

# Complementary remarks regarding the "Electronic Publishing with XML" lecture.

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## 1 Using XML in HTML browsers

My XML files make no mention of the stylesheet to use. It is possible to do so at some point in the XML header. The stylesheet is given in the command line used in the `Makefile`.

I know some browsers are XML-aware and can apply stylesheets on the fly. But they are not many, and probably cannot easily generate a  $\text{\LaTeX}$  version like I did. It probably is a less easy to hack with solution.

## 2 Packages needed

You might have noticed I personally use Debian.  $\text{\LaTeX}$  and XML are not commonly installed on GNU/Linux distributions yet (they are properly configured in Debian, but many other distributions still have problems with them since the packagers probably don't use the things themselves).

When you go home if you want to play with these things again, this is the list of the packages you probably need<sup>1</sup>. Debian users just need to have a look at the Debian packages list and use `apt-get`.

- all `*jade*` stuff
- all `*tetex*` stuff – and this depends in `dialog*` in RedHat 6.2 apparently
- `*docbook*` is a good idea to install and make work too, as well as `*stylesheets*` (or is that `*style-sheet*`?)
- you will need my slides (`budapest-slides*` on the server) and these will be uploaded at IDEALX.org in the near future. Until then, you can use the temporary URLs <http://www.eleves.ens.fr/home/blondeel/budapest/>

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<sup>1</sup>I downloaded them on my laptop from the Hungarian mirror <ftp://sol.cc.u-szeged.hu/pub/linux/redhat/redhat/redhat-6.2/i386/RedHat/RPMS/>, which I found at <http://www.redhat.com/mirrors.html>

and `ftp://quatramaran.ens.fr/pub/sbi/`. Mind the dates of last modification; there is no versioning (probably a mistake from my part) and not all machines react fast enough for my impatience when I try to upload them.

- you will need `xt` and `xp` packages (XSLT tool and the parser to make it work) which you will find at `http://www.jclark.com/` if your favorite distribution does not have a packaged version of them. See the References at the end of the presentation.
- you will need Java 1.2.2; no need to install the whole development kit (JDK); JRE should be enough. I don't know JAVA stuff well but it appears that the server `java.blackdown.org`<sup>2</sup> is an important one, and it has the stuff.

### 3 Cookbook to making the things work

I didn't have time to upload the stuff on the server prior to the first lab session – sorry about that. Likely, I didn't have the time to test the thing on the machines of the lab (which use a different distribution than the one I do), so students used to hacking their way through Unix could guess the missing hints. This is for the rest of you; finish downloading the stuff (with the `wget -km -np <url>` command, this is a nice little program written by a Croatian named Hrvoje NIKSIC<sup>3</sup>).

To unpack (commands to see the list of files and then actually extract; add the filename next to them):

- ZIP files: `unzip -l` (`unzip`)
- .tar files: `tar tf` (`tar xf` or `tar xvf`)<sup>4</sup>
- .tar.gz files: add the `z` flag next to the other flags. Example, to see the list: `tar tzf`.
- .tar.bz2 files: you need `bzip2` installed, either from a package or from `http://www.muraroa.demon.co.uk`<sup>5</sup>. If you are lucky, you just need to add the `"I"` flag to your `tar` commands (some old distributions use `"y"` instead).

If you are unlucky, you will have to type `tar --use-compress-program bzip2 -tf` – yes, after that you need to use the hyphen with the options of `tar`.

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<sup>2</sup>For this presentation I downloaded the `jre` file from `ftp://xenia.sote.hu/pub/mirrors/java.blackdown.org/JDK-1.2.2/i386/rc4/jre-1.2.2-RC4-linux-i386-glibc-2.1.2.tar.bz2`.

<sup>3</sup>Hello, Miroslav :)

<sup>4</sup>`tar` options are special and don't need a leading hyphen sign `"-"`).

<sup>5</sup>OK, I'm sure this is not up-to-date but I am not writing this connected and this is all I can find in the manual page of `bzip2`.

Not all packages unpack the same way: some unpack in the current directory, others in a subdirectory of their own... On my laptop I tried to make a somehow clean and logical install, but you don't need to do that (and don't necessarily have time to) on the machines of the lab.

First step is to make HTML work. Unpack `budapest-slides` and notice the Makefile. You will work with that.

- unpack `jre` and add `jre1.2.2/bin` to your PATH environment variable so when you type `java` it uses that. Check: type `java-fullversion`. It should reply `java full version "Linux_JDK_1.2.2_RC4"`.

To change your PATH variable: `export PATH=$PATH:/path/to/jre1.2.2/bin`.

- unpack `xt.zip` and `xp.zip`. Change the Makefile so that CLASSPATH (when it appears at the beginning of the line, not in the middle) is set to `/path/to/xt.jar:/path/to/xp.jar`. Yes, this path points to files, not directories.
- type `make valid`. You will see a bunch of mistakes. Go back to the first one: it complains it is not able to find some XML declaration file. This is defined in the Makefile. Change that definition (or move the file to match the existing definition). You will find that declaration file in the `jade-xmlspec.zip` package. Pay attention, the extension might be slightly different. This package comes from `ftp://ftp.jclark.com/pub/xml/jade-xmlspec.zip`.  
Type `make valid` again. You should see only one warning. Don't worry, the computer is just playing a game on you to make you doubt. You know better.
- You should now be able to type `make mono`. Ouch. "No such file or directory". Silly me forgot to `mkdir tmp` in the Makefile or include that in the archive. Just do that. The `tmp` subdirectory will include all produced versions.

There you are. The HTML generated file is `tmp/CEEnet2000.html`.

You can now `make multi`. The HTML generated files are under `tmp/CEEnet2000/`.

Second step is to make L<sup>A</sup>T<sub>E</sub>X work. Install all \*tetex\* packages in the order dictated by the dependencies that will complain to you.

The first time you use some font with L<sup>A</sup>T<sub>E</sub>X, it is generated on the fly (and cleaned for the hard disk after a number of days sitting there without being used). So the following might take quite a while. There are several formats of fonts to generate, one is triggered with the `latex` command and others with the `xdvi` or `dvips` commands. Don't be surprised if you see a bunch of lines and numbers scrolling this will only happen once for each font used.

The make rules are:

- `make tex` to produce the `.tex` file. Check it looks good.

- `make dvi` and `make dvi_slides` to produce the printed version you have in hand and the slides version. You can view `.dvi` files with the `xdvi` program. You might need to pass it options about the orientation of paper; it is something like `-papertype a4r`; check it out in the manual page.
- `make gv` and `make gv_slides` will run `gv` on the PostScript version of these documents. If you want PDF you can use `ps2pdf` like I do in the rule that produces them.
- Oh, by the way, I removed all CEEnet logos from the slides since they made `gv` be very slow and the PostScript and PDF files very huge. You can uncomment it out from `xsl/lates/slides.xsl` to see what that gives (search for the string "logo" and move the percent sign on the other line, similar looking, next to it).

### **xdvi versus gv**

If `gv` eats up some part of the page, don't worry. It is a silly program that shows you the intersection between the portrait and landscape zones. My version of `gv` works; `xdvi` should work, and if you tried to print the stuff, it would work as well.

### **And more...**

You might want to look at the way I did things and the little Unix tricks I may use and you don't know. You might even have better ideas than me – by all means, tell me if that were the case.