

# WPF New Features (last 3 years)

## 2014 Vol.1

### Excel Engine

- [Password support](#) - This feature provides you the ability to work with password encrypted/protected workbooks.

### Office 2013 Theme

- [New theme](#) - The new "Office 2013" theme inspired by the new MS Office 2013 presents a nice and clean look and feel.

### xamComboEditor, xamMultiColumnComboEditor

- [Configurable selected value and selected values collection](#) - This feature provides flexible way for setting/getting the selected value(s) in the control.
- [Configurable selected data items collection](#) - This feature provides flexible way for setting/getting the selected items in the control.
- [Configurable selected data items collection via a data model property's value](#) - This feature provides flexible way for setting/getting the selected items through a data model property value in the control.
- [Configurable Drop-Down button visibility](#) - This feature provides options for configuring the Drop-Down button visibility in the control.
- [Configurable Drop-Down min/max width](#) - This feature provides customization of the maximum/minimum width of the control's Drop-Down.
- [Custom item filtering](#) - This feature provides functionality for implementing more complex data items filters.
- [Exposing selected/unselected items in SelectionChangedEventArgs](#) - This feature provides additional information about the selected/unselected items preserved in the SelectionChanged event's argument.

### xamComboEditor

- [Drop-Down resize handle](#) - A resize handle is added to the control for users to resize the control's Drop-Down.

### xamDataChart

- [New default style](#) - This is a new default style for the xamDataChart control featuring multiple visual changes improving the charts appearance.

### xamDataGrid

- [Record numbering](#) - This feature provides a new property to select one of several different numbering types in the xamDataGrid's record selector column.
- [Selected data items property](#) - This feature provides a new SelectedDataItems property to operate with the currently selected items of the xamDataGrid.

### xamDataTree

- [Configurable active data item](#) - This feature provides a new property to set/get the currently active data item in the control.

#### xamDiagram (CTP)

- **New Control.** A new [diagramming control](#).

#### xamInputs

- [Enabling/Disabling undo/redo](#) - This feature provides a new property to turn on/off the undo/redo operations in the xamInputs controls.

#### xamPivotGrid

- [KPIs visualization support](#) - The xamPivotGrid and the xamPivotDataSelector controls support graphical visualization of Key Performance Indicators (KPIs).

#### xamRadialMenu

- **New control** - The [xamRadialMenu](#) control is essentially a context menu presenting its items in a circular arrangement around a center button.

#### xamRibbon

- [Backstage 2013](#) - The feature introduces a new look of xamRibbon's backstage when the new "Office 2013" theme is used.
- [Tab item area toolbar](#) - This feature allows you to create a toolbar located next to the xamRibbon's tabs.

#### xamRichTextEditor

- [HTML import/export](#) - The feature allows you to import or export HTML data from and to the xamRichTextEditor control.
- [IME support](#) - This feature allows you to input Asian languages directly in the xamRichTextEditor control's editing area.

#### xamSyntaxEditor

- [IME support](#) - This feature allows you to input Asian languages directly in the xamSyntaxEditor control's editing area.

## 2014 Vol.2

### Infragistics Excel Engine

- [Binding Facilitations](#) - MVVM binding facilitations added.
- [Cells, Columns and Rows Manipulation](#) - Cells, columns and rows manipulation operations added.
- [Undo/Redo Support](#) - Undo and redo support (when used with the xamSpreadsheet control) added.

### Infragistics Theme Manager

- **New Control** - Infragistics [Theme Manager](#) provides a quick and easy way for applying a theme to all Infragistics controls as well as to the Microsoft WPF common controls.

### xamColorPicker

- [Previewing the Selected Color](#) - The new SelectedColorPreview property gets/sets the color that is currently being hovered.

### xamDataPresenter

- [Binding Field and FieldLayout Objects to DataContext](#) - MVVM binding facilitations added.
- [Binding Field, FieldSettings, FieldLayout and FieldLayoutSettings to MVVM Properties](#) - The new FieldBinding markup extension facilitates the binding of Field, FieldSettings, FieldLayout and FieldLayoutSettings to MVVM properties.
- [Binding Cell Settings to Data Item Properties](#) - The new CellBindings collection property facilitates the binding of a cell settings to properties exposed off the associated data item.
- [Specific Editor Fields](#) - The new editor fields offer an easy and straightforward way to specify a particular editor to handle the specific data type.
- [Template Field](#) - The Template Field provides functionality for specifying custom data templates for both display and edit modes in the xamDataPresenter controls.
- [Unbound Field](#) - Now every Field in the xamDataPresenter controls can be configured to be an unbound field.
- [New properties IsTabStop, IsEnabled, IsEnabledInAddRecord and IsReadOnly](#) - New properties for configuring the editing of Field and Cell objects are added.

### xamDataTree

- [Selected Data Items](#) - The new SelectedDataItems property gets/sets the selected data items.
- [Modifying the Item Selection via a Data Model Boolean Property's Value](#) - The new IsSelectedMemberPath property configures the path to the data model boolean property that determines if a data item is selected or not.

### xamDiagram

- **New Control** - A new [diagramming](#) control.

### xamPropertyGrid

- **New Control** - The [control](#) provides user friendly properties editing experience.

### xamSpreadsheet

- **New Control** - The [control](#) allows visualizing and editing of spreadsheet data.

### xamPivotGrid

- [Printing](#) - Built-in functionality for printing OLAP data

# 2015 Vol.1

## Infragistics Excel Library

- Hyperlinks support - The data model of the library now supports creating of and operating with hyperlinks. [Adding a Hyperlink to a Worksheet \(Infragistics Excel Engine\)](#)
- Workbook protection - The data model of the library now allows you to protect workbooks. Workbook protection disallow adding, renaming, reordering and deleting of worksheets. [Workbook Protection \(Infragistics Excel Engine\)](#)
- Worksheet protection - The data model of the library now allows you to protect worksheets. [Worksheet Protection \(Infragistics Excel Engine\)](#)

### xamComboEditor

- Binding to collections of primitive types - The xamComboEditor control supports binding to collections of primitive types such as bool, char, double etc. types. The control supports also binding to enum and collections of string and DateTime data. [Binding to Collections of Primitive Types \(xamComboEditor\)](#)
- Configuring the minimum drop-down height - A new property MinDropDownHeight is added to provide functionality for configuring the minimum drop-down height of the xamComboEditor control. - [Configuring the Drop-Down \(xamComboEditor\)](#)

### xamMultiColumnComboEditor

- A new property - MinDropDownHeight is added to provide functionality for configuring the minimum drop-down height of the xamMultiColumnComboEditor control. [Configuring the Drop-Down \(xamMultiColumnComboEditor\)](#)

### xamDataGrid

- Configuring field and record resizing - The control now supports configuring the areas where fields and/or records can be resized. [FieldResizingArea](#) , [RecordResizingArea](#)

### xamDataPresenter

- Binding to selected data item - The control now allows you MVVM-friendly binding to the last selected item using a property. [Working with Selected Data Items \(xamDataGrid\)](#)

### xamGantt

- Sections resizing - The control now supports resizing of the grid and chart sections. [Configuring Sections \(xamGantt\)](#)

### xamSpreadsheet

- Hyperlinks support - The control now displays hyperlinks and allows the user to interact with them: [Hyperlinks Interactions \(xamSpreadsheet\)](#), [Working with Hyperlinks \(xamSpreadsheet\)](#), [Context Menu Interactions \(xamSpreadsheet\)](#)
- Obtain hovered cell - The control now allows you to obtain a worksheet's cell by providing a point.
- Multiple worksheets selection - The control now allows you to select multiple worksheets and perform group operations over them. [Configuring Worksheets \(xamSpreadsheet\)](#), [Setting or Obtaining Active Selection's Formatting \(xamSpreadsheet\)](#)
- Workbook and worksheet protection - The control now supports disabling of certain user functionality when workbook and/or worksheet protections are engaged. [Tab Bar Area Interactions \(xamSpreadsheet\)](#), [Configuring Tab Bar Area \(xamSpreadsheet\)](#)
- Underline support - The control now renders underline and double-underline text. [Features Overview \(xamSpreadsheet\)](#)

## xamTreeGrid

- **New control** - The [xamTreeGrid](#) control is the latest addition to the Data Presenter family of controls. It arranges data in a tree grid layout. Essentially the control is a xamDataPresenter that implements a single view (a tree view) which cannot be dynamically switched.

## 2015 Vol.2

### Infragistics Excel Library

- Operating with worksheet table rows and columns - The data model of the library now supports inserting and deleting of worksheet table's rows and columns. [Adding a Table to a Worksheet \(Infragistics Excel Engine\)](#)

### Infragistics Syntax Parsing Engine

- Syntax tree created event - The parsing engine now supports an event which is raised after the syntax tree is created and before it is returned to the text document. [Custom Diagnostics and Annotations \(Syntax Parsing Engine\)](#)

## xamBusyIndicator

- **New control** - The [xamBusyIndicator](#) is a ContentControl that provides visual notification that a long-running activity has started as well as displays the actual progress.

## xamComboEditor

- Handling enum data type - The xamComboEditor now supports customization of the process of populating the dropdown when bound to an enum data type. [Handling Enum Data Type \(xamComboEditor\)](#)

## xamDataChart

- Major and Minor Axis Intervals - The xamDataChart now supports both Major and Minor intervals which are displayed perpendicular to its axes. [Configuring Major and Minor Intervals](#)
- Legend Title and Items Font - The xamDataChart's Legend, ItemsLegend and ScaleLegend now supports configuration of its font appearances. [Chart Legends](#)

## xamDataGrid

- Clear filter button - The xamDataGrid's clear filter button is now rendered disabled (semitransparent) when there is no active filter set. [About Record Filtering](#)
- Excel style filtering dialog - The xamDataGrid control now supports an Excel style filtering UI in the FilterRecord by setting the FilterOperandUIType property to FilterOperandUIType.ExcelStyle. [FilterOperandUIType](#)

## xamDataPresenter

- Apply templates conditionally - The data presenter controls now support the ability to set conditionally display and edit templates for cells. [Apply Cell Value Templates Conditionally \(xamDataPresenter\)](#)
- Enhanced data validation support - The data presenter controls now support data items implementing the INotifyDataErrorInfo interface. [Data Validation Overview](#)
- Data source changed event - The data presenter controls now raise an event when the [DataSource](#) property has changed. [DataSourceChanged Event](#)
- Manual refresh of the UI - The data presenter controls now support manual refresh of the control's user interface. [Manual Refresh of the Control's UI \(xamDataPresenter\)](#)

## xamPropertyGrid

- Custom editors for expandable types - The xamPropertyGrid control now supports custom editors for expandable properties which also remove the collection's nested elements list. [Configuring Editors Definitions \(xamPropertyGrid\)](#), [Expandable Properties Support \(xamPropertyGrid\)](#)
- Customizing expandable properties - The xamPropertyGrid control now supports ways to customize the rendering of the expandable properties. [Expandable Properties Support \(xamPropertyGrid\)](#)
- Mergable property attribute support - The xamPropertyGrid control now supports an attribute for excluding combined properties when bound to multiple objects. [List of Supported Attributes \(xamPropertyGrid\)](#)
- Properties list sorting - The xamPropertyGrid control now supports declarative and programmatic ways for sorting (reordering) the properties list and its categories. [Properties List Sorting \(xamPropertyGrid\)](#)

## xamRichTextEditor

- Obtain text insert location from point - The xamRichTextEditor control now supports a method for obtaining the nearest valid text insertion location from the supplied point. The point should be relative to the xamRichTextEditor control. [GetPositionFromPoint](#)

## xamSpreadsheet

- Data validation - The xamSpreadsheet control now supports data validation based on rules set on the worksheet's cells. [Data Validation Interactions \(xamSpreadsheet\)](#)

## 2016 Vol.1

### xamDataPresenter

- Asynchronous Paging Data Source - This feature allows you to create data sources that support retrieving data from high-latency remote data stores using an asynchronous and paged access strategy. [Asynchronous Paging Data Source \(xamDataGrid\)](#), [Asynchronous Paging Data Source \(xamDataPresenter\)](#)
- Entering editing mode when the user starts typing - You can allow the user to enter editing mode automatically when a cell is activated and the user enters text or presses the space or backspace keys. [Configuring Editing Behavior \(xamDataPresenter\)](#)
- Field Grouping - The field grouping feature allows you to group several fields under a common field group. [Field Grouping \(xamDataGrid\)](#), [Field Grouping \(xamDataPresenter\)](#)

### xamScatterSurface3D

- New control - The [xamScatterSurface3D](#) control allows fast, visually appealing and customizable three-dimensional surface visualization. The control offers a full set of API options to achieve any 3D surface plotting requirement and very intuitive default values to minimize the coding required.

### xamSchedule

- Recurrence dialog's description label visibility - The description label in the xamSchedule's activity recurrence dialog is now visible by default for German and French languages. [Activity Dialogs](#)

### xamTabControl

- Tabs dragging and reordering - The xamTabControl now supports dragging and reordering of tabs. [Tabs Dragging and Reordering \(xamTabControl\)](#)

### xamRadialGauge and xamLinearGauge

- Needle dragging (CTP) - You can now move the needle on the xamRadialGauge and xamLinearGauge controls by enabling the isDraggingEnabled property.

## 2016 Vol.2

### xamCategoryChart

- new control - the [Category Chart](#), is added in the Ultimate UI for WPF 2016 volume 2 release. This chart can be easily configured to display category data using a simple API. All you need to do is bind your data (a collection or a collection of collections).

### xamDataChart

- Performance Enhancements - In the Infragistics 2016 volume 2 release, we significantly improved the performance of the Data Chart control.
- **New property ConsolidatedColumnVerticalPosition** - A new property [ConsolidatedColumnVerticalPosition](#) is introduced in this release in order to determine the positioning logic to use for columns which have been consolidated into a single visual element.
  - **Minimum** - Consolidated Items should be positioned using their minimum value.
  - **Maximum** - Consolidated Items should be positioned using their maximum value.
  - **Median** - Consolidated Items should be positioned using their median value.
  - **RelativeMinimum** - Consolidated Items should be positioned using the value nearest to the reference value of the corresponding axis.
  - **RelativeMaximum** - Consolidated Items should be positioned using the value farthest from the reference value of the corresponding axis.
- Design Changes - In the Infragistics 2016 volume 2 release, we redesigned the defaults of the xamDataChart, xamPieChart, xamDoughnutChart, xamFunnelChart, xamRadialGauge, xamLinearGauge, xamBulletGraph and xamSparkline controls.
- New Chart Series (CTP) - Two new chart series, scatter area series and scatter contour series, are added to the chart in this release. These 2 series are a 2D version of the 3D surface chart control.
  - **Scatter Areas Series** - Scatter area series is a visual chart element that draws a colored surface, in a Cartesian context, based on a triangulation of X and Y coordinates with a numeric value assigned to each pixel of the surface. You can use this series to plot scientific data such as strength of magnetic field, 3d shapes projected/flattened onto 2d plane, or correlation between 3 numeric columns in your data
  - **Scatter Contour Series** - The scatter contour series can be used to plot the same data as scatter area series but data will be visualized using contour lines instead of interpolated surface area

### xamGeographicMap

- Legend is displayed for Geographic Map (CTP) - This CTP feature enables the Geographic Map control to display a legend.

### xamShapeChart (CTP)

- The Shape Chart is a CTP control that is added in the Infragistics 2016 volume 2 release. This control displays cartesian and geographic shapes on a chart surface. It can be used display items such as floor plans, diagrams, and maps.

### xamPieChart

- Slice Selection- You can now select a pie slice on the xamPieChart control. This feature is enabled by default. You can set the [SelectionMode](#) property in order to support single or multiple slice selection and then check the [SelectedItem](#) or [SelectedItems](#) properties in order to see what data items are associated with those selected slices.
- Added new selection events, some of which are cancelable, so you can stop selection of particular slices from occurring. These events are:
  - [SelectedItemChanging](#)
  - [SelectedItemChanged](#)
  - [SelectedItemsChanging](#)
  - [SelectedItemsChanged](#)

- **New Event for the Pie Chart** - The xamPieChart control now has a [LabelClick event](#) that fires when the labels of the pie slices are clicked.
- **Label Coloring** - You can now specify the color of the labels depending on whether they are rendered inside or outside of a pie slice. These properties are [LabelInnerColor](#) property and [LabelOuterColor](#) property

#### Infragistics Excel Engine

- **Obtain All References for a Given Rule** - The [DataValidationRuleCollection](#) now exposes a [GetAllReferences](#) method which returns a collection of references that have data validation rules equivalent to the given rule.
- **New Method for Comparing Data Validation Rules** - The [DataValidationRule](#) now has an [IsEquivalentTo](#) method which compares this rule with the given one and returns true if the rules are structurally equivalent.

#### Royal Dark Theme

- **New Theme** - The Royal Dark theme is a consistent and simplified new theme enriched with more visual states, featuring more depth and improved UX. [Themes](#)

#### xamCalendar, xamMonthCalendar, xamDateTimeEditor, xamDateTimeInput

- **Ability to Configure the Scrolling Direction** - The xamCalendar, xamMonthCalendar, xamDateTimeEditor and xamDateTimeInput controls are exposing a new property ScrollDirection which allows you to configure the scroll direction of the calendar item group(s) when pressing the navigational arrows. Previously only horizontal scrolling was implemented. [Using xamCalendar](#)

#### xamDataPresenter

- **Cross-Field Record Filtering** - The data presenter controls now support the definition of filtering rules with logical connections between them. [Cross-Field Record Filtering \(xamDataGrid\)](#), [Cross-Field Record Filtering \(xamDataPresenter\)](#)
- **Field Chooser Look** - The default look of the field chooser for data presenter controls with a single field layout now includes a check box on the top for selecting all fields. [About the Field Chooser](#)

#### xamPropertyGrid

- **Data Template Selector Support for Editor Definition** - The xamPropertyGrid control now supports assigning of data template selector on an editor definition. [Configuring Data Template Selector for Editor Definitions \(xamPropertyGrid\)](#)

#### xamRichTextEditor

- **New Event for the Document Adapters** - All document adapters extending from [RichTextDocumentAdapterBase](#) are having a new [DocumentLoadError](#) event which is raised when an exception is thrown while attempting to load a document.



## 2017 Vol.1

### Royal Dark Theme for xamSchedule

- There is now a Royal Dark Theme for all views of the xamSchedule control.

### xamDiagram

- Restricting User Interactions - The xamDiagram control now supports properties for restricting certain user interactions like entering editing mode, resizing and deleting. [Configuring User Interactions Restrictions \(xamDiagram\)](#)
- Enter Key Behavior - The xamDiagram control now supports configuring of the behavior when the **Enter** key is pressed in editing mode. [General Overview \(xamDiagram\)](#)
- Hiding Toolbox Header - The control now supports an easy way to hide the toolbox's header using the [HeaderVisibility](#) property.
- Line Jumps - The control now supports rendering of "line jumps" in case when two connections are intersecting. [Configuring the Line Jumps of Diagram Connections \(xamDiagram\)](#)
- New Behavior When Dropping or Copy-Pasting xamDiagram's Items. - There is a change in some properties' behavior when an item is dropped from the toolbox or copy-pasted. [Dropping an Item from the Toolbox \(xamDiagram\)](#)
  - DragDropData - this new property is copied using "shallow copy"
  - Content - this property is copied using "deep copy"
- IDataErrorInfo Support - The control now supports visualizing of error indicators when the data items are implementing the IDataErrorInfo interface. [IDataErrorInfo Support \(xamDiagram\)](#)

### xamEditors

- Spin Wrap Behavior - The [xamMaskedEditor](#) and all other editors which extend from it (i.e. [xamCurrencyEditor](#), [xamNumericEditor](#), and [xamDateTimeEditor](#)) are now exposing a new property - [SpinWrapBehavior](#) of type [SpinWrapBehavior](#) which determines the value spinning behavior of the editor. Its default value is WrapAcrossSections which breaks the default spin wrap behavior of the editors comparing to the previous versions. This new property replaces the obsolete [xamMaskedEditor](#)'s SpinWrap property.
- Japanese Imperial Date Support - The xamDateTimeEditor control now supports Japanese Imperial date format. [Japanese Imperial Date Support](#)

### xamNumericSlider and xamNumericRangeSlider

- new property - IsNaNValueSupported of bool type is added to the [xamNumericSlider](#) and [xamNumericRangeSlider](#) controls. [xamNumericSlider.IsNaNValueSupported](#), [xamNumericRangeSlider.IsNaNValueSupported](#)

### xamPropertyGrid

- Brush Resources Panel - The xamPropertyGrid control now supports a new configurable Brush Resources panel in the brush editor. [Configuring Brush Resources \(xamPropertyGrid\)](#)
- Prevent Editing of Bound Dependency Properties - The xamPropertyGrid control now supports a configurable option to hide the value of bound dependency properties. [Features Overview \(xamPropertyGrid\)](#)
- Expansion of Custom Editors - The xamPropertyGrid control now exposes a new [AllowExpansionWhenUsingCustomEditor](#) property on the [PropertyGridPropertyItem](#) class which allows you to configure the control to expand properties with custom editors defined via [PropertyGridEditorDefinition](#).

#### xamDataChart

- Property Changes - New properties were added to deprecate properties for enabling chart zooming. The older properties are still useable to support backwards compatibility.
  - XamDataChart.HorizontalZoomable → [XamDataChart.IsHorizontalZoomEnabled](#)
  - XamDataChart.VerticalZoomable → [XamDataChart.IsVerticalZoomEnabled](#)

#### xamPieChart

- Property Changes - New properties were added to make styling various aspects of the pie chart simpler. These properties are:
  - Leader lines
    - ✧ [LeaderLineOpacity](#)
    - ✧ [LeaderLineStroke](#)
    - ✧ [LeaderLineStrokeThickness](#)
  - Others category
    - ✧ [OthersCategoryFill](#)
    - ✧ [OthersCategoryOpacity](#)
    - ✧ [OthersCategoryStroke](#)
    - ✧ [OthersCategoryStrokeThickness](#)
  - Selected slices
    - ✧ [SelectedSliceFill](#)
    - ✧ [SelectedSliceOpacity](#)
    - ✧ [SelectedSliceStroke](#)
    - ✧ [SelectedSliceStrokeThickness](#)

#### xamGeographicMap

- Property Changes - A new property was added to the Geographic Map imagery called [CacheSize](#). This property allows control over the maximum number of tiles that get cached by the map.
- The property [TilePath](#) was also added to the OpenStreetMap imagery. This allows you to specify a URL pointing to the location where the OpenStreetMap tile images are obtained.

#### xamRadialGauge, xamLinearGauge and xamBulletGraph

- Changes to visual defaults - The gauges have had their default visuals updated for this release.