

Seminar on Software Engineering

Software Metrics and Measurement

It is not easy to measure software

How Big is a Software System?

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- Count lines of code
 - How about empty lines? comment lines?
- Or count statements
 - Multiple statements per line / continuation across lines
- Only code files?
 - There are also header files, and they can have code
 - And what about documentation? (dynamic) linked libraries?
- Just use the size of the distribution in MB
- Actually maybe interested in functionality, not physical size
 - e.g. IBM's function points

Even Harder:

- Project complexity
 - Or just code complexity
 - e.g. MCC
- Team productivity
 - Or just programmer productivity
 - e.g. function points / hour
- Code quality
 - Reliability / stability
 - Performance
 - bug-freedom

Gilb's Law

Anything you need to quantify can be measured in some way that is superior to not measuring it at all

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- Not necessarily easy
- Not necessarily accurate
- But better than nothing

How would you measure
progress of your project?