FourM Historical Overview

Software Project Management

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Early Days

- The Fifties - Hardware dominates
- High level languages - Fortran, Cobol
- Small and efficient programs
- Compiler tricks

The Sixties - The rise of software

- 1965 G. Moore's (Intel) Law - 'The density of chips doubles every year'
- 1968 Data General Nova - 32K $8,000
- Software costs exceed hardware
- OS/360 + High level languages - programs portable and durable

New Criteria for Successful Software Development

- A relatively low cost of initial development.
- Easily maintained.
- Portable to new hardware.
- Does the job the customer wants.

Edsger Dijkstra

- March, 1968 Letter to the Editor of the CACM
- GoTo Considered Harmful
- 'A Discipline of Programming' - Computer Science as Mathematics
- None of the programs in the book were actually run on a machine

Structured Programming

- Developing programs top-down (as opposed to bottom-up).
- Using a set of specific formal programming constructs (the go to was to be banished).
- Following some formal steps to decompose the larger problem.
- Human readable vs. Machine readable
- 1971, Professor Nicklaus Wirth Pascal

Structured Analysis and Design

- 95 Theses
- Software Engineering
- Methods Wars
- Guru Consultants - Edward Yourdon, Peter Coad, James Martin, and Tom DeMarco

Fred Brooks - The Mythical Man Month

- PM of IBM s Operating System/360 (OS/360) in the early 1960's.
- Software development a human-centric process, not an engineering discipline.
- Why programming is hard to manage
- Why Projects Fail
- The Mythical Man Month Method (FourM)