Using Telerik Document Processing and ChartView for Professional Documents and Reports

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Agenda
① Introduction
② Telerik ChartView
③ Telerik Document Processing
④ FLY2Rep
⑤ Q&A
### About Jo Huys
- Long history with Progress Development
  - Since 1995
  - Progress version 6
- Worked with Progress OpenEdge on different platform
  - Windows, Unix, OS/400, ...
- Also some .NET C# experience since 2004
  - Winforms
  - Webforms
  - ASP.NET MVC
- Specialized in Application Development and Framework Development for Progress

### About BinteQ
- Located in Puurs (near Antwerp), Belgium
- Unique team of Progress OpenEdge Developers
  - Each member having +15 years Progress OpenEdge experience
- Focus on:
  - Enterprise ERP Solutions
  - Development Frameworks (Desktop, Mobile, Web)
  - Migration Strategies
- Serving World-wide customer base
  - Each having unique requirements
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① Introduction
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③ Telerik Document Processing
④ Fly2Rep
⑤ Q&A

Telerik ChartView

A control that offers drawing capabilities
• Setup design-time or through code
• User interaction

3 types
• Cartesian
• Polar
• Pie
**Telerik ChartView - features**

**Basic features**
- Title
- Legend
- Labels
- ChartGrid
- Themes & custom themes
- Export

- Drill Down
- Selection

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**Telerik ChartView – short demo**

Area – Bar – Line – FastLine – Stepline – Scatter – ScatterArea
ScatterLine – Bezier – Bubble Pie – Donut – Radar...

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What is Telerik Document Processing?

Telerik Document Processing is a bundle of libraries
• UI-independent
• cross-platform

Enabling you to process the most commonly used document formats
• flow
• fixed
• spreadsheet.

Without external dependencies.
Telerik Document Processing - components

<table>
<thead>
<tr>
<th>Component</th>
<th>Support document type</th>
</tr>
</thead>
<tbody>
<tr>
<td>RadZipLibrary</td>
<td>ZIP</td>
</tr>
<tr>
<td>RadWordsProcessing</td>
<td>DOCX, HTML, RTF, TXT and export PDF</td>
</tr>
<tr>
<td>RadPdfProcessing</td>
<td>PDF</td>
</tr>
<tr>
<td>RadSpreadProcessing</td>
<td>XLSX, CSV, TXT and export PDF</td>
</tr>
<tr>
<td>RadSpreadStreamProcessing</td>
<td></td>
</tr>
</tbody>
</table>

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TDP – RadWordsProcessing

RadWordsProcessing

• create, modify and export documents to a variety of formats. DOCX, HTML, RTF, TXT
• you can access each element in the document and modify, remove it or add a new one
• save as a stream, as a file, or send it to the client browser
• Flow type

TDP – RadWordsProcessing - assemblies

Required assemblies
• Telerik.Windows.Documents.Core.dll
• Telerik.Windows.Documents.Flow.dll
• Telerik.Windows.Zip.dll

Export to PDF required?
• Telerik.Windows.Documents.Fixed.dll

To handle colors, shapes and other properties
• WindowsBase.dll
• PresentationCore.dll
• PresentationFramework.dll
TDP – RadWordsProcessing


define variable oDocument as RadFlowDocument.
define variable oSection as Section.
define variable oParagraph as Paragraph.
define variable oHeader as Header.
define variable oFooter as Footer.
define variable oTable as Table.
define variable oRow as TableRow.
define variable oCell as TableCell.
define variable oEditor as Editing.RadFlowDocumentEditor.
TDP – RadWordsProcessing - features

Most important features

• Read, create and update documents
  • Sections, paragraphs, images, header and footers, tables, bookmarks, comments.
• Clone, merge, insert a document
• Insert a document element
• Find and Replace
• Tabstops
• Mail merge
• Theme & Style
• Export to different formats

TDP – RadWordsProcessing - export

Supported export formats:
DOCX – RTF – TXT – HTML – PDF

See Format & Conversion
TDP – RadWordsProcessing – code example
- Code example
- Performance test

KEEP
CALM
AND
WRITE
4GL

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   2. RadSpreadProcessing & RadSpreadStreamProcessing
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TDP - RadSpreadProcessing

RadSpreadProcessing

- create, import and export spreadsheet documents
- you can access each worksheet/cell in the document and modify, remove it or add a new one
- save as a stream, as a file, or send it to the client browser
- Spreadsheet type

TDP – RadSpreadProcessing - assemblies

Required assemblies
- Telerik.Windows.Documents.Core.dll
- Telerik.Windows.Zip.dll

Export to XLSX or PDF required?

To handle colors, shapes and other properties
- WindowsBase.dll
- PresentationCore.dll
- PresentationFramework.dll
TDP – RadSpreadProcessing - classes


TDP – RadSpreadProcessing - features

Most important features
- Read, create and update documents
  - Workbook, Worksheets, Rows, Columns, Cells, CellRange, Hyperlinks, Images, Protection, Header and footers
- Insert, copy, merge and unmerge cells
- Find and replace
- Show/hide gridlines
- Show/hide rows/columns
- Freezing panes
- Formulas
- Document Themes
- Cell formatting & style
- Shapes and images
- Sorting and Filtering
- Scaling
- Grouping
- Export to xlsx, csv,...
TDP – RadSpreadProcessing

XLSX – PDF – CSV – TXT

See Format and Conversions

TDP - RadSpreadStreamProcessing

- Export large XLSX and CSV spreadsheet documents
- low memory footprint
- great performance
- Writes directly to a stream in stead of model
### TDP – RadSpreadStream vs RadSpread

<table>
<thead>
<tr>
<th></th>
<th>RadSpreadStreamProcessing</th>
<th>RadSpreadProcessing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Modify</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Append</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Read</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Specific workflow</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

When using **RadSpreadStream**?

- Large amount of data
- When performance is / becomes an issue
- When only creation or adding data is needed
TDP – RadSpreadStream – code example

- Code example – from document to report
- Performance test

KEEP CALM AND WRITE 4GL

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TDP - RadPdfProcessing

RadPdfProcessing
• creation, import and export of PDF documents.

The API of RadPdfProcessing contains 2 different editors,
• editing in a flow-like manner
• using the much more powerful and flexible fixed document structure and drawing on the page

TDP – RadPdfProcessing - assemblies

Required assemblies
• Telerik.Windows.Documents.Core.dll
• Telerik.Windows.Documents.Fixed.dll
• Telerik.Windows.Zip.dll

To handle colors, shapes and other properties
• WindowsBase.dll
• PresentationCore.dll
• PresentationFramework.dll
TDP – RadPdfProcessing - classes

define variable oTable as Telerik.Windows.Documents.Fixed.Model.Editing.Tables.Table no-undo
define variable oTableCell as Telerik.Windows.Documents.Fixed.Model.Editing.Tables.TableCell no-undo
define variable oTableRow as Telerik.Windows.Documents.Fixed.Model.Editing.Tables TableRow no-undo

TDP – RadPdfProcessing - features

**Most important features**
- Create, import and export documents
  - Block, List, Table (row/cell),
  - Text and graphics properties
- Flow, Fixed
- Pages, TextFragments, Images, Tables,
- Clone, merge documents or pages
- Forms – reusable
- Interactive forms
- Digital Signature
- Export to PDF, TXT.

TDP – RadPdfProcessing – export

**Supported export formats**

PDF - TXT

2 options to import and export
- PdfStreamWriter
  - Ideal for adding content (below or above)
  - Encryption not supported
  - Better performance
- PdfFormatProvider
  - Ideal for reading or modifying content
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TDP – RadZipLibrary

Assembly
Telerik.Windows.Zip.dll

Features
– Read, create, save zip file
– Add, update or delete entry in a zip file
– Password protection
– Compressed stream
– Compression options
Telerik Document Processing - Conclusion

• Stable product
• Sufficient features available to produce high quality documents.
• Always room for improvement or more features
  – Pivot
  – Charts
  – Speed
  – Export to PDF
• No 3rd party software required
• Ideal for documents
• Not only for documents but also for creating reports, certainly in combination with ChartView

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**Principles**

Stability – Uniformity – Continuity

**Fly2Rep / ERP / custom made applications**

**Fly2Pro**

**More information?**

Telerik website
- General Information about Telerik Document Processing
- API
- Several (.NET) code examples for each document type

Let's share experience
- Jo.Huys@BinteQ.com
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