

~~PAPER SYSTEMS~~

(NO WAY TO MODEL LOAD)

CONCLUSION:

NEED REAL USERS

MUST BUILD SYSTEM

RESEARCH OBJECTIVE:

"TO TRANSFORM THE
ENGINEERING OF LARGE
INFORMATION SYSTEMS"

TODAY:

BACK-BREAKING
EFFORT OF HIGH-
POWERED SPECIALISTS

OBJECTIVE:

ROUTINE
ENGINEERING
PROJECT

WHY:

- AIRLINE RESERVATION SYSTEMS
- ABM SUPPORT SOFTWARE
- AIR ROUTE TRAFFIC CONTROL
- NATIONAL DATA BANK
- ON-LINE COMPANY

NOT YET ROUTINE
PROJECTS

LARGE FILES

TODAY: 10^{10} BITS (4-2314's)

NEEDS: 10^{12} BITS (100 TIMES)

PROBLEMS:

- PERFORMANCE
- RELIABILITY
- CROSS REFERENCE
- PRIVACY

ALL IN ONE
DESIGN



MEMORY MODELING

USER LOAD

SHARING

DEVICE PROPERTIES

PERFORMANCE PREDICTION

NETWORKS

"INFORMATION SHARING
AT A DISTANCE"

- PRIVACY
- PROTOCOL
- BANDWIDTH

OTHER RESEARCH TOPICS

- SIMPLIFICATION OF MECHANISM
- MUTUALLY SUSPICIOUS PROGRAMS
- SCALE UP AND DOWN IN SIZE
- MULTI-PROCESSOR INTERFERENCE

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