Release Notes: VARCHART XGantt

Product	VARCHART XGantt
Version	5.0
Release	SR5
Build	5.0.0.658
Editions	ActiveX, .NET, ASP.NET
Date	10 August 2016

List of Enhancements

- No enhancements.

List of Fixed Bugs

- Depending on the local settings, the date and time information being displayed in the info window was not correct.
- Only after having moved the node by hand, **vcGantt.KeepingNodesTogetherDataFieldIndex** worked properly.
- Hierarchy:
  - If a node was hidden by the ActiveNodeFilter, all following nodes were grouped to the highest level.
  - If the ActiveNodeFilter was switched off, the node order was no longer in accordance with the hierarchy ID.
- Error 2 occurred when a node was moved per drag & drop between two entities.
- Setting of **VcFilterSubCondition.ConnectionOperator** had no effect.
- Grouping: If a node in a group was selected and the left cursor key was pressed, error 191 (class 109) was triggered.
- The filling of a layer with slanted top left corner exceeded the frame if the layer was shorter than the slant width.
- XGantt ASP.NET: Vertical scrolling led to losing the node marking.
- XGantt in Excel: The output in a WMF file was mirrored if the excel sheet with the XGantt was not the active sheet.
- Repeated calling of **VcHistogram.FitRangeIntoView** led to the histogram being minimized more and more.
- If a bar was copied to a new resource by CTRL + drag & drop, the old bar and the new one got the same resource number.
- Live updating of overlapping layers didn’t work any longer.
- When moving a node by table, the **UpdateRowNumberFields** method triggered error messages but not when moving a node in the diagram.

Product	VARCHART XGantt
Version	5.0
Release	SR4
Build	5.0.0.453
Editions	ActiveX, .NET, ASP.NET
Date	11 December 2015

List of Enhancements

- New setting options for the **NonWorkIntervalShape** and at the API**.**

List of Fixed Bugs

- When the group order was modified interactively in the table, the event **VcNodeModifiedEx** appeared by mistake.
- When several nodes were moved in a groupwise arranged calendar in live mode, the new calendar was only applied to the node having been grabbed.
- Access violation upon **vcGantt1.Reset(VcResetAction.vcEmptyAllDataTables)**.
- Importing a configuration of XGantt 4.4 into XGantt 5.0 caused wrong **InPlace Editor** switches to be set.
- Setting **VcGantt1.UseSnapTargetsInInteractions** to **true**, triggered a crash.
- Layer graphics having been created on the basis of **VcGantt.SetImageResource** were not shown in the Legend View**.**
- Data having been exported at runtime from XGantt with ALT + D caused a crash when they were reloaded with **VcGantt.Open.**
- Exclusively vertical OLE DragDrop between two entities of XGantt led to the moved node not being positioned in the target Gantt.
- AccessViolationException occurred when more than 504 **VcDataTableFields** were to be created at runtime.
- Error 13 when a node was moved per drag & drop between two entities.
- When a node was to be moved by CTRL + mouse key, the snapping targets were ignored.
- Incorrect labeling in the **quarter** time scale ribbon.
- Automatic collapsing/expanding of groups: Only the sandbox was visible when the last node was being moved.
- Moving nodes by keyboard didn’t work.
- AutoSchedule caused a crash when a node was moved a second time.
- When a table was displayed in TreeView style with live update being switched on, a crash occurred upon moving nodes in the table.
- The node disappeared during automatically dragging and dropping to two entitites, when our phantom was not visible in the upper border area of the target component.
- Nodes being positioned near their left restriction border, hopped away when they were moved to another group.

Product	VARCHART XGantt
Version	5.0
Release	SR3
Build	5.0.0.325
Editions	ActiveX, .NET, ASP.NET
Date	30 June 2015

List of Enhancements

- The new properties **VcSection.LineColor, VcNumericScale.LineColor, VcNumericScale.TickColor**, **VcWorldView.BorderColor** and **VcLegendView.BorderColor** and their equivalents on the property pages allow specifying colors for the according graphical elements.
- **Individual, data-driven date line**: Date lines can now also access a date from a node's or a group's data record. Instead of a fixed text, the individual date can be used as label. The date can also appear as text. The below listed enhancements were implemented for configuring the individual date line:
  - The property **VcDateLine.DateDataFieldIndex** returns or sets the data field index of the field used for the date line. This option can also be set on the **Specify Date** lines property page.
  - The properties **VcGroupLevelLayout.ShowDateLines** and. **VcNodeLevelLayout.ShowDateLines** and their equivalents in the **Grouping** dialog allow to define that date lines are to be displayed or not.
  - The property **VcGroupLevelLayout.DateLinesWithChildGroups** and its equivalent in the **Grouping** dialog specify whether the date lines are to be displayed for every group level.
  - The properties **VcGroupLevelLayout.DateLineName** and **VcNodeLevelLayout.DateLineName** and their equivalents in the **Grouping** dialog let you specify which date lines are to be used.
  - The properties **VcDateLine.VisibleDataFieldIndex** und **VcDateLine.VisibleMapName** were implemented so that the date line can be specified as data-driven and individual.
  - There will be an InfoWindow shown now when a date line is moved.
  - The not-constant information in the InfoWindow can now also be replaced.
- There's a new object of the type **VcSash** in the event **VcSashButtonClicked**.
- The property **Diagram background color** on the **Layout** property page was renamed **View components background color**. This property defines the background color that is common for all panes of the graphic. The property was renamed because the **View components border color** property was added, allowing to specify the border color common for all panes.
  The properties **VcGantt.ViewComponentsBackColor** and **VcGantt.ViewComponentsBorderColor** were added at the API accordingly.
- The new properties **VcHistogramRowBackColor**, **VcHistogramRowPattern** und **VcHistogramRowPatternColor** and the **Pattern** option in the **Administrate Histograms** dialog allow to define a background color/pattern for each histogram (band).
- **New aid for moving objects** (snap tools)
  - **Horizontally**
    Snap tools were implemented for supporting the exact positioning of objects. Moved objects are aligned to other objects in the graphic in a way resulting in a kind of "snap grid" with irregular distances.
    Currently, the so-called „snap targets" can be defined for nodes (and their layers), date lines, date line grids, and calendar grids. This means that these objects define certain places at themselves as targets for a „snap action" of other objects. When a node/layer is

moved horizontally or is resized, its start or end date will be chronologically oriented according to the defined snap targets of the other objects.
The following enhancements were implemented for the horizontal snap tools:

- Dialogs:
  - **Edit Layer**– „Snap targets“
  - **Specify date lines** – „Snap target“
  - **Edit Time Scale Section** – „Start snap target“, End snap target“
  - **Administrate Line grid** – „Snap target“
  - **Administrate Calendar grid** - „Start snap target“, End snap target“
  - Property page **Nodes** – „Use snap targets in interactions“

- Properties
  VcLayer.StartSnapTarget
  VcLayer.EndSnapTarget
  VcDateLine.StartSnapTarget
  VcDateLineGrid.StartSnapTarget
  VcCalendarGrid.StartSnapTarget
  VcCalendarGrid.EndSnapTarget
  VcGantt.UseSnapTargetsInInteractions

- The value **Const vcNodeJumpToSnapTarget = 512 (&H200)** for the enum **„ArrowKeyModeEnum“** was added, so that the snap functionality can also be used when moving nodes by cursor keys.

- **Vertically** (Auto-Collapse/-Expand)
  The new functionality considerably shortens the search for the target group when moving a node from one group to another.
  The following enhancements were implemented for the vertical snap tools:
  - Dialogs
    - **Edit update behavior**, and **Grouping** (for Hierarchy layout and Group level layout each)
      - „Collapse groups automatically“
      - „Restore automatically collapsed groups“
      - „Expand target group automatically“
      - „Restore automatically expanded groups“

  - Properties
    - For **VcGroupLevelLayout** and **VcHierarchyLevelLayout**
      - AutoCollapseGroups
      - AutoExpandTargetGroup
      - RestoreAutoCollapsedGroups
      - RestoreAutoExpandedGroups

  - According values were added for the enum **UpdateBehaviorContextTypeEnum**.

- New events during interactions with nodes:
  The new interaction events **InteractionStarted, InteractionObjectChanged, InInteractionEventsEnded, InteractionEnded allow to deliver** information about the status of the objects during a drag&drop interaction

List of Fixed Bugs

- Moving a milestone by the day caused problems when no bars were visible any more.
- Overlapping layers were not updated correctly.
- Error 4 occurred when a rubber rectangle was drawn in an empty area.
- When a grouping level was switched of and a node was moved to another group this resulted in deleting of node data.
- Error message „Error 381 Class 109“ appeared when drawing an object to the Gantt chart by drag&drop
- Page break on group border didn’t work with **All nodes in one row** switched on.
- Histogram curves „per layer” were always interrupted even if the belonging layers were drawn uninterrupted.
- TextMap mapping tables couldn’t be created at runtime.
- Several problems while navigating between nodes by arrow keys.
- A warning signal sounded (Windows default sound) during inplace-editing of nodes.
- XGantt ASP.NET: System.AccessViolationException in **FitRangeIntoView**, amongst others.
- When a new activity was drawn, the hopping factor was considered insufficiently.
- Error 1202 when a node was moved that lay after the restriction date.
- If the diagram was switched off (**VcGantt.DiagramVisible**=false), the date line was only visible in the time scale.
- If the diagram was switched off (**VcGantt.DiagramVisible**=false), zooming by **Ctrl-**mouse wheel was not possible.
- The behavior of phantoms was not correct if several nodes were moved.
- Stacked curves**: vcHistogram.GetCurrentYValues** returned wrong values.
- When a node got another bounding box by live update while being moved it could happen that its phantom vanished.
- Histogram curves were not updated correctly when their values were modified interactively.
- Table in TreeView style and Live Updates switched on: Crash when a node was moved in the table.

Product	VARCHART XGantt
Version	5.0
Release	SR2
Build	5.0.0.176
Editions	ActiveX, .NET, ASP.NET
Date	18 November 2014

List of Enhancements

- The data table entry page now supports the date formats TS + TT.
- When a node is moved from one group to another one, the phantom/real will be adjusted already during the action (not only upon MouseUp!) if source group and target group use different calendars.

List of Fixed Bugs

- The graphical display of nodes after moving them to another group was not correct.
- The Print Preview showed an offset of the link layout when the diagram was split into several pages.
- The link layout ran off the chart in the Print Preview.
- ImageResources couldn't be used in the graphics box of the border area.
- The display of date formats in the time scale was not correct.
- Creating a new date filter at design time triggered a syntax error.
- Nodes couldn't be copied with **Ctrl** if the **MoveMode** property was set to **vcNodeMoveModeAutomaticXOrY.**
- The histogram curve "grew" when groups were collapsed or expanded.
- Error 2 occurred when an activity was moved horizontally.
- The calendar grid vanished when the time scale was changed by the time scale dialog.
- There was a crash when the mouse cursor was moved over the diagram area.
- When the solution of the numeric scale was changed to 0%, error 343 occurred.
- Drag&drop with **DropEffectCopy** by **DragStarting** event caused marking of nodes but not unmarking them.
- When nodes with **TimeUnitsPerStep** > 60 were moved they were not positioned correctly.
- Marking a node caused performance problems.
- The drag&drop behavior of XGantt 5.0 was different from that of XGantt 4.4 (TT6769).
- **Histogramwise Calendargrid** could not be identified.
- Displaying histogram curves after having called the **ResourceScheduler** caused problems.
- Shifting a histogram curve triggered error 343.

Product	VARCHART XGantt
Version	5.0
Release	SR1
Build	5.0.0.60
Editions	ActiveX, .NET, ASP.NET
Date	14 June 2014

List of Enhancements

- With the new method **VcGantt.SetImageResource** you can assign a specified name to an image object already existing in the application at runtime.
- The method **VcTable.IdentifyFormatField** lets you retrieve the index of the format field at the specified position.

List of Fixed Bugs

- The link layout was not working properly if the time scale start was changed in the Print Preview.
- The Info Window remained after drag drop actions.
- A crash occurred after creating links in the live mode.
- Incorrect memory access was triggered by updating nodes being invisible due to VcGantt.ActiveNodeFilter
- The Info Window showed a wrong end date if a layer was shifted beyond the end of the time scale.
- If several nodes were shifted simultaneously, the phantom moved beyond the line limiting the interactive shifting.
- The modifications of node line attributes on the Layout property page were not exported.
- A wrong mouse pointer appeared while moving groups over the diagram.
- A VARCHART error was triggered when the view was repeatedly switched between Groupwise and Hierarchy.
- If the checkbox Optimization of groups on interactions was ticked, and LiveUpdate was being switched on, the groups were optimized nonetheless.
- If the group order was changed in the table interactively, the height of the group line became too low.
- If a node was moved and there were no visible link appearances, this resulted in a crash.
- If a node had links and constraint dates, the phantom jumped to the wrong position when the node was moved.
- The summary bar was not updated if a node was created in the live mode.
- Holding the CTRL key pressed and moving first over a node and then over a summary bar, resulted in a crash.
- When nodes were created interactively, the dates were not rounded according to the 'Smallest Time Interval' any longer.
- No tooltips were shown in the mode Create Nodes.
- A modification of the time scale resolution entailed a slight modification of its height as well.
- When shifting a node, the link was connected to the wrong layer.
- Memory leaks in XGantt were fixed.
- Problems occurred when a node was shifted in greater steps (minute scale and TimeUnitsPerStep > 60)
- A crash occurred when the PrintPreview was started on a Windows Server 2012 (XGantt 64bit)

- Group nodes were displayed twice after shifting when the LiveUpdate was switched on
- Links disappeared in the PrintPreview when Time Scale Start and End and Adjusting the Time Scale were being set.

Product	VARCHART XGantt
Version	5.0
Build	5.0.0.14
Editions	ActiveX, .NET, ASP.NET
Date	31 January 2014

List of Enhancements

The enhancements in VARCHART XGantt 5.0 affect the following areas and topics:

- **Live Update (only .NET and ActiveX)**
  With the new Live Update functionality, the consequences of a mouse interaction are being visualized immediately during the action and not only after ending it. In this context new objects have been implemented:
  - An object of the type VcUpdateBehavior contains a set of properties and methods that control the live update behavior of those objects on the screen to which it was assigned.
  - The VcUpdateBehaviorCollection object contains all update behaviors available.
  - An object of the type VcUpdateBehaviorContext comprises the context of the update behavior, that is, the behavior of all other objects that are affected by a live update and that can be configured by a user.

  Live Update takes effect in the following areas:

  - Tables
    - change column width
  - Time scale
    - change resolution
    - change section start date
  - Date line
    - change date
  - Object Container (boxes)
    - change position
    - Change size
    - change anchoring
  - Nodes
    - change dates/duration
    - change group
    - filters/mapping (together with layer, table formats)
    - grouping (also for hierarchical arrangement)
    - automatic scheduling
  - Links
    - change successor node
  - NodeLevelLayout
    - change node order (manual re-sorting)
  - HierarchyLevelLayout
    - calculating summary bar
  - GroupLevelLayout
    - change group order (manual re-sorting)
    - node optimization (regarding the sorting criterion)
    - calculating summary bar

    - sorting overlapping nodes
  - Histograms
    - calculating layer-based curves
  - Numeric scales
    - modify resolution
  - Curves
    - modify x-values
    - modify y-values
    - modify x- and y-values
  - Shift sash between diagram/table or diagram/histogram
    - world view
    - change size
    - change position

- **Histograms**
  - In contrast to the VcHistogramHeightChanging event the new event VcHistogramsHeightChangingEx returns the parameter histogramHeightRatio as a "Double" value, thus achieving a higher level of accuracy. The event occurs when the user interactively modifies the height of a histogram. The histograms and the modified diagram/histogram aspect ratio are returned. By setting the return status you can inhibit the modification.
  - Setting the property VcGantt.UseHigherDiagramHistogramHeightRatioPrecision to "True" will enable the usage of the more accurate method DiagramHistogramHeightRatioEx or the event VcHistogramHeightChangingEx that return a value of the type "Double" to calculate the width ratio between diagram and histogram.
  - The new property VcGantt.DiagramHistogramHeightRatioEx lets you set or retrieve the ratio between the total height of the diagram (in %) and the height of the histogram. In contrast to the DiagramHistogramHeightRatio property this property returns a "Double" value, thus achieving a higher level of accuracy.

- **Calendar**
  - The method VcCalendar.Clear removes the profiles and intervals formerly defined in this VcCalendar object, thus completely clearing it. The changes will only be displayed after carrying out a VcCalendar.Update.
  - Tooltips are now also displayed on calendar intervals.
  - The new property VcCurve.OverloadResultsCalendarName lets you create or select a calendar to store the intervals that have been calculated by the overload dates. You could use this calendar, for instance, to display a calendar grid in a group.

- **Links**
  - Being set to True, the new property VcGantt.ConsiderLinkRelationTypesOnNodeDragging enables the phantom lines representing the links to be displayed indicating their type if dragged, and if links are switched on at all. The phantom lines will not start off from the center of the node, but from the left and right side of the node.

- **Performance**
  - Under certain conditions the property VcGantt.PartialLoadThreshold brings significant performance increase for the reloading of data. This mainly concerns transaction-intense applications that are characterized by the repeated reloading of only small data amounts into complex Gantt scheduling applications at runtime. The new property enables the user to define a threshold for the number of incremental data up to which the VARCHART XGantt will be created in performance optimized partial updates. When new data are added to the Gantt chart, the system automatically performs either an optimized partial update for smaller quantities or a full update for larger quantities.
  - In the context of the new Live Update functionality performance increases regarding the interaction process were implemented.

- Sample Collection and Templates
  Since enabling a quick start, developers, setting up a new project with VARCHART XGantt, appreciate our sample collection as important tool. We have given it a more clear and comfortable structure and have added branch-specific application templates.

List of bugs having been fixed after the last build of XGantt 4.4

- Flickering of cursor during OLE drag drop.
- Triggering a right-click by finger didn’t work on touch devices under Windows 8 (pressing long until frame appears).
- The group wise calendar arrangement disappeared when all timescale ribbons were set to position = none.