



Essential Studio 2013 Volume 4 - v.11.4.0.26

Essential PDF Viewer



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1 Overview

1.1 Introduction to PDF Viewer

Essential PDF Viewer for .NET is a 100% managed .NET component that will have the ability to view and print PDF files from your .NET applications.

1.2 Use Case Scenario

The user can embed the PDF viewer within the .NET application using this feature. The PDF viewer can also be used as a stand-alone application.

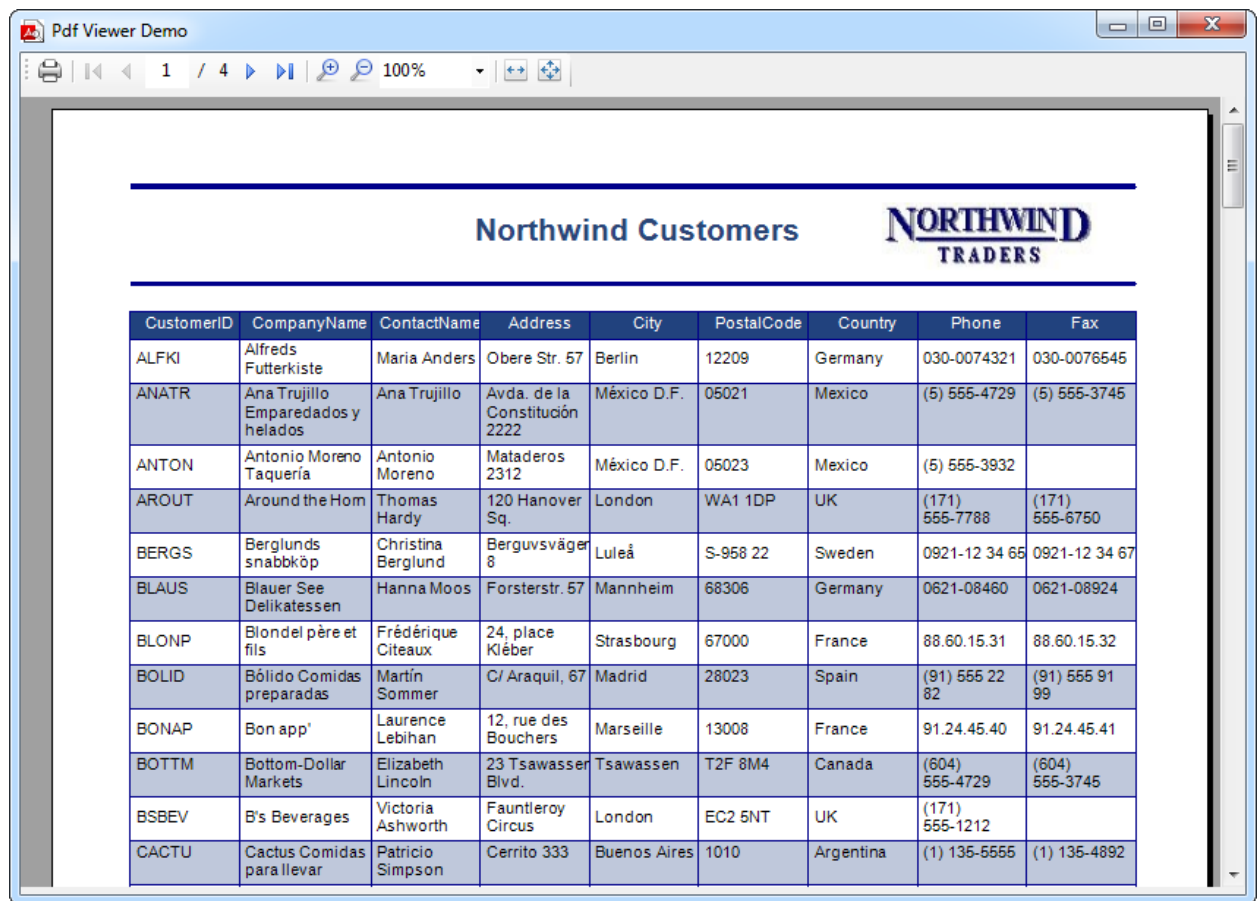


Figure 1: PDF Viewer

1.3 Prerequisites and Compatibility

This section covers the requirements that are mandatory for using Syncfusion Essential PDF Viewer. It also lists operating systems and browsers that are compatible with the product.

Prerequisites


Development Environments	<ul style="list-style-type: none"> • Visual Studio 2010 (Ultimate, Premium, Professional and Express) • Visual Studio 2008 (Team System, Professional, Standard & Express) • Visual Studio 2005 (Professional, Standard & Express) • Microsoft Expression Blend
.NET Framework versions	<ul style="list-style-type: none"> • .NET Framework version 3.5 with Service Pack 1 • .NET Framework version 4.0 • .NET Framework version 2.0

Compatibility

Operating Systems	<ul style="list-style-type: none"> • Windows Server 2008 (32 bit and 64 bit) • Windows Vista (32 bit and 64 bit) • Windows XP • Windows 2003 • Windows 7
-------------------	---

1.4 Documentation

Type of Documentation	Location
Readme	Readme: [drive:]\Program Files\Syncfusion\Essential Studio\x.x.x.x\Infrastructure\Read Me\Reporting_Windows.html
Release Notes	ReleaseNotes: [drive:]\Program Files\Syncfusion\Essential Studio\x.x.x.x\Infrastructure\Release Notes\Reporting.html# Windows-PdfViewer
User Guide (this document)	Online http://help.syncfusion.com/resources (Navigate to the PDF Viewer for

	<p>Windows Forms User Guide.)</p> <p> Note: Click Download as PDF to access a PDF version.</p> <p>Installed Documentation</p> <p>Dashboard -> Documentation -> Installed Documentation.</p>
Class Reference	<p>Online</p> <p>http://help.syncfusion.com/resources (Navigate to the Reporting Windows Forms User Guide. Select <i>PDF Viewer</i>, and then click the Class Reference link found in the upper right section of the page.)</p> <p>Installed Documentation</p> <p>Dashboard -> Documentation -> Installed Documentation.</p>

2 Installation and Deployment

2.1 Installation

This section covers information on the install location, samples, licensing, patches update and updating of the recent version of Essential Studio. It also illustrates the installation procedure for PDF Viewer. It deals with the following sections.

2.2 Where to Find Samples?

This section covers the location of the installed samples and describes the procedure to run the samples through the sample browser and online. It also lists the location of utilities, assemblies, and source code.

2.2.1 Sample Installation Location

The Windows Forms samples are installed in the following location:

...\MyDocuments\Syncfusion\EssentialStudio\Version
Number\Windows\PdfViewer.Windows\Samples\2.0

2.2.2 Viewing Samples

To view the samples:

1. Click **Start -> All Programs-> Syncfusion -> Essential Studio <x.x.x.x> -> Dashboard -> Reporting.**

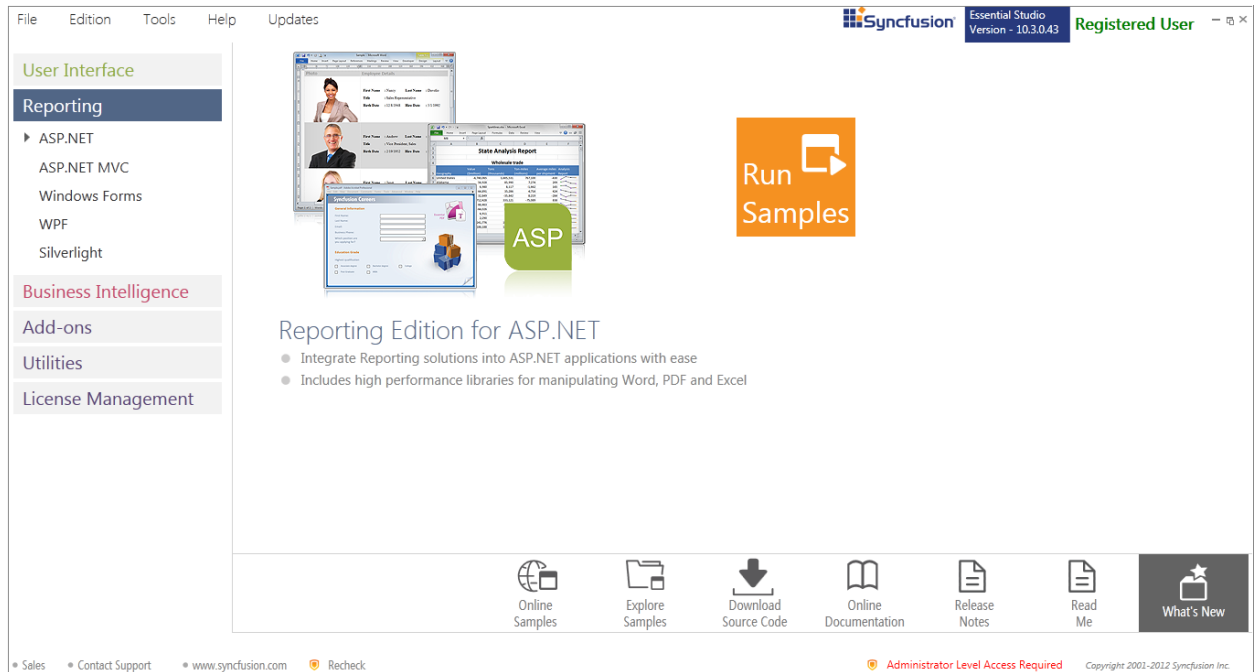


Figure 2: Syncfusion Essential Studio Dashboard Reporting Edition

To view the PdfViewer samples for WF platform:

Windows Forms

1. Click the drop-down button of the **Windows** platform. The following options are displayed and you can view the samples in the following three ways:
 - **Run Samples** - View the locally installed PdfViewer samples for Windows using the sample browser
 - **Online Samples**-View the online PdfViewer samples for Windows
 - **Explore Samples**-Locate the samples for PdfViewer on the disk
2. Click **Run Samples** link. **Essential Studio Reporting Edition Windows Forms** sample browser is displayed.

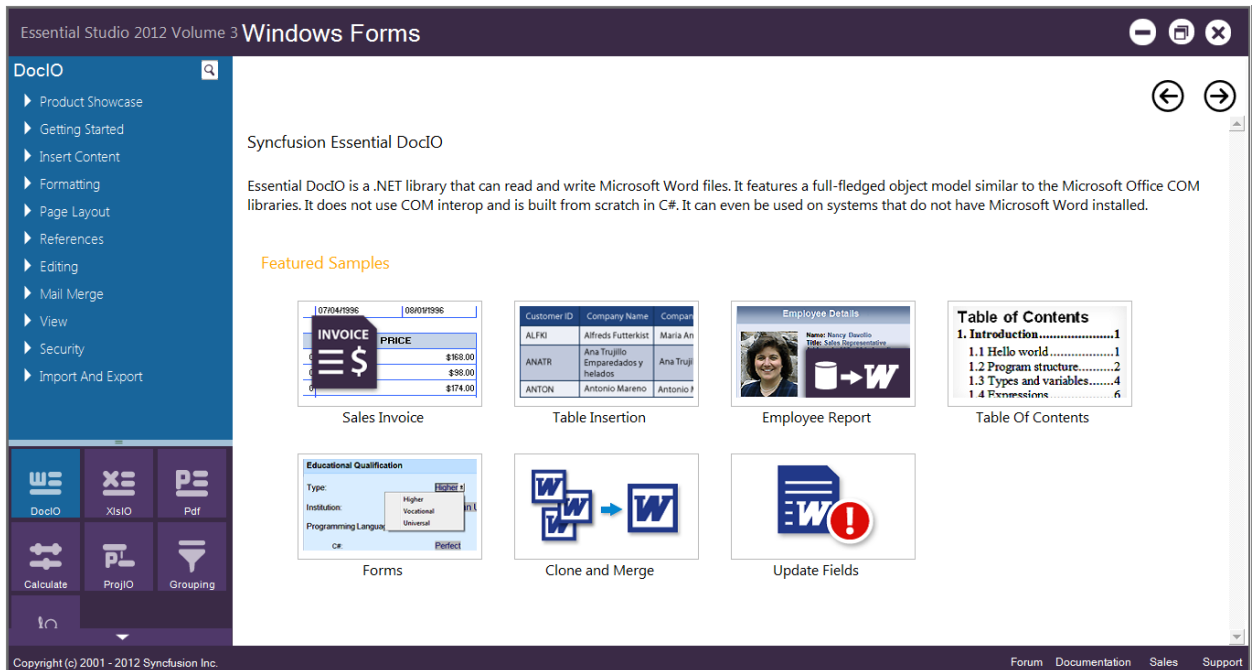


Figure 3: Windows Forms Sample browser

3. Click **PDF Viewer** from the bottom-left pane.

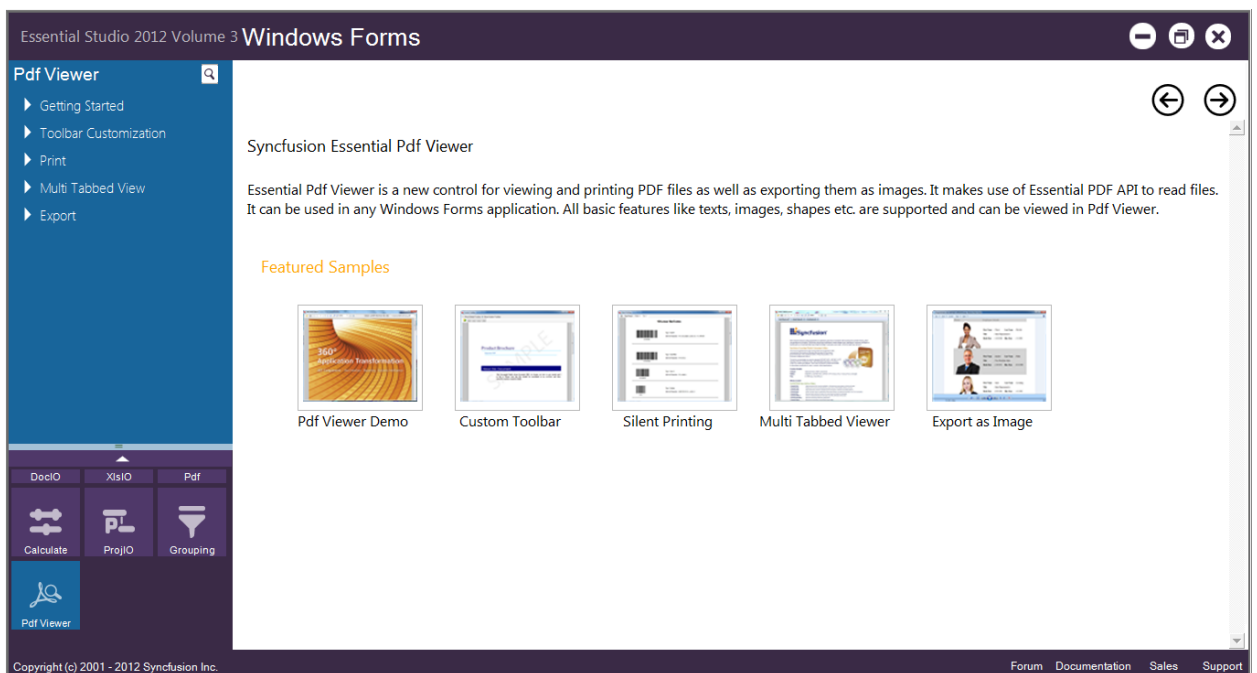


Figure 4: Windows Forms Sample Browser Displaying PdfViewer Samples

A list of samples will be displayed on the left pane.

4. Select any sample and browse through the features.
5. For running the sample, click **Run Sample** icon in the right pane.

2.3 Deployment Procedures

Deployment Requirements

The required assemblies are:

- Syncfusion.Core.dll
- Syncfusion.Compression.Base.dll
- Syncfusion.Pdf.Base.dll
- Syncfusion.PdfViewer.Windows.dll

2.3.2 Default Deployment Pattern

For step-by-step installation procedure of Essential Studio, refer to the Installation topic under Installation and Deployment in the Common UG.

2.3.3 Fast Deployment Pattern

For licensing, patches and information on adding or removing selective components refer to the following topics in the **Common UG** under **Installation and Deployment**:

- Licensing
- Patches
- Add/Remove Components

3 Getting Started

3.1 Feature Summary

Supported features include:

- Support for viewing and printing PDF files.
- Support for various PDF objects such as text, lines, curves, color spaces, and JPEG images with DCTDecode, CCITTFaxDecode, and FlateDecode filters.
- Support for exporting PDF pages as raster images.

Supported and non-supported elements of Essential PDF Viewer for Windows Forms, WPF, and ASP.NET MVC are listed in the following table.

Features	Windows	WPF	ASP.NET MVC
Text	Yes	Yes	Yes
Graphical Elements (Line, Curve etc.)	Yes	Yes	Yes
Image Formats			
JPEG	Yes	Yes	Yes
PNG	Yes	Yes	Yes
TIFF	Yes	Yes	Yes
Inline Images	Yes	Yes	Yes
Encoding Techniques			
Soft mask	Yes	Yes	Yes
Image mask	No	No	No
Fonts *			
Standard Fonts	Yes	Yes	Yes
TrueType Fonts	Yes	Yes	Yes
Type 0, Type 1	Yes	Yes	Yes
Embedded Fonts	Yes**	Yes**	Yes**
Color Space			

RGB	Yes	Yes	Yes
CMYK	Yes	Yes	Yes***
Gray	Yes	Yes	Yes
ICC	Yes	Yes	Yes
Indexed	Yes	Yes	Yes
Compression Filters			
DCTDecode (Image, Content)	Yes	Yes	Yes
CCITTFaxDeocde (Image)	Yes	Yes	Yes
FlateDecode (Image, Content)	Yes	Yes	Yes
LZWDecode (Content only)	Yes	Yes	Yes
ASCII85Decode (Content only)	Yes	Yes	Yes
ASCIHexDecode (Image)	Yes	Yes	Yes
JBIG2Decode (Image)	Yes	Yes	Yes
Interactive Features			
Actions	No	No	No
Annotations	Yes****	Yes****	No
Attachments	No	No	No
Bookmarks	No	No	No
Form	No	No	No
Page Navigation	Yes	Yes	Yes
Zoom	Yes	Yes	Yes
Navigation Pane	No	No	No
Selection (Keyboard & Mouse)	No	No	No
Search	Yes	Yes	No
Document Information	No	No	No
Conformance	Yes	Yes	Yes
Encrypted Documents	Yes	Yes	Yes

Edit	No	No	No
Touch Support	No	Yes*****	No
Print			
Silent Printing	Yes	Yes	Yes
Send to Printer	Yes	Yes	Yes
Export			
Image	Yes (raster and vector formats)	Yes (raster format only)	No

* If the font is not available in the machine or is embedded within the PDF, it will be substituted by MS Sans Serif in Windows Forms and ASP.NET MVC. In WPF, Times New Roman will be the substitute font.

** Only embedded fonts of TrueType and Identity-H encoding are supported.

*** Supports only images in MVC platform.

****Supports only URI annotation.

*****Supported only in the 4.0 framework.

3.2 Adding PDF Viewer to an Application

To add a PDF Viewer control to your application:

1. Open your form in the designer. Add the Syncfusion controls to your VS.NET toolbox if you haven't done so already (the install would have automatically done this unless you selected not to complete toolbox integration during installation).

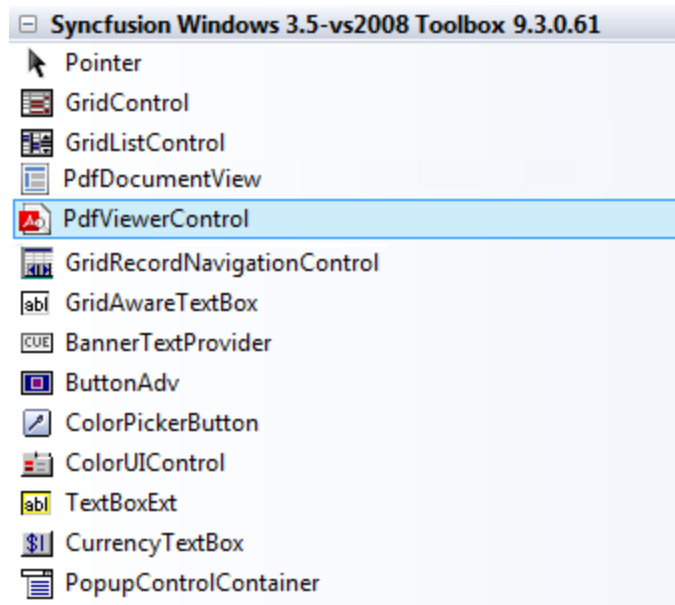


Figure 5: PDF Viewer control in Toolbox

2. Drag a PDF Viewer control onto the form.

Appearance and behavior-related aspects of the PDF Viewer can be controlled by setting the appropriate properties through the properties grid.

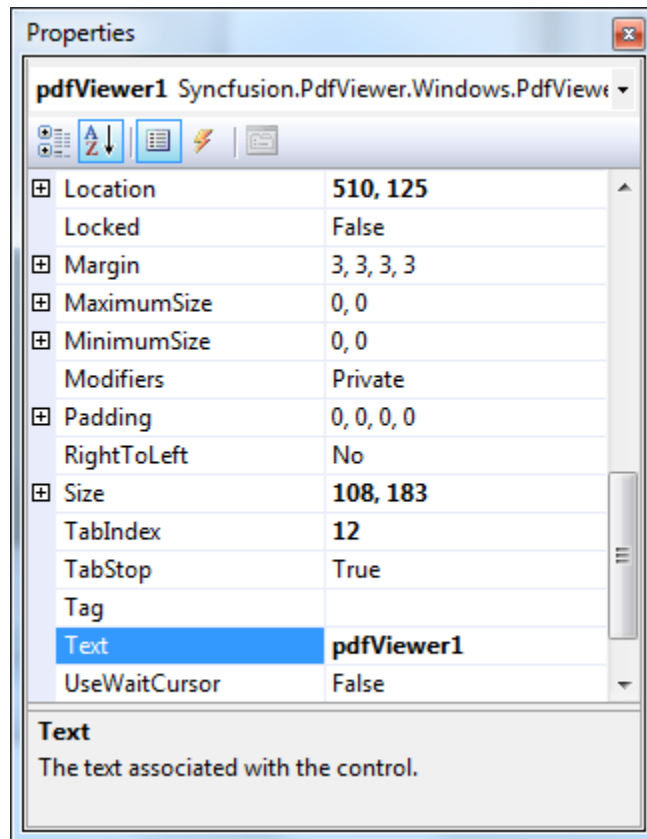


Figure 6: Properties

3. Add Syncfusion.PdfViewer.Windows namespace.

C#:

```
using Syncfusion.PdfViewer.Windows;

//Initializing the PDF Viewer
PdfViewer viewer = new PdfViewer();

//Loading the document in the PDF Viewer
viewer.Load(@"c:/documents/myPDF.pdf");
```

VB:

```
Imports Syncfusion.PdfViewer.Windows

'Initializing the Pdf Viewer
Dim viewer As PdfViewer = New PdfViewer()

'Loading the document in the Pdf Viewer
viewer.Load("c:/documents/myPDF.pdf")
```

Refer to [Viewing PDF files](#) for more information.

3.3 Appearance and Structure of the Control

The following screenshot is a pictorial representation of PDF Viewer.

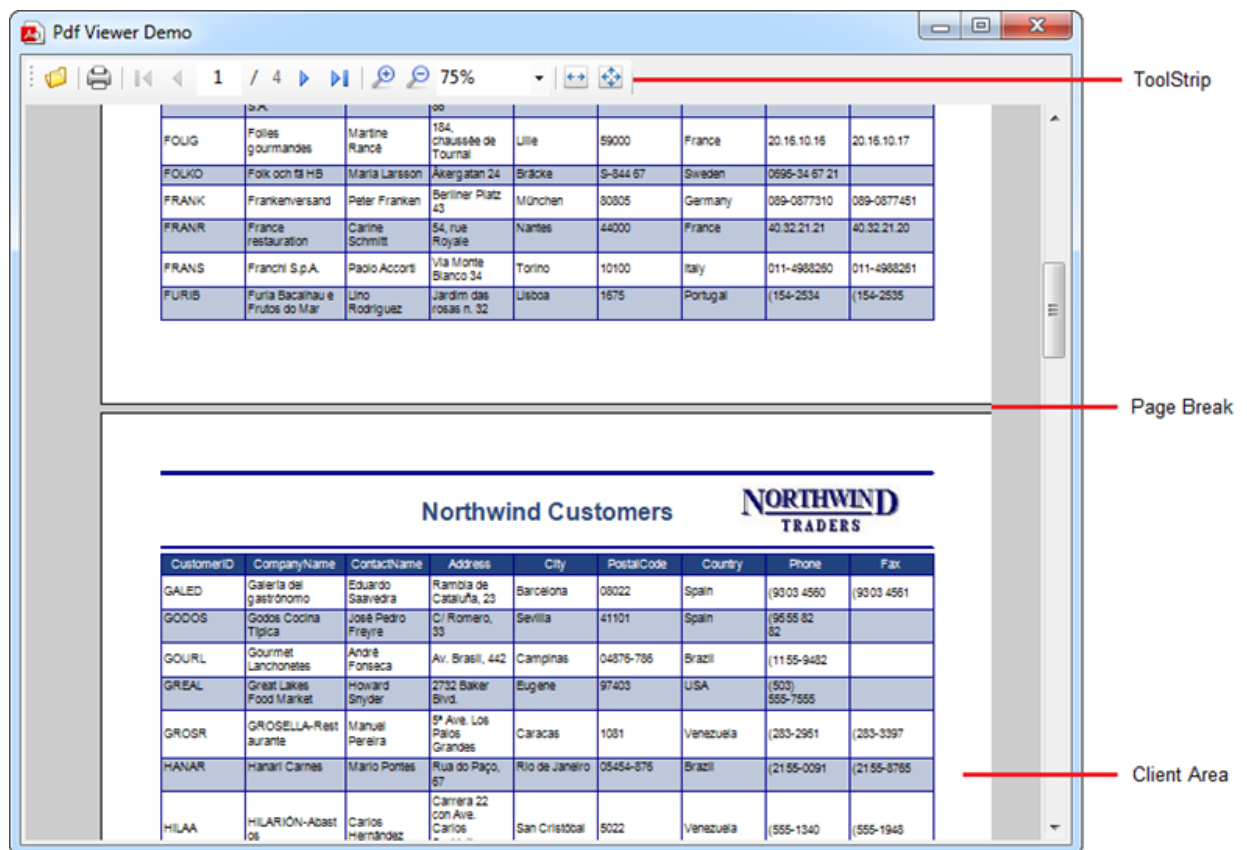


Figure 7 Structure of PDF Viewer

ToolStrip



Figure 8 Structure of ToolStrip

1. File Open Dialog
2. Show Print Dialog
3. Go to first page
4. Go to previous page
5. Page Indicator
6. Go to next page
7. Go to last page
8. Increase magnification
9. Decrease magnification
10. Preset magnification
11. Fill window
12. Fit page to window

4 Concepts and Features

4.1 Working with PDF Viewer

Essential PDF Viewer can display PDF files, and print and export the pages as raster images. All this can be done within a .NET application.

4.1.1 Properties, Methods, and Events Tables

4.1.1.1 Properties

Table 1: Properties Table

Property	Description	Type	Data Type
EnableNotificationBar	Enables the display of the Notification bar on setting it to true.	N/A	bool
PageCount	Returns the number of pages as viewed in the PDF Viewer.	N/A	Integer
ShowToolbar	Displays the document toolbar when set to true.	N/A	bool

4.1.1.2 Methods

Table 2: Methods Table

Method	Description	Parameters	Type	Return Type
Load	This method is used to load the PDF to the viewer.	Overloads: (string filePath) (string filePath, string password) (PdfLoadedDocument doc) (Stream file)	N/A	Void
Unload	Unloads the loaded PDF.	-	N/A	Void
Dispose	Unloads the document and releases the resources used by the component.	-	N/A	Void
ExportAsImage	Converts the page to a raster image.	Overloads: (int pageIndex) (int startIndex, int endIndex)	N/A	Bitmap
FindText	Searches for the occurrence of given input text in the PDF document and returns all the occurrences and its location in all pages of the PDF document.	Overloads: (String text, out Dictionary<int, List<System.Drawing.RectangleF>> matchRect)	N/A	bool
GoToPageAtIndex	Navigates to the mentioned page	(int index)	N/A	Void

ZoomTo	Magnifies the document displayed to the specified percentage.	(int percentage)	N/A	Void
--------	---	------------------	-----	------

4.1.1.3 Events

Table 3: Events Table

Event	Description	Arguments	Type
DocumentLoaded	This event is triggered after the PDF is successfully loaded.	N/A	N/A
HyperLinkMouseHover	This event is triggered when the mouse pointer is placed over the URL.	N/A	N/A
HyperLinkMouseClicked	This event is triggered when the URL in the PDF document is clicked.	N/A	N/A

4.1.2 Viewing PDF Files

A PDF can be loaded into the PDF Viewer either through the **File Open** dialog available in the toolbar or through the **Load** method. It also requests passwords to open encrypted documents.

[C#]

```
//Initialize PDF Viewer.
PdfViewerControl pdfViewer1 = new PdfViewerControl();

//Load the PDF.
pdfViewer1.Load("Template.pdf");
```

[VB.NET]

```
'Initialize PDF Viewer.  
Private pdfViewer1 As New PdfViewerControl()  
  
'Load the PDF.  
pdfViewer1.Load("Template.pdf")
```

You can load an encrypted document by using the overload in the **Load** method.

```
[C#]  
  
//Initialize PDF Viewer.  
PdfViewerControl pdfViewer1 = new PdfViewerControl();  
  
//Load the PDF.  
pdfViewer1.Load("Template.pdf", "password");
```

```
[VB.NET]  
  
'Initialize PDF Viewer.  
Private pdfViewer1 As New PdfViewerControl()  
  
'Load the PDF.  
pdfViewer1.Load("Template.pdf", "password")
```

4.1.3 Printing PDF Files

PDF Viewer allows printing loaded PDFs using the **Print** button in the toolbar. The following **Print** dialog will be opened upon triggering the **Print** button.

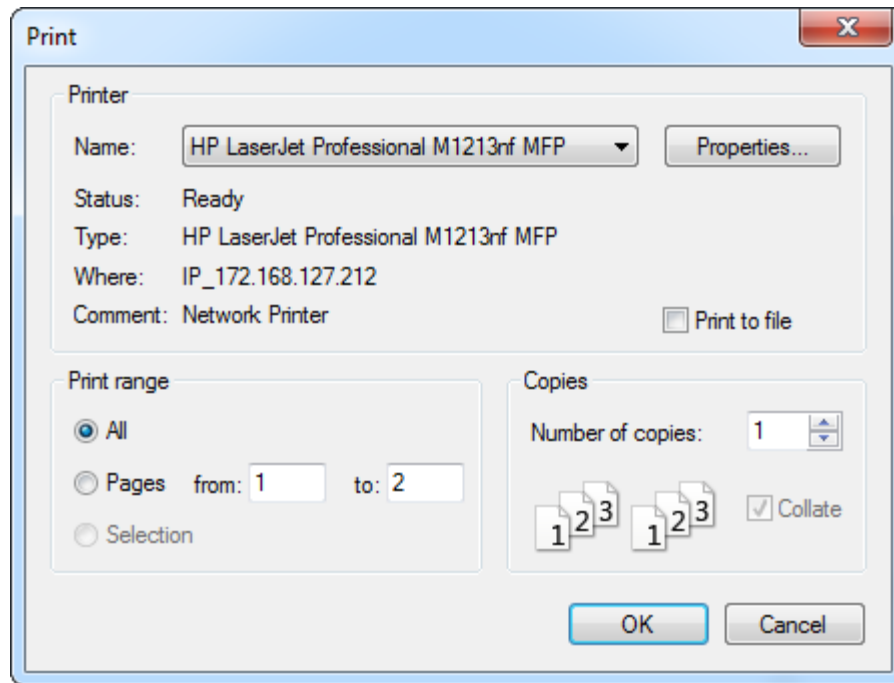


Figure 9: Print Dialog displayed in PDF Viewer

4.1.3.1 Silent Printing

The **PrintDocument** property of **PdfViewerControl** returns **System.Drawing.Printing.PrintDocument** that helps to complete printing using **PrintDialog**. The following code sample demonstrates this:

[C#]

```
PrintDialog dialog = new PrintDialog();
dialog.AllowPrintToFile = true;
dialog.Document = viewer.PrintDocument;
dialog.Document.Print();
```

[VB.NET]

```
Dim dialog As New PrintDialog()
dialog.AllowPrintToFile = True
dialog.Document = viewer.PrintDocument
dialog.Document.Print()
```

4.1.4 Exporting PDF

4.1.4.1 Exporting PDFs as Raster Images

Essential PDF Viewer allows selected pages to be exported as raster images. Exporting can be done using the **ExportAsImage** method. This option helps to convert a PDF into an image.

[C#]

```
Bitmap img = pdfViewer1.ExportAsImage(0);

// Save the image.
img.Save("Sample.png", ImageFormat.Png);
```

[VB.NET]

```
Dim img As Bitmap = pdfViewer1.ExportAsImage(0)

' Save the image.
img.Save("Sample.png", ImageFormat.Png)
```

You can also specify the page range instead of converting each page.

[C#]

```
Bitmap[] img = pdfViewer1.ExportAsImage(0, 3);
```

[VB.NET]

```
Dim img() As Bitmap = pdfViewer1.ExportAsImage(0, 3)
```

4.1.4.2 Exporting PDFs as Vector Images

Exporting PDFs as vector images can be done using the **ExportAsMetafile** method. The following code sample demonstrates how a PDF document can be exported as a metafile.

[C#]

```
Metafile img = pdfViewer1.ExportAsMetafile(0);

// Save the image
img.Save("Sample.emf", ImageFormat.Emf);
```

[VB.NET]

```
Dim img As Metafile = pdfViewer1.ExportAsMetafile(0)

' Save the image
img.Save("Sample.emf", ImageFormat.Emf)
```

You can also specify the page range instead of converting each page individually.

[C#]

```
Metafile[] img = pdfViewer1.ExportAsMetafile(0, 3);
```

[VB.NET]

```
Dim img() As Metafile = pdfViewer1.ExportAsMetafile(0, 3)
```

4.1.5 Text Search

Essential PDF Viewer allows end users to search and highlight the text in the PDF document. The search box will appear when Ctrl+F is pressed and searches the text in the PDF document as shown in the following figure.

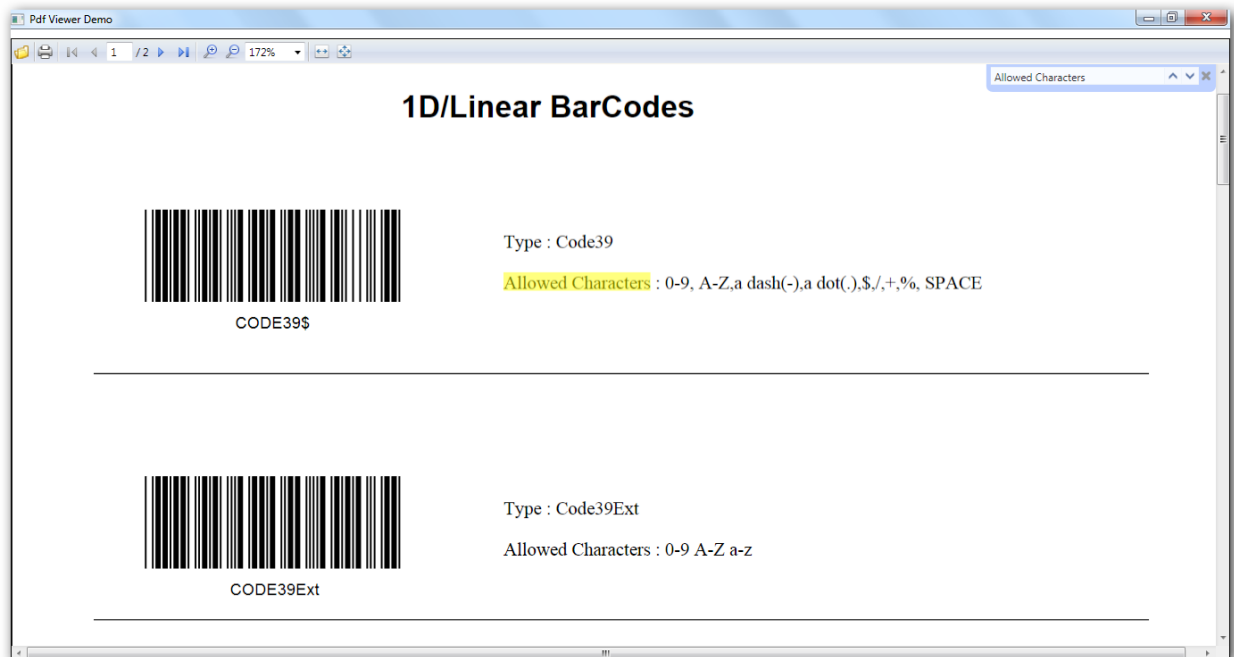


Figure 10: Searching a PDF

The PDF Viewer control also supports searching text in the PDF document with the help of the following API. The **FindText** method returns true when the text given is found in the document. The dictionary contains the page index and the list of rectangular coordinates of the text found in that page. The following code snippet illustrates how text search can be achieved in the PDF Viewer control.

[C#]

```
bool IsMatchFound;
pdfViewerControl1.Load("../Data/Barcode.pdf");

//Get the occurrences of the target text and location.
Dictionary<int, List<RectangleF>>
    textSearch = new Dictionary<int, List<RectangleF>>();
IsMatchFound = pdfViewerControl1.FindText("targetText", out
textSearch);
```

[VB.NET]

```
Dim IsMatchFound As Boolean
pdfViewerControl1.Load("../Data/Barcode.pdf")

'Get the occurrences of the target text and location.
Dim textSearch As New Dictionary(Of Integer, List(Of RectangleF))()
IsMatchFound = pdfViewerControl1.FindText("targetText", textSearch)
```

4.1.6 Annotation

Essential PDF Viewer provides support for URI annotations in the PDF document, which enables the URI available in the PDF document to be opened in the browser just by clicking it. This also supports a few events which are listed in the previous table.

5 How To

This section will help you find answers to common questions regarding Essential Pdf Viewer.

5.1 View the PDF stream in viewer?

PDF files as stream can be viewed in Essential Pdf Viewer using the overload available in the Load method. Following are the code snippets.

[C#]

```
FileStream stream = new FileStream("Template.pdf", FileMode.Open);  
//Initialize PDF Viewer  
PdfViewerControl pdfViewer1 = new PdfViewerControl();  
  
//Load the PDF  
pdfViewer1.Load(stream);
```

[VB.NET]

```
Dim stream As New FileStream("Template.pdf", FileMode.Open)  
  
'Initialize PDF Viewer  
Dim pdfViewer1 As New PdfViewerControl()  
  
'Load the PDF  
pdfViewer1.Load(stream)
```

5.2 Get page count?

The number of pages as viewed in the PDF Viewer can be found by using PageCount property.

[C#]

```
int count = pdfViewer1.PageCount;
```

[VB.NET]

```
Dim count As Integer = pdfViewer1.PageCount
```

5.3 Load a specific page?

Navigation to a specific page, through code, is possible using GoToPageAtIndex method.

[C#]

```
pdfViewer1.GoToPageAtIndex(2);
```

[VB.NET]

```
pdfViewer1.GoToPageAtIndex(2)
```

5.4 Load PDF without ToolStrip in Viewer?

In order to view PDF without the toolstrip, make use of PdfDocumentView control instead of PdfViewerControl. Other features and options are similar to PdfViewerControl.

[C#]

```
PdfDocumentView pdfDocumentView1 = new PdfDocumentView();  
pdfDocumentView1.Load(@"Template.pdf");
```

[VB.NET]

```
Dim pdfDocumentView1 As New PdfDocumentView()  
pdfDocumentView1.Load("Template.pdf")
```

The following is the image of a PDF document viewed in PdfDocumentView.

PDF Viewer Demo

Northwind Customers

**NORTHWIND
TRADERS**

CustomerID	CompanyName	ContactName	Address	City	PostalCode	Country	Phone	Fax
ALFKI	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209	Germany	030-0074321	030-0076545
ANATR	Ana Trujillo Emparedados y helados	Ana Trujillo	Avda. de la Constitución 2222	México D.F.	05021	Mexico	(555)55-4729	(555)55-3745
ANTON	Antonio Moreno Taqueria	Antonio Moreno	Mataderos 2312	México D.F.	05023	Mexico	(555)55-3932	
AROUT	Around the Horn	Thomas Hardy	120 Hanover Sq.	London	WA1 1DP	UK	(171) 555-7788	(171) 555-6750
BERGS	Berglunds snabbköp	Christina Berglund	Berguvsvägen 8	Luleå	S-958 22	Sweden	0921-12 34 65	0921-12 34 67
BLAUS	Blauer See Delikatessen	Hanna Moos	Forsterstr. 57	Mannheim	68306	Germany	0621-08460	0621-08924
BLONP	Blondel père et fils	Frédérique Citeaux	24, place Kleber	Strasbourg	67000	France	88.60.15.31	88.60.15.32
BOLID	Bólido Comidas preparadas	Martin Sommer	C/ Araquil, 67	Madrid	28023	Spain	(91)555 22 82	(91)555 91 99
BONAP	Bon app'	Laurence Lebihan	12, rue des Bouchers	Marseille	13008	France	91.24.45.40	91.24.45.41
BOTTM	Bottom-Dollar Markets	Elizabeth Lincoln	23 Tsawassen Blvd.	Tsawassen	T2F 8M4	Canada	(604) 555-4729	(604) 555-3745
BSBEV	B's Beverages	Victoria Ashworth	Fauntleroy Circus	London	EC2 5NT	UK	(171) 555-1212	
CACTU	Cactus Comidas para llevar	Patricio Simpson	Cerrito 333	Buenos Aires	1010	Argentina	(135)555-5555	(135)55-4892
CENTC	Centro comercial Moctezuma	Francisco Chang	Sierras de Granada 9993	México D.F.	05022	Mexico	(555)55-3392	(555)55-7293
CHOPS	Chop-suey Chinese	Yang Wang	Hauptstr. 29	Bern	3012	Switzerland	0452-076545	
COMMI	Comércio Mineiro	Pedro Afonso	Av. dos Lusitadas, 23	São Paulo	05432-043	Brazil	(11)555-7647	
CONSH	Consolidated	Elizabeth	Berkeley	London	WX1 6LT	UK	(171)	(171)

Figure 11: PDF displayed in PdfDocumentView

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