Embed PDF

How to embed a PDF document into a HTML page

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Most web developers integrate PDF documents into their web sites as links, so that the PDF document is taking over control of the entire browser window.

This article discusses techniques for embedding a PDF document inside of a HTML page, so that it is showing along with the other contents of the page.

Object Element

The <object> element provides a generic means for the inclusion of multimedia content into a web page.

Here is how we can embed a PDF document into an HTML page using the <object> element:

```
<object src="MyDocument.pdf"
    type="application/x-pdf"
    width="500" height="400">

    <a href="MyDocument.pdf">MyDocument.pdf</a>
</object>
```

The src-attribute specifies the address of the PDF document.

The type-attribute specifies the type of the embedded object. (Instead if this attribute, we could have used the classid-attribute. I prefer using the type-attribute, because it lets the browser choose the means for displaying the object.)

The width- and height-attributes specify the size of the object within the page.

One of the advantages of the <object> element is, that it allows specifying alternate content, which is displayed when a browser doesn't support the object type. In our example, we are using the alternate content to provide a download link to the PDF document, using an <a> element.

The disadvantage of the <object> element is, that it is not well supported by browsers, although this element is part of the HTML 4 specification since 1999 [8].

Embed Element

To <embed> element is an alternative to the <object> element. It originated as a proprietary extension of the HTML standard, and is now part of the HTML 5 draft of W3C [9].

Here is how to embed a PDF document into an HTML page using the <embed> element:

```
<embed src="MyDocument.pdf"
    type="application/x-pdf"
    width="500" height="400" />
```

The src-attribute specifies the address of the PDF document.

The type-attribute specifies the type of the embedded object.

The width- and height-attributes specify the size of the object within the page.

Unlike with the <object> element, there is only one way for using the <embed> element, (that is, there is no classid-attribute), nor is there a means for specifying alternate content.

Flash Applet

The Adobe Flash plugin does not have built-in support for displaying PDF documents. Using conversion tools, a PDF document can be converted into a raster image, which can be efficiently displayed by Flash.

The conversion can either be done on a personal computer, or on the server.

One such solution, which performs the conversion on the personal computer, is Adobe Flash Paper [1]. Prior to uploading, the PDF document needs to be converted into a Flash Applet. The Flash Applet is then upload instead of / or in addition to the PDF document to the server. Unfortunately Adobe has discontinued Flash Paper [2].

A haven't found a ready-to-use solution, which performs the conversion on the server. But a description on how to build one can be found in [4]. The described solution uses the Java library Multivalent [6] on the server to perform the conversion of the PDF documents into raster images.

Java Applet

Java does not have built-in support for PDF, but there is a number of libraries available, such as Multivalent [6], or the PDF-Renderer library [7] by Sun Microsystems.

A Java Applet can be used as a replacement for the Adobe Reader plugin.

There are a number of Java Applets available under commercial licenses. I wrote one with a free license by myself. Its name is EmbedPDF. It is based on the PDF-Renderer library [7] by Sun Microsystems.

Here is how to embed a PDF document using EmbedPDF (with other Java applets for PDF, the code looks quite similar):

```
<applet src="EmbedPDF.class" archive="EmbedPDF.jar"
    width="500" height="400">

        <param name="pdf" value="MyDocument.pdf"/>

        <a href="MyDocument.pdf">MyDocument.pdf</a>
</applet>
```

The src- and archive-attribute are used for executing the Java applet. The src-attribute the Java class which needs to be started. The archive-attribute specifies the file which contains all the applet classes. The file EmbedPDF.jar needs to be uploaded on the server.

The width- and height-attributes specify the size of the applet within the page.

The <param> element with the name-attribute "pdf" specifies the address of the PDF document in its value-attribute.

Like with the <object> element, the <applet> element allows specifying alternate content, which is displayed when a browser doesn't support Java applets. In our example, we are using the alternate content to provide a download link to the PDF document, using an <a> element.

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