

SOFTWARE

IN A PERFECT WORLD

12.12.2008

of science even computer nerds would need just one single word processor plus a statistics, a graphics and a bibliography program. While under Windows my work horse was Word + Endnote + SAS + Sigmaplot I have been stepping forward under OS X to MacTex + BibDesk + R (+ thinking about Aabel). [LYX](#) is a nice frontend for [MacTex](#) with a nice surprise as the package included also [BibDesk](#) that can import [Papers'](#) references.

So the final task was to integrate R into the LYX environment where an online [documentation](#) helped me very much. A hurdle not mentioned there is to select the right style for the R code in the article(Noweb) template: it is "scrap" or "Ausschuss" in the German version ;-)

Nome non est omen – this looks already like a perfect setup (if you have also seen doctoral students tearing with MS Word), yea, yea.

The screenshot shows a LYX document interface. On the left, the document structure pane lists sections: "1 In a perfect world", "1.1 we would have", and "References". The main text area displays R code for generating a plot of $\exp(-z^2)$ against z . The code includes comments and function calls like `asequence<-seq(from=0,to=5,by=0.1)` and `plot(asequence,expnegx2,type="l",ylab=expression(exp(-z^2)),xlab="z")`. A figure caption "Figure 1: Decrease" is visible above the code. On the right, a preview window shows the rendered output: a plot of $\exp(-z^2)$ against z , followed by the section "1 In a perfect world", subsection "1.1 we would have", and a list of references.

1 In a perfect world

Gleitobjekt: Figure

Figure 1: Decrease

```
<<fig=T,echo=F,height=4>>=
asequence<-seq(from=0,to=5,by=0.1)
expnegx2 <- exp(-asequence^2)
plot(asequence,expnegx2,type="l",ylab=expression(exp(-z^2)),xlab="z")
@
```

1.1 we would have

yx [Anonym:2008p9632]

BibTeX-erzeugtes Literaturverzeichnis

References

- [1] A brief history of raw milk, page 3, Nov 2008
- [2] Got raw milk, page 4, Nov 2008.
- [3] How treatment and pasteurization, page 5, 7
- [4] Should this milk be legal, page 1, Nov 2008.

