TMS TAdvStringGrid what's new guide

Productivity feature packed grid for Delphi & C++Builder

Introduction

TMS TAdvStringGrid v4.6 is the latest version of the TMS productivity feature packed grid for CodeGear Delphi & C++Builder. While many new capabilities and improvements are introduced, it is designed to be fully backwards compatible with TAdvStringGrid v3.0 or later. Upgrading applications to the latest version of TAdvStringGrid should as such be seamless.

Availability

TMS TAdvStringGrid is available as a VCL component set for Win32 application development. TMS TAdvStringGrid is available for CodeGear™ Delphi 5,6, 7,2005,2006,2007,2009 & CodeGear™ C++Builder 5,6,2006,2007,2009.

What's new & improved in version v4.6

New : TAdvGridImportDialog.Delimiter / CustomDelimiter properties added
With these new properties it is now possible to programmatically preset the preferred delimiter to start the CSV import dialog with and access the custom delimiter character.

New : pressing Ctrl-Return on searchfooter will perform a backward search
Pressing return performs a forward search (equivalent to clicking the Find Next button) and the functionality has been added to let Ctrl-Return perform backward search (equivalent to clicking the Find Previous button)

New : OnFileProgress triggered during SaveToXML()
The event is triggered while performing the export to XML to indicate the progress of the export.

New : support for export of multi image cells to HTML
Saving a grid to file where for one or more cells multiple imagelist images were inserted now also outputs the different images to a file and links the images from the HTML table content.

New : edValidChars inplace editor type
This new editor type allows to specify through the new property grid.ValidChars the series of characters accepted for input in the grid. If the grid.ValidChars property is set to '02468' for example, only characters '0', '2', '4', '6', '8' will be accepted for entry when the editor type is set to edValidChars.

New : AutoFitColumns can be called with new parameter DoFixedCells
Calling AutoFitColumns applied an algorithm to change the column widths proportionally to fill the entire available width of the grid. The new default parameter DoFixedCells is set to true, ensuring that the proportional width change applies to both normal and fixed cells. When setting the parameter to false, only the width of normal columns is changed.

New : Function SwapCells() added
This function swaps both cell content and cell properties of two cells.
Example

```
Grid.SwapCells(GridCoord(Col1,Row1), GridCoord(Col2,Row2));
```

New : Lookup functionality added for edEditBtn editor type
Via the grid.LookupItems stringlist, values can be preset with which the inplace editor performs a lookup while typing. This was applicable for the edNormal and edCombo inplace editor formerly but has now been extended for the edEditBtn inplace editor as well.

New : FilterDropDownRow property added to control on what fixed row filter dropdown appears
Via this property, it can now be controlled on what fixed row the filter dropdown button appears. Note that the filter dropdown button should appear on a fixed row and as such, grid.FilterDropDownRow should be smaller than grid.FixedRows

New : SearchFooter.SearchDirection property added to control direction of search from searchfooter
With this new property it can be controlled whether the search performed from the search footer is from top to bottom row first and then from left to right, or from left to right first and then from top to bottom.

New : Public property grid.PrintSettings.BorderColor added
This new public property allows to set the global grid border color for printing.

Improved : export to HTML with special characters
Now special characters such as ö, é, â, .. are properly exported to HTML generating the HTML encoded sequence for such special characters.

Improved : single row to multirow / single col to multicolumn smart clipboard handling
Now smart clipboard handling also works when row selection is active and selection is changed.

Improved : small improvement wrt MouseActions.RangeSelectAndEdit = true option
Improved behaviour to start editing on non selected cells in the mode RangeSelectAndEdit = true

Improved : drawing of cell pictures when BidiMode is RightToLeft
Cells with pictures now render correct with BidiMode is set to RightToLeft.

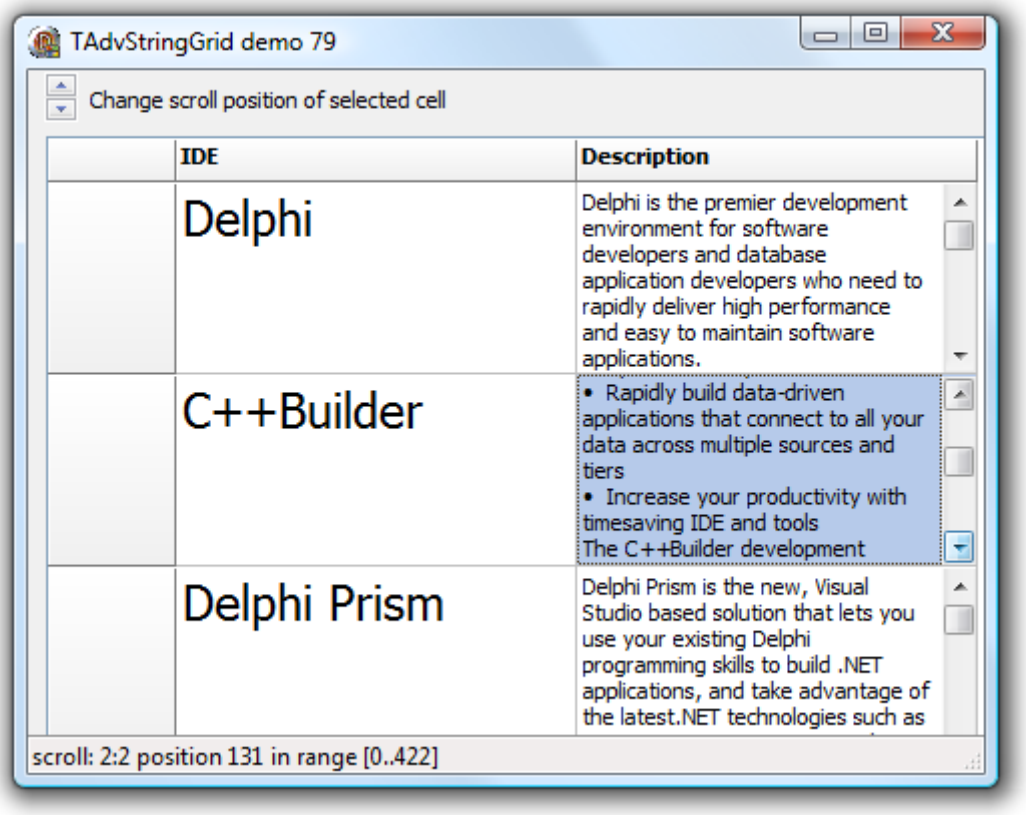
Improved : display of sort indicator in rotated header cells
Now header cells can have rotated text as well as the sort indicator and this will paint correct when combined in a single header cell.

What's new & improved in version v4.5

New : method RemoveSelectedCols, RemoveUnSelectedCols added
With one call, the selected columns or unselected columns can now be removed from the grid. The columns can either be selected when range selection is enabled (goRangeSelect is true under grid.Options) or disjunct column selection is enabled (grid.MouseActions.DisjunctColSelect is true)

New : easy way to persist & restore indexed sort settings
Storing and restoring the latest state of how the user sorted one or more columns can now be easily persisted as a string value. This string value can be easily saved to the registry, INI file, XML file or a database. To save the sort state, retrieve this via grid.SortSettings.SaveToString. To restore the sort state, grid.SortSettings.LoadFromString(value: string) can used.

New : scrollbars per cell
Now it is possible to add a vertical scrollbar on cell level. The scrollbar can be defined as auto ranging scrollbar, ie. it will automatically adapt to the size of the text in the cell. Adding a scrollbar is done with grid.AddScrollBar(col,row: integer);



New : added support for SUMMARY attribute for HTML export
The HTMLSettings class has a new property Summary: string. With this property, the HTML TABLE summary attribute can be set. This attribute will be saved to the HTML file when used.

New : ShowSeconds property added for TAdvStringGrid.SpinEdit
Now it is possible to specify whether the time cell editor shows seconds or not. This can be set with the property grid.SpinEdit.ShowSeconds: Boolean.

New : Navigation.AdvanceAutoEdit property added
This new property determines whether the next cell selected when return is pressed when grid.Navigation.AdvanceOnEnter is set true will be automatically entered in edit mode or not.

New : Navigation.ClipboardPasteAction property added
This property allows to select what will happen during a paste in the grid. ClipboardPasteAction can be either set to paInsert or paReplace. When paReplace is selected, upon pasting, existing cell values will be replaced with the new values pasted. When paInsert is selected, upon pasting, the new values will be inserted in the grid at the coordinate of the selected cell.

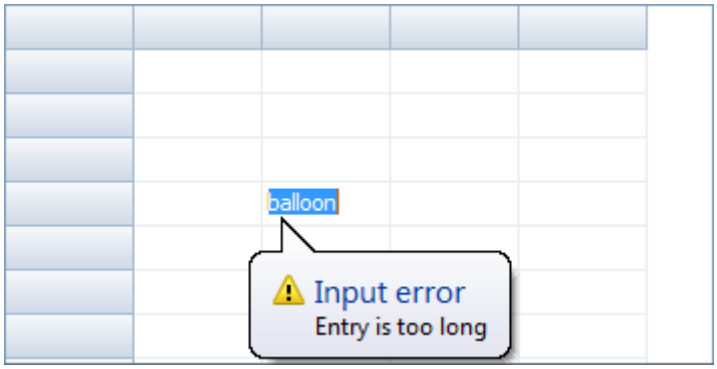
New : Filtering on date+time
In a filter condition it is now also possible to specify both a date and time. This filter condition will show all cells with a date/time value newer than Januari 1, 2009 12:00:

```
with grid.Filter.Add do
begin
  Column := 1;
  Condition := '> 1/1/2009 12:00';
end;
```

New : Invalid entry icons

New properties InvalidEntryTitle, InvalidEntryText, InvalidEntryIcon are added to enable showing a balloon informing when an invalid value was entered in the grid. This can be set from the grid.OnCellValidate event to signal the user invalid entries.

```
procedure TForm2.AdvStringGrid1CellValidate(Sender: TObject; ACol,
  ARow: Integer; var Value: string; var Valid: Boolean);
begin
  if length(value) < 3 then
  begin
    Advstringgrid1.InvalidEntryTitle := 'Input error';
    Advstringgrid1.InvalidEntryText := 'Entry not sufficiently long';
    Valid := false;
  end;
  if length(value) > 5 then
  begin
    Advstringgrid1.InvalidEntryTitle := 'Input error';
    Advstringgrid1.InvalidEntryText := 'Entry is too long';
    Valid := false;
  end;
end;
```

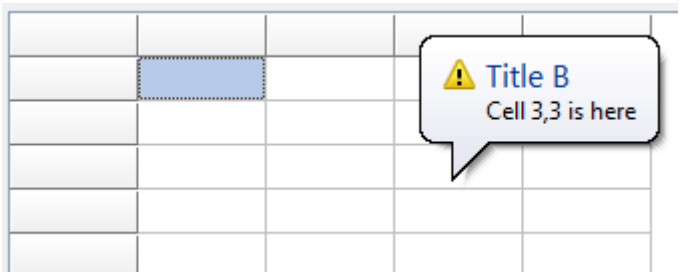


New : AddBalloon, RemoveBalloon methods added

With the new methods grid.AddBalloon / grid.RemoveBalloon it is now possible to easily add a balloon to a grid cell. The balloon is displayed when the mouse hovers the cell. Via the grid.AddBalloon method, the balloon's title, text and icon can be set.

```
procedure TForm2.FormCreate(Sender: TObject);
begin
  AdvStringGrid1.Balloon.Enable := true;
  AdvStringGrid1.AddBalloon(2,2,'Title A','Cell 2,2 is here', biError);
```

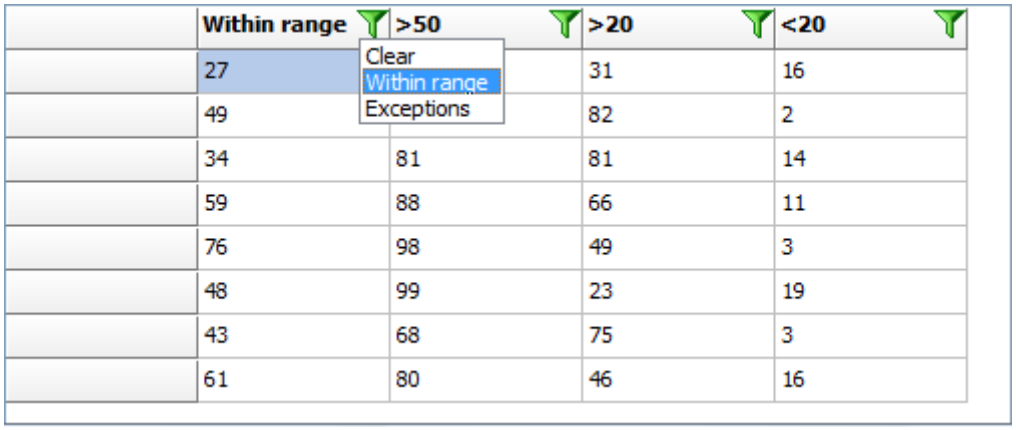
```
  AdvStringGrid1.AddBalloon(3,3,'Title B','Cell 3,3 is here', biWarning);
end;
```



New : filter dropdown in column header

It is now possible to enable the selection of a column filter at runtime by clicking a filter icon in the column header and upon selecting the filter, it is applied. The filter dropdown list can contain friendly filter names that are translated to filter conditions from the OnFilterSelect event. The filter dropdown items are set via the event OnGetColumnFilter:

```
procedure TForm2.AdvStringGrid1GetColumnFilter(Sender: TObject; Column:
Integer; Filter: TStrings);

begin
  case Column of
  1:
    begin
      Filter.Add('Clear');
      Filter.Add('Within range');
      Filter.Add('Exceptions');
    end;

  2:
    begin
      Filter.Add('Clear');
      Filter.Add('>50');
      Filter.Add('<50');
    end;

  3:
    begin
      Filter.Add('Clear');
      Filter.Add('>20');
      Filter.Add('<20');
    end;

  4:
    begin
      Filter.Add('Clear');
      Filter.Add('>20');
      Filter.Add('<20');
    end;

  end;
end;
```



New : incremental filtering & narrow down capability

With the methods grid.ApplyFilter, grid.RemoveLastFilter, it is now possible to perform filtering in several steps and undo filter operations one by one. As such, two filter operations can be set after each other with:

```
with grid.Filter.Add do
begin
  Condition := 'condition1';
  Column := column1;
end;
grid.ApplyFilter; // performs the first filter operation

with grid.Filter.Add do
begin
  Condition := 'condition2';
  Column := column2;
end;
grid.ApplyFilter; // performs the second filter operation
```

and at a later time, the filters can be removed again one by one by calling:

```
grid.RemoveLastFilter;
grid.RemoveLastFilter;
```

Another new features is the narrow-down filter capability. The narrow-down filter can operate on every column in the grid or on a single column. A narrow-down can be performed by calling:

grid.NarrowDown(value:string [,optional column index]);

When calling grid.NarrowDown, the grid will show all rows that contain the string 'value' or all rows where the specified column contains the string 'value'. Successive calls to NarrowDown will perform less or more filtering with respect to the last narrow down call.

New : filtering on full row

When it is not known in what column a value can be found and you want that the grid returns all rows that have any column with a specific value, the new filter Data type can be used: fcRow.

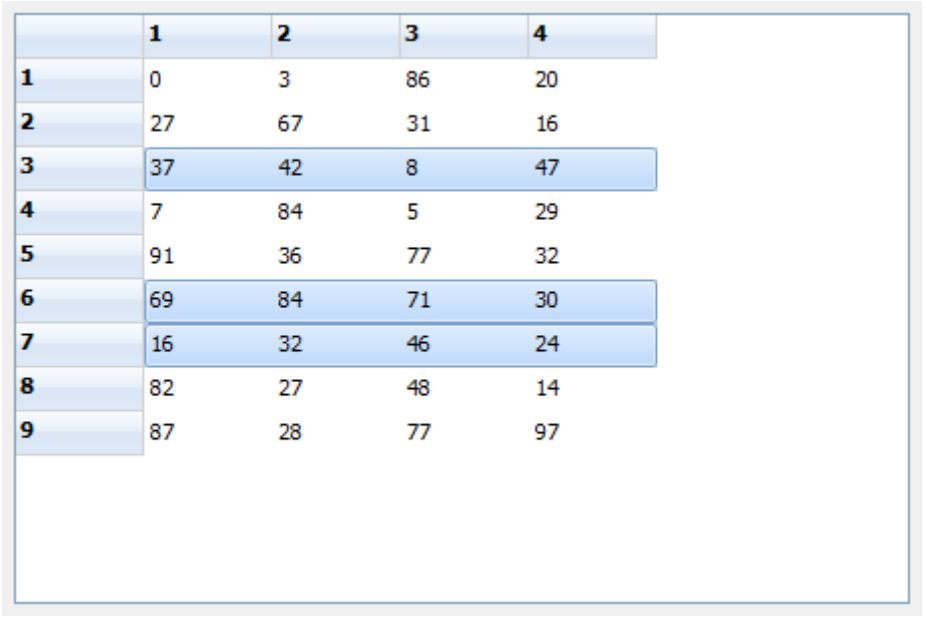
This filter will show all rows where any of its columns contains the word "text":

```
with grid.Filter.Add do
begin
  Condition := 'text';
  Data := fcRow;
end;
grid.FilterActive := true;
```

New : Windows 7 & Office 2007 selection styles

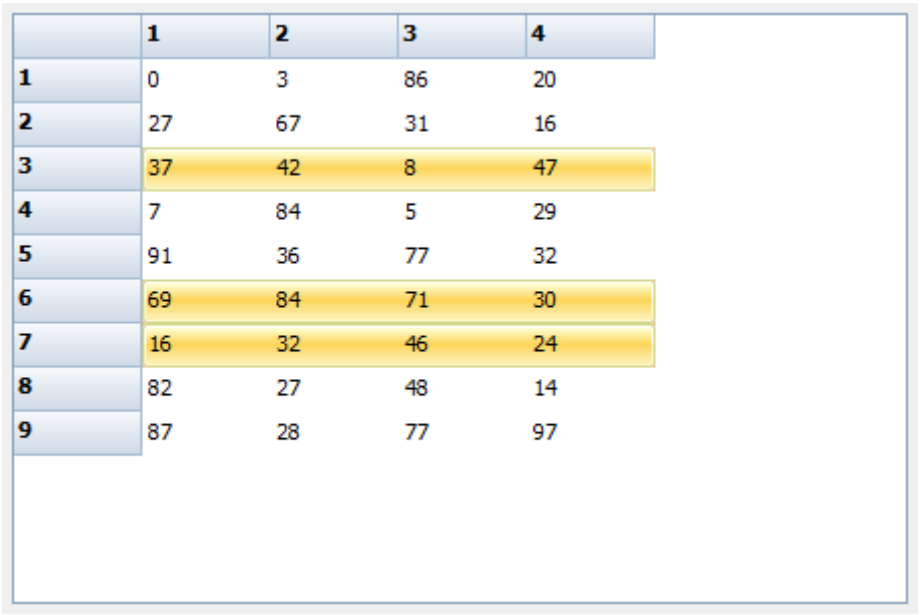
Via grid.Look, two new styles can be selected: the Windows 7 style and the Office 2007 style. The Windows 7 style uses the Windows Explorer color scheme and applies the selection gradient identical to the selected items color in the Windows Explorer. The Office 2007 color scheme emulates the Office 2007 Luna color with the orange gradient selection colors.

Windows 7 color scheme



	1	2	3	4
1	0	3	86	20
2	27	67	31	16
3	37	42	8	47
4	7	84	5	29
5	91	36	77	32
6	69	84	71	30
7	16	32	46	24
8	82	27	48	14
9	87	28	77	97

Office 2007 color scheme



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6	69	84	71	30
7	16	32	46	24
8	82	27	48	14
9	87	28	77	97

New : Windows Vista / Windows 7 Explorer row selection style

With the new Windows Vista, Windows 7 Explorer row selection style, the entire selected row(s) have a single border.

New : OnGetCellGradient event added

Via the OnGetCellGradient event, a single or dual mirror gradient can be dynamically specified per cell.

New : overriding fixed cell colors simplified

Where in former versions it was required to select a single color style for fixed cells to override the color, now it is possible to set a fixed cell color for any type of fixed cell color (ie. solid color, single gradient, dual gradient)

New : Replace function added

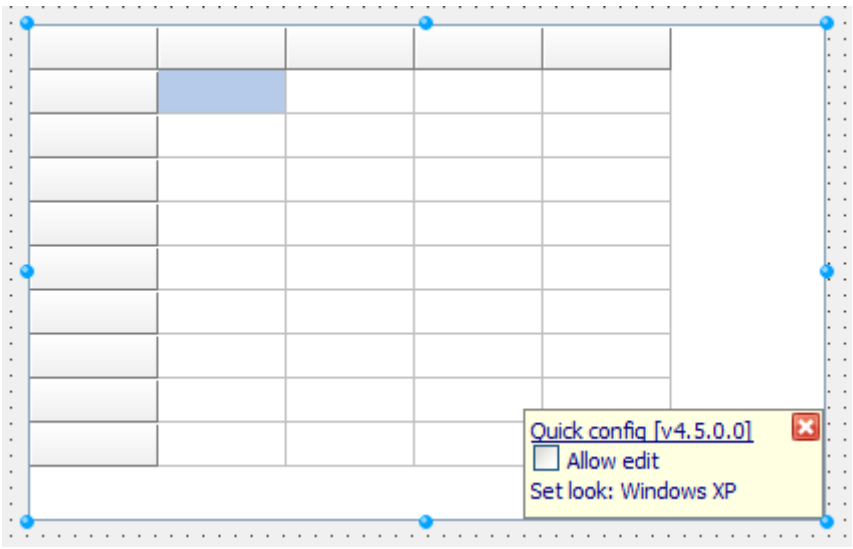
The replace function allows to replace text in cells. The specification for choosing in what cells to replace text is identical to the grid.Find() capabilities. With this sample code, for all cells that start with character '3' in column 2, the '3' will be replaced by 'A':

```
AdvStringGrid1.Col := 2;
AdvStringgrid1.Replace('3','A',[fnFindInCurrentCol, fnMatchStart]);
```

New : ColumnSize.SynchNormalCellsOnly property added

When grid.ColumnSize.SynchWithGrid is set true, the size of all columns will proportionally change with grid width changes. It can be desirable that fixed columns are excluded for this proportional sizing of columns. This can be enabled now by setting grid.ColumnSize.SynchNormalCellOnly to True.

New : Quick config design time helper
At design time, a quick config box is shown by default. This provides easy & fast access to enable or disable editing in the grid as well as make a selection from the different built-in looks for the grid:



New : HTMLSettings.ExportImages property added
Via the grid.HTMLSettings.ExportImages property it can be controlled whether images are exported or not when saving the grid to HTML.

Improved : custom inplace editor usage
Positioning and handling of auto advance, edit cancelling has been improved when custom inplace edit controls are used via TEditLink classes.

Improved : inplace date editor starts with first char entered
Now the date editor is also started and entered in edit mode with the first character pressed on the grid to start the editing.

Improved : mouse handling when PreciseCheckBoxCheck = true
For a checkbox in a right-aligned cell, the PreciseCheckBoxCheck will now also work to accept a checkbox click only when the checkbox is clicked and not the entire cell.

Improved : position of text during edit versus display
Position of text in inplace editors now 100% matches the position of the text in the cell when in normal display mode.

Improved : export to HTML
Export to HTML now handles merged cells and hidden columns better.

Improved : handling of cell validation
Cell validation and keeping the inplace editor active when incorrect values are entered is now more consistent for the various supported inplace editor types.

Improved : faster handling of row hiding / node expand & collaps
The performance of the algorithm to hide rows, expand and collaps nodes has been improved.

Improved : button painting in SearchFooter
The buttons in the search footer now properly paint with Windows theme when enabled.

Improved : shortcut handling in search footer
Accelerator keys on search footer buttons are now handled.

Improved : automatic sort type detection
Algorithm to automatically detect whether a date, a time or a combined date & time is in a cell has been improved.

Fixed : issue with mouse wheel & disjunct row selection
Issue with selected rows being affected by using the mousewheel with the grid has been fixed.