Using an Enabling Technology to Reengineer Legacy Systems
Lawrence Markosian, Philip Newcomb, Russell Brand, Scott Burson and Ted Kitzmiller

"Reengineering a major line-of-business system can be likened to changing a tire on a moving vehicle."

Intro

• Proliferation of CASE tools in the last 10 years
• Reengineering tool proliferation has been minimal
• Automated support for reengineering is worse - especially when we talk about transforming code to new functionality.
• Largest problem in reengineering tools is the lack of customizability
• Article describes experience in applying a new enabling technology to automate reengineering of a legacy MIS system.
• Project lasted 4 ½ months
• Developed and alpha-tested a 40KLOC COBOL application
• Previous experience indicated > 20 man-weeks to reengineer a 15KLOC program by hand, this project reduced that effort to 4 man hours

Body

• This paper describes the project in somewhat boring detail, discussing the following areas:
  • The Boeing Payroll Modularization Project - a description of the project and its management and processes.
  • The Critical Modularization Tasks - a description of the process used to make modularization decisions
  • Technical Approach - how they used the technology to build a custom reengineering environment.
  • Software Refinery - a description of the reengineering tool development environment
  • Using the Modularization Tool - a description of the environment and an example of its application to the problem
  • Results - a description of the end results of the project. No general conclusions were drawn.
  • Future Development - a description of then future areas in which Boeing planned to use the tools.