DEST:
A TOOL FOR INTEGRATING COST ESTIMATES

STEPHAN GREENE
DYNAMICS RESEARCH CORPORATION

PRESENTATION TO
SECOND COCOMO/WICOMO USER’S GROUP MEETING
LCC ESTIMATES ARE MORE THAN JUST SOFTWARE
WHY INTEGRATE SOFTWARE COST ESTIMATE?

- SYSTEM PARAMETERS INFLUENCE SOFTWARE COST

- SOFTWARE COSTS SUPPORT OTHER LCC ELEMENTS:
  - SYSTEMS ENGINEERING
  - PROGRAM MANAGEMENT
  - TEST & EVALUATION
  - SUPPORT COSTS

- SOFTWARE DEVELOPMENT SCHEDULE MAY PACE REST OF PROGRAM
ROLE OF INTEGRATING SYSTEM

- COCOMO CALCULATES SOFTWARE DEVELOPMENT EFFORT
- EXTENSIONS TO COCOMO ESTIMATE OTHER SOFTWARE-RELATED COSTS
- INTEGRATING SYSTEM PULLS EVERYTHING TOGETHER
  - ORGANIZE INPUTS
  - PREPARE REPORTS
WHAT LEVEL OF INTEGRATION?

MANUAL: SIMPLE OR "ONE-SHOT" ESTIMATES

SEMI-AUTOMATED: ALLOWS ANALYST INTERVENTION AND REVIEW OF RESULTS

AUTOMATIC: EASIEST TO RUN, MOST DIFFICULT TO DEVELOP MOST POWERFUL FOR SENSITIVITY ANALYSES
WHY USE SPREADSHEET TO INTEGRATE?

- DATA-ENTRY ROUTINES ALREADY DEVELOPED
- STANDARDIZED FORMAT FOR DATA FILES
- CUSTOMIZE DATA INPUT AND REPORT FORMS
- PROGRAM INTERFACES WITH MACROS, DOS, AND STAND-ALONE PROGRAMS
- EASY TO USE, READILY AVAILABLE
SELECTING A SPREADSHEET

REQUIRED FEATURES:

- READ AND WRITE DATA FILES FOR OTHER PROGRAMS
- LOAD DATA FILES INTO EXISTING SPREADSHEET
- MACRO CAPABILITY
- ABLE TO SWITCH BETWEEN SPREADSHEET PROGRAM AND DOS
- COMPATIBLE WITH EXISTING HARDWARE

EXAMPLES INCLUDE:

- VISICALC
- MULTIPLAN
- SUPERCALC
- LOTUS 1-2-3
WHY USE COCOMO?

- EASY TO IMPLEMENT
- TAILOR TO SPECIFIC SCENARIO
- FULLY DOCUMENTED VS. PROPRIETARY
DRC's ESTIMATING SPREADSHEET TECHNIQUE (DEST)

- DEVELOPED FOR MICROCOMPUTERS
- DATA TRANSFER VIA DIF OR OTHER STANDARD
- SEMI-AUTOMATED EXECUTION OR AUTOMATIC USING MACROS
- INTEGRATES: DATA INPUTS
  WBS
  COCOMO
  LOGISTICS MODEL
  OUTPUT REPORTS
DEST INTEGRATES INPUTS, MODELS, AND REPORTS
CONCLUSION

- SOFTWARE IS JUST PART OF LIFE CYCLE COST
- USE SPREADSHEETS TO INTEGRATE SOFTWARE INTO REST OF ESTIMATE
- INTEGRATION LETS YOU PERFORM SENSITIVITY ANALYSES QUICKLY, EASILY, AND ACCURATELY

EXPAND ON THIS TECHNIQUE
YOUR IMAGINATION IS THE LIMIT!