



# CS577b Archiving

## April 18, 2001

# Goals of Presentation

**Introduce a new "tool" for use during Transition**

**Provide an overview of CSE's need for your "data"**

- Principles behind the need
- What we need & why

**You should learn what is expected for your archiving "grade", and the implications for the Transition Set, IOC Software in MDM and the Support Set**

- What, where, how
- Evaluation Criteria



# Outline

Anomaly Tracking System

Need for Archive

Archive Electronic Contents

# Anomaly Tracking System

## AKA Problem Report Tracking System

### Gnu Anomaly Tracking System (gnats)

- Used during Transition (after IOC base-line)
- <http://cse.usc.edu/cgi-bin/csegnats.pl>

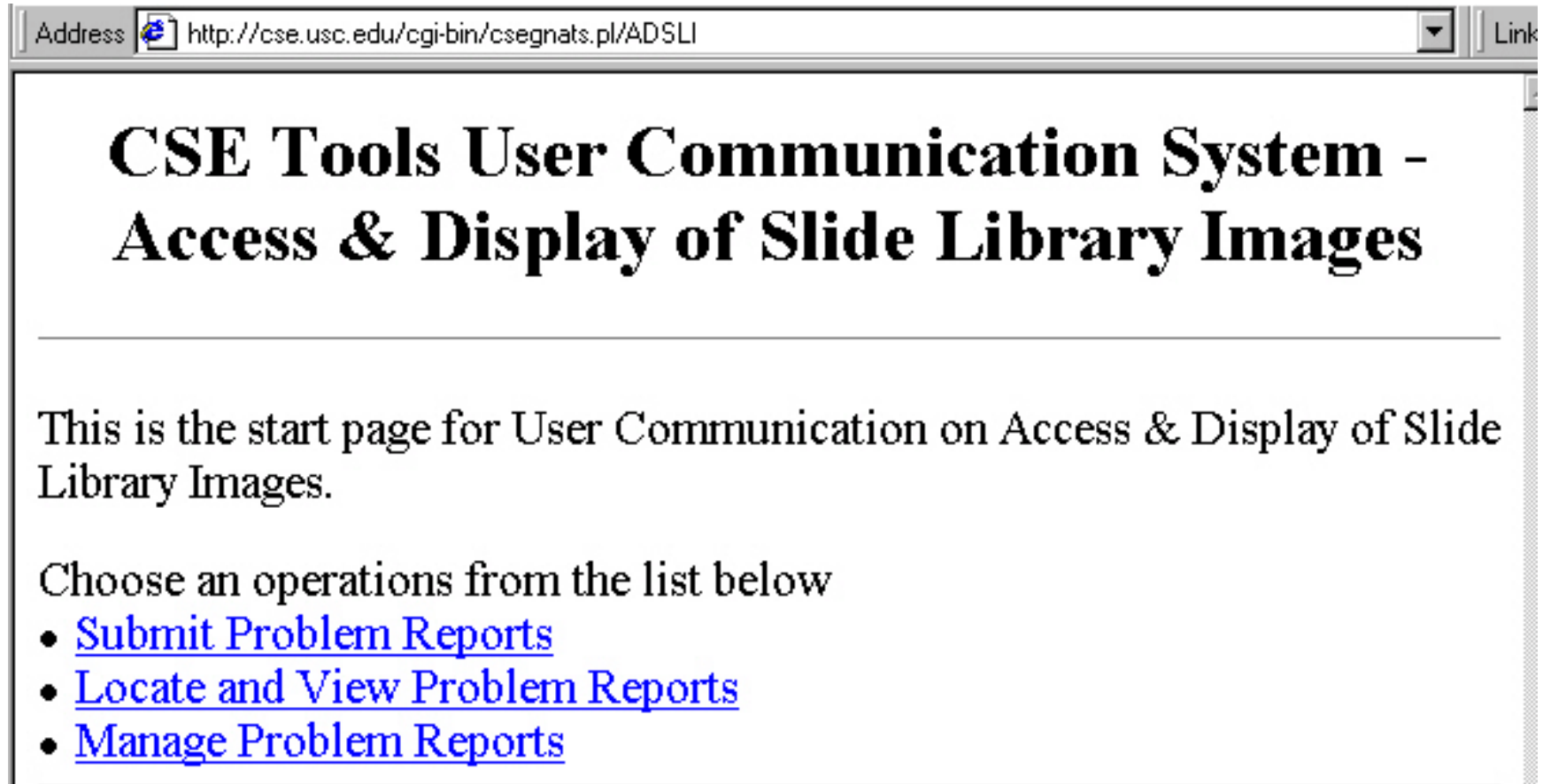



## CSE User Communication System - All Projects

Choose from among the following supported tools/projects

- [ADSLI](#)
- [COCOMO](#)
- [CODECNT](#)
- [DCPT](#)
- [DRUS](#)

# Anomaly Tracking System (cont.)

A screenshot of a web browser window. The address bar shows the URL 'http://cse.usc.edu/cgi-bin/csegnats.pl/ADSLI'. The main content area displays the title 'CSE Tools User Communication System - Access & Display of Slide Library Images' in a large, bold, serif font. Below the title, there is a horizontal line, followed by a paragraph of text: 'This is the start page for User Communication on Access & Display of Slide Library Images.' Below this paragraph, there is another horizontal line, followed by the text 'Choose an operations from the list below' and a bulleted list of three blue, underlined links: 'Submit Problem Reports', 'Locate and View Problem Reports', and 'Manage Problem Reports'.

Address  http://cse.usc.edu/cgi-bin/csegnats.pl/ADSLI Link

## CSE Tools User Communication System - Access & Display of Slide Library Images

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This is the start page for User Communication on Access & Display of Slide Library Images.

Choose an operations from the list below

- [Submit Problem Reports](#)
- [Locate and View Problem Reports](#)
- [Manage Problem Reports](#)

# Anomaly Tracking System (cont.)

## Report problems - Access & Display of Slide Library Images

Please provide [details](#) of the problem.

[Submitter's Name](#) \*

[Organization](#)

[Email](#) \*

[Other organization](#)

[Class](#)

[Release](#)

[Severity](#)

[Synopsis](#) \*

[Description](#) \*

[Additional Information](#)

# Anomaly Tracking System (cont.)

## Query problems - Access & Display of Slide Library Images

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Provide the following information to search the problem:

PR No.	<input type="text"/>
Format	<input type="text" value="Regular"/>
State	<input type="text" value="All"/>
Class	<input type="text" value="All"/>
Severity	<input type="text" value="All"/>
Organization	<input type="text" value="All"/>
Text	<input type="text"/>
	<input type="button" value="Search"/> <input type="button" value="Clear query"/>

# Anomaly Tracking System (cont.)

## Login for "Manage Problem Reports"

### Login to Report Management - Access & Display of Slide Library Images

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Please login to manage the reports:

Name

Joel Thomas ▼

Password(4-digit)

Login

Clear

# Anomaly Tracking System (cont.)

<b>ADSLI</b>	<a href="#">Project #14</a> . Access & Display Archive Image Composer ( <a href="#">Team 14</a> )
<b>FAS</b>	<a href="#">Project #6</a> . Photocopied Table-of-Contents (TOC) Faculty Current Awareness Service ( <a href="#">Team 6</a> )
<b>FTD</b>	<a href="#">Project #8</a> . Fulltext Titles Database ( <a href="#">Team 8</a> )
<b>PAP</b>	<a href="#">Project #21a</a> . CSE Affiliates Private Area Portal and Tech Reports System ( <a href="#">Team 21a</a> )
<b>PISE</b>	<a href="#">Project #3</a> Pathology Image Search Engine ( <a href="#">Team 3</a> )
<b>SDP</b>	<a href="#">Project #1</a> . Station Data Project for the Web ( <a href="#">Team 1</a> )
<b>WMAIL</b>	<a href="#">Project #17</a> . Web Mail ( <a href="#">Team 17</a> )

# **Anomaly Tracking System (cont.)**

**To be used by ALL teams for problems and suggestions DURING transition.**

**Must be available for ANY follow-on team (during the summer)**

**Status of problems is part of your close-out report.**

**Only the team leader, or his designee, can "Manage" the problem reports.**

**Support for the tool provided by Jung-Won Park (SAL329)**



# Outline

## Anomaly Tracking System

### Needs for Archive

## Archive Electronic Contents

# Why An Archive?

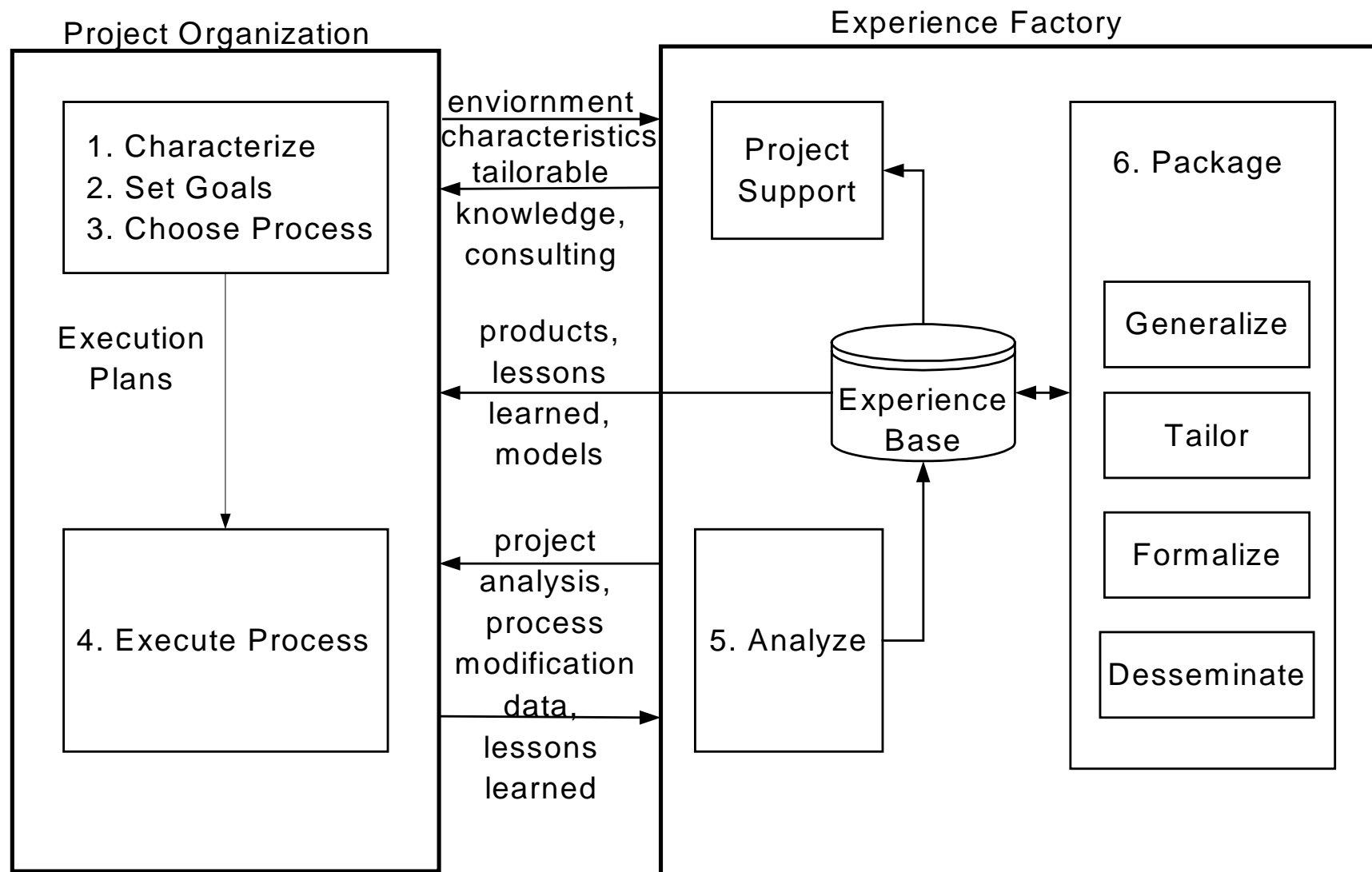
**Fodder for the CS577a Experience Factory**

**Source for "data base" or "information base" or "repository" for researchers**

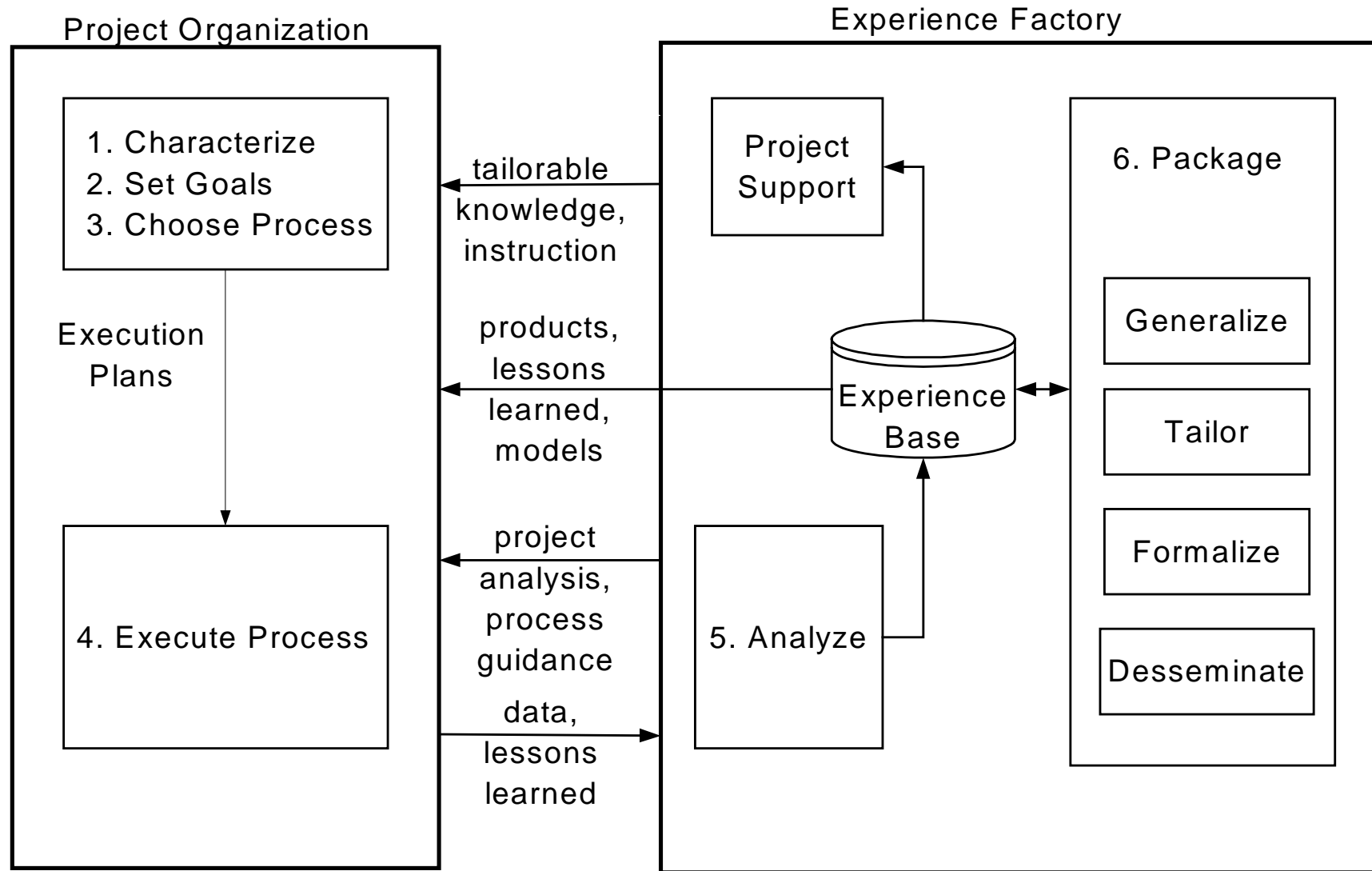
**"Data" for analysis; Analysis is supported by tools where ever possible and appropriate**

- Database of COCOMO runs/info
- UML Analyzer
- Text analyzer for information/knowledge mining

# FC-MD Experience Factory Realization



# cs577 Experience Factory Realization



# CS577 Archive Principles

## Public vs. Internal vs. Researcher

- Public: future students, future 577 project clients, other schools
- Internal: client, instructional staff, support, summer interns, etc. (i.e. other project stakeholders)
- Researchers: want horizontal perspectives; easy to find and identify

## No or little extra work for students:

- If it is on paper, we'll archive or transcribe as CSE sees fit
- Any seemingly "extra" work should be based on best-practices and or savings for client/support

# Archive: What & Where

What/Where				
Public	Internal/Researchers			Researchers
Electronic	Electronic	Electronic	Electronic	Paper
Website, rel. Linked & Visible	Informal: WebSite (archive)	Formal: ClearCase	Tabular data	Internal or informal or interim
LCO, LCA (x2), CTS Doc + Code+	Client or stakeholder Mtg minutes	Baselined Documents	Databases: Effort, Grades, student background, ...	Forms to TA (COCOMO Suite, etc.)
COCOMO, COQUALMO	Client or stakeholder Email logs	Code & Tests (cases & scripts)	COQUALMO (aggregate spreadsheet)	Inspection & Defect Logs; PBR; OORT
COPSEMO, CORADMO, COCOTS		Rose model files (.mdl)	COCOMO II COPSEMO, CORADMO, COCOTS	ARB Feedback; Grading notations

# Archive: What & Where

## Baselines

### Formal vs. informal control:

- Formal using ClearCase
  - For Baselined material
  - Necessary for branching and merging
  - Desirable for multi-use (researchers & ...)
- Informal using CVS, or ad hoc methods
  - OK for iterations during construction
  - NOT adequate for CSE research based on "versions"



# Outline

Anomaly Tracking System

Need for Archive

Archive Electronic Contents



# Archive Electronic Contents

IOC Working Set #1 (90 points)

**IOC Working Set #n (200 points)**

**Transition Set (50 points)**

**Support Set (30 points)**

**Archiving of Deliverables and Data (75 points)**

**Closeout Report (20 points)**

# Archive Electronic Contents (cont.)

## IOC Working Set #1 (90 points)

- Plans (one overall. If there are any changes, you can turn the modified version in next iteration)
  - Inspection Plan (15)
  - Test Plan (15)
  - Quality Management Plan (15)
- Reports
  - Iteration Plans (15)
  - Inspection Reports (15)
  - Test Report (15)

# Archive Electronic Contents (cont.)

## IOC Working Set #n (200 points)

- Test Plan (& Change Summary) (10)
- Test Report (50)
- Implementation Set (50)
  - Source Code Baselines<sup>1,2</sup>
  - Associated Code-like<sup>3</sup> Files<sup>1</sup>
  - Component Executables<sup>1</sup>
- Release Description (15)

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1 in ClearCase & team website

2 including comments in the source files

3 details on next page

# Archive Electronic Contents (cont.)

## IOC Working Set #n (200 points) (*continued*)

- Associated Code-like Files include
  - o Files used at compile time, test time, installation, start up, and run time
  - o For example
    - Test cases, cases, procedures
    - Build, setup & operation:  
data, strings, scripts, procedures, etc.
    - Custom libraries
    - COTS products by reference

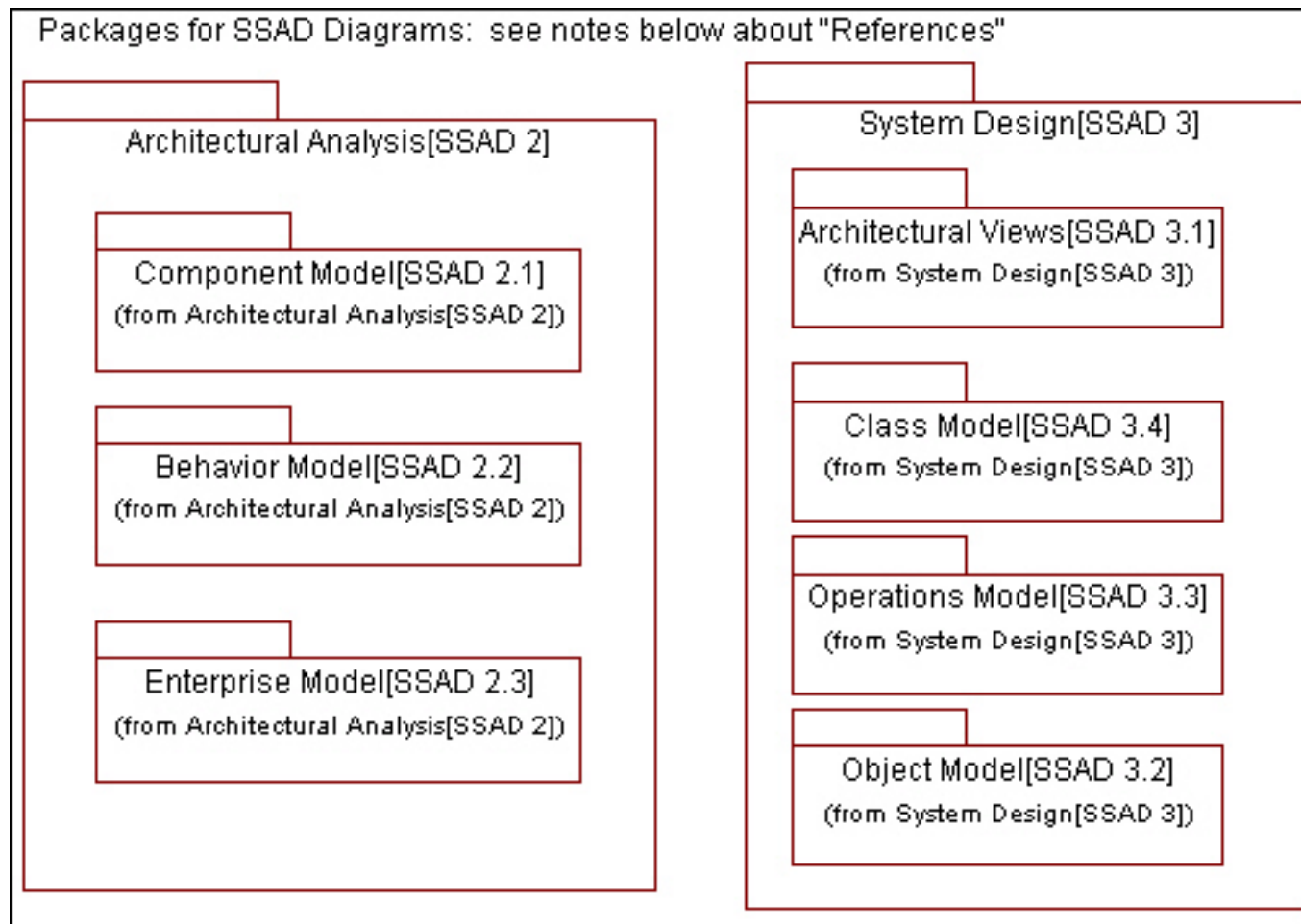
# Archive Electronic Contents (cont.)

## IOC Working Set #n (200 points) (cont.)

- **As-built spec (90) [into ClearCase & web page]**
  - As-built Operational Concept Description (OCD) (5)
  - As-built System and Software Requirements Definition (SSRD) (15)
  - As-built System and Software Architecture Description (SSAD) and Rose Model Files (MDL) (60)
    - SSAD 40 points
    - MDL 20 points (to template; with mappings; ~? SSAD)
  - As-built Feasibility Rationale Description (FRD) (10)

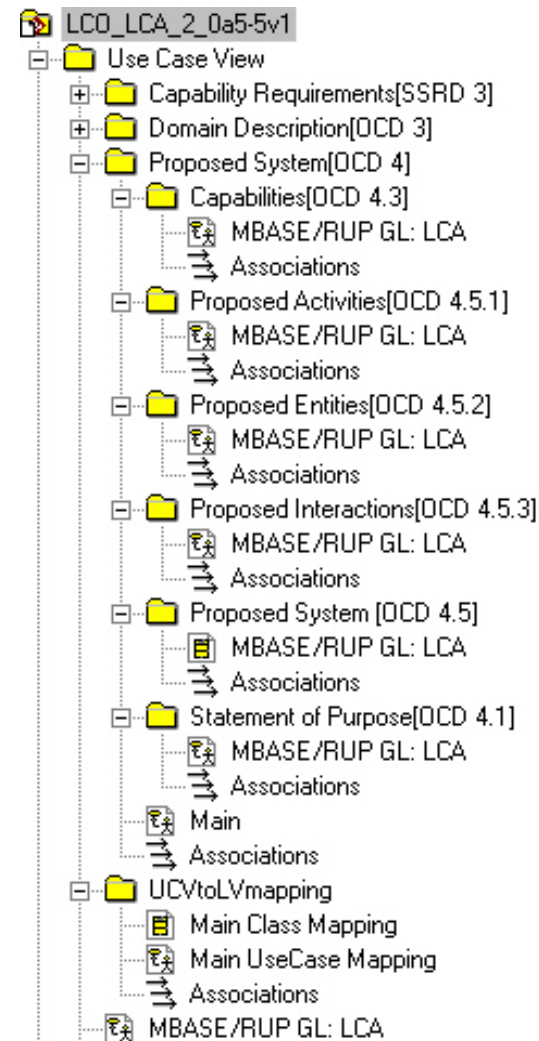
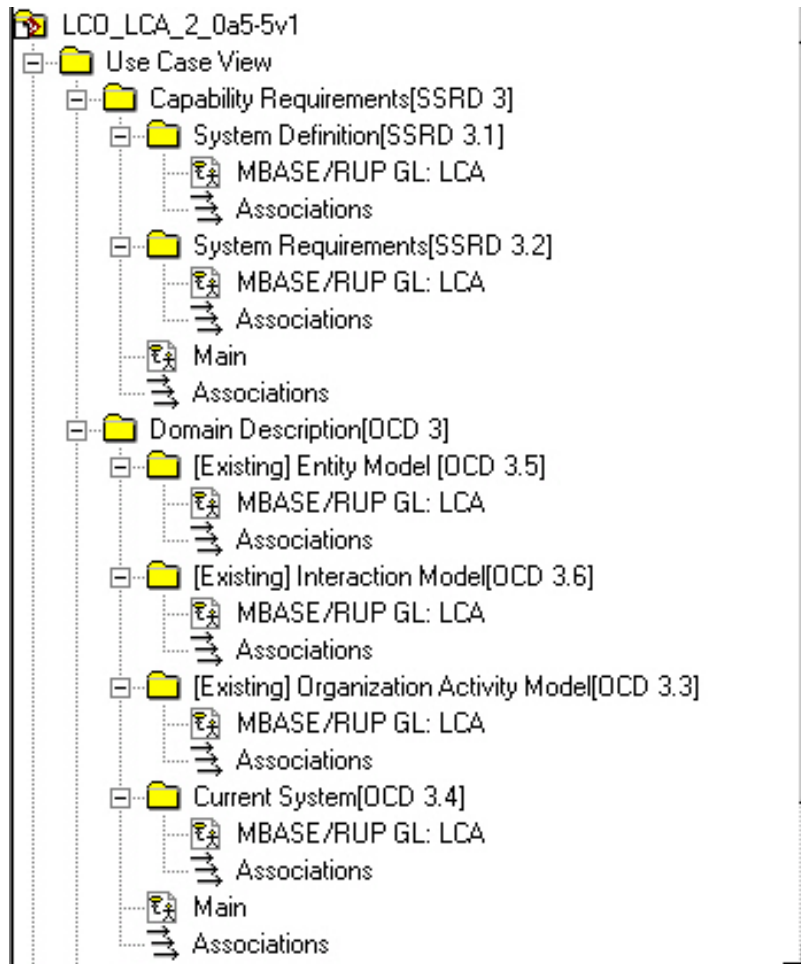
# Archive Electronic Contents (cont.)

## Rose MDL file structure [needed to allow analysis tools to operate on models]



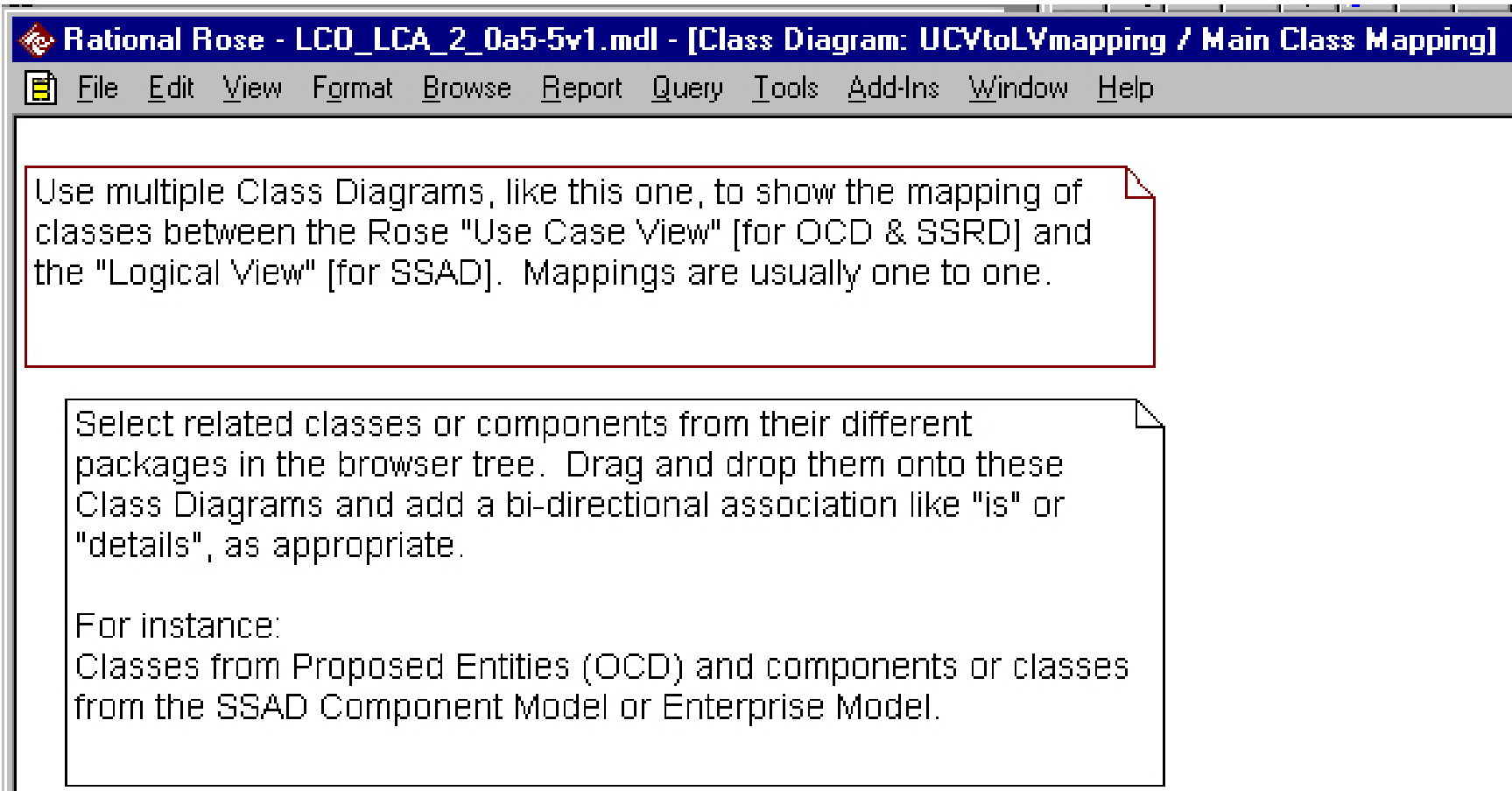
# Archive Electronic Contents (cont.)

## Rose MDL file structure (cont.)



# Archive Electronic Contents (cont.)

## Rose MDL file structure (cont.)



**Rational Rose - LCD\_LCA\_2\_0a5-5v1.mdl - [Class Diagram: UCVtoLVmapping / Main Class Mapping]**

File Edit View Format Browse Report Query Tools Add-Ins Window Help

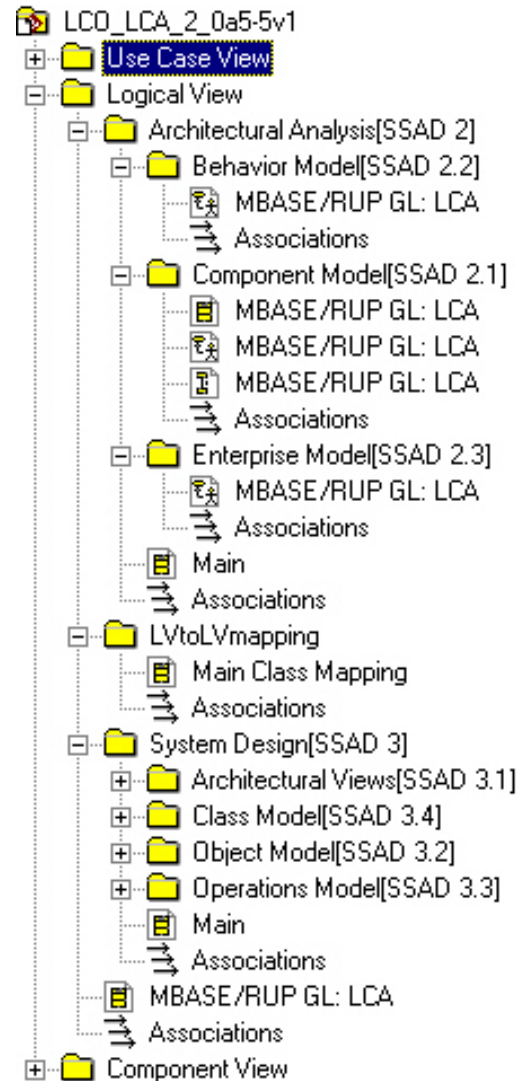
Use multiple Class Diagrams, like this one, to show the mapping of classes between the Rose "Use Case View" [for OCD & SSRD] and the "Logical View" [for SSAD]. Mappings are usually one to one.

Select related classes or components from their different packages in the browser tree. Drag and drop them onto these Class Diagrams and add a bi-directional association like "is" or "details", as appropriate.

For instance:  
Classes from Proposed Entities (OCD) and components or classes from the SSAD Component Model or Enterprise Model.

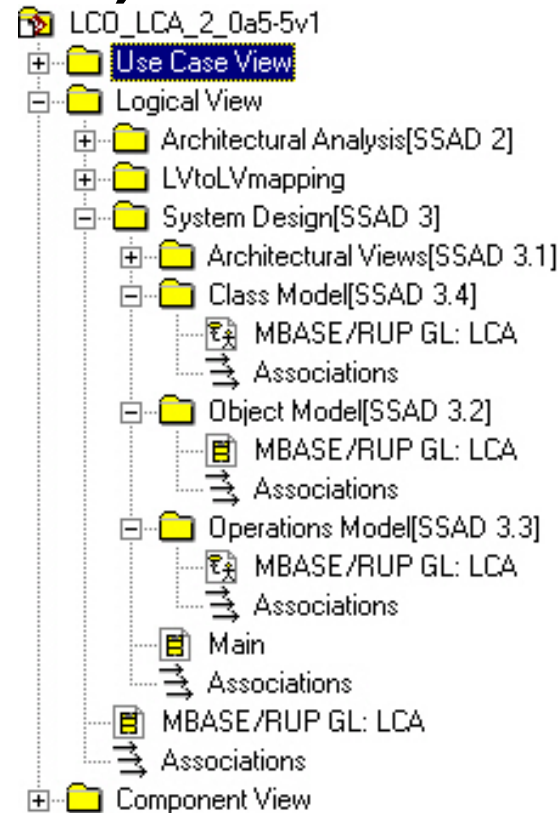
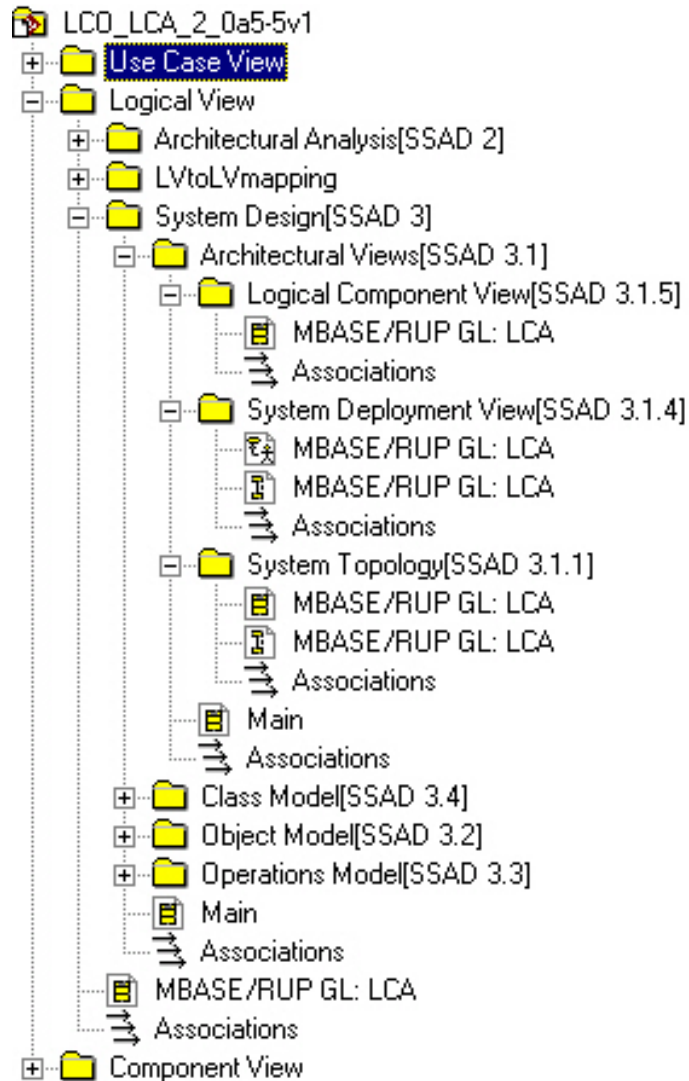
# Archive Electronic Contents (cont.)

## Rose MDL file structure (cont.)



# Archive Electronic Contents (cont.)

## Rose MDL file structure (cont.)



# Archive Electronic Contents (cont.)

## Transition Set (50 points) *In ClearCase*

- Transition Plan (including some Training planning) (20)
- User Manual (30)

## Support Set (30 points) *In ClearCase*

- Support Plan (15)
- Training materials (including tutorials and sample data) (5)
- Regression Test Package (5)  
Including cases, scripts, procedures
- Procedures and Scripts (and tools by reference)  
for installation and initial operation (5)

# Archive Electronic Contents (cont.)

**Archiving of Deliverables and Data (75 points)  
Final PRR Set (same as IOC Working Set # N)**

***In ClearCase and on team's Website***

- IOC Working Set # N+1 (Final Version) (40)  
-- Every artifact of IOC #N
- Final Transition Set (5)
- Final Support Set (5)
- Final Acceptance Test Cases and Scripts, procedures and (electronic) (5)
- Any/All source code changes

# Archive Electronic Contents (cont.)

## Archiving of Deliverables and Data (75 points) (cont.)

### Each to be provide Electronic and/or Paper

- Data Collection Set (20 points)
  - Size Report (including Source Lines Of Code (SLOC) estimates) [Paper & Electronic]
  - COCOMO II & COQUALMO Data Collection Form (including actuals) [Paper]
  - COCOMO II.2000 final run [Paper & Electronic]
  - COCOMO II TOOL Data Collection Form
  - COCOTS Data Collection Form [Paper]
  - CORADMO Data Collection Form [Paper]
  - CORADMO final run [Paper & Electronic]
  - Problem Report Files **GNATS explicit reference**

# Archive Electronic Contents (cont.)

## Closeout Report (20 points)

- Summary of Changes from TRR to final versions (Extract from the document)
- Problem (GNATS) reports summary (how many still open, closed, deferred, ...)
- Release Readiness Review Summary (1-2 pages)
  - Review highlights
  - Client acceptance remarks