

# PDFThumbnail.NET 3.0

## Developer Guide

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### Introduction

PDFThumbnail.NET is an ASP.NET control for server-side generation of PDF thumbnails that can be viewed on the client as images. PDFThumbnail.NET has no external dependencies. It requires ASP.NET 1.1 or higher. For a live demo, visit:

<http://www.tallcomponents.com/default.aspx?redir=livedemos-pdfthumbnail>.

PDFThumbnail.NET is build on the .NET PDF rasterization technology from TallComponents BV. If you need full PDF rasterization capabilities including rasterizing directly to System.Drawing.Graphics, contact us at [sales@tallcomponents.com](mailto:sales@tallcomponents.com) for sales questions and at [support@tallcomponents.com](mailto:support@tallcomponents.com) for technical questions.

### Help us improve PDFThumbnail.NET

PDFThumbnail.NET is free without any catches. The only thing we ask from you is to help us improve PDFThumbnail.NET by sending us PDF documents that do not render correctly. You can send them as attachments to [support@tallcomponents.com](mailto:support@tallcomponents.com). Your help is greatly appreciated.

### FAQ

**Q Is it possible to save generated images for later use?**

**A** No. PDFRasterizer.NET (not free) does allow you to do this. Note that this is a deliberate restriction. If you need to overcome this, then please take a look at our commercial product PDFRasterizer.NET. The PDFThumbnail.NET control is included as a code sample of PDFRasterizer.NET.

**Q Is it possible to control the size of the thumbnails by setting the width and height?**

**A** No you cannot. But you can control the size by setting the DPI property. The maximum value is 18 DPI. Note that this is a deliberate restriction. If you need to overcome this, then please take a look at our commercial product PDFRasterizer.NET. The PDFThumbnail.NET control is included as a code sample of PDFRasterizer.NET.

**Q Is it possible to render PDF documents that are outside the virtual folder?**

**A** No, you can only render PDF documents that are inside the virtual folder. In other words, you can only render PDF documents that are accessible through Server.MapPath. Note that this is a deliberate restriction. If you need to overcome this, then please take a look at our commercial product PDFRasterizer.NET. The PDFThumbnail.NET control is included as a code sample of PDFRasterizer.NET.

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## Control reference

PDFThumbnail.NET is deployed as 2 files: TallComponents.PdfThumbnail.dll and pdfthumbnail.aspx. It also includes a folder (CMaps) with character maps used for correct text representation.

**pdfthumbnail.aspx** is included in the PDFThumbnail.NET distribution and is a simple ASP.NET file which you should leave unchanged. pdfthumbnail.aspx should be copied to [virtual root] \ pdfthumbnail.aspx by default. The name and the location of this file can be changed using ThumbnailPage attribute or property (see also below). If for some reason you do not have this file, you can easily reconstruct it as it consists of the following single line:

pdfthumbnail.aspx
<%@ Page language="c#" Inherits="TallComponents.Web.PDF.ThumbnailPage" %>

**Listing 1** Standard content of pdfthumbnail.aspx.

**TallComponents.PdfThumbnail.dll** implements the ASP.NET control and must be copied to the bin folder of the web application (recommended) or installed in the machine wide GAC.

**CMaps** must be copied to the [virtual root]\ folder.

### Attributes

The ASP.NET control can be included in an aspx page as demonstrated in Listing 2. The attributes correspond to the public properties as listed in the next section. The following attributes are supported:

Attributes	
Runat	Should always be "server".
Path	Virtual path to the PDF document. No default. Note that you can only render PDF documents that are inside the virtual folder. In other words, you can only render PDF documents that are accessible through Server.MapPath. This is a deliberate restriction. If you need to overcome this, then please take a look at our commercial product PDFRasterizer.NET. The PDFThumbnail.NET control is included as a code sample of PDFRasterizer.NET
Index	1-based index of the page to display. Default: 1
DPI	The resolution of the thumbnail in dots per inch. Default and maximum: 18
BorderWidth	Width of the border in pixels. Specify zero for no border. Default: 1
BorderColor	Border color. Default: System.Drawing.Color.Gray
URL	If set, the thumbnail behaves as a hyperlink to the specified URL. Default: null
HighQuality	If true, the result uses better (but somewhat slower) color conversion.
DefaultFont	Name of the font file (for example arial.ttf) for non-embedded fonts.

**Table 1** Attribute reference of the PDFThumbnail.NET control.

### Programmatic API

In addition to embedding the control in an ASPX page, you can access the control programmatically. The PDFThumbnail.NET control is a .NET class of type TallComponents.Web.PDF.Thumbnail and inherits from System.Web.UI.Control. TallComponents.Web.PDF.Thumbnail supports the following members:

<b>Properties</b>	
System.Drawing.Color BorderColor	Border color. Default: System.Drawing.Color.Gray
int BorderWidth	Width of the border in pixels. Specify zero for no border. Default: 1
string DefaultFont	Name of the font file (for example arial.ttf) for non-embedded fonts.
int DPI	The resolution of the thumbnail in dots per inch. Default and maximum: 18
bool HighQuality	If true, the result uses better (but somewhat slower) color conversion.
int Index	1-based index of the page to display. Default: 1
string Path	Virtual path to the PDF document. No default. Note that you can only render PDF documents that are inside the virtual folder. In other words, you can only render PDF documents that are accessible through Server.MapPath. This is a deliberate restriction. If you need to overcome this, then please take a look at our commercial product PDFRasterizer.NET. The PDFThumbnail.NET control is included as a code sample of PDFRasterizer.NET
string SessionKey	The key into the Session hashtable that returns the PDF document as a byte[] object. See “Sample: Display uploaded PDF document” for usage.
string URL	If set, the thumbnail behaves as a hyperlink to the specified URL. Default: null
string ThumbnailPage	The URL where the component generating the thumbnails is to be found. Default value is “pdfthumbnail.aspx”,
<b>Methods</b>	
static int GetPageCount(System.IO.Stream stream)	Returns the number of pages inside the PDF document. See “Sample: Display uploaded PDF document” for usage.

**Table 2** TallComponents. Web.PDF.Thumbnail members.

## Sample: Display static PDF document

The sample shows how PDFThumbnail.NET is used to render all the pages of this user guide to the web client. The physical structure of the web application is as follows:

[virtual folder] \ bin \ **TallComponents.PdfThumbnail.dll**

[virtual folder] \ **pdfthumbnail.aspx**

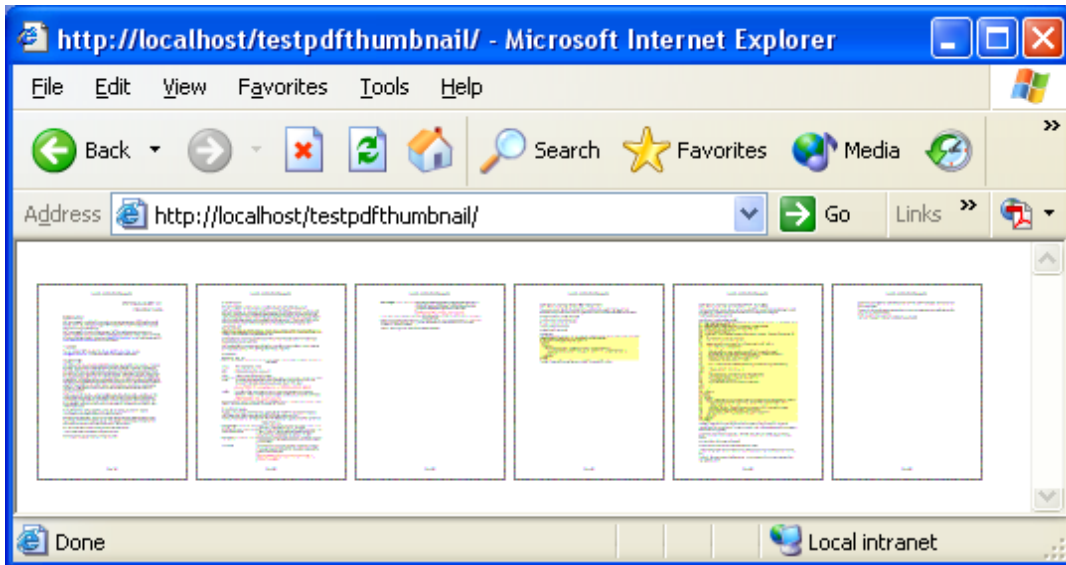
[virtual folder] \ **CMaps**

[virtual folder] \ default.aspx

[virtual folder] \ pdfthumbnail.pdf

```
<%@ Register TagPrefix="tc" Assembly="TallComponents.PDFThumbnail"
Namespace="TallComponents.Web.PDF" %>
<HTML>
<body>
  <form id="Form1" method="post" runat="server">
    <tc:thumbnail path="pdfthumbnail.pdf" index="1" runat="server" />
    <tc:thumbnail path="pdfthumbnail.pdf" index="2" runat="server" />
    <tc:thumbnail path="pdfthumbnail.pdf" index="3" runat="server" />
    <tc:thumbnail path="pdfthumbnail.pdf" index="4" runat="server" />
    <tc:thumbnail path="pdfthumbnail.pdf" index="5" runat="server" />
    <tc:thumbnail path="pdfthumbnail.pdf" index="6" runat="server" />
  </form>
</body>
</HTML>
```

**Listing 2 default.aspx:** Sample ASPX page that uses the PDFThumbnail.NET control.



**Figure 1:** This user guide rendered as thumbnails.

## Sample: Display uploaded PDF document

This sample shows how to allow a user to upload a PDF document and view all pages in a single web page. The document is cached in session state as a byte array using the Thumbnail.SessionKey property.

```

01 <%@ Page language="c#" %>
02 <%@ Register TagPrefix="tc" Assembly=" TallComponents.PDFThumbnail "
03     Namespace="TallComponents.Web.PDF" %>
04 <script runat="server">
05     protected void DisplayThumbs_Click(object sender, System.EventArgs e)
06     {
07         thumbnails.Controls.Clear();
08
09         HttpPostedFile postedFile = Request.Files[ "pdf" ];
10         if ( null != postedFile )
11         {
12             byte[] buffer = new byte[ postedFile.ContentLength ];
13             postedFile.InputStream.Read( buffer, 0, buffer.Length );
14             string unique = Guid.NewGuid().ToString();
15             Session[ unique ] = buffer;
16
17             int n = Thumbnail.GetPageCount( postedFile.InputStream );
18
19             for ( int i=1; i<=n; i++ )
20             {
21                 Thumbnail thumbnail = new Thumbnail();
22                 thumbnail.SessionKey = unique;
23                 thumbnail.Index = i;
24                 thumbnails.Controls.Add( thumbnail );
25             }
26         }
27     }
28 </script>
29 <HTML>
30     <body>
31         <form method="post" runat="server" enctype="multipart/form-data">
32             <input width="100%" type="file" size="50" name="pdf" /> <br/>
33             <asp:button
34                 Runat="server" Text="Display thumbs" ID="DisplayThumbs"
35                 OnClick="DisplayThumbs_Click" /> <br/>
36             <asp:Panel ID="thumbnails" runat="server" />
37         </form>
38     </body>
39 </HTML>

```

**Listing 3 default.aspx:** Sample ASPX page showing thumbnails of an uploaded PDF document.

Line 32: Holds the upload control. The name is set to “pdf” so the posted file will be available in Request.Files[“pdf”].

Line 35: Connects handler that starts on line 05 to the Click event of the “Display thumbs” button.

Line 05: The click handler is declared.

Line 09: The posted file is retrieved from session state.

Line 15: The posted file is stored in session state as a byte array using a GUID as the key.

Line 17: The static method GetPageCount is used to retrieve the number of pages in the uploaded document.

Line 19: A loop starts that adds a thumbnail control to panel “thumbnails” (declared on line 36) for each page.

Line 22: The key that is used to store the document as a byte array is passed to the control using its property SessionKey.

Line 23: The page to display is selected (1-based index).

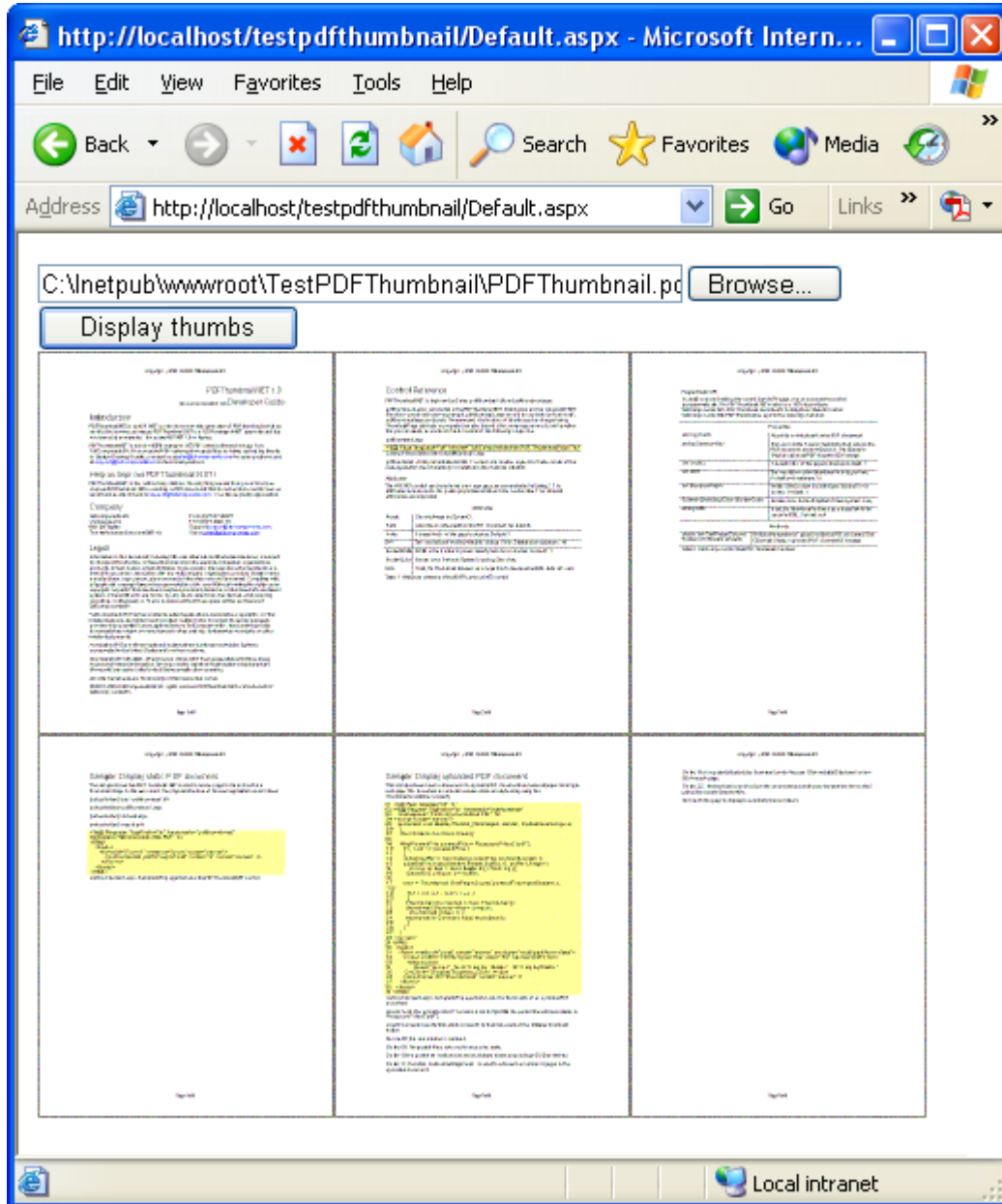


Figure 2: Thumbnails rendered from an uploaded PDF document.

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