

Avoiding the Knowledge Transfer Bottleneck

Workshop & Discovery Session
IEEE Technology Management Council
October 1, 2009

Welcome to the IEEE AeroSpace “Agile Shuttle” Project

- Introductions
- Your job: Build as many shuttles as you can.

Method 1 (Documentation)

- Build as many shuttles as you can by following written instructions.

Method 2 (Reverse Engineering)

- Build as many shuttles as you can by deducing how an existing design is put together.

Method 3 (Mentoring)

- Build as many shuttles as you can by building along with the chief designer.

Analogies

- **Documentation** – As a software developer you are handed a design document and asked to produce software from the information contained therein.
- **Reverse Engineering** – As a software developer you are given some existing software and asked to produce similar functionality.
- **Mentoring** – As a software developer you develop software side-by-side with the designer.

Software Development is About Creating and Sharing Knowledge

- Knowledge is the Inventory of software development.
- People consume knowledge at their own rate.
- Creating knowledge faster than it can be consumed *does not increase throughput.*
- We can help increase the rate at which people consume knowledge, thus *avoiding the knowledge transfer bottleneck.*

Questions

