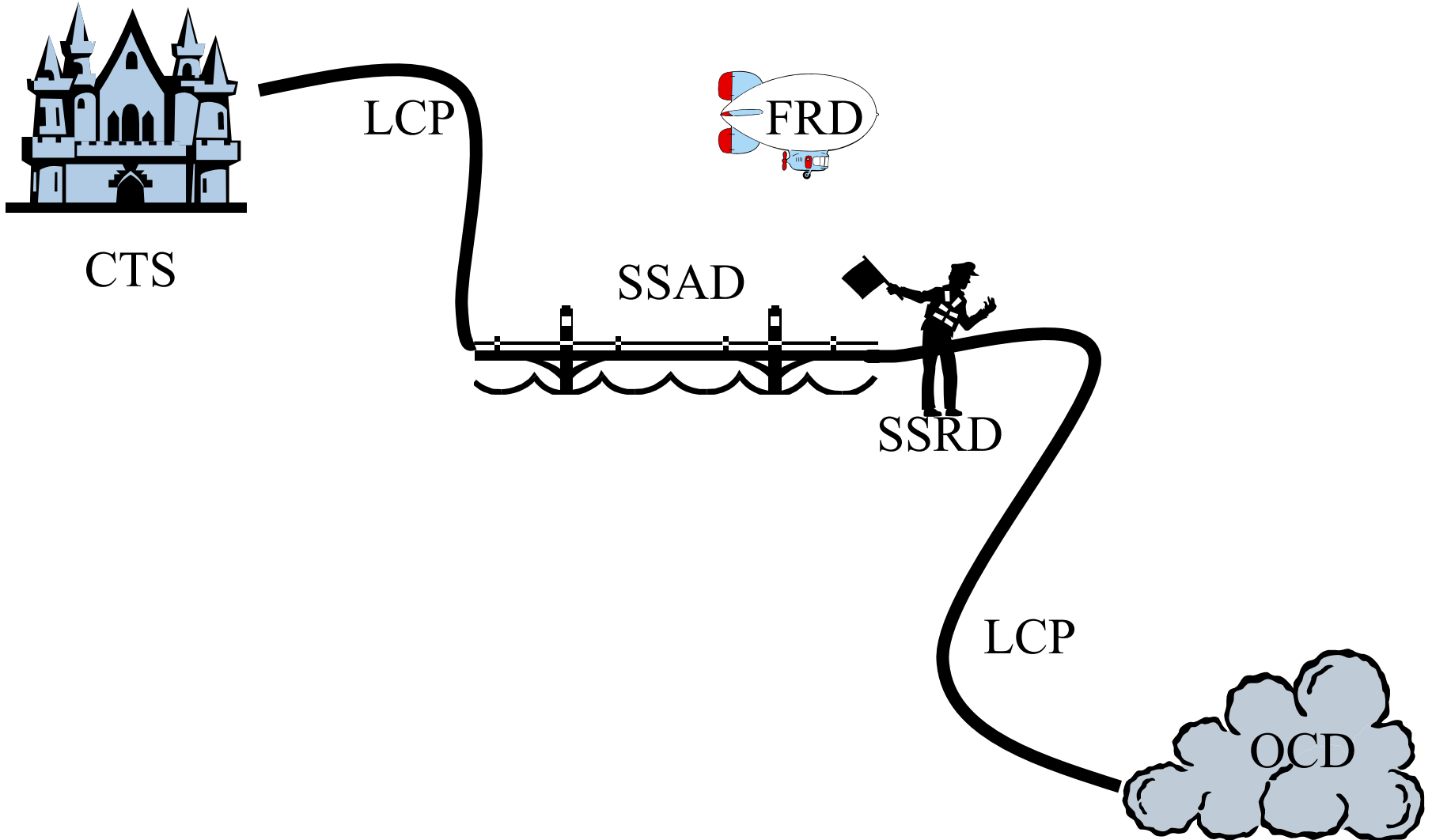


# Initial Operating Capability

577B Workshop

Spring 2002

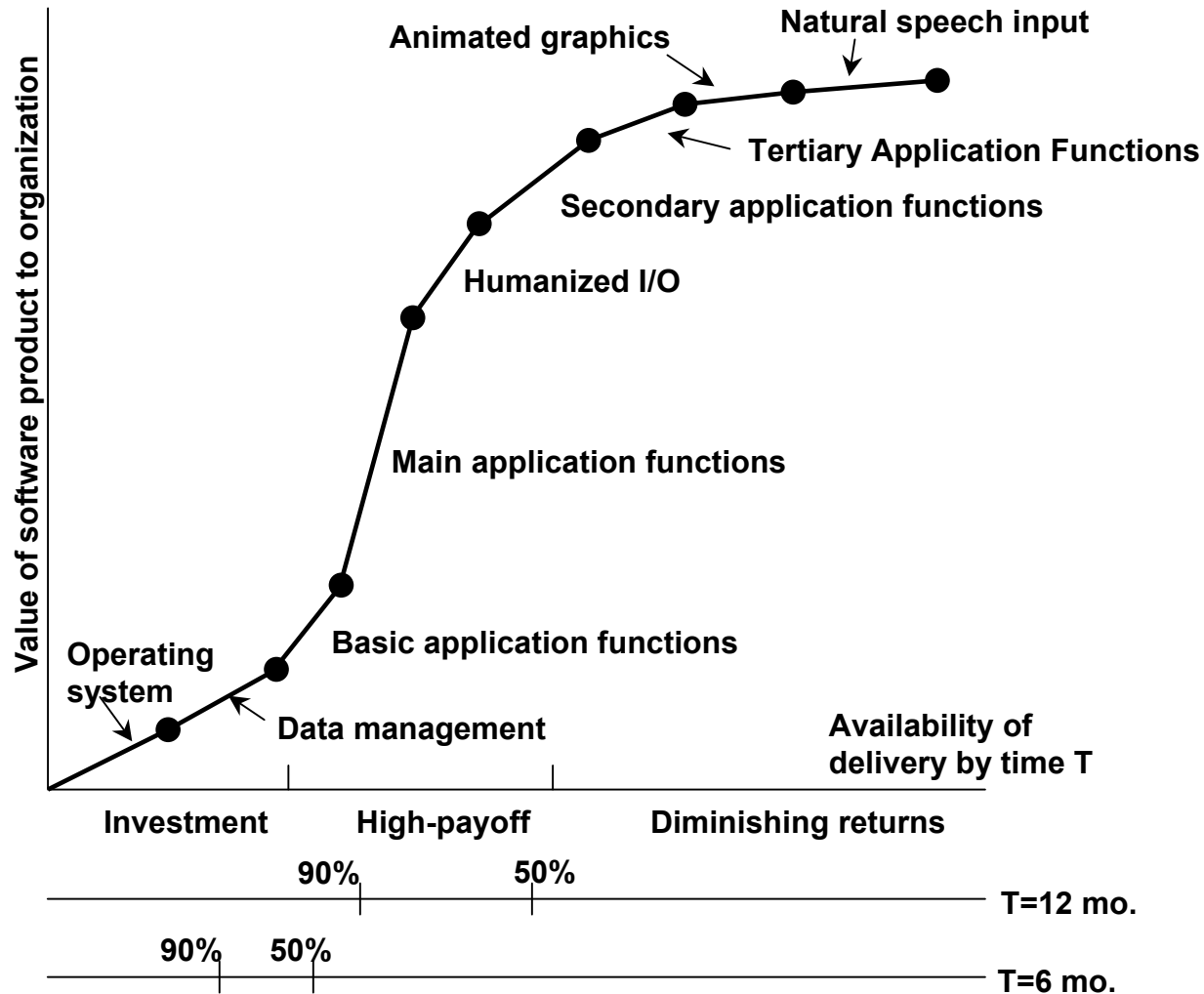
# Getting From A to B



# So What Is IOC Anyway?

- Creating value from project
  - Realizing shared vision
  - Business case more important than capabilities
    - Especially for COTS intensive projects
    - Sometimes reducing scope, delaying, or scrubbing best
- CTS critical
  - Risk-driven tailored to project
- Continued expectations management
  - Close outstanding risks
  - Identify and carefully manage new risks

# Software Product Production Function



# The Road Ahead Ahead: IOC

Success criteria

**The initial operational capabilities of the system as constructed satisfy the architecture models**

\* This includes all the MBASE models, not just SSAD

\*\* Completeness is not as important as soundness

# IOC Involves

- Demonstrating value realization
  - Follow results chain
  - Evidence of “real” FRD
- CTS
  - Show project developed according to traceable plan (which may have changed along the way)
    - Metrics and other empirical data important
  - Transition in progress
    - Ensure “critical success factors” are met
  - Support plan initiated
  - Construction
    - Coding, testing, user manuals, inspections, winwin, demos,...

# Critical Success Factors for Adoption - I

Application	Client Characteristics					Transition Preparation			Stable Envir.	Outcome	
	Focused	Representative	O & M Resources	Collaborative	Domain Knowledge	Software	Site	People		Client Success	Adopted
<b>1996-97</b>											
EDGAR Business Data	+	+		+	+	+			+	+	
Medieval Manuscripts	+			+	+	+			+	+	
Technical Reports	+	+		+	+	+				+	
Latin American Pamphlets	+	+		+	+	+			+	+	
Cinema-TV	+	+	+	+	+	+	+	(+)		+	(+)
Image Archives				+		+			+		
<b>1997-98</b>											
S-Charts	+	+	+	+	+	+	(+)	+	(+)	+	(+)
Global Express	+	+	+	+	+	+		+		+	
Hancock Virtual Museum	+	+	(+)	+	+	+	+	+		+	
Serial Control Records	+	+	+	+	+	+	+	+	(+)	+	(+)
B-School Working Papers	+	+	+	+	+	+	+	+	+	+	+
<b>1998-99</b>											
Data Mining	+	+	+	+	+	+	+	+	(+)	+	(+)
Dissertations	+	+	+	+	+	+	+	(+)	+	+	(+)
Hispanic Archive	+	+	+	+	+	+	+	+		+	
WWI Archive	+	+	+	+	+	+	+	+		+	(+)



# **Preparing Inception/Elaboration (LCA) packages for Construction**

# Precision

- No more “possible” or “potential” elements (e.g., Entities, Components, ...)
- No more superfluous, un-referenced items:
  - Each element (e.g., Entities, Components, ...) either should reference, or be referenced by another element
  - Items that are not referenced should be eliminated, or documented as irrelevant

# Unresolved Items

- No major unresolved issues or items
- Closure mechanisms identified for any unresolved issues or items
  - “Detailed data entry capabilities will be specified once the Library chooses a Forms Management package on February 15<sup>th</sup>”

# Level of Detail

- The level of detail of each section should be risk-driven. For example, interface specification should be rigorously specified, as it is very risky to leave them ambiguous.

# Traceability

- When referencing, avoid having:
  - “broken” or invalid references (e.g., references to something, such as Project Goal, Entity, Component, etc., that does not exist)
  - “blind” or vague references (e.g., “See FRD 2.2.3”—What exactly in FRD 2.2.3 is relevant?)

# How to baseline the LCA package for IOC

- Re-read the entire guidelines: Make sure that the LCA package is 100% compliant
- The revised SSAD should provide a **complete** and **precise** descriptions of components, behaviors, objects, operations, classes, etc...
- It should start to look more like a detailed design document

**Overview of the  
Construction Transition Support  
(CTS) Deliverables**

*Initial Operational Capability (IOC)  
guidelines*

# Overview

- The detailed guidelines for the Constriction Transition and Support (CTS) Deliverables are the authoritative reference
- The CTS is required for your Initial Operational Capability (IOC) package
- Revised guidelines available on-line today

# CTS

- **Construction**
  - Planning, managing and executing system construction to IOC milestone
- **Transition**
  - Planning, managing and executing system transition to client for IOC
- **Support**
  - Plans for system maintenance and evolution post IOC

Consist of specialty plans, reports and links to source code, OCD, SSRD, SSAD, FRD, LCP

# Construction Deliverables

- Iteration Plan
  - Iteration Assessment Reports
  - Release Descriptions
- Quality Management Plan
- Test Plan
  - Test Description and Results
- Inspection Plan
  - Inspection Reports
- Source Code (under CM)
- *As-built* OCD, SSRD, SSAD, FRD, LCP

# Transition Deliverables

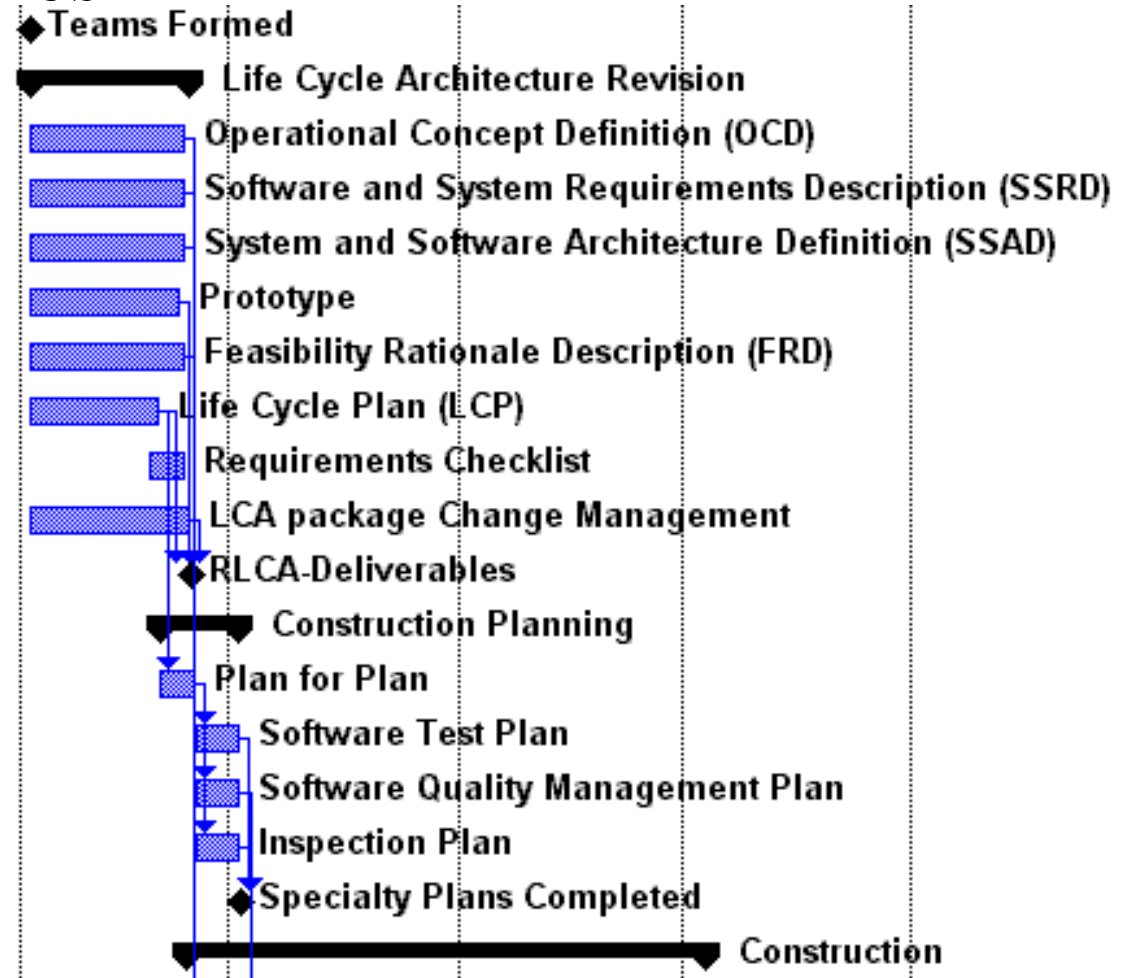
- Transition Plan
- Users manuals

# Support Deliverables

- Support Plan

# Construction Planning Activities, Milestones and Deliverables

Teams Formed	
<input type="checkbox"/> <b>Life Cycle Architecture Revision</b>	
Operational Concept Definition (OCD)	
Software and System Requirements Desc	
System and Software Architecture Definitio	
Prototype	
Feasibility Rationale Description (FRD)	
Life Cycle Plan (LCP)	
Requirements Checklist	
LCA package Change Management	
RLCA-Deliverables	
<input type="checkbox"/> <b>Construction Planning</b>	
Plan for Plan	
Software Test Plan	
Software Quality Management Plan	
Inspection Plan	
Specialty Plans Completed	
<input type="checkbox"/> <b>Construction</b>	



# Typical Effort Graph

