

10Tec iGrid for .NET 2.x

What's New in the Control

Keywords used to classify changes:

- [New] – a totally new feature;
- [Change] – a change in a member functionality or interactive behavior;
- [Improved] – something is implemented better than in previous versions;
- [Renaming] – a name of the member was changed so it is enough to rename it in your code;
- [Fixed] – a fixed bug or solved problem.

v2.50, build 0027 | 2010-Mar-25

1. [Fixed] iGrid might crash while resizing a column when the **ImmediateColResizing** property was set to False.
2. [Fixed] iGrid raised a null reference exception if you used custom grouping and didn't specify the custom group value in the **CustomGroupValue** event.

v2.50, build 0025 | 2009-Dec-25

1. [Fixed] You might have problems when working with row keys after the grid had been sorted (internal unhandled exceptions might be shown).
2. [Improved] To better separate cells visually when a row has row text cell, the vertical grid lines for the normal cells above the row text cell are drawn when the **GridLines.Mode** property is set to **iGGridLinesMode.Vertical**. In the previous builds they were drawn only when **GridLines.Mode** was **iGGridLinesMode.Both**.
3. [Fixed] If you used the column auto resizing mode (by setting the **AutoResizeCols** property to True), the column resizing algorithm might work improperly if you changed a column width programmatically – it decreased or increased (auto-resized) the width of some first columns before the column you were changing the width of. Now it works as expected (exactly as if you did this interactively) – it auto-resizes the columns after the column you are changing the width of.
4. [Fixed] The overloaded version of the **FillWithData** method for the iGrid drop-down lists **iGDropDownList.FillWithData(dataTable as System.DataTable, colAsValue as string, colAsText as string)** might ignore the **colAsText** parameter.

v2.50, build 0021 | 2009-Oct-30

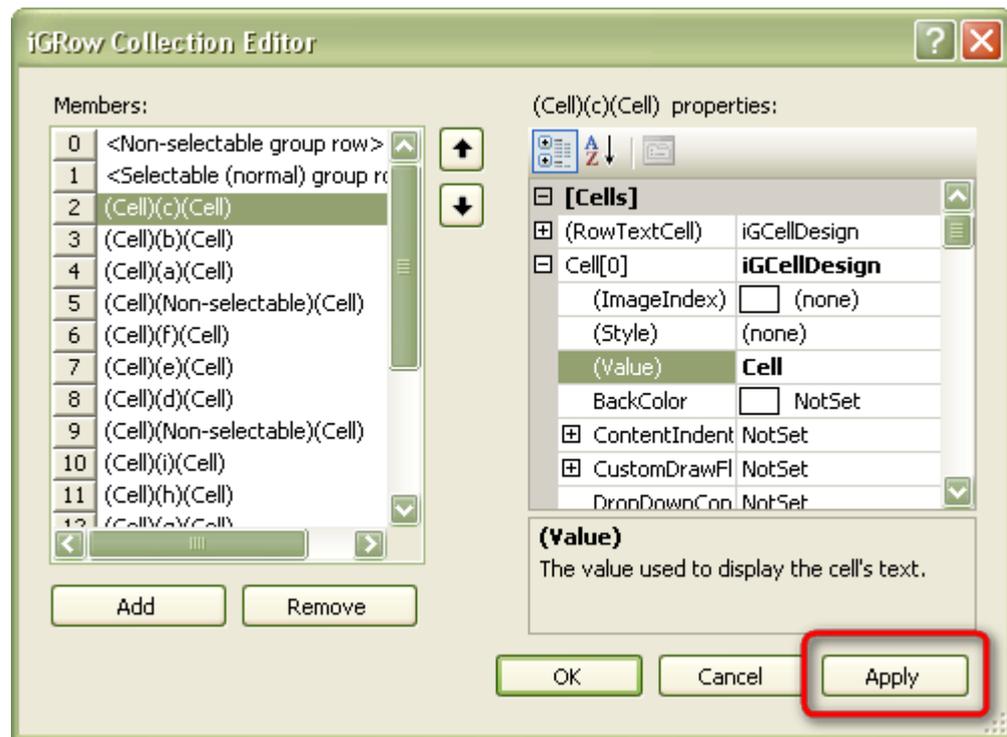
1. [Fixed] iGrid might lock the mouse after clicking its area if you had validation code that displays a message box in the **BeforeCommitEdit** event – any subsequent clicks on any parts of the form even outside of iGrid (on the other controls of the form, on the form's empty surface, even on its title bar) generated the same **BeforeCommitEdit** event with displaying the same message box until you canceled the input using the ESC key. The same problem occurred if you had entered a value that cannot be converted to the currently edited cell data type and iGrid displayed its built-in conversion error message box.
2. [Improved] If you used an overloaded version of the **FillWithData** method of iGrid to create the required column set automatically, and the row text column was filled by the values of one of the columns because of its key that was equal the field name of one of the columns, **FillWithData**

created the corresponding normal column with the same key but didn't fill it. Now this empty column isn't created.

3. [Fixed] If you used a **DataTable** with rows marked for deletion (the **DataRow.RowState** property is **DataRowState.Deleted**) as the data source when populating iGrid or its drop-down lists using the **FillWithData** method, iGrid raised an error trying to get the data from those rows. To avoid this error, now the deleted rows are skipped in this method.
4. [Fixed] If you set the **GridLines.ExtendMode** property to **iGGridLinesMode.Both**, the extended gridlines were not drawn if iGrid had no rows.
5. [Improved] If you issued the **PerfromAction** method doing an action that should change the current cell and the current cell wasn't changed at that (for instance, it was the **iGActions.GoFirstRow** action and the current cell was in the first row), iGrid didn't scroll its contents to make the current cell visible if it was outside of the visible part of iGrid.
6. [Improved] If you didn't resize a column by pressing and releasing the mouse button in the area of the column divider, the **ColWidthEndChange** event was raised reporting the same column width. Now this event isn't raised in such cases.
7. [Fixed] The **ColWidthEndChange** event was raised twice when you double-click a column divider to automatically fit its width, and this event reported the original column width in its **e.Width** parameter. Now this event is raised only once after the column width has been changed reporting the new actual column width.
8. [Fixed] If you didn't specify the type of the cell value in the **ValueType** property of its cell style, and the cell contained the **DBNull** value, you couldn't enter any new value into this cell as iGrid tried to convert your entered string into the **DBNull** type and displayed the corresponding conversion error message box. Now you can enter any new value in such cells as if they contained the default null value.

v2.50, build 0015 | 2009-Jan-06

1. [Improved] The sorting algorithm was improved. If iGrid contains hierarchical data, the speed of sorting (when the **SortByLevels** property is True) became faster up to 5 times. When iGrid stores normal plain tabular data, the sorting is also faster up to 1.5 times.
2. [New] The iGrid design-time column and row/cell collection editors now have the Apply button you can use to apply your changes without closing the dialogs of these editors:



This functionality is very handy if you design your grid at design-time and do not want to close these dialogs after each change pressing the OK button just to see how your next portion of changes will look.

Note that the Cancel button can be still used to revert your grid to the original state when you opened one of these dialogs even if Apply has been pressed one or more times.

3. [Change] By default, if row mode is on, the drop-down lists attached to iGrid use the **SelRowsForeColor** and **SelRowsBackColor** properties of the parent grid to highlight the current item. In the previous builds, if these properties were not set (the default settings), you did not see the selection in the drop-down lists and you needed specially to specify selection colors in the drop-down lists. Now the values of the **SelCellsForeColor** and **SelCellsBackColor** properties are used for that if the **SelRowsForeColor** and **SelRowsBackColor** properties are not set in the parent grid (the same logic that is used to highlight the cells in the selected rows in the grid).
4. [New][Change] A new static function called **GetTreeButtonIndent** was implemented. It returns the indent of the tree button from the left edge of cell. This function can be used to get the extended information about the tree button size and position like the **GetTreeButtonFullSize** function. This function was implemented to replace the internal but public constant **cTreeButtonSize** used mainly by the PrintManager add-in.
5. [Fixed] The iGrid drop-down list (the **iGDropDownList** class) might work improperly if you used objects which do not support **IComparable** interface as its values.
6. [Fixed] The **SpanRows/SpanCols** properties of the header cells (the **iGColHdr** class) might work improperly if you assigned new values to them after you had reordered iGrid columns (manually or in code, including the case if you had restored the column order using the **LayoutObject** property).
7. [Fixed] When you sorted trees (the grid **SortByLevels** property is True) and made some nodes non-sortable (the row **Sortable** property is False), the first child nodes of those parent nodes always remained on their original places.
8. [Fixed] The **AutoHeight** method did not work for group rows with the set flag **iGStringFormatFlags.WordWrap**.

9. [Fixed] If you created combo cells and populated them with values at design-time, iGrid might display cell values instead of the texts of the corresponding drop-down list items.

v2.50, build 0007 | 2008-Aug-19

1. [New] The PrintManager component now allows you to print multi-line text in the document header/footer sections (the **DocumentHeader/DocumentFooter** properties) and in the page header/footer areas (the **PageHeader/PageFooter** properties). To insert a line break on the paper, use the character with the code 10 (also known as "line feed") in your string – in C# you can use the escape character "\n" for that, in VB.NET – the **ControlChars.Lf** constant.
2. [Change] The **iGCell.Text** property never returns a null reference (Nothing in VB). If a cell's text part is empty on the screen, the **Text** property for that cell returns **String.Empty**. It works now the same way as the **iGTextBox.Text** property and the .NET **TextBox.Text** property – they also return an empty string when they do not have any visible text. This can simplify programming because (1) you do not need to check whether the returned value is a null reference and (2) all cells which are empty on the screen have the same value to indicate it (in the previous versions you may also get a null reference in such cases depending on the cell value).
3. [Change] The **iGRow.VisibleUnderGrouping** property became available for writing.
4. [Change] The previous versions of iGrid allow you to edit any cell including the contents of group rows, but many users find this default behavior non intuitive for group rows because such operations as double click should collapse/expand group rows instead of starting editing. This build of iGrid changes this situation: now if you double click the contents of a group row, it is collapsed/expanded by default.

If you need to edit a row of this type though, you can do that with the **DoDefault** argument of the **RequestEdit** event. This event is still raised for group rows when you double click them and iGrid should decide whether to edit the row or collapse/expand it. However, now for group rows the **DoDefault** argument is False by default, but if you set it to True in this event, you can start editing instead of collapsing/expanding.

The previous builds of iGrid do not initiate editing for a group row if you press an alpha-numeric character in it, but in the current version you can do that. To enable this, you should also set the **DoDefault** argument of **RequestEdit** to True.

5. [Fixed] iGrid might select the cells in the hidden columns when the **SelectInvisibleCells** property was False, and vice versa.
6. [Fixed] The vertical tree lines might be drawn improperly if custom tree buttons were drawn in iGrid using a custom control paint object in the **CustomControlPaint** property.
7. [Fixed] An unneeded tooltip might be displayed for column headers in the group box area.
8. [Fixed] The iGrid grouping might work improperly if some rows in the grid were invisible.

v2.50, build 0000 (release) | 2008-Apr-02

1. [New] The "tree" functionality of iGrid.NET was enhanced a lot – now you can place the tree in any column, you can display the tree lines and adjust them, and the level indent size can be also changed. Using these new features you can create interfaces like on the following picture:

Name	Capacity	Size	% Used Space
S:\	48,8 GB	31,9 GB	65,39%
D:\	80,1 GB	24,4 GB	30,46%
C:\	24,4 GB	19,9 GB	81,41%
Program Files	...	8,87 GB	44,63%
WINDOWS	...	5,3 GB	26,67%
Installer	...	2,11 GB	39,78%
system32	...	1,39 GB	26,25%
assembly	...	456 MB	8,40%
Microsoft.NET	...	322 MB	5,93%
Framework	...	295 MB	91,75%
DirectX for Managed Code	...	26,5 MB	8,25%
Downloaded Installations	...	236 MB	4,35%
Symbols	...	167 MB	3,08%

In this sample the tree is in the Name column (it is 2nd in the grid), the tree lines are visible, they are drawn using dashes, and their color is set to teal. Below is the list of changes related to the tree functionality.

First, in iGrid.NET 2.5 you can create a tree structure in any column of the grid but not only in the first visible one as it is done in the previous versions, and this "tree" column can be moved into any column position. To specify what column of iGrid will be a tree, use a new **TreeCol** property of the **iGCol** data type.

Note that by default this property is null (Nothing in VB) which means that the old tree mode is in effect, i.e. the tree structure is drawn in the first visible column. Note also that if you place any column on the first visible position, the tree structure in the first visible column is automatically "put" on the new column.

Second, now iGrid allows you to draw tree lines (optionally), and the look of these lines can be also adjusted. These settings are done through a new **TreeLines** object property of a new **iGTreeLines** class data type. The **iGTreeLines** class has the following public properties:

- **Color** of the .NET **Color** type;
- **DashStyle** of the .NET **DashStyle** type;
- **ShowRootLines** - boolean;
- **Visible** - boolean.

The **Visible** property is used to show/hide the tree lines. The **ShowRootLines** property specifies whether the tree lines between the items on the first level are drawn (note that tree buttons are not hidden in this case – only the tree lines are hidden). The default values for these properties are True.

The **Color** and **DashStyle** properties control the look of the tree lines, their default values are **SystemColors.WindowText** and **DashStyle.Dot** respectively.

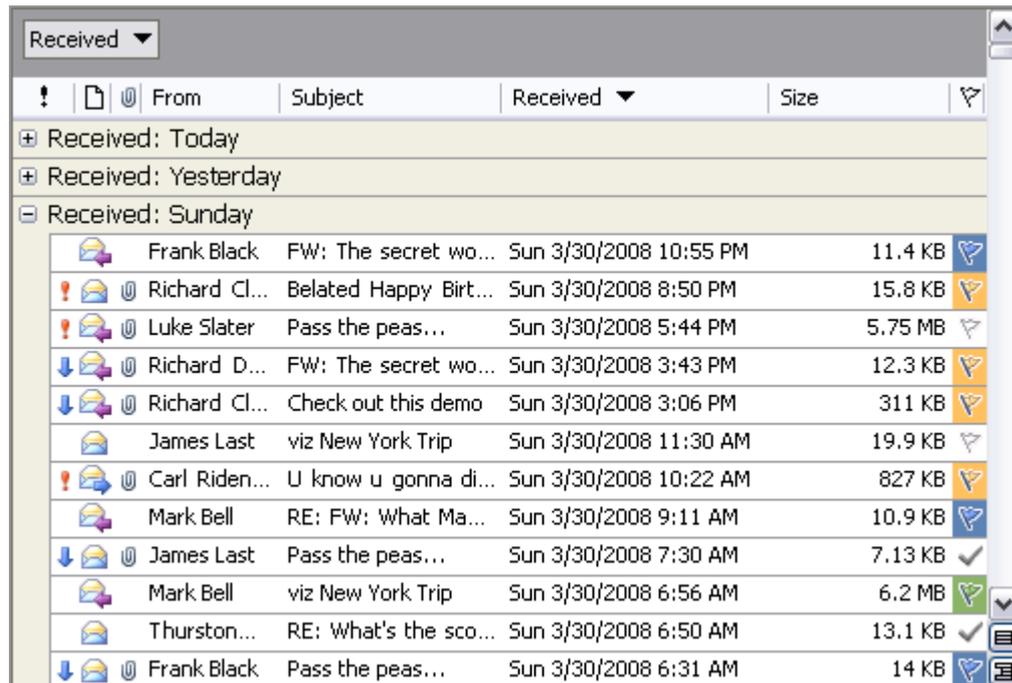
Remember that iGrid.NET can draw the tree lines properly only if you prepare its rows for the tree view by setting their **TreeButton** properties to a non-default value which implies that there is a place for the tree lines (**iGTreeButtonState.Visible** or **iGTreeButtonState.Hidden**).

And third, the size of the indent of one hierarchy level can be changed with a new integer **LevelIndent** property of iGrid. Its default value is 19.

In addition to that, the PrintManager add-on component now has a new **TreeLineColor** property of the .NET **Color** type you can use to specify the color of the tree lines on paper. This property works like the existing **GridLineColor** property used to draw the grid lines on paper. The default value of

the property is **Color.Empty** which means that the color specified in the **TreeLines.Color** property of the grid is used.

- [New] Now iGrid.NET can be localized using the standard .NET approach (when the **Localizable** property of a Windows Form is set to True). The corresponding **Localizable** attribute is applied to all the required properties to gain that (these are mainly the properties which contains texts and visual sizes of the iGrid constituent parts).
- [New] A new boolean property **ShowWhenGrouped** was added to the column object (the **iGCol** class). In the previous versions of iGrid, if you group iGrid by a column, this column becomes invisible. Now you can set this option to make some group columns visible in the grid. It is especially important if you use custom grouping like on the following screenshot of an Outlook-styled grid:



You can see that the values in the group column are still visible while the groups were created for more "large" blocks of data.

- [New] A new **ColOrderChanged** event was implemented. It is raised after the columns have been physically reordered in the grid. Note that it is not the same as the **ColHdrEndDrag** event which is raised before the columns are reordered (when the user has dropped the column header). The other difference from the **ColHdrEndDrag** event is that **ColOrderChanged** is raised even when you change the column order programmatically while **ColHdrEndDrag** is raised only for interactive column order change operations.
- [New] The functionality of the iGrid.NET auto-complete lists was enhanced a lot. The new auto-complete list features are the followings.

In the previous version, when you work with a cell which can be edited as text and it has an auto-complete list, you cannot save the entered characters exactly as they are if there is an item that totally matches the entered text in the opened auto-complete list (even if this item isn't highlighted). It was a problem if the cell input should be case-sensitive. In the current version, you can save the entered text exactly as it is using the SHIFT+ENTER key combination.

The standard implementation of the drop-down lists in iGrid.NET (the **iGDropDownList** class) has a new **ACLSelfFirstWhenFilter** boolean property (ACL stands for "auto-complete list"). It determines whether to automatically highlight the first item in the auto-complete list when it works in filter mode. In the previous version of iGrid the first item isn't highlighted in this case, but sometimes it is

useful to have it selected to enter it into the cell by the ENTER key without additional keyboard commands.

The previous version of iGrid.NET allows you to substitute the text entered into a combo box cell with the corresponding item from the attached drop-down list when you hit the ENTER key. It is a very useful feature which allows you to automatically select the required drop-down list item by typing its text even if you do not use auto-complete functionality. In the current version of iGrid this functionality can be turned on/off with a new boolean property called **AutoSubstitution** implemented in the **iGDropDownList** class and the **IiGDropDownControl** interface. The default value of this property is True.

If auto-substitution is on, you can use other new members of **iGDropDownList** to control it. By default, iGrid searches for the first drop-down list item which equals the entered text, and the search is case-insensitive. A new boolean property called **AutoSubstitutionCustomCompare** allows you to use your own comparison logic. By default this property is False, and the standard algorithm is used. But if you set it to True, **iGDropDownList** raises a new event called **GetItemByTextCustomCompare** for each list item, and you can tell **iGDropDownList** whether the item corresponds the entered text by implementing your custom comparison logic in it.

6. [New] Now iGrid.NET can be styled (can be drawn using your own visual styles) through a new **CustomControlPaint** object property of a new **IiGControlPaint** interface. To do that, you need to implement the required drawing in your own object which implements the **IiGControlPaint** interface, and assign it to the **CustomControlPaint** property.

The **IiGControlPaint** interface contains methods and properties, used to draw some constituent parts of iGrid.NET (such as the group box, the scroll bars, etc), but you can implement only part of them if you wish to style only some parts of iGrid. The **SupportedFunctions** property in this interface allows iGrid to know what parts should be drawn by your code, the rest parts will be drawn by iGrid using the default drawing algorithms.

The **SupportedFunctions** property has a new **iGControlPaintFunctions** enumeration data type which consists of the following flags: **ScrollBar**, **ScrollBarCustomButton**, **CheckBox**, **ComboButton**, **EllipsisButton**, **TreeButton**, **Header**, **RowHdr**, **SizeBox**, **GroupBoxBackground** and two special flags **None** and **All**. This list allows you to see what parts of iGrid can be styled independently. When you implement custom drawing of these parts, you should return the combination of the corresponding flags in the **SupportedFunctions** property. Note that you can implement custom drawing for a subset of the available iGrid parts, and use the standard drawing for the other parts.

You can see a screenshot of a partially styled iGrid.NET below (the contents of iGrid except scroll bars has been styled using a component which provides drawing of interface items using the Outlook 2007 blue style):

	Grou...	Check b...	Custom...	Auto-gro...	From
	+	0			
	-	1			
2	0	<input type="checkbox"/>	1	0	2
0	1	<input checked="" type="checkbox"/>	2	2	0
0	0	<input checked="" type="checkbox"/>	0	1	1
2	1	<input type="checkbox"/>	2	0	1
2	1	<input type="checkbox"/>	2	0	2
0	1	<input type="checkbox"/>	2	1	1
1	1	<input type="checkbox"/>	1	2	0
2	1	<input type="checkbox"/>	1	2	0

7. [New] Now you can specify the foreground and background colors of the iGrid.NET drop-down lists using the new **ForeColor** and **BackColor** properties of the **iGDropDownList** class. The default values of these properties are **Color.Empty** (they are displayed as "NotSet" in the property grid) which means that the corresponding colors will be the same like in the parent iGrid.NET (the **ForeColor** and **BackColor** properties of iGrid respectively), i.e. the colors of the drop-down list will be changed automatically to suit the look of the parent grid.

Two other new color properties of the iGrid drop-down list object, **SelectedItemForeColor** and **SelectedItemBackColor**, can be used to specify the corresponding colors of the selected list item. Their default values are **Color.Empty** which means that the corresponding colors of the selected cells from the parent grid, **SelCellsForeColor** and **SelCellsBackColor**, will be used (if row mode is on, the **SelRowsForeColor** and **SelRowsBackColor** properties are used instead).

8. [New] The items of the iGrid.NET drop-down list (the **iGDropDownListItem** class) can be adjusted individually using the following new properties.

First, you can colorize each item individually using new **ForeColor** and **BackColor** properties of the list item object. By default these properties are **Color.Empty** which means that the corresponding colors of the drop-down list are used (displayed as "NotSet" in the property grid).

Second, you can prohibit the selection of individual list items using a new boolean **Selectable** property. The default value of this property is True.

The new features described above can be useful in many real-world scenarios – for instance, if you need to create groups of similar items in a drop-down list. In this case you can place group names as list items, but prohibit their selection by setting their **Selectable** property to False and make them different from other list items by changing their colors.

9. [New] The look of the iGrid.NET drop-down lists is automatically adjusted to the look of the grid in which they are displayed.

First, when you style iGrid with the **CustomControlPaint** object, all drop-down lists displayed in it also use the same styling; this allows you to have consistent look in all controls used in the grid automatically.

Second, the colors of the text of the list items and the background color of the list are also changed accordingly to the foreground and background colors of the parent grid – in the previous versions only the default settings **SystemColors.WindowText** and **SystemColors.Window** were used. However, you can always specify the required colors explicitly using the new **ForeColor** and **BackColor** properties of the **iGDropDownList** class.

Note that you can use the same drop-down list in several grids. In this case the look of the drop-down list is automatically adjusted to the look of the parent grid in which the list is displayed (if you have not changed the default values of the color properties of the drop-down list).

- 10. [New] The standard drawing of level indents can be replaced by custom drawing in a new event called **CustomDrawLevelIndentPart**. The arguments of this event are:

```
readonly int RowIndex
readonly int PartIndex
readonly Graphics Graphics
readonly Rectangle Bounds
bool DoDefault
```

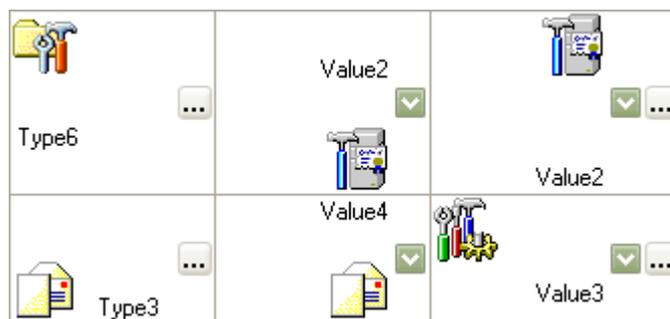
Pay attention to the **PartIndex** parameter. If the hierarchy level of a row (the **Level** property of the **iGRow** class) is greater than 1, its level indent rectangle consists of several smaller rectangular parts which correspond to the higher levels. The **CustomDrawLevelIndentPart** event is raised consequently for these parts from left to right (right to left in right-to-left mode) enumerating them as 0, 1, 2 etc, and the index of the currently drawn level indent part is passed to **PartIndex**.

This feature can be used to create groupings like on the picture below. For better understanding, we marked with a red rectangle the level indent in the 5th row. It consists of two parts; the first one (index #0) is filled with a sandy color, the second part (index #1) is filled with a dark orange color:

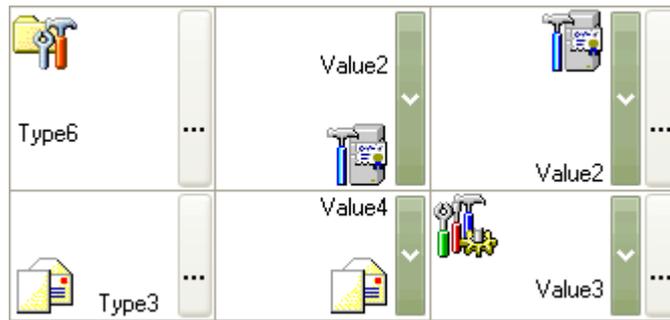


- 11. [New] A new **StretchComboButton** boolean property was added. You can use this property to control how the combo and ellipsis buttons are drawn – whether they stretch to occupy the entire row height or not.

When **StretchComboButton** is False (the default setting):



When **StretchComboButton** is True:



12. [New] A bunch of the following new mouse events which work when the user is editing a cell as text were added: **TextBoxMouseClicked**, **TextBoxMouseDoubleClick**, **TextBoxMouseMove**, **TextBoxMouseDown**, **TextBoxMouseUp**, **TextBoxMouseEnter**, **TextBoxMouseLeave**, **TextBoxMouseHover**. The first 5 events have the same set of arguments, the standard .NET **MouseEventArgs** class, and the last 3 have the **EventArgs** parameter.
13. [New] A new **AdjustTreeButtonLocation** event was implemented. By default, iGrid centers vertically the tree buttons in its rows, but if you need your own vertical placement of the tree buttons, you can use this event to correct the default location or calculate your own one (only the Y coordinate can be changed). The arguments of this event allow you to know the Y coordinates of the rectangle in which the tree button can be placed (**PlaceRectY** and **PlaceRectHeight**) and the height of the tree button itself (**ButtonHeight**). You calculate the required Y coordinate in this event and assign it to the **ButtonY** parameter passed by reference to this event.

For instance, if you wish to place your tree buttons at the bottom edge of your rows with the 3-pixel gap, use a handler for this event like the following one:

```
void iGrid1_AdjustTreeButtonLocation(object sender,
iGAdjustTreeButtonLocationEventArgs e)
{
    int myBottomIndent = Math.Min(3, e.PlaceRectHeight - e.ButtonHeight);
    e.ButtonY = e.PlaceRectY + e.PlaceRectHeight - e.ButtonHeight -
myBottomIndent;
}
```

Note that iGrid does not check whether the new position of the tree button is totally inside the available place rectangle, and you should care about this by yourself.

When iGrid raises this event, it has already calculated the default location of the tree button, and it passes this value in the **ButtonY** parameter to your code. So if you wish to slightly correct the default position, you can simply change this value by adding some pixels to it.

14. [New] This version of iGrid.NET introduces two new features you can use to customize the background of the control.

First, the iGrid.NET background can be semi- or totally-transparent. To do that, just assign a transparent color to the **BackColor** property of iGrid, for instance:

```
iGrid1.BackColor = Color.FromArgb(128, 255, 0, 0);
```

The following statement makes the grid background totally transparent:

```
iGrid1.BackColor = Color.FromArgb(0, 0, 0, 0);
```

This causes only the iGrid background to be transparent, but the transparency of other constituent parts (scroll bars, header) can also be adjusted using the corresponding properties.

Second, if you do not like the standard solid background and you need your own one (say, a gradient fill), you can draw it manually using a new **CustomDrawBackground** event. To make this event

working, you need to set a new boolean property called **DrawCustomBackground** to True (the default value is False).

15. [New] A new boolean property called **HideDropDownOnDeactivate** was implemented. In fact, it is a kind of a service property which can be used if you develop your own drop-down controls used in iGrid. By default, this property is True which means that any drop-down control will be closed if it loses the input focus automatically by iGrid. If you need to open another nested drop-down control from the first one, the first drop-down control should not be closed, and setting this property to False allows you to achieve that.
16. [New] The event arguments parameter of the **CellMouseMove** event (the **iGCellMouseMoveEventArgs** class) was supplemented with the **Button** property of the **MouseButtons** type – now it allows you to determine what mouse buttons are pressed.
17. [New] The **iGControl** enumeration was supplemented with a new **TreeButton** member. The **CellMouseDown** event has the parameter named **OverControl** of the **iGControl** type (it allows you to determine whether there is a cell control such as the check box or combo button under the mouse pointer when you click a cell), and now you can determine whether the user clicks the tree button in the cell using this new **TreeButton** member.
18. [New] A new property **Grid** of the **iGrid** object type was added to the following classes: **iGColHdrCollection**, **iGCellCollection**, **iGColHdr**, **iGCell**, **iGColCollection**, **iGCol**, **iGHdrRowCollection**, **iGHdrRow**, **iGRowCollection**, **iGRow**, **iGSelectedCellsCollection**, **iGSelectedRowsCollection**, **iGDefaultAutoGroupRow**, **iGGridLines**, **iGGroupBox**, **iGHeader**, **iGFrozenArea**, **iGTreeLines**, **iGLayout**, **iGRowHeader**, **iGScrollBar**, **iGScrollBarSettings**, **iGSearchAsType**, **iGSortObject**, **iGTextBox**, **iGUIStrings**. It returns the iGrid to which the corresponding object belongs to. It is useful when you have say objects you got from different iGrids, and you need to know the grid each object is contained in.
19. [New] The internal algorithms used to clear resources occupied by iGrid were enhanced. The **iGDropDownList** and **iGSearchAsType** classes now also have the **Dispose** method (from the standard .NET **IDisposable** interface) you can use to clear the resources explicitly in your code. We recommend that you call the **Dispose** method for your unused drop-down lists if you create and destroy them enough frequently to avoid resource deficit in your .NET app and/or OS.
20. [New][Change] In cell mode the CTRL+HOME/END key combinations select the first available left-top or right-bottom cell respectively. The **iGActions** enumeration was also supplemented with the **GoFirstCell** and **GoLastCell** members which perform the corresponding actions. In the previous version these key combinations select the first or last available cell in the current column, and these actions are still available through the **PerformAction** method with the parameters **iGActions.GoFirstRow** and **iGActions.GoLastRow** respectively.
21. [New][Change] In the previous versions of iGrid you used the **iGStringFormatFlags.WordWrap** flag to allow word wrapping when a cell is drawing and editing, and the same flag controlled whether the multiline edit is allowed. Sometimes you need to control these two things independently, and a new **iGCellTypeFlags.MultilineEdit** flag was introduced for that. If you upgrade from the previous versions of iGrid, this means that if you need multiline edit, you need to specify this flag explicitly in such cell properties as **TypeFlags**.
22. [Change] The **Text** property of the **TextBox** object property of iGrid returns **String.Empty** if there is no text in the edit box. The previous versions returned null (Nothing in VB), and if you needed to do some things with the text in the edit box (for instance, calculate its length), in the previous versions you needed first to test whether the **Text** property is not null (Nothing); now you do not need to do that.

23. [Change] The arguments of the **TextBoxFilterChar** event were changed. Now the **Char** parameter is passed by reference, and this ability allows you to substitute the characters entered by the user (for instance, convert them to upper case) – in the previous version you could only accept or ignore a character using the boolean **DoDefault** argument.

The **DoDefault** argument was removed. Now, if you need to ignore a char, just set the **Char** parameter to the character with the zero code, for instance:

```
e.Char = (char)0;
```

24. [Change] The **StartDragCell** event isn't raised when you select several cells using the mouse while the **PressedMouseMoveMode** property is set to **iGPressedMouseMoveMode.Normal**.
25. [Change] For commonality, in all members related to buttons (tree buttons, ellipsis buttons, combo buttons, and scroll bar custom buttons) now we use the word "Button" instead of "Btn" in some places in the previous versions. For instance, the **HideComboBtn** flag from the **iGCellTypeFlags** enumeration is called **HideComboButton** now. If you upgrade your code from the previous version of iGrid.NET, it will be enough to make global case-sensitive text replacement of the following phrases "ComboBtn", "EllipsisBtn", "TreeBtn", "ScrollBarCustBtn" with "ComboButton", "EllipsisButton", "TreeButton", "ScrollBarCustomButton" respectively.
26. [Change] The signature of the **SearchAsTypeCustomCompare** event of the **iGDropDownList** class has been changed. In the previous version of iGrid you should use the integer **ItemIndex** parameter of this event to access the checked list item - you should retrieve it through the **Items** collection. Now a reference to the entire item (the **iGDropDownListItem** class) is passed in a new **Item** parameter, and you can avoid this step. In fact, this event has a new type

```
public delegate void iGDropDownListCustomCompareEventHandler(object sender, iGDropDownListCustomCompareEventArgs e)
```

used also to define the similar **GetItemByTextCustomCompare** event.

27. [Fixed] The search window might remain visible when the form contained the grid had been closed.
28. [Fixed] Some exceptions can be raised at design-time in the VS IDE when you set the **UniqueKeys** property to True and changed the column set using the column collection editor.
29. [Fixed] When you set the **CurCell** property to null (Nothing in VB) to deselect the current cell, iGrid.NET might generate a **NullReferenceException** exception.