

# Using History in Software Engineering Courses

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# Trained as an Historian, Practice Software Engineering.....

- It is difficult to tell where history leaves off and computer science starts
- My background lends itself to using history

# First Model: a Mini-Semester History of Computing Course

- Used to fulfill IS requirement
- Eight weeks general history
- Full semester freshman seminar with projects
- ‘Problem’ or topical approach

# The Use of History in the Managing Software Development Course

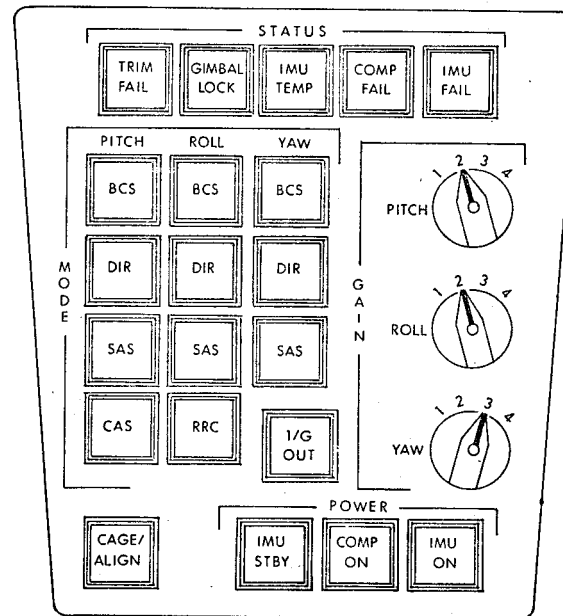
- Case studies [like those from Harvard Business School]
- The NASA F-8 DFBW in a requirements exercise



NASA Dryden Flight Research Center Photo Collection  
SEP 1966 071 NASA.gov/afrc/operations/071  
NASA Photo SCN 1076 Date: 1967 Photo by: NASA photo  
F-8 DFBW in flight

# History in the Analysis of Software Artifacts Course

- statistical testing exercise using the pilot's input panel



# The Case of the Apollo Spacecraft Computer in the Real Time and Analysis Courses

- Showing how single string computers can be supported
- Charles Stark Draper Lab and the cyclic OS

# Software Development Life-Cycle Models

- The term 'paradigm' is overloaded
- Software development life cycles as paradigms
- Software engineering has settled on the cyclic paradigm; it took 30 yrs.

# The History of Unmanned Spacecraft as Models

- Served as the basis for experimentation
- Simple metaphors



# Real Time Systems Course

- Uses manned spacecraft computers as examples

# The Software Development Studio

- Software as engineering
  - The Davis wing
  - Hangar sizes