

Modern Desktop with Telerik UI for WinForms



Hristo Merdjanov

Software Engineering Manager

3 June 2025

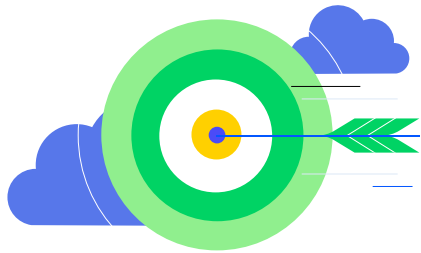
Full-featured, themeable, developer friendly UI components for modern desktop apps

Agenda

- Standard WinForms
- Telerik UI for WinForms
- Document Processing
- Q & A Session

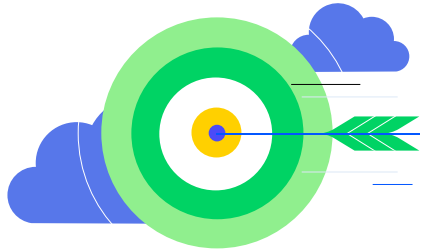
Standard WinForms

Standard WinForms



How is it built?

Standard WinForms

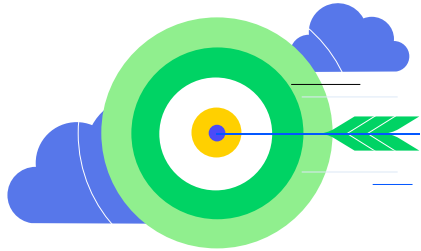


How is it built?



Why is it so good?

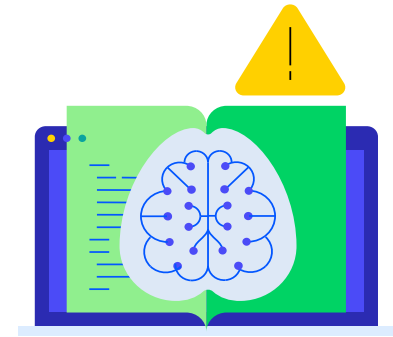
Standard WinForms



How is it built?



Why is it so good?



Pitfalls

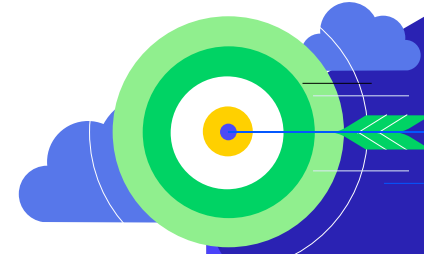
Standard WinForms

How is it built?

Standard WinForms

How is it built?

- Win32
- Control Wrappers
- Message Loop
- Rendering
- Event Model
- Interop



Standard WinForms

Why is it so good?

Standard WinForms

Why is it so good?



- Fast to Learn and Use
- Productive Visual Designer
- Deeply Integrated to Windows
- Mature and Stable

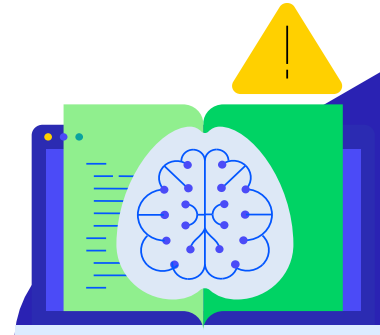
Standard WinForms

Pitfalls

Standard WinForms

Pitfalls

- Control Set and Features
- UI/UX
- Customizations
- Scaling
- .NET Framework vs .NET



Telerik UI for WinForms to the Rescue...

**...Delivering More Than
Expected Since 2006**



Microsoft

Foundation

- Control Set & Features
- UI/UX
- Customizations
- Scaling
- Visual Designer
- Accessibility
- Community Support



Telerik

Added Value



- Extensive Component Library
- Themes
- Telerik Presentation Framework
- High DPI & Vector Graphics
- Enhanced Editors and Wizards
- UI Automation Everywhere
- Technical Support

Control Set → Extensive Component Library

Extensive Component Library

Data Management

GridView

PivotGrid

VirtualGrid

ListView

TreeView

FilterView

PropertyGrid

Extensive Component Library

Data Management

GridView
PivotGrid
VirtualGrid
ListView
TreeView
FilterView
PropertyGrid

Data Visualization & Scheduling

Map
Diagram
Chart View
Scheduler
GanttView
TaskBoard
TreeMap
Gauges

Extensive Component Library

Data Management

GridView
PivotGrid
VirtualGrid
ListView
TreeView
FilterView
PropertyGrid

Data Visualization & Scheduling

Map
Diagram
Chart View
Scheduler
GanttView
TaskBoard
TreeMap
Gauges

Forms and Interactivity

Forms
Docking
Flyouts
Task Dialog
Virtual
Keyboard
Webcam
Image Editor

Extensive Component Library

Data Management

GridView
PivotGrid
VirtualGrid
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TreeView
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Data Visualization & Scheduling

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Gauges

Forms and Interactivity

Forms
Docking
Flyouts
Task Dialog
Virtual
Keyboard
Webcam
Image Editor

Document Viewers

RichText
Editor
Spreadsheet
PDF Viewer
Syntax Editor

Extensive Component Library

Data Management

GridView
PivotGrid
VirtualGrid
ListView
TreeView
FilterView
PropertyGrid

Data Visualization & Scheduling

Map
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Gauges

Forms and Interactivity

Forms
Docking
Flyouts
Task Dialog
Virtual
Keyboard
Webcam
Image Editor

Document Viewers

RichText
Editor
Spreadsheet
PDF Viewer
Syntax Editor

AI

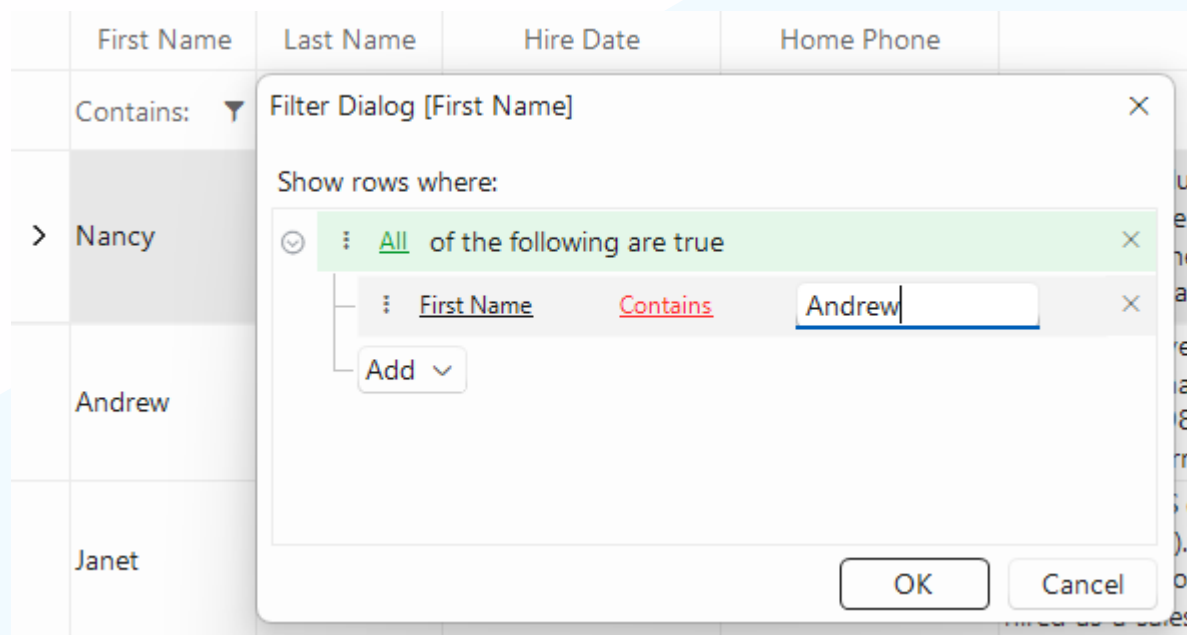
AI Prompt
PDF AI
Insights
TBD

Data Management

Data Management

RadGridView

- Sorting, Filtering, Grouping, Paging
- OpenEdge BypassFilter & BypassSort mode
- Hierarchical Data Display
- Summary Rows
- UI Virtualization
- Easily Customizable
- Exporting data

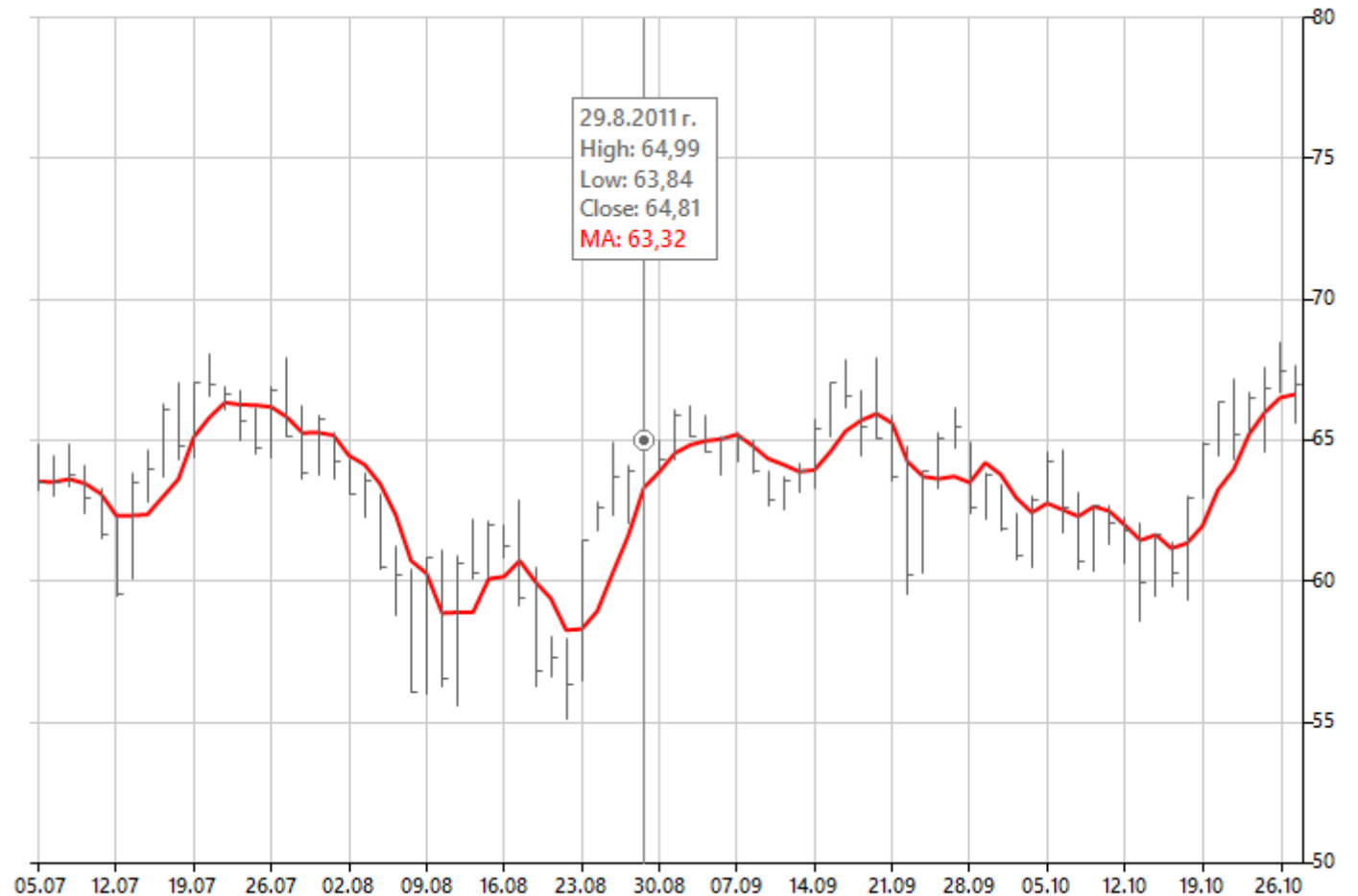


Data Visualization

Data Visualization

RadChartView

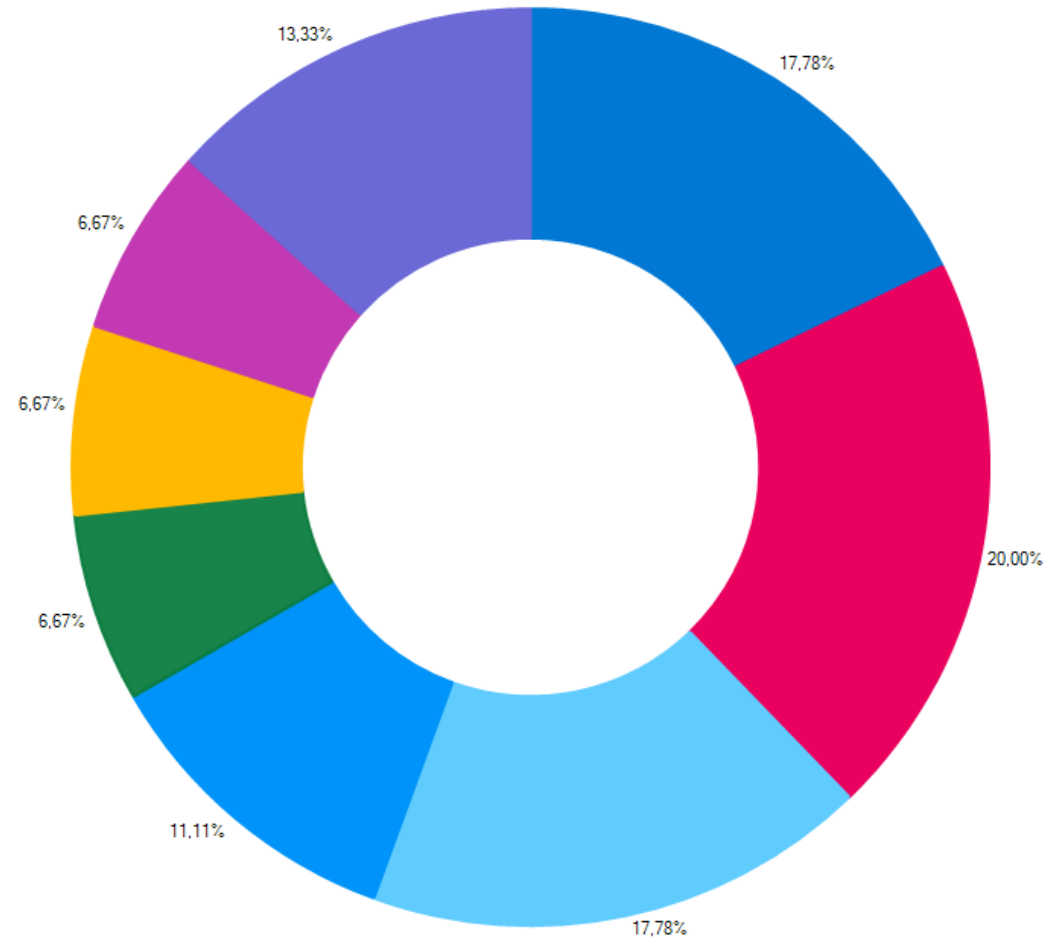
- Cartesian Area



Data Visualization

RadChartView

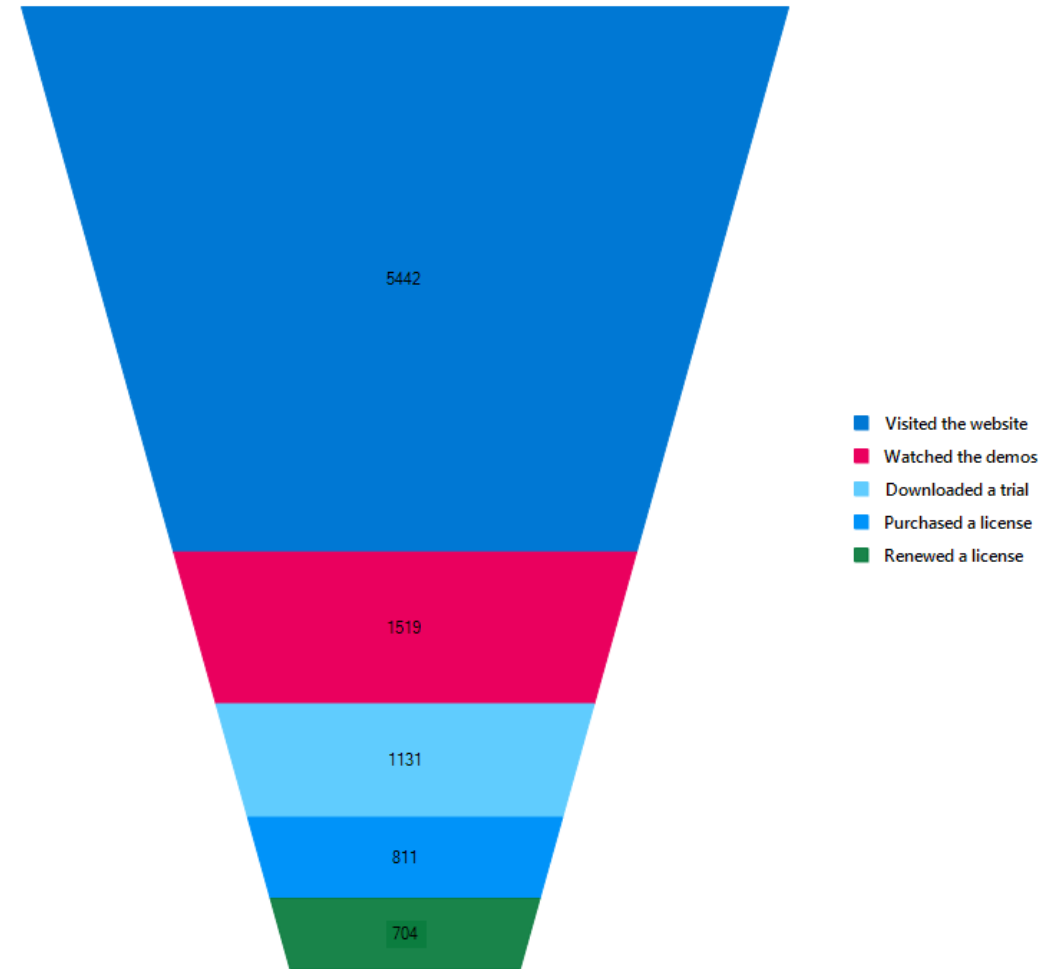
- Cartesian Area
- Pie Area



Data Visualization

RadChartView

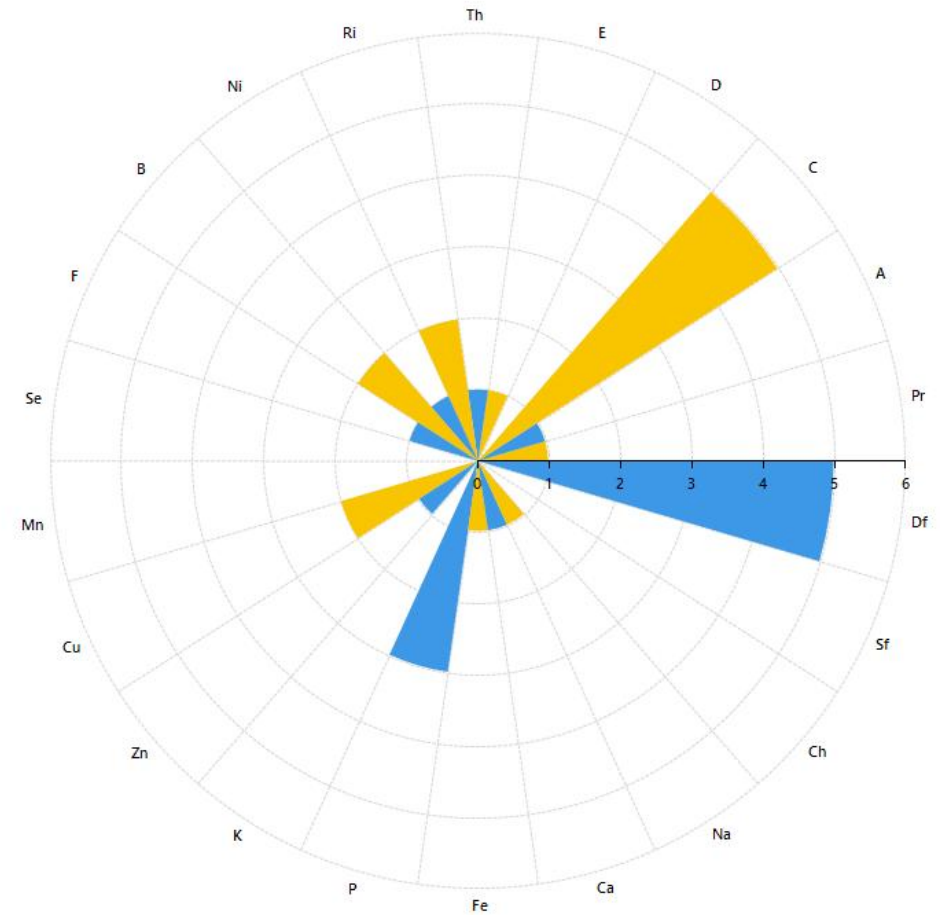
- Cartesian Area
- Pie Area
- Funnel Area



Data Visualization

RadChartView

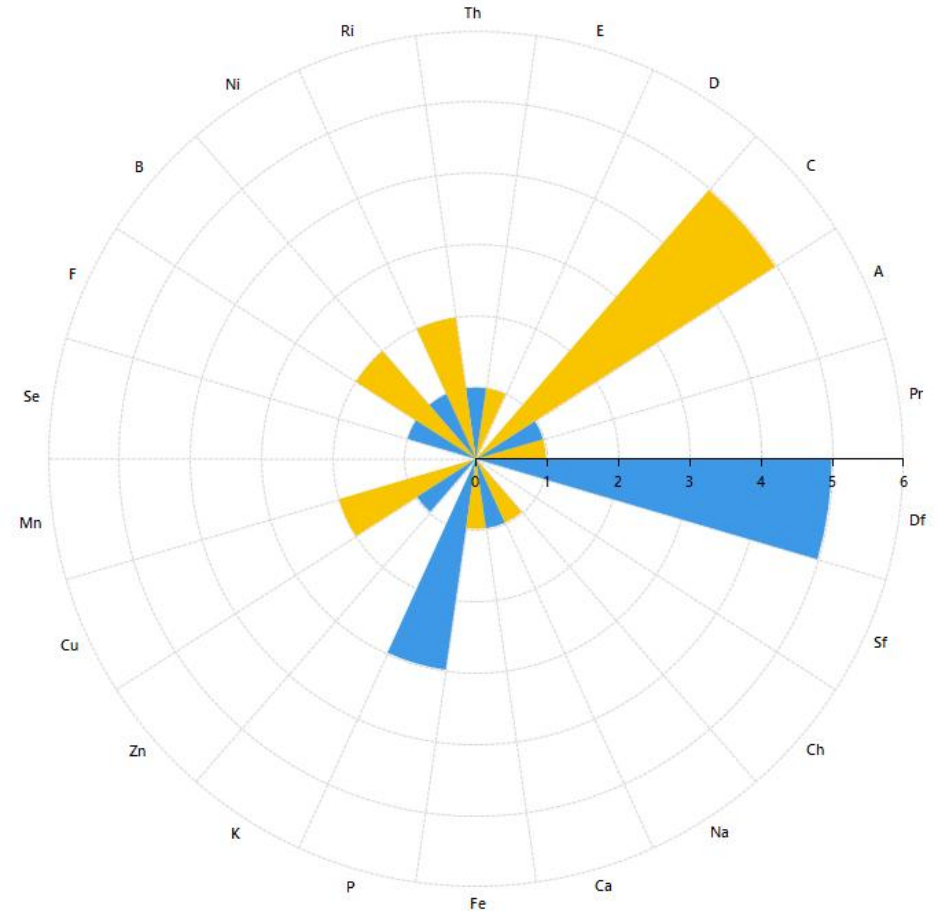
- Cartesian Area
- Pie Area
- Funnel Area
- Polar Area



Data Visualization

RadChartView

- Cartesian Area
- Pie Area
- Funnel Area
- Polar Area
- Features: Scroll & Zoom, Drill-Down, Trackball, Smart Labels, and many more in our [docs](#)

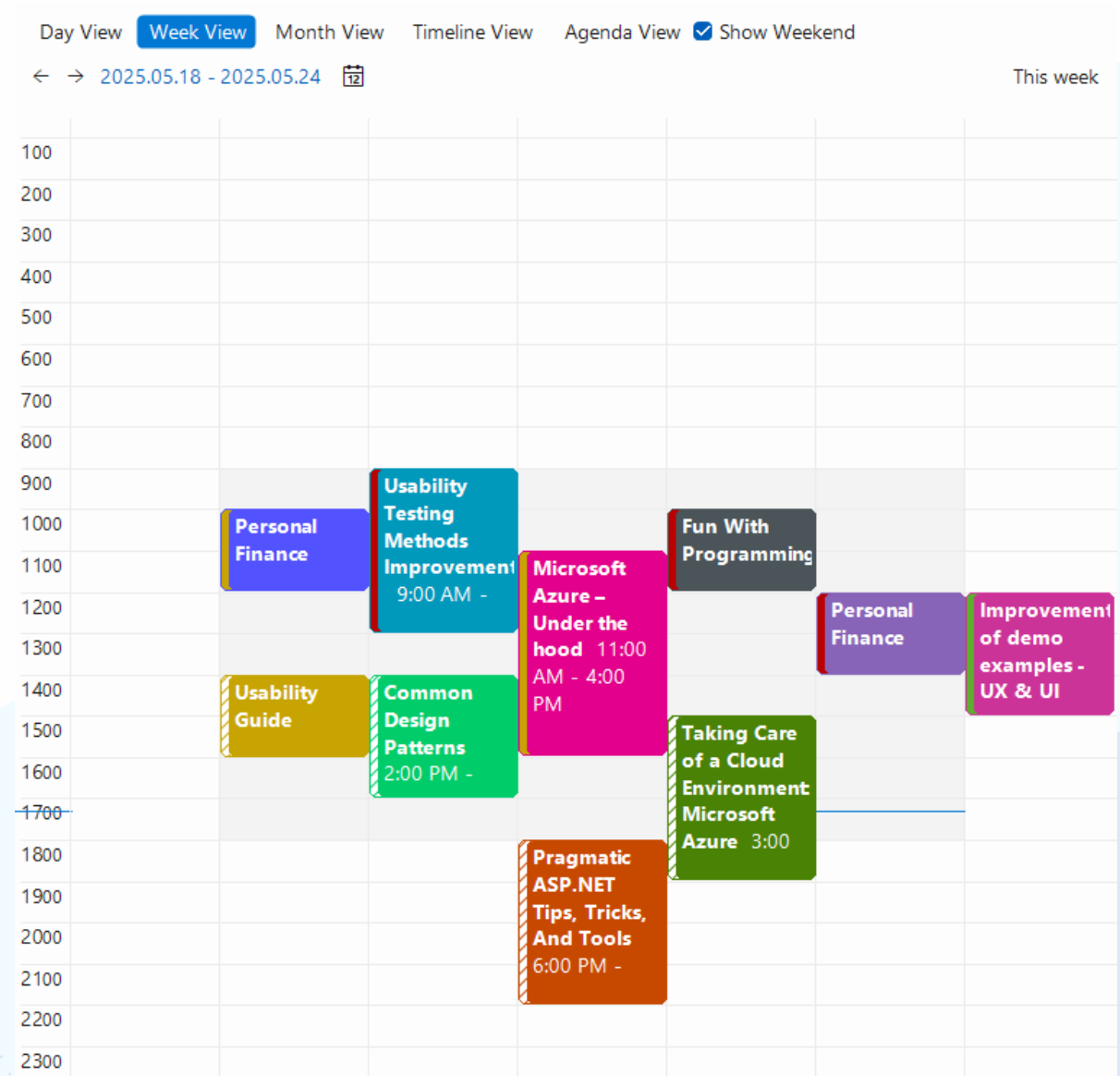


Scheduling

Scheduling

RadScheduler

- Appointment Management
- Variety of Data Sources
- Resources and Grouping
- Reminders and Notifications
- Time Zones and Globalization
- ICal compatible
- Easily Customizable



Interactivity

Forms

Interactivity

Forms

- Form

RadForm Example

Change Theme About

Group by: City ▲ ×

	Last Name	First Name	Title	Hire Date	Country
▼	City: Kirkland				
▲	City: London				
>	Buchanan	Steven	Sales Manager	10/17/1993	UK
	Suyama	Michael	Sales Representat...	10/17/1993	UK
	King	Robert	Sales Representat...	1/2/1994	UK
	Dodsworth	Anne	Sales Representat...	11/15/1994	UK
▼	City: Redmond				

Radio Buttons

☒ radRadioButton1

☐ radRadioButton2

☐ radRadioButton3

Buttons

Check Boxes

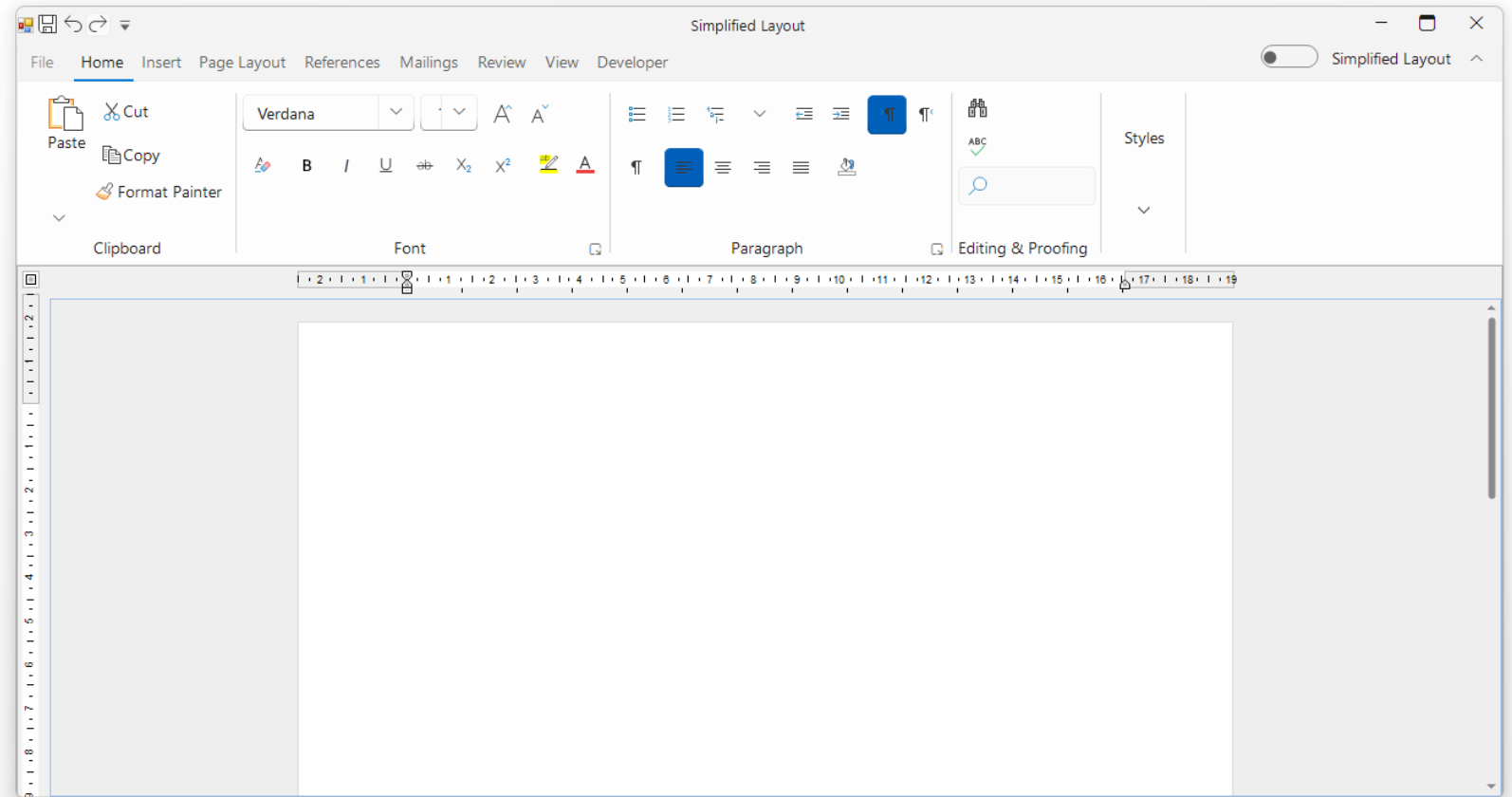
Radio Buttons

Page 1 of 1 Words: 2 Saving... ☒ Check for errors English (US)

Interactivity

Forms

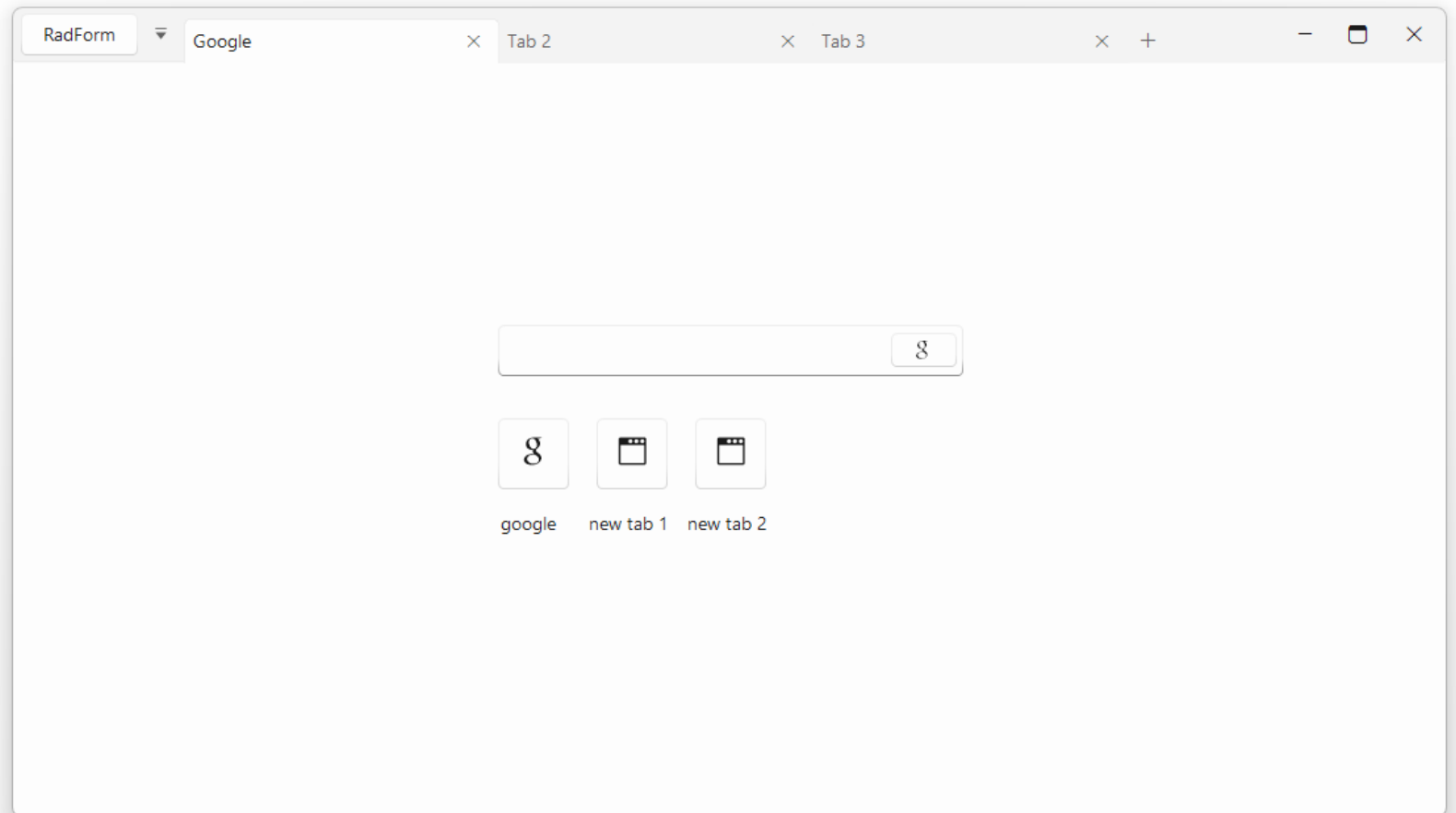
- Form
- Ribbon Form



Interactivity

Forms

- Form
- Ribbon Form
- Tabbed Form



Interactivity

Forms

- Form
- Ribbon Form
- Tabbed Form
- Toolbar Form

Data Editor Progress Corporation

General Security Profile Project Settings

Pivot ☒ HM

Database

Sum of Quanti Sum of N Year Promotion Aggregates

2010

Produ	Adver	1 Free with 10	Extra Discount	2010 Sum of	2010 Sum of	Total Sum of	Total Sum of
		Sum of Quanti	Sum of Net	Sum of Quanti	Sum of Net		
Printer stan	Direct mail	176	2070,81	162	1679,94	338	3750,75
	Magazine	264	3148,11	282	2964,34	546	6112,45
	Newspaper	198	2346,08	262	2716,94	460	5063,02
	Printer stand T	638	7565,00	706	7361,22	1344	14926,22
Mouse pad	Direct mail	385	2991,45	367	2469,91	752	5461,36
	Magazine	836	6464,64	760	5114,80	1596	11579,44
	Newspaper	484	3760,68	528	3553,44	1012	7314,12
	Mouse pad To	1705	13216,77	1655	11138,15	3360	24354,92
Glare filter	Direct mail	220	3293,40	182	2360,54	402	5653,94
	Magazine	352	5224,56	367	5009,99	719	10234,55
	Newspaper	242	3622,74	345	4474,65	587	8097,39
	Glare filter Tot	814	12140,70	894	11845,18	1708	23985,88
Copy holde	Direct mail	154	1196,58	168	1130,64	322	2327,22
	Magazine	341	2610,72	214	1440,22	555	4050,94
	Newspaper	297	2307,69	265	1783,45	562	4091,14
	Copy holder T	792	6114,99	647	4354,31	1439	10469,30
GrandTotal		3949	39037,46	3902	34698,86	7851	73736,32

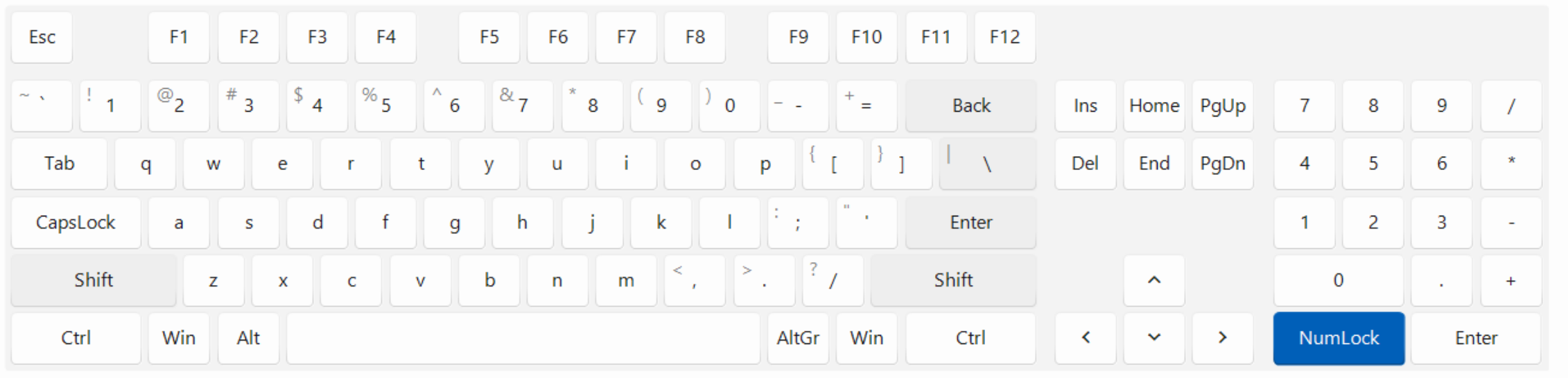
Interactivity

Virtual Keyboard

Interactivity

Virtual Keyboard

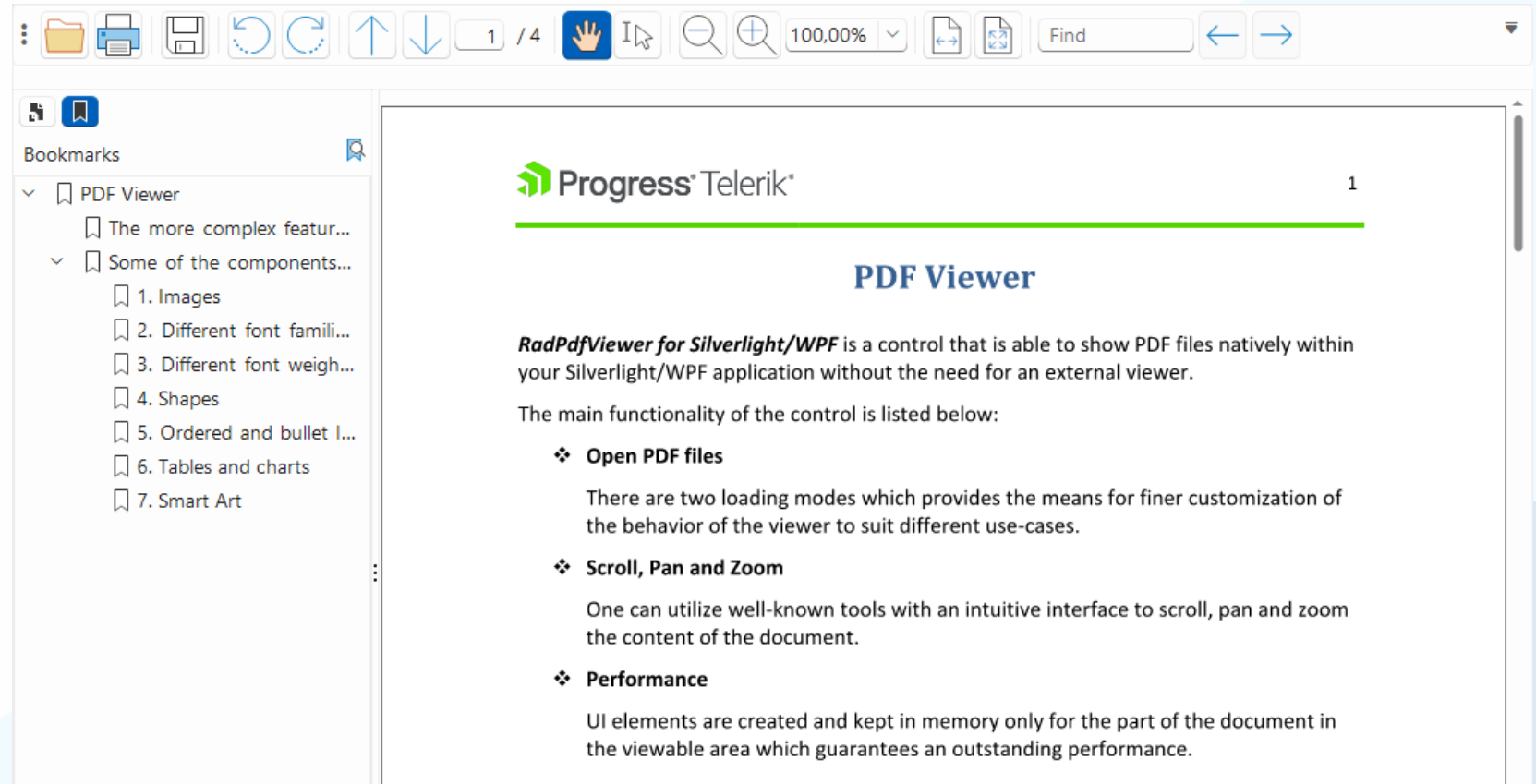
- No Need of a Physical Keyboard
- Predefined Layouts - QWERTY
- Custom Layouts: AZERTY, Dvorak
- System Synchronization



Document Viewers

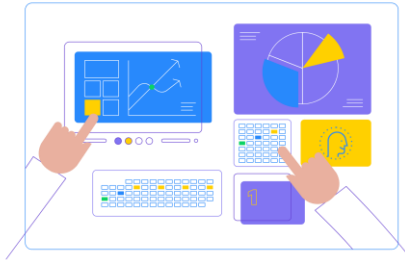
Document Viewers

- RichText Editor
- Spreadsheet
- PDF Viewer
- Syntax Editor

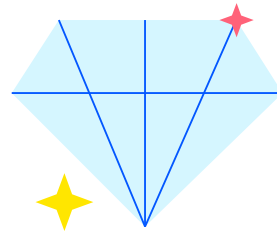


UI/UX → Themes

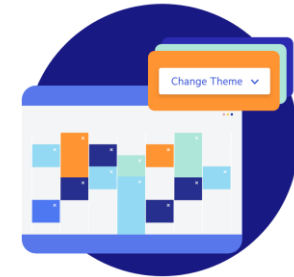
Themes



Modern



Classic

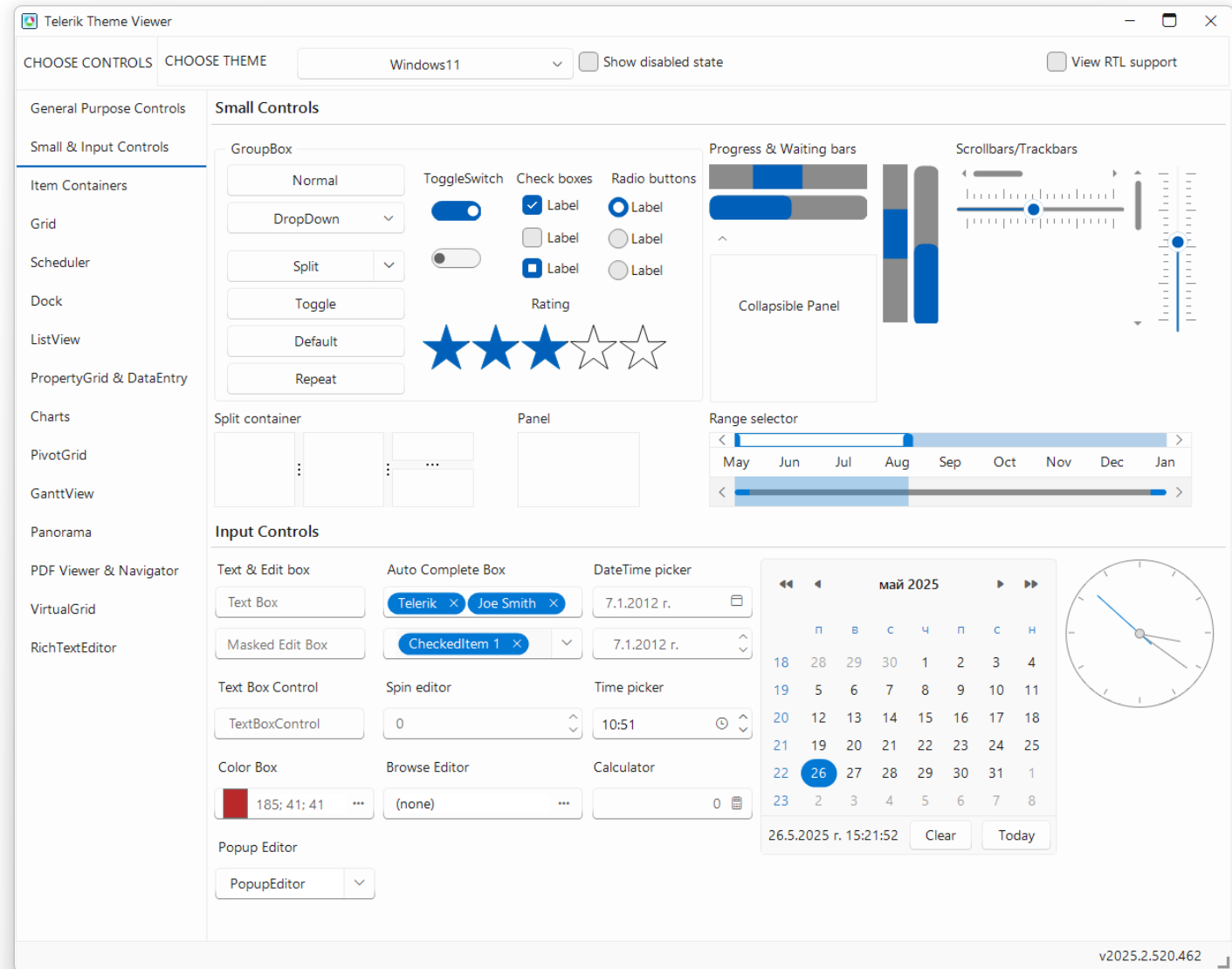


Dark

Themes

Modern

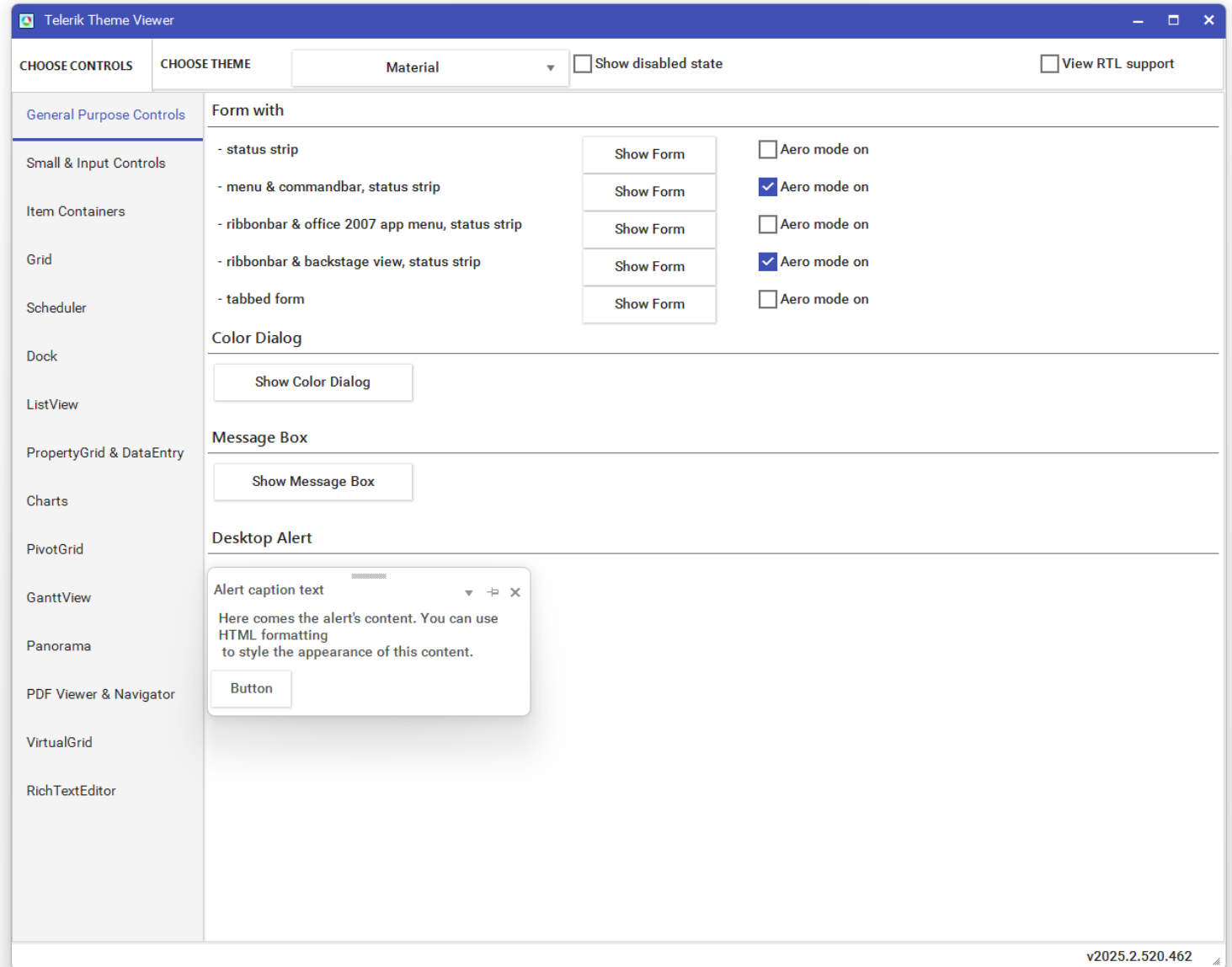
- Windows 11
- Material
- Fluent
- Crystal
- Visual Studio 2022
- Office 2019
- Telerik Metro



Themes

Modern

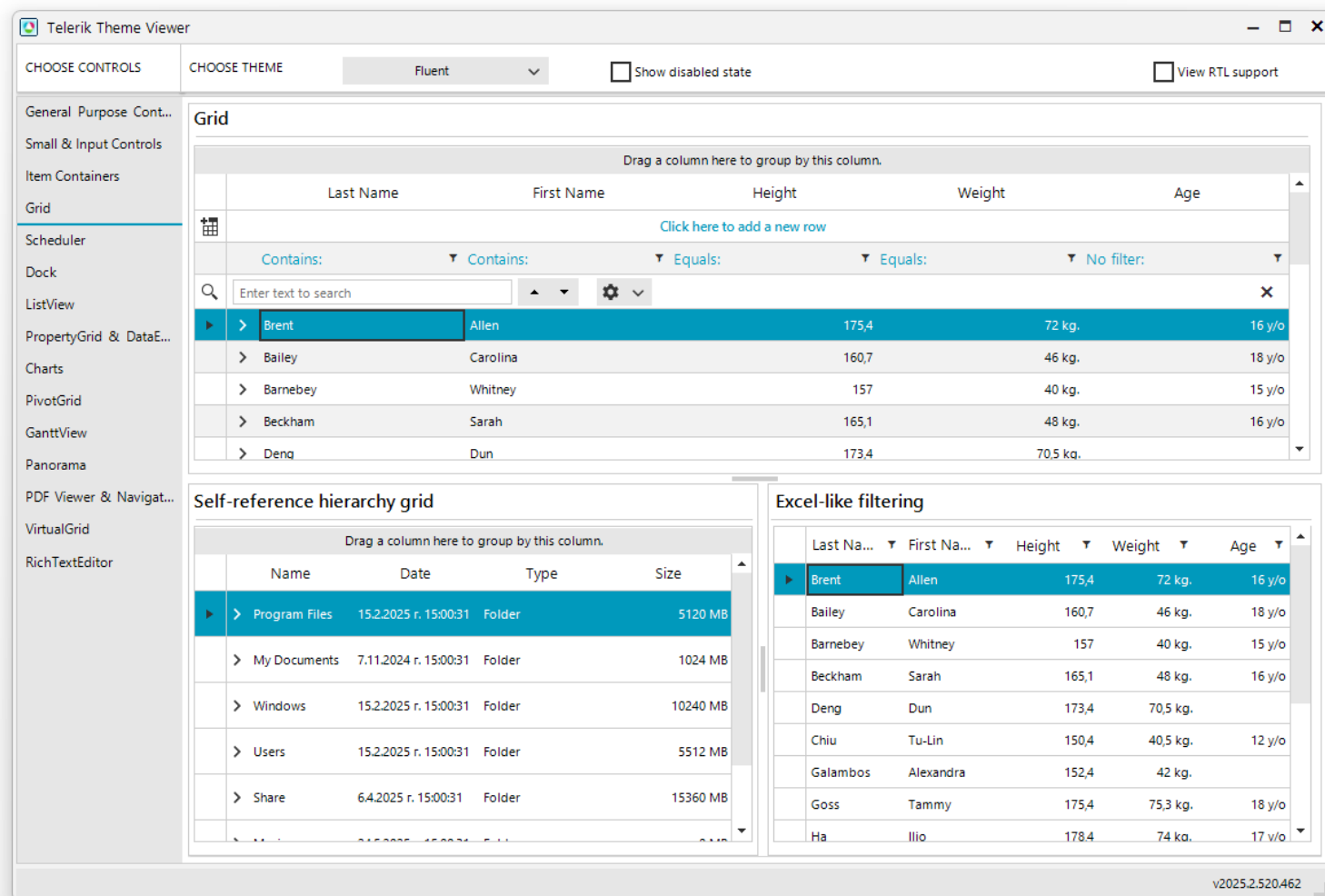
- Windows 11
- Material
- Fluent
- Crystal
- Visual Studio 2022
- Office 2019
- Telerik Metro



Themes

Modern

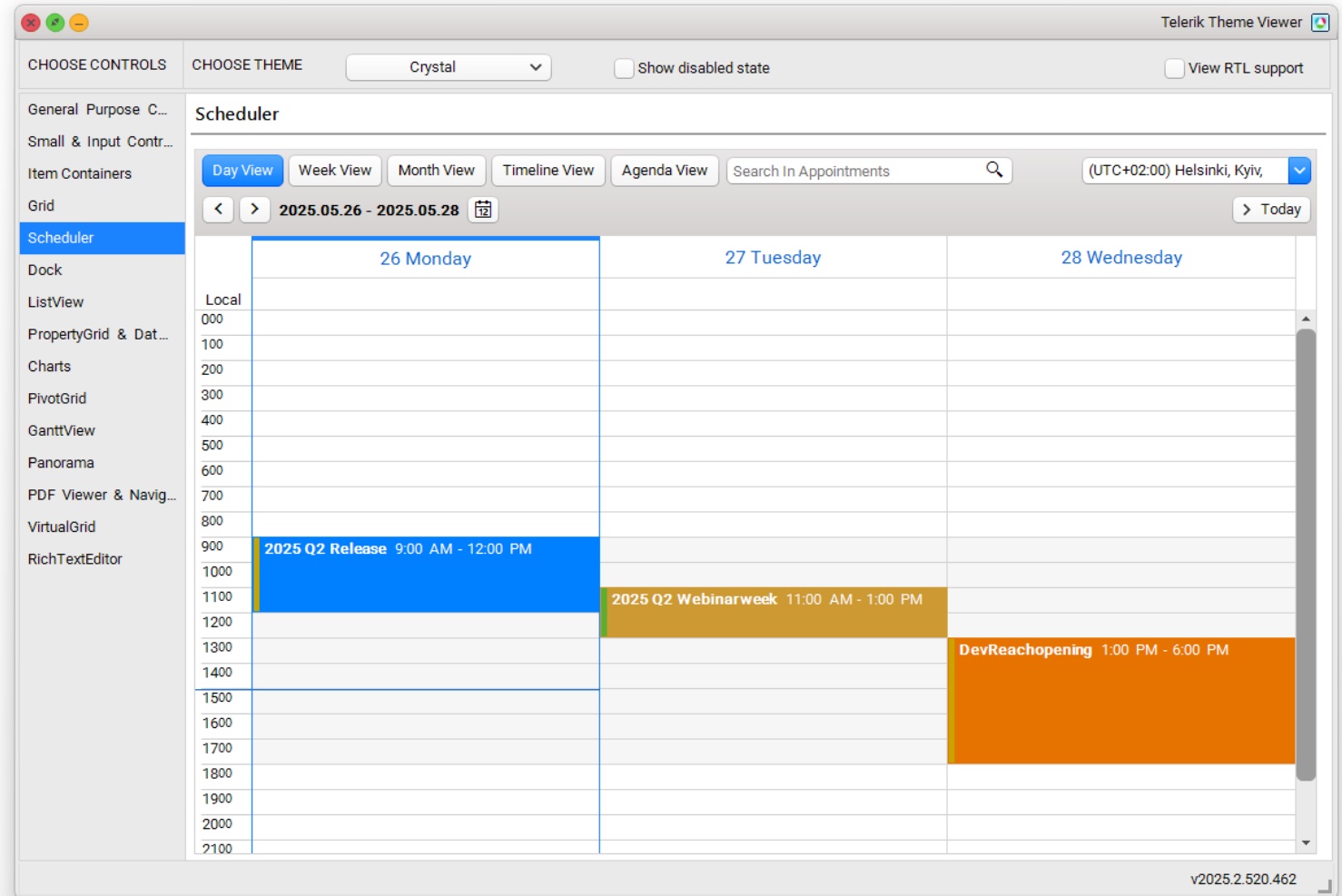
- Windows 11
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- Fluent
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- Visual Studio 2022
- Office 2019
- Telerik Metro



Themes

Modern

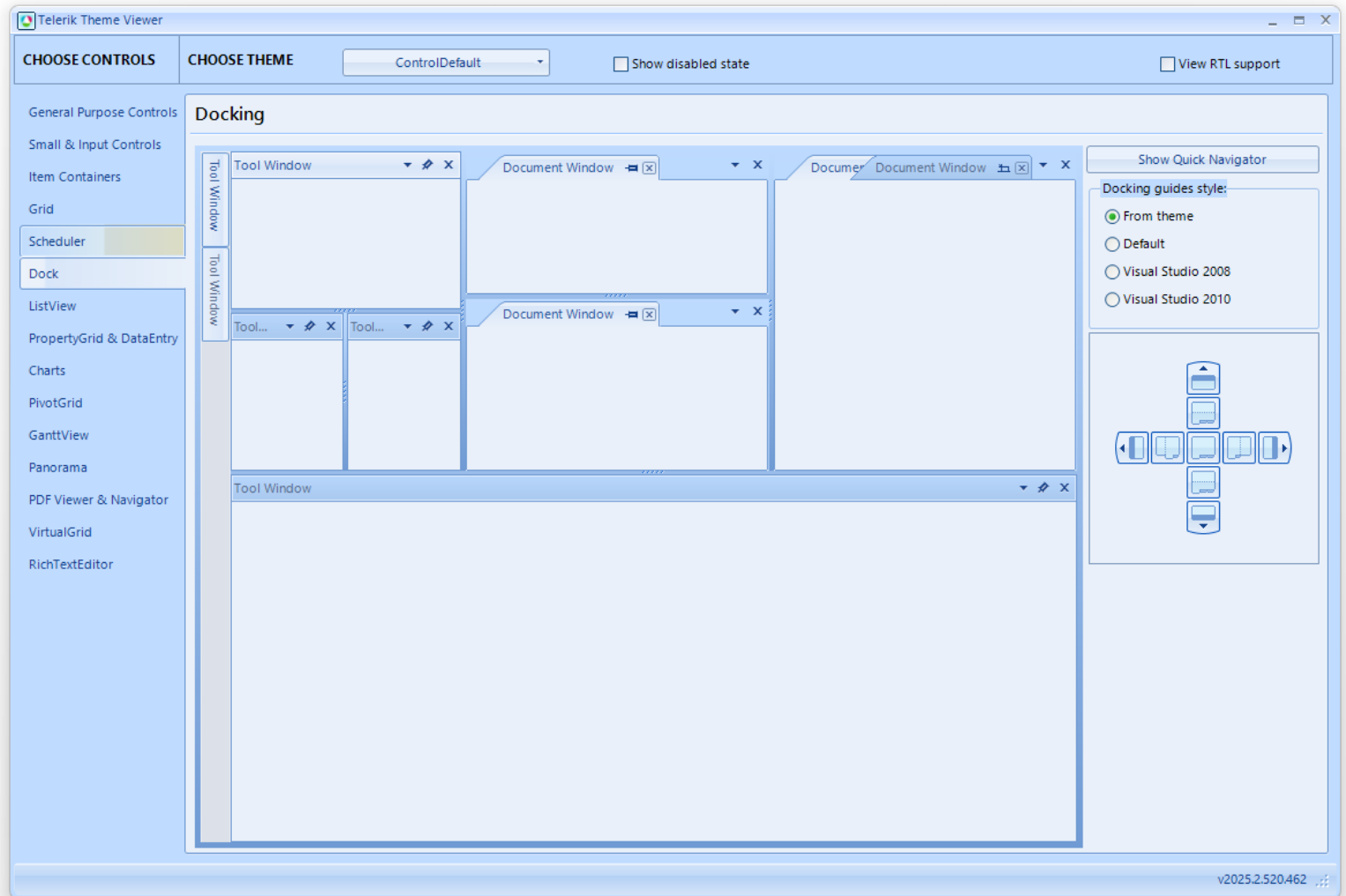
- Windows 11
- Material
- Fluent
- Crystal
- Visual Studio 2022
- Office 2019
- Telerik Metro



Themes

Classic

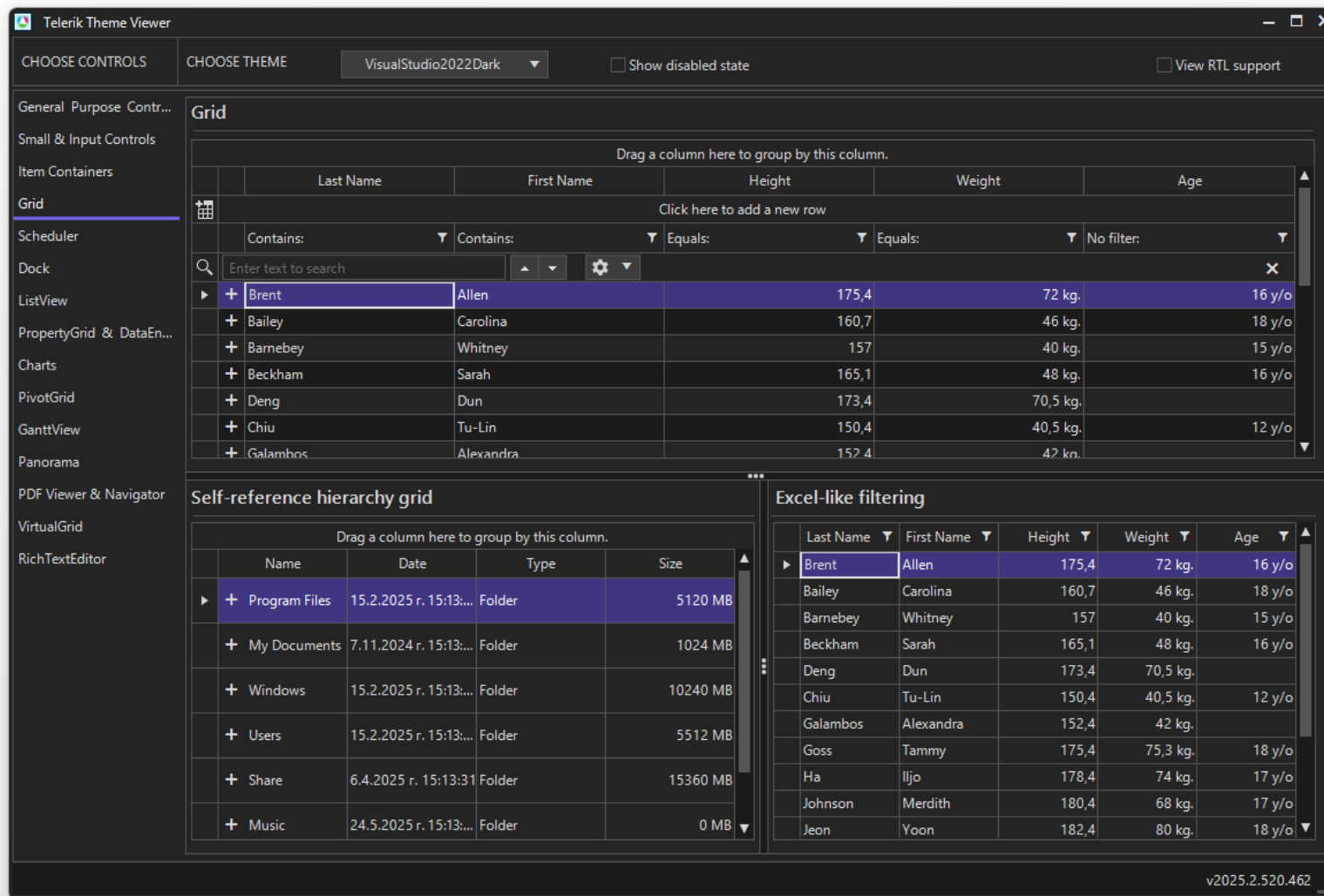
- ControlDefault
- Desert
- Breeze
- Aqua
- Windows 7
- Windows 8
- Office 2010/2013



Themes

Dark

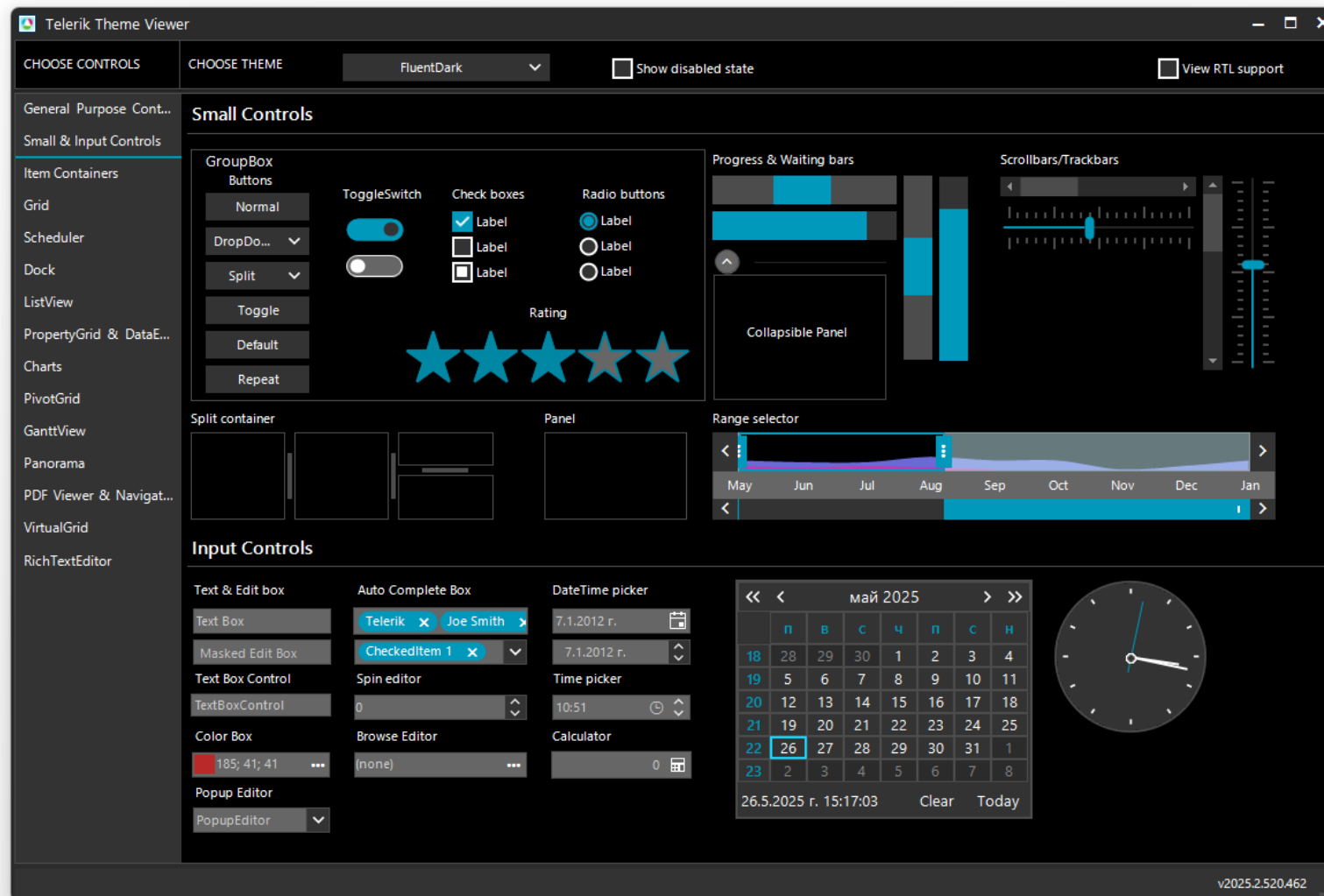
- Windows 11
- Visual Studio 2022 →
- Fluent
- Crystal
- Visual Studio 2012
- High Contrast Black



Themes

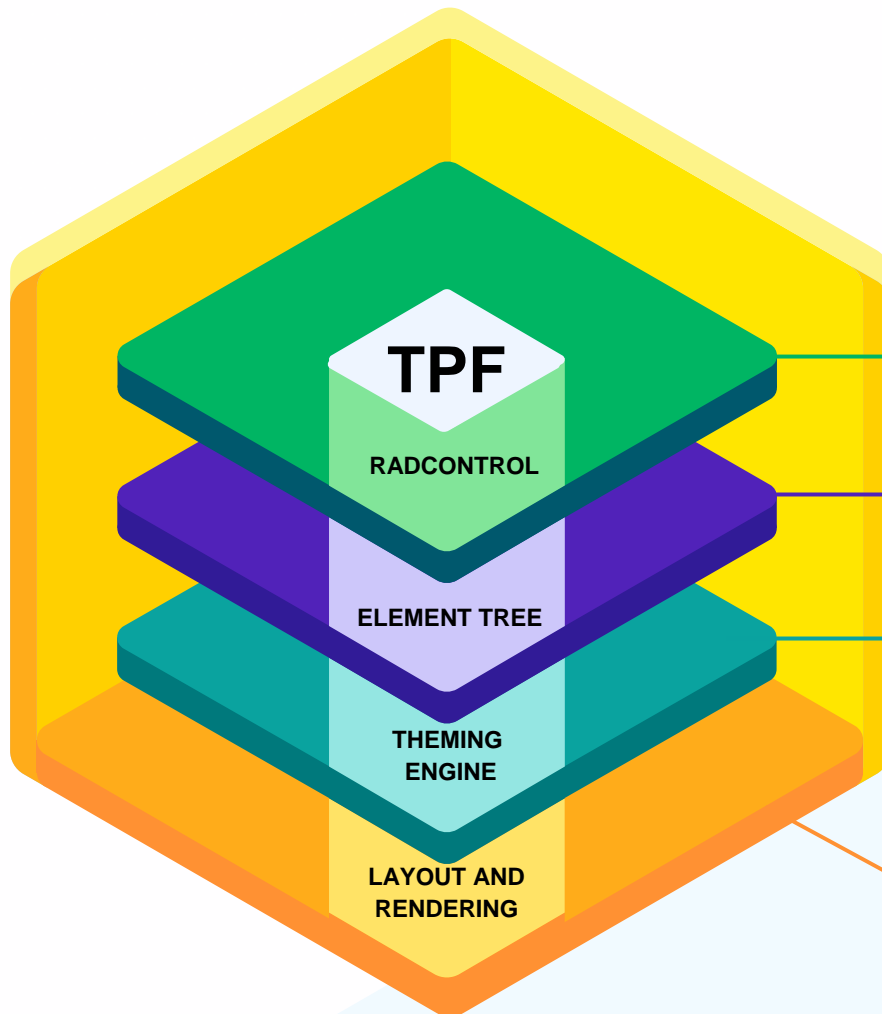
Dark

- Windows 11
- Visual Studio 2022
- Fluent
- Crystal
- Visual Studio 2012
- High Contrast Black



Customizations → Telerik Presentation Framework (TPF)

Telerik Presentation Framework (TPF)



RADCONTROL



Inherit Control



Process Messages



Expose API



Handle Input

ELEMENT TREE



RootRadElement



RadItem



Event Tunnelling



RadElement



Primitives

THEMING ENGINE



Precedence



Animations



Dependency Properties

LAYOUT AND RENDERING



Layout



Painting



Text Rendering

Scaling → High DPI & Vector Graphics





High DPI & Vector Graphics

- [In-House High DPI Engine](#)
- [Vector Images \(SVG\)](#)
- [Glyph-Based Fonts](#)
- Scaled Fonts And Sizes
- No More Pixelization

Glyph-Based Fonts

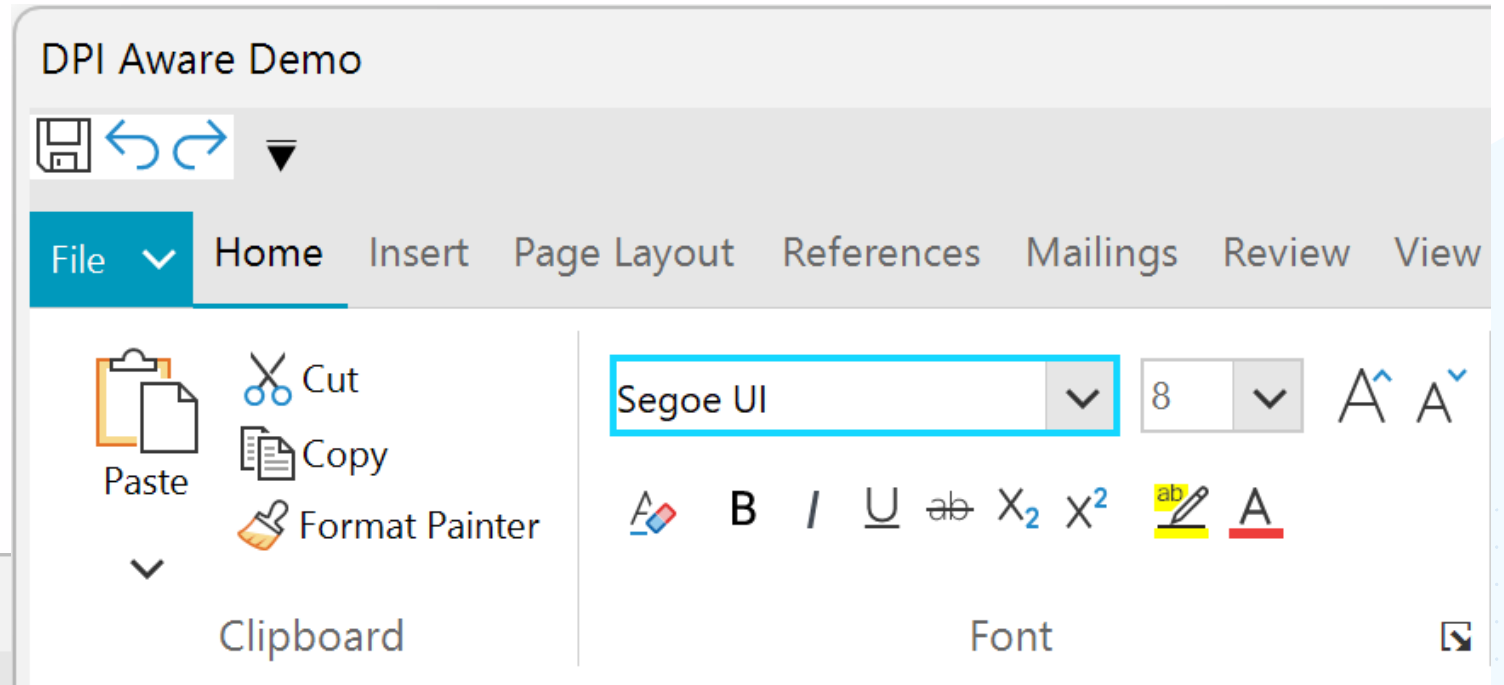
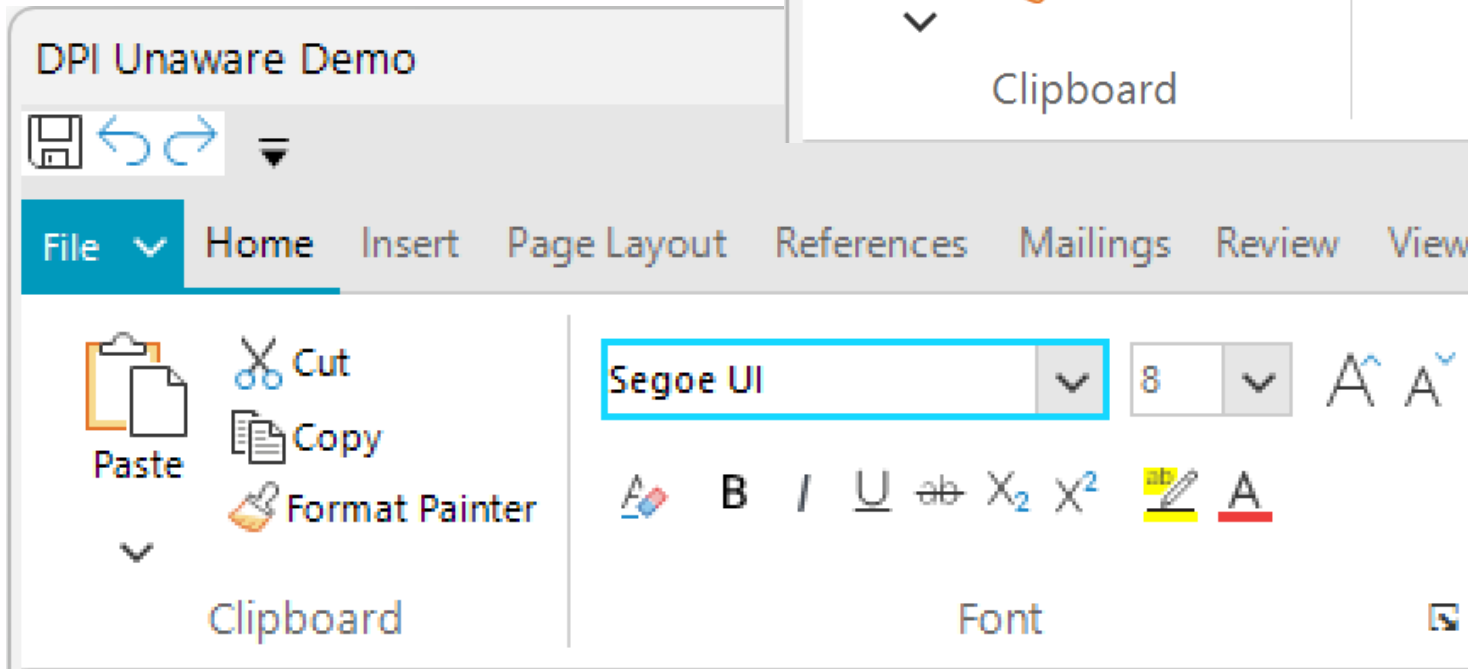
TelerikWebUI

- [Glyphs Reference Sheet](#)

								
\e800	\e801	\e802	\e803	\e804	\e805	\e806	\e807	\e808
								
\e809	\e80a	\e80b	\e80c	\e80d	\e80e	\e80f	\e810	\e811
								
\e812	\e813	\e814	\e815	\e816	\e817	\e818	\e819	\e81a
								
\e81b	\e81c	\e81d	\e81e	\e81f	\e820	\e821	\e822	\e823
								
\e824	\e825	\e826	\e827	\e828	\e829	\e82a	\e82b	\e82c

High DPI

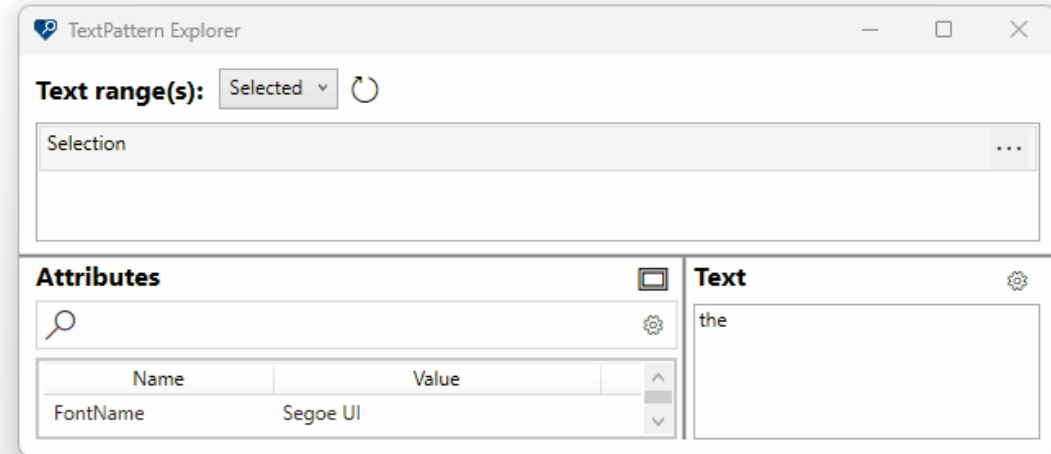
Aware vs Unaware



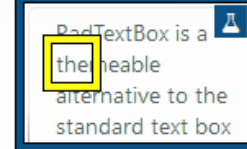
Accessibility → UI Automation

Accessibility

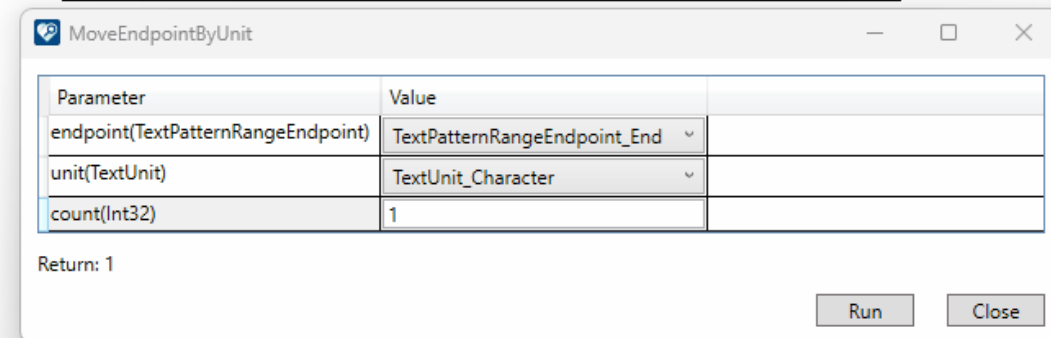
- [Microsoft Active Accessibility \(MSAA\)](#)
- [UI Automation \(UIA\)](#)
- Accessible Themes



Multi-line text box:

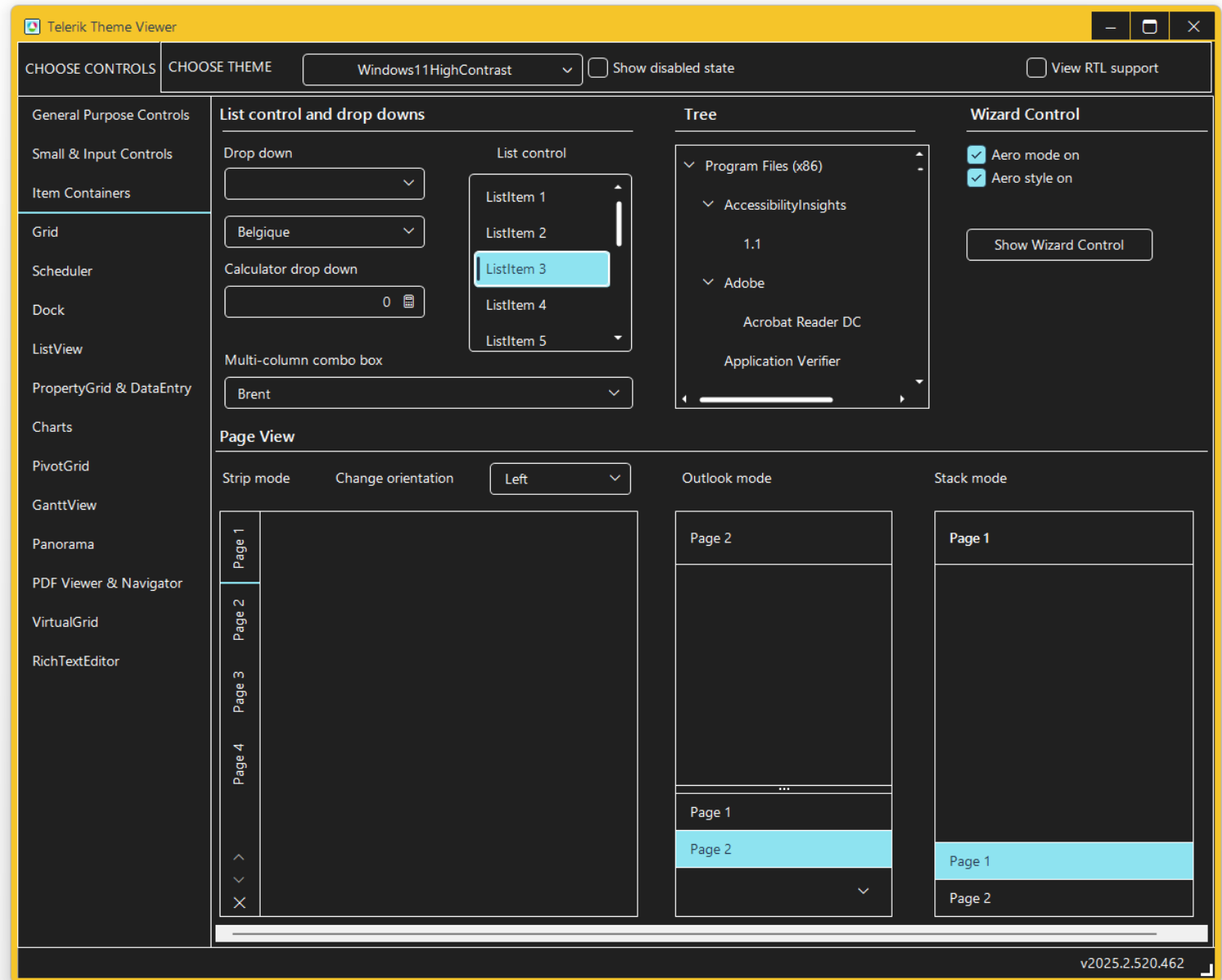


edit 'The Telerik RadTextBox is a themeable alternative to t...



Accessibility

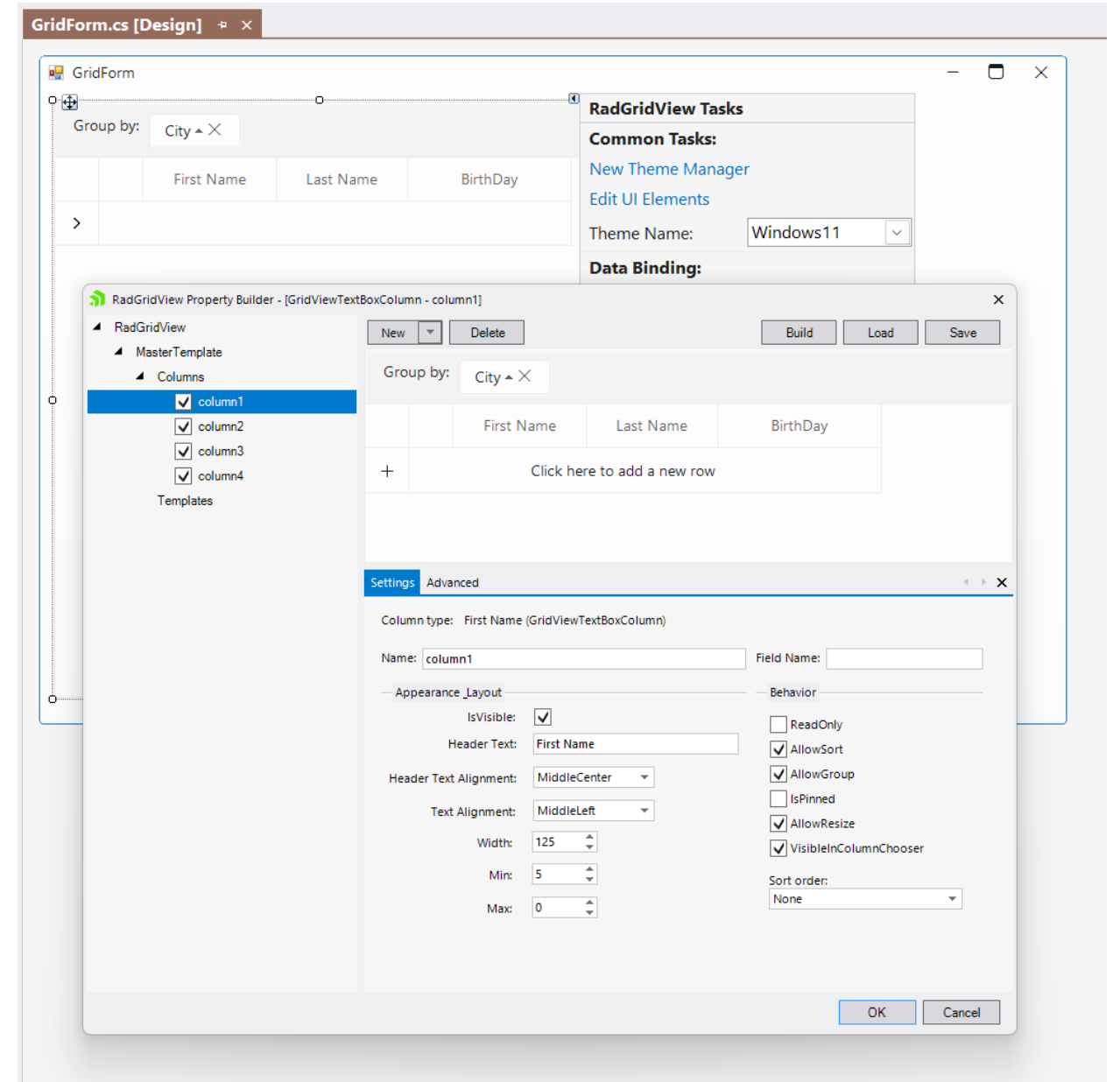
Windows 11 High Contrast



Visual Designer → Enhanced Editors and Wizards

Enhanced Editors & Wizards

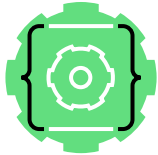
- Property Builders and Wizards
- Drag-and-Drop UI Building
- Code Generation
- Extended Smart Tags
- Theming



Community Support → Technical Support

Technical Support

Proven Customer Service



- 96% customer satisfaction rate
- 55%+ first response resolution score

Technical Support

Proven Customer Service



- 96% customer satisfaction rate
- 55%+ first response resolution score

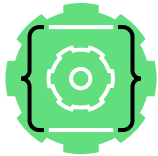
Large Telerik Community



- 4.6M [forum](#) members
- 285K problems solved

Technical Support

Proven Customer Service



- 96% customer satisfaction rate
- 55%+ first response resolution score

Large Telerik Community



- 4.6M [forum](#) members
- 285K problems solved

Phone and Remote Web Assistance



- Resolve complex problems
- Demonstrate in client environment

Technical Support

Proven Customer Service



- 96% customer satisfaction rate
- 55%+ first response resolution score

Large Telerik Community



- 4.6M [forum](#) members
- 285K problems solved

Phone and Remote Web Assistance



- Resolve complex problems
- Demonstrate in client environment

Video Onboarding



- Telerik [Video Courses](#)
- Seamless onboarding experience

Getting Started

Getting Started

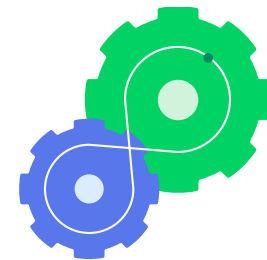
Get Telerik UI for WinForms



Resources



Telerik Licensing



Get Telerik UI for WinForms

Get Telerik UI for WinForms

- [NuGet](#)
- Web Installer
- MSI Installer



Get Telerik UI for WinForms

- [NuGet](#)
- Web Installer
- MSI Installer
- Manually on: <https://www.telerik.com/account/>

PUBLIC VERSIONS

License Type	Version	Search
Purchase ▼	2025.2.520 ▼	<input type="text" value="Search for category, file..."/> 🔍

Installation

[→ Release notes](#)

FILE NAME	MD5 SIGNATURE	TYPE	SIZE
Telerik_UI_For_WinForms_2025_2_520.msi	View Hash	msi	431 MB

Other Setup Files

[→ Release notes](#)

FILE NAME	MD5 SIGNATURE	TYPE	SIZE
Telerik_UI_For_WinForms_2025_2_520_Dlls.zip	View Hash	zip	320 MB
Telerik_UI_For_WinForms_2025_2_520_Nuget.zip	View Hash	zip	353 MB
Telerik_UI_For_WinForms_2025_2_520_PDBs.zip	View Hash	zip	90 MB

Resources

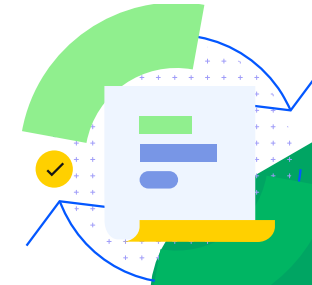
Resources

- [Documentation & Knowledge Base](#)
- [Sample Apps](#)
- [GitHub WinForms SDK](#)
- [Smart AI Components](#)



Resources

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- [GitHub WinForms SDK](#)
- [Smart AI Components](#)

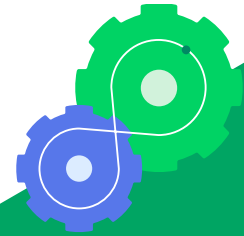


S23	✕	✓	fx						
	A	B	C	D	E	F	G	H	I
1	Year	Winner name	Number of wins						
2	2000	Michael Schumacher	9						
3	2001								
4	2002								
5	2003								
6	2004								
7	2005								
8	2006								
9	2007								
10	2008								
11	2009								
12	2010								
13	Total	Average wins	9.00						

Telerik Licensing

Telerik Licensing

- [License Key Files in Telerik and Kendo UI Products](#)
- [New Subscription Packages for Telerik & Kendo UI](#)
- [Frequently Asked Questions](#)
- [License Keys | Your Account](#)



Your License Keys

License Key

To use the listed products below, a valid license key is required. You can download your license key directly from here or visit our [Licensing FAQ](#).

Below are links to the product documentation articles, which include detailed instructions on how to apply your license key.

[Download License Key](#)

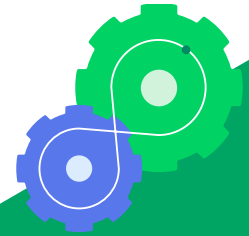
LICENSED PRODUCTS	SCRIPT KEY [?]	DETAILS
Progress® Kendo UI® for Angular	N/A	View Documentation
Progress® Kendo UI® for jQuery	View key	View Documentation

Telerik Licensing

- [Telerik Licensing & OpenEdge](#)

```
[assembly:  
global::Telerik.Licensing.EvidenceAttribute("eyJhbGciOiJSUzI1NiIsInR5cCI6ImlRbGVya  
WsgTGljZW5zZSBFdmkZW5jZSJ9.eyJjb2RlIjoiaUkNXRilslInR5cGUOiJwZXJwZXR1YW  
wiLCJleHBpcmF0aW9uljoxODc3ODM1NjAwLCJ1c2VySWQiOiJlOTMzNTIzMS1kY2Qy  
LTQyN2U+ODNjMi0yODVknzVkZDI1ZjliLCJsaWNlbnNlSWQiOiI4NjQxNjE4Mi0xOTM  
3LTQ2ZjltYjcxNi1jYzgzNTE5NmM2ZGQifQ.dGkGQW0nEMXUIXtaayZvK2orcl_C04Fdc
```

```
CONSTRUCTOR PUBLIC Form1 ( ):  
    // ActivePerpetual script key  
    Telerik.Licensing.TelerikLicensing.Register("Your License Key").  
  
    InitializeComponent().  
  
    THIS-OBJECT.ComponentsCollection.Add(THIS-OBJECT.components).  
    CATCH e AS Progress.Lang.Error:  
        UNDO, THROW e.  
    END CATCH.  
  
END CONSTRUCTOR.
```



Roadmap

Roadmap

- AI Enablement
- Data Annotations in RadGridView
- Extended UI Automation Support
- Azure Provider in RadMap
- High DPI Improvements
- .NET 10 Support

Document Processing Libraries

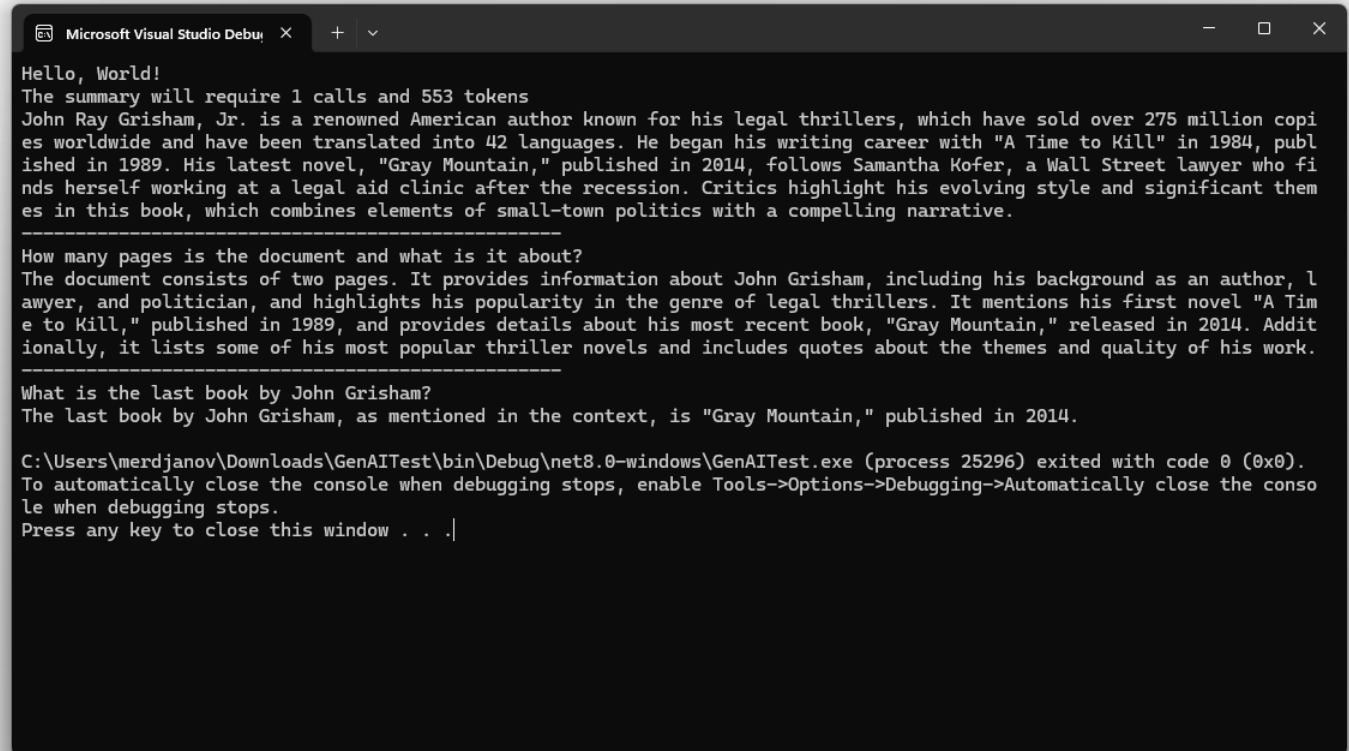
Document Processing Libraries

- [PDF Processing](#)
- [Words Processing](#)
- [Spread Processing](#)
- [Spread Stream Processing](#)
- [ZIP Library](#)

PDF Processing

AI Document Insights

- Information Retrieval
- Token Optimization
- Multiple LLM Support



```
Microsoft Visual Studio Debug Console
Hello, World!
The summary will require 1 calls and 553 tokens
John Ray Grisham, Jr. is a renowned American author known for his legal thrillers, which have sold over 275 million copies worldwide and have been translated into 42 languages. He began his writing career with "A Time to Kill" in 1984, published in 1989. His latest novel, "Gray Mountain," published in 2014, follows Samantha Kofer, a Wall Street lawyer who finds herself working at a legal aid clinic after the recession. Critics highlight his evolving style and significant themes in this book, which combines elements of small-town politics with a compelling narrative.

-----
How many pages is the document and what is it about?
The document consists of two pages. It provides information about John Grisham, including his background as an author, lawyer, and politician, and highlights his popularity in the genre of legal thrillers. It mentions his first novel "A Time to Kill," published in 1989, and provides details about his most recent book, "Gray Mountain," released in 2014. Additionally, it lists some of his most popular thriller novels and includes quotes about the themes and quality of his work.

-----
What is the last book by John Grisham?
The last book by John Grisham, as mentioned in the context, is "Gray Mountain," published in 2014.

C:\Users\merdjanov\Downloads\GenAITest\bin\Debug\net8.0-windows\GenAITest.exe (process 25296) exited with code 0 (0x0).
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .|
```

Microsoft

Foundation



Telerik

Added Value

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- UI/UX →
- Customizations →
- Scaling →
- Visual Designer →
- Accessibility →
- Community Support →
- ✗ →

- Extensive Component Library
- Themes
- Telerik Presentation Framework
- High DPI & Vector Graphics
- Enhanced Editors and Wizards
- UI Automation Everywhere
- Technical Support
- Document Management

Thank You



Q & A
Let's discuss

Slides
[winforms-sdk/pug](#)