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Electronic Presentation Sans Microsoft PowerPoint

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Overview

1. Electronic presentation has become important
2. What's so special about electronic documents?
3. Options
 - Microsoft PowerPoint
 - T_EX friendly solutions
 - Other (Magicpoint)
4. Tips and techniques
 - Figures and Images
 - Algorithms and Mathematics
5. Resources
6. Where do we go from here?



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About Electronic Presentations

- Many disadvantages, but a few reasons to go with the tide
 - Classic: Saves paper, plastic. Easier to retrieve and store.
 - Often Attractive.
 - Occasionally beneficial: Easier to navigate. Easier to teach (for example, spatial data structures). Easier to learn.
- Things to keep in mind
 - Page layout: Matching screen dimensions, aspect ratio
 - Adding emphasis: Color, animation
 - Adding links: Enabling the user to navigate



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About Microsoft PowerPoint

- Front runner (for non technical presentations)
- Several advantages: Robust, Large number of templates, Excellent integrated graphic tool, animation support, link support, WYSIWIG, audience notes
- A few disadvantages: Not light weight, poor math support, imprecise placement, limited export options
- Key Point: Your technical report is not written in PowerPoint!
- Magic Point has different limitations



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Turning to L^AT_EX And Friends

- Why? Why Not? (Compare previous slide on disadvantages)
 - What's possible: Use of color, links
 - (In addition) What's the promise: Beautiful math, More control
 - What's the drawback: Embedded and other animation, Runtime Overlay
- How?
 - Use an appropriate document class: slides, foils, seminar
 - Use appropriate packages: color, hyperref
 - Use other tools: Acroread, Browsers (IE), mpegplay, realaudio
- Examples to follow



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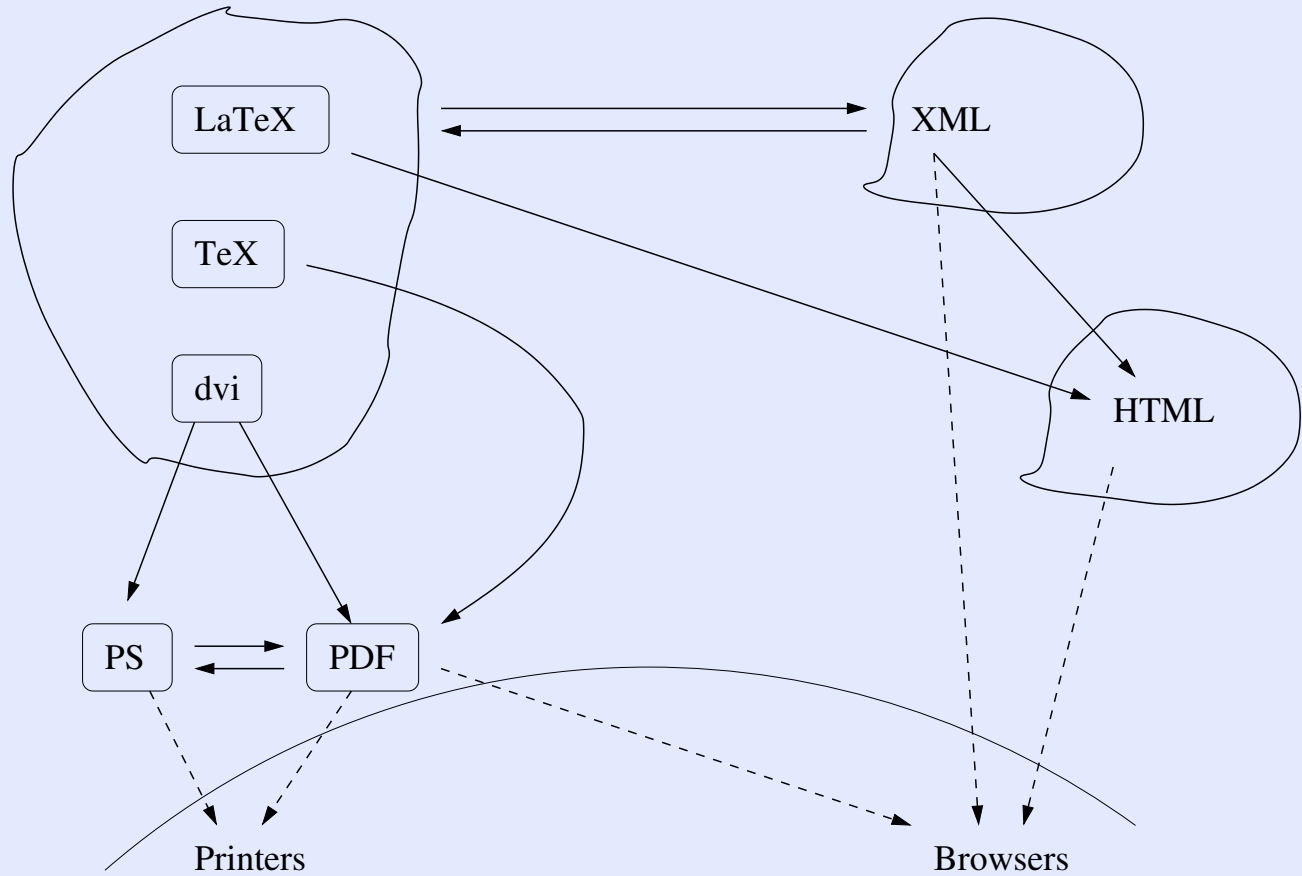
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Overview of Strategies





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Comparisons of Strategies

- Can't stay with `dvi`.
 - Color, link, fonts cause problems.
 - Special versions of drivers can handle these.
 - `xdvi`, `dviwindo`, `dviout` are not really presentation tools
- Downgrade to HTML using `latex2html`, `tth`, `TeX4ht`
 - Beautiful browsers are available. Lightweight solutions if pure text or straightforward \LaTeX . Also consider MathML.
 - Weak math support (math is translated to images)
 - Plugin solution is possible (IBM TechExplorer)
 - Precise placement is a problem.
- Work with PDF
 - Factor of two size increase as compared to `dvi`
 - Acroread is universal, and acceptable as a presentation tool



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Wrinkles in the \LaTeX World

- The good news: standard \LaTeX document classes handle the basic issues of presentation (large size font, overlays, self contained pages, vertically centered pages)
 - The `slides` document class: Standard but lacks bells and whistles
 - The `foiltex` has restricted licenses (copyright owned by IBM)
 - The `seminar` document class is free, and has a long history. Standard in Redhat teTeX distribution.
- The bad news: Which \TeX to use?
 - Problem: color is non standard. Need to convert to pdf using `dvipdf`. (`ps2pdf` is not an option)
 - Accept this reality and work with `pdflatex` but debugging with `pdflatex` and `acroread` is very slow
- Possible solution: Work with both teTeX and `pdflatex`!



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A Few Words on the seminar class

- Mix both portrait and landscape in presentation (impossible in Power-Point?!)
- Recommended for presentations: `\documentclass{seminar}` and `\usepackage{graphicx,times,semrot,sem-a4}`
- For foils, use the `portrait` option.
- Make frames using the `fancybox` package (Can put background text too).
- Color handled with `\usepackage[dvips]{pstcol}` `\usepackage{semcolor}`
- Can have default logo at the bottom
- And a list of slides!



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About PDF

- Compressed descendant of the PostScript language
 - Not a programming language (has JavaScript support though)
 - Page independent from resources
 - Hypertext and security supported
 - Font need not be part of the document
- Adobe makes money in the create PDF process (specs are open)
- Can be used to create *forms* (like HTML forms) with textfield, check-boxes, and so on.



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About hyperref

- A \LaTeX front to generate marks understood by Acrobat
- Extends cross-referencing commands
- Supported by xdvi, dvips, pdftex, dvipdfm
- Two common packages (colorlinks, backref)
- Can be used to control the acrobat menu (bookmarks, toolbar, and so on).



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About pdfscreen

- Wrapper around hyperref to make attractive screen presentations
- Panels to let you navigate
- Automatic color screen
- Page transitions are also provided



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Options to Explore

- ppower4: Postprocessor to enable incremental additions to pages
- texpower: Similar, does page transitions, color highlighting and incremental page display
- propser: A powerpoint lookalike built on top of seminar
- ifmslide: Built on top of texpower



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Other Tools

- xfig

- LaTeX text within xfig (psfrag is more general)

- * Write text, and tag it as “special”.

- * `% fig2dev -L pstex_t -p test.eps -m 0.8 test.fig`

- * `\input{test.pstex_t}`

- Use of grids, update

- Images

- Aligning (Judicious use of the minipage environment or xfig)

- includegraphics handles many different kinds of image formats

- fig2dev, convert

- The listings, and subfigure packages



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Resources

- The L^AT_EX book
- The companion books (Goosens)
- D.P. Story's **article**.
- Michael Wiedmann survey.
- The seminar and the pdfscreen homepage.
- The guide to working with images epslatex.ps
- pdftex faq