widget.Option
Data Type	IdentifierAsString
Default	undefined
Explanation	ID of a HierarchySupplementaryDefinition object that will be used to specify grouping parameters for hierarchy of activity objects.
See also	Enum.ViewType

activityRowSortCodePropertyName

Object Type	Widget.Option
Data Type	string
Default	"SortCode"
Explanation	<p>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.</p> <p>If using interactive vertical row dragging, the specified data property must contain values of number type.</p>
See also	Activity.SortCode Option.activityRowSortMode Option.interactiveSwitchingOfSortOrderEnabled Option.sortingIndicatorVisible

activityRowSortMode

Object Type	Widget.Option
Data Type	Enum.RowSortMode
Default	RowSortMode.None
Explanation	<p>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.</p> <p>The prerequisite for automatic calculation of sort codes after vertical dragging of activity rows is the use of ascending mode.</p> <p>If the mode is None, a callback handler declared using the callback option <code>compareActivities</code> will be active.</p>
See also	Activity.SortCode Callback.compareActivities Enum.ViewType Option.activityRowSortCodePropertyName Option.interactiveSwitchingOfSortOrderEnabled Option.sortingIndicatorVisible

activityTableRowDefinitionIDForTitle

Object Type	Widget.Option
Deprecated	Use option Option.tableRowDefinitionIDForTitleInActivitiesView instead.

additionalDateInterpretedAsEmpty

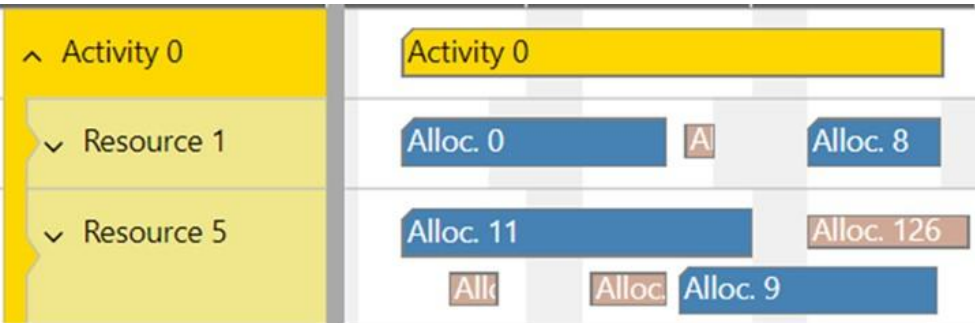
Object Type	Widget.Option
Data Types	Date DateAsString null
Default	null

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

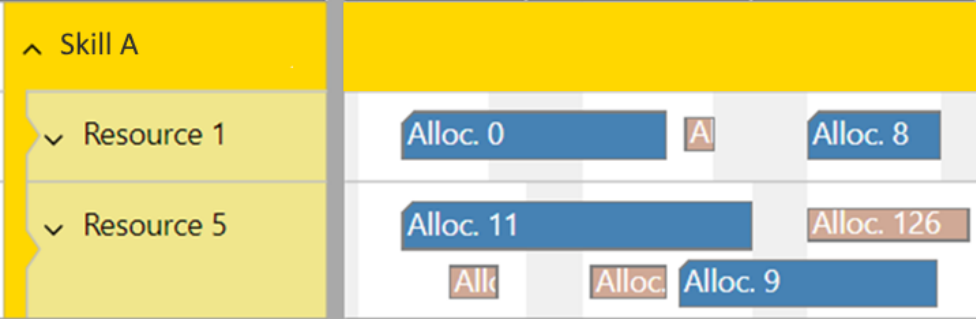
Object Type	Widget.Option
Data Type	string
Default	""
Explanation	If set, then on properties of date type the value can be set to the value given here and will be interpreted as being null/undefined/"". Each date string will be checked by comparing the strings.

allocationBarDesignOfOtherActivity

Object Type	Widget.Option
Data Type	Enum.BarDesigns
Default	BarDesigns.DefaultReduced BarDesigns.Text
Explanation	<p>If the resourcesVisibleInActivitiesView 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	Allocation.BarDesign Option.defaultAllocationBarDesign Option.resourcesVisibleInActivitiesView

allocationBarDesignOfOtherSkill

Object Type	Widget.Option
Data Type	Enum.BarDesigns
Default	BarDesigns.DefaultReduced BarDesigns.Text
Explanation	The value is used for allocation bars that are shown in the SkilledResourcesView in a skill-specific resource row with a different skill.

	<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	Allocation.BarDesign ObjectType.Skill Option.defaultAllocationBarDesign Option.reducedBarTopOffsetAndHeightScaleFactor Option.tonedDownOverlayColor

allocationBarSortModeForStackedRowDesign

Object Type	Widget.Option
Data Type	Enum.BarSortMode
Default	BarSortMode.StartAndEnd
Explanation	<p>Determines how the allocation bars are sorted in a row where the bars are shown vertically optimized, means that they do not visually overlap each other.</p> <p>When the bars are not shown vertically stacked, then they will be shown sorted by start and end. This means that a bar that starts earlier than another bar is placed behind the latter bar. For bars that start at the same time, the longer bar is placed behind the shorter one.</p>
See also	Enum.BarSortMode Enum.RowDesigns

allocationBarTopOffsetAndHeightScaleFactor

Object Type	Widget.Option
Data Type	number
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	Widget.Option
Data Type	string
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	Allocation.SortCode Option.allocationRowSortMode Option.interactiveSwitchingOfSortOrderEnabled Option.sortingIndicatorVisible

allocationRowSortMode

Object Type	Widget.Option
Data Type	Enum.RowSortMode
Default	RowSortMode.None
Explanation	<p>If the mode is not None, allocation rows are sorted in ascending or descending order. Additionally, it is possible to sort by start date.</p> <p>If the mode is None, a callback handler declared using the callback option <code>compareAllocations</code> will be active.</p>
See also	Allocation.SortCode Callback.compareAllocations Option.allocationRowSortCodePropertyName Option.interactiveSwitchingOfSortOrderEnabled Option.sortingIndicatorVisible

allocationRowsVisibleInActivitiesView

Object Type	Widget.Option
Data Type	boolean
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 <code>resourcesVisibleInActivitiesView</code>.</p> <p>It is a prerequisite to use the ascending mode for dragging allocation rows vertically.</p>
See also	Activity.AllocationRowsCollapseState Option.defaultAllocationTableRowDefinitionID Option.definedAllocationLinksVisibleInActivitiesView Option.resourcesVisibleInActivitiesView Resource.AllocationRowsCollapseStateInActivitiesView

allocationRowsVisibleInResourcesView

Object Type	Widget.Option
Data Type	boolean
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	Resource.AllocationRowsCollapseState

allocationRowsVisibleInSkilledResourcesView

Object Type	Widget.Option
Data Type	boolean
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	Widget.Option
Data Type	boolean
Default	false
Explanation	If set to true, then only allocations of one resource at a time can be selected.

applicationStyleDefinition

Object Type	Widget.Option
Data Type	string
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	https://developer.mozilla.org/en-US/docs/Web/CSS/Using_CSS_custom_properties Option.applicationVariablesMap

applicationVariablesMap

Object Type	Widget.Option
Data Types	Map Object
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	Activity.BarTextFormat Allocation.BarTextFormat Option.applicationStyleDefinition TableCellDefinition.TextFormat TooltipTemplate.HTMLFormat

asynchronousInteractiveTimeAreaStretching

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

automaticDestroyingOnDOMNodeRemoved

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	If set to true, then the widget will be automatically destroyed in the case that its containing DIV element is removed from DOM. This is internally handled by using a MutationObserver. This can be comfortable for an application when switching from the jQuery UI Widget wrapper to the pure widget.

barsDraggable

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	Only when set to true and the option editable is set to true, then bars will be draggable according to the value in the property AllowedBarDragModes in Activity and Allocation objects. When this option or the option editable is set to false, then bars are generally not

	draggable. This option makes it possible to separate the general allowance for bar dragging and row dragging, while the option editable controls both at once.
See also	Activity.AllowedBarDragModes Allocation.AllowedBarDragModes Allocation.AllowedBarDragModesInActivitiesView

barSortModeForOptimizedRowDesign

Object Type	Widget.Option
Deprecated	Use options Option.activityBarSortModeForStackedRowDesign and Option.allocationBarSortModeForStackedRowDesign instead. For compatibility reasons, both options are set when this deprecated option is set.

bottomRowMarginInTimeArea

Object Type	Widget.Option
Data Type	PixelsAsNumber
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	Option.subRowDistanceInTimeArea Option.topRowMarginInTimeArea

calendarGridColor

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

calendarGridWeekendColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"transparent"

Explanation	Specifies a color used to color vertical stripes representing the weekend (Saturdays and Sundays) inside the diagram. Because these stripes are drawn directly above the calendar grid (see Option.calendarGridColor), you can use an alpha value for making the color translucent.
See also	Option.calendarGridColor Option.timescaleWeekendBackgroundColor

clickCallbackTriggeringOnRowInTimeArea

Object Type	Widget.Option
Deprecated	Use option Option.triggeringOfOnClickedInTimeAreaOfRow instead.
See also	Callback.onClicked Callback.onDoubleClicked

collapseExpandButtonSymbolsMode

Object Type	Widget.Option
Data Type	Enum.CollapseExpandButtonSymbolsMode
Default	CollapseExpandButtonSymbolsMode.Latest
Explanation	The application can switch the symbols used for collapse/expand buttons to a former version if the current display does not fit with the look and feel of the application.

commonViewAreaVisible

Object Type	Widget.Option
Deprecated	Use option Option.mainViewAreaVisible instead.

currentDate

Object Type	Widget.Option
Data Types	Date DateAsString null
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 pastBackgroundFillColor , pastBackgroundLineColor , pastBackgroundLineWidth , pastBackgroundLineDashArray .
See also	Option.pastBackgroundFillColor Option.pastBackgroundLineColor Option.pastBackgroundLineDashArray Option.pastBackgroundLineWidth

cursorDateLineVisible

Object Type	Widget.Option
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Data Type	boolean
Default	false
Explanation	If this option is set to true, an additional labeled date line follows the mouse cursor.

curvePanesCollapsibleInResourcesView

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	Specifies whether the curve panes can be collapsed or expanded interactively.

curvePanesCollapsibleInSkilledResourcesView

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	Specifies whether the curve panes can be interactively collapsed or expanded.

curvePanesResizable

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	<p>If set to true, the user can interactively change the height of the curve panes.</p> <p>This feature is not available in rows representing an activity object.</p> <p>The application must listen to the callback onCurvePaneResized and update the property LoadCurvePaneHeight of the appropriate resource object for persistence.</p>
See also	Callback.onCurvePaneResized Option.maximumLoadCurvePaneHeight Option.maximumResourceLoadCurvePaneHeight Option.minimumLoadCurvePaneHeight Option.minimumResourceLoadCurvePaneHeight

curvePanesVisibleInActivitiesView

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	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.

	Note: This option has to be set when the widget is instantiated. If it is set later, it has no effect.
See also	Activity.CurveCollapseState

dateLineCaptionOptimizedPositioningEnabled

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	Specifies whether the captions and symbols of date lines should be arranged optimized to avoid overlapping.
See also	DateLine.CaptionPosition DateLine.SymbolID

dateLineGridColor

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

dateLineGridDashArray

Object Type	Widget.Option
Data Type	DashArrayAsString
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	Option.dateLineGridMode

dateLineGridMode

Object Type	Widget.Option
Data Type	Enum.DateLineGridModes
Default	DateLineGridModes.Weekly
Explanation	This option determines the distance of the date lines shown.
See also	Enum.SnapTargets Option.dateLineGridColor Option.dateLineGridDashArray Option.dateLineGridWidth

dateLineGridWidth

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	≥ 0
Default	1
Explanation	Width of the date line grid in pixels.
See also	Option.dateLineGridMode

decouplingOfAllocationPropertiesFromActivities

Object Type	Widget.Option
Data Type	boolean
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	Allocation.BorderColor Allocation.Color Allocation.End Allocation.Progress Allocation.ProgressColor Allocation.ProgressNonworkingTimeColor Allocation.Start

defaultActivityAllocationRowsCollapsible

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	This option holds the default for the property AllocationRowsCollapsible of Activity objects.
Used by	Activity.AllocationRowsCollapsible

defaultActivityAllowedBarDragModes

Object Type	Widget.Option
Data Type	Enum.BarDragModes
Default	BarDragModes.DragHorizontally
Explanation	This option holds the default for the property AllowedBarDragModes of Activity objects.
See also	Callback.canDrag
Used by	Activity.AllowedBarDragModes

defaultActivityAllowedRowDragModes

Object Type	Widget.Option
Data Type	Enum.RowDragModes
Default	RowDragModes.None
Explanation	This option holds the default for the property AllowedRowDragModes of Activity objects.
Used by	Activity.AllowedRowDragModes

defaultActivityAttachedDateLineIDs

Object Type	Widget.Option
Data Type	IdentifierAsString[]
Default	undefined
Explanation	This option holds the default for the property AttachedDateLineIDs of Activity objects.
Used by	Activity.AttachedDateLineIDs

defaultActivityBarDesign

Object Type	Widget.Option
Data Type	Enum.BarDesigns
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	Activity.BarDesign

defaultActivityBarHeight

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	≥ 0 and ≤ 1000
Default	22
Explanation	Default height of the activity bars in pixels.
Used by	Activity.BarHeight

defaultActivityBarSelectable

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	This option holds the default for the property BarSelectable of Activity objects.
Used by	Activity.BarSelectable

defaultActivityBarShape

Object Type	Widget.Option
Data Type	Enum.BarShape
Default	BarShape.Regular
Explanation	This option defines which shape should be used by default for the visualization of activity bars.
Used by	Activity.BarShape

defaultActivityBarTextFormat

Object Type	Widget.Option
Data Type	string
Default	undefined
Explanation	This option holds the default value for the property BarTextFormat of Activity objects.
Used by	Activity.BarTextFormat

defaultActivityBarTooltipTemplateID

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

defaultActivityCollapsedRowDesign

Object Type	Widget.Option
Data Type	Enum.RowDesigns
Default	RowDesigns.Bars RowDesigns.BarsStacked RowDesigns.CalendarGrid
Explanation	This option holds the default for the property CollapsedRowDesign of Activity objects.
Used by	Activity.CollapsedRowDesign

defaultActivityConstraintSymbolColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"#646464"
Explanation	Specifies the color used by default for the symbols visualizing the constraint dates (EarliestStart/End, LatestStart/End, MustStart/EndOn).

Used by	Activity.EarliestEndColor Activity.EarliestStartColor Activity.LatestEndColor Activity.LatestStartColor Activity.MustEndOnColor Activity.MustStartOnColor
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defaultActivityExpandedRowDesign

Object Type	Widget.Option
Data Type	Enum.RowDesigns
Default	RowDesigns.Bars RowDesigns.BarsStacked RowDesigns.CalendarGrid
Explanation	This option holds the default for the property ExpandedRowDesign of Activity objects.
Used by	Activity.ExpandedRowDesign

defaultActivityMinimumRowHeight

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	> 0
Default	42
Explanation	Default minimum height of the activity rows in pixels.
Used by	Activity.MinimumRowHeight

defaultActivityProgressBackgroundColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"transparent"
Explanation	Color for the background of the progress bar region for activities.
Used by	Activity.ProgressBackgroundColor

defaultActivityRowCollapsible

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	This option holds the default for the property RowCollapsible of Activity objects.
Used by	Activity.RowCollapsible

defaultActivityRowSelectable

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	This option holds the default for the property RowSelectable of Activity objects.
Used by	Activity.RowSelectable

defaultActivityRowTooltipTemplateID

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

defaultActivitySnapTargetsForEnd

Object Type	Widget.Option
Data Type	Enum.SnapTargets
Default	SnapTargets.CalendarGrids
Explanation	This option holds the default for the property SnapTargetsForEnd of Activity objects.
Used by	Activity.SnapTargetsForEnd

defaultActivitySnapTargetsForStart

Object Type	Widget.Option
Data Type	Enum.SnapTargets
Default	SnapTargets.CalendarGrids
Explanation	This option holds the default for the property SnapTargetsForStart of Activity objects.
Used by	Activity.SnapTargetsForStart

defaultActivityStatusFrameColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"red"
Explanation	This option holds the default color for the property StatusFrameColor of Activity objects.
Used by	Activity.StatusFrameColor

defaultActivityTableRowDefinitionID

Object Type	Widget.Option
Data Type	IdentifierAsString
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	ObjectType.TableRowDefinition
Used by	Activity.TableRowDefinitionID Option.tableRowDefinitionIDForTitleInActivitiesView

defaultAllocationAllowedBarDragModes

Object Type	Widget.Option
Data Type	Enum.BarDragModes
Default	BarDragModes.DragAutoHorOrVer
Explanation	This option holds the default for the property AllowedBarDragModes of Allocation objects.
See also	Callback.canDrag
Used by	Allocation.AllowedBarDragModes

defaultAllocationAllowedBarDragModesInActivitiesView

Object Type	Widget.Option
Data Type	Enum.BarDragModes
Default	BarDragModes.DragHorizontally
Explanation	This option holds the default for the property AllowedBarDragModesInAllocationView of Allocation objects.
Used by	Allocation.AllowedBarDragModesInActivitiesView

defaultAllocationAllowedRowDragModes

Object Type	Widget.Option
Data Type	Enum.RowDragModes
Default	RowDragModes.None
Explanation	This option holds the default for the property AllowedRowDragModes of Allocation objects.
Used by	Allocation.AllowedRowDragModes

defaultAllocationAllowedRowDragModesInActivitiesView

Object Type	Widget.Option
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Data Type	Enum.RowDragModes
Default	RowDragModes.None
Explanation	This option holds the default for the property AllowedRowDragModesInActivitiesView of Allocation objects.
Used by	Allocation.AllowedRowDragModesInActivitiesView

defaultAllocationAttachedDateLineIDs

Object Type	Widget.Option
Data Type	IdentifierAsString[]
Default	undefined
Explanation	This option holds the default for the property AttachedDateLineIDs of Allocation objects.
Used by	Allocation.AttachedDateLineIDs

defaultAllocationBarDesign

Object Type	Widget.Option
Data Type	Enum.BarDesigns
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	Option.allocationBarDesignOfOtherActivity Option.allocationBarDesignOfOtherSkill
Used by	Allocation.BarDesign

defaultAllocationBarHeight

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	≥ 0 and ≤ 1000
Default	22
Explanation	Default height of the Allocation bars in pixels.
Used by	Allocation.BarHeight

defaultAllocationBarSelectable

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	This option holds the default for the property BarSelectable of Allocation objects.
Used by	Allocation.BarSelectable

defaultAllocationBarShape

Object Type	Widget.Option
Data Type	Enum.BarShape
Default	BarShape.Regular
Explanation	This option defines which shape should be used by default for the visualization of Allocation bars.
Used by	Allocation.BarShape

defaultAllocationBarTextFormat

Object Type	Widget.Option
Data Type	string
Default	null
Explanation	This option holds the default value for the property BarTextFormat of Allocation objects.
Used by	Allocation.BarTextFormat

defaultAllocationBarTooltipTemplateID

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

defaultAllocationConstraintSymbolColor

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

defaultAllocationMinimumRowHeight

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	> 0
Default	42
Explanation	Default minimum height of the Allocation rows in pixels.
Used by	Allocation.MinimumRowHeight

defaultAllocationProgressBackgroundColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"transparent"
Explanation	Color for the background of the progress bar region for activities.
Used by	Allocation.ProgressBackgroundColor

defaultAllocationRowDesign

Object Type	Widget.Option
Data Type	Enum.RowDesigns
Default	RowDesigns.Bars RowDesigns.CalendarGrid
Explanation	This option holds the default for the property RowDesign of Allocation objects. The calendar of the referenced resource is shown.
Used by	Allocation.RowDesign

defaultAllocationRowSelectable

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	This option holds the default for the property RowSelectable of Allocation objects.
Used by	Allocation.RowSelectable

defaultAllocationRowTooltipTemplateID

Object Type	Widget.Option
Data Type	IdentifierAsString
Default	""
Explanation	ID of a TooltipTemplate object that will be used when an Allocation object has set the property RowTooltipTemplateID to "".
See also	ObjectType.TooltipTemplate

Used by	Allocation.RowTooltipTemplateID Allocation.SkilledBarTooltipTemplateID Allocation.SkilledRowTooltipTemplateID
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defaultAllocationSnapTargetsForEnd

Object Type	Widget.Option
Data Type	Enum.SnapTargets
Default	SnapTargets.CalendarGrids
Explanation	This option holds the default for the property SnapTargetsForEnd of Allocation objects.
Used by	Allocation.SnapTargetsForEnd

defaultAllocationSnapTargetsForStart

Object Type	Widget.Option
Data Type	Enum.SnapTargets
Default	SnapTargets.CalendarGrids
Explanation	This option holds the default for the property SnapTargetsForStart of Allocation objects.
Used by	Allocation.SnapTargetsForStart

defaultAllocationStatusFrameColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"red"
Explanation	This option holds the default color for the property StatusFrameColor of Allocation objects.
Used by	Allocation.StatusFrameColor

defaultAllocationTableRowDefinitionID

Object Type	Widget.Option
Data Type	IdentifierAsString
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	ObjectType.TableRowDefinition Option.allocationRowsVisibleInActivitiesView
Used by	Allocation.TableRowDefinitionID

defaultAllowedActivityBarDragModes

Object Type	Widget.Option
Deprecated	Use option Option.defaultActivityAllowedBarDragModes instead.

defaultAllowedAllocationBarDragModes

Object Type	Widget.Option
Deprecated	Use option Option.defaultAllocationAllowedBarDragModes instead.

defaultAllowedEntityRowDragModes

Object Type	Widget.Option
Deprecated	Use option Option.defaultEntityAllowedRowDragModes instead.

defaultCalendarID

Object Type	Widget.Option
Data Type	IdentifierAsString
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	Activity.CalendarID Resource.CalendarID

defaultEntityAllowedRowDragModes

Object Type	Widget.Option
Data Type	Enum.RowDragModes
Default	RowDragModes.DragOutside
Explanation	This option holds the default for the property AllowedRowDragModes of Entity objects.
Used by	Entity.AllowedRowDragModes

defaultEntityMinimumRowHeight

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	> 0
Default	42
Explanation	Default minimum height of the entity rows in pixels.

Used by	Entity.MinimumRowHeight
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defaultEntityRowCollapsible

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	This option holds the default for the property RowCollapsible of Entity objects.
Used by	Entity.RowCollapsible

defaultEntityRowSelectable

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	This option holds the default for the property RowSelectable of Entity objects.
Used by	Entity.RowSelectable

defaultEntityRowTooltipTemplateID

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

defaultEntityTableRowDefinitionID

Object Type	Widget.Option
Data Type	IdentifierAsString
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	ObjectType.TableRowDefinition
Used by	Entity.TableRowDefinitionID Option.tableRowDefinitionIDForTitleInEntitiesTable

defaultLinkRoutingType

Object Type	Widget.Option
Data Type	Enum.LinkRoutingType
Default	LinkRoutingType.Curved
Explanation	This option holds the default for the property RoutingType of Links objects.
Used by	Link.RoutingType

defaultLinkSelectable

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	This option holds the default for the property Selectable of link objects.
Used by	Link.Selectable

defaultLinkTargetMarker

Object Type	Widget.Option
Data Type	Enum.LinkMarker
Default	LinkMarker.FilledArrow
Explanation	This option holds the default for the property LinkTargetMarker of link objects.
Used by	Link.TargetMarker

defaultLinkTooltipTemplateID

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

defaultLoadCurvePaneColor

Object Type	Widget.Option
Deprecated	Use option Option.defaultResourceLoadCurvePaneColor instead.

defaultLoadCurvePaneHeight

Object Type	Widget.Option
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Deprecated	Use option Option.defaultResourceLoadCurvePaneHeight instead.
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defaultPeriodHighlighterEntryTooltipTemplateID

Object Type	Widget.Option
Data Type	IdentifierAsString
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	PeriodHighlighterEntry.TooltipTemplateID

defaultResourceAllocationRowCollapsible

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	This option holds the default for the property AllocationRowsCollapsible of Resource objects.
Used by	Resource.AllocationRowsCollapsible

defaultResourceAllowedRowDragModes

Object Type	Widget.Option
Data Type	Enum.RowDragModes
Default	RowDragModes.None
Explanation	This option holds the default for the property AllowedRowDragModes of Resource objects.
See also	Resource.AllowedRowDragModes
Used by	Resource.AllowedRowDragModes

defaultResourceCollapsedRowDesign

Object Type	Widget.Option
Data Type	Enum.RowDesigns
Default	RowDesigns.Bars RowDesigns.BarsStacked RowDesigns.BarsInHiddenDescendantRows RowDesigns.CalendarGrid
Explanation	This option holds the default for the property CollapsedRowDesign of Resource objects.
Used by	Resource.CollapsedRowDesign

defaultResourceCurveTooltipTemplateID

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

defaultResourceExpandedRowDesign

Object Type	Widget.Option
Data Type	Enum.RowDesigns
Default	RowDesigns.Bars RowDesigns.BarsStacked RowDesigns.CalendarGrid
Explanation	This option holds the default for the property ExpandedRowDesign of Resource objects.
Used by	Resource.ExpandedRowDesign

defaultResourceLoadCurvePaneColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"rgba(43,86,158,0.2)"
Explanation	Color for the background of the load curve pane.

defaultResourceLoadCurvePaneHeight

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	> 0
Default	50
Explanation	Default value for property LoadCurvePaneHeight of Resource objects.
See also	Option.maximumResourceLoadCurvePaneHeight Option.minimumResourceLoadCurvePaneHeight
Used by	Resource.LoadCurvePaneHeight

defaultResourceMinimumRowHeight

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	> 0
Default	42

Explanation	Default minimum height of the resource rows in pixels.
Used by	Resource.MinimumRowHeight

defaultResourceRowCollapsible

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	This option holds the default for the property RowCollapsible of Resource objects.
Used by	Resource.RowCollapsible

defaultResourceRowSelectable

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	This option holds the default for the property RowSelectable of Resource objects.
Used by	Resource.RowSelectable

defaultResourceRowTooltipTemplateID

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

defaultResourceTableRowDefinitionID

Object Type	Widget.Option
Data Type	IdentifierAsString
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	ObjectType.TableRowDefinition
Used by	Option.defaultResourceTableRowDefinitionIDInActivitiesView Option.tableRowDefinitionIDForTitleInResourcesView Resource.TableRowDefinitionID

defaultResourceTableRowDefinitionIDInActivitiesView

Object Type	Widget.Option
Data Type	IdentifierAsString
Default	Value of Option.defaultResourceTableRowDefinitionID
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	Widget.Option
Data Type	Enum.RowDragModes
Default	RowDragModes.None
Explanation	This option holds the default for the property AllowedRowDragModes of Skill objects.
See also	Skill.AllowedRowDragModes
Used by	Skill.AllowedRowDragModes

defaultSkillCollapsedRowDesign

Object Type	Widget.Option
Data Type	Enum.RowDesigns
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	Skill.CollapsedRowDesign
Used by	Skill.CollapsedRowDesign

defaultSkilledAllocationBarTooltipTemplateID

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

defaultSkilledAllocationRowTooltipTemplateID

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

defaultSkilledResourceRowTooltipTemplateID

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

defaultSkillMinimumRowHeight

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	> 0
Default	42
Explanation	Default minimum height of the skill rows.
Used by	Skill.MinimumRowHeight

defaultSkillRowCollapsible

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	This option holds the default for the property RowCollapsible of Skill objects.
Used by	Skill.RowCollapsible

defaultSkillRowSelectable

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	This option holds the default for the property RowSelectable of Skill objects.
Used by	Skill.RowSelectable

defaultSkillRowTooltipTemplateID

Object Type	Widget.Option
Data Type	IdentifierAsString
Default	""

Explanation	ID of a TooltipTemplate object that will be used when an resource object has set the property SkilledRowTooltipTemplateID to "".
Used by	Skill.RowTooltipTemplateID

defaultSkillTableRowDefinitionID

Object Type	Widget.Option
Data Type	IdentifierAsString
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	Option.tableRowDefinitionIDForTitleInSkilledResourcesView Skill.TableRowDefinitionID

defaultUpdateMode

Object Type	Widget.Option
Data Type	Enum.UpdateModes
Default	UpdateModes.Default
Explanation	Specifies the default for the parameter updateMode in all update methods.
See also	Method.updateActivities Method.updateAllocations Method.updateCalendars Method.updateCurves Method.updateDateLines Method.updateEntities Method.updateHierarchySupplementaryDefinitions Method.updateLinks Method.updatePeriodHighlighters Method.updateResources Method.updateSkills Method.updateSymbols Method.updateTableRowDefinitions Method.updateTooltipTemplates

defaultValuesForActivityEntryProperties

Object Type	Widget.Option
Data Type	Object
Default	null
Explanation	Specifies an object with default values used for all properties of ActivityEntry objects.

defaultValuesForActivityProperties

Object Type	Widget.Option
Data Type	Object
Default	null
Explanation	Specifies an object with default values used for all properties of Activity objects except ID.

defaultValuesForAllocationEntryProperties

Object Type	Widget.Option
Data Type	Object
Default	null
Explanation	Specifies an object with default values used for all properties of AllocationEntry objects.

defaultValuesForAllocationProperties

Object Type	Widget.Option
Data Type	Object
Default	null
Explanation	Specifies an object with default values used for all properties of Allocation objects except ID.

defaultValuesForEntityProperties

Object Type	Widget.Option
Data Type	Object
Default	null
Explanation	Specifies an object with default values used for all properties of Entity objects except ID.

defaultValuesForLinkProperties

Object Type	Widget.Option
Data Type	Object
Default	null
Explanation	Specifies an object with default values used for all properties of Link objects except ID.

defaultValuesForResourceProperties

Object Type	Widget.Option
Data Type	Object
Default	null

Explanation	Specifies an object with default values used for all properties of Resource objects except ID.
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defaultValuesForSkillProperties

Object Type	Widget.Option
Data Type	Object
Default	null
Explanation	Specifies an object with default values used for all properties of Skill objects except ID.

definedAllocationLinksVisibleInActivitiesView

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	If set to true and the options linksVisibleInActivitiesView and allocationRowsVisibleInActivitiesView are also true, then links that are defined between allocations are shown additionally.
See also	Option.allocationRowsVisibleInActivitiesView Option.linksVisibleInActivitiesView








definedAllocationLinksVisibleInResourcesView

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






definedAllocationLinksVisibleInSkilledResourcesView




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

detailedActivityConstraintSymbolsEnabled

Object Type	Widget.Option
Data Type	boolean
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>Note: The application must set the option <code>topRowMarginInTimeArea</code> when detailed symbols are used.</p>
See also	Activity.EarliestEnd Activity.EarliestStart Activity.LatestEnd Activity.LatestStart Activity.MustEndOn Activity.MustStartOn Option.topRowMarginInTimeArea

detailedAllocationConstraintSymbolsEnabled

Object Type	Widget.Option
Data Type	boolean
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>

	 MustEndOn  Otherwise, a simple down arrow will be shown:  <p>Note: The application must set the option <code>topRowMarginInTimeArea</code> when detailed symbols are used.</p>
See also	Allocation.EarliestEnd Allocation.EarliestStart Allocation.LatestEnd Allocation.LatestStart Allocation.MustEndOn Allocation.MustStartOn Option.topRowMarginInTimeArea

dragDatesLimitingInteraction

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

dragDatesShownForSingleSelectedObject

Object Type	Widget.Option
Data Type	boolean
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	Activity.EarliestDragStart Activity.LatestDragEnd Allocation.EarliestDragStart Allocation.LatestDragEnd

editable

Object Type	Widget.Option
Data Type	boolean
Default	true

Explanation	If set to false, nothing can be edited.
See also	Activity.AllowedBarDragModes Activity.AllowedRowDragModes Allocation.AllowedBarDragModes Allocation.AllowedBarDragModesInActivitiesView Allocation.AllowedRowDragModes Allocation.AllowedRowDragModesInActivitiesView Entity.AllowedRowDragModes Resource.AllowedRowDragModes Skill.AllowedRowDragModes

end

Object Type	Widget.Option
Data Types	Date DateAsString
Default	actual value of option start plus 4 weeks
Explanation	<p>Date where the time area ends absolutely, means when the horizontal scroll bar is placed at the end of the time area view. When using the method <code>fitTimeAreaIntoView</code>, it is not possible there to make dates visible beyond the end date set here.</p> <p>The end date itself is not included in the visible time area. The same behavior also is true for all end dates used in the widget like e.g. in calendar entries, period highlighter entries, activities, activity entries, allocations, allocation entries.</p> <p>If this option was not set before the 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	Callback.onLogWarning Method.fitTimeAreaIntoView Method.saveAsPDF Method.setTimeResolutionForView Option.start Option.startAndEnd

entitiesTableCellContentTopOffset

Object Type	Widget.Option
Data Type	PixelsAsNumber
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	Widget.Option
Data Type	ColorAsString
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	Widget.Option
Deprecated	Use option Option.entitiesTableTitleBackgroundColor instead.
See also	Option.entitiesTableSymbolColumnTitleVisible

entitiesTableHeaderColumnSeparatorColor

Object Type	Widget.Option
Deprecated	Use option Option.entitiesTableTitleColumnSeparatorColor instead.

entitiesTableHeaderHighlightingColor

Object Type	Widget.Option
Deprecated	Use option Option.entitiesTableTitleHighlightingColor instead.

entitiesTableHeaderTextColor

Object Type	Widget.Option
Deprecated	Use option Option.entitiesTableTitleTextColor instead.

entitiesTableShownFullScreen

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	When set then the entities table is shown in full screen mode.

entitiesTableSymbolColumnBackgroundColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"white"

Explanation	If set then the symbol column of the entities table will show this color in the background.
Used by	Option.entitiesTableSymbolColumnTitleBackgroundColor TableRowDefinition.SymbolColumnBackgroundColor

entitiesTableSymbolColumnTitleBackgroundColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	Value of Option.entitiesTableSymbolColumnBackgroundColor
Explanation	If set then the symbol column title of the entities table will show this color in the background when the option entitiesTableSymbolColumnTitleVisible is set to true.
See also	Option.entitiesTableSymbolColumnTitleVisible

entitiesTableSymbolColumnTitleSymbolIDs

Object Type	Widget.Option
Data Type	IdentifierAsString[]
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 entitiesTableSymbolColumnTitleVisible 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>Note: 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	Option.entitiesTableSymbolColumnTitleVisible

entitiesTableSymbolColumnTitleVisible

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

entitiesTableSymbolColumnVisible

Object Type	Widget.Option
Data Type	boolean
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.
See also	Entity.RowSymbolIDs

entitiesTableSymbolColumnWidth

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	≥ 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	Widget.Option
Data Type	ColorAsString
Default	"#646464"
Explanation	Specifies a color used to color the background of the entities table header.

entitiesTableTitleColumnSeparatorColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"white"
Explanation	Specifies a color used to color the column separators in the entities table header.

entitiesTableTitleHeight

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	≥ 0
Default	60
Explanation	Specifies the height of the entities table.

entitiesTableTitleHighlightingColor

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

entitiesTableTreeViewLineColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"black"
Explanation	Determines the color of tree view lines in the entities table.
See also	Option.entitiesTableTreeVisualizationMode

entitiesTableTreeViewLineDashArray

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

entitiesTableTreeVisualizationMode

Object Type	Widget.Option
Data Type	Enum.TreeVisualizationMode
Default	TreeVisualizationMode.ColoredIndentation
Explanation	Determines how the tree of objects is visualized in the entities table.
See also	Option.entitiesTableTreeViewLineColor Option.entitiesTableTreeViewLineDashArray

entitiesTableViewWidth

Object Type	Widget.Option
Data Type	PixelsAsNumber
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	Widget.Option
Data Type	boolean
Default	false
Explanation	This option lets appear/disappear the entities table on the right side in the activities view.

entitiesTableVisibleInResourcesView

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	This option lets appear/disappear the entities table on the right side in the resources view.

entitiesTableVisibleInSkilledResourcesView

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	This option lets appear/disappear the entities table on the right side in the skilled resources view.

entitiesTableWidth

Object Type	Widget.Option
Deprecated	Use object type ObjectType.TableRowDefinition instead.

entitiesTitleText

Object Type	Widget.Option
Data Type	string
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 tableRowDefinitionIDForTitleInEntitiesTable is not set.</p> <p>or</p> <p>If using the deprecated callback onDetermineColumnDefinitions and there additionally the flag hasColumnTitles is not set in the callback (see there).</p> <p>Note: 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>
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entityHierarchySupplementaryDefinitionID

Object Type	Widget.Option
Data Type	IdentifierAsString
Default	null
Explanation	ID of a HierarchySupplementaryDefinition object that will be used to specify grouping parameters for hierarchy of entity objects.

entityRowSortCodePropertyName

Object Type	Widget.Option
Data Type	string
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	Entity.SortCode Option.entityRowSortMode Option.firstDayOfWeek Option.interactiveSwitchingOfSortOrderEnabled Option.sortingIndicatorVisible

entityRowSortMode

Object Type	Widget.Option
Data Type	Enum.RowSortMode
Default	RowSortMode.None
Explanation	<p>If set to a mode unequal to None 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> <p>If the mode is None, a callback handler declared using the callback option compareActivities will be active.</p>

See also	Callback.compareEntities Entity.SortCode Option.entityRowSortCodePropertyName Option.interactiveSwitchingOfSortOrderEnabled
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entityTableRowDefinitionIDForTitle

Object Type	Widget.Option
Deprecated	Use option Option.tableRowDefinitionIDForTitleInEntitiesTable instead.

finishedAllocationBarsShownUnstackedInBackground

Object Type	Widget.Option
Data Type	boolean
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	Widget.Option
Data Type	Enum.DayOfWeek
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	Option.entityRowSortCodePropertyName Option.locale Option.weekNumbering

fixedTableColumnWidth

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	≥ 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	Widget.Option
Deprecated	Use a promise object in the callback Callback.canDrag instead.

forcedActivityAllowedRowDragModes

Object Type	Widget.Option
Deprecated	Use a promise object in the callback Callback.canDrag instead.

forcedAllocationAllowedBarDragModes

Object Type	Widget.Option
Deprecated	Use a promise object in the callback Callback.canDrag instead.

forcedAllocationAllowedBarDragModesInActivitiesView

Object Type	Widget.Option
Deprecated	Use a promise object in the callback Callback.canDrag instead.

forcedEntityAllowedRowDragModes

Object Type	Widget.Option
Deprecated	Use a promise object in the callback Callback.canDrag instead.

forcedResourceAllowedRowDragModes

Object Type	Widget.Option
Deprecated	Use a promise object in the callback Callback.canDrag instead.

ignoreCalendarOnActivityBarInteractions

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	If set to true, then the activity calendar is not taken into account when dragging an activity bar.

ignoreCalendarOnAllocationBarInteractions

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	If set to true, then the resource calendar is not taken into account when dragging an allocation bar.

interactiveActivationOfLoggingEnabled

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	<p>If set to true, the user can activate the logging by using the keyboard shortcut Shift+Ctrl+Alt+L. (Before using this shortcut, the user has to ensure that the widget has the focus, e.g. by clicking with the mouse pointer in an empty area of the chart.)</p> <p>The record symbol will appear, the current state of the widget is saved and from then on, all calls to the API are recorded.</p> <p>Pressing Shift+Ctrl+Alt+L once again will stop the recording and a file with the recorded data is offered for download. The recording symbol disappears.</p>
See also	Option.loggingEnabled Option.loggingFileCompressionEnabled Option.loggingVerboseLevel

interactiveSwitchingOfSortOrderEnabled

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	<p>If set to true, the user can change the sorting order of the rows by clicking or tapping on the title of a table column. If the rows are unsorted or if they are sorted by another column, then the sort order is expected to change to ascending. If already sorted in ascending order, it is expected to change to descending. If already sorted in descending order, 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>. There, the application can cancel the sorting.</p> <p>The current sorting can be made visible by setting the option <code>sortingIndicatorVisible</code> to true additionally.</p>
See also	Callback.onRowSortingChangeRequested Enum.RowSortMode Option.activityRowSortCodePropertyName Option.activityRowSortMode Option.allocationRowSortCodePropertyName

	Option.allocationRowSortMode Option.entityRowSortCodePropertyName Option.entityRowSortMode Option.resourceRowSortCodePropertyName Option.resourceRowSortMode Option.sortingIndicatorVisible
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intlDateTimeFormatOptionsMap

Object Type	Widget.Option
Data Types	Map Object
Default	null
Explanation	<p>Optional, default: null – If set, then the content is used to define options for objects of type Intl.DateTimeFormat.</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.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	Activity.BarTextFormat Allocation.BarTextFormat DataType.Date DateLine.CaptionFormat https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Intl/DateTimeFormat TableCellDefinition.TextFormat

intlNumberFormatOptionsMap

Object Type	Widget.Option
Data Types	Map Object
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,</p>

	<p>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	Activity.BarTextFormat Allocation.BarTextFormat DateLine.CaptionFormat https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Intl/NumberFormat TableCellDefinition.TextFormat

licenseKey

Object Type	Widget.Option
Data Type	string
Default	required
Explanation	<p>Without a license key, the widget will not work at all.</p> <p>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	https://www.netronic.com

linesShownInLoadCurvePanels

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	<p>If this option is set to true, in all load curve panes 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.</p>

linksVisibleInActivitiesView

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

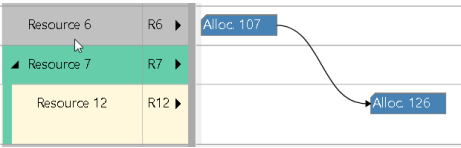
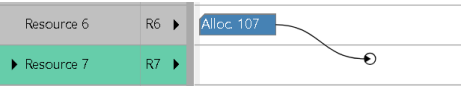
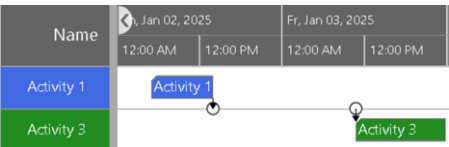
linksVisibleInResourcesView

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	If set to true, the resources view shows links.
See also	Option.definedAllocationLinksVisibleInResourcesView

linksVisibleInSkilledResourcesView

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	If set to true, the skilled resources view shows links.
See also	Option.definedAllocationLinksVisibleInSkilledResourcesView

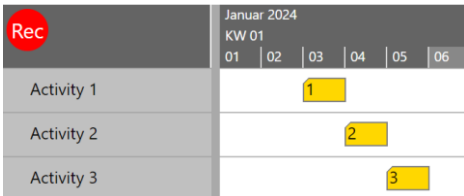
linksWithDanglingStartOrEndVisible

Object Type	Widget.Option
Data Type	boolean
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> 

locale

Object Type	Widget.Option
Data Type	Enum.Locale
Default	Locale.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	DataType.Date Option.firstDayOfWeek

loggingEnabled

Object Type	Widget.Option
Data Type	boolean
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>The screenshot shows a table with three activities: Activity 1, Activity 2, and Activity 3. Above the table is a header with a 'Rec' icon and a date range 'Januar 2024 KW 01'. The table has columns for days 01 to 06. Activity 1 has a yellow bar with the number 1, Activity 2 has a yellow bar with the number 2, and Activity 3 has a yellow bar with the number 3.</p> <p>If frequent callback triggers are also to be recorded, then the <code>loggingVerboseLevel</code> must be set greater than 0.</p> <p>As soon as this option is set to false again, a file with the saved logs is offered for download and the logging icon disappears.</p>
See also	Option.interactiveActivationOfLoggingEnabled Option.loggingFileCompressionEnabled Option.loggingVerboseLevel

loggingFileCompressionEnabled

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	<p>If this option is set to true, then the log file will automatically be written (aka downloaded) as a ZIP file containing the raw log file as a single file. This serves as a comfortable option e.g. to send this ZIP file directly by mail.</p>
See also	Option.interactiveActivationOfLoggingEnabled Option.loggingEnabled

loggingVerboseLevel

Object Type	Widget.Option
Data Type	number
Data Range	0 10 20 30
Default	0
Explanation	<p>Specifies which types of callback triggers to record.</p> <p>Non-frequent callback triggers are always logged.</p> <p>0 - Non-frequent callback triggers are recorded.</p> <p>10 - Non-frequent, canDrag and onShowTooltip callback triggers are recorded.</p> <p>20 - Non-frequent, canDrag, onShowTooltip and onDrag callback triggers are recorded.</p> <p>30 - Non-frequent, canDrag, onShowTooltip, onDrag, visibilityFilter and compareObject callback triggers are recorded.</p>
See also	Option.interactiveActivationOfLoggingEnabled Option.loggingEnabled

mainViewAreaVisible

Object Type	Widget.Option
Deprecated	Use option Option.mainViewAreaVisibleInResourcesView instead.

mainViewAreaVisibleInActivitiesView

Object Type	Widget.Option
Data Type	boolean
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	Activity.ViewArea Allocation.PredictedEnd Option.topViewAreaVisibleInActivitiesView

mainViewAreaVisibleInLoadsView

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	<p>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 topViewAreaVisibleInLoadsView is also false, then the main view area will be visible nevertheless.</p>
See also	Option.topViewAreaVisibleInLoadsView Resource.ViewArea

mainViewAreaVisibleInResourcesView

Object Type	Widget.Option
Data Type	boolean
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 topViewAreaVisibleInResourcesView is also false, then the main view area will be visible nevertheless.
See also	Option.topViewAreaVisibleInResourcesView Resource.ViewArea

mainViewAreaVisibleInSkilledResourcesView

Object Type	Widget.Option
Data Type	boolean
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 topViewAreaVisibleInSkilledResourcesView is also false, then the main view area will be visible nevertheless.
See also	Option.topViewAreaVisibleInSkilledResourcesView Skill.ViewArea

maximumLoadCurvePaneHeight

Object Type	Widget.Option
Deprecated	Use option Option.maximumResourceLoadCurvePaneHeight instead.
See also	Option.curvePanelsResizable

maximumResourceLoadCurvePaneHeight

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	> 0
Default	200
Explanation	Value for maximum of property LoadCurvePaneHeight of Resource objects.
See also	Option.curvePanelsResizable Option.defaultResourceLoadCurvePaneHeight Option.minimumResourceLoadCurvePaneHeight Resource.LoadCurvePaneHeight

maximumSnapDistance

Object Type	Widget.Option
Data Type	PixelsAsNumber
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	Activity.SnapTargetsForEnd Activity.SnapTargetsForStart Allocation.EndIsSnapTarget Allocation.SnapTargetsForEnd Allocation.SnapTargetsForStart Allocation.StartIsSnapTarget

maximumTimeResolutionUnit

Object Type	Widget.Option
Data Type	Enum.TimeUnit
Default	Value of Option.timeStepUnit TimeUnit.Seconds
Explanation	<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	Method.fitTimeAreaIntoView Method.setTimeResolutionForView Option.maximumTimeResolutionUnitFactor Option.timeStepUnit Option.timeStepUnitFactor
Used by	Option.timeStepUnit Option.timeStepUnitFactor

maximumTimeResolutionUnitFactor

Object Type	Widget.Option
Data Type	number
Data Range	≥ 0
Default	Value of Option.timeStepUnitFactor 1
Explanation	Number of units for maximum time resolution in the time area. Integer values are recommended. Used together with option maximumTimeResolutionUnit.

	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.
See also	Method.fitTimeAreaIntoView Method.setTimeResolutionForView Option.maximumTimeResolutionUnit Option.timeStepUnit

maximumTopViewAreaHeightRatio

Object Type	Widget.Option
Data Type	number
Data Range	$\geq -0.8 \dots \leq 0.8$
Default	0.5
Explanation	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.
See also	Option.topViewAreaVisibleInActivitiesView Option.topViewAreaVisibleInLoadsView Option.topViewAreaVisibleInResourcesView Option.topViewAreaVisibleInSkilledResourcesView

minimumLoadCurvePaneHeight

Object Type	Widget.Option
Deprecated	Use option Option.minimumResourceLoadCurvePaneHeight instead.
See also	Option.curvePanelsResizable

minimumResourceLoadCurvePaneHeight

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	> 0
Default	30
Explanation	Value for minimum of property LoadCurvePaneHeight of Resource objects.
See also	Option.curvePanelsResizable Option.defaultResourceLoadCurvePaneHeight Option.maximumResourceLoadCurvePaneHeight Resource.LoadCurvePaneHeight

multipleBarDraggingEnabled

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	<p>If set to true, all selected bars are dragged at once. Also see callback options canDrag, onDragStart, onDrop.</p> <p>Currently, the allocation/activity properties EarliestDragStart and LatestDragEnd are not supported when dragging multiple bars. The allocation property SuitableResourceIDs 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 canDrag or one of the options forceActivity/AllocationAllowedBarDragModes.</p>
See also	Allocation.SuitableResourceIDs Callback.canDrag Callback.onDragStart Callback.onDrop

multipleSelectionEnabled

Object Type	Widget.Option
Data Types	boolean number
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 timeAreaPanningMode. 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	Option.timeAreaPanningMode

nonworkingTimesCalendarIDs

Object Type	Widget.Option
Data Type	IdentifierAsString[]
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	Option.nonworkingTimeVisible

nonworkingTimeVisible

Object Type	Widget.Option
Data Type	boolean
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	Option.nonWorkingTimesCalendarIDs

objectHighlightFlashingEnabled

Object Type	Widget.Option
Data Type	boolean
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	Method.highlightObjects Method.scrollToObject

objectHighlightingColor

Object Type	Widget.Option
Data Type	ColorAsString
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	Method.highlightObjects Method.scrollToObject

onCollapseStateChangedTriggeredByUpdateCalls

Object Type	Widget.Option
Deprecated	Use option Option.triggeringOfOnCollapseStateChangedByUpdateCalls instead.
See also	Callback.onCollapseStateChanged

pastBackgroundFillColor

Object Type	Widget.Option
Data Type	ColorAsString
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	Option.currentDate

pastBackgroundLineColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"darkgrey"
Explanation	This option defines the color of the date line at the value of the option currentDate.
See also	Option.currentDate

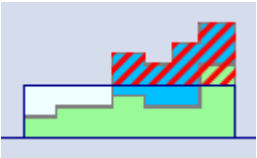
pastBackgroundLineDashArray

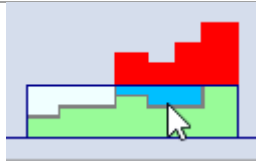
Object Type	Widget.Option
Data Type	DashArrayAsString
Default	"1,1"
Explanation	Pattern of dashes and gaps for drawing the date line at the value of the option currentDate.
See also	Option.currentDate

pastBackgroundLineWidth

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	> 0
Default	1
Explanation	This option defines the width of the date line at the value of the option currentDate.
See also	Option.currentDate

patternShownOnOverloadCurves

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	<p>If to true, overloads will be displayed incurves using a red hatch pattern:</p>  <p>Otherwise overloads will be represented by red areas:</p>



Attention: Due to shortcomings of the browsers, this option has no impact on IE, Edge, and Microsoft's WebBrowser Control!

preventDefaultOnContextMenuEvents

Object Type	Widget.Option
Data Type	boolean
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	Widget.Option
Data Type	PixelsAsNumber
Data Range	≥ 0
Default	4
Explanation	Determines the height of all progress bars within allocation bars and activity bars.

progressBarWidthCalculationMode


Object Type	Widget.Option
Data Type	Enum.ProgressBarWidthCalculationMode
Default	ProgressBarWidthCalculationMode.ConsiderWorkingTimesOnly
Explanation	This option determines how the widths of the progress bars are calculated.

reducedBarTopOffsetAndHeightScaleFactor

Object Type	Widget.Option
Data Type	number
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 ReducedHeight in property BarDesign of an Activity or Allocation object is set to true or when visualizing allocations of other skill in SkilledResources view.
See also	Activity.BarDesign Allocation.BarDesign

	Enum.BarDesigns Option.allocationBarDesignOfOtherSkill
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releaseDueDateConnectionsVisible

Object Type	Widget.Option
Data Type	boolean
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	Activity.DueDate Activity.ReleaseDate

resetValueForDifferentialUpdate

Object Type	Widget.Option
Data Type	any
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	Widget.Option
Data Type	IdentifierAsString
Default	undefined
Explanation	ID of a HierarchySupplementaryDefinition object that will be used to specify grouping parameters for hierarchy of resource objects in resources view.
See also	Enum.ViewType

resourceHierarchySupplementaryDefinitionIDInLoadsView

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

resourceRowSortCodePropertyName

Object Type	Widget.Option
Data Type	string
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	Option.interactiveSwitchingOfSortOrderEnabled Option.resourceRowSortMode Option.sortingIndicatorVisible Resource.SortCode

resourceRowSortMode

Object Type	Widget.Option
Data Type	Enum.RowSortMode
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> <p>If the mode is None, a callback handler declared using the callback option <code>compareActivities</code> will be active.</p>
See also	Callback.compareResources Enum.ViewType Option.interactiveSwitchingOfSortOrderEnabled Option.resourceRowSortCodePropertyName Resource.SortCode

resourcesVisibleInActivitiesView

Object Type	Widget.Option
Data Type	boolean
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	Option.allocationBarDesignOfOtherActivity Option.allocationRowsVisibleInActivitiesView Resource.AllocationRowsCollapseStateInActivitiesView

resourceTableRowDefinitionIDForTitle

Object Type	Widget.Option
Deprecated	Use option Option.tableRowDefinitionIDForTitleInResourcesView instead.

rowsDraggable

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	Only when set to true and the option editable is set to true, then rows will be draggable according to the value in the property AllowedRowDragModes in Activity, Allocation, Resource, Skill, and Entity objects. When this option or the option editable is set to false, then rows are generally not draggable. This option makes it possible to separate the general allowance for bar dragging and row dragging, while the option editable controls both at once.
See also	Activity.AllowedRowDragModes Allocation.AllowedRowDragModes Allocation.AllowedRowDragModesInActivitiesView Entity.AllowedRowDragModes Resource.AllowedRowDragModes Skill.AllowedRowDragModes

rowSortModeNoneEnabledOnInteractiveSwitchingOfSortOrder

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	If set to true, then a sort mode can interactively be switched back to unsorted.

scrollOffsetsChangedCallbackTimeDelay

Object Type	Widget.Option
Data Type	number
Data Range	≥ 0
Default	500
Unit	Milliseconds
Explanation	This value determines the time delay in milliseconds for triggering the callbacks onVerticalScrollOffsetChanged and onTimeAreaViewParametersChanged.
See also	Callback.onTimeAreaViewParametersChanged Callback.onVerticalScrollOffsetChanged

scrollToObjectAnimationEnabled

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

scrollToObjectHighlightFlashingEnabled

Object Type	Widget.Option
Deprecated	Use option Option.objectHighlightFlashingEnabled instead.

scrollToObjectHighlightingColor

Object Type	Widget.Option
Deprecated	Use option Option.objectHighlightingColor instead.

selectionColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"#ffa000"
Explanation	Specifies a color used to highlight selected bars, links or table rows. This color is also used for coloring lines and frames while dragging a row interactively.

separationLinesInColoredIndentation

Object Type	Widget.Option
Data Type	boolean
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	Widget.Option
Data Type	string
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	Option.skillRowSortMode Skill.SortCode

skillRowSortMode

Object Type	Widget.Option
Data Type	Enum.RowSortMode
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. If the mode is None, a callback handler declared using the callback option compareActivities will be active.
See also	Callback.compareSkills Enum.ViewType Option.skillRowSortCodePropertyName Skill.SortCode

sortingIndicatorVisible

Object Type	Widget.Option
Data Type	boolean
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	Option.activityRowSortCodePropertyName Option.activityRowSortMode Option.allocationRowSortCodePropertyName Option.allocationRowSortMode Option.entityRowSortCodePropertyName Option.interactiveSwitchingOfSortOrderEnabled Option.resourceRowSortCodePropertyName

splitterHighlightingColor

Object Type	Widget.Option
Data Type	ColorAsString
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	Widget.Option
Data Types	Date DateAsString
Default	beginning of today when widget is instantiated
Explanation	<p>Date where the time area starts absolutely, means when the horizontal scroll bar is placed at the start of the time area view. When using the method <code>fitTimeAreaIntoView</code>, it is not possible there to make dates visible before the start date set here.</p> <p>If this option was not set before the 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	Callback.onLogWarning Method.fitTimeAreaIntoView Method.saveAsPDF Method.setTimeResolutionForView Option.end Option.startAndEnd

subRowDistanceInTimeArea

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	> 0
Default	5
Explanation	<p>Vertical distance between two bars in pixels.</p> <p>Note: Symbols are drawn inside this distance.</p>
See also	Option.bottomRowMarginInTimeArea Option.topRowMarginInTimeArea

suitableActivityOverlayColor

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

suitableResourceOverlayColor

Object Type	Widget.Option
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Data Type	ColorAsString
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	Allocation.SuitableResourceIDs Entity.SuitableResourceIDs Option.unsuitableResourceOverlayColor

symbolColumnBackgroundColor

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

symbolColumnTitleBackgroundColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	Value of Option.symbolColumnBackgroundColor
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	Option.symbolColumnTitleVisible

symbolColumnTitleSymbolIDs

Object Type	Widget.Option
Data Type	IdentifierAsString[]
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>

	Note: Each symbol will be resized to an image with a width and height of 16 pixels each at a zoom level of 100%.
See also	Option.symbolColumnTitleVisible

symbolColumnTitleVisible

Object Type	Widget.Option
Data Type	boolean
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	Option.symbolColumnTitleBackgroundColor Option.symbolColumnTitleSymbolIDs Option.symbolColumnVisible Option.tableHeaderBackgroundColor

symbolColumnVisible

Object Type	Widget.Option
Data Type	boolean
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.
See also	Activity.RowSymbolIDs Allocation.RowSymbolIDs Option.symbolColumnTitleVisible Resource.RowSymbolIDs

symbolColumnWidth

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	≥ 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	Widget.Option
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Data Type	PixelsAsNumber
Data Range	≥ 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	Widget.Option
Data Type	ColorAsString
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	Widget.Option
Deprecated	Use option Option.tableTitleBackgroundColor instead.
See also	Option.symbolColumnTitleVisible

tableHeaderColumnSeparatorColor

Object Type	Widget.Option
Deprecated	Use option Option.tableTitleColumnSeparatorColor instead.

tableHeaderHighlightingColor

Object Type	Widget.Option
Deprecated	Use option Option.tableTitleHighlightingColor instead.

tableHeaderTextColor

Object Type	Widget.Option
Deprecated	Use option Option.tableTitleTextColor instead.

tableRowDefinitionIDForTitleInActivitiesView

Object Type	Widget.Option
Data Type	string
Default	Value of Option.defaultActivityTableRowDefinitionID

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	Option.titleText TableCellDefinition.TitleText

tableRowDefinitionIDForTitleInEntitiesTable

Object Type	Widget.Option
Data Type	string
Default	Value of Option.defaultEntityTableRowDefinitionID
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	TableCellDefinition.TitleText

tableRowDefinitionIDForTitleInLoadsView

Object Type	Widget.Option
Data Type	string
Default	Value of Option.tableRowDefinitionIDForTitleInResourcesView Value of Option.defaultResourceTableRowDefinitionID (when undefined)
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	Option.titleText TableCellDefinition.TitleText

tableRowDefinitionIDForTitleInResourcesView

Object Type	Widget.Option
Data Type	IdentifierAsString
Default	Value of Option.defaultResourceTableRowDefinitionID
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	Option.titleText TableCellDefinition.TitleText
Used by	Option.tableRowDefinitionIDForTitleInLoadsView

tableRowDefinitionIDForTitleInSkilledResourcesView

Object Type	Widget.Option
Data Type	IdentifierAsString

Default	Value of Option.defaultSkillTableRowDefinitionID
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	Option.titleText

tableTitleAndTimescaleHeight

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	≥ 0
Default	60
Explanation	Specifies the height of the left table and the timescale.

tableTitleBackgroundColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"#646464"
Explanation	Specifies a color used to color the background of the table header of the Gantt diagram.

tableTitleColumnSeparatorColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"white"
Explanation	Specifies a color used to color the column separators in the table header of the Gantt diagram.

tableTitleHighlightingColor

Object Type	Widget.Option
Data Type	ColorAsString
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	Widget.Option
Data Type	ColorAsString

Default	"white"
Explanation	Specifies a color used to color the text in the table header of the Gantt diagram.

tableViewWidth

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	≥ 0
Default	null
Explanation	<p>This option defines the width of the table view in all views. A change to the vertical splitter is not changing this option.</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	Option.tableViewWidthsSynchronized

tableViewWidthInActivitiesView

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	≥ 0
Default	null
Explanation	<p>This option defines the width of the table view in activities 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	Option.tableViewWidthsSynchronized

tableViewWidthInLoadsView

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	≥ 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	Option.tableViewWidthsSynchronized

tableViewWidthInResourcesView

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	≥ 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	Option.tableViewWidthsSynchronized

tableViewWidthInSkilledResourcesView

Object Type	Widget.Option
Data Type	PixelsAsNumber
Data Range	≥ 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	Option.tableViewWidthsSynchronized

tableViewWidthsSynchronized

Object Type	Widget.Option
Data Type	boolean
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	Option.tableViewWidth Option.tableViewWidthInActivitiesView Option.tableViewWidthInLoadsView Option.tableViewWidthInResourcesView Option.tableViewWidthInSkilledResourcesView

tableWidth

Object Type	Widget.Option
Deprecated	Use object type ObjectType.TableRowDefinition instead.

timeAreaBackgroundColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"white"
Explanation	<p>Specifies a color used to color the background of the time area of the rows.</p> <p>Please do not use any alpha value for transparency here.</p> <p>The empty space below the rows in table and in time area shows the background defined by CSS on the DIV element that contains the widget.</p>

timeAreaPanningMode

Object Type	Widget.Option
Data Type	Enum.PanningMode
Default	PanningMode.HorAndVer
Explanation	<p>Specifies, how the widget reacts to user interactions inside the empty space of the time area.</p> <p>Note: When panning with the mouse, this option is only considered if the option <code>multipleSelectionEnabled</code> is set to false.</p>
See also	Option.multipleSelectionEnabled

timescaleBackgroundColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"#646464"
Explanation	Specifies a color used to color the background of the timescale.
See also	Option.calendarGridColor

timescaleHighlightingColor

Object Type	Widget.Option
Data Type	ColorAsString
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.

timescaleInteractionMode

Object Type	Widget.Option
Data Type	Enum.TimescaleInteractionModes
Default	TimescaleInteractionModes.Default
Explanation	Specifies which interactions are allowed on the timescale.

timescaleInteractionsEnabled

Object Type	Widget.Option
Deprecated	Use option Option.timescaleInteractionMode instead.

timescaleNavigationMode

Object Type	Widget.Option
Data Type	Enum.TimescaleNavigationMode
Default	TimescaleNavigationMode.Latest
Explanation	Mode of navigation in the timescale.

timescaleTextColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"white"
Explanation	Specifies a color used to color the text in the timescale.

timescaleTickColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"white"
Explanation	Specifies a color used to color the ticks in the timescale.

timescaleWeekendBackgroundColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"#888888"
Explanation	Specifies a color used to color the background of the weekend cells of the timescale.
See also	Option.calendarGridColor Option.calendarGridWeekendColor

timeStepUnit

Object Type	Widget.Option
Data Type	Enum.TimeUnit
Default	Value of Option.maximumTimeResolutionUnit
Explanation	<p>Unit for time steps on horizontal drag interactions of bars. Used together with option timeStepUnitFactor.</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 options maximumTimeResolutionUnit/-Factor, the value here also changes the default value of maximumTimeResolutionUnit! This is done for compatibility reasons.</p> <p>Note: 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 timeStepUnitFactor indicate. Otherwise, unexpected jumps may occur when moving bars.</p>
See also	Option.maximumTimeResolutionUnit Option.maximumTimeResolutionUnitFactor Option.timeStepUnitFactor
Used by	Option.maximumTimeResolutionUnit

timeStepUnitFactor

Object Type	Widget.Option
Data Type	number
Data Range	≥ 0
Default	Value of Option.maximumTimeResolutionUnit
Explanation	<p>Number of units for a single time step on horizontal drag interactions of bars. Used together with option timeStepUnit. Integer values are recommended.</p> <p>Note: 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 timeStepUnit indicate. Otherwise, unexpected jumps may occur when moving bars.</p>
See also	Option.maximumTimeResolutionUnit Option.timeStepUnit
Used by	Option.maximumTimeResolutionUnitFactor

timeZone

Object Type	Widget.Option
Data Types	string null
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	https://en.wikipedia.org/wiki/List_of_tz_database_time_zones https://www.iana.org/time-zones

titleText

Object Type	Widget.Option
Data Types	string null
Default	undefined
Explanation	<p>This text will be shown in the table title.</p> <p>It will appear only in the following two cases:</p> <p>If using the TableRowDefinition objects for defining the table and the option <code>tableRowDefinitionIDForTitleIn...View</code> for the corresponding view type is not set.</p> <p>or</p> <p>If using the deprecated callback <code>onDetermineColumnsDefinitions</code> and there additionally the flag <code>hasColumnTitles</code> is set to false in the callback (see there).</p> <p>Note: 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	Option.tableRowDefinitionIDForTitleInActivitiesView Option.tableRowDefinitionIDForTitleInLoadsView Option.tableRowDefinitionIDForTitleInResourcesView Option.tableRowDefinitionIDForTitleInSkilledResourcesView

tonedDownOverlayColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"rgba(64,64,64,0.5)"
Explanation	This option is used as the overlay color for bars where the flag <code>TonedDownColoring</code> in property <code>BarDesign</code> of an Activity or Allocation object is set to true or when visualizing allocations of other skill in <code>SkilledResources</code> .
See also	Enum.BarDesigns Option.allocationBarDesignOfOtherSkill

tooltipDelay

Object Type	Widget.Option
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Data Type	number
Data Range	≥ 0
Default	500
Unit	Milliseconds
Explanation	This option determines the delay in milliseconds until a tooltip becomes visible.
See also	Callback.onShowTooltip

topBarSymbolsVisible

Object Type	Widget.Option
Data Type	boolean
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	Widget.Option
Data Type	PixelsAsNumber
Data Range	> 0
Default	10
Explanation	<p>Height of the margin between the top row border and bars in pixels. Note: Symbols are drawn inside this margin.</p> <p>When one of the options detailedActivity/AllocationConstraintSymbolsEnabled is set to true, then the value here should be set to a value of 15 or above to avoid a vertical overlap of the row contents. For maximizing the performance there is no clipping of elements that are drawn above the top row border.</p>
See also	Activity.EarliestEnd Activity.EarliestStart Activity.LatestEnd Activity.LatestStart Activity.MustEndOn Activity.MustStartOn Allocation.EarliestEnd Allocation.EarliestStart Allocation.LatestEnd Allocation.LatestStart Allocation.MustEndOn Allocation.MustStartOn Option.bottomRowMarginInTimeArea Option.detailedActivityConstraintSymbolsEnabled Option.detailedAllocationConstraintSymbolsEnabled Option.subRowDistanceInTimeArea

topViewAreaVisible

Object Type	Widget.Option
Deprecated	Use option Option.topViewAreaVisibleInResourcesView instead.

topViewAreaVisibleInActivitiesView

Object Type	Widget.Option
Data Type	boolean
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	Activity.ViewArea Allocation.PredictedEnd Option.mainViewAreaVisibleInActivitiesView Option.maximumTopViewAreaHeightRatio

topViewAreaVisibleInLoadsView

Object Type	Widget.Option
Data Type	boolean
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	Option.mainViewAreaVisibleInLoadsView Option.maximumTopViewAreaHeightRatio Resource.ViewArea

topViewAreaVisibleInResourcesView

Object Type	Widget.Option
Data Type	boolean
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	Option.mainViewAreaVisibleInResourcesView Option.maximumTopViewAreaHeightRatio Resource.ViewArea

topViewAreaVisibleInSkilledResourcesView

Object Type	Widget.Option
Data Type	boolean

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	Option.mainViewAreaVisibleInSkilledResourcesView Option.maximumTopViewAreaHeightRatio Skill.ViewArea

treeViewLineColor

Object Type	Widget.Option
Data Type	ColorAsString
Default	"black"
Explanation	Determines the color of tree view lines in the left table.
See also	Option.treeVisualizationMode

treeViewLineDashArray

Object Type	Widget.Option
Data Type	DashArrayAsString
Default	"none"
Explanation	Pattern of dashes and gaps for drawing the tree view lines in the left table.
See also	Option.treeVisualizationMode

treeVisualizationMode

Object Type	Widget.Option
Data Type	Enum.TreeVisualizationMode
Default	TreeVisualizationMode.ColoredIndentation
Explanation	Determines how the tree of objects is visualized in the left table.
See also	Option.treeViewLineColor Option.treeViewLineDashArray

triggeringOfOnClickedInTimeAreaOfRow

Object Type	Widget.Option
Data Type	boolean
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	Widget.Option
Data Type	boolean
Default	true
Explanation	Defines whether the callback onCollapseStateChanged is also triggered by calling update methods.

triggeringOfOnShowContextMenuInTimeAreaOfRow

Object Type	Widget.Option
Data Type	boolean
Default	true
Explanation	Defines whether the callback onShowContextMenuInTimeAreaOfRow is also triggered by calling update methods.

triggeringOfOnShowTooltipForEntriesInBarsEnabled

Object Type	Widget.Option
Data Type	boolean
Default	false
Explanation	If set to true, then the callback onShowTooltip is triggered for each entry of an activity bar or an allocation bar.
See also	Callback.onShowTooltip

unsuitableActivityOverlayColor

Object Type	Widget.Option
Data Type	ColorAsString
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	Allocation.SuitableActivityIDs Entity.SuitableActivityIDs Option.suitableActivityOverlayColor

unsuitableResourceOverlayColor

Object Type	Widget.Option
Data Type	ColorAsString
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	Allocation.SuitableResourceIDs Entity.SuitableResourceIDs Option.suitableResourceOverlayColor
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version

Object Type	Widget.Option
Data Type	string
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	https://semver.org Option.customVersion

viewType

Object Type	Widget.Option
Data Type	Enum.ViewType
Default	ViewType.Activities
Explanation	This option determines the type of view that is shown: activities view, resources view, or loads view.

visualZoomFactor

Object Type	Widget.Option
Data Type	number
Data Range	> 0.0
Default	1.0
Explanation	Factor used to zoom in (>1) and out (<1) the whole widget.

watermarkOpacity

Object Type	Widget.Option
Data Type	number
Data Range	$\geq 0.0 \dots \leq 1.0$
Default	0.2
Explanation	Opacity of the watermark.
See also	Option.watermarkSymbolID

watermarkSymbolID

Object Type	Widget.Option
Data Type	string
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	Option.watermarkOpacity

weekNumbering

Object Type	Widget.Option
Data Types	string null
Data Range	"ISO8601" "USA"
Default	null
Explanation	<p>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).</p> <p>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".</p>
See also	Option.firstDayOfWeek

workDate

Object Type	Widget.Option
Data Types	Date DateAsString null
Default	null
Explanation	<p>Date on which the work date line will be displayed.</p> <p>If outside of the time range between start and end of the time area, then no line will be visible.</p> <p>Note: 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.</p>
See also	ObjectType.DateLine

workDateLineCaption

Object Type	Widget.Option
Data Type	string
Default	""
Explanation	Text to be displayed at the work date line.

Note: 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	Widget.Option
Data Type	PixelsAsNumber
Data Range	≥ 0
Default	150
Explanation	Defines the extent of the world view in pixels.

worldViewPosition

Object Type	Widget.Option
Data Type	Enum.WorldViewPosition
Default	WorldViewPosition.Bottom
Explanation	Defines the position of the world view within the widget.

worldViewVisible

Object Type	Widget.Option
Data Type	boolean
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

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about

Object Type	Widget.Method
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	Widget.Method		
Parameter	activities	Activity[]	
Explanation	Add activities. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.Activity		

addAllocations

Object Type	Widget.Method		
Parameter	allocations	Allocation[]	
Explanation	Add allocations. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.Allocation		

addCalendars

Object Type	Widget.Method		
Parameter	calendars	Calendar[]	
Explanation	Add calendars. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.Calendar		

addCurves

Object Type	Widget.Method
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Parameter	curves	Curve[]	
Explanation	Add curves. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.Curve		

addDateLines

Object Type	Widget.Method		
Parameter	dateLines	DateLine[]	
Explanation	Add date lines. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.DateLine		

addEntities

Object Type	Widget.Method		
Parameter	entities	Entity[]	
Explanation	Add entities. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.Entity		

addHierarchySupplementaryDefinitions

Object Type	Widget.Method		
Parameter	hierarchySupplementaryDefinitions	HierarchySupplementaryDefinition[]	
Explanation	Add hierarchy supplementary definitions. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.HierarchySupplementaryDefinition		

addLinks

Object Type	Widget.Method		
Parameter	links	Link[]	
Explanation	Add links. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.Link		

addPeriodHighlighters

Object Type	Widget.Method		
Parameter	periodHighlighters	PeriodHighlighter[]	
Explanation	Add period highlighters. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.PeriodHighlighter		

addResources

Object Type	Widget.Method		
Parameter	resources	Resource[]	
Explanation	Add resources. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.Resource		

addSkills

Object Type	Widget.Method		
Parameter	skills	Skill[]	
Explanation	Add skills. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.Skill		

addSymbols

Object Type	Widget.Method		
Parameter	symbols	Symbol[]	
Explanation	Add symbols. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.Symbol		

addTableRowDefinitions

Object Type	Widget.Method		
Parameter	TableRowDefinitions	TableRowDefinition[]	
Explanation	Add table row definitions. Changes will not become visible until the method "render" is called.		

Used by	Method.render ObjectType.TableRowDefinition
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addTooltipTemplates

Object Type	Widget.Method		
Parameter	TooltipTemplates	TooltipTemplate[]	
Explanation	Add tooltip templates. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.TooltipTemplate		

addWorkingTime

Object Type	Widget.Method		
Parameter	calendarID	IdentifierAsString undefined	
	start	Date DateAsString	
	workingTime	number	milliseconds
Return Type	Date undefined		
Explanation	Add a working time given in milliseconds to a date and returns a new date object with the calculated date. If the given calendar has not enough working time to calculate a result date, the method returns null. If you do not provide a calendarID, then the calculation is done using the standard operations on JavaScript Date objects, which means that no non-working time is considered.		

calculateWorkingTime

Object Type	Widget.Method		
Parameter	calendarID	IdentifierAsString undefined	
	start	Date DateAsString	
	end	Date DateAsString	
Return Type	number		
Explanation	Calculates the working time of a time period given by a start and an end date. If you do not provide a calendarID, the calculation is done by subtracting the date objects directly. Please consider, that the given calendar contains pure non-working time beyond defined working time entries. The working time returned is given in milliseconds.		

cancelSaveAsPDF

Object Type	Widget.Method
Explanation	Cancels the execution of the saveAsPDF method.
Used by	Method.saveAsPDF

destroy

Object Type	Widget.Method
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	Widget.Method		
Parameter	pageX	number	
	pageY	number	
Return Type	Object undefined		
Explanation	<p>If an object is returned, it has the following properties:</p> <pre> "objectType" : Enum.ObjectType, "object" : DataType.Object, /*1 "visualType" : Enum.VisualType, /*1 "cellIndex" : DataType.number, /*2 "date": DataType.Date, /*3 "curve": ObjectType.Curve, /*4 "capacity": DataType.number, /*4 "load": DataType.number, /*4 "singleLoads": DataType.Object, /*4 "entry": ObjectType.ActivityEntry ObjectType.AllocationEntry ObjectType.PeriodHighlighterEntry, /*5 "entryIndex": DataType.number, /*5 "periodHighlighter": ObjectType.PeriodHighlighter, /*6 "hierarchySupplementaryDefinition": ObjectType.HierarchySupplementaryDefinition, /*7 "hierarchySupplementaryDefinitionID": DataType.IdentifierAsString, /*7, DEPRECATED "hierarchyLevelSupplementaryDefinitionIndex": DataType.number, /*7 "groupingLevelDefinitionIndex": DataType.number, /*7 "groupingCodes": DataType.string[] /*7 </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 objectType is targeting a data object (i.e. not the timescale or empty space).</p> <p>*2: Only available when the table is hit.</p>		

	<p>*3: Only available when the time area is hit.</p> <p>*4: Only available when a curve area inside the time area is hit.</p> <p>*5: Only available when an activity bar, an allocation bar or a period highlighter entry is hit.</p> <p>*6: Only available when a period highlighter is hit.</p> <p>*7: Only available when a group is hit.</p>
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element

Object Type	Widget.Method
Return Type	HTMLElement undefined
Explanation	<p>Gets the DIV element handled over in the constructor. If the widget was destroyed already, this method returns undefined.</p> <p>This method is only available when not instantiated using jQuery. In that latter case the widget instance has the property <code>_element</code> that contains the same value.</p>

fitTimeAreaIntoView

Object Type	Widget.Method		
Parameter	start	Date DateAsString undefined	
	end	Date DateAsString undefined	
Return Type	Promise		
Explanation	<p>Fits the time area into the visible area. As a result, the time resolution is set in dependence from the width of the time area view.</p> <p>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, that is defined by the options start and end.</p> <p>Attention: The dates provided as arguments here cannot exceed the time range previously defined in the options start and end.</p> <p>The end date itself is not included in the visible time area. The same behavior also is true for all end dates used in the widget like e.g. in calendar entries, period highlighter entries, activities, activity entries, allocations, allocation entries.</p> <p>The method will be processed using animation when not called before the first call to the method render. The returned Promise object will be resolved when the animation is finished.</p> <p>Note: The time resolution cannot be set finer than the maximum time resolution defined by the options <code>maximumTimeResolutionUnit</code> and <code>maximumTimeResolutionUnitFactor</code>!</p>		
See also	Option.maximumTimeResolutionUnit Option.maximumTimeResolutionUnitFactor		
Used by	Callback.onTimeAreaViewParametersChanged Method.setTimeResolutionForView Option.end		

	Option.start
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getSelectedObjects

Object Type	Widget.Method
Return Type	Object
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>
Used by	Method.selectObjects

highlightObjects

Object Type	Widget.Method		
Parameter	objectType	Enum.ObjectType	
	objectsOrIDs	IdentifierAsString[] Object[]	
	visualType	Enum.VisualType	
Explanation	<p>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> <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 (special property here; 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 an additional 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>Note: In the resources view, VisualType.Row can be applied only to allocations that reside in separate rows (allocation rows), but not to allocations inside resource 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>		

	Note: An empty array will remove active highlightings. In this case the item type is not important and can be set to 0.
See also	Method.selectObjects
Used by	Method.scrollToObject Option.objectHighlightFlashingEnabled Option.objectHighlightingColor

option

Object Type	Widget.Method		
Parameter	key	Object string	
	value	any	optional
Explanation	<p>There are three possible uses:</p> <ol style="list-style-type: none"> 1. Called with a single parameter of type string gets the value of the option with the given key. (Alternatively, the application can use <code>options.optionName</code> on the widget instance for getting the value.) 2. Called with the first parameter of type string and the second parameter of any appropriate type sets the value of the option with the given key. 3. Called with an object as the only parameter sets the values of several options at once. The properties of the object then are the option names and the values the new values. This ensures that any internal rendering that may be necessary is called only once and therefore provides more performance in many cases. Please do not change inner properties without calling the option method explicitly, because otherwise the widget will not be informed about the changes implicitly. <p>After calling this method, it is not necessary to call the render method.</p>		
See also	https://api.jqueryui.com/jquery.widget/#method-option		

processOnDrop

Object Type	Widget.Method		
Parameter	callbackArgs	Object	
Explanation	<p>This method is meant to simplify the application development, when the dropped 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 <code>onDrop</code>. There the application also can read the property <code>proposedMethodCalls</code> of the callback arguments to detect which data objects have to be updated.</p> <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, this method is only helping in some cases.</p>		
Used by	Callback.onDrop		

removeActivities

Object Type	Widget.Method		
Parameter	activitiesOrIDs	Activity[] IdentifierAsString[]	
Explanation	Removes activities. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.Activity		

removeAll

Object Type	Widget.Method		
Parameter	objectTypeOrArray	Enum.ObjectTypeForRemoveAll Enum.ObjectTypeForRemoveAll[] undefined	
Explanation	Removes all objects or just all objects of the given object type(s). Changes will not become visible until the method "render" is called. If objects of more than one object type are removed, then VSW decides automatically for the order with the most performance. The application can also use ObjectTypeForRemoveAll.AllDataObjects for convenience.		
Used by	Method.render		

removeAllocations

Object Type	Widget.Method		
Parameter	allocationsOrIDs	Allocation[] IdentifierAsString[]	
Explanation	Removes allocations. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.Allocation		

removeCalendars

Object Type	Widget.Method		
Parameter	calendarsOrIDs	Calendar[] IdentifierAsString[]	
Explanation	Removes calendars. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.Calendar		

removeCurves

Object Type	Widget.Method		
Parameter	curvesOrIDs	Curve[] IdentifierAsString[]	
Explanation	Removes curves. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.Curve		

removeDateLines

Object Type	Widget.Method		
Parameter	dateLinesOrIDs	DateLine[] IdentifierAsString[]	
Explanation	Removes date lines. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.DateLine		

removeEntities

Object Type	Widget.Method		
Parameter	entitiesOrIDs	Entity[] IdentifierAsString[]	
Explanation	Removes entities. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.Entity		

removeHierarchySupplementaryDefinitionsOrIDs

Object Type	Widget.Method		
Parameter	hierarchySupplementaryDefinitionsOrIDs	HierarchySupplementaryDefinition[] IdentifierAsString[]	
Explanation	Removes hierarchy supplementary definitions. Changes will not become visible until the method "render" is called.		
Used by	Method.render		

removeLinks

Object Type	Widget.Method		
Parameter	linksOrIDs	Link[] IdentifierAsString[]	

Explanation	Removes links. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.Link		

removePeriodHighlighters

Object Type	Widget.Method		
Parameter	PeriodHighlightersOrIDs	PeriodHighlighter[] IdentifierAsString[]	
Explanation	Removes links. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.PeriodHighlighter		

removeResources

Object Type	Widget.Method		
Parameter	resourcesOrIDs	Resource[] IdentifierAsString[]	
Explanation	Removes resources. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.Resource		

removeSkills

Object Type	Widget.Method		
Parameter	skillsOrIDs	Skill[] IdentifierAsString[]	
Explanation	Removes skills. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.Skill		

removeSymbols

Object Type	Widget.Method		
Parameter	symbolOrIDs	Symbol[] IdentifierAsString[]	
Explanation	Removes symbols. Changes will not become visible until the method "render" is called.		
Used by	Method.render		

	ObjectType.Symbol
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removeTableRowDefinitions

Object Type	Widget.Method		
Parameter	tableRowDefinitionsOrIDs	TableRowDefinition[] IdentifierAsString[]	
Explanation	Removes table row definitions. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.TableRowDefinition		

removeTooltipTemplates

Object Type	Widget.Method		
Parameter	tooltipTemplatesOrIDs	TooltipTemplate[] IdentifierAsString[]	
Explanation	Removes tooltip templates. Changes will not become visible until the method "render" is called.		
Used by	Method.render ObjectType.TooltipTemplate		

render

Object Type	Widget.Method		
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. But this leads eventually to flickering of the browser window, at least when using update... or remove... methods!		
Used by	Method.addActivities Method.addAllocations Method.addCalendars Method.addCurves Method.addDateLines Method.addEntities Method.addHierarchySupplementaryDefinitions Method.addLinks Method.addPeriodHighlighters Method.addResources Method.addSkills Method.addSymbols Method.addTableRowDefinitions Method.addTooltipTemplates Method.removeActivities		

	Method.removeAll
	Method.removeAllocations
	Method.removeCalendars
	Method.removeCurves
	Method.removeDateLines
	Method.removeEntities
	Method.removeHierarchySupplementaryDefinitionsOrlDs
	Method.removeLinks
	Method.removePeriodHighlighters
	Method.removeResources
	Method.removeSkills
	Method.removeSymbols
	Method.removeTableRowDefinitions
	Method.removeTooltipTemplates
	Method.updateActivities
	Method.updateAllocations
	Method.updateCalendars
	Method.updateCurves
	Method.updateDateLines
	Method.updateEntities
	Method.updateHierarchySupplementaryDefinitions
	Method.updateLinks
	Method.updatePeriodHighlighters
	Method.updateResources
	Method.updateSkills
	Method.updateSymbols
	Method.updateTableRowDefinitions
	Method.updateTooltipTemplates

saveAsPDF

Object Type	Widget.Method		
Parameter	filename	string	
	options	Object	
Return Type	Promise		
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 the library html2canvas is needed additionally.</p> <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).</p> <p>The optional file name must 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.</p>		

The optional options object can be used to specify additional properties for the export. The following properties are allowed:

- "author" : [DataType.string](#) (default: undefined)
- "bottomHTML" : [DataType.string](#) (default: undefined)
- "bottomPageMargin" : [DataType.number](#) (>= 0; default 10; in millimeters)
- "bottomText" : [DataType.string](#) (default: undefined)
- "bottomTimescaleVisible" : [DataType.boolean](#) (default: false)
- "cutMarksVisible" : [DataType.boolean](#) (default: false)
- "end" : [DataType.Date](#) | [DataType.DateAsString](#) (default: value of option end)
- "horPageCountLimit" : [DataType.number](#) (default: 0=not active, if "zoomFactorInPercent" is 0, then 1) *
- "keywords" : [DataType.string](#) (default: undefined)
- "leftPageMargin" : [DataType.number](#) (>= 0; default 10; in millimeters)
- "ownerPassword" : [DataType.string](#) (default: undefined; if defined, you can edit the document in an appropriate application by entering this password)
- "pageFormat" : [DataType.string](#) (default: "A4"; possible values "A0"/"A1"/"A2"/"A3"/"A4"/"A5"/"A6"/"Legal"/"Letter" or "w*h" with width and height in millimeters)
- "pageOrientation" : [Enum.PageOrientation](#) (default: Portrait)
- "permissionToAnnotate" : [DataType.boolean](#) (default: true; if false, then it will not be possible to annotate text in the document)
- "permissionToAssembleDocument" : [DataType.boolean](#) (default: true; if false, then it will not be possible to combine the document with others)
- "permissionToCopy" : [DataType.boolean](#) (default: true; if false, then it will not be possible to copy text using the clipboard)
- "permissionToCopyForContentAccessibility" : [DataType.boolean](#) (default: true; if false, then it will not be possible to copy content for accessibility)
- "permissionToModify" : [DataType.boolean](#) (default: true; if false, then the PDF document can only be changed by the owner)
- "permissionToPrint" : [DataType.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" : [Enum.PrintingMode](#) (default: Cutting)
- "rightPageMargin" : [DataType.number](#) (>= 0; default 10; in millimeters)
- "start" : [DataType.Date](#) | [DataType.DateAsString](#) (default: value of option start)
- "subject" : [DataType.string](#) (default: undefined)
- "title" : [DataType.string](#) (default: undefined)
- "topHTML" : [DataType.string](#) (default: undefined)
- "topPageMargin" : [DataType.number](#) (>= 0; default 10; in millimeters)
- "topText" : [DataType.string](#) (default: undefined)
- "userPassword" : [DataType.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" : [DataType.number](#) (default: 0=not active, if "zoomFactorInPercent" is 0, then 1) *
- "watermarkSymbolID" : [DataType.string](#) (default: undefined)
- "zoomFactorInPercent" : [DataType.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 property `zoomFactorInPercent` is 0 and at least one of the properties `horPageCountLimit`/`verPageCountLimit` are 0/undefined, then this limit value(s) will be set to 1. This way, only a minimum of properties must be set to get the expected output. Without setting any property, you will get a single page as output.

The properties `bottomPageMargin`/`leftPageMargin`/`rightPageMargin`/`topPageMargin` define the margins that are left blank on each page of the PDF document. This serves a proper layout for printing it later.

The properties `bottomText`/`topText` allow to specify additional texts for top/bottom frame area. Here 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. 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` puts a watermark on each page.

The property `zoomFactorInPercent` determines the zoom factor for the chart, when not left zero.

The properties `start` and `end` allow to narrow down the time range put into the PDF document. If not defined, the values of the appropriate options `start` and `end`, resp., are used.

The properties `author`, `keywords`, `subject`, `title`, `permissionTo...` are put into the PDF document properties.

See also	Callback.onSaveAsPDFProgress Method.cancelSaveAsPDF Option.end Option.start
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scrollToDate

Object Type	Widget.Method		
Parameter	date	Date DateAsString	
	offset	string undefined	
Return Type	Promise		
Explanation	<p>Scrolls the time-area view so that the specified date is aligned with the left edge of the visible area.</p> <p>If an offset is specified, the date will appear shifted to the right by the defined amount. The offset can be a string with</p> <ul style="list-style-type: none"> a number that specifies a number of pixels (e.g. "50px"). a percentage string that specifies the size of the offset as a percentage of the time area view width (e.g. "10%"). 		

scrollToObject

Object Type	Widget.Method		
Parameter	objectType	Enum.ObjectType	
	objectId	Object string	
	targetPositionInView	Enum.TargetPositions undefined	Default: Necessary
	highlightingEnabled	boolean undefined	Default: true
Return Type	Promise		
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. If set to false, then the current highlighting of objects will be removed.</p>		

Used by	Callback.onCollapseStateChanged Method.highlightObjects Option.objectHighlightFlashingEnabled Option.objectHighlightingColor Option.scrollToObjectAnimationEnabled		
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scrollViewAreaHorizontally

Object Type	Widget.Method		
Parameter	viewArea	Enum.HorizontallyScrollableViewArea	
	scrollPosition	Enum.HorizontalScrollPosition	
Explanation	Scrolls the specified view area horizontally to the left or right.		

scrollViewAreaVertically

Object Type	Widget.Method		
Parameter	viewArea	Enum.VerticallyScrollableViewArea	
	scrollPosition	Enum.VerticalScrollPosition	
Explanation	Scrolls the specified view area vertically to the top or bottom.		

selectObjects

Object Type	Widget.Method		
Parameter	objectType	Enum.ObjectType	
	objectsOrIDs	Object[] IdentifierAsString[]	
	visualType	Enum.VisualType	
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>		
Used by	Method.getSelectedObjects Method.highlightObjects		

setCollapseStatesForEntityRows

Object Type	Widget.Method		
Parameter	newCollapseState	Enum.CollapseState	
	fromLevel	number undefined	
	toLevel	number undefined	
Explanation	<p>Sets the collapse state of the rows in the entities table.</p> <ul style="list-style-type: none"> • If both fromLevel and toLevel are not set, all entity rows at all levels are considered. • If both fromLevel and toLevel are set, only entity rows within the given level range are considered. • If only fromLevel is set, only entity rows on this level are considered. 		
Used by	Method.setCollapseStatesForRows		

setCollapseStatesForRows

Object Type	Widget.Method		
Parameter	viewType	Enum.ViewType	
	newCollapseState	Enum.CollapseState	
	fromLevel	number undefined	
	toLevel	number undefined	
	collapseStateTargets	Enum.CollapseStateTargets undefined	
Explanation	<p>Sets the collapse state of targets in the rows of the given view type.</p> <ul style="list-style-type: none"> • If both fromLevel and toLevel are not set, all rows at all levels are considered. • If both fromLevel and toLevel are set, only rows within the given level range are considered. • If only fromLevel is set, only rows on this level are considered. <p>By the collapseStateTargets can be specified, whether the rows themselves (default), the allocation rows or the curve panes are affected.</p>		
Used by	Method.setCollapseStatesForEntityRows		

setResourcePropertiesForActivities

Object Type	Widget.Method		
Parameter	resourceProperties	Object[]	
Explanation	<p>Sets some additional graphical attributes and states for resources referenced by their ID shown below a referenced activity in the activities view.</p> <p>The objects in the array have the following profile:</p> <pre>{ ID : IdentifierAsString, ActivityID: IdentifierAsString, AllocationRowsCollapseState : number undefined, CurveCollapseState : number undefined, RowSymbolIDs : IdentifierAsString[] undefined }</pre>		

	<pre>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>
Used by	Resource.AllocationRowsCollapseStateInActivitiesView

setResourcePropertiesForSkills

Object Type	Widget.Method		
Parameter	resourceProperties	Object[]	
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	Widget.Method		
Parameter	unit	Enum.TimeUnit TimeUnitAsString	
	unitCount	number undefined	> 0
	start	Date DateAsString undefined	
Return Type	Promise		

Explanation	<p>Sets the time resolution in the time area view. The time resolution is set so that the given unit, including unitCount, is recognizable for the user, e.g. TimeUnit.Hours sets the time resolution so that the user can differentiate every hour in the view. A unit count greater than 1 reduces the time resolution, e.g. TimeUnit.Hours with count 4 sets the time resolution so that the user can differentiate every 4 hours in the view. The timescale reflects the change accordingly. The time resolution is set independently from the width of the time area view.</p> <p>If unitCount is undefined or lower or equal 0, then 1 is used. If start is undefined, then the current visible start is used.</p> <p>The method will be processed using animation when not called before the first call to the method render. The returned Promise object will be resolved when the animation is finished.</p> <p>Attention: The optional start date provided as arguments here cannot exceed the time range previously defined in the options start and end.</p> <p>Note: The time resolution cannot be set finer than the maximum time resolution defined by the options maximumTimeResolutionUnit and maximumTimeResolutionUnitFactor!</p>
See also	Option.end Option.maximumTimeResolutionUnitFactor Option.start
Used by	Callback.onTimeAreaViewParametersChanged Method.fitTimeAreaIntoView Option.maximumTimeResolutionUnit

updateActivities

Object Type	Widget.Method		
Parameter	activities	Activity[]	
	updateMode	Enum.UpdateModes	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	Option.defaultUpdateMode		
Used by	Method.render ObjectType.Activity		

updateAllocations

Object Type	Widget.Method		
Parameter	allocations	Allocation[]	
	updateMode	Enum.UpdateModes	optional
Explanation	Updates allocations.		

	<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	Option.defaultUpdateMode		
Used by	Method.render ObjectType.Allocation		

updateCalendars

Object Type	Widget.Method		
Parameter	calendars	Calendar[]	
	updateMode	Enum.UpdateModes	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	Option.defaultUpdateMode		
Used by	Method.render ObjectType.Calendar		

updateCurves

Object Type	Widget.Method		
Parameter	curves	Curve[]	
	updateMode	Enum.UpdateModes	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> <p>Allowed changes are modification of all attributes except the ID and the Type.</p> <p>Changes will not become visible until the method "render" is called.</p>		
See also	Option.defaultUpdateMode		
Used by	Method.render ObjectType.Curve		

updateDateLines

Object Type	Widget.Method		
Parameter	datalines	DateLine[]	
	updateMode	Enum.UpdateModes	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>		

	Allowed changes are modification of all attributes except the ID. Changes will not become visible until the method "render" is called.		
See also	Option.defaultUpdateMode		
Used by	Method.render ObjectType.DateLine		

updateEntities

Object Type	Widget.Method		
Parameter	entities	Entity[]	
	updateMode	Enum.UpdateModes	optional
Explanation	Updates entities. If values in the Entity object change, the changes must be communicated to the widget using the update method. Allowed changes are modification of all properties except the ID. Changes will not become visible until the method "render" is called..		
See also	Option.defaultUpdateMode		
Used by	Method.render ObjectType.Entity		

updateHierarchySupplementaryDefinitions

Object Type	Widget.Method		
Parameter	hierarchySupplementaryDefinitions	HierarchySupplementaryDefinition[]	
	updateMode	Enum.UpdateModes	optional
Explanation	Updates hierarchy supplementary definitions. If values in the hierarchy supplementary Definition object change, the changes must be communicated to the widget using the update method. Allowed changes are modification of all properties except the ID. Changes will not become visible until the method "render" is called.		
See also	Option.defaultUpdateMode		
Used by	Method.render ObjectType.HierarchySupplementaryDefinition		

updateLinks

Object Type	Widget.Method		
Parameter	links	Link[]	
	updateMode	Enum.UpdateModes	optional
Explanation	Updates links. If values in the link object change, the changes must be communicated to the widget using the update method. Allowed changes are modification of all properties except the ID.		

	Changes will not become visible until the method "render" is called.
See also	Option.defaultUpdateMode
Used by	Method.render ObjectType.Link

updatePeriodHighlighters

Object Type	Widget.Method		
Parameter	periodHighlighter	PeriodHighlighter[]	
	updateMode	Enum.UpdateModes	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	Option.defaultUpdateMode		
Used by	Method.render ObjectType.PeriodHighlighter		

updateResources

Object Type	Widget.Method		
Parameter	updateResources	Resource[]	
	updateMode	Enum.UpdateModes	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	Option.defaultUpdateMode		
Used by	Method.render ObjectType.Resource		

updateSkills

Object Type	Widget.Method		
Parameter	updateSkills	Skill[]	
	updateMode	Enum.UpdateModes	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	Option.defaultUpdateMode		

Used by	Method.render ObjectType.Skill
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updateSymbols

Object Type	Widget.Method		
Parameter	updateSymbols	Symbol[]	
	updateMode	Enum.UpdateModes	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	Option.defaultUpdateMode		
Used by	Method.render ObjectType.Symbol		

updateTableRowDefinitions

Object Type	Widget.Method		
Parameter	tableRowDefinitions	TableRowDefinition[]	
	updateMode	Enum.UpdateModes	
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	Option.defaultUpdateMode		
Used by	Method.render		

updateTooltipTemplates

Object Type	Widget.Method		
Parameter	tableTooltipTemplates	TooltipTemplate[]	
	updateMode	Enum.UpdateModes	
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> <p>Changes will not become visible until the method "render" is called.</p>		
See also	Option.defaultUpdateMode		
Used by	Method.render		

	ObjectType.ToolTipTemplate
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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>The functions to assign to a callback option will only get one single parameter when called. This parameter is an object that contains all arguments described for each callback below.</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"> canDrag canSelect compareActivities compareAllocations compareEntities compareObjects compareResources compareSkills determineGroupingCode onClicked onCloseContextMenu onCollapseStateChanged onCurveCollapseStateChanged onCurvePaneResized onDetermineColumnsDefinitions onDoubleClicked onDrag onDragEnd onDragStart onDrop onLogError onLogWarning onRowSortingChangeRequested onSaveAsPDFProgress onSelectionChanged onShowContextMenu onShowTooltip onTableCellDefinitionWidthChanged onTimeAreaViewParametersChanged onVerticalScrollOffsetChanged visibilityFilter visibilityFilterForActivities visibilityFilterForAllocations

	visibilityFilterForEntities visibilityFilterForResources visibilityFilterForSkills
See also	https://api.jquery.com/promise/

canDrag

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	
	object	Object	
	visualType	Enum.VisualType	
	allowedDragModes	Enum.BarDragModes Enum.RowDragModes	in out
	promise	Promise undefined	out
	selectedObjects	Object[]	
	startPropertyName	string	*1
	endPropertyName	string	*1
	activityID	IdentifierAsString	DEPRECATED, *2
	activity	Activity	*2
	skillID	IdentifierAsString	DEPRECATED, *3
	skill	Skill	*3
	event	Event	DOM object
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>The properties startPropertyName and endPropertyName are only set if touching/dragging an activity bar.</p> <p>If the application returns a Promise object in the property 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 must provide an object as 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 contain 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 startPropertyName and 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, when touching/dragging an activity bar. *2: Only set for allocations in activities view, when resource rows are visible. *3: Only set for allocations in skilled resources view.</p>
See also	Activity.AllowedBarDragModes Activity.AllowedRowDragModes Activity.AttachedDateLineIDs Activity.DueDateAllowedDragModes Activity.ReleaseDateAllowedDragModes Allocation.AllowedBarDragModes Allocation.AllowedBarDragModesInActivitiesView Allocation.AllowedRowDragModes Allocation.AllowedRowDragModesInActivitiesView Allocation.AttachedDateLineIDs Entity.AllowedRowDragModes Option.defaultActivityAllowedBarDragModes Option.defaultAllocationAllowedBarDragModes Option.multipleBarDraggingEnabled Resource.AllowedRowDragModes Skill.AllowedRowDragModes

canSelect

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	
	object	Object	
	visualType	Enum.VisualType	
	otherSelectedObjects	Object[]	
	activityID	IdentifierAsString	DEPRECATED, *1
	activity	Activity	*1
	skillID	IdentifierAsString	DEPRECATED, *2
	skill	Skill	*2
	event	Event	DOM object
	cancel	boolean	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 set for allocations in activities view, when resource rows are visible.</p>		

*2: Only set for allocations in skilled resources view.

compareActivities

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	ObjectType.Activity
	objectA	Object	
	objectB	Object	
	viewType	Enum.ViewType	
	hierarchySupplementaryDefinitionID	IdentifierAsString	DEPRECATED, *1
	hierarchySupplementaryDefinition	HierarchySupplementaryDefinition	*1
	groupingLevelDefinitionIndex	number	*1
	groupingCodeA	string	*1
	groupingCodeB	string	*1
	isALowerThanB	boolean	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 the objects provided in the properties objectA and objectB and write the result into the property 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 the properties groupingCodeA and groupingCodeB together with the properties hierarchySupplementaryDefinition, hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex are set.</p> <p>NOTE: In case a row sort mode is defined, this callback will not be called!</p> <p>*1: Only set, when this callback is referencing grouping rows. The properties objectA and objectB are then always null.</p>		
See also	Enum.BarSortMode Option.activityRowSortMode		

compareAllocations

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	ObjectType.Allocation
	objectA	Object	
	objectB	Object	

	viewType	Enum.ViewType	
	activityID	IdentifierAsString	DEPRECATED, *1
	activity	Activity	*1
	skillID	IdentifierAsString	DEPRECATED, *2
	skill	Skill	*2
	isALowerThanB	boolean	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 the objects provided in the properties objectA and objectB and write the result into the property isALowerThanB: true, when A is lower than B and false, when A is greater than B.</p> <p>NOTE: In case a row sort mode is defined, this callback will not be called!</p> <p>*1: Only set for allocations in activities view, when resource rows are visible. *2: Only set for allocations in skilled resources view.</p>		
See also	Enum.BarSortMode Option.allocationRowSortMode		

compareEntities

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	ObjectType.Entity
	objectA	Object	
	objectB	Object	
	viewType	Enum.ViewType	
	hierarchySupplementaryDefinitionID	IdentifierAsString	DEPRECATED, *1
	hierarchySupplementaryDefinition	HierarchySupplementaryDefinition	*1
	hierarchyLevelSupplementaryDefinitionIndex	number	*1
	groupingLevelDefinitionIndex	number	*1
	groupingCodeA	string	*1
	groupingCodeB	string	*1
	isALowerThanB	boolean	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 the objects provided in the properties objectA and objectB and write the result into the property 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 the properties groupingCodeA and groupingCodeB together with the properties hierarchySupplementaryDefinition, hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex are set.</p> <p>NOTE: In case a row sort mode is defined, this callback will not be called!</p> <p>*1: Only set, when this callback is referencing grouping rows. The properties objectA and objectB then always are null.</p>
See also	Option.entityRowSortMode

compareObjects

Object Type	Widget.Callback
Deprecated	Deprecated for performance reasons. Use Widget.compareActivities , Widget.compareAllocations , Widget.compareEntities , or Widget.compareResources instead.

compareResources

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	ObjectType.Resource
	objectA	Object	
	objectB	Object	
	viewType	Enum.ViewType	
	hierarchySupplementaryDefinitionID	IdentifierAsString	DEPRECATED, *1
	hierarchySupplementaryDefinition	HierarchySupplementaryDefinition	*1
	hierarchyLevelSupplementaryDefinitionIndex	number	*1
	groupingLevelDefinitionIndex	number	*1
	groupingCodeA	string	*1
	groupingCodeB	string	*1
	activityID	IdentifierAsString	DEPRECATED, DEPRECATED, *2
	activity	Activity	*2
	skillID	IdentifierAsString	DEPRECATED, *3
	skill	Skill	*3

	isALowerThanB	boolean	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 the objects provided in the properties objectA and objectB and write the result into the property 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 the properties groupingCodeA and groupingCodeB together with the properties hierarchySupplementaryDefinition, hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex are set.</p> <p>NOTE: In case a row sort mode is defined, this callback will not be called!</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 set for resources in activities view, when resource rows are visible.</p> <p>*3: Only set for resources in skilled resources view.</p>		
See also	Option.resourceRowSortMode		

compareSkills

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	ObjectType.Skill
	objectA	Object	
	objectB	Object	
	viewType	Enum.ViewType	
	isALowerThanB	boolean	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 the objects provided in the properties objectA and objectB and write the result into the property 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 the properties groupingCodeA and groupingCodeB together with the properties hierarchySupplementaryDefinition, hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex are set.</p> <p>NOTE: In case a row sort mode is defined, this callback will not be called!</p>		
See also	Option.skillRowSortMode		

determineGroupingCode

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	
	object	Object	
	hierarchySupplementaryDefinitionID	IdentifierAsString	DEPRECATED
	hierarchySupplementaryDefinition	HierarchySupplementaryDefinition	
	hierarchyLevelSupplementaryDefinitionIndex	number	
	groupingLevelDefinition	Object	
	groupingLevelDefinitionIndex	number	
	code	string	In out
	text	string	out
Explanation	This function is called to determine grouping information like grouping code and long text.		

onClicked

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	
	object	Object	*1
	visualType	Enum.VisualType	*1
	event	Event	DOM object
	date	Date	date at mouse cursor
	entry	ActivityEntry AllocationEntry PeriodHighlighterEntry	*2
	entryIndex	number	*2
	curve	Curve	*3
	periodHighlighter	PeriodHighlighter	*4
	cellIndex	number	*5
	symbolIndex	number	*6
	symbolID	IdentifierAsString	DEPRECATED, *7
	symbol	Object	*7
	hierarchySupplementaryDefinitionID	IdentifierAsString	DEPRECATED, *8
	hierarchySupplementaryDefinition	HierarchySupplementaryDefinition	*8
	hierarchyLevelSupplementaryDefinitionIndex	number	*8

	groupingLevelDefinitionIndex	number	*8
	groupingCodes	string[]	*8
	activityID	IdentifierAsString	DEPRECATED, *9
	activity	Activity	*9
	skillID	IdentifierAsString	DEPRECATED, *10
	skill	Skill	*10
Explanation	<p>This function is called when an object is clicked by the user.</p> <p>In case of a grouping row, the property object is null and instead groupingCodes together with the properties hierarchySupplementaryDefinition, hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex are set.</p> <p>*1: Only set, when the objectType is targeting a data object (i.e. not the timescale or empty space).</p> <p>*2: Only set for objectType == ObjectType.Allocation or ObjectType.Activity or visualType == VisualType.PeriodHighlighter.</p> <p>*3: Only set, when clicked on a curve; the property object will then hold the corresponding resource.</p> <p>*4: Only set, when clicked on a PeriodHighlighterEntry; the property object will then hold the corresponding resource/activity.</p> <p>*5: Only set, when clicked on a table cell; zero-based index of the cell.</p> <p>*6: Only set, when clicked on a symbol in the symbol column of the table; zero-based index of the symbol.</p> <p>*7: Only set, when clicked on a symbol.</p> <p>*8: In case of a grouping row, the property object is null and instead groupingCodes together with the properties hierarchySupplementaryDefinitionID, hierarchySupplementaryDefinition, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex are set.</p> <p>*9: Only set for allocations and resources in activities view, when resource rows are visible.</p> <p>*10: Only set for allocations and resources in skilled resources view.</p>		
See also	Option.clickCallbackTriggeringOnRowInTimeArea		

onCloseContextMenu

Object Type	Widget.Callback
Explanation	When a context menu is visible in the application and the user starts a new action elsewhere in the widget or any method of the widget is called, the widget sends this event so that the application can close the open context menu.
See also	Callback.onShowContextMenu

onCollapseStateChanged

Object Type	Widget.Callback		
	objectType	Enum.ObjectType	

Properties of parameter object	object	Object	
	newCollapseState	Enum.CollapseState	
	interactively	boolean	
	isForAllocationRows	boolean	
	hierarchySupplementaryDefinitionID	string	DEPRECATED, *1
	hierarchySupplementaryDefinition	HierarchySupplementaryDefinition	*1
	hierarchyLevelSupplementaryDefinitionIndex	number	*1
	groupingLevelDefinitionIndex	number	*1
	groupingCodes	string[]	*1
	activityID	IdentifierAsString	DEPRECATED, *2
	activity	Activity	*2
	skillID	IdentifierAsString	DEPRECATED, *3
	skill	Skill	*3
	promise	Promise 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"> by the user clicking on the appropriate symbol in the resource, activity, skill, or entity row by automatic row expansion when dragging objects by using the method <code>scrollToObject</code> 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. <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 set, when this callback is referencing grouping rows. The property object is then always null.</p> <p>*2: Only set for allocations and resources in activities view, when resource rows are visible.</p> <p>*3: Only set for allocations and resources in skilled resources view.</p>		
See also	Activity.AllocationRowsCollapseState Activity.CollapseState Entity.CollapseState Method.scrollToObject Option.onCollapseStateChangedTriggeredByUpdateCalls Resource.AllocationRowsCollapseState Resource.AllocationRowsCollapseStateInActivitiesView Resource.CollapseState Resource.CollapseStateInLoadsView Skill.CollapseState		

onCurveCollapseStateChanged

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	
	object	Object	
	newCollapseState	Enum.CollapseState	
	interactively	boolean	
	resource	Resource	*1
	activityID	IdentifierAsString	DEPRECATED, *2
	activity	Activity	*2
	skillID	IdentifierAsString	DEPRECATED, *3
	skill	Skill	*3
	promise	Promise 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 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 set, when the object is not the resource itself.</p> <p>*2: Only set for allocations and resources in activities view, when resource rows are visible.</p> <p>*3: Only set for allocations and resources in skilled resources view.</p>		
See also	Activity.CurveCollapseState Resource.CurveCollapseState		

onCurvePaneResized

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	
	object	Object	
	activityID	IdentifierAsString	DEPRECATED, *1
	activity	Activity	*1
	skillID	IdentifierAsString	DEPRECATED, *2
	skill	Skill	*2
	newHeight	PixelsAsNumber	
	cancel	boolean	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>		

	<p>A minimum handler function could contain the following code:</p> <pre>vsWidget.updateResources([[...args.object, LoadCurvePaneHeight: args.newHeight]]); vsWidget.render();</pre> <p>*1: Only set for allocations and resources in activities view, when resource rows are visible. *2: Only set for allocations and resources in skilled resources view.</p>
See also	Option.curvePanelsResizable

onDetermineColumnsDefinitions

Object Type	Widget.Callback
Deprecated	Use object type ObjectType.TableRowDefinition instead for the same purpose.

onDoubleClicked

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	
	object	Object	*1
	visualType	Enum.VisualType	*1
	event	Event	DOM object
	date	Date	at mouse cursor
	entry	ActivityEntry AllocationEntry PeriodHighlighterEntry	*2
	entryIndex	number	*2
	periodHighlighter	PeriodHighlighter	*3
	cellIndex	number	*4
	symbolIndex	number	*5
	symbolID	IdentifierAsString	DEPRECATED, *6
	symbol	Object	*6
	hierarchySupplementaryDefinitionID	IdentifierAsString	DEPRECATED, *7
	hierarchySupplementaryDefinition	HierarchySupplementaryDefinition	*7
	hierarchyLevelSupplementaryDefinitionIndex	number	*7
	groupingLevelDefinitionIndex	number	*7
	groupingCodes	string[]	*7

	activityID	IdentifierAsString	DEPRECATED, *8
	activity	Activity	*8
	skillID	IdentifierAsString	DEPRECATED, *9
	skill	Skill	*9
Explanation	<p>This function is called when an object is double-clicked by the user.</p> <p>*1: Only set, when the properties object and objectType target a data object (i.e. not the timescale or empty space).</p> <p>*2: Only set, when objectType == ObjectType.Allocation or ObjectType.Activity or when visualType == VisualType.PeriodHighlighter.</p> <p>*3: Only set, when clicked on a PeriodHighlighterEntry; the property object will then hold the corresponding resource/activity.</p> <p>*4: Only set, when clicked on a table cell; zero-based index of the cell.</p> <p>*5: Only set, when clicked on a symbol in the symbol column of the table; zero-based index of the symbol.</p> <p>*6: Only set, when clicked on a symbol.</p> <p>*7: In case of a grouping row, the property object is null and instead groupingCodes together with the properties hierarchySupplementaryDefinition, hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex are set.</p> <p>*8: Only set for allocations and resources in activities view, when resource rows are visible.</p> <p>*9: Only set for allocations and resources in skilled resources view, when double-clicking on a resource row, allocation row, or allocation bar.</p>		
See also	Option.clickCallbackTriggeringOnRowInTimeArea		

onDrag

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	
	object	Object	
	visualType	Enum.VisualType	
	date	Date	at mouse cursor
	dragMode	Enum.BarDragModes Enum.RowDragModes	*1
	rowInsertionMode	Enum.RowInsertionMode	*2
	newRowObjectType	Enum.ObjectType	*1
	newRowObject	Object	*1
	newRowObjectIsSuitableActivity	boolean	*1
	newRowObjectIsSuitableResource	boolean	*1
	newStart	Date	*3
	newEnd	Date	*3
	newDate	Date	*4
	startPropertyName	string	*5

	endPropertyName	string	*5
	activityID	IdentifierAsString	DEPRECATED, *6
	activity	Activity	*6
	newActivityID	IdentifierAsString	DEPRECATED, *6
	newActivity	Object	*6
	skillID	IdentifierAsString	DEPRECATED, *7
	skill	Skill	*7
	newSkillID	IdentifierAsString	DEPRECATED, *7
	newSkill	Skill	*7
	event	Event	DOM object
	dropAllowed	boolean	out
	cancel	boolean	out
	promise	Promise 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 the property 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>This callback is optional for handling drag and drop in an application, i.e. the application should handle the callback onDrop at least.</p> <p>If the property 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 startPropertyName and 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 shows about the current insertion mode relative to the object in property newRowObject.</p> <p>In case of a grouping row, the property object is null and instead groupingCodes together with the properties hierarchySupplementaryDefinition, hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex are set.</p> <p>If a Promise object is returned in the property 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, dropAllowed : boolean undefined }</pre>		

	}. *1: Only set, when dragging bars or rows. *2: Only set, when dragging rows. *3: Only set, when dragging bars. *4: Only set for date line. *5: Only set, when dragging activity bars. *6: Only set for allocations and resources in activities view, when resource rows are visible. *7: Only set for allocations and resources in skilled resources view.
See also	Callback.onDragStart Callback.onDrop

onDragEnd

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	
	object	Object	
	visualType	Enum.VisualType	
	date	Date	at mouse cursor
	dragMode	Enum.BarDragModes Enum.RowDragModes	
	startPropertyName	string	*1
	endPropertyName	string	*1
	activityID	IdentifierAsString	DEPRECATED, *2
	activity	Activity	*2
	skillID	IdentifierAsString	DEPRECATED, *3
	skill	Skill	*3
	event	Event	DOM object
Explanation	<p>This function is called when the user ends dragging an activity, allocation, allocation entry, or entity (please check the property objectType!) even when dropping is not allowed or when the drag and drop action was cancelled in the callback handlers for onDragStart, onDrag, or onDrop.</p> <p>This callback is optional for handling drag and drop in an application, i.e. the application should handle the callback onDrop at least.</p> <p>This can e.g. be used to reset the application state. For processing the dropped object(s) please use the callback onDrop.</p> <p>If a date symbol or bar of an activity was dragged, then the properties startPropertyName and endPropertyName contain the name of the property to be modified when dragging or dropping the symbol or bar, resp.</p>		

	<p>*1: Only set, when touching/dragging an activity bar.</p> <p>*2: Only set for allocations and resources in activities view, when resource rows are visible.</p> <p>*3: Only set for allocations and resources in skilled resources view.</p>
See also	Callback.onDragStart Callback.onDrop

onDragStart

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	
	object	Object	
	visualType	Enum.VisualType	
	date	Date	at mouse cursor
	dragMode	Enum.BarDragModes Enum.RowDragModes	
	startPropertyName	string	*1
	endPropertyName	string	*1
	activityID	IdentifierAsString	DEPRECATED, *2
	activity	Activity	*2
	skillID	IdentifierAsString	DEPRECATED, *3
	skill	Skill	*3
	event	Event	DOM object
	cancel	boolean	out
Explanation	<p>This function is called when the user starts to drag an activity, allocation, allocation entry, or entity (please check the property objectType!). If the property cancel is set to true, then the drag action will be canceled.</p> <p>This callback is optional for handling drag and drop in an application, i.e. the application should handle the callback onDrop at least.</p> <p>If a date symbol or bar of an activity will be dragged, then the properties startPropertyName and endPropertyName contain the name of the property to be modified when dragging or dropping the symbol or bar, resp.</p> <p>Usually, the application is informed about dropping the object(s) by triggering the callback onDrop. Additionally, there are callbacks onDrag for continuous triggering while dragging and onDragEnd for resetting some status also when the dragging was canceled.</p> <p>*1: Only set, when touching/dragging an activity bar.</p> <p>*2: Only set for allocations and resources in activities view, when resource rows are visible.</p> <p>*3: Only set for allocations and resources in skilled resources view.</p>		
See also	Callback.onDrag		

	Callback.onDragEnd Callback.onDrop Option.multipleBarDraggingEnabled
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onDrop

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	
	object	Object	
	visualType	Enum.VisualType	
	proposedMethodCalls	Object[]	
	dragMode	Enum.BarDragModes Enum.RowDragModes	*1
	rowInsertionMode	Enum.RowInsertionMode	*2
	newRowObjectType	Enum.ObjectType	*3
	newRowObject	Object	*3
	newStart	Date	*3
	newEnd	Date	*3
	newDate	Date	*4
	newSortCode	number	*2
	startPropertyName	string	*5
	endPropertyName	string	*5
	activityID	IdentifierAsString	DEPRECATED, *6
	activity	Activity	*6
	newActivityID	IdentifierAsString	DEPRECATED, *6
	newActivity	Activity	*6
	skillID	IdentifierAsString	DEPRECATED, *7
	skill	Skill	*7
	newSkillID	IdentifierAsString	DEPRECATED, *7
	newSkill	Skill	*7
	event	Event	DOM object
	cancel	boolean	out
	promise	Promise undefined	out
	workingTimeDistance	number	milliseconds
	coupledObjects	Allocation[] Activity[] undefined	*1
	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 callback onDrag and when the drag and drop action was not cancelled in the callback handlers for onDragStart or onDrag).</p> <p>When the function sets a Promise object into the property 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>The property proposedMethodCalls contains an array of objects of the form:</p> <pre>{ methodName : string, args : any[] }</pre> <p>It can be empty e.g. when a row object is dropped onto itself. In other cases it contains the proposal to the methods to call for processing the drop action. The first object currently is always an update... or setResourcePropertiesFor... method. The second object then is a call to the render method and the third one is a call to scrollToObject. The application then can inform the backend and it can call the method processOnDrop or loop through the array and call the methods itself. These actions are supported:</p> <ul style="list-style-type: none"> • 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). • Dragged allocation bars vertically and horizontally (modifying properties ActivityID or ResourceID, and/or modifying properties Start/End of ActivityEntry objects). • Dragged activity bars vertically and horizontally (modifying properties ParentID, Start/End, LinkSourceDate, LinkTargetDate, and eventually modifying ActivityEntry properties Start/End). • Dragged date lines (modifying property PointInTime). <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. If the promise is resolved, then it is possible to call it with an arguments object, which offers cancel the interaction at last:</p> <pre>args = { cancel : boolean }</pre> <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>Note: 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 <code>startPropertyName</code> and <code>endPropertyName</code> contain the name of the property to be modified when dragging or dropping the symbol or bar, resp.</p> <p>The property <code>startsAndEndsOfEntries</code> contains an array of objects of the following form:</p> <pre>{ entryIndex : Integer, newStart : Date, newEnd : Date }</pre> <p>When multiple bars are dragged and dropped, this also applies to coupled objects: In the objects of the property <code>startsAndEndsOfCoupledObjects</code> there also exists a property named <code>startsAndEndsOfEntries</code>.</p> <p>If the <code>visualType</code> is <code>Row</code>, then the property <code>rowInsertionMode</code> is set. If the sort mode for this type of row object is set to <code>Ascending</code> (see options <code>activity/entity/resource/skillSortMode</code>), then also the properties <code>newSortCode</code> and <code>otherNewSortCodesForSiblingObjects</code> are 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 other callbacks <code>onDragStart</code>, <code>onDrag</code>, and <code>onDragEnd</code> are only optional for handling a drag and drop of objects.</p> <p>*1: Only set, when dragging bars or rows. *2: Only set, when dragging rows. *3: Only set, when dragging bars. *4: Only set for date line. *5: Only set, when dragging activity bars. *6: Only set for allocations and resources in activities view, when resource rows are visible. *7: Only set for allocations and resources in skilled resources view.</p>
See also	Callback.onDrag Callback.onDragEnd Callback.onDragStart DateLine.Draggable Method.processOnDrop Option.multipleBarDraggingEnabled

onLogError

Object Type	Widget.Callback		
	commandName	string	

Properties of parameter object	commandCounter	number	
	error	Error	JavaScript object
	rethrow	boolean	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 property commandName contains one of the method or callback names.</p> <p>The property 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 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	Callback.onLogWarning		

onLogWarning

Object Type	Widget.Callback		
Properties of parameter object	commandName	string	
	commandCounter	number	
	code	Enum.WarningCode	
	description	string	
Explanation	<p>If set then this function is triggered when data is inconsistent among other incidents.</p> <p>The property commandName 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 property commandCounter 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	Callback.onLogError Option.end Option.start		

onRowSortingChangeRequested

Object Type	Widget.Callback		
Properties of parameter object	object	Object	
	objectType	Enum.ObjectType	
	sortMode	Enum.RowSortMode	in out
	sortCodeSource	string	in out
	cancel	boolean	
	event	Event	
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 <code>cancel</code> to true.</p>		
See also	Option.interactiveSwitchingOfSortOrderEnabled		

onSaveAsPDFProgress

Object Type	Widget.Callback		
Properties of parameter object	pageCount	number	
	currentPageNumber	number	
	promise	Promise 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	Method.saveAsPDF		

onSelectionChanged

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	
	object	Object	
	selectedObjects	Object[]	in out
	visualType	Enum.VisualType	
	previousSelectedObjects	Object[]	*1
	previousSelectedObjectType	Enum.ObjectType	*1
	reason	Enum.SelectionChangedReason	*1
	reasonObject	Object	*1
	reasonObjectType	Enum.ObjectType	*1

	event	Event	DOM object
	cancel	boolean	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> <p>*1: Only set, when there were selected objects before.</p>		

onShowContextMenu

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	
	object	Object	*1
	visualType	Enum.VisualType	
	event	Event	DOM object
	date	Date	at mouse cursor
	entry	ActivityEntry AllocationEntry PeriodHighlighterEntry	*2
	entryIndex	number	*2
	symbolIndex	number	*3
	symbolID	IdentifierAsString	DEPRECATED, *4
	symbol	Object	*4
	periodHighlighter	PeriodHighlighter	*5
	hierarchySupplementaryDefinitionID	IdentifierAsString	DEPRECATED, *6
	hierarchySupplementaryDefinition	HierarchySupplementaryDefinition	*6
	hierarchyLevelSupplementaryDefinitionIndex	number	*6
	groupingLevelDefinitionIndex	number	*6
	groupingCodes	string[]	*6

	activityID	IdentifierAsString	DEPRECATED, *7
	activity	Activity	*7
	skillID	IdentifierAsString	DEPRECATED, *8
	skill	Skill	*8
	timePeriodStart	Date	*9
	timePeriodEnd	Date	*9
	promise	Promise undefined	out
Explanation	<p>This function is called when a context menu can appear.</p> <p>If the handler function sets a Promise object to the property promise, then the widget will internally hold the state of a context menu being open until the promise is resolved or rejected. Only when promise is set on return, the callback onCloseContextMenu will be triggered sometime afterwards! When not set, then the widget assumes that the application did not open a context menu. The application should resolve or reject the promise, when it closes the context menu on itself or when the widget triggers the callback onCloseContextMenu.</p> <p>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>*1: Only set, when the objectType is targeting a data object (i.e. not the timescale or empty space).</p> <p>*2: Available only if objectType == ObjectType.Allocation or ObjectType.Activity or if visualType == VisualType.PeriodHighlighter.</p> <p>*3: only available when clicked on a symbol in the symbol column of the table; zero-based index of the symbol.</p> <p>*4: only available when clicked on a symbol.</p> <p>*5: only available when clicked on a PeriodHighlighterEntry; the property object will then hold the corresponding resource/activity.</p> <p>*6: In case of a grouping row, the object is null and instead groupingCodes are set along with the properties hierarchySupplementaryDefinition, hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex.</p> <p>*7: Only for allocations and resources in activities view, when resource rows are visible.</p> <p>*8: Only for allocations and resources in skilled resources view.</p> <p>*9: 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.</p>		
See also	Callback.onCloseContextMenu		

onShowTooltip

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	
	object	Object	
	visualType	Enum.VisualType	
	visualSubtype	Enum.VisualSubtype	

	tooltipTemplateID	IdentifierAsString	in out
	event	Event	DOM object
	date	Date	at mouse cursor
	cellIndex	number	*1
	capacity	number	*2
	load	number	*2
	singleLoads	Object	*2
	entry	AllocationEntry ActivityEntry PeriodHighlighterEntry	*3
	entryIndex	number	*3
	symbolIndex	number	*4
	symbolID	IdentifierAsString	DEPRECATED, *5
	symbol	Object	*5
	periodHighlighter	PeriodHighlighter	*6
	hierarchySupplementaryDefinitionID	IdentifierAsString	DEPRECATED, *7
	hierarchySupplementaryDefinition	HierarchySupplementaryDefinition	*7
	hierarchyLevelSupplementaryDefinitionIndex	number	*7
	groupingLevelDefinitionIndex	number	*7
	groupingCodes	string[]	*7
	innerHTML	string	*8
	activityID	IdentifierAsString	DEPRECATED, *9
	activity	Activity	*9
	skillID	IdentifierAsString	DEPRECATED, *10
	skill	Skill	*10
	promise	Promise undefined	out
	isInteractive	boolean	in out
Explanation	<p>Hint: If the application uses tooltip templates for all data objects, it does not need to handle this callback, since this callback is an alternative to the usage of tooltip templates.</p> <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. The callback is always called immediately without any delay. The option tooltipDelay only delays the tooltip display itself.</p> <p>The callback is also triggered when the tooltip should disappear. In this case the object type is None.</p>		

	<p>If you want to avoid showing a tooltip, you will have set the properties innerHTML and tooltipTemplateID to "" or null.</p> <p>Please be aware that the property object contains 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 the property promise, then the widget will re-new the text now provided as first parameter in the call to Promise.resolve.</p> <p>When the application sets the property isInteractive to true, the tooltip is treated as being interactive. This means that the user can interact with it e.g. by clicking into it. The HTML therefore can include scrollable areas or hyperlinks or other input elements. The tooltip will disappear when the pointer cursor leaves the rectangle of the object that made the tooltip appear before only when the cursor moves away from the tooltip or when leaving the tooltip rectangle after entering it. On input, this property is set to undefined, when a tooltip template is provided on input. In this case, the property isInteractive of the tooltip template object determines the setting.</p> <p>To trigger the callback for each allocation bar entry or activity bar entry, you must set the option triggeringOfOnShowTooltipForEntriesInBarsEnabled. If set to true, the properties entry and entryIndex contain the appropriate value.</p> <p>*1: Only set, when on a table cell; zero-based index of the cell.</p> <p>*2: Only set, when visualType == VisualType.Curve or VisualType.PeriodHighlighter.</p> <p>*3: Only set, when objectType == ObjectType.Allocation or ObjectType.Activity or when visualType == VisualType.PeriodHighlighter.</p> <p>*4: Only set, when clicked on a symbol in the symbol column of the table; zero-based index of the symbol.</p> <p>*5: Only set, when clicked on a symbol.</p> <p>*6: Only set, when clicked on a PeriodHighlighterEntry; the property object will then hold the corresponding resource/activity.</p> <p>*7: In case of a grouping row, the property object is null and instead groupingCodes together with the properties hierarchySupplementaryDefinition, hierarchySupplementaryDefinitionID, hierarchyLevelSupplementaryDefinitionIndex, and groupingLevelDefinitionIndex are set.</p> <p>*8: Text to be displayed inside a tooltip window. This text must be formatted compliant to the formatting rules for the contents of HTML <div> elements. Line breaks can be inserted by adding a
 tag to the text. Embracing substrings by and tags will show bold texts. The same way you can use the <table> and the corresponding <tr> and <td> tags to tabulate the tooltip contents. If your original text contains the symbols "<" or ">" - 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 "<" by "&lt;" and ">" by "&gt;").</p> <p>*9: Only set for allocations and resources in activities view, when resource rows are visible.</p> <p>*10: Only set for allocations and resources in skilled resources view.</p>
See also	Option.tooltipDelay Option.triggeringOfOnShowTooltipForEntriesInBarsEnabled

onTableCellDefinitionWidthChanged

Object Type	Widget.Callback		
Properties of parameter object	tableType	Enum.TableType	
	tableRowDefinition	TableRowDefinition	
	cellIndex	number	
	newWidth	PixelsAsNumber	
	oldWidth	PixelsAsNumber	
Explanation	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 can update the cell definition inside of the appropriate TableRowDefinition object e.g. for gaining persistency inside the application.		
See also	ObjectType.TableCellDefinition ObjectType.TableRowDefinition		

onTimeAreaViewParametersChanged

Object Type	Widget.Callback		
Properties of parameter object	horizontalScrollOffset	PixelsAsNumber	
	width	PixelsAsNumber	
	start	Date	Date visible at the start of the visible view of the time area
	end	Date	Date visible at the end of the visible view of the time area
	timeResolutionUnit	string	"seconds" "minutes" "hours" "days"
	timeResolutionUnitCount	number	> 0
	tableViewWidth	PixelsAsNumber	current width in pixels, not to be confused with the option tableViewWidth
	entitiestableViewWidth	PixelsAsNumber	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 later. Alternatively, the values of the properties timeResolutionUnit and timeResolutionUnitCount can be used for the method setTimeResolutionForView.</p> <p>The end date itself is not included in the visible time area. The same behavior also is true for all end dates used in the widget like e.g. in calendar entries, period highlighter entries, activities, activity entries, allocations, allocation entries.</p> <p>The property scrollOffset is deprecated and replaced above by horizontalScrollOffset.</p>		
See also	Method.fitTimeAreaIntoView Method.setTimeResolutionForView Option.scrollOffsetsChangedCallbackTimeDelay		

onVerticalScrollOffsetChanged

Object Type	Widget.Callback		
Properties of parameter object	tableType	Enum.TableType	
	scrollOffset	PixelsAsNumber	
	rowObjectTypeAtTop	Enum.ObjectType	
	rowObjectAtTop	Object	
	topViewScrollOffset	PixelsAsNumber	
	topViewRowObjectTypeAtTop	Enum.ObjectType	
	topViewRowObjectAtTop	Object	
Explanation	<p>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.</p>		
See also	Option.scrollOffsetsChangedCallbackTimeDelay		

visibilityFilter

Object Type	Widget.Callback
Deprecated	Deprecated for performance reasons. Use options visibilityFilterFor... instead.

visibilityFilterForActivities

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	ObjectType.Activity
	object	Activity	
	result	boolean	out Default: true
Explanation	This function is called to hide objects. The result must 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.		
See also	Enum.ViewType		

visibilityFilterForAllocations

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	ObjectType.Allocation
	object	Allocation	
	result	boolean	out, Default: true
Explanation	This function is called to hide objects. The result must 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.		
See also	Enum.ViewType		

visibilityFilterForEntities

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	ObjectType.Entity
	object	Entity	
	result	boolean	out, Default: false
Explanation	This function is called to hide objects. The result must 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	Widget.Callback
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Properties of parameter object	objectType	Enum.ObjectType	ObjectTyp e.Resource
	object	Object	
	result	boolean	out, Default: true
Explanation	This function is called to hide objects. The result must 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.		
See also	Enum.ViewType		

visibilityFilterForSkills

Object Type	Widget.Callback		
Properties of parameter object	objectType	Enum.ObjectType	ObjectTyp e.Skill
	object	Object	
	result	boolean	out, Default: true
Explanation	This function is called to hide objects. The result must 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.		
See also	Enum.ViewType		

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 named 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), these enumerations are named in the plural.</p> <p>You can access an enumeration by using the following approaches (below enumName is to be replaced by the required enumeration name and netronic.nVSW is a global variable defined automatically at start by including the NWAf libraries into the application):</p> <ul style="list-style-type: none"> ESM flavor: <code>import { enumName } from "nwaf_rab";</code> UMD flavor: <code>const { enumName } = window.netronic.nVSW;</code>
Members	ActivityBarDragModes ActivityBarShape AllocationBarDragModes AllocationBarShape BarDesigns BarDragModes BarShape

[BarSortMode](#)
[CollapseExpandButtonSymbolsMode](#)
[CollapseState](#)
[CollapseStateTargets](#)
[CurveInterpolationType](#)
[CurveType](#)
[DateLineAppearanceType](#)
[DateLineCaptionOrientation](#)
[DateLineCaptionPosition](#)
[DateLineGridModes](#)
[DayOfWeek](#)
[HorizontalAlignment](#)
[HorizontallyScrollableViewArea](#)
[HorizontalScrollPosition](#)
[LinkMarker](#)
[LinkRoutingType](#)
[Locale](#)
[ObjectType](#)
[ObjectTypeForRemoveAll](#)
[PageOrientation](#)
[PanningMode](#)
[PatternType](#)
[PrintingMode](#)
[ProgressBarWidthCalculationMode](#)
[RelationType](#)
[RowDesigns](#)
[RowDragModes](#)
[RowInsertionMode](#)
[RowSortMode](#)
[SelectionChangedReason](#)
[SnapTargets](#)
[SymbolInclusionMode](#)
[TableType](#)
[TargetPositions](#)
[TextWrapMode](#)
[TimescaleInteractionModes](#)
[TimescaleNavigationMode](#)
[TimeType](#)
[TimeUnit](#)
[TreeVisualizationMode](#)
[UpdateModes](#)
[VerticalAlignment](#)
[VerticallyScrollableViewArea](#)
[VerticalScrollPosition](#)
[ViewArea](#)
[ViewType](#)
[ViewTypesForDateLines](#)
[VisualSubtype](#)
[VisualType](#)
[WarningCode](#)

	WorldViewPosition
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ActivityBarDragModes

Object Type	Widget.Enum
Flags	Values are flags, they can be combined by using bitwise OR operators.
Deprecated	See Enum.BarDragModes
Code	<pre>netronic.nVSW.ActivityBarDragModes = { // Note: flags! // These values can be combined by using bitwise OR operators. };</pre>

ActivityBarShape

Object Type	Widget.Enum
Deprecated	See Enum.BarShape
Code	<pre>netronic.nVSW.ActivityBarShape = { };</pre>
Used by	Activity.BarShape

AllocationBarDragModes

Object Type	Widget.Enum
Flags	Values are flags, they can be combined by using bitwise OR operators.
Deprecated	See Enum.BarDragModes
Code	<pre>netronic.nVSW.AllocationBarDragModes = { // Note: flags! // These values can be combined by using bitwise OR operators. };</pre>

AllocationBarShape

Object Type	Widget.Enum
Deprecated	See Enum.BarShape
Code	<pre>netronic.nVSW.AllocationBarShape = { };</pre>
Used by	Allocation.BarShape

BarDesigns

Object Type	Widget.Enum		
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
Explanation	The enumeration values can be combined by adding the values or using the bitwise “or” operator!		
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	Option.reducedBarTopOffsetAndHeightScaleFactor Option.tonedDownOverlayColor		
Used by	Activity.BarDesign Allocation.BarDesign Option.allocationBarDesignOfOtherActivity Option.allocationBarDesignOfOtherSkill Option.defaultActivityBarDesign Option.defaultAllocationBarDesign		



BarDragModes

Object Type	Widget.Enum
Flags	Values are flags, they can be combined by using bitwise OR operators.

Values	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 can only drag horizontally.
	8	DragVertically	The user can only 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.
Explanation	The enumeration values can be combined by adding the values or using the bitwise “or” operator!		
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	Activity.AllowedBarDragModes Activity.DueDateAllowedDragModes Activity.ReleaseDateAllowedDragModes Allocation.AllowedBarDragModes Allocation.AllowedBarDragModesInActivitiesView Callback.canDrag Callback.onDrag Callback.onDragEnd Callback.onDragStart Callback.onDrop Option.defaultActivityAllowedBarDragModes Option.defaultAllocationAllowedBarDragModes Option.defaultAllocationAllowedBarDragModesInActivitiesView		

BarShape

Object Type	Widget.Enum	
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	Option.defaultActivityBarShape Option.defaultAllocationBarShape		

BarSortMode

Object Type	Widget.Enum		
Values	0	StartAndEnd	Bars are shown sorted by start and end. This means that a bar that starts earlier than another bar is placed behind the latter bar. For bars that start at the same time, the longer bar is placed behind the shorter one.
	1	ByRowSortModeOrCompareObjects	Bars are sorted in the same way as the rows of the same object type are sorted. This means that the appropriate options AllocationRowSortMode and ActivityRowSortMode, resp., are taken into account. If the option is set to None, then the callbacks compareAllocations or compareActivities, resp., are triggered. The deprecated callback compareObjects is supported, too, if the other callback options are not set.
	2	ByRowSortModeOrCompareObjectsOnSameStart	Bars are sorted as in StartAndEnd, but for two bars with the same start, they are sorted as in ByRowSortModeOrCompareObjects.
Explanation	The older definitions ByCompareObjects (= 1) and ByCompareObjectsOnSameStart (= 2) are deprecated now.		
Code	<pre>netronic.nVSW.BarSortMode = { StartAndEnd: 0, ByRowSortModeOrCompareObjects: 1, ByRowSortModeOrCompareObjectsOnSameStart: 2 };</pre>		
See also	Activity.SortCode Allocation.SortCode Callback.compareActivities		

	Callback.compareAllocations Enum.RowDesigns Option.activityBarSortModeForStackedRowDesign Option.allocationBarSortModeForStackedRowDesign Widget.RowDesigns
Used by	Option.activityBarSortModeForStackedRowDesign Option.allocationBarSortModeForStackedRowDesign

CollapseExpandButtonSymbolsMode

Object Type	Widget.Enum		
Values	0	Latest	Automatically always the current version.
	1	Version2	Current version. Collapsed symbols look to the right and expanded symbols look to the bottom.
	2	LegacyVersion1	Version 1: Collapsed symbols look to the right and expanded symbols look to the right bottom. Deviating for allocation row symbols: Collapsed symbols look down and expanded symbols look up.
Code	<pre>netronic.nVSW.CollapseExpandButtonSymbolsMode = { Latest: 0, Version2: 1, LegacyVersion1: 2 };</pre>		
Used by	Option.collapseExpandButtonSymbolsMode		

CollapseState

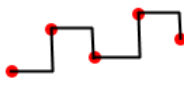

Object Type	Widget.Enum		
Values	-1	Unchanged	When this value is set in a call to an update method, then the current collapse state in the chart will be unchanged. When used on startup, allocation rows will be shown collapsed, other row types will be shown expanded, and curves will be shown collapsed.
	0	Expanded	
	1	Collapsed	
Code	<pre>netronic.nVSW.CollapseState = { Unchanged: -1, Expanded: 0, Collapsed: 1 };</pre>		
Used by	Activity.AllocationRowsCollapseState Activity.CollapseState Activity.CurveCollapseState Callback.onCollapseStateChanged Callback.onCurveCollapseStateChanged		

	Entity.CollapseState Method.setCollapseStatesForEntityRows Method.setCollapseStatesForRows Resource.AllocationRowsCollapseState Resource.AllocationRowsCollapseStateInActivitiesView Resource.CollapseState Resource.CollapseStateInLoadsView Resource.CurveCollapseState Skill.CollapseState
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CollapseStateTargets

Object Type	Widget.Enum		
Flags	Values are flags, they can be combined by using bitwise OR operators.		
Values	1	Default	
	1	Rows	
	2	AllocationRows	
	4	CurvePanels	
Explanation	The enumeration values can be combined by adding the values or using the bitwise “or” operator!		
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	Method.setCollapseStatesForRows		

CurveInterpolationType

Object Type	Widget.Enum		
Values	0	StepAfter	
	1	Linear	
Code	<pre>netronic.nVSW.CurveInterpolationType = { StepAfter: 0, Linear: 1 };</pre>		
See also	Resource.InventoryCurveID		
Used by	Curve.InterpolationType		

CurveType

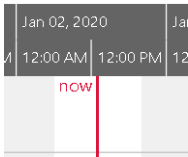
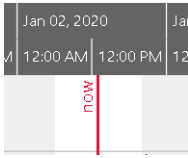
Object Type	Widget.Enum
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Values	0	PointCurve	
	3	CurveStack	
	4	CurveList	
Code	<pre>netronic.nVSW.CurveType = { PointCurve: 0, CurveStack: 3, CurveList: 4 };</pre>		
Used by	Curve.Type		

DateLineAppearanceType

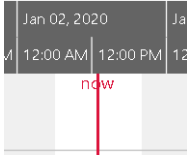
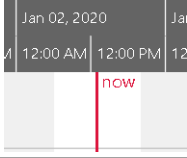
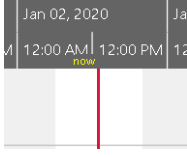
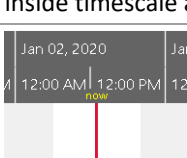
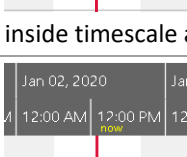
Object Type	Widget.Enum		
Values	0	Permanent	
	1	PointerOverAttachedBar	
Code	<pre>netronic.nVSW.DateLineAppearanceType = { Permanent: 0, PointerOverAttachedBar: 1 };</pre>		
Used by	DateLine.AppearanceType		

DateLineCaptionOrientation

Object Type	Widget.Enum		
Values	1	Horizontal	
	2	Vertical	
Code	<pre>netronic.nVSW.DateLineCaptionOrientation = { Horizontal: 1, Vertical: 2 };</pre>		
Used by	DateLine.CaptionOrientation		

DateLineCaptionPosition

Object Type	Widget.Enum		
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	DateLine.CaptionPosition		

DateLineGridModes

Object Type	Widget.Enum		
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	Option.dateLineGridMode		

DayOfWeek

Object Type	Widget.Enum		
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	Option.firstDayOfWeek		

HorizontalAlignment

Object Type	Widget.Enum		
Values	0	Left	
	1	Center	
	2	Right	
Code	<pre>netronic.nVSW.HorizontalAlignment = { Left: 0, Center: 1, Right: 2 };</pre>		
Used by	TableCellDefinition.HorizontalAlignment TableCellDefinition.HorizontalTitleAlignment		

HorizontallyScrollableViewArea

Object Type	Widget.Enum		
Values	0	Table	
	1	TimeArea	
	2	EntitiesTable	
Code	<pre>netronic.nVSW.HorizontallyScrollableViewArea = { Table: 0, TimeArea: 1, EntitiesTable: 2 };</pre>		
Used by	Method.scrollViewAreaHorizontally		

HorizontalScrollPosition

Object Type	Widget.Enum		
Values	1	Left	
	2	Right	
Code	<pre>netronic.nVSW.HorizontalScrollPosition = { Left: 1, Right: 2 };</pre>		
Used by	Method.scrollViewAreaHorizontally		

LinkMarker

Object Type	Widget.Enum		
Values	0	None	
	1	FilledArrow	
Code	<pre>netronic.nVSW.LinkMarker = { None: 0, FilledArrow: 1 };</pre>		
Used by	Link.TargetMarker Option.defaultLinkTargetMarker		

LinkRoutingType

Object Type	Widget.Enum		
Values	1	Curved	
	2	Orthogonal	
Code	<pre>netronic.nVSW.LinkRoutingType = { Curved: 1, Orthogonal: 2 };</pre>		
Used by	Link.RoutingType Option.defaultLinkRoutingType		

Locale

Object Type	Widget.Enum		
Values	"da"	da	Same as "da-DK"
	"da-DK"	da_DK	
	"de"	de	Same as "de-DE"
	"de-DE"	de_DE	
	"en"	en	Same as "en-US"
	"en-GB"	en_GB	
	"en-US"	en_US	

	"es"	es	Same as "es-ES"
	"es-ES"	es_ES	
	"fi"	fi	Same as "fi-FI"
	"fi-FI"	fi_FI	
	"fr"	fr	Same as "fr-FR"
	"fr-FR"	fr_FR	
	"it"	it	Same as "it-IT"
	"it-IT"	it_IT	
	"ja"	ja	Same as "ja-JP"
	"ja-JP"	ja_JP	
	"nl"	nl	Same as "nl-NL"
	"nl-NL"	nl_NL	
	"no"	no	Same as "no-NO"
	"no-NO"	no_NO	
	"pl"	pl	Same as "pl-PL"
	"pl-PL"	pl_PL	
	"pt"	pt	Same as "pt-PT"
	"pt-BR"	pt_BR	
	"pt-PT"	pt_PT	
	"ru"	ru	Same as "ru-RU"
	"ru-RU"	ru_RU	
	"sv"	sv	Same as "sv-SV"
	"sv-SV"	sv_SV	
	"th"	th	Same as "th-TH"
	"th-TH"	th_TH	
	"zh"	zh	Same as "zh-CN"
	"zh-CN"	zh_CN	
Explanation	This enumeration shows which locales are currently implemented in VSW. If there are wishes to implement other locales, then it is possible to include them. The locale defines time specific strings like weekday names and month names but also the algorithm for the week numbering and the default formats for dates shown in the timescale.		
Code	<pre>netronic.nVSW.Locale = { da: "da", da_DK: "da-DK", de: "de", de_DE: "de-DE", en: "en", en_GB: "en-GB", en_US: "en-US", es: "es", es_ES: "es-ES", fi: "fi", fi_FI: "fi-FI", fr: "fr", fr_FR: "fr-FR", it: "it", it_IT: "it-IT", ja: "ja", ja_JP: "ja-JP", nl: "nl", nl_NL: "nl-NL",</pre>		

	<pre> no: "no", no_NO: "no-NO", pl: "pl", pl_PL: "pl-PL", pt: "pt", pt_BR: "pt-BR", pt_PT: "pt-PT", ru: "ru", ru_RU: "ru-RU", sv: "sv", sv_SV: "sv-SV", th: "th", th_TH: "th-TH", zh: "zh", zh_CN: "zh-CN" }; </pre>
Used by	Option.locale

ObjectType

Object Type	Widget.Enum		
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, </pre>		

	Calendar: 20, HierarchySupplementaryDefinition: 21, Skill: 22 };
See also	Method.determineObjectByPageCoordinates
Used by	Callback.canDrag Callback.canSelect Callback.compareActivities Callback.compareAllocations Callback.compareEntities Callback.compareResources Callback.compareSkills Callback.determineGroupingCode Callback.onClicked Callback.onCollapseStateChanged Callback.onCurveCollapseStateChanged Callback.onCurvePaneResized Callback.onDoubleClicked Callback.onDrag Callback.onDragEnd Callback.onDragStart Callback.onDrop Callback.onRowSortingChangeRequested Callback.onSelectionChanged Callback.onShowContextMenu Callback.onShowTooltip Callback.onVerticalScrollOffsetChanged Callback.visibilityFilterForActivities Callback.visibilityFilterForAllocations Callback.visibilityFilterForEntities Callback.visibilityFilterForResources Callback.visibilityFilterForSkills Method.highlightObjects Method.scrollToObject Method.selectObjects

ObjectTypeForRemoveAll

Object Type	Widget.Enum		
Values	-2	AllDataObjects	Replacement for: Activities, Allocations, Resources, Links, Curves, Entities, PeriodHighlighters, Calendars, Skills
	-1	AllObjects	Replacement for all types below at once
	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.ObjectTypeForRemoveAll = { AllDataObjects: -2, AllObjects: -1, 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	Method.removeAll		

PageOrientation




Object Type	Widget.Enum		
Values	0	Portrait	
	1	Landscape	
Code	<pre>netronic.nVSW.PageOrientation = { Portrait: 0, Landscape: 1 };</pre>		
See also	Method.saveAsPDF		

PanningMode

Object Type	Widget.Enum		
Values	0	None	
	1	HorizontallyOnly	
	2	VerticallyOnly	
	3	HorAndVer	
	4	AutoHorOrVer	
Code	<pre>netronic.nVSW.PanningMode = {</pre>		

	None: 0, HorizontallyOnly: 1, VerticallyOnly: 2, HorAndVer: 3, AutoHorOrVer: 4 };		
Used by	Option.timeAreaPanningMode		

PatternType

Object Type	Widget.Enum		
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	Activity.BarPatternType ActivityEntry.PatternType Allocation.BarPatternType AllocationEntry.PatternType		

PrintingMode

Object Type	Widget.Enum		
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	https://blog.netronic.com/more-powerful-features-for-html5-gantt-charts-release-5.0-of-the-vsw Method.saveAsPDF		

ProgressBarWidthCalculationMode

Object Type	Widget.Enum		
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	Option.progressBarWidthCalculationMode		

RelationType

Object Type	Widget.Enum		
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	Link.RelationType		

RowDesigns

Object Type	Widget.Enum		
Flags	Values are flags, they can be combined by using bitwise OR operators.		
Values	0	Empty	No content is displayed in the row section of the time range.
	1	Bars	<p>Shows the bars assigned to the row object.</p> <p>In the activities view, the bar of the activity object is displayed in the row.</p> <p>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.</p>

			<p>For allocation rows in the activities view or resources view the bars represent the same object as the row itself.</p> <p>When the flag BarsStacked is not set, then the bars in a row are sorted with BarSortMode.StartAndEnd.</p>
	2	BarsStacked	<p>Shows all bars without horizontal overlapping by separating the bars vertically in sub rows.</p> <p>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.</p> <p>This flag is only effective in activities view for activity objects when the row is shown in collapsed state but does no harm when the row is shown in expanded state.</p> <p>Stacking only exists when more than one bar is shown, which is the case e.g. for resource rows and collapsed activity rows.</p> <p>When the flag is not set, then the bars in one row are sorted with BarSortMode.StartAndEnd, else see the options activityBarSortModeForStackedRowDesign and allocationBarSortModeForStackedRowDesign.</p>
	4	BarsInHiddenDescendantRows	<p>Shows bars of other hidden descendant rows.</p> <p>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.</p>
	8	CalendarGrid	<p>Shows calendar grid of row object.</p> <p>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.</p>
Explanation	The enumeration values can be combined by adding the values or using the bitwise “or” operator!		

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>
See also	Enum.BarSortMode Option.activityBarSortModeForStackedRowDesign Option.allocationBarSortModeForStackedRowDesign Option.finishedAllocationBarsShownUnstackedInBackground Widget.BarSortMode
Used by	Activity.CollapsedRowDesign Activity.ExpandedRowDesign Allocation.RowDesign Option.defaultActivityCollapsedRowDesign Option.defaultActivityExpandedRowDesign Option.defaultAllocationRowDesign Option.defaultResourceCollapsedRowDesign Option.defaultResourceExpandedRowDesign Option.defaultSkillCollapsedRowDesign Resource.CollapsedRowDesign Resource.ExpandedRowDesign Skill.CollapsedRowDesign

RowDragModes

Object Type	Widget.Enum		
Flags	Values are flags, they can be combined by using bitwise OR operators.		
Values	0	None	
	8	DragVertically	<p>Dragging is possible within the same table.</p> <p>When no restriction flag is set, then it is possible to drop a row object above or below the targeted row object or as the first child of the targeted row object. The user can switch the insertion mode by using the Shift key.</p> <p>When dragging the last row in the chart downwards, the dragged row object is put one level above or when the Shift key is pressed, to the topmost level, when no restriction flag is set.</p>
	32	DragOutside	<p>Dragging is possible leaving the table. Currently this is only possible for entities in the entities table.</p>
	64	DragOnSameLevelOnly	<p>Restriction to DragVertically: When set additionally to DragVertically, then a row</p>

			can only be dropped on the same level as it was before. Not combinable with DragInSameTableParentOnly.
	128	DragInSameTableParentOnly	Restriction to DragVertically: When set additionally to DragVertically, then a row can only be dropped below the same direct ancestor within the visual table (e.g.h. for activities it is the parent, while for allocation rows it can be either the resource or the activity depending on the view). Not combinable with DragOnSameLevelOnly.
Explanation	The enumeration values can be combined by adding the values or using the bitwise “or” operator!		
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	Activity.AllowedRowDragModes Allocation.AllowedRowDragModes Allocation.AllowedRowDragModesInActivitiesView Callback.canDrag Callback.onDrag Callback.onDragEnd Callback.onDragStart Callback.onDrop Entity.AllowedRowDragModes Option.defaultActivityAllowedRowDragModes Option.defaultAllocationAllowedRowDragModes Option.defaultAllocationAllowedRowDragModesInActivitiesView Option.defaultEntityAllowedRowDragModes Option.defaultResourceAllowedRowDragModes Option.defaultSkillAllowedRowDragModes Resource.AllowedRowDragModes Skill.AllowedRowDragModes		

RowInsertionMode

Object Type	Widget.Enum		
Values	0	None	
	1	InsertAsChild	
	2	InsertAsNextSibling	
	3	InsertAsPreviousSibling	
Code	<pre>netronic.nVSW.RowInsertionMode = { None: 0, InsertAsChild: 1, InsertAsNextSibling: 2,</pre>		

	<code>InsertAsPreviousSibling: 3</code> <code>};</code>
Used by	Callback.onDrag Callback.onDrop

RowSortMode

Object Type	Widget.Enum		
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. The compare callback options are not called.
	2	Descending	Rows are sorted descending by the value of the defined sort code property. The compare callback options are not called.
	3	AscendingStartAndEnd	Only available to activity and allocation objects. Rows are sorted ascending by using the start and end date of the objects. The compare callback options are not called.
Code	<pre>netronic.nVSW.RowSortMode = { None: 0, Ascending: 1, Descending: 2, AscendingStartAndEnd: 3 };</pre>		
See also	Option.interactiveSwitchingOfSortOrderEnabled		
Used by	Callback.onRowSortingChangeRequested Option.activityRowSortMode Option.allocationRowSortMode Option.entityRowSortMode Option.resourceRowSortMode Option.skillRowSortMode		

SelectionChangedReason

Object Type	Widget.Enum		
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	Callback.onSelectionChanged		

SnapTargets

Object Type	Widget.Enum		
Flags	Values are flags, they can be combined by using bitwise OR operators.		
Values	0	None	
	1	Start	Snapping at the start of other bars in the same row and in child rows. Only valid for bars representing allocations.
	2	End	Snapping at the end of other bars in the same row and in child rows. Only valid for bars representing allocations.
	4	DateLines	Snapping at objects of type DateLine.
	8	CalendarGrids	Snapping at starts and ends of non-working time.
	16	DateLineGrids	Snapping at date lines shown by option dateLineGridMode.
Explanation	The enumeration values can be combined by adding the values or using the bitwise “or” operator!		
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>		
See also	ObjectType.DateLine Option.dateLineGridMode		
Used by	Activity.SnapTargetsForEnd Activity.SnapTargetsForStart Allocation.SnapTargetsForEnd Allocation.SnapTargetsForStart Option.defaultActivitySnapTargetsForEnd Option.defaultActivitySnapTargetsForStart Option.defaultAllocationSnapTargetsForEnd Option.defaultAllocationSnapTargetsForStart		

SymbolInclusionMode

Object Type	Widget.Enum		
Values	0	Default	Symbols are referenced by a URL.
	1	EmbeddingReference	For support of preloaded SVG symbols of Font Awesome.
Code	<pre>netronic.nVSW.SymbolInclusionMode = { Default: 0, EmbeddingReference: 1 };</pre>		

Used by	Symbol.InclusionMode
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TableType

Object Type	Widget.Enum		
Values	0	Gantt	
	1	Entities	
Code	<pre>netronic.nVSW.TableType = { Gantt: 0, Entities: 1 };</pre>		
Used by	Callback.onTableCellDefinitionWidthChanged Callback.onVerticalScrollOffsetChanged		

TargetPositions

Object Type	Widget.Enum		
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	
Explanation	The enumeration values can be combined by adding the values or using the bitwise “or” operator!		
Code	<pre>netronic.nVSW.TargetPositions = { // Note: flags! // These values can be combined by using bitwise OR operators. Necessary: 0, Left: 1, HCenter: 2, Right: 4, Top: 8, VCenter: 16, Bottom: 32, NoHScroll: 64 };</pre>		
Used by	Method.scrollToObject		

TextWrapMode

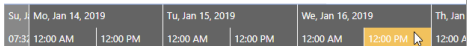
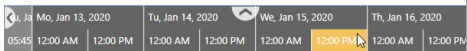
Object Type	Widget.Enum		
Values	0	None	no wrapping at all

	1	Line	text is wrapped at LF characters (ASCII code 10, in JavaScript code you can use the escape “\n”)
Code	<pre>netronic.nVSW.TextWrapMode = { None: 0, Line: 1 };</pre>		
Used by	Activity.BarTextWrapMode Allocation.BarTextWrapMode TableCellDefinition.WrapMode		

TimescaleInteractionModes

Object Type	Widget.Enum		
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
Explanation	The enumeration values can be combined by adding the values or using the bitwise “or” operator!		
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	Option.timescaleInteractionMode		

TimescaleNavigationMode

Object Type	Widget.Enum		
Values	0	Latest	Automatically the latest version of navigation mode, currently see Version2.
	1	LegacyVersion1	<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>
	2	Version2	<p>Currently the latest version of the timescale navigation.</p> 

			<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>
Explanation	<p>Identical in both modes:</p> <ul style="list-style-type: none"> • Use the mouse wheel for increasing and reducing the timescale resolution. • A click onto a highlighted period (see orange area) fits this period completely into the view. 		
Code	<pre>netronic.nVSW.TimescaleNavigationMode = { Latest: 0, LegacyVersion1: 1, Version2: 2 };</pre>		
Used by	Option.timescaleNavigationMode		

TimeType

Object Type	Widget.Enum		
Values	1	WorkingTime	
	2	NonworkingTime	
Code	<pre>netronic.nVSW.TimeType = { WorkingTime: 1, NonworkingTime: 2 };</pre>		
Used by	CalendarEntry.TimeType		

TimeUnit

Object Type	Widget.Enum		
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, Weeks: 4, Months: 5, Quarters: 6, Years: 7 };</pre>		
Used by	Method.setTimeResolutionForView Option.maximumTimeResolutionUnit		

	Option.timeStepUnit
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TreeVisualizationMode

Object Type	Widget.Enum		
Values	0	ColoredIndentation	
	1	TreeViewLines	
Code	<pre>netronic.nVSW.TreeVisualizationMode = { ColoredIndentation: 0, TreeViewLines: 1 };</pre>		
Used by	Option.entitiesTableTreeVisualizationMode Option.treeVisualizationMode		

UpdateModes

Object Type	Widget.Enum		
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>The enumeration values can be combined by adding the values or using the bitwise “or” operator!</p> <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 must be different to the ones given in former calls to the appropriate add or update method.</p> <p>Note: 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, DifferentialValues: 2 };</pre>		
Used by	Method.updateActivities		

	Method.updateAllocations
	Method.updateCalendars
	Method.updateCurves
	Method.updateDateLines
	Method.updateEntities
	Method.updateHierarchySupplementaryDefinitions
	Method.updateLinks
	Method.updatePeriodHighlighters
	Method.updateResources
	Method.updateSkills
	Method.updateSymbols
	Method.updateTableRowDefinitions
	Method.updateTooltipTemplates
	Option.defaultUpdateMode

VerticalAlignment

Object Type	Widget.Enum		
Values	0	FirstLineOnBaseline	
	1	AllLinesCenteredAroundBaseline	
Code	<pre>netronic.nVSW.VerticalAlignment = { FirstLineOnBaseline: 0, AllLinesCenteredAroundBaseline: 1 };</pre>		
Used by	TableCellDefinition.VerticalAlignment		

VerticallyScrollableViewArea

Object Type	Widget.Enum		
Values	-1	Top	
	0	Main	
	2	EntitiesTable	
Code	<pre>netronic.nVSW.VerticallyScrollableViewArea = { Top: -1, Main: 0, EntitiesTable: 2 };</pre>		
Used by	Method.scrollViewAreaVertically		

VerticalScrollPosition

Object Type	Widget.Enum		
Values	1	Top	
	2	Bottom	
Code	<pre>netronic.nVSW.VerticalScrollPosition = { Top: 1, Bottom: 2 };</pre>		

	};
Used by	Method.scrollViewAreaVertically

ViewArea

Object Type	Widget.Enum		
Values	-1	Top	
	0	Main	
	0	Default	For compatibility reasons
Code	<pre>netronic.nVSW.ViewArea = { Top: -1, Main: 0, Default: 0 };</pre>		
Used by	Activity.ViewArea Resource.ViewArea Skill.ViewArea		

ViewType

Object Type	Widget.Enum		
Values	0	Activities	Shows activity rows. Activities can be organized hierarchically, sorted, grouped, and filtered. In the time area activity bars are shown usually.
	1	Resources	Shows resource rows. Resources can be organized hierarchically, sorted, grouped, and filtered. In the time area allocation bars are shown assigned to the appropriate resource rows. Each resource row also can show curves below the bars.
	2	Loads	Shows resource rows. Resources can be organized hierarchically, sorted, grouped, and filtered. In the time area curves are shown.
	3	Skills	Shows resource rows grouped by skills. Resources can appear more than once when they have more than one skill. Skills can be sorted and filtered. In the time area allocation bars are shown assigned to the appropriate resource rows. You will have to use the property SkillIDs on resource objects and the property SkillID on allocation objects to make them visible in this view type.
Code	<pre>netronic.nVSW.ViewType = { Activities: 0, Resources: 1, Loads: 2, Skills: 3 };</pre>		

	};
See also	Activity.CollapsedRowDesign Activity.ExpandedRowDesign Allocation.SkillID Callback.visibilityFilterForActivities Callback.visibilityFilterForAllocations Callback.visibilityFilterForResources Callback.visibilityFilterForSkills Option.activityHierarchySupplementaryDefinitionID Option.activityRowSortMode Option.resourceHierarchySupplementaryDefinitionID Option.resourceRowSortMode Option.skillRowSortMode Resource.CapacityCurveID Resource.CollapsedRowDesign Resource.ExpandedRowDesign Resource.LoadCurveID Resource.SkillIDs
Used by	Callback.compareActivities Callback.compareAllocations Callback.compareEntities Callback.compareResources Callback.compareSkills Method.setCollapseStatesForRows Option.viewType

ViewTypesForDateLines

Object Type	Widget.Enum		
Values	0	None	
	1	ActivitiesView	
	2	ResourcesView	
	4	LoadsView	
	8	SkilledResourcesView	
	15	AllViews	
Explanation	The enumeration values can be combined by adding the values or using the bitwise “or” operator!		
Code	<pre>netronic.nVSW.ViewTypesForDateLines = { None: 0, ActivitiesView: 1, ResourcesView: 2, LoadsView: 4, SkilledResourcesView: 8, AllViews: 15 };</pre>		
Used by	DateLine.IsVisibleInViewTypes		

VisualSubtype

Object Type	Widget.Enum		
Values	1	ActivityDueDateSymbol	
	2	ActivityReleaseDateSymbol	
	20	ActivityBaselineBar	
	21	ActivityBaselineDueDateSymbol	
	22	ActivityBaselineReleaseDateSymbol	
	31	TopOutsideText	
	32	BottomOutsideText	
	101	EarliestStartConstraint	
	102	EarliestEndConstraint	
	103	LatestStartConstraint	
	104	LatestEndConstraint	
	105	MustStartOnConstraint	
	106	MustEndOnConstraint	
Code	<pre>netronic.nVSW.VisualSubtype = { ActivityDueDateSymbol: 1, ActivityReleaseDateSymbol: 2, ActivityBaselineBar: 20, ActivityBaselineDueDateSymbol: 21, ActivityBaselineReleaseDateSymbol: 22, TopOutsideText: 31, BottomOutsideText: 32, EarliestStartConstraint: 101, EarliestEndConstraint: 102, LatestStartConstraint: 103, LatestEndConstraint: 104, MustStartOnConstraint: 105, MustEndOnConstraint: 106 };</pre>		
Used by	Callback.onShowTooltip		

VisualType

Object Type	Widget.Enum		
Values	-1	Background	Provided when the cursor is over the row background in the time area.
	0	Bar	Provided when the cursor is over a bar.
	1	Row	Provided when the cursor is over the row in the table.
	2	Curve	Provided when the cursor is over the curves pane.
	3	Link	Provided when the cursor is over a link.
	4	PeriodHighlighter	Provided when the cursor is over a period highlighter.
	5	DateLine	Provided when the cursor is over a date line.

	6	Timescale	Provided when the cursor is over the timescale.
Explanation	This enumeration is mostly used in callbacks caused by user interaction.		
Code	<pre>netronic.nVSW.VisualType = { Background: -1, Bar: 0, Row: 1, Curve: 2, Link: 3, PeriodHighlighter: 4, DateLine: 5, Timescale: 6 };</pre>		
See also	Method.determineObjectByPageCoordinates		
Used by	Callback.canDrag Callback.canSelect Callback.onClicked Callback.onDoubleClicked Callback.onDrag Callback.onDragEnd Callback.onDragStart Callback.onDrop Callback.onSelectionChanged Callback.onShowContextMenu Callback.onShowTooltip Method.highlightObjects Method.selectObjects		

WarningCode

Object Type	"W0"		
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"	UnknownIDAtIndex	When updating objects an ID of an unknown object was detected. (the index in array of object references is mentioned in the description text). The given object data will be ignored.
	"W1002"	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.
	"W1003"	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.

	"W1004"	EmptyArrayOnAddUpdateRemove	The application provided an empty array on adding, updating, or removing objects.
	"W1010"	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.
	"W1011"	RelatedIDUnknownAtIndex	(Unused/deprecated, see RelatedIDUnknown aka "W2000".)
	"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.
	"W1102"	EventualOverwriteOnDIVElement	When the widget is used without jQuery wrapper and is not destroyed before instantiating it anew on the same container element. This warning is only visible when the logging is enabled on instantiation of the widget or the option onLogWarning is set on instantiation.
	"W1103"	MissingCallToRenderMethod	After changes to data by using a sequence of calls to the appropriate Add, Remove and Update methods, the render method should be called to avoid flickering. If the render method is not called in such a situation, this warning is triggered.
	"W1104"	ParameterValueIncorrect	A parameter value in a method call is incorrect.
	"W1105"	OptionValueIncorrect	A value is incorrect for setting an option.
	"W2000"	RelatedIDUnknown	When changing data or composing the chart content for rendering, the widget has detected that an ID for a related object is unknown. E.g. this can be a skill ID for a resource or an allocation object.
	"W2001"	SymbolURLInvalid	When using a Symbol object the browser threw a DOM exception because the URL is invalid.
	"W3000"	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", UnknownIDAtIndex: "W1001", ExistingIDAtIndex: "W1002", DuplicateIDAtIndex: "W1003", EmptyArrayOnAddUpdateRemove: "W1004", CyclicByParentID: "W1010", RelatedIDUnknownAtIndex: "W1011", UnknownID: "W1021", ObjectNotVisibleInView: "W1022", UnknownOptionName: "W1100", RequiredOptionUnset: "W1101", EventualOverwriteOnDIVElement: "W1102", MissingCallToRenderMethod: "W1103", ParameterValueIncorrect: "W1104", OptionValueIncorrect: "W1105", RelatedIDUnknown: "W2000", SymbolURLInvalid: "W2001", HTMLCanvasFailedOnSaveAsPDF: "W3000" };</pre>	
Used by	Callback.onLogWarning	

WorldViewPosition

Object Type	Widget.Enum		
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	Option.worldViewPosition		

3.5 Common Types

Explanation	Here you see a list of common types that are used inside the widget API besides the object types. These types are JavaScript intrinsic types, browser DOM object types, and meta types that have a special meaning within the API of the widget like IdentifierAsString. If you see a suffix with two square brackets [], then this means that the API requests an array of these types there (example: "IdentifierAsString[]").
Members	boolean CalculatedColorAsString ColorAsString

	DashArrayAsString
	Date
	DateAsString
	Error
	Event
	Function
	HTMLElement
	IdentifierAsString
	Map
	number
	Object
	PixelsAsNumber
	Promise
	string
	TimeUnitAsString

boolean

Common Type	Widget.CommonType
Explanation	JavaScript standard primitive type. Allowed values are true and false.
See Also	Activity.AllocationRowsCollapsible Activity.BarSelectable Activity.HasAllocationRows Activity.HasChildren Activity.RowCollapsible Activity.RowSelectable Activity.Status1Visible Activity.Status2Visible Activity.Status3Visible Activity.Status4Visible Activity.StatusFrameVisible Activity.TableColorVisibleInTimeArea Allocation.BarSelectable Allocation.BarShownUnstackedInBackground Allocation.EndIsSnapTarget Allocation.RowSelectable Allocation.StartIsSnapTarget Allocation.Status1Visible Allocation.Status2Visible Allocation.Status3Visible Allocation.Status4Visible Allocation.StatusFrameVisible Allocation.TableColorVisibleInTimeArea DateLine.Draggable DateLine.InFrontOfBars Entity.HasChildren Entity.RowCollapsible Entity.RowSelectable

[Entity.TableColorVisibleInTimeArea](#)
[GroupingLevelDefinition.InitiallyCollapsed](#)
[GroupingLevelDefinition.TableColorVisibleInTimeArea](#)
[HierarchyLevelSupplementaryDefinition.InitiallyCollapsed](#)
<https://developer.mozilla.org/en-US/docs/Glossary/Boolean/JavaScript>
[Link.Selectable](#)
[Method.saveAsPDF](#)
[Option.activityBaselineBarsVisible](#)
[Option.activityCalendarsEnabled](#)
[Option.allocationRowsVisibleInActivitiesView](#)
[Option.allocationRowsVisibleInResourcesView](#)
[Option.allocationRowsVisibleInSkilledResourcesView](#)
[Option.allocationSelectableOnlyOnOneResourceAtATime](#)
[Option.asynchronousInteractiveTimeAreaStretching](#)
[Option.asynchronousRendering](#)
[Option.automaticDestroyingOnDOMNodeRemoved](#)
[Option.barsDraggable](#)
[Option.collapseButtonVisibleOnRowsWithoutVisibleChildren](#)
[Option.colorOfFirstTableCellAppliedToGroupColoring](#)
[Option.contextMenuRemainsOpenOnUpdateCalls](#)
[Option.cursorDateLineVisible](#)
[Option.curvePanelsCollapsibleInResourcesView](#)
[Option.curvePanelsCollapsibleInSkilledResourcesView](#)
[Option.curvePanelsResizable](#)
[Option.curvePanelsVisibleInActivitiesView](#)
[Option.dateLineCaptionOptimizedPositioningEnabled](#)
[Option.decouplingOfAllocationPropertiesFromActivities](#)
[Option.defaultActivityAllocationRowsCollapsible](#)
[Option.defaultActivityBarSelectable](#)
[Option.defaultActivityRowCollapsible](#)
[Option.defaultActivityRowSelectable](#)
[Option.defaultAllocationBarSelectable](#)
[Option.defaultAllocationRowSelectable](#)
[Option.defaultEntityRowCollapsible](#)
[Option.defaultEntityRowSelectable](#)
[Option.defaultLinkSelectable](#)
[Option.defaultResourceAllocationRowCollapsible](#)
[Option.defaultResourceBarsPaneVisible](#)
[Option.defaultResourceInventoryCurvePaneVisible](#)
[Option.defaultResourceLoadCurvePaneVisible](#)
[Option.defaultResourceRowCollapsible](#)
[Option.defaultResourceRowSelectable](#)
[Option.defaultSkillRowCollapsible](#)
[Option.defaultSkillRowSelectable](#)
[Option.definedAllocationLinksVisibleInActivitiesView](#)
[Option.definedAllocationLinksVisibleInResourcesView](#)
[Option.definedAllocationLinksVisibleInSkilledResourcesView](#)
[Option.detailedActivityConstraintSymbolsEnabled](#)
[Option.detailedAllocationConstraintSymbolsEnabled](#)
[Option.dragDatesLimitingInteraction](#)

[Option.dragDatesShownForSingleSelectedObject](#)
[Option.editable](#)
[Option.entitiesTableShownFullScreen](#)
[Option.entitiesTableSymbolColumnTitleVisible](#)
[Option.entitiesTableSymbolColumnVisible](#)
[Option.entitiesTableVisibleInActivitiesView](#)
[Option.entitiesTableVisibleInResourcesView](#)
[Option.entitiesTableVisibleInSkilledResourcesView](#)
[Option.finishedAllocationBarsShownUnstackedInBackground](#)
[Option.groupCellsWithHorizontalSeparationLine](#)
[Option.higherCurvePanelsOnExceededScaleMaximumValue](#)
[Option.ignoreCalendarOnActivityBarInteractions](#)
[Option.ignoreCalendarOnAllocationBarInteractions](#)
[Option.interactiveActivationOfLoggingEnabled](#)
[Option.interactiveSwitchingOfSortOrderEnabled](#)
[Option.internalObjectCopiesNeeded](#)
[Option.linesShownInLoadCurvePanels](#)
[Option.linksVisibleInActivitiesView](#)
[Option.linksVisibleInResourcesView](#)
[Option.linksVisibleInSkilledResourcesView](#)
[Option.linksWithDanglingStartOrEndVisible](#)
[Option.loggingEnabled](#)
[Option.loggingFileCompressionEnabled](#)
[Option.mainViewAreaVisibleInActivitiesView](#)
[Option.mainViewAreaVisibleInLoadsView](#)
[Option.mainViewAreaVisibleInResourcesView](#)
[Option.mainViewAreaVisibleInSkilledResourcesView](#)
[Option.multipleBarDraggingEnabled](#)
[Option.multipleSelectionEnabled](#)
[Option.nonworkingTimeVisible](#)
[Option.objectHighlightFlashingEnabled](#)
[Option.patternShownOnOverloadCurves](#)
[Option.preventDefaultOnContextMenuEvents](#)
[Option.relativeDateModeEnabled](#)
[Option.releaseDueDateConnectionsVisible](#)
[Option.resourcesVisibleInActivitiesView](#)
[Option.rowsDraggable](#)
[Option.rowSortModeNoneEnabledOnInteractiveSwitchingOfSortOrder](#)
[Option.scrollToObjectAnimationEnabled](#)
[Option.separationLinesInColoredIndentation](#)
[Option.sortingIndicatorVisible](#)
[Option.symbolColumnTitleVisible](#)
[Option.symbolColumnVisible](#)
[Option.tableViewWidthsSynchronized](#)
[Option.topBarSymbolsVisible](#)
[Option.topViewAreaVisibleInActivitiesView](#)
[Option.topViewAreaVisibleInLoadsView](#)
[Option.topViewAreaVisibleInResourcesView](#)
[Option.topViewAreaVisibleInSkilledResourcesView](#)
[Option.triggeringOfOnClickedInTimeAreaOfRow](#)

	Option.triggeringOfOnCollapseStateChangedByUpdateCalls Option.triggeringOfOnShowContextMenuInTimeAreaOfRow Option.triggeringOfOnShowTooltipForEntriesInBarsEnabled Option.uniformExpandCollapseButtonSymbol Option.unreliablePointerLeaveEventsDetected Option.updateOptimizationEnabled Option.worldViewVisible Resource.AllocationRowsCollapsible Resource.AllocationRowsCollapsibleInActivitiesView Resource.BarsPaneVisible Resource.HasAllocationRows Resource.HasChildren Resource.HasCurves Resource.InventoryCurvePaneVisible Resource.LoadCurvePaneVisible Resource.RowCollapsible Resource.RowSelectable Resource.TableColorVisibleInTimeArea Skill.RowCollapsible Skill.RowSelectable Skill.TableColorVisibleInTimeArea Symbol.ClickableInEntitiesTable Symbol.ClickableInTable TooltipTemplate.IsInteractive
Used by	Activity.AllocationRowsCollapsible Activity.BarSelectable Activity.HasAllocationRows Activity.HasChildren Activity.RowCollapsible Activity.RowSelectable Activity.Status1Visible Activity.Status2Visible Activity.Status3Visible Activity.Status4Visible Activity.StatusFrameVisible Activity.TableColorVisibleInTimeArea Allocation.BarSelectable Allocation.BarShownUnstackedInBackground Allocation.EndIsSnapTarget Allocation.RowSelectable Allocation.StartIsSnapTarget Allocation.Status1Visible Allocation.Status2Visible Allocation.Status3Visible Allocation.Status4Visible Allocation.StatusFrameVisible Allocation.TableColorVisibleInTimeArea Callback.canSelect Callback.compareActivities Callback.compareAllocations

[Callback.compareEntities](#)
[Callback.compareResources](#)
[Callback.compareSkills](#)
[Callback.onCollapseStateChanged](#)
[Callback.onCurveCollapseStateChanged](#)
[Callback.onCurvePaneResized](#)
[Callback.onDrag](#)
[Callback.onDragStart](#)
[Callback.onDrop](#)
[Callback.onLogError](#)
[Callback.onRowSortingChangeRequested](#)
[Callback.onSelectionChanged](#)
[Callback.onShowTooltip](#)
[Callback.visibilityFilterForActivities](#)
[Callback.visibilityFilterForAllocations](#)
[Callback.visibilityFilterForEntities](#)
[Callback.visibilityFilterForResources](#)
[Callback.visibilityFilterForSkills](#)
[DateLine.Draggable](#)
[DateLine.InFrontOfBars](#)
[Entity.HasChildren](#)
[Entity.RowCollapsible](#)
[Entity.RowSelectable](#)
[Entity.TableColorVisibleInTimeArea](#)
[GroupingLevelDefinition.InitiallyCollapsed](#)
[GroupingLevelDefinition.TableColorVisibleInTimeArea](#)
[HierarchyLevelSupplementaryDefinition.InitiallyCollapsed](#)
[Link.Selectable](#)
[Method.scrollToObject](#)
[Option.activityBaselineBarsVisible](#)
[Option.activityCalendarsEnabled](#)
[Option.allocationRowsVisibleInActivitiesView](#)
[Option.allocationRowsVisibleInResourcesView](#)
[Option.allocationRowsVisibleInSkilledResourcesView](#)
[Option.allocationSelectableOnlyOnOneResourceAtATime](#)
[Option.asynchronousInteractiveTimeAreaStretching](#)
[Option.asynchronousRendering](#)
[Option.automaticDestroyingOnDOMNodeRemoved](#)
[Option.barsDraggable](#)
[Option.cursorDateLineVisible](#)
[Option.curvePanesCollapsibleInResourcesView](#)
[Option.curvePanesCollapsibleInSkilledResourcesView](#)
[Option.curvePanesResizable](#)
[Option.curvePanesVisibleInActivitiesView](#)
[Option.dateLineCaptionOptimizedPositioningEnabled](#)
[Option.decouplingOfAllocationPropertiesFromActivities](#)
[Option.defaultActivityAllocationRowsCollapsible](#)
[Option.defaultActivityBarSelectable](#)
[Option.defaultActivityRowCollapsible](#)
[Option.defaultActivityRowSelectable](#)

[Option.defaultAllocationBarSelectable](#)
[Option.defaultAllocationRowSelectable](#)
[Option.defaultEntityRowCollapsible](#)
[Option.defaultEntityRowSelectable](#)
[Option.defaultLinkSelectable](#)
[Option.defaultResourceAllocationRowCollapsible](#)
[Option.defaultResourceRowCollapsible](#)
[Option.defaultResourceRowSelectable](#)
[Option.defaultSkillRowCollapsible](#)
[Option.defaultSkillRowSelectable](#)
[Option.definedAllocationLinksVisibleInActivitiesView](#)
[Option.definedAllocationLinksVisibleInResourcesView](#)
[Option.definedAllocationLinksVisibleInSkilledResourcesView](#)
[Option.detailedActivityConstraintSymbolsEnabled](#)
[Option.detailedAllocationConstraintSymbolsEnabled](#)
[Option.dragDatesLimitingInteraction](#)
[Option.dragDatesShownForSingleSelectedObject](#)
[Option.editable](#)
[Option.entitiesTableShownFullScreen](#)
[Option.entitiesTableSymbolColumnTitleVisible](#)
[Option.entitiesTableSymbolColumnVisible](#)
[Option.entitiesTableVisibleInActivitiesView](#)
[Option.entitiesTableVisibleInResourcesView](#)
[Option.entitiesTableVisibleInSkilledResourcesView](#)
[Option.finishedAllocationBarsShownUnstackedInBackground](#)
[Option.ignoreCalendarOnActivityBarInteractions](#)
[Option.ignoreCalendarOnAllocationBarInteractions](#)
[Option.interactiveActivationOfLoggingEnabled](#)
[Option.interactiveSwitchingOfSortOrderEnabled](#)
[Option.linesShownInLoadCurvePanels](#)
[Option.linksVisibleInActivitiesView](#)
[Option.linksVisibleInResourcesView](#)
[Option.linksVisibleInSkilledResourcesView](#)
[Option.linksWithDanglingStartOrEndVisible](#)
[Option.loggingEnabled](#)
[Option.loggingFileCompressionEnabled](#)
[Option.mainViewAreaVisibleInActivitiesView](#)
[Option.mainViewAreaVisibleInLoadsView](#)
[Option.mainViewAreaVisibleInResourcesView](#)
[Option.mainViewAreaVisibleInSkilledResourcesView](#)
[Option.multipleBarDraggingEnabled](#)
[Option.multipleSelectionEnabled](#)
[Option.nonworkingTimeVisible](#)
[Option.objectHighlightFlashingEnabled](#)
[Option.patternShownOnOverloadCurves](#)
[Option.preventDefaultOnContextMenuEvents](#)
[Option.releaseDueDateConnectionsVisible](#)
[Option.resourcesVisibleInActivitiesView](#)
[Option.rowsDraggable](#)
[Option.rowSortModeNoneEnabledOnInteractiveSwitchingOfSortOrder](#)

	Option.scrollToObjectAnimationEnabled Option.separationLinesInColoredIndentation Option.sortingIndicatorVisible Option.symbolColumnTitleVisible Option.symbolColumnVisible Option.tableViewWidthsSynchronized Option.topBarSymbolsVisible Option.topViewAreaVisibleInActivitiesView Option.topViewAreaVisibleInLoadsView Option.topViewAreaVisibleInResourcesView Option.topViewAreaVisibleInSkilledResourcesView Option.triggeringOfOnClickedInTimeAreaOfRow Option.triggeringOfOnCollapseStateChangedByUpdateCalls Option.triggeringOfOnShowContextMenuInTimeAreaOfRow Option.triggeringOfOnShowTooltipForEntriesInBarsEnabled Option.worldViewVisible Resource.AllocationRowsCollapsible Resource.AllocationRowsCollapsibleInActivitiesView Resource.HasAllocationRows Resource.HasChildren Resource.HasCurves Resource.RowCollapsible Resource.RowSelectable Resource.TableColorVisibleInTimeArea Skill.RowCollapsible Skill.RowSelectable Skill.TableColorVisibleInTimeArea Symbol.ClickableInEntitiesTable Symbol.ClickableInTable TooltipTemplate.IsInteractive
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CalculatedColorAsString

Common Type	Widget.CommonType
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".
See Also	Activity.BackgroundColor Activity.BackgroundNonworkingTimeColor Activity.BarTextColor Activity.BaselineNonworkingTimeColor Activity.BorderColor Activity.NonworkingTimeColor Activity.ProgressNonworkingTimeColor ActivityEntry.NonworkingTimeColor Allocation.BackgroundColor Allocation.BackgroundNonworkingTimeColor Allocation.BarTextColor Allocation.BorderColor

	Allocation.NonworkingTimeColor Allocation.ProgressNonworkingTimeColor AllocationEntry.NonworkingTimeColor
Used by	Activity.BaselineNonworkingTimeColor Activity.BorderColor Activity.NonworkingTimeColor Activity.ProgressNonworkingTimeColor ActivityEntry.NonworkingTimeColor Allocation.BorderColor Allocation.NonworkingTimeColor Allocation.ProgressNonworkingTimeColor AllocationEntry.NonworkingTimeColor

ColorAsString

Common Type	Widget.CommonType
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"> • a predefined color name that CSS supports, such as "red", "green", or blue • a hexadecimal notation, such as "#FF0000", "#00FF00", or "#0000FF" • an RGB or RGBA notation, such as "rgb(255, 0, 0)", "rgb(0, 255, 0)", or "rgba(0, 0, 255, 0.5)" • an HSL and HSLA notation, such as "hsl(0, 100%, 50%)", "hsl(120, 100%, 50%)", or "hsla(240, 100%, 50%, 0.5)" • In addition, you can also use CSS Custom properties. How to do that is described in a blog post. <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	Activity.BackgroundColor Activity.BackgroundNonworkingTimeColor Activity.BarPatternColor Activity.BarTextColor Activity.BaselineBorderColor Activity.BaselineColor Activity.BaselineDueDateColor Activity.BaselineNonworkingTimeColor Activity.BaselineReleaseDateColor Activity.BorderColor Activity.CalendarGridColor Activity.Color Activity.DueDateColor Activity.EarliestEndColor Activity.EarliestStartColor Activity.LatestEndColor Activity.LatestStartColor Activity.MustEndOnColor

[Activity.MustStartOnColor](#)
[Activity.NonworkingTimeColor](#)
[Activity.PredictedEndColor](#)
[Activity.ProgressBackgroundColor](#)
[Activity.ProgressColor](#)
[Activity.ProgressNonworkingTimeColor](#)
[Activity.ReleaseDateColor](#)
[Activity.RowSymbolColumnBackgroundColor](#)
[Activity.Status1Color](#)
[Activity.Status2Color](#)
[Activity.Status3Color](#)
[Activity.Status4Color](#)
[Activity.StatusFrameColor](#)
[Activity.TableColor](#)
[Activity.TableTextColor](#)
[ActivityEntry.Color](#)
[ActivityEntry.NonworkingTimeColor](#)
[ActivityEntry.PatternColor](#)
[Allocation.BackgroundColor](#)
[Allocation.BackgroundNonworkingTimeColor](#)
[Allocation.BarPatternColor](#)
[Allocation.BarTextColor](#)
[Allocation.BorderColor](#)
[Allocation.Color](#)
[Allocation.EarliestEndColor](#)
[Allocation.EarliestStartColor](#)
[Allocation.LatestEndColor](#)
[Allocation.LatestStartColor](#)
[Allocation.MustEndOnColor](#)
[Allocation.MustStartOnColor](#)
[Allocation.NonworkingTimeColor](#)
[Allocation.PredictedEndColor](#)
[Allocation.ProgressBackgroundColor](#)
[Allocation.ProgressColor](#)
[Allocation.ProgressNonworkingTimeColor](#)
[Allocation.RowSymbolColumnBackgroundColor](#)
[Allocation.Status1Color](#)
[Allocation.Status2Color](#)
[Allocation.Status3Color](#)
[Allocation.Status4Color](#)
[Allocation.StatusFrameColor](#)
[Allocation.TableColor](#)
[Allocation.TableTextColor](#)
[AllocationEntry.Color](#)
[AllocationEntry.NonworkingTimeColor](#)
[AllocationEntry.PatternColor](#)
[Curve.FillColor](#)
[Curve.OverloadColor](#)
[Curve.StrokeColor](#)
[DateLine.CaptionColor](#)

[DateLine.Color](#)
[Entity.RowSymbolColumnBackgroundColor](#)
[Entity.TableColor](#)
[Entity.TableTextColor](#)
[GroupingLevelDefinition.TableColor](#)
[GroupingLevelDefinition.TableTextColor](#)
[CSS Custom Properties](#)
[Link.Color](#)
[LinkEntry.Color](#)
[Option.calendarGridColor](#)
[Option.calendarGridWeekendColor](#)
[Option.dateLineGridColor](#)
[Option.defaultActivityConstraintSymbolColor](#)
[Option.defaultActivityProgressBackgroundColor](#)
[Option.defaultActivityStatusFrameColor](#)
[Option.defaultAllocationBackgroundColor](#)
[Option.defaultAllocationConstraintSymbolColor](#)
[Option.defaultAllocationProgressBackgroundColor](#)
[Option.defaultAllocationStatusFrameColor](#)
[Option.defaultResourceInventoryCurvePaneColor](#)
[Option.defaultResourceLoadCurvePaneColor](#)
[Option.entitiesTableColumnSeparatorColor](#)
[Option.entitiesTableSymbolColumnBackgroundColor](#)
[Option.entitiesTableSymbolColumnTitleBackgroundColor](#)
[Option.entitiesTableTitleBackgroundColor](#)
[Option.entitiesTableTitleColumnSeparatorColor](#)
[Option.entitiesTableTitleHighlightingColor](#)
[Option.entitiesTableTitleTextColor](#)
[Option.entitiesTableTreeViewLineColor](#)
[Option.objectHighlightingColor](#)
[Option.pastBackgroundFillColor](#)
[Option.pastBackgroundLineColor](#)
[Option.selectionColor](#)
[Option.splitterHighlightingColor](#)
[Option.suitableActivityOverlayColor](#)
[Option.suitableResourceOverlayColor](#)
[Option.symbolColumnBackgroundColor](#)
[Option.symbolColumnTitleBackgroundColor](#)
[Option.tableColumnSeparatorColor](#)
[Option.tableTitleBackgroundColor](#)
[Option.tableTitleColumnSeparatorColor](#)
[Option.tableTitleHighlightingColor](#)
[Option.tableTitleTextColor](#)
[Option.timeAreaBackgroundColor](#)
[Option.timescaleBackgroundColor](#)
[Option.timescaleHighlightingColor](#)
[Option.timescaleTextColor](#)
[Option.timescaleTickColor](#)
[Option.timescaleWeekendBackgroundColor](#)
[Option.tonedDownOverlayColor](#)

	Option.treeViewLineColor Option.unsuitableActivityOverlayColor Option.unsuitableResourceOverlayColor PeriodHighlighterEntry.CaptionColor PeriodHighlighterEntry.Color Resource.CalendarGridColor Resource.RowSymbolColumnBackgroundColor Resource.TableColor Resource.TableTextColor Skill.RowSymbolColumnBackgroundColor Skill.TableColor Skill.TableTextColor TableCellDefinition.BackgroundColor TableCellDefinition.TextColor TableRowDefinition.BackgroundColor TableRowDefinition.SymbolColumnBackgroundColor TableRowDefinition.TextColor TableRowDefinition.TitleBackgroundColor TableRowDefinition.TitleTextColor
Used by	Activity.BarPatternColor Activity.BarTextColor Activity.BaselineBorderColor Activity.BaselineColor Activity.BaselineDueDateColor Activity.BaselineNonworkingTimeColor Activity.BaselineReleaseDateColor Activity.BorderColor Activity.CalendarGridColor Activity.Color Activity.DueDateColor Activity.EarliestEndColor Activity.EarliestStartColor Activity.LatestEndColor Activity.LatestStartColor Activity.MustEndOnColor Activity.MustStartOnColor Activity.NonworkingTimeColor Activity.PredictedEndColor Activity.ProgressBackgroundColor Activity.ProgressColor Activity.ProgressNonworkingTimeColor Activity.ReleaseDateColor Activity.RowSymbolColumnBackgroundColor Activity.Status1Color Activity.Status2Color Activity.Status3Color Activity.Status4Color Activity.StatusFrameColor Activity.TableColor Activity.TableTextColor

[ActivityEntry.Color](#)
[ActivityEntry.NonworkingTimeColor](#)
[ActivityEntry.PatternColor](#)
[Allocation.BarPatternColor](#)
[Allocation.BarTextColor](#)
[Allocation.BorderColor](#)
[Allocation.Color](#)
[Allocation.EarliestEndColor](#)
[Allocation.EarliestStartColor](#)
[Allocation.LatestEndColor](#)
[Allocation.LatestStartColor](#)
[Allocation.MustEndOnColor](#)
[Allocation.MustStartOnColor](#)
[Allocation.NonworkingTimeColor](#)
[Allocation.PredictedEndColor](#)
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[Allocation.ProgressColor](#)
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[Allocation.Status1Color](#)
[Allocation.Status2Color](#)
[Allocation.Status3Color](#)
[Allocation.Status4Color](#)
[Allocation.StatusFrameColor](#)
[Allocation.TableColor](#)
[Allocation.TableTextColor](#)
[AllocationEntry.Color](#)
[AllocationEntry.NonworkingTimeColor](#)
[AllocationEntry.PatternColor](#)
[Curve.FillColor](#)
[Curve.OverloadColor](#)
[Curve.StrokeColor](#)
[DateLine.CaptionColor](#)
[DateLine.Color](#)
[Entity.RowSymbolColumnBackgroundColor](#)
[Entity.TableColor](#)
[Entity.TableTextColor](#)
[GroupingLevelDefinition.TableColor](#)
[GroupingLevelDefinition.TableTextColor](#)
[Link.Color](#)
[LinkEntry.Color](#)
[Option.calendarGridColor](#)
[Option.calendarGridWeekendColor](#)
[Option.dateLineGridColor](#)
[Option.defaultActivityConstraintSymbolColor](#)
[Option.defaultActivityProgressBackgroundColor](#)
[Option.defaultActivityStatusFrameColor](#)
[Option.defaultAllocationConstraintSymbolColor](#)
[Option.defaultAllocationProgressBackgroundColor](#)
[Option.defaultAllocationStatusFrameColor](#)

[Option.defaultResourceLoadCurvePaneColor](#)
[Option.entitiesTableColumnSeparatorColor](#)
[Option.entitiesTableSymbolColumnBackgroundColor](#)
[Option.entitiesTableSymbolColumnTitleBackgroundColor](#)
[Option.entitiesTableTitleBackgroundColor](#)
[Option.entitiesTableTitleColumnSeparatorColor](#)
[Option.entitiesTableTitleHighlightingColor](#)
[Option.entitiesTableTitleTextColor](#)
[Option.entitiesTableTreeViewLineColor](#)
[Option.objectHighlightingColor](#)
[Option.pastBackgroundFillColor](#)
[Option.pastBackgroundLineColor](#)
[Option.selectionColor](#)
[Option.splitterHighlightingColor](#)
[Option.suitableActivityOverlayColor](#)
[Option.suitableResourceOverlayColor](#)
[Option.symbolColumnBackgroundColor](#)
[Option.symbolColumnTitleBackgroundColor](#)
[Option.tableColumnSeparatorColor](#)
[Option.tableTitleBackgroundColor](#)
[Option.tableTitleColumnSeparatorColor](#)
[Option.tableTitleHighlightingColor](#)
[Option.tableTitleTextColor](#)
[Option.timeAreaBackgroundColor](#)
[Option.timescaleBackgroundColor](#)
[Option.timescaleHighlightingColor](#)
[Option.timescaleTextColor](#)
[Option.timescaleTickColor](#)
[Option.timescaleWeekendBackgroundColor](#)
[Option.tonedDownOverlayColor](#)
[Option.treeViewLineColor](#)
[Option.unsuitableActivityOverlayColor](#)
[Option.unsuitableResourceOverlayColor](#)
[PeriodHighlighterEntry.CaptionColor](#)
[PeriodHighlighterEntry.Color](#)
[Resource.CalendarGridColor](#)
[Resource.RowSymbolColumnBackgroundColor](#)
[Resource.TableColor](#)
[Resource.TableTextColor](#)
[Skill.RowSymbolColumnBackgroundColor](#)
[Skill.TableColor](#)
[Skill.TableTextColor](#)
[TableCellDefinition.BackgroundColor](#)
[TableCellDefinition.TextColor](#)
[TableRowDefinition.BackgroundColor](#)
[TableRowDefinition.SymbolColumnBackgroundColor](#)
[TableRowDefinition.TextColor](#)
[TableRowDefinition.TitleBackgroundColor](#)
[TableRowDefinition.TitleTextColor](#)

DashArrayAsString

Common Type	Widget.CommonType
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	Activity.BorderDashArray Allocation.BorderDashArray Curve.StrokeDashArray DateLine.DashArray https://developer.mozilla.org/en-US/docs/Web/SVG/Attribute/stroke-dasharray https://www.w3.org/TR/SVG11/painting.html#StrokeDasharrayProperty Link.DashArray Option.dateLineGridDashArray Option.entitiesTableTreeViewLineDashArray Option.pastBackgroundLineDashArray Option.treeViewLineDashArray
Used by	Activity.BorderDashArray Allocation.BorderDashArray Curve.StrokeDashArray DateLine.DashArray Link.DashArray Option.dateLineGridDashArray Option.entitiesTableTreeViewLineDashArray Option.pastBackgroundLineDashArray Option.treeViewLineDashArray

Date

Common Type	Widget.CommonType
Explanation	<p>JavaScript standard type, derived from Object. The Date object internally always holds a number value that expresses the time in UTC.</p> <p>Hints:</p> <ul style="list-style-type: none"> • There are several specialties to take into concern, e.g. the month numbering starts with 0, when using 'new Date(year, month, day)'. • 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. • 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. • You can check whether a time string is valid by using 'isNaN(new Date(string).getTime())'. • You can compare two dates by using 'date1.getTime() === date2.getTime()' ('date1 === date2' only compares the Date objects, not the values they hold!). <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

[Activity.BaselineDueDate](#)
[Activity.BaselineEnd](#)
[Activity.BaselineReleaseDate](#)
[Activity.BaselineStart](#)
[Activity.DueDate](#)
[Activity.EarliestDragStart](#)
[Activity.EarliestEnd](#)
[Activity.EarliestStart](#)
[Activity.End](#)
[Activity.LatestDragEnd](#)
[Activity.LatestEnd](#)
[Activity.LatestStart](#)
[Activity.LinkSourceDate](#)
[Activity.LinkTargetDate](#)
[Activity.MustEndOn](#)
[Activity.MustStartOn](#)
[Activity.PredictedEnd](#)
[Activity.ReleaseDate](#)
[Activity.SortCode](#)
[Activity.Start](#)
[ActivityEntry.End](#)
[ActivityEntry.Start](#)
[Allocation.EarliestDragStart](#)
[Allocation.EarliestEnd](#)
[Allocation.EarliestStart](#)
[Allocation.End](#)
[Allocation.LatestDragEnd](#)
[Allocation.LatestEnd](#)
[Allocation.LatestStart](#)
[Allocation.LinkSourceDate](#)
[Allocation.LinkTargetDate](#)
[Allocation.MustEndOn](#)
[Allocation.MustStartOn](#)
[Allocation.PredictedEnd](#)
[Allocation.SortCode](#)
[Allocation.Start](#)
[AllocationEntry.End](#)
[AllocationEntry.Start](#)
[CalendarEntry.End](#)
[CalendarEntry.Start](#)
[CurvePointEntry.PointInTime](#)
[DateLine.PointInTime](#)
[Entity.SortCode](#)
https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Date
<https://www.ecma-international.org/ecma-262/5.1/#sec-15.9.1.15>
[Method.determineObjectByPageCoordinates](#)
[Method.saveAsPDF](#)
[Option.additionalDateInterpretedAsEmpty](#)
[Option.currentDate](#)

	Option.end Option.referenceDate Option.start Option.workDate PeriodHighlighterEntry.End PeriodHighlighterEntry.Start Resource.SortCode Skill.SortCode
Used by	Activity.BaselineDueDate Activity.BaselineEnd Activity.BaselineReleaseDate Activity.BaselineStart Activity.DueDate Activity.EarliestDragStart Activity.EarliestEnd Activity.EarliestStart Activity.End Activity.LatestDragEnd Activity.LatestEnd Activity.LatestStart Activity.LinkSourceDate Activity.LinkTargetDate Activity.MustEndOn Activity.MustStartOn Activity.PredictedEnd Activity.ReleaseDate Activity.SortCode Activity.Start ActivityEntry.End ActivityEntry.Start Allocation.EarliestDragStart Allocation.EarliestEnd Allocation.EarliestStart Allocation.End Allocation.LatestDragEnd Allocation.LatestEnd Allocation.LatestStart Allocation.LinkSourceDate Allocation.LinkTargetDate Allocation.MustEndOn Allocation.MustStartOn Allocation.PredictedEnd Allocation.SortCode Allocation.Start AllocationEntry.End AllocationEntry.Start CalendarEntry.End CalendarEntry.Start Callback.onClicked Callback.onDoubleClicked

	Callback.onDrag
	Callback.onDragEnd
	Callback.onDragStart
	Callback.onDrop
	Callback.onShowContextMenu
	Callback.onShowTooltip
	Callback.onTimeAreaViewParametersChanged
	CurvePointEntry.PointInTime
	DateLine.PointInTime
	Entity.SortCode
	Method.addWorkingTime
	Method.calculateWorkingTime
	Method.fitTimeAreaIntoView
	Method.scrollToDate
	Method.setTimeResolutionForView
	Option.additionalDateInterpretedAsEmpty
	Option.currentDate
	Option.end
	Option.start
	Option.workDate
	PeriodHighlighterEntry.End
	PeriodHighlighterEntry.Start
	Resource.SortCode
	Skill.SortCode

DateAsString

Common Type	Widget.CommonType
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	Activity.BaselineDueDate Activity.BaselineEnd Activity.BaselineReleaseDate Activity.BaselineStart Activity.DueDate Activity.EarliestDragStart Activity.EarliestEnd Activity.EarliestStart Activity.End Activity.LatestDragEnd Activity.LatestEnd Activity.LatestStart Activity.LinkSourceDate Activity.LinkTargetDate Activity.MustEndOn Activity.MustStartOn Activity.PredictedEnd Activity.ReleaseDate

	Activity.Start ActivityEntry.End ActivityEntry.Start Allocation.EarliestDragStart Allocation.EarliestEnd Allocation.EarliestStart Allocation.End Allocation.LatestDragEnd Allocation.LatestEnd Allocation.LatestStart Allocation.LinkSourceDate Allocation.LinkTargetDate Allocation.MustEndOn Allocation.MustStartOn Allocation.PredictedEnd Allocation.Start AllocationEntry.End AllocationEntry.Start CalendarEntry.End CalendarEntry.Start CurvePointEntry.PointInTime DateLine.PointInTime Method.saveAsPDF Option.additionalDateInterpretedAsEmpty Option.currentDate Option.end Option.referenceDate Option.start Option.workDate PeriodHighlighterEntry.End PeriodHighlighterEntry.Start
Used by	Activity.BaselineDueDate Activity.BaselineEnd Activity.BaselineReleaseDate Activity.BaselineStart Activity.DueDate Activity.EarliestDragStart Activity.EarliestEnd Activity.EarliestStart Activity.End Activity.LatestDragEnd Activity.LatestEnd Activity.LatestStart Activity.LinkSourceDate Activity.LinkTargetDate Activity.MustEndOn Activity.MustStartOn Activity.PredictedEnd Activity.ReleaseDate Activity.Start

	ActivityEntry.End
	ActivityEntry.Start
	Allocation.EarliestDragStart
	Allocation.EarliestEnd
	Allocation.EarliestStart
	Allocation.End
	Allocation.LatestDragEnd
	Allocation.LatestEnd
	Allocation.LatestStart
	Allocation.LinkSourceDate
	Allocation.LinkTargetDate
	Allocation.MustEndOn
	Allocation.MustStartOn
	Allocation.PredictedEnd
	Allocation.Start
	AllocationEntry.End
	AllocationEntry.Start
	CalendarEntry.End
	CalendarEntry.Start
	CurvePointEntry.PointInTime
	DateLine.PointInTime
	Method.addWorkingTime
	Method.calculateWorkingTime
	Method.fitTimeAreaIntoView
	Method.scrollToDate
	Method.setTimeResolutionForView
	Option.additionalDateInterpretedAsEmpty
	Option.currentDate
	Option.end
	Option.start
	Option.workDate
	PeriodHighlighterEntry.End
	PeriodHighlighterEntry.Start

Error

Common Type	Widget.CommonType
Explanation	JavaScript standard type.
See Also	https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Error
Used by	Callback.onLogError

Event

Common Type	Widget.CommonType
Explanation	Standard type of DOM of the browser.
See Also	https://developer.mozilla.org/en-US/docs/Web/API/Event

Used by	Callback.canDrag Callback.canSelect Callback.onClicked Callback.onDoubleClicked Callback.onDrag Callback.onDragEnd Callback.onDragStart Callback.onDrop Callback.onRowSortingChangeRequested Callback.onSelectionChanged Callback.onShowContextMenu Callback.onShowTooltip
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Function

Common Type	Widget.CommonType
Explanation	JavaScript standard type, derived from Object. Function objects can be used like values or objects of other types.
See Also	https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Function

HTMLElement

Common Type	Widget.CommonType
Explanation	Standard type of DOM of the browser.
See Also	https://developer.mozilla.org/en-US/docs/Web/API/HTMLElement

IdentifierAsString

Common Type	Widget.CommonType
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>
See Also	Activity.BarBottomOutsideTextTooltipTemplateID Activity.BarShapeSymbolID Activity.BarTextPrefixSymbolID Activity.BarTooltipTemplateID Activity.BarTopOutsideTextTooltipTemplateID Activity.BaselineDueDateSymbolID Activity.BaselineDueDateTooltipTemplateID

[Activity.BaselineReleaseDateSymbolID](#)
[Activity.BaselineReleaseDateTooltipTemplateID](#)
[Activity.BaselineTooltipTemplateID](#)
[Activity.CalendarID](#)
[Activity.DueDateSymbolID](#)
[Activity.DueDateTooltipTemplateID](#)
[Activity.EarliestEndTooltipTemplateID](#)
[Activity.EarliestStartTooltipTemplateID](#)
[Activity.ID](#)
[Activity.LatestEndTooltipTemplateID](#)
[Activity.LatestStartTooltipTemplateID](#)
[Activity.LeftBarSymbolID](#)
[Activity.MustEndOnTooltipTemplateID](#)
[Activity.MustStartOnTooltipTemplateID](#)
[Activity.ParentID](#)
[Activity.PeriodHighlighterID](#)
[Activity.ReleaseDateSymbolID](#)
[Activity.ReleaseDateTooltipTemplateID](#)
[Activity.RightBarSymbolID](#)
[Activity.RowTooltipTemplateID](#)
[Activity.TableRowDefinitionID](#)
[Activity.TopLeftBarSymbolID](#)
[Activity.TopRightBarSymbolID](#)
[Allocation.ActivityID](#)
[Allocation.BarBottomOutsideTextTooltipTemplateID](#)
[Allocation.BarShapeSymbolID](#)
[Allocation.BarTextPrefixSymbolID](#)
[Allocation.BarTooltipTemplateID](#)
[Allocation.BarTopOutsideTextTooltipTemplateID](#)
[Allocation.EarliestEndTooltipTemplateID](#)
[Allocation.EarliestStartTooltipTemplateID](#)
[Allocation.ID](#)
[Allocation.LatestEndTooltipTemplateID](#)
[Allocation.LatestStartTooltipTemplateID](#)
[Allocation.LeftBarSymbolID](#)
[Allocation.MustEndOnTooltipTemplateID](#)
[Allocation.MustStartOnTooltipTemplateID](#)
[Allocation.ResourceID](#)
[Allocation.RightBarSymbolID](#)
[Allocation.RowTooltipTemplateID](#)
[Allocation.SkilledBarTooltipTemplateID](#)
[Allocation.SkilledRowTooltipTemplateID](#)
[Allocation.SkillID](#)
[Allocation.TableRowDefinitionID](#)
[Allocation.TopLeftBarSymbolID](#)
[Allocation.TopRightBarSymbolID](#)
[Calendar.ID](#)
[Curve.ID](#)
[DateLine.ID](#)
[DateLine.SymbolID](#)

[DateLine.ToolTipTemplateID](#)
[Entity.ID](#)
[Entity.ParentID](#)
[Entity.RowToolTipTemplateID](#)
[Entity.TableRowDefinitionID](#)
[GroupingLevelDefinition.TableRowDefinitionID](#)
[HierarchyLevelSupplementaryDefinition.TableRowDefinitionID](#)
[HierarchySupplementaryDefinition.ID](#)
[Link.ID](#)
[Link.SourceActivityID](#)
[Link.SourceAllocationID](#)
[Link.TargetActivityID](#)
[Link.TargetAllocationID](#)
[Link.ToolTipTemplateID](#)
[Method.determineObjectByPageCoordinates](#)
[Option.activityHierarchySupplementaryDefinitionID](#)
[Option.defaultActivityBarToolTipTemplateID](#)
[Option.defaultActivityRowToolTipTemplateID](#)
[Option.defaultActivityTableRowDefinitionID](#)
[Option.defaultAllocationBarToolTipTemplateID](#)
[Option.defaultAllocationRowToolTipTemplateID](#)
[Option.defaultAllocationTableRowDefinitionID](#)
[Option.defaultCalendarID](#)
[Option.defaultEntityRowToolTipTemplateID](#)
[Option.defaultEntityTableRowDefinitionID](#)
[Option.defaultLinkToolTipTemplateID](#)
[Option.defaultPeriodHighlighterEntryToolTipTemplateID](#)
[Option.defaultResourceCurveToolTipTemplateID](#)
[Option.defaultResourceRowToolTipTemplateID](#)
[Option.defaultResourceTableRowDefinitionID](#)
[Option.defaultResourceTableRowDefinitionIDInActivitiesView](#)
[Option.defaultSkilledAllocationBarToolTipTemplateID](#)
[Option.defaultSkilledAllocationRowToolTipTemplateID](#)
[Option.defaultSkilledResourceRowToolTipTemplateID](#)
[Option.defaultSkillRowToolTipTemplateID](#)
[Option.defaultSkillTableRowDefinitionID](#)
[Option.entityHierarchySupplementaryDefinitionID](#)
[Option.resourceHierarchySupplementaryDefinitionID](#)
[Option.resourceHierarchySupplementaryDefinitionIDInLoadsView](#)
[Option.tableRowDefinitionIDForTitleInResourcesView](#)
[Option.tableRowDefinitionIDForTitleInSkilledResourcesView](#)
[PeriodHighlighter.ID](#)
[PeriodHighlighterEntry.ToolTipTemplateID](#)
[Resource.CalendarID](#)
[Resource.CapacityCurveID](#)
[Resource.CurveToolTipTemplateID](#)
[Resource.ID](#)
[Resource.InventoryCurveID](#)
[Resource.LoadCurveID](#)
[Resource.ParentID](#)

	Resource.PeriodHighlighterID Resource.RowTooltipTemplateID Resource.SkilledRowTooltipTemplateID Resource.TableRowDefinitionID Skill.ID Skill.RowTooltipTemplateID Skill.TableRowDefinitionID Symbol.ID Symbol.TooltipTemplateID TableRowDefinition.ID TooltipTemplate.ID
Used by	Activity.BarBottomOutsideTextTooltipTemplateID Activity.BarShapeSymbolID Activity.BarTextPrefixSymbolID Activity.BarTooltipTemplateID Activity.BarTopOutsideTextTooltipTemplateID Activity.BaselineDueDateSymbolID Activity.BaselineDueDateTooltipTemplateID Activity.BaselineReleaseDateSymbolID Activity.BaselineReleaseDateTooltipTemplateID Activity.BaselineTooltipTemplateID Activity.CalendarID Activity.DueDateSymbolID Activity.DueDateTooltipTemplateID Activity.EarliestEndTooltipTemplateID Activity.EarliestStartTooltipTemplateID Activity.ID Activity.LatestEndTooltipTemplateID Activity.LatestStartTooltipTemplateID Activity.LeftBarSymbolID Activity.MustEndOnTooltipTemplateID Activity.MustStartOnTooltipTemplateID Activity.ParentID Activity.PeriodHighlighterID Activity.ReleaseDateSymbolID Activity.ReleaseDateTooltipTemplateID Activity.RightBarSymbolID Activity.RowTooltipTemplateID Activity.TableRowDefinitionID Activity.TopLeftBarSymbolID Activity.TopRightBarSymbolID Allocation.ActivityID Allocation.BarBottomOutsideTextTooltipTemplateID Allocation.BarShapeSymbolID Allocation.BarTextPrefixSymbolID Allocation.BarTooltipTemplateID Allocation.BarTopOutsideTextTooltipTemplateID Allocation.EarliestEndTooltipTemplateID Allocation.EarliestStartTooltipTemplateID Allocation.ID

[Allocation.LatestEndTooltipTemplateID](#)
[Allocation.LatestStartTooltipTemplateID](#)
[Allocation.LeftBarSymbolID](#)
[Allocation.MustEndOnTooltipTemplateID](#)
[Allocation.MustStartOnTooltipTemplateID](#)
[Allocation.ResourceID](#)
[Allocation.RightBarSymbolID](#)
[Allocation.RowTooltipTemplateID](#)
[Allocation.SkilledBarTooltipTemplateID](#)
[Allocation.SkilledRowTooltipTemplateID](#)
[Allocation.SkillID](#)
[Allocation.TableRowDefinitionID](#)
[Allocation.TopLeftBarSymbolID](#)
[Allocation.TopRightBarSymbolID](#)
[Calendar.ID](#)
[Callback.canDrag](#)
[Callback.canSelect](#)
[Callback.compareActivities](#)
[Callback.compareAllocations](#)
[Callback.compareEntities](#)
[Callback.compareResources](#)
[Callback.determineGroupingCode](#)
[Callback.onClicked](#)
[Callback.onCollapseStateChanged](#)
[Callback.onCurveCollapseStateChanged](#)
[Callback.onCurvePaneResized](#)
[Callback.onDoubleClicked](#)
[Callback.onDrag](#)
[Callback.onDragEnd](#)
[Callback.onDragStart](#)
[Callback.onDrop](#)
[Callback.onShowContextMenu](#)
[Callback.onShowTooltip](#)
[Curve.ID](#)
[DateLine.ID](#)
[DateLine.SymbolID](#)
[DateLine.TooltipTemplateID](#)
[Entity.ID](#)
[Entity.ParentID](#)
[Entity.RowTooltipTemplateID](#)
[Entity.TableRowDefinitionID](#)
[GroupingLevelDefinition.TableRowDefinitionID](#)
[HierarchyLevelSupplementaryDefinition.TableRowDefinitionID](#)
[HierarchySupplementaryDefinition.ID](#)
[Link.ID](#)
[Link.SourceActivityID](#)
[Link.SourceAllocationID](#)
[Link.TargetActivityID](#)
[Link.TargetAllocationID](#)
[Link.TooltipTemplateID](#)

[Method.addWorkingTime](#)
[Method.calculateWorkingTime](#)
[Option.activityHierarchySupplementaryDefinitionID](#)
[Option.defaultActivityBarTooltipTemplateID](#)
[Option.defaultActivityRowTooltipTemplateID](#)
[Option.defaultActivityTableRowDefinitionID](#)
[Option.defaultAllocationBarTooltipTemplateID](#)
[Option.defaultAllocationRowTooltipTemplateID](#)
[Option.defaultAllocationTableRowDefinitionID](#)
[Option.defaultCalendarID](#)
[Option.defaultEntityRowTooltipTemplateID](#)
[Option.defaultEntityTableRowDefinitionID](#)
[Option.defaultLinkTooltipTemplateID](#)
[Option.defaultPeriodHighlighterEntryTooltipTemplateID](#)
[Option.defaultResourceCurveTooltipTemplateID](#)
[Option.defaultResourceRowTooltipTemplateID](#)
[Option.defaultResourceTableRowDefinitionID](#)
[Option.defaultResourceTableRowDefinitionIDInActivitiesView](#)
[Option.defaultSkilledAllocationBarTooltipTemplateID](#)
[Option.defaultSkilledAllocationRowTooltipTemplateID](#)
[Option.defaultSkilledResourceRowTooltipTemplateID](#)
[Option.defaultSkillRowTooltipTemplateID](#)
[Option.defaultSkillTableRowDefinitionID](#)
[Option.entityHierarchySupplementaryDefinitionID](#)
[Option.resourceHierarchySupplementaryDefinitionID](#)
[Option.resourceHierarchySupplementaryDefinitionIDInLoadsView](#)
[Option.tableRowDefinitionIDForTitleInResourcesView](#)
[Option.tableRowDefinitionIDForTitleInSkilledResourcesView](#)
[PeriodHighlighter.ID](#)
[PeriodHighlighterEntry.TooltipTemplateID](#)
[Resource.CalendarID](#)
[Resource.CapacityCurveID](#)
[Resource.CurveTooltipTemplateID](#)
[Resource.ID](#)
[Resource.LoadCurveID](#)
[Resource.ParentID](#)
[Resource.PeriodHighlighterID](#)
[Resource.RowTooltipTemplateID](#)
[Resource.SkilledRowTooltipTemplateID](#)
[Resource.TableRowDefinitionID](#)
[Skill.ID](#)
[Skill.RowTooltipTemplateID](#)
[Skill.TableRowDefinitionID](#)
[Symbol.ID](#)
[Symbol.TooltipTemplateID](#)
[TableRowDefinition.ID](#)
[TooltipTemplate.ID](#)

Map

Common Type	Widget.CommonType
Explanation	JavaScript standard type derived from Object type. In VSW the application alternatively can use literal objects to provide values for keys.
See Also	GroupingLevelDefinition.GroupingCodeToTextMap https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Map Option.applicationVariablesMap Option.intlDateTimeFormatOptionsMap Option.intlNumberFormatOptionsMap
Used by	GroupingLevelDefinition.GroupingCodeToTextMap Option.applicationVariablesMap Option.intlDateTimeFormatOptionsMap Option.intlNumberFormatOptionsMap

number

Common Type	Widget.CommonType
Explanation	Standard JavaScript primitive type.
See Also	Activity.BarOpacity Activity.Progress Activity.SortCode Allocation.BarOpacity Allocation.Progress Allocation.SortCode Curve.ScaleMaximumValue Curve.ScaleMinimumValue CurvePointEntry.Value Entity.Duration Entity.SortCode https://developer.mozilla.org/en-US/docs/Glossary/Number LinkEntry.Duration Method.determineObjectByPageCoordinates Method.saveAsPDF Option.activityBarTopOffsetAndHeightScaleFactor Option.allocationBarTopOffsetAndHeightScaleFactor Option.animationDuration Option.loggingVerboseLevel Option.maximumTimeResolutionUnitFactor Option.maximumTopViewAreaHeightRatio Option.multipleSelectionEnabled Option.reducedBarTopOffsetAndHeightScaleFactor Option.scrollOffsetsChangedCallbackTimeDelay Option.timeStepUnitFactor Option.tooltipDelay Option.visualZoomFactor Option.watermarkOpacity

	Resource.SortCode Skill.SortCode
Used by	Activity.BarOpacity Activity.Progress Activity.SortCode Allocation.BarOpacity Allocation.Progress Allocation.SortCode Callback.compareActivities Callback.compareEntities Callback.compareResources Callback.determineGroupingCode Callback.onClicked Callback.onCollapseStateChanged Callback.onDoubleClicked Callback.onDrop Callback.onLogError Callback.onLogWarning Callback.onSaveAsPDFProgress Callback.onShowContextMenu Callback.onShowTooltip Callback.onTableCellDefinitionWidthChanged Callback.onTimeAreaViewParametersChanged Curve.ScaleMaximumValue Curve.ScaleMinimumValue CurvePointEntry.Value Entity.Duration Entity.SortCode LinkEntry.Duration Method.addWorkingTime Method.determineObjectByPageCoordinates Method.setCollapseStatesForEntityRows Method.setCollapseStatesForRows Method.setTimeResolutionForView Option.activityBarTopOffsetAndHeightScaleFactor Option.allocationBarTopOffsetAndHeightScaleFactor Option.loggingVerboseLevel Option.maximumTimeResolutionUnitFactor Option.maximumTopViewAreaHeightRatio Option.multipleSelectionEnabled Option.reducedBarTopOffsetAndHeightScaleFactor Option.scrollOffsetsChangedCallbackTimeDelay Option.timeStepUnitFactor Option.tooltipDelay Option.visualZoomFactor Option.watermarkOpacity Resource.SortCode Skill.SortCode

Object

Common Type	Widget.CommonType
Explanation	<p>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'.</p> <p>In callbacks the object provided there is one of the data objects that is handled over to the widget when using one of the add or update methods.</p>
See Also	GroupingLevelDefinition.GroupingCodeToTextMap https://developer.mozilla.org/en-US/docs/Glossary/Object Method.determineObjectByPageCoordinates Option.applicationVariablesMap Option.defaultValuesForActivityEntryProperties Option.defaultValuesForActivityProperties Option.defaultValuesForAllocationEntryProperties Option.defaultValuesForAllocationProperties Option.defaultValuesForEntityProperties Option.defaultValuesForLinkProperties Option.defaultValuesForResourceProperties Option.defaultValuesForSkillProperties Option.intlDateTimeFormatOptionsMap Option.intlNumberFormatOptionsMap
Used by	Callback.canDrag Callback.canSelect Callback.compareActivities Callback.compareAllocations Callback.compareEntities Callback.compareResources Callback.compareSkills Callback.determineGroupingCode Callback.onClicked Callback.onCollapseStateChanged Callback.onCurveCollapseStateChanged Callback.onCurvePaneResized Callback.onDoubleClicked Callback.onDrag Callback.onDragEnd Callback.onDragStart Callback.onDrop Callback.onRowSortingChangeRequested Callback.onSelectionChanged Callback.onShowContextMenu Callback.onShowTooltip Callback.onVerticalScrollOffsetChanged Callback.visibilityFilterForResources Callback.visibilityFilterForSkills GroupingLevelDefinition.GroupingCodeToTextMap Method.option Method.processOnDrop

	Method.saveAsPDF Method.scrollToObject Option.applicationVariablesMap Option.defaultValuesForActivityEntryProperties Option.defaultValuesForActivityProperties Option.defaultValuesForAllocationEntryProperties Option.defaultValuesForAllocationProperties Option.defaultValuesForEntityProperties Option.defaultValuesForLinkProperties Option.defaultValuesForResourceProperties Option.defaultValuesForSkillProperties Option.intlDateTimeFormatOptionsMap Option.intlNumberFormatOptionsMap
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PixelsAsNumber

Common Type	Widget.CommonType
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.
See Also	Activity.BarHeight Activity.BarShapeSymbolWidth Activity.BarTextPrefixSymbolHeight Activity.BarTextPrefixSymbolWidth Activity.BarTopOffset Activity.BorderWidth Activity.DueDateSymbolHeight Activity.DueDateSymbolWidth Activity.LeftBarSymbolHeight Activity.LeftBarSymbolWidth Activity.MaximumRowHeight Activity.MaximumSubRowHeightInTimeArea Activity.MinimumRowHeight Activity.ReleaseDateSymbolHeight Activity.ReleaseDateSymbolWidth Activity.RightBarSymbolHeight Activity.RightBarSymbolWidth Activity.TopLeftBarSymbolHeight Activity.TopLeftBarSymbolWidth Activity.TopLeftBarSymbolYOffset Activity.TopRightBarSymbolHeight Activity.TopRightBarSymbolWidth Activity.TopRightBarSymbolYOffset ActivityEntry.Height ActivityEntry.RelativeTopOffset Allocation.BarHeight Allocation.BarShapeSymbolWidth Allocation.BarTextPrefixSymbolHeight Allocation.BarTextPrefixSymbolWidth

[Allocation.BarTopOffset](#)
[Allocation.BorderWidth](#)
[Allocation.LeftBarSymbolHeight](#)
[Allocation.LeftBarSymbolWidth](#)
[Allocation.MinimumRowHeight](#)
[Allocation.RightBarSymbolHeight](#)
[Allocation.RightBarSymbolWidth](#)
[Allocation.TopLeftBarSymbolHeight](#)
[Allocation.TopLeftBarSymbolWidth](#)
[Allocation.TopLeftBarSymbolYOffset](#)
[Allocation.TopRightBarSymbolHeight](#)
[Allocation.TopRightBarSymbolWidth](#)
[Allocation.TopRightBarSymbolYOffset](#)
[AllocationEntry.Height](#)
[AllocationEntry.RelativeTopOffset](#)
[DateLine.SymbolHeight](#)
[DateLine.SymbolWidth](#)
[DateLine.Width](#)
[Entity.MinimumRowHeight](#)
[GroupingLevelDefinition.MinimumRowHeight](#)
[Link.Width](#)
[Option.bottomRowMarginInTimeArea](#)
[Option.dateLineGridWidth](#)
[Option.defaultActivityBarHeight](#)
[Option.defaultActivityMaximumRowHeight](#)
[Option.defaultActivityMaximumSubRowHeightInTimeArea](#)
[Option.defaultActivityMinimumRowHeight](#)
[Option.defaultAllocationBarHeight](#)
[Option.defaultAllocationMinimumRowHeight](#)
[Option.defaultEntityMinimumRowHeight](#)
[Option.defaultResourceInventoryCurvePaneHeight](#)
[Option.defaultResourceLoadCurvePaneHeight](#)
[Option.defaultResourceMaximumRowHeight](#)
[Option.defaultResourceMaximumSubRowHeightInTimeArea](#)
[Option.defaultResourceMinimumRowHeight](#)
[Option.defaultSkillMinimumRowHeight](#)
[Option.entitiesTableCellContentTopOffset](#)
[Option.entitiesTableSymbolColumnWidth](#)
[Option.entitiesTableTitleHeight](#)
[Option.entitiesTableViewWidth](#)
[Option.fixedTableColumnWidth](#)
[Option.maximumResourceInventoryCurvePaneHeight](#)
[Option.maximumResourceLoadCurvePaneHeight](#)
[Option.maximumSnapDistance](#)
[Option.minimumResourceInventoryCurvePaneHeight](#)
[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.InventoryCurvePaneHeight Resource.LoadCurvePaneHeight Resource.MaximumRowHeight Resource.MaximumSubRowHeightInTimeArea Resource.MinimumRowHeight Skill.MinimumRowHeight TableCellDefinition.MaximumWidth TableCellDefinition.MinimumWidth TableCellDefinition.SymbolHeight TableCellDefinition.SymbolWidth TableCellDefinition.Width
Used by	Activity.BarHeight Activity.BarShapeSymbolWidth Activity.BarTextPrefixSymbolHeight Activity.BarTextPrefixSymbolWidth Activity.BarTopOffset Activity.BorderWidth Activity.DueDateSymbolHeight Activity.DueDateSymbolWidth Activity.LeftBarSymbolHeight Activity.LeftBarSymbolWidth Activity.MinimumRowHeight Activity.ReleaseDateSymbolHeight Activity.ReleaseDateSymbolWidth Activity.RightBarSymbolHeight Activity.RightBarSymbolWidth Activity.TopLeftBarSymbolHeight Activity.TopLeftBarSymbolWidth Activity.TopLeftBarSymbolYOffset Activity.TopRightBarSymbolHeight Activity.TopRightBarSymbolWidth Activity.TopRightBarSymbolYOffset ActivityEntry.Height ActivityEntry.RelativeTopOffset Allocation.BarHeight Allocation.BarShapeSymbolWidth Allocation.BarTextPrefixSymbolHeight Allocation.BarTextPrefixSymbolWidth Allocation.BarTopOffset Allocation.BorderWidth Allocation.LeftBarSymbolHeight

[Allocation.LeftBarSymbolWidth](#)
[Allocation.MinimumRowHeight](#)
[Allocation.RightBarSymbolHeight](#)
[Allocation.RightBarSymbolWidth](#)
[Allocation.TopLeftBarSymbolHeight](#)
[Allocation.TopLeftBarSymbolWidth](#)
[Allocation.TopLeftBarSymbolYOffset](#)
[Allocation.TopRightBarSymbolHeight](#)
[Allocation.TopRightBarSymbolWidth](#)
[Allocation.TopRightBarSymbolYOffset](#)
[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 Resource.MinimumRowHeight Skill.MinimumRowHeight TableCellDefinition.MaximumWidth TableCellDefinition.MinimumWidth TableCellDefinition.SymbolHeight TableCellDefinition.SymbolWidth TableCellDefinition.Width
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Promise

Common Type	Widget.CommonType
Explanation	<p>JavaScript standard type.</p> <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 the 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"> 1. Pending: The Promise is created and in a pending state, waiting for the asynchronous operation to complete. 2. Fulfilled: The asynchronous operation has been successfully completed, and the Promise is fulfilled. The result of the operation is available. 3. Rejected: The asynchronous operation has failed, and the Promise is rejected. An error reason is provided. <p>A Promise object is created using the Promise class. The constructor expects a function with two parameters of Function type: resolve and reject. The function is then called asynchronously by the Promise object and either resolve or reject is called to set the state of the Promise.</p> <pre>const myPromise = new Promise((resolve, reject) => { // Asynchronous operation setTimeout(() => { const success = true; // Success indicator if (success) resolve(); else reject('Error in operation!'); }, 2000); });</pre>

	<p>Hint: When an exception occurs within code running inside a promise, then the Promise will convert this to calling reject(error).</p> <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	https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Promise
Used by	Callback.canDrag Callback.onCollapseStateChanged Callback.onCurveCollapseStateChanged Callback.onDrag Callback.onDrop Callback.onSaveAsPDFProgress Callback.onShowContextMenu Callback.onShowTooltip

string

Common Type	Widget.CommonType
Explanation	JavaScript standard primitive type.
See Also	Activity.BarBottomOutsideText Activity.BarBottomOutsideTextColor Activity.BarText Activity.BarTextFormat Activity.BarTopOutsideText Activity.BarTopOutsideTextColor Activity.SortCode Activity.TableText Allocation.BarBottomOutsideText Allocation.BarBottomOutsideTextColor Allocation.BarText Allocation.BarTextFormat Allocation.BarTopOutsideText Allocation.BarTopOutsideTextColor Allocation.SortCode Allocation.TableText DateLine.Caption DateLine.CaptionColorSource DateLine.CaptionFormat DateLine.ColorSource DateLine.DashArraySource DateLine.PointInTimeSource DateLine.WidthSource Entity.SortCode Entity.TableText GroupingLevelDefinition.DefaultGroupingCode GroupingLevelDefinition.GroupingCodeSource GroupingLevelDefinition.TableTextFormat

	https://developer.mozilla.org/en-US/docs/Glossary/String Method.determineObjectByPageCoordinates Method.saveAsPDF Option.activityRowSortCodePropertyName Option.additionalDateStringInterpretedAsEmpty Option.allocationRowSortCodePropertyName Option.applicationName Option.applicationStyleDefinition Option.applicationVersion Option.customCopyrightYear Option.customLicenseTexts Option.customName Option.customVersion Option.defaultActivityBarTextFormat Option.defaultAllocationBarTextFormat Option.entitiesTitleText Option.entityRowSortCodePropertyName Option.licenseKey Option.resourceRowSortCodePropertyName Option.skillRowSortCodePropertyName Option.tableRowDefinitionIDForTitleInActivitiesView Option.tableRowDefinitionIDForTitleInEntitiesTable Option.tableRowDefinitionIDForTitleInLoadsView Option.timeZone Option.titleText Option.version Option.watermarkSymbolID Option.weekNumbering Option.workDateLineCaption PeriodHighlighterEntry.Caption Resource.SortCode Resource.TableText Skill.SortCode Skill.TableText Symbol.Class Symbol.Color Symbol.URL TableCellDefinition.BackgroundColorSource TableCellDefinition.SymbolIDSource TableCellDefinition.TextColorSource TableCellDefinition.TextFormat TableCellDefinition.TextSource TableCellDefinition.TitleText TooltipTemplate.HTMLFormat
Used by	Activity.BarBottomOutsideText Activity.BarBottomOutsideTextColor Activity.BarText Activity.BarTextFormat Activity.BarTopOutsideText Activity.BarTopOutsideTextColor

[Activity.SortCode](#)
[Activity.TableText](#)
[Allocation.BarBottomOutsideText](#)
[Allocation.BarBottomOutsideTextColor](#)
[Allocation.BarText](#)
[Allocation.BarTextFormat](#)
[Allocation.BarTopOutsideText](#)
[Allocation.BarTopOutsideTextColor](#)
[Allocation.SortCode](#)
[Allocation.TableText](#)
[Callback.canDrag](#)
[Callback.compareActivities](#)
[Callback.compareEntities](#)
[Callback.compareResources](#)
[Callback.determineGroupingCode](#)
[Callback.onCollapseStateChanged](#)
[Callback.onDrag](#)
[Callback.onDragEnd](#)
[Callback.onDragStart](#)
[Callback.onDrop](#)
[Callback.onLogError](#)
[Callback.onLogWarning](#)
[Callback.onRowSortingChangeRequested](#)
[Callback.onShowTooltip](#)
[Callback.onTimeAreaViewParametersChanged](#)
[DateLine.Caption](#)
[DateLine.CaptionColorSource](#)
[DateLine.CaptionFormat](#)
[DateLine.ColorSource](#)
[DateLine.DashArraySource](#)
[DateLine.PointInTimeSource](#)
[DateLine.WidthSource](#)
[Entity.SortCode](#)
[Entity.TableText](#)
[GroupingLevelDefinition.DefaultGroupingCode](#)
[GroupingLevelDefinition.GroupingCodeSource](#)
[GroupingLevelDefinition.TableTextFormat](#)
[Method.option](#)
[Method.saveAsPDF](#)
[Method.scrollToDate](#)
[Method.scrollToObject](#)
[Option.activityRowSortCodePropertyName](#)
[Option.additionalDateStringInterpretedAsEmpty](#)
[Option.allocationRowSortCodePropertyName](#)
[Option.applicationStyleDefinition](#)
[Option.defaultActivityBarTextFormat](#)
[Option.defaultAllocationBarTextFormat](#)
[Option.entitiesTitleText](#)
[Option.entityRowSortCodePropertyName](#)
[Option.licenseKey](#)

	Option.resourceRowSortCodePropertyName
	Option.skillRowSortCodePropertyName
	Option.tableRowDefinitionIDForTitleInActivitiesView
	Option.tableRowDefinitionIDForTitleInEntitiesTable
	Option.tableRowDefinitionIDForTitleInLoadsView
	Option.timeZone
	Option.titleText
	Option.version
	Option.watermarkSymbolID
	Option.weekNumbering
	Option.workDateLineCaption
	PeriodHighlighterEntry.Caption
	Resource.SortCode
	Resource.TableText
	Skill.SortCode
	Skill.TableText
	Symbol.Class
	Symbol.Color
	Symbol.URL
	TableCellDefinition.BackgroundColorSource
	TableCellDefinition.SymbolIDSource
	TableCellDefinition.TextColorSource
	TableCellDefinition.TextFormat
	TableCellDefinition.TextSource
	TableCellDefinition.TitleText
	TooltipTemplate.HTMLFormat

TimeUnitAsString

Common Type	Widget.CommonType
Explanation	<p>Possible values are:</p> <p>"Seconds"</p> <p>"Minutes"</p> <p>"Hours"</p> <p>"Days"</p> <p>"Weeks"</p> <p>"Months"</p> <p>"Quarters"</p> <p>"Years"</p>
Used by	Method.setTimeResolutionForView

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.

9.0.6

Explanation	<p>PATCH: When moving one or more bars by calling one of the methods <i>updateActivities</i> or <i>updateAllocations</i> while showing links that changed their figure because of this, sometimes a link at the mouse cursor position got a hover effect falsely.</p> <p>PATCH: Fix for an active bar dragging or row dragging got aborted, when the option <i>nonworkingTimeVisible</i> was set to false and row objects were updated, even row objects were not visible in the current view. In addition, the user then saw white empty rows.</p> <p>PATCH: Fixed exception when deleting an object when the cursor was hovering on its representation.</p> <p>PATCH: When touching an element, no hover effect should be shown.</p> <p>PATCH: When dropping entity objects in the time area, the callback <i>onDragEnd</i> was missing.</p> <p>PATCH: When a row was expanded, the period highlighters rotated with animation in rows where the curve pane is visible.</p> <p>PATCH: The method <i>addWorkingTime</i> did use the default calendar, when no calendar ID was given. This was not the right behavior as described in this document.</p>
Release Date	2026-04-16

9.0.5

Explanation	<p>PATCH: Fixed rare exceptions on vertical scrolling and dropping bars.</p> <p>PATCH: Fixed appearance of the cursor date line after dropping an entity into the time area.</p> <p>PATCH: Fixed exception when using <i>updateResources</i> in the handler for the callback <i>onDrop</i> after dragging an allocation bar assigned to a resource to update. The exception was not thrown when using an add/update/remove method for calendars, curves, or period highlighters directly before <i>updateResources</i> and concerning the same rows.</p>
Release Date	2026-02-24

9.0.4

Explanation	<p>PATCH: When removing all activities in activities view at once or all resources in the other views and afterwards adding new ones, then the old rows now will be removed without animation.</p> <p>PATCH: When removing all activities in activities view at once or all resources in the other views, the memory for the internal row objects was not fully freed.</p>
Release Date	2026-12-05

9.0.3

Explanation	<p>PATCH: Fixed another exception when the user taps on a period highlighter by touch.</p> <p>PATCH: Fixed exception when the user tries to open the context menu by touch below the chart.</p> <p>PATCH: Fixed exception, when updating the <i>ParentID</i> property of a row data object with an unknown ID while grouping is visible (see <i>HierarchySupplementaryDefinition</i> object type).</p> <p>PATCH: When updating the property <i>ParentID</i> of a data object that was showing a bar in a parent row or when removing such a data object, while its own row is hidden because parent row is collapsed, the parent row was not reduced in height when necessary.</p> <p>PATCH: When the application removes an object by calling a method, while the user drags the representation of it (bar, row, or date line), then the drag-and-drop operation now will be canceled.</p> <p>PATCH: The connection line from the insertion line to the dragged row object on a row drag-and-drop operation was not shown anymore.</p> <p>PATCH: Dragging a bar horizontally while the options <i>nonworkingTimeVisible</i> set to false and <i>ignoreCalendarOnActivityBarInteractions</i> or <i>ignoreCalendarOnAllocationBarInteractions</i> set to true now works more intuitively.</p> <p>PATCH: The option <i>ignoreCalendarOnAllocationBarInteractions</i> was not respected when dragging allocation bars in activities view.</p> <p>PATCH: Fixed graphical issues on bar dragging at the absolute start of the time area.</p> <p>PATCH: Dragging a bar using touch (press and pan) now works again.</p> <p>PATCH: Long press by touch on a symbol in the symbol column in the table now triggers the callback <i>onShowContextMenu</i> with properties <i>symbol</i> and <i>symbolIndex</i> set like using the mouse.</p> <p>PATCH: Smaller fixes on link routing.</p>
Release Date	2025-11-18

9.0.2

Explanation	<p>PATCH: When removing all resources by using the method <i>removeResources</i> or <i>removeAll(ObjectType.Resource)</i>, the allocation bars did not get visible again, when resources with the same IDs were added afterwards.</p> <p>PATCH: Fixed exception when tapping on a period highlighter by touch.</p> <p>NEW tutorial: Basic usage of skilled resources view.</p>
Release Date	2025-10-29

9.0.1

Explanation	<p>PATCH: Fixed eventual exception, when the user modified the table column width interactively.</p> <p>PATCH: Fixed eventual exception, when using the method <i>scrollToObject</i> while option <i>scrollToObjectAnimationEnabled</i> was set to true.</p> <p>PATCH: When a <i>TableRowDefinition</i> object was removed then the widget threw an exception on changing the view type to another view that was visible before and used this table row definition.</p>
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	<p>PATCH: When a row showed the first cell of a <i>TableRowDefinition</i> with a defined <i>BackgroundColor</i>, then the color of the angle cells in dependent rows did not change their color, when the <i>TableRowDefinition</i> object was removed.</p> <p>PATCH: When using a value lower than 1 in the option <i>visualZoomFactor</i>, using the mouse wheel scrolled the table area when the cursor was positioned at the far left of the time area.</p> <p>PATCH: Setting the options <i>maximumTimeResolutionUnit</i> and <i>maximumTimeResolutionUnitFactor</i> initially or in separate <i>option</i> method calls did not always get visible immediately but later after changing the time resolution by user interaction.</p> <p>PATCH: The vertical separation line at the beginning of the fixed column in resources view and skilled resources view was not visible in allocation rows, when they showed no text.</p> <p>PATCH: Removing an activity object did not remove visible links between allocation bars in the resources view that were created by using activity links (see option <i>definedAllocationLinksVisibleInResourcesView</i>).</p> <p>PATCH: Links drawn between bars that are shown in the same sub row with no or low distance to each other now look better again.</p> <p>NEW tutorial: Save and load visible range for persistence between sessions.</p>
Release Date	2025-10-20

9.0.0

Explanation	<p>ATTENTION: Since we always are searching for performance improvements, we will remove the support for deprecated options and properties with next major version 10.0.0: All options starting with pm_ and all properties starting with PM_! So please modify your code as soon as possible!</p> <p>MAJOR: VSW now can be used in ESM and TypeScript environments:</p> <ul style="list-style-type: none"> The libraries (called NWAf) now are provided in an ESM flavor additionally (ESM = ECMAScript Modules). This allows ESM applications to include the libraries for VSW dynamically. This flavor also removes the need for including CSS files and does not rely on any global variable. It is possible to use the ESM flavor within a bundler like Webpack like the UMD variant. A modularized variant of the SampleApp is provided to show the ESM flavor in action. From now on TypeScript type definitions are provided for VSW (see files <i>vsw-se.d.ts</i> and <i>vsw-se.esm.d.ts</i> in appropriate widget folders). These are used by a new TypeScript ESM variant of the SampleApp. <p>MINOR: New static version strings <i>vswVersion</i> and <i>nwaVersion</i> are available making it possible to read the version without instantiation of the widget.</p> <p>MINOR: Tooltip functionality extended:</p> <ul style="list-style-type: none"> Date lines now can show tooltips. This is accompanied by the new property <i>TooltipTemplateID</i> on <i>DateLine</i> objects. Version 8.4.0 added the possibility to define separate tooltips for the constraint symbols, for the baseline symbols and baseline bar, and for the outside texts of allocation and activity bars when implementing the callback <i>onShowTooltip</i>. Now these tooltips can also be defined via <i>TooltipTemplate</i> objects by setting the appropriate IDs into new properties ending with <i>TooltipTemplateID</i> in activity and allocation objects. <p>MINOR: New options <i>start</i> and <i>end</i> can be used in method <i>saveAsPDF</i> to narrow down the time range for the created document.</p> <p>MINOR: The callback arguments for the callback <i>onDrop</i> now include the property <i>proposedMethodCalls</i> to help the application in processing the action. This is an</p>
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	<p>improvement over using the method <i>processOnDrop</i>, since it helps to process the action also in the back end of the application.</p> <p>MINOR: All callback arguments that contained an ID of a referenced object now are changed to contain the referenced object directly (e.g. <i>skillID</i> now accompanied by <i>skill</i>). This is for consistency of the interface and helps applications to access the referenced objects without first determining it by mapping the given ID. The ID properties in the callback arguments exist furthermore for compatibility.</p> <p>MINOR: The new option <i>calendarGridWeekendColor</i> shows an overlaid rectangle on all weekends. It is recommended to use a color with high transparency here.</p> <p>MINOR: Improvements to the user interface:</p> <ul style="list-style-type: none"> • When auto-scrolling is active while dragging a bar, a row, or a date line, then the hot regions at the borders of the view each now are split into four zones: The more the user drags the object against the border, the faster the view is scrolled. Now it is also possible to leave the hot region with the cursor. This both helps finding the searched drop position faster than before. • The arrow buttons in the timescale now modify the time resolution or time range on a DOM event <i>pointerdown</i> instead of <i>pointerup</i>, so that repetition is possible by holding the pointer (aka mouse or finger) down. <p>MINOR: Option <i>selectionColor</i> now also changes the color of the phantom used in row drag & drop.</p> <p>PATCH: Under some circumstances the render method threw an exception when drag boundaries on a bar were visible before (controlled by properties <i>EarliestDragStart</i> and <i>LatestDragEnd</i> on activity and allocation objects).</p> <p>PATCH: Horizontally drawn captions in positions <i>TopLeft</i>, <i>TopCenter</i>, or <i>TopRight</i> of date lines were not visible anymore at the bottom of the timescale.</p> <p>PATCH: When calling the method <i>scrollToObject</i> with <i>highlightingEnabled</i> set to <i>false</i>, an existing highlighting of other objects was not abandoned.</p> <p>PATCH: It was difficult to implement a working context menu because the widget triggered the callback <i>onCloseContextMenu</i> too early on a <i>pointerdown</i> DOM event. Nevertheless, the plug-ins <i>jquery-contextmenu</i> and <i>d3-context-menu</i> worked perfectly.</p> <p>PATCH: When a load curve used a pure transparent color for the stroke, the stroke of the capacity curve got visible unintendedly. Now the stroke color internally is set to the fill color, when it is transparent.</p> <p>PATCH: When using <i>PeriodHighlighter</i> objects on resources, allocation rows shown in activities view were not updated, when removing those period highlighters.</p> <p>PATCH: Interactively dragging the vertical table column title separator for changing the column width did not show correct feedback until drop.</p> <p>PATCH: Removing an activity did not always remove the internal copies for resource objects and allocation objects when using the option <i>resourcesVisibleInActivitiesView</i>, which led to higher memory consumption.</p> <p>PATCH: Removing the assigned resource from an allocation object did not remove the internal copies of the allocation object when using the skilled resources view, which led to higher memory consumption.</p> <p>PATCH: Removing a skill object did not remove the internal copies of resource and allocation objects when using the skilled resources view, which led to higher memory consumption.</p> <p>As an experimental feature, we provide an AI knowledge base for VSW SE here: https://chatgpt.com/g/g-6733026858648190b77a9ae3d3098261-visual-scheduling-widget-vsw</p>
Release Date	2025-09-29
See also	

8.4.6

Explanation	<p>PATCH: An exception occurred, when dragging an entity row into the time area.</p> <p>PATCH: When a link was deleted, while it was hovered on screen, the hover shadow remained visible.</p> <p>PATCH: Sometimes link target markers were not shown correctly in saved PDF files.</p> <p>PATCH: Under some circumstances the numeric scales in rows showing curves disappeared when interactively resizing a table column.</p> <p>PATCH: When setting the option <code>bottomRowMarginInTimeArea</code> while curve areas are visible, the height and position of the curve areas were not correct afterwards.</p>
Release Date	2025-08-18

8.4.5

Explanation	<p>PATCH: When hovering on one of the constraint symbols of a bar, it now is easier to get the tooltip shown, because now the sensitive area is the bounding rectangle of the symbol.</p> <p>PATCH: When a row was selected, the selection frame did not change when changing a <code>TableRowDefinition</code> object.</p> <p>PATCH: When the options <code>allocationRowsVisibleInActivitiesView</code> and <code>resourcesVisibleInActivitiesView</code> were both set to true, the resource rows did not show the calendar grid in the activities view.</p> <p>PATCH: When the option <code>allocationRowsVisibleInActivitiesView</code> was set to true, the allocation rows did not show the calendar grid in the activities view.</p> <p>PATCH: When one of the properties <code>SourceActivityID</code> or <code>TargetActivityID</code> of a <code>Link</code> object changed, the appropriate allocation links in the resources view were not updated.</p> <p>PATCH: When using links with entries, switching the routing type let the links disappear.</p> <p>PATCH: When using links with entries, they were invisible if consisted of a single horizontal line.</p> <p>PATCH: When using a link with orthogonal routing type, changing the property <code>TargetMarker</code> of this link from <code>None</code> to <code>FilledArrow</code>, this did not get visible.</p> <p>PATCH: The option <code>defaultLinkTargetMarker</code> did not work, so that links got filled arrows, when not setting their property <code>TargetMarker</code>.</p> <p>PATCH: When using the properties <code>TopOutsideBarText</code> or <code>BottomOutsideBarText</code> together with the <code>BarShape</code> set to <code>Symbol</code> on activity or allocation objects, the texts were not visible.</p> <p>PATCH: When setting one of the <code>defaultsValuesFor</code> options, it was not possible to set the same object again after modifications.</p> <p>PATCH: Using the property <code>CollapseStateInLoadsView</code> for resources in the loads view did not work anymore.</p> <p>PATCH: When changing the default calendar, this was not getting visible in the resources view anymore.</p> <p>PATCH: When using one of the methods <code>addWorkingTime</code> or <code>calculateWorkingTime</code> with a calendar not used in the chart until then, the results were false.</p>
Release Date	2025-07-31

8.4.4

Explanation	PATCH: When using <code>TableRowDefinition</code> objects and interactively changing the width of a column, this did not update the table rows anymore.
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Release Date	2025-07-08
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8.4.3

Explanation	<p>PATCH: When dragging a row, a no-drop cursor was shown when the target position would be the same as the current one for the row. Now the cursor is changed as dropping here would only change nothing but is not forbidden.</p> <p>PATCH: The visualization of the table header for the fixed column at the right side of the table for the curve buttons is not overpainting the column resize separator anymore and the curve expand/collapse buttons are emphasized when overpainting text within the rows.</p> <p>PATCH: Better animation for bars when collapsing or expanding rows and when options changing the row height are set.</p> <p>PATCH: The hover effect did not disappear sometimes when using allocation entries or activity entries with top offsets and/or different heights.</p> <p>PATCH: When dragging an activity row or a resource row, there is no automatic expansion of collapsed allocation rows anymore.</p> <p>PATCH: When setting one of the options for the table view width, now this also changes the table view width on screen when the option value is not changed at all, because after user interactions, the option value is not necessarily the same as the actual view width.</p> <p>PATCH: A call to the render method now will be ignored when no add, update or remove method was called before. Background here is that the unnecessary call disrupted active animations.</p> <p>PATCH: When a row was newly selected, the gray corridor visualizing EarliestDragStart and LatestDragEnd on a single selected allocation or activity bar was not disappearing (see option dragDatesShownForSingleSelectedObject).</p> <p>PATCH: Fixed exception when updating an allocation or activity object within onDrop callback.</p>
Release Date	2025-05-28

8.4.2

Explanation	PATCH: When using activity bars or allocation bars with outside texts, then the clipping did not work when using constraint symbols.
Release Date	2025-05-07

8.4.1

Explanation	<p>PATCH: When using the method saveAsPDF some links were not visible in the created PDF document.</p> <p>PATCH: Exception fixed in method updateSymbols.</p> <p>PATCH: The default color for a Font Awesome character defined by a Symbol object with InclusionMode = EmbeddingReference was unexpectedly "white" and therefore now is changed to "black". To make it easier to colorize the characters than by using a CSS class, the property Color was added to the Symbol object.</p> <p>PATCH: When using allocation bars with outside texts, then the clipping did not work when collapsing a resource row with CollapsedRowDesign including BarsInHiddenDescendantRows.</p>
Release Date	2025-05-02

8.4.0

Explanation	<p>MINOR: Now it is possible to show release date and due dates for the baseline of activities. They get visible by showing symbols besides the baseline bar below the main activity bar in the activities view. See the properties <code>BaselineDueDate</code>, <code>BaselineDueDateColor</code>, <code>BaselineDueDateSymbolID</code>, <code>BaselineReleaseDate</code>, <code>BaselineReleaseDateColor</code>, <code>BaselineReleaseDateSymbolID</code> of Activity objects.</p> <p>MINOR: Tooltips optionally now can be entered with the pointer and therefore can be used interactively without causing the tooltip to disappear. This interactivity is enabled by the new <code>IsInteractive</code> property on <code>TooltipTemplate</code> objects. Additionally, the <code>onShowTooltip</code> callback now provides a corresponding <code>isInteractive</code> property when a HTML string is provided by the application instead of a <code>TooltipTemplate</code>.</p> <p>MINOR: New properties <code>BarTopOutsideText</code> and <code>BarBottomOutsideText</code> are implemented now not only on Activity objects, but also on Allocation objects. The texts then are clipped automatically at the date where another allocation bar starts in the same horizontal position. The color of the texts can be set by using the properties <code>BarTopOutsideTextColor</code> and <code>BarBottomOutsideTextColor</code>.</p> <p>MINOR: Now it is possible to define separate tooltips for the constraint symbols, for the baseline symbols and bar, and for the outside texts of allocation and activity bars. Therefore, there are new values in the enumeration <code>VisualSubtype</code> that are used then in the callback arguments of the callback <code>onShowTooltip</code>.</p> <p>MINOR: The new options <code>barsDraggable</code> and <code>rowsDraggable</code> allow to separate enabling the drag&drop feature for bars and rows. The option <code>editable</code> exists as before and can disable both new options.</p> <p>MINOR: New property <code>TableColorVisibleInTimeArea</code> on Activity, Resource, and Skill objects. This provides an easy way to show a colored background in the time area.</p> <p>MINOR: When more symbols are to be shown in the symbol column of a row than space is available there, it was needed to click onto the "..." icon to make them visible. Now it is enough to hover the mouse cursor above the symbol column.</p> <p>MINOR: The method <code>removeAll</code> now is extended to remove all objects of more than one object type at once by providing an array with the object types.</p> <p>MINOR: New properties <code>InclusionMode</code> and <code>Class</code> on Symbol objects for support of so called "SVG symbols" in Font Awesome. Accompanying new enumeration <code>SymbolInclusionMode</code>.</p> <p>MINOR: New key word <code>#FreeCapacity</code> for tooltips by <code>TooltipTemplate</code> object shown on a curve pane.</p> <p>MINOR: The collapse and expand buttons in the table rows now have a slightly changed appearance for better comprehensibility.</p> <p>MINOR: To get more loading performance, the internal processing of calendars and period highlighters is postponed until they get visible on screen now.</p> <p>PATCH: The border width and border color of activity bars and allocation bars did not work as expected anymore.</p> <p>PATCH: When using the value <code>Symbol</code> as the bar shape type, the symbol did not get the appropriate height and width as described in this document. Additionally, now a diamond symbol is shown when no symbol ID is defined by the application.</p> <p>PATCH: When setting the option <code>releaseDueDateConnectionsVisible</code> was set at initiation of the widget, the table view width shrank to zero.</p> <p>PATCH: When dragging the release date symbol or due date symbol of an activity bar while the option <code>releaseDueDateConnectionsVisible</code> was set to true, the connection line was visible and not updated.</p> <p>PATCH: Setting the properties <code>Status4Visible</code> and <code>BarTextPrefixSymbolID</code> on Activity or Allocation objects did not work when used at the same time.</p>
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	<p>PATCH: The callback onCloseContextMenu now is triggered also, when the time resolution changes e.g. by stretching it using the mouse wheel on the timescale.</p> <p>PATCH: Predefined groups of an active HierarchyLevelSupplementaryDefinition were not shown, when no row objects (activities, resources, or entities) exist.</p> <p>PATCH: When resizing a table column interactively, the mouse cursor and the hover effect on the column headers flickered.</p>
Release Date	2025-04-25
See also	

8.3.7

Explanation	<p>PATCH: Fixed issue for tooltips not updating when two bars lie next to each other.</p> <p>PATCH: Fixed issue of missing update to row heights when changing the options start and end when bars got visible or invisible inside the new time range.</p> <p>PATCH: Exception fixed in call to method removeAll(ObjectType.Link), when world view was visible.</p> <p>PATCH: Adaption of row heights was missing when adding the calendars after adding resources and allocations, while the option nonworkingTimeVisible was set to false.</p> <p>PATCH: When updating a data object represented by a bar that is currently hovered, the tooltip did not disappear if necessary.</p> <p>PATCH: The callbacks onClicked, onDoubleClicked, onShowContextMenu, and onShowTooltip did not contain the property symbolID for bar symbols.</p> <p>PATCH: When using row drag&drop by dragging the last row in the chart downwards, now the dragged row object is put one level above or when the Shift key is pressed, to the topmost level, when the allowed row drag modes do not give restrictions.</p>
Release Date	2025-xx-xx

8.3.6

Explanation	PATCH: Fixed exception when using a promise in callback handler for canDrag without using an argument when resolving the promise.
Release Date	2025-03-19

8.3.5

Explanation	PATCH: Fixed exception when calling one of the methods updateActivities, removeActivities, updateAllocations, removeAllocations before the first call of the method render.
Release Date	2025-03-17

8.3.4

Explanation	Unofficial release.
Release Date	2025-02-13

8.3.3

Explanation	<p>PATCH: When changing the time resolution, then links outside of the currently visible part of the chart sometimes were not re-routed at all.</p> <p>PATCH: Using the method saveAsPDF did not show bar symbols correctly in size and position anymore since version 8.3.0.</p> <p>PATCH: When using one of the methods updateActivities or updateAllocations while dragging an activity bar or allocation bar, resp., the bar at the original position was not shown half-transparent anymore.</p> <p>PATCH: Links starting or ending at a bar with a symbol or diamond bar shape did not route perfectly.</p> <p>PATCH: When dragging an activity bar, the callback onDrag was not triggered under some circumstances.</p> <p>PATCH: When dragging a bar vertically, sometimes there was an exception inside the code showing the tooltip.</p> <p>PATCH: When using one of the methods selectObjects or highlightObjects before the first call to render, they showed no effect.</p> <p>PATCH: The option dateLineGridMode with value Auto did not work correctly together with the option nonworkingTimesVisible set to false.</p> <p>PATCH: When dragging a bar horizontally in the first row, then the shown start date was clipped and therefore not readable. Now the start date is placed below the bar in this case.</p>
Release Date	2025-02-12

8.3.2

Explanation	<p>PATCH: Fixed exception when clicking using the secondary mouse button into the empty time area below all rows.</p> <p>PATCH: Fixed exception when the options start or end are changed so that bars get out of sight.</p> <p>PATCH: Fixed number of tick descriptions on numeric scales of curve panes.</p> <p>PATCH: Fixed color of curve expand/collapse button to the same color as the other collapse/expand buttons.</p> <p>PATCH: The method determineObjectByPageCoordinates now provides the date in the returned object also when a bar is targeted.</p>
Release Date	2025-01-08

8.3.1

Explanation	<p>PATCH: When using a wrap mode in table cells, some text lines could be shown partly below the cell in the last row within the chart.</p> <p>PATCH: Sometimes the navigation buttons in the timescale remained visible although no further reduction of the time resolution was possible.</p> <p>PATCH: The ZIP file created by the option loggingEnabled now contains a modification date and time for the included file.</p> <p>PATCH: Fixed two issues when using the method processOnDrop: one when dragging rows between the view areas and one when dragging bars while ignoring the calendar for this interaction.</p> <p>PATCH: Fixed an exception when starting to drag a selected bar after deleting another selected bar and the option multipleBarDraggingEnabled is true.</p>
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	<p>PATCH: Fixed an exception when selecting an object using the Ctrl key additionally after deleting another selected object.</p> <p>PATCH: The text color and the background color of the numerical scale were false when using color settings in the appropriate TableRowDefinition object.</p> <p>PATCH: When expanding a parent row in the Loads view for the second time, the time areas of all affected rows showed an artifact during the animation.</p>
Release Date	2024-12-06

8.3.0

Explanation	<p>MINOR: New possibility to show date lines when hovering with the pointer over an activity or allocation bar. These date lines then are not shown when not hovering over a bar. The application can provide one single date line object that then is shown on several bars by referencing the properties of the appropriate data object:</p> <ul style="list-style-type: none"> • New property AttachedDateLineIDs for Activity and Allocation objects. • New properties AppearanceType, CaptionFormat, CaptionColorSource, ColorSource, WidthSource, and DashArraySource for DateLine objects. • New options defaultActivityAttachedDateLineIDs and defaultAllocationAttachedDateLineIDs. • New enumeration DateLineAppearanceType. <p>MINOR: New possibility to select the view types where a date line is shown:</p> <ul style="list-style-type: none"> • New property IsVisibleInViewTypes for DateLine objects. • New enumeration ViewTypesForDateLines. <p>MINOR: The option barSortModeForOptimizedRowDesign now is refined as options activityBarSortModeForStackedRowDesign and allocationBarSortModeForStackedRowDesign. The sort mode can now be defined for activity bars and allocation bars separately. The old option now is deprecated but working for compatibility reasons.</p> <p>MINOR: Now texts can be shown outside the bar rectangle of activity bars:</p> <ul style="list-style-type: none"> • New properties BarBottomOutsideText and BarTopOutsideText for Activity objects. • Accompanying new properties BarBottomOutsideTextColor and BarTopOutsideTextColor. <p>MINOR: New property AllocationRowsCollapsibleInActivitiesView for Resource object. This helps to define the visibility of the collapse button separately in resources view and activities view.</p> <p>MINOR: New property BarShownUnstackedInBackground for Allocation objects. This serves for showing bars that are eventually already finished in the background with a dimmed design to clarify the resource usage.</p> <p>MINOR: Now there is also a hovering effect on links.</p> <p>MINOR: Captions and the symbols of date lines are again remaining visible when the view is scrolled vertically. This feature was lost beginning with version 8.1.0.</p> <p>MINOR: Log files now can be written as ZIP files directly. See new option loggingFileCompressionEnabled.</p> <p>MINOR: New option automaticDestroyingOnDOMNodeRemoved for detecting the removal of the DIV element containing the widget from DOM automatically and in this case destroying it.</p> <p>MINOR: The new enumeration named Locale that contains all known locales is now available for convenience. Since the values are the known strings already used before for the options locale and language, there is no incompatibility.</p> <p>MINOR: Extended warning codes in enumeration WarningCode:</p>
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	<ul style="list-style-type: none"> • New value EmptyArrayOnAddUpdateRemove ("W1004") when providing an empty array when calling an add, update, or remove method. • New value MissingCallToRenderMethod ("W1103") for a missing call to the render method. • New value ParameterValueIncorrect ("W1104") when a parameter value is incorrect in a method call. • New value OptionValueIncorrect ("W1105") when a value is incorrect when setting an option. • New value RelatedIDUnknown ("W2000") when an ID to a related object is unknown when calling an add, update, remove, or render method. <p>PATCH: Internally, the usage of a small code passage written by John Resig to implement a class-like behavior for JavaScript ES5 now was replaced by usage of JavaScript ES6 classes. Therefore, now we do not embed any 3rd party code into our library files anymore.</p> <p>PATCH: Under some circumstances calendar entries were not parsed correctly into the internal flat representation of the calendar timeline, especially when the entries were not ordered with ascending start times.</p> <p>PATCH: When instantiating the widget using the option nonworkingTimesVisible with value false and at least one of the callback options beginning with compare... representing rows in the current view type, it was possible that the rows were not high enough for showing the bars in full height.</p> <p>PATCH: Zero-width bars were not hoverable or draggable anymore.</p> <p>PATCH: Fixed exception when using unknown symbol IDs within format templates were addressed by {{@symbolID}}.</p> <p>PATCH: The PDF document generated by calling the method saveAsPDF did not contain bars anymore when the option asynchronousRendering was set to true.</p> <p>PATCH: The date shown at the mouse cursor of the cursor date line was not positioned correctly, when the view was shown scrolled far down vertically.</p> <p>PATCH: Now a bar represented by a symbol only (see enumeration value Symbol for enumeration and property BarShape on Allocation and Activity objects) is respected by bar stacking (see properties CollapsedRowDesign and ExpandedRowDesign in Activity, Resource, and Skill objects)</p> <p>NOTE: Documentation and Sample App now mention or use the newest versions of 3rd party libraries.</p>
Release Date	2024-11-13
See also	

8.2.3

Explanation	<p>PATCH: The option barSortModeForOptimizedRowDesign did not work correctly if the option allocationRowSortMode was used with a value other than "none" and no compareObjects callback was set.</p> <p>PATCH: When the chart width exceeded 100,000 pixels (caused by a fine time resolution) and then the time resolution was reduced so that the chart width became lower than 100,000 pixels, then sometimes content of the time area near the end of the time range was not shown.</p> <p>PATCH: When using the option visualZoomFactor with a value unequal to 1, then the callback onShowTooltip was triggered on curves with false values for the date and in the properties load, capacity, and singleLoads.</p> <p>PATCH: When using the option asynchronousInteractiveTimeAreaStretching and actively stretching the time area by using the mouse wheel, the final update on the time area was missing, when clicking into the timescale in between.</p>
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	PATCH: When instantiating the widget using the option <code>nonworkingTimesVisible</code> with value <code>false</code> and at least one of the callback options beginning with <code>compare...</code> representing rows in the current view type, it was possible that the rows were not high enough for showing the bars in full height.
Release Date	2024-09-26

8.2.2

Explanation	<p>PATCH: Now the properties <code>symbolIndex</code> and <code>symbolID</code> of the callback args object are set consistently on the callbacks <code>onClicked</code>, <code>onDoubleClicked</code>, <code>onShowContextMenu</code>, and <code>onShowTooltip</code>.</p> <p>PATCH: Symbols shown in the extended view in the symbol column of table rows now trigger the callback <code>onShowContextMenu</code>.</p> <p>PATCH: When switching the visibility of the main view area or the top view area, date lines now remain draggable again.</p> <p>PATCH: Bars were not clipped on the left table when dragging bars horizontally.</p> <p>PATCH: After zooming out the timescale by using the arrow button, it was not possible anymore to pan the timescale.</p> <p>PATCH: Internal exception fixed that occurred when clicking/pressing the timescale for showing a context menu.</p>
Release Date	2024-09-03

8.2.1

Explanation	<p>MINOR: New warning with code <code>W1102</code> when the widget is used without jQuery wrapper and is not destroyed before instantiating it anew on the same container element.</p> <p>PATCH: The selection frame for table rows now works again when the table is scrolled horizontally.</p> <p>PATCH: Zooming out using the Up button in the timescale now works again perfectly also when the time is stretched very wide.</p> <p>PATCH: When using Auto mode in Option.dateLineGridMode the grid now scrolls horizontally correct again.</p> <p>PATCH: The caption on a cursor date line and on date lines shown when dragging a bar now is visible again also when the chart is scrolled vertically.</p> <p>PATCH: A bar shown toned down (see Allocation.BarDesign and Activity.BarDesign) was shown with full intensity when the data object was updated.</p> <p>PATCH: When resizing an <code><iframe></code> DOM object, it could happen that the table view shrunk to size 0.</p> <p>PATCH: When using symbols in the table title together with a fixed table title text (see Option.titleText and Option.entitiesTitleText), the symbols got scrolled horizontally when scrolling the appropriate table horizontally.</p> <p>PATCH: Dragging a bar vertically outside the time area containing rows now is not allowed anymore.</p> <p>PATCH: Now the mouse cursor is changed to a hand when hovering the mouse pointer over a clickable symbol, over a sortable table column title, over the timescale. This is for unifying the UI because the hand was already shown when hovering over an expand/collapse button.</p> <p>PATCH: Changing the option <code>activityHierarchySupplementaryDefinition</code> did not update the chart.</p> <p>PATCH: Additionally changing the property <code>RowMinimumHeight</code> of a <code>GroupingLevelDefinition</code> and subsequent call to</p>
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	<p>updateHierarchySupplementaryDefinitions did not update the chart when the HierarchySupplementaryDefinition object was used in one of the appropriate options and therefore active.</p> <p>PATCH: Repaired cursor when dragging an entity row.</p> <p>PATCH: No cancelation of dragging mode anymore when dragging a row and entering a target row that does not allow dragging.</p> <p>PATCH: No dragging of allocation bars was possible after changing the option resourcesVisibleInActivitiesView to true.</p> <p>PATCH: The drag mode DragSmartHorOrVer did not work for dragging multiple bars at once.</p> <p>PATCH: Sometimes the horizontal separation line below the last row in the chart was not positioned correctly after expanding a row or after modifying the data objects for the currently visible rows.</p>
Release Date	2024-08-05

8.2.0

Explanation	<p>MINOR: Visualization of a link now also, when source bar or target bar do not exist. See option Option.linksWithDanglingStartOrEndVisible.</p> <p>MINOR: Hover effects unified for several graphical objects:</p> <ul style="list-style-type: none"> • Clickable symbols in the symbol column of a table (see also properties ClickableInTable and ClickableInEntitiesTable for Symbol objects) • Buttons for collapsing/expanding child rows • Table column headers when sorting can be switched interactively • Splitters • Timescale ribbon cells and navigation buttons in the timescale • Bars • Draggable date lines • Cursors on table rows for row dragging now follow the same schema as for bar dragging. <p>MINOR: New property TooltipTemplateID for Symbol objects for showing own context-specific tooltips on symbols.</p> <p>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.</p> <p>PATCH: When collapsing and expanding a row with bars in child rows with a time distance under the animation duration, then the bars vanished.</p> <p>PATCH: When changing from a very detailed 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> <p>PATCH: When using onCurveCollapseStateChanged with a Promise, then all curve collapse/expand buttons could only be pressed once (since version 8.1.0).</p>
Release Date	2024-07-05
See also	

8.1.4

Explanation	<p>PATCH: Now the option <code>multipleSelectionEnabled</code> with value 0 is supported again (issue since version 8.1.0).</p> <p>PATCH: When selecting bars by dragging a rectangle with the mouse while some rows are filtered out, eventually selection frames of bars were shown.</p>
Release Date	2024-06-25

8.1.3

Explanation	PATCH: Fixed long-running loop when using option <code>dateLineCaptionOptimizedPositioningEnabled</code> set to true in Firefox.
Release Date	2024-05-27

8.1.2

Explanation	<p>PATCH: Fixed exception when dragging a selected bar while another selected bar was not visible due to a collapsed row.</p> <p>PATCH: Fixed exception when dragging an allocation bar vertically with property <code>SuitableResourceIDs</code> set.</p> <p>PATCH: Fixed exception when a curve with no points was used in a curve stack.</p>
Release Date	2024-05-22

8.1.1

Explanation	<p>PATCH: Fixed exception in PDF export.</p> <p>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.</p> <p>PATCH: When the chart exceeded 100.000 pixels in horizontal direction, the selection rectangle for selecting bars using mouse dragging was not visible.</p> <p>PATCH: When switching top view area on, draggable date line were not shown fully.</p> <p>PATCH: When dragging an entity into the time area, the vertical scroll offset of that was not considered for the shown bar phantom.</p>
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>
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	<ul style="list-style-type: none"> • PATCH: Renamed options to better fit the naming schema (old names are allowed to use but deprecated): • defaultLoadCurvePaneHeight -> defaultResourceLoadCurvePaneHeight • defaultLoadCurvePaneColor -> defaultResourceLoadCurvePaneColor • MINOR: New options curvePanelsResizable, minimumLoadCurvePaneHeight, maximumLoadCurvePaneHeight. • MINOR: New Resource property LoadCurvePaneHeight. • MINOR: New callback onCurvePaneResized. <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>
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	<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 activityBaselineBarsVisible, defaultValuesForAllocationEntryProperties, and defaultActivityBarDesign.</p> <p>PATCH: In activities view with shown resources (see Option.resourcesVisibleInActivitiesView) curves now are not shown any longer on activity rows (see Option.curvePanelsVisibleInActivitiesView).</p>
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	<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 callbackArgs of callbacks onDrag and onDrop by missing properties newSkillID or newActivityID, resp., when the view contains multiplied objects.</p> <p>PATCH: Fixed issues when using SuitableResourceIDs in SkilledResourcesView.</p> <p>PATCH: Fixed issues when using SuitableResourceIDs and/or SuitableActivityIDs in ActivitiesView with option resourcesVisibleInActivitiesView set to true.</p> <p>PATCH: Fixed issues when dragging allocation bars with drag mode DragSmartHorOrVer and additionally using SuitableResourceIDs and/or SuitableActivityIDs.</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 start or end 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 topViewAreaVisible and mainViewAreaVisible.</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 start.</p> <p>PATCH: Fixed missing scrollbars on macOS. 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.</p>
Release Date	2024-01-12

8.0.0

Explanation	<p>MAJOR: Library dependencies reduced:</p> <ul style="list-style-type: none"> MAJOR, BREAKING CHANGE: Only a breaking change, when using AMD (e.g. by using Require.js): The dependency for the library D3.js is now refined to request only some specific sub-libraries (see chapter “System Requirements”). Additionally, the minimum supported version of D3.js now is 6.0.0. MINOR: No inclusion of parts of core.js and polyfill-library anymore. <p>MAJOR, BREAKING CHANGE: When the property AllocationRowsCollapseState on activity or resource objects is not set or set to -1 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>MINOR: Now it is possible to use the widget without jQuery and jQuery UI and therefore they are no dependencies to these libraries anymore.</p> <p>MINOR: Now it is possible to group allocation rows in activities view by the assigned resources:</p> <ul style="list-style-type: none"> MINOR: New options Option.resourcesVisibleInActivitiesView, Option.allocationBarDesignOfOtherActivity, Option.defaultResourceTableRowDefinitionIDInActivitiesView. MINOR: New method Method.setResourcePropertiesForActivities. MINOR: New property Resource.AllocationRowsCollapseStateInActivitiesView. MINOR: New row sort mode for allocations and activities that sorts the rows by ascending start date, see Option.activityRowSortMode, Option.allocationRowSortMode, Enum.RowSortMode. <p>MINOR: For coloring links partition-wise, there is a new property in Link object Link.Entries and the new object type ObjectType.LinkEntry.</p>
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	<p>MINOR: A new bar drag mode named DragSmartHorOrVer (see Enum.BarDragModes) 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"> MINOR: New property Skill.CollapsedRowDesign for skill objects. MINOR: New Option.defaultSkillCollapsedRowDesign. <p>MINOR: New Option.finishedAllocationBarsShownUnstackedInBackground.</p> <p>MINOR: New Option.linksWithDanglingStartOrEndVisible.</p> <p>MINOR: New Option.tableColumnSeparatorColor and Option.entitiesTableColumnSeparatorColor 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 TooltipTemplate.HTMLFormat property of the <code>TooltipTemplate</code> object.</p> <p>MINOR: New Option.allocationSelectableOnlyOnOneResourceAtATime.</p> <p>MINOR: New property TableCellDefinition.VerticalAlignment for <code>TableCellDefinition</code> objects.</p> <p>MINOR: Simplification of API:</p> <ul style="list-style-type: none"> MINOR: The enumeration Enum.BarDragModes replaces <code>ActivityBarDragModes</code> and <code>AllocationBarDragModes</code>. MINOR: The enumeration Enum.BarShape replaces <code>ActivityBarShape</code> and <code>AllocationBarShape</code>. MINOR: The callbackArgs parameter <code>scrollOffset</code> in Callback.onTimeAreaViewParametersChanged was renamed to <code>horizontalScrollOffset</code>. <code>scrollOffset</code> is deprecated now. <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 <code>visibilityFilterFor...</code> and <code>compare...</code></p> <p>PATCH: Fixed issue of impossible row insertion position as previous sibling on row drag & drop.</p> <p>PATCH: Fixed unhandled promise rejection within method <code>fitTimeAreaIntoView</code> with <code>start > end</code>.</p> <p>PATCH: Fixed missing rendering of links when time area was stretched asynchronously.</p> <p>PATCH: Fixed exception in method <code>scrollToObject</code> 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"> • new callback options compareSkills and visibilityFilterForSkills • new options skillRowSortPropertyName, skillRowSortMode, defaultSkillAllowedRowDragModes, mainViewAreaVisibleInSkilledResourcesView, topViewAreaVisibleInSkilledResourcesView • new Skill object properties SortCode, TableColorVisibleInTimeArea, ViewArea • new property SortCode for objects used in method setResourcePropertiesForSkills. <p>MINOR: New options, properties, and enumerations for completion of row dragging:</p> <ul style="list-style-type: none"> • new options defaultAllocationAllowedRowDragModes and defaultAllocationAllowedRowDragModesInActivitiesView • new Allocation object properties AllowedRowDragModes and AllowedRowDragModesInActivitiesView • new value DragInSameTableParentOnly for enumeration RowDragModes. <p>MINOR: The callback onDrag now allows to return a Promise object to determine the value of the property dropAllowed asynchronously.</p> <p>MINOR: The callback onDrop now provides information about the new start and end dates of entries when dragging activity bars or allocation bars.</p>
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	<p>MINOR: The new method processOnDrop 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 setCollapseStatesForRows and setCollapseStatesForEntityRows.</p> <p>PATCH: Options defaultResourceMinimumRowHeight, defaultSkillMinimumRowHeight, and defaultSkillRowCollapsible did not work in skilled resources view.</p> <p>PATCH: Methods serializeCollapseStates and deserializeCollapseStates 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 Status1Color and Status1Visible on allocation bars and activity bars now is fixed in height to be the same as the bottom of the circle drawn by properties Status3Color/Status3Visible. Background: Beginning with version 8.0.0 it was stretched to the height of bar, while the height was taken from options defaultAllocationBarHeight or defaultActivityBarHeight, resp., in previous versions.</p> <p>PATCH: Options defaultSkilledAllocationBarTooltipTemplateID and defaultSkilledAllocationRowTooltipTemplateID 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 BarDesign of Allocation and Activity objects and flag BarDesigns.ReducedHeight).</p>
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7.0.0

Explanation	<p>MAJOR: New view type SkilledResourcesView:</p> <ul style="list-style-type: none"> • New object type Skill, new methods add/update/removeSkills and setResourcePropertiesForSkills, new enum value Skill for ObjectType, new 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.
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- 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.

MINOR: Possibility to switch off complexity of bars for gaining performance:

- New options defaultActivityBarDesign, defaultAllocationBarDesign, tonedDownOverlayColor, reducedBarTopOffsetAndHeightScaleFactor.
- New property BarDesign on Activity and Allocation objects.
- New enumeration BarDesigns.

MINOR: More flexibility for showing text:

- New option application Variables Map for flexible replacements in formatted text.

	<ul style="list-style-type: none"> • New options intlDateTimeFormatOptionsMap and intlNumberFormatOptionsMap for flexible formatting of dates and numbers. • New property TextFormat for TableCellDefinition objects. • New property BarTextFormat for Activity and Allocation objects. New options defaultActivity/AllocationBarTextFormat. • (Property InnerHTML of TooltipTemplate objects renamed to HTMLFormat.) • New formatting options for property HTMLFormat of TooltipTemplate objects. • 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). <p>MINOR: Extended graphical representation:</p> <ul style="list-style-type: none"> • New property TableColorVisibleInTimeArea for the GroupingLevelDefinition object. • New option separationLinesInColoredIndentation. • New properties SymbolHeight and SymbolWidth for TableCellDefinition objects. • New option applicationStyleDefinition e.g. for defining CSS variables. • 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. • New option defaultLoadCurvePaneHeight and Resource property LoadCurvePaneHeight. <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>
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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 >SourceAllocation and >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> <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>
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	PATCH: The output parameter allowedDragModes of callback canDrag did not work fully.
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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 & 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> <p>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.</p>
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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"> • New options pm_defaultActivity/ResourceAllowedRowDragModes. • 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). • New property PM_AllowedRowDragModes in Activity and Resource objects. • New enum values DragVertically and DragOnSameLevelOnly for RowDragModes. • New properties in callbackArgs when callbacks onDrag and onDrop are triggered. Furthermore, for this now exists the new enum RowInsertionMode. • Precalculation of sort code value when sort mode is set to be ascending (see new options activity/entity/resourceRowSortMode). <p>MINOR: Sorting now also is possible by using a definable property in objects instead of implementing an appropriate compare callback:</p>
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- New options activity/allocation/entity/resourceRowSortCodePropertyName and activity/allocation/entity/resourceRowSortMode.
- New enum RowSortMode.
- New property PM_SortCode for Activity/Allocation/Entity/Resource objects serving as default property for new options above.

MINOR: New property PM_BorderDashArray of Activity and Allocation objects.

MINOR: New callback options visibilityFilterForActivities/Allocations/Resources/Entities. These ones replace the now deprecated option visibilityFilter for performance reasons.

MINOR: New callback options compareActivities/Allocations/Resources/Entities. These ones replace the now deprecated option compareObjects for performance reasons.

MINOR: New options defaultValuesForObjectProperties with *Object* standing for Activity, ActivityEntry, Allocation, AllocationEntry, Entity, Link, Resource.

MINOR: New property entitiesTableViewWidth for callback onTimeAreaViewParameters-Changed.

MINOR: New option loggingVerboseLevel.

MINOR: New property commandCounter for callbacks onLogWarning and onLogError.

MINOR: Symbols on date lines are now also placed optimized. See option pm_dateLineCaptionOptimizedPositioningEnabled.

MINOR: Automatic recognition of duplicate IDs and cycles in hierarchy when using ParentIDs on adding or updating objects, see callback options onLogWarning and onLogError.

PATCH: Fixed issues with cursor icon when hovering draggable splitters, column separators, and date lines.

PATCH: Fixed internal exception after calling method saveAsPDF.

6.2.8

Explanation

PATCH: Fixed missing tooltips on curves when using Firefox (since 7.5.3).

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).

PATCH: It was impossible to gain keyboard focus when using Firefox and clicking or tapping into widget element (since 7.5.3).

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.

PATCH: Dragging of bars was not always possible when using a hatch pattern.

PATCH: The callback onShowContextMenu was not triggered on period highlighter entries.

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.

PATCH: When showing allocation rows in activities view, selecting bars by drawing a rectangle optically selected activity and allocation bars.

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.

PATCH: When dragging entities into the time area with options timeStepUnit and timeStepUnitFactor set to coarser values, then the calendar was not continuously considered.

PATCH: Dragging bars with option timeStepUnit set to "year" did not work at all.

PATCH: Option pm_barSortModeForOptimizedRowDesign did not work.

PATCH: When changing option pm_bottomRowMarginInTimeArea, row heights were not updated concerning a currently visible curve pane.

	<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> <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>
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	<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 you can change the setting “Always show scrollbars” in System Preferences > Accessibility > Visual Effects.</p>
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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>
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Additionally: This reference guide now shows small class diagrams for each data object type.

6.2.0

Explanation

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.)

MINOR: New option pm_dateLineCaptionOptimizedPositioningEnabled.

MINOR: New property PredefinedGroups for HierachyLevelSupplementaryDefinition objects.

MINOR: Renaming of the following properties in GroupingLevelDefinition objects for alignment with a fallback to the older property names:

- CodeToTextMap to GroupingCodeToTextMap,
- CodeSource to GroupingCodeSource,
- TableBackgroundColor to TableColor.

MINOR: New properties ScaleMinimumValue and ScaleMaximumValue for Curve objects.

MINOR: New option pm_linesShownInLoadCurvePanels.

MINOR: New property SuitableResourceIDs for Entity objects and new property SuitableActivityIDs for Allocation and Entity objects.

MINOR: New callbacks onLogError and onLogWarning.

PATCH: Fixed positioning when dragging a date line or the vertical splitter and the option visualZoomFactor was set to value unequal to 1.

PATCH: When saving a PDF document, symbols shown at the top of date lines were not exported.

PATCH: More performance when updating activity objects.

Additionally: The Sample App now contains an example for a PDF options dialog.

Additionally: The Sample App now references current versions of 3rd party libraries.

6.1.11

Explanation

PATCH: The world view sometimes was scaled to high, so that the view rectangles were not visible fully.

PATCH: When an active HierarchySupplementaryDefinition object was updated the changes did not get visible in the entities.

PATCH: The mouse cursor changed too often on allocation bars with allocation entries since version 6.1.10.

6.1.10

Explanation

PATCH: When dragging allocation bars horizontally erroneously the dragMode property in callback onDrop had flag DragVertically switched on.

PATCH: A defined symbol on a date line was invisible when either width or height left undefined.

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>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_symbolColumnTitleSymbolIDs 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> <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	<p>PATCH: Fixed missing triggering of callbacks onShowTooltip, onClicked, and onDoubleClicked when visualType is PeriodHighlighter and mouse cursor is on allocation rows.</p>
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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 cellIndex was missing in callback onShowTooltip at least for table rows representing entities.</p> <p>PATCH: Fixed missing update of allocation rows in activities view after updating PeriodHighlighter objects.</p> <p>PATCH: Time axis could not be shrinked 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 Entries for Activity objects and new object type ActivityEntry.</p> <p>MINOR: New options defaultUpdateMode and resetValueForDifferentialUpdate. New value for enumeration UpdateModes.</p> <p>MINOR: New option pm_timescaleInteractionMode.</p> <p>MINOR: New property DefaultCode for GroupingLevelDefinition objects.</p> <p>MINOR: New option pm_resourceHierarchySupplementaryDefinitionIDInLoadsView.</p>
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	<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 <code>onShowTooltip</code> and <code>onShowContextMenu</code> working again.</p>
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	<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 <code>compareObjects</code> using the same Function object.</p> <p>PATCH: Callback <code>onVerticalScrollOffsetChanged</code> now also works correctly when grouping is used.</p>
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6.0.1

Explanation	<p>PATCH: Missing parameter “date” in <code>onClicked</code> 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 <code>PM_ViewArea</code> 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"> • New objects <code>HierarchySupplementaryDefinition</code>, <code>HierarchyLevelSupplementaryDefinition</code>, <code>GroupingLevelDefinition</code> to specify grouping. • New options <code>pm_activity/resource/entityHierarchySupplementaryDefinitionID</code> to specify the active hierarchy supplementary definition object for additional grouping of activity/resource/entity objects appearing as rows in the appropriate table. • New parameters for callbacks <code>onClicked</code>, <code>onDoubleClicked</code>, <code>onShowContextMenu</code>, <code>onShowTooltip</code>, <code>compareObjects</code> when grouping rows are affected. • New callback <code>determineGroupingCode</code> to specify grouping information. <p>MINOR: New method <code>highlightObjects</code> and therefore renamed options <code>pm_scrollToObjectHighlightingColor</code> to <code>pm_objectHighlightingColor</code> and <code>pm_scrollToObjectHighlightFlashingEnabled</code> to <code>pm_objectHighlightFlashingEnabled</code>.</p> <p>MINOR: New bar shape named <code>Symbol</code> for allocation and activity bars:</p> <ul style="list-style-type: none"> • New enum value named <code>Symbol</code> in enumerations <code>AllocationBarShape</code> and <code>ActivityBarShape</code> used in property <code>PM_BarShape</code> of allocation and activity objects. • New properties <code>PM_BarShapeSymbolID</code> and <code>PM_BarShapeSymbolWidth</code> for allocation and activity objects. <p>MINOR: The bar shape named <code>Diamond</code> now is usable additionally for allocation bars.</p> <p>MINOR: To improve a more compact layout optionally there are new options <code>pm_allocation/activityBarTopOffsetAndHeightScaleFactor</code>, <code>pm_entitiesTableCellContentTopOffset</code>, <code>pm_tableCellContentTopOffset</code>, <code>pm_tableTitleAndTimescaleHeight</code>, <code>pm_entitiesTableTitleHeight</code>, <code>pm_progressBarHeight</code>.</p> <p>MINOR: New options <code>treeVisualizationMode</code>, <code>pm_treeViewLineColor/DashArray</code>, <code>entitiesTableTreeVisualizationMode</code>, <code>pm_entitiesTableTreeViewLineColor/DashArray</code> and new enumeration <code>TreeVisualizationMode</code>.</p> <p>MINOR: New property <code>PM_StrokeDashArray</code> for Curve objects.</p>
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MINOR: New option pm_barSortModeForOptimizedRowDesign, new enumeration BarSortMode.

MINOR: New option pm_clickCallbackTriggeringOnRowInTimeArea.

MINOR: New property promise for callbackArgs object in callback onShowTooltip.

MINOR: New options pm_symbolColumnTitleBackgroundColor and pm_entitiesTableSymbolColumnTitleBackgroundColor.

MINOR: New property PM_RowSymbolColumnBackgroundColor for Activity, Allocation, Entity, and Resource objects and new property SymbolColumnBackgroundColor for TableRowDefinition objects.

MINOR: Options pm_top/mainViewAreaVisible for resources view extended to pm_top/mainViewAreaVisibleInActivities/Loads/ResourcesView to cover activities view and loads view additionally.

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> <p>PATCH: In case where allocation rows are visible in resources view, collapsing a resource row did not lead allocation links disappear where needed.</p>
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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	<p>PATCH: Fixes issue for not showing about dialog anymore when pressing Shift+Ctrl+Alt+F12 since 5.3.1.</p>
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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> <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>
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5.2.12

Explanation	<p>PATCH: Fixed performance issue for removeAll(ObjectType.Resource) again and additionally removeAll(ObjectType.Allocation).</p>
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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	<p>PATCH: Issue fixed for callback onShowContextMenu.</p> <p>PATCH: Issue fixed for callback visibilityFilter.</p>
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5.2.6

Explanation	<p>PATCH: Issue fixed concerning the callback visibilityFilter used with allocation. Additionally setting the filter did not re-render the widget content.</p> <p>PATCH: The callback arguments for the callbacks onClicked, onDoubleClicked, onShowContextMenu did not contain the property cellIndex when called for a table row.</p>
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5.2.5

Explanation	<p>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.</p> <p>PATCH: Fixed issue with option visibilityFilter not being called immediately when set (issue was existent since 4.0.0).</p>
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5.2.4

Explanation	<p>PATCH: Supplemented missing property tableViewWidth in onTimeAreaViewParametersChanged callback.</p> <p>PATCH: In some situations, the allocation bar was not vanishing on the source row in resources view after dragging vertically to another row.</p> <p>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.</p> <p>PATCH: Fixed hanging issue when updating resource objects or period highlighters within drag & drop interaction of allocation bars.</p>
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5.2.3

Explanation	<p>PATCH: Property PM_HasAllocationRows for Resource objects was missing in code and documentation.</p> <p>PATCH: Option pm_defaultResourceAllocationRowsCollapsible was missing in code and documentation.</p> <p>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.</p> <p>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.</p>
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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>
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PATCH: Fixed false property value false of property newRowObjectIsSuitableResource in onDrag callbacks.

PATCH: The method selectObjects did not work for allocation bars anymore.

PATCH: Symbols and status fields on bars now are stabilized in z-order also concerning the texts in the bars.

PATCH: Enumeration ObjectType now is correctly documented.

5.1.x

Explanation

MINOR: Now additional dates on allocation and activities can be defined either as link source or link target:

- New properties LinkSourceDate/LinkTargetDate on activity and allocation objects.
- New values for property RelationType on link objects: SourceDateStart, SourceDateEnd, EndTargetDate, StartTargetDate, SourceDateTargetDate.

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.

MINOR: New property PM_TooltipTemplateID on PeriodHighlighterEntry objects.

MINOR: New option firstDayOfWeek.

MINOR: New options to specify default tooltip templates: pm_defaultActivityBar/RowTooltipTemplateID, pm_defaultAllocationBar/RowTooltipTemplateID, pm_defaultEntityRowTooltipTemplateID, pm_defaultLinkTooltipTemplateID, pm_defaultPeriodHighlighterEntryTooltipTemplateID, pm_defaultResourceRow/CurveTooltipTemplateID.

MINOR: New enumeration RelationType for links.

MINOR (is a MAJOR change when updating from 5.1.0): New properties start/endPropertyName in callbackArgs of callbacks canDrag, onDragStart, onDrag, onDragEnd, onDrop.

PATCH: Fixed performance issue that was existent since 5.1.0 because of implementation of allocation rows when using links.

PATCH: Fixed issues with tooltip template markup using keywords beginning with #, and concerning date formatting.

PATCH: Fixed issue concerning eventually false week numbering in timescale.

PATCH: Fixed issue in world view that occurred under certain circumstances when changing time resolution in main view.

PATCH: Fixed issues concerning graphical links and missing animations after updating the data model.

5.1.0

Explanation

MINOR: Now it is possible to show allocations in own rows also in the resources view using the new option pm_allocationRowsVisibleInResourcesView.

MINOR: Symbols shown for properties ReleaseDate and DueDate on Activity objects are now specifiable and draggable:

- New properties PM_ReleaseDateAllowedDragModes, PM_ReleaseDateSymbolHeight, PM_ReleaseDateSymbolID, and PM_ReleaseDateSymbolWidth for the release date.
- New properties PM_DueDateAllowedDragModes, PM_DueDateSymbolHeight, PM_DueDateSymbolID, and PM_DueDateSymbolWidth for the due date.

	<ul style="list-style-type: none"> New property propNames in callbackArgs of callback onDrop. See MAJOR change in 5.2.0 to properties startPropertyName and endPropertyName. <p>MINOR: New properties Background/TextColor on TableRowDefinition objects.</p> <p>MINOR: New argument cellIndex at callbacks onClicked and onDoubleClicked.</p> <p>MINOR: New methods scrollViewAreaHorizontally and scrollViewAreaVertically.</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 Header to Title (compatibility is given):</p> <ul style="list-style-type: none"> New option names are pm_tableTitleBackgroundColor, pm_tableTitleTextColor, pm_tableTitleColumnSeparatorColor, pm_tableTitleHighlightingColor, pm_entitiesTableTitleBackgroundColor, pm_entitiesTableTitleTextColor, pm_entitiesTableTitleColumnSeparatorColor, pm_entitiesTableTitleHighlightingColor. Old option names remain in the interface, but are marked as deprecated. <p>MINOR: Property Title of TableCellDefinition objects renamed to TitleText (compatibility is given).</p> <p>PATCH: Method selectObjects 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 pm_allocationRowsVisibleInActivitiesView. Additionally other additions were made in this environment:</p> <ul style="list-style-type: none"> New options pm_defaultAllocationTableRowDefinitionID, pm_defaultAllocationMinimumRowHeight, pm_defaultAllocationRowSelectable, pm_defaultActivityAllocationRowsCollapsible, pm_defaultAllocationRowDesign, pm_defaultAllocationAllowedBarDragModesInActivitiesView, pm_forcedAllocationAllowedBarDragModesInActivitiesView. New properties PM_AllocationRowsCollapsible, PM_AllocationRowsCollapseState, PM_HasAllocationRows on Activity objects. New properties PM_MinimumRowHeight, PM_RowSelectable, PM_RowDesign, PM_AllowedBarDragModesInActivitiesView, TableText on Allocation objects. New callbackArgs property isForAllocationRows in callback onCollapseStateChanged. <p>MINOR: Now links can be defined between allocations:</p> <ul style="list-style-type: none"> New properties Source/TargetAllocationID for links. New options pm_definedAllocationLinksVisibleInActivitiesView/ResourcesView. <p>MINOR: New optional parameter for method removeAll.</p>
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	<p>MINOR: New options pm_watermarkSymbolID and pm_watermarkOpacity.</p> <p>MINOR: New properties PM_StatusFrameColor/Visible for activities and allocations. New options pm_defaultActivity/AllocationStatusFrameColor.</p> <p>MINOR: New property PM_BarOpacity for Activity and Allocation objects.</p> <p>MINOR: New properties Background/TextColor, Background/TextColorSource on TableCellDefinition objects.</p> <p>MINOR: New options tableViewWidthInActivitiesView/ResourcesView/LoadsView and tableViewWidthsSynchronized.</p> <p>MINOR: New options pm_symbolColumnNameVisible/SymbolIDs as well as pm_entitiesTableSymbolColumnNameVisible/SymbolIDs.</p> <p>MINOR: New option pm_scrollOffsetsChangedCallbackTimeDelay.</p> <p>MINOR: Additional values for callback onVerticalScrollOffsetChanged.</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 PredictedEnd property is also taken into account.</p> <p>MINOR: Options pm_activity/resourceTableRowDefinitionIDForTitle renamed to pm_tableRowDefinitionIDForTitleInActivitiesView/ResourcesView. Option pm_entityTableRowDefinitionIDForTitle renamed to pm_tableRowDefinitionIDForTitleInEntitiesTable. Old option names are deprecated but accepted for compatibility reasons.</p> <p>MINOR: New option pm_tableRowDefinitionIDForTitleInLoadsView.</p> <p>MINOR: New option tooltipDelay.</p> <p>MAJOR: After dragging and dropping a draggable date line, the application now needs to update the date line object within the onDrop 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 scrollToObject.</p> <p>PATCH: Several fixes concerning tooltips and captions of PeriodHighlighterEntry objects.</p>
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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 timeStepUnit and timeStepUnitFactor 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 callbackArgs in callback onShowTooltip 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 callback onSelectionChanged now possible. Additionally, new properties for callbackArgs named reason, reasonObject, reasonObjectType.</p>
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	<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 updateDatelines (not all properties have been updated).</p> <p>PATCH: Fixed issue where the curves were not shown when adding a resource with property PM_CurveCollapseState set to 0.</p> <p>PATCH: Fixed issue with setting options timeStepUnit and timeStepUnitFactor.</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 pm_defaultActivityBarHeight option was set when initializing the widget.</p> <p>PATCH: Default for option viewType now is ViewType.Activities again (since 4.0.0 it was set to ViewType.Resources).</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>
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MINOR: Additional parameters for method scrollToObject and new options pm_scrollToObjectAnimationEnabled, pm_scrollToObjectHighlightFlashingEnabled, and pm_scrollToObjectHighlightingColor.

MINOR: New property HorizontalTitleAlignment in TableCellDefinition object.

MINOR: New properties PM_BarTextPrefixSymbolID/Height/Width, PM_Left/RightBarSymbolID, PM_Left/RightBarSymbolWidth, PM_Left/RightBarSymbolHeight for Allocation and Activity objects.

MINOR: Support for Polish (pl) and Portuguese (pt = pt-pt; pt-br) locales added.

MINOR: New option pm_ignoreCalendarOnAllocationBarInteractions.

MINOR: Option pm_commonViewAreaVisible renamed to pm_mainViewAreaVisible.

PATCH: Many bug fixes.

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>
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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, 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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2.0.0

Explanation	<p>MAJOR: Now the setting of a license key is mandatory.</p> <p>MINOR: New method removeAll.</p> <p>MINOR: New option locale.</p> <p>MINOR: New allocation properties PM_ProgressColor and PM_ProgressNonworkingColor.</p> <p>PATCH: Activity property Editable now marked as deprecated.</p> <p>MINOR: New option pm_linksVisibleInResourcesView.</p>
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1.0.0

Explanation	Initial release.
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5 System Requirements

The supported browsers are:

- Google Chrome on Windows, macOS, and Android
- Microsoft Edge on Windows, macOS, and Android
- Mozilla Firefox on Windows, macOS, and Android
- Apple Safari on macOS and iOS/iPadOS

All browsers are supported with guarantee only for the last three versions at delivery date of the particular VSW version.

The user can run applications using VSW on other browsers on any platform, but there is no guarantee then.

The libraries without the prefix "nwaf" (see also Widget chapter) depend on third-party open-source libraries. You can embed these additionally needed libraries directly into your application or download them from a Content Delivery Network (CDN). You can find examples in the sample applications we provide. Your application must comply with the licensing conditions of each third-party library.

5.1 blob-stream

Library	blob-stream
Module	"blob-stream"
Supported Versions	0.1.3 (currently approved)
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". When loaded from a CDN, you will need the fork named "front-blob-stream", that contains an ready-to-use file for usage in the browser.
License	MIT
URL	https://github.com/devongovett/blob-stream

5.2 D3

Library	D3
Module	"d3-array", "d3-axis", "d3-color", "d3-dispatch", "d3-ease", "d3-format", "d3-interpolate", "d3-path", "d3-scale", "d3-selection", "d3-shape", "d3-time", "d3-time-format", "d3-timer", "d3-transition"
Supported Versions	6.x.x 7.x.x (currently approved: 7.9.0)
Type	required
Explanation	Needed for handling SVG content in the browser. When using the classic approach, the application can either include the bundled library or the single modules mentioned above. When using the AMD or the ESM approach, the application must define a map where the values can link to either the bundled library or the single modules mentioned above.
License	ISC
URL	https://d3js.org/

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	https://hammerjs.github.io/

5.4 html2canvas

Library	html2canvas
Module	"html2canvas"
Supported Versions	1.4.1 (currently approved)
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	https://html2canvas.hertzen.com/

5.5 jQuery

Library	jQuery
Module	"jquery"
Supported Versions	3.x.x (currently approved: 3.7.1)
Type	optional
Explanation	Beginning with version 8.0.0 of VSW SE, 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. Not required or usable together with ESM flavor.
License	MIT
URL	https://jquery.com/

5.6 jQuery UI

Library	jQuery UI
Module	"jquery-ui/ui/widget"

Supported Versions	1.13.x 1.14.x (currently approved: 1.14.1)
Type	optional
Explanation	Beginning with version 8.0.0 of VSW SE, 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. Not required or usable together with ESM flavor.
License	MIT
URL	https://jqueryui.com/

5.7 Moment-Timezone

Library	Moment-Timezone
Module	"moment-timezone"
Supported Versions	0.5.x, 0.6.x (currently approved: 0.6.0)
Type	optional
Explanation	Needed only, when using option "timeZone". Dependent on Moment.js.
License	MIT
URL	https://momentjs.com/timezone/

5.8 Moment.js

Library	Moment.js
Module	"moment"
Supported Versions	2.x.x (currently approved: 2.30.1)
Type	optional
Explanation	Needed only, when using option "timeZone". The developer can decide, which data to serve with Moment Timezone.
License	MIT
URL	https://momentjs.com/

5.9 NWAF

Library	NWAF
Module	"nwaf_apptools", "nwaf_table", "nwaf_gantt", "nwaf_rab"
Supported Versions	
Type	required
Explanation	These files contain the implementation of VSW and are provided by Boyum. See chapter Widget. For the UMD flavor the files in detail are:

	nwaf_apptools.min.js nwaf_apptools.min.css nwaf_table.min.js nwaf_table.min.css nwaf_gantt.min.js nwaf_gantt.min.css nwaf_rab.min.js nwaf_rab.min.css For the UMD flavor the files in detail are (no CSS files!): nwaf_apptools.esm.min.mjs nwaf_table.esm.min.mjs nwaf_gantt.esm.min.mjs nwaf_rab.esm.min.mjs
License	Licensed by contract with Boyum IT Solutions, for details see also file VSW_SE_FDD.pdf.

5.10 PDFKit

Library	PDFKit
Module	"pdfkit"
Supported Versions	0.11.0 up to at least 0.17.1 (currently approved)
Type	optional
Explanation	Needed only, when using method saveAsPDF (needed by SVG-to-PDFKit). Provided standalone version for usage in the browser contains libraries "stream" and "emitter-component" within the file.
License	MIT
URL	https://pdfkit.org/

5.11 SVG-to-PDFKit

Library	SVG-to-PDFKit
Module	"@betterboards/svg-to-pdfkit"
Supported Versions	0.1.10 (currently approved)
Type	optional
Explanation	<p>Needed only, when using method saveAsPDF. Dependent on PDFKit.</p> <p>This is a fork of the alafr/SVG-to-PDFKit package as the original contains a performance issue.</p>
License	MIT
URL	https://github.com/Better-Boards/SVG-to-PDFKit
See Also	https://github.com/alafr/SVG-to-PDFKit

5.12 TinyColor

Library	TinyColor
Module	"tinycolor2"
Supported Versions	1.4.1, 1.6.0 (currently approved)
Type	required
Explanation	Needed for calculating derived colors e.g. for coloring non-working times.
License	MIT
URL	https://bgrins.github.io/TinyColor/

6 Information Material on Specific Topics

[Release Notes - Version 9.0](#) (Blog Post)

[Release Notes - Version 8.4](#) (Blog Post)

[Release Notes - Version 8.3](#) (Blog Post)

[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)

[Hierarchy vs. grouping](#) (Blog Post)

[CSS Custom Properties](#) (Blog Post)

[How to visualize skilled resources in an HTML5 Gantt chart](#) (Blog Post)