

webgraphic.sty: Graphics from the Web for XML Conversion from L^AT_EX*

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Abstract

This package supplies an infrastructure for including web graphics in L^AT_EX documents written for transformation to web formats.¹

EdNote(1)

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¹EdNOTE: extend

1 Introduction

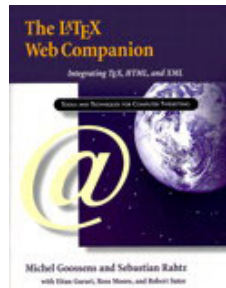
The L^AT_EXML system [Mil] can be used to generate various web formats from L^AT_EX, most prominently XHTML+MathML that can directly be used for web pages. AS L^AT_EXML covers a wide range of L^AT_EX classes and packages, almost all L^AT_EX documents can be converted. But not all XHTML+MathML can be produced; the main problem is that XHTML allows the inclusion of images located by URLs and L^AT_EX only allows the inclusion of images from the local file system. The `webgraphic` package provides a simple markup structure to change this.

2 User Interface

`\webgraphic` The `webgraphic` package provides a single macro: `\webgraphic`. It works exactly like the `\includegraphics` macro from the `graphicx` package [CR99], except that the image file may be a URL [DS05] and that `\webgraphic` has an additional key `local` that can be used to specify a local copy of the image file (L^AT_EX) cannot fetch files from the web. If the `local` attribute is not given L^AT_EX tries to interpret the second argument as a file path to an image file and to include it. The normal usage is

```
\webgraphic[width=3cm,local=LWebComp]
{http://www.tug.org/books/LWebComp.jpg}
```

which results in the following picture given that a file `LWebComp.*` in a format that `graphicx` can handle (here `LWebComp.png`) is present.



L^AT_EXML converts this into a suitable web representation, e.g.

```

```

3 Implementation

We first set up header information for the L^AT_EXML binding file.

```
1 <*ltxml>
2 package LaTeXML::Package::Pool;
3 use strict;
4 use LaTeXML::Package;
5 </ltxml>
```

Then we need to include the `graphicx` package we build upon

```
6 <package>\RequirePackage{graphicx}
7 <ltxml>\RequirePackage('graphicx');
```

`\webgraphic` We build the `\webgraphic` macro on `\includegraphics`: for the L^AT_EX implementation we first extend its keys by `local`, we fish out its value from `\webgraphic` and then supply it is the file to `\includegraphics`.²

```
8 <*package>
9 \define@key{Gin}{local}{\def\Gin@local{#1}}
10 \newcommand{\webgraphic}[2][]{\setkeys{Gin}{#1}\includegraphics[#1]{\Gin@local}}
11 </package>
12 <*ltxml>
13 DefConstructor('\webgraphic[]{}', '');
14 </ltxml>
```

Finally, we need to terminate the file with a success mark for perl.

```
15 <ltxml>1;
```

²EDNOTE: @Deyan, please add the binding and describe what you did.

References

- [CR99] David Carlisle and Sebastian Rathz. *The graphicx package*. Part of the T_EX distribution. The Comprehensive T_EX Archive Network. 1999. URL: <https://www.tug.org/texlive/devsrc/Master/texmf-dist/doc/latex/graphics/graphicx.pdf>.
- [DS05] Martin Dürst and Michel Suignard. *Internationalized Resource Identifiers (IRIs)*. RFC 3987. Internet Engineering Task Force, 2005. URL: <http://www.ietf.org/rfc/rfc3987.txt>.
- [Mil] Bruce Miller. *LaTeXML: A L^AT_EX to XML Converter*. URL: <http://dlmf.nist.gov/LaTeXML/> (visited on 05/08/2010).