Demonstration Guide

Name: Integration Studio (iStudio)

Presenter(s): Jesal Bhuta

Objective: Automates interoperability assessment for COTS-based software architectures. The tool inputs high-level COTS-based deployment architectures and COTS interoperability characteristics defined using a set of COTS interoperability attributes.

Rationale: Software development projects that utilize multiple commercial-off-the-shelf (COTS) products often confront interoperability conflicts causing budget and schedule overruns. Identification of such conflicts and their resolution mechanisms is essential for successful development with multiple COTS products. Unfortunately, acquiring information to perform interoperability analysis is a time-intensive process. Moreover, increase in the number of COTS products available to fulfill similar functionality leads to hundreds of COTS product combinations, further deteriorating COTS interoperability assessment landscape. Our tool iStudio automates interoperability assessment of COTS-based architectures and recommends possible resolutions to interoperability mismatches.

Target Users: This tool is designed for COTS software evaluation teams to assess the cost of integrating COTS

Runs On:
- Windows 2000, XP
- Requires Microsoft .NET framework version 2.0

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Technical Approach: The tool provides an interface to develop basic deployment architecture of the system. It interfaces with an online repository to retrieve COTS definitions and interoperability analysis rules to perform the actual analysis. It outputs a report for the evaluation team to identify the complexity of integrating the selected COTS products.

Developers:
Model Principle: Jesal Bhuta, Barry Boehm
Tool Development: Jesal Bhuta

Future Directions: We are attempting to collaborate with more researchers to integrate new quality of services extensions models within this tool.