

Some Computing Basics

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1 Mathematical Computing

Why do Mathematicians Use Computers?

- To write papers that can be both printed and served online
- To assist with mathematical tasks
 - All cryptographic activity is based on computation
 - Some mathematical research tasks are aided by computation
 1. Proof of “four color theorem”
 2. Classification of finite simple groups

2 Cross Platform Operation

- Not everyone uses the same computing platform
- The platform I use today may be extinct 10 years from now
- Want today’s work (articles, code, mail records, ...) to be available into the future
- Do not want to be ensnared unnecessarily in recursively redundant learning

3 Campus “UnixTM” Network – a platform

- In principle can offer software not easily available elsewhere
- Base for University web sites

4 *IX (UnixTM-like Platforms)

- Original UnixTM was developed at Bell Labs in the late 60's
- Cross-platform user interface to low-level platform operating system
- Current descendants are recognizably similar
- *IX systems are good for cross-platform operation

5 *IX Family Tree (*Wikipedia*)

Open this in a separate browser window:

`Unix_history-simple.svg`¹

6 *IX in your neighborhood

Windows *Cywin*, captures many things though not fully an *IX implementation

Mac OSX Native through its version of BSD

Linux Native

7 Acknowledgement

The XHTML + MATHML version of these slides uses W3C's *Slidy* by Dave Raggett, a JavaScript/CSS package for sizing and flow control of an HTML or XHTML slide show.

(The slides were generated in a non-standard fashion from GELLMU source.)

¹URI: http://upload.wikimedia.org/wikipedia/commons/7/77/Unix_history-simple.svg