



FlyGrid.Net: Fast, Easy and Intelligent Data Manipulation

Process your data on the fly with the industry-leading Windows.Forms control

White Paper

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A Datagrid is a widely utilized graphical interface element that allows viewing and managing data in tabular form. Typical features of a grid view include ability to sort data, change column and row width, and edit data in-place. Basic grid control capabilities are provided by Microsoft Windows.Forms, which are shipped with Microsoft .NET suite. However, the feature set provided by Windows.Forms does not fairly comply with contemporary requirements for data presentation. The today's software marketplace offers a variety of third-party controls with wider capabilities.

This white paper is intended for .NET developers and team leaders looking for the right solution to streamline front-end development in .NET. Read this Whitepaper to understand the main advantages of the fast and multipurpose Grid and Tree data presentation component **FlyGrid.Net**.

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Introduction

*Once, there was a chaos of enterprise data from a variety of sources of every type, format and structure. And a challenge to bring them all together in a series of manageable, editable and quickly refreshable interface screens... Then came **FlyGrid.Net** – a Windows.Forms tool specially designed to answer the challenge.*

FlyGrid.Net is not just another grid control for data-driven applications, as one could assume from its name. It's a universal and powerful data processing tool, which helps to make sophisticated software development faster and cheaper.

The main concept of **FlyGrid.Net** is to bring to developer's fingertips as many capabilities as possible without sacrificing the application performance. **FlyGrid.Net** combines unlimited node nesting with all kinds of list- and tree views to offer a wide range of interface structures. A variety of supported data sources make **FlyGrid.Net** a most universal presentation layer tool for data-centric dynamic applications. Advanced viewing and printing capabilities, tunable look-and-feel, native support for copy-paste, drag-and-drop, inline editing and many more features are present in a lightning-fast, lightweight, 100% **C#**, **Windows.Forms**- and **CLS**-compliant industrial standard control.

FlyGrid.Net: designed by industry experts for industry experts

Speaking about software solutions for developers, the features of a top-notch solution product would be: reliability, high data processing performance, flexibility, intuitivity (adherence to the accepted development standards) and compatibility with other widely used development tools. Combining all these advantages in a single product takes a team of highly skilled and motivated people with hands-on experience in the target development platform.

Since 1998, 9Rays.Net has been focused on development of high-quality programming tools and components for Microsoft .NET (Windows.Forms and ASP.Net), Borland Delphi, C++ Builder, ActiveX. 9Rays.Net is a Microsoft Partner Program member, Borland Technology Partner and ISDEF member.

The company focuses on development of .NET tools and components compatible with Visual Studio .Net, C# Builder, Delphi.Net and other IDEs for .Net Framework.

Having worked with .NET and Windows.Forms since the first beta-versions, 9Rays team has put all its experience, skills and insider knowledge of **C#/.NET** practics into the **FlyGrid.Net** product. **FlyGrid.Net** was designed from scratch with an intention to deliver a highly productive, robust, universal and totally Windows.Forms-native control to streamline interface layer development. This means no Delphi porting, no old-fashioned programmer tricks in modern wear, no interstandard gates, workarounds, forgotten bugs or crosscompiling artifacts. The product is fresh, straightforward and one-hundred-percent **C#** and **Windows.Forms** compliant. The algorithms are completely native for **.NET Framework** and fully adjusted for best performance. Light weight, quick loading, small memory footprint, fast underlying data connection and instant interface response - all these features make up the remarkable performance, which is a trademark of **FlyGrid.Net**.

As **FlyGrid.Net** evolves, it learns to solve more and more sophisticated tasks with each release, while keeping its main advantages – small size, minimal system requirements, flexibility and speed.

The FlyGrid.Net difference

*"..Those developers seeking a fast, standalone, inexpensive, and easy to use Windows.Forms grid and tree view control should definitely download the free evaluation version of **FlyGrid.Net** from the company's Web site and give it a try. It's an application enhancement that data hungry users with high client-side expectations will most certainly appreciate."*

*Mike Riley, a conrtibuting expert for asp.netPRO
(<http://www.aspnetpro.com>).*

Compared to other controls by undistry leaders, **FlyGrid.Net** may lack certain "bells and whistles" of the complete UI packages offered by other industry leaders. In large and rigidly maintained projects that require 100% code and user interface consistency in every UI element, one might still prefer a full UI replacement suite aggregating an "A to Z" range of controls. But these "all in one" universal packages are often large in size, inflexible, resource-consuming and are therefore notoriously low-productive. Most of them utilize their specific development methods which differ from the native .NET ones and take some time to study and master. Moreover, usually the well-advertised set of data presentation

features is tied to a certain source data format, such as a modern relational database, which results in additional data conversion effort in project with a variety of data sources.

FlyGrid.Net is a state-of-the-art solution tailored to answer a specific challenge: fast, easy to use, affordable and ultimately flexible UI development, with changes applied on the fly and front-end development costs slashed by more than 60%. Quick, productive and not overburdened with excessive features, **FlyGrid.Net** allows you to reap the biggest rewards from Windows.Forms-based GUI development with lowest possible time and money investment.

In performing its core task, **FlyGrid.Net** indeed makes a substantial difference compared to other industrial-class controls. It is unique in many ways, featuring a number of advantages that leave the competition far behind.

FlyGrid.Net – a new degree of freedom in UI building

***FlyGrid.Net** is the best-performing grid on market!
We have tried all other grid components (Infragistics, Xceed, DevExpress,..) and your grid is the best!*

Juergen Kosiol, GEVASYS MBH

Small size and high performance

Being a remarkably small package with very modest system requirements, **FlyGrid.Net** is still capable of solving most challenging tasks with ultimate speed.

Universal libraries by other vendors consume up to 20 Mb of disk space and take quite a time to load and operate. With **FlyGrid.Net**, data is processed instantly on the fly, due to the control's small size and straightthrough processing methods. **FlyGrid.Net** is only 340Kb in size and adds 100,000 nodes as quickly as in 0.2 seconds. This makes **FlyGrid.Net** an ideal tool in projects which require high data application productivity, including both large corporate knowledge bases and compact desktop applications by small vendors.

A test on a lowly Pentium III 1 GHz PC with 512 MB RAM has shown 1 million new rows added in 7.8 seconds.

Nativity to .NET framework standards

Most today's Windows.Forms controls have been ported from other platforms and class libraries, with little or no regard to integration with Windows.Forms features. As it was noted above, FlyGrid.Net doesn't have the workarounds of ported solutions – it is totally native to Windows.Forms and integrated seamlessly with its functionality.

FlyGrid.Net is compliant with older versions of the .NET Framework, perfectly understandable for a .NET developer, and totally friendly to any Windows.Forms application environment. Moreover, **FlyGrid.Net** is the most promising investment for the future. Designed with forward-looking compatibility considerations, **FlyGrid.Net** will naturally evolve together with the Windows.Forms technology it is based on. The next planned version of **FlyGrid.Net** will be even more seamlessly integrated with .NET standards.

*With **FlyGrid.Net**, only .NET skills are required from your staff to kick off with UI development.*

Flexibility

Apart from its flexibility in architecture, **FlyGrid.Net** offers a totally flexible approach to data processing.

While most industrial solutions add data in data-bound mode only, **FlyGrid.Net** can process data in bound, unbound, virtual and mixed modes.

Data layer flexibility, combined with high processing performance is a typical requirement for, e.g., financial applications using online data feeds and a number of other data sources, often differently structured, with lots of calculations made dynamically on the fly.

Unlike other grids, often limited to grid/spreadsheet representation, **FlyGrid.Net** supports a wide range of data views, including grid view, tree- and list views, and a combination of those, allowing to design a wide variety of interface structures. Forget about using separate components for building virtual grids, spreadsheets, data trees, task lists, or any other hierarchical and linear data representation structures. No more problems with sorting, grouping or printing summaries. All the features you may need are present in a single control. With **FlyGrid.Net**, you can produce tailored front-ends in most challenging projects, bringing enterprise data to users through a set of customizable feature-rich application screens.

This was a short tour to the product advantages - the tip of the **FlyGrid.Net** iceberg. These acknowledged strengths of the FlyGrid.Net, along with the state-of-the-art set of features, has gained the product a growing pool of dedicated customers, including Intel, BNP Paribas, Data Recognition Corp., Fox Broadcasting, U.S.,

Bancorp, Deltek Systems, eBroker Systems, Ness U.S.A. Inc., GEVASYS MBH and many others.

FlyGrid.Net: features

FlyGrid.Net offers an extensive feature set:

100% C#, Windows.Forms, CLSCompliant Control
Speed, Flexibility, and Performance
Small size - about 400Kb
Compatible with .Net 1.0, 1.1, 2.0 versions.
Wide range of C# and VB.Net and Delphi.Net samples available.
Works in unbound, bound and virtual modes and mixes of these modes.
Fast adding and clearing of nodes
Connecting to data sources or adding nodes directly to rows
100,000 nodes added per 0.2 sec
Development Environments and Languages support
Microsoft Visual Studio 2003
Microsoft Visual Studio 2005
Borland Developer Studio
Includes C#, VB.Net and Delphi.Net samples collections.
Section 508 Compliance Fully Supported
You can use the FlyGrid.Net to build applications that conform to Section 508 requirements. This allow you design applications that bring new opportunities to people with disabilities.
Design Time/Serialization
Full design-time support.
Full CodeDom serialization support.
Flexible runtime/design-time Nodes editor for NodeCollection (TreeCollection.Items, FlyGrid.Rows.Item)
Flexible format designer for NumberColumn and DateTime columns.
Data
Works in bound,unbound, virtual and mixed modes
Connects to several types of data sources - TreeCollection provides work with non DB-bound data, an IList and IListSource implementors.
Allows IBindingList, ITypedList, ICustomTypeDescriptor as data source.
Nested data open automatically in the nested grids.
Print/Preview

Generates PrintDocument
Flexible printing options, header, footer, pages numbering.
FitToPage, FitToPageWidth modes available
Printing in single line of code
Split Views and Fixed Columns
Provides splitting into several horizontal and vertical views, supports removal and addition of split view runtime.
Supports fixed columns on the left and right sides of control.
Selection
Cell block Selection
Extended selection: Shift/Ctrl allowed
Drag/Drop
Selection - cell blocks/rows/columns.
Several formats can be dragged.
UI support
Columns
Wide range of column types.
Editable column headers.
Column Summaries types - Count, Max, Min, Average, Sum.
Column Filters can be customized at runtime.
Various column sizing modes - Exact, ToCaption, ToText, SmartFit, Sping
Maximally customizable - you can develop your own column or extend functionality of existing column.
EditMask support.
Special column types - HierarchyColumn and TreeViewColumn to display outline/checkboxes associated with nodes.
Resizable columns.
Movable with UI support.
Clickable
Support SortOrder, show sort order markers.
Automatic change of sorting order by clicking on the column header
Support images in headers.
Caption alignment, Text alignment
Support pixel scrolling on horz.scroll
Four built-in style editors: simple, dropdown, dialog, spin

Custom dropdowns - any control can be a dropdown.
Custom drawing of column elements.
AutoDetectDataTypeColumn - dynamically autodetects data type, editor style, and uses standard value editors like PropertyGrid. The best solution for organizing vertical grids.
Context menu for each column, that can be prepared in the on before pop-up.
Nodes/Rows
Nested grids: each row of FlyGrid can contain several levels of nested grids.
Sorting by several columns.
Group/Ungroup by several columns.
Display linear and hierachical data.
Display data as vertical grids (see the Demo).
Expand/collapse nodes.
Support checkbox and radiobutton nodes.
Nodes can be hidden
Row header display
Row indicator display
Implementing some special interfaces allows additional functionality (IStyledNode, INodeWithImage, ISeparatorNode ...)
Look and feel
Full support of XP Themes: OfficeXP emulation, XP - full support
Five styles of appearance NoBorders (UltraFlat), Flat, Lite, Standard, OfficeXP, XP (supports themes, app is not themed - emulates)
Hot tracking.
Fully customizable: via Stylist you can control drawing of any FlyGrid.Net element (Example: see GradientStylist.cs in the SDK)
ToolTips support.
In cells.
In column headers
International/Unicode/RightToLeft
Full RightToLeft support
Unicode
Unlimited string length in cells supported
Localizable properties.
Built-in Editors.

Four built-in style editors: simple, dropdown, dialog, spin.
Custom dropdowns - any control can be a dropdown.

Data presentation– from simple to advanced

FlyGrid.Net fully supports XP themes and drawing, with four types of column editor styles: simple, dropdown, dialog and spin and allows custom dropdowns (any Windows.Forms control).

The most common data presentation type is a grid/spreadsheet view. Custom coloring, styles, support for background images with alpha blending makes even a common flat grid look tasty.

Another popular data structure is treeview. All items are inline editable. Add drag-and-drop feature for users if necessary.

A fusion of Tree and Grid provides quite a variety of new combinations. Tree/List View with easy grouping. Example is enriched with Print Preview and Dynamic tooltips.

Spreadsheet view supports inline editing and formatting. Easy organizable recursive outline trees.

You can embed various custom editors into the Grid. Useful for building property sheets, etc. Editor style autodetect feature makes life easier.

Another example of tree and grid view junction – Nested Grids

FlyGrid.Net offers a wide range of customizations options: including Shift/Ctrl cell block selection, split view capability (users can split the grid into several horizontal and vertical splitted views and resize them), full support of RightToLeft, numerous drag and drop options. Grouping and sorting is allowed on several columns.

Data binding features

FlyGrid.Net is a data-aware control: you can bind it to almost any data source, such as, for example, a contemporary or legacy relational database. **FlyGrid.Net** also works in unbound, virtual, and mixed modes. The underlying database content magically appears to be sorted, searched, filtered, grouped, summarized, edited and printed.

Dropdown value lists, calendar edits, navigation buttons, smart fitting columns are necessary features of any contemporary database control.

Connect to images and build them into the grid.

One of the most common database tasks is a master-detail view. Build any record details into the master table. Each field can be filtered and summarized.

FlyGrid.Net licensing

FlyGrid.Net provides a flexible licensing model, allowing to purchase the necessary features only and leave behind the ones you do not currently need.

Product Name	Source	DataBinding	Nested Grids	Additional columns	Extras, additional samples	Express support / Updates
FlyGrid.Net Light	-	x	-	-	-	60days
FlyGrid.Net Std	-	x	-	x	-	60days
FlyGrid.Net Pro	-	x	x	x	x	60days
FlyGrid.Net Source	x	x	x	x	x	60days
FlyGrid.Net Annual Subscription	x	x	x	x	x	One year

FlyGrid.Net licensing policy was also designed for utmost convenience:

- ◆ **FlyGrid.Net** is licensed Per developer seat. This eliminates the need to purchase additional licenses for each workstation a developer uses when working with **FlyGrid.Net**. This scheme brings more comfort into the development process, allowing to install of **FlyGrid.Net** at your office workstation, home workstation, laptop or any other device with sufficient system resources. This approach helps to maximize project performance.
- ◆ **FlyGrid.Net** distribution is **royalty free**.
- ◆ Having purchased **FlyGrid.Net**, you can distribute **FlyGrid.Net** runtime library (excluding NineRays.FlyGrid.Design.dll) without any additional payments and charges.

Why FlyGrid.Net...

IF you need a smart, productive, flexible and affordable front-end development tool..

IF you are dealing with an application for which the UI response time is critical, and in which you may need to change millions of records in the blink of an eye...

IF you need to combine bound, unbound, virtual data and a mixture of those to build a series of interface views, which you need to regularly refresh...

IF your project requires a variety of front-end viewing and printing capabilities, tunable look-and-feel, native support for copy-paste, drag-and-drop, inline editing and data calculation on the fly...

IF you need an easy-to-use and 100% Windows.Forms-native control...

For all these challenges **FlyGrid.Net** is the best solution available on the market. Download the free evaluation version of

FlyGrid.Net from the company's Web site

<http://www.9rays.net/products/FlyGrid.Net> or

<http://www.flygrid.net>

and see the difference.

Related Links

For more information about **FlyGrid.Net** visit

<http://www.9rays.net/products/FlyGrid.Net>

For documentation and evaluation download

<http://www.9rays.net/products/FlyGrid.Net/download/flygrid.zip>