

# Follow Up Session

Functional and Quality Requirements, Latex

# From yesterday

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- The logoff button should be red, located in the top left corner of the UI and be 500x500 pixels.
  - The logoff button should
    - be red (RGB code 255.0.0)
    - Be 500 pixels wide and 500 pixels high
    - Be located at top left corner of the UI
  - The UI should look like the screen shown in Figure 3.2.
  - A requirement must only specify one thing! In this case a button.
  - UI reqs. are hard to model with natlang!
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# A Bad requirement

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- When a user clicks the red quit button the application should be terminated.
  - Describes a function and what the button looks like.
  - Also bad because it is written in a passive voice.
    - Be terminated -> terminate
  - Split it into two requirements.
    - Think how many test cases would be required to test that the requirement has been fulfilled.
      - One for quit
      - One for color, shape, location, etc.
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# Different Types of Requirements

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- Functional Requirements
    - Features
    - Specific functions
  - Non-Functional/Quality requirements (NFRs)
    - “-ilities”
      - Usability
      - Reliability
      - Availability
      - Dependability
      - Security
      - Performance
      - Safety
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# What are they for?

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- Functional requirements
    - Specify the functionality of the system, what the customers functional needs are. Domain specific!
    - I.e. Application must be able to export data into a PDF.
  
  - Quality Requirements
    - Specify overarching properties of the system that result from the implementation of the system.
    - I.e. Performance of the system be high even under a load of 500.000 users.
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# What is this?

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- The system must not be inaccessible more than one hour each year.
  - Quality requirement. Availability
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# What about this?

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- The system should have graphical user interface that is easy to use by experienced users.
  - Quality requirement. Usability
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# And this?

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- The system should have a firewall to make it secure against attacks on port 80.
  
  - Quality requirement. Security
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# And finally, what is this?

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- The application should continuously show my location with a red arrow on the map.
  
  - Functional requirement.
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# There are other definitions

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- But we will stick to FR's and NFR's in this course.
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# What is Latex?

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- “Tool” for formatting of technical papers.
  - Download:
    - Mac: <http://www.tug.org/mactex/2010/morepackages.html>
    - Windows: <http://miktex.org/2.9/setup>
  - IEEE standard found on course homepage.
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# Okey, that's all good. But why use it?

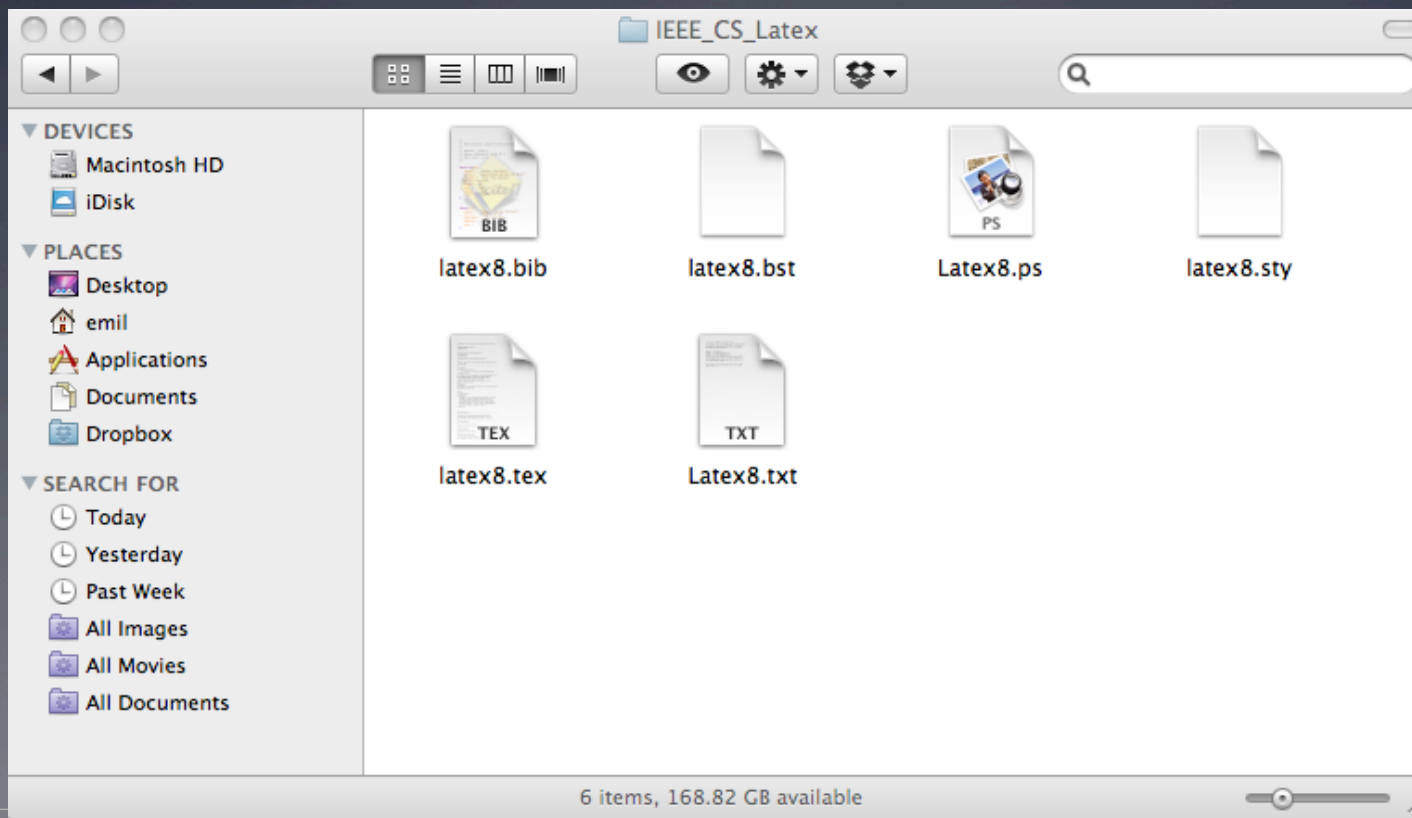
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- Perfect result every time, professional.
  - Easy switch between styles
  - Easy to work with large documents
  - Easy reference management
  - Satisfying to compile
-



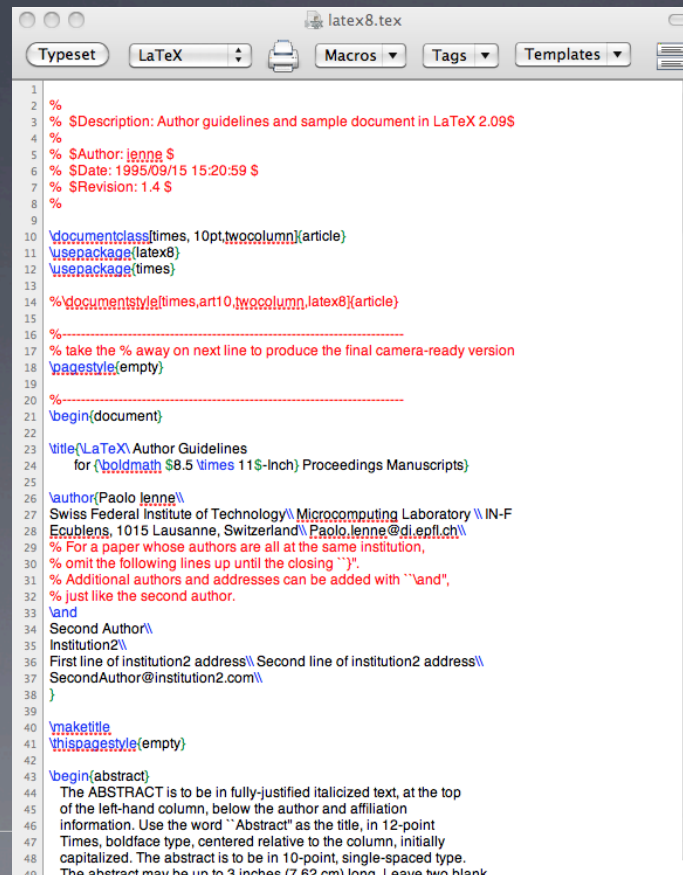
# How do I use it?

- Download style files and unpack them where you want them.



# Then what?

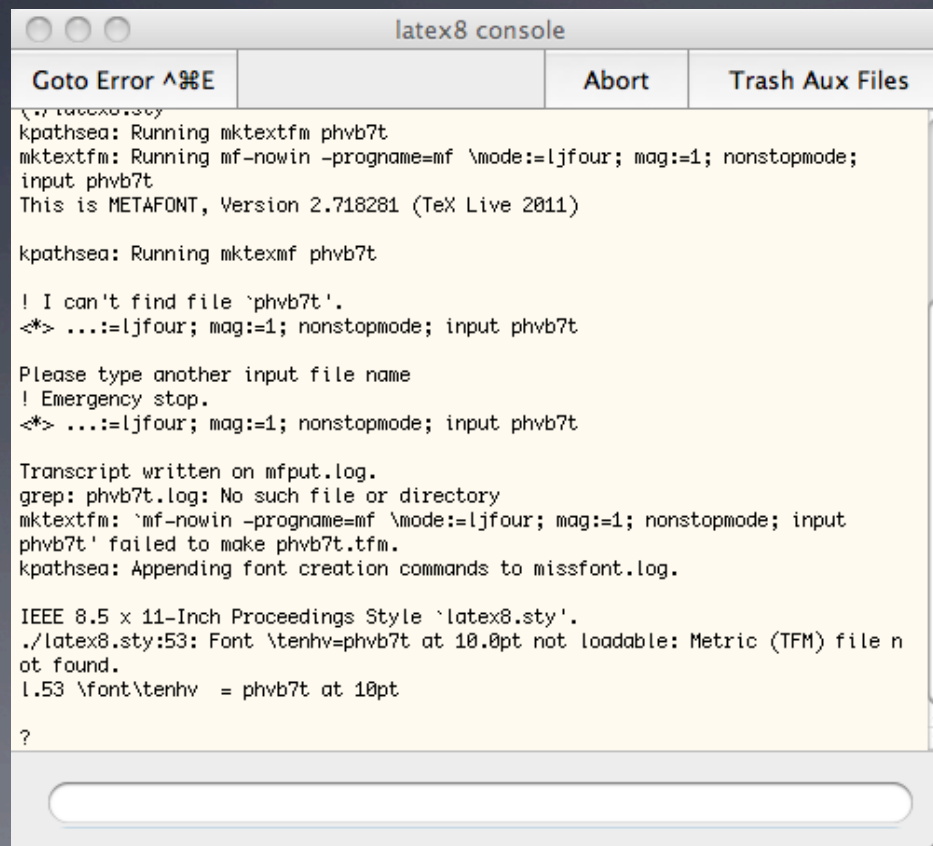
- Click on the .tex file. Should automatically start the default Tex Editor. (TexShop in this example)



```
1
2 %
3 % $Description: Author guidelines and sample document in LaTeX 2.09$
4 %
5 % $Author: jenne $
6 % $Date: 1995/09/15 15:20:59 $
7 % $Revision: 1.4 $
8 %
9
10 \documentclass[times, 10pt, twocolumn]{article}
11 \usepackage{latex8}
12 \usepackage{times}
13
14 %\documentstyle[times,art10,twocolumn,latex8]{article}
15
16 %-----
17 % take the % away on next line to produce the final camera-ready version
18 \pagestyle{empty}
19
20 %-----
21 \begin{document}
22
23 \title{\LaTeX Author Guidelines
24 for {\boldmath $\$8.5 \backslash$times 11$-Inch} Proceedings Manuscripts}
25
26 \author{Paolo Jenne\
27 Swiss Federal Institute of Technology\ Microcomputing Laboratory \ IN-F
28 Ecublens, 1015 Lausanne, Switzerland\ Paolo.jenne@di.epfl.ch\
29 % For a paper whose authors are all at the same institution,
30 % omit the following lines up until the closing "}".
31 % Additional authors and addresses can be added with ""and",
32 % just like the second author.
33 \and
34 Second Author\
35 Institution2\
36 First line of institution2 address\ Second line of institution2 address\
37 SecondAuthor@institution2.com\
38 }
39
40 \maketitle
41 \thispagestyle{empty}
42
43 \begin{abstract}
44 The ABSTRACT is to be in fully-justified italicized text, at the top
45 of the left-hand column, below the author and affiliation
46 information. Use the word "Abstract" as the title, in 12-point
47 Times, boldface type, centered relative to the column, initially
48 capitalized. The abstract is to be in 10-point, single-spaced type.
49 The abstract may be up to 3 inches (7.62 cm) long. Leave two blank
```

# But... Fail?

- Yes, fail... bug in style file.



```
latex8 console
Goto Error ^␣E Abort Trash Aux Files
./latex8.sty
kpathsea: Running mktexfm phvb7t
mktexfm: Running mf-nowin -programe=mf \mode:=ljfour; mag:=1; nonstopmode;
input phvb7t
This is METAFONT, Version 2.718281 (TeX Live 2011)

kpathsea: Running mktexmf phvb7t

! I can't find file `phvb7t'.
<*> ...:=ljfour; mag:=1; nonstopmode; input phvb7t

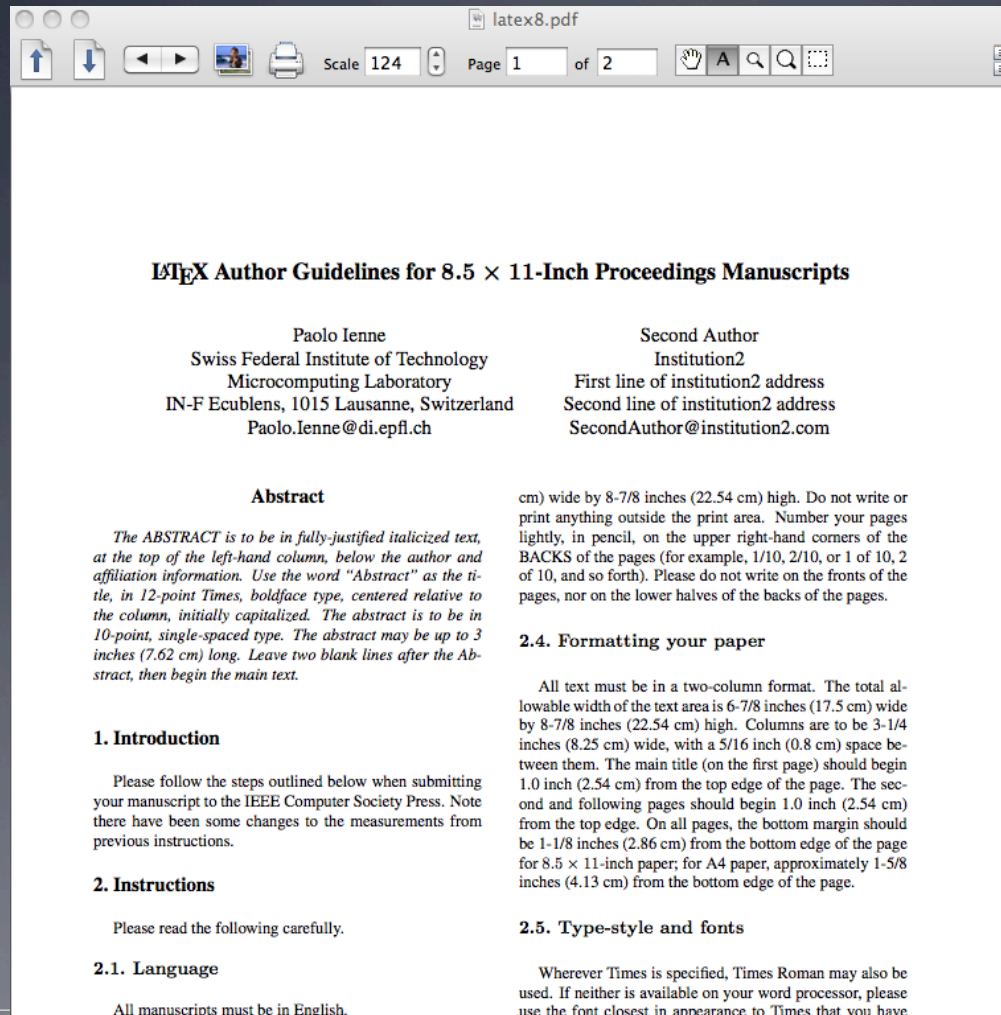
Please type another input file name
! Emergency stop.
<*> ...:=ljfour; mag:=1; nonstopmode; input phvb7t

Transcript written on mfput.log.
grep: phvb7t.log: No such file or directory
mktexfm: `mf-nowin -programe=mf \mode:=ljfour; mag:=1; nonstopmode; input
phvb7t' failed to make phvb7t.tfm.
kpathsea: Appending font creation commands to missfont.log.

IEEE 8.5 x 11-Inch Proceedings Style `latex8.sty'.
./latex8.sty:53: Font \tenhv=phvb7t at 10.0pt not loadable: Metric (TFM) file n
ot found.
l.53 \font\tenhv = phvb7t at 10pt

?
```

# Voila! Very nice :D





# Assignment 2 and Group Assignment

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- Not a requirement, but recommended!
  - Alternatively there is a Word Template with the same layout on the course homepage.
  
  - Valuable to learn for the future!
    - I didn't... and suffered for it 😞
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