HAMR Tutorial

OSATE Workspace Concepts

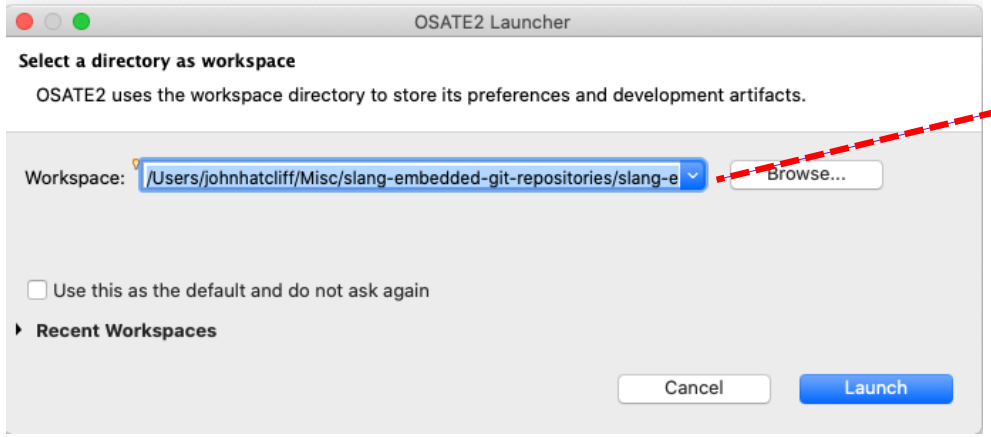
http://hamr.sireum.org

Objectives

- Learn the purpose of the AADL OSATE (Eclipse) workspace
- Understand how we typically want to organize/use an OSATE workspace when working with HAMR projects

OSATE Organization of Projects

OSATE uses the Eclipse IDE workspace concept for organizing project files as well as editor and plug-in settings. The first thing you see when launching OSATE is a dialog asking you to pick the workspace (a folder somewhere on your computer).



When you work with OSATE for the first time, it is probably fine to accept the default location that OSATE suggests for the workspace.

However, you can also specify an alternate location (or create an empty folder for the workspace and "browse" to it in the dialog). This will cause OSATE to initialize the specified folder with workspace files.

OSATE Organization of Projects

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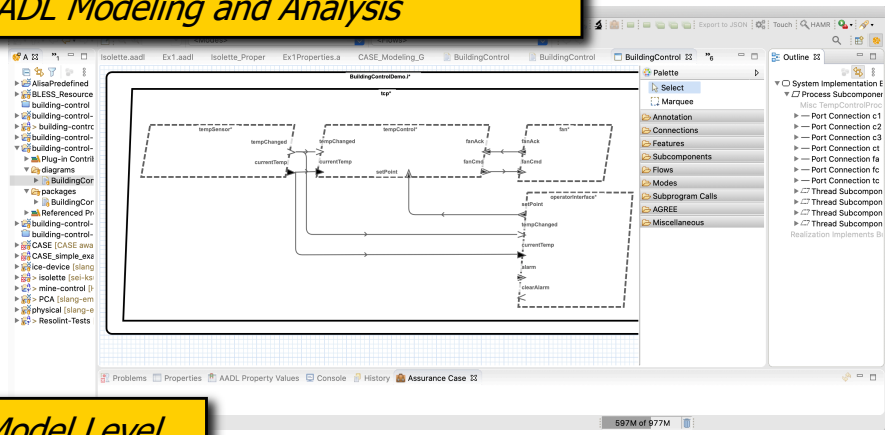
Eclipsed-based OSATE/FMIDE – *AADL Modeling and Analysis*



Model Level

Eclipse Workspace

Project Registry

Plug-in and Settings Info

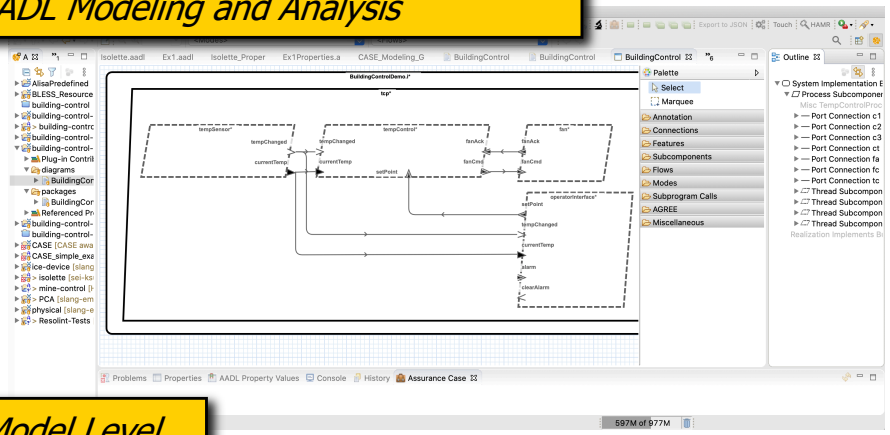
Advice for HAMR-related Work

- You can locate the Eclipse workspace any where you want (except don't put it in git repository)
  - You can accept Eclipse's default location or choose your own
- You can name it anything you want
- Unless you are an expert user, you should not directly mess with the files in the workspace – just treat it as a blackbox

OSATE Organization of Projects

When working with HAMR, we strongly recommend storing your project files *outside* of the workspace. The graphic below shows the recommended conceptual organization.

Eclipsed-based OSATE/FMIDE – *AADL Modeling and Analysis*



Model Level

Folder for HAMR Project A

AADL Project Files

HAMR System Implementation Files

Eclipse Workspace

Project Registry

(project reference)

Plug-in and Settings Info

You should set up the workspace so the that workspace references project files outside of the workspace.

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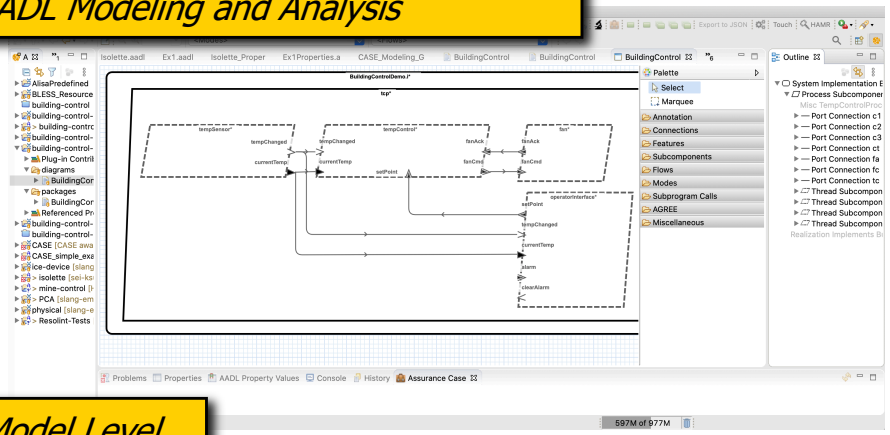
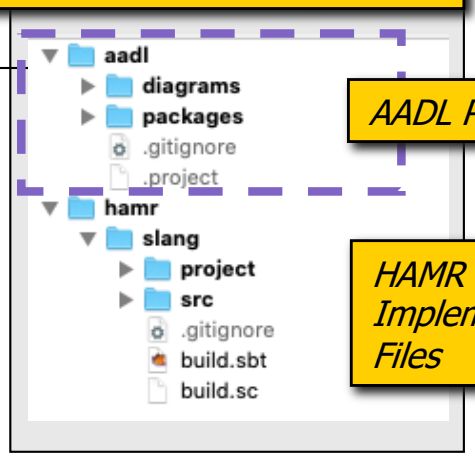


Model Level

Folder for HAMR Project A



AADL Project Files

HAMR System Implementation Files

Alternate graphic showing folder structure of HAMR project files.

Eclipse Workspace

Project Registry

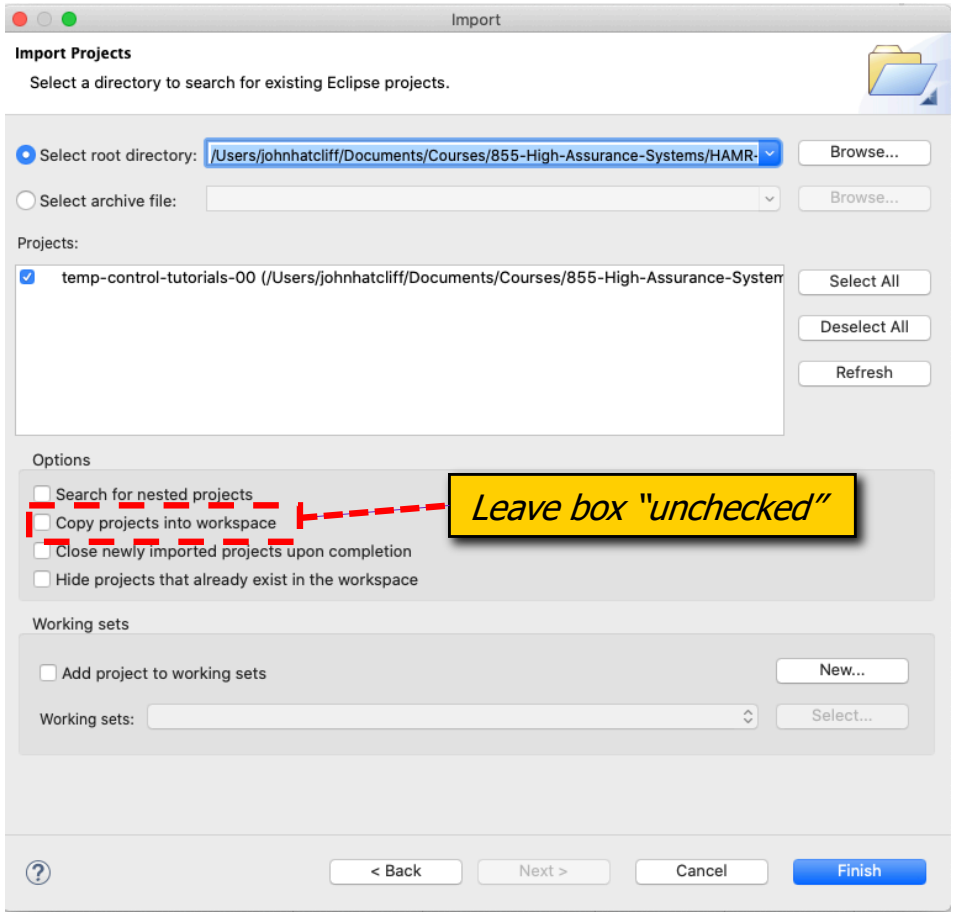
(project reference)

Plug-in and Settings Info

You should set up the workspace so the that workspace references project files outside of the workspace.

When Importing Existing AADL Projects…

When importing existing projects (as in the first few exercises of these tutorials), DO NOT copy projects into workspace.



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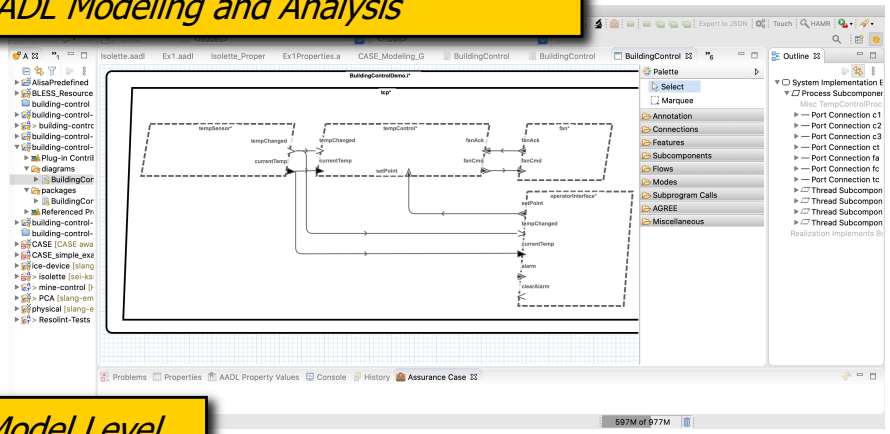


Model Level

Folder for HAMR Project A

AADL Project Files

HAMR System Implementation Files

Eclipse Workspace

Project Registry

(project reference)

Plug-in and Settings Info

AADL Project Files

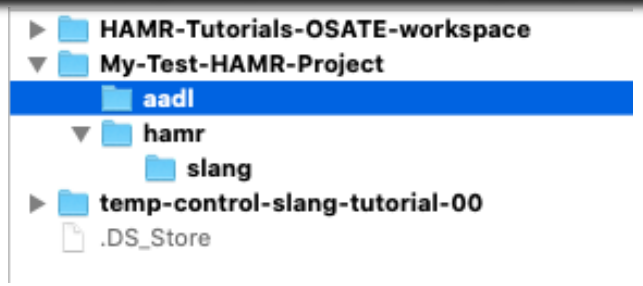
We don't want this!

If you mistakenly, check the "Copy files into workspace" box, you will end up with a copy of the AADL files in the workspace – which we don't want.

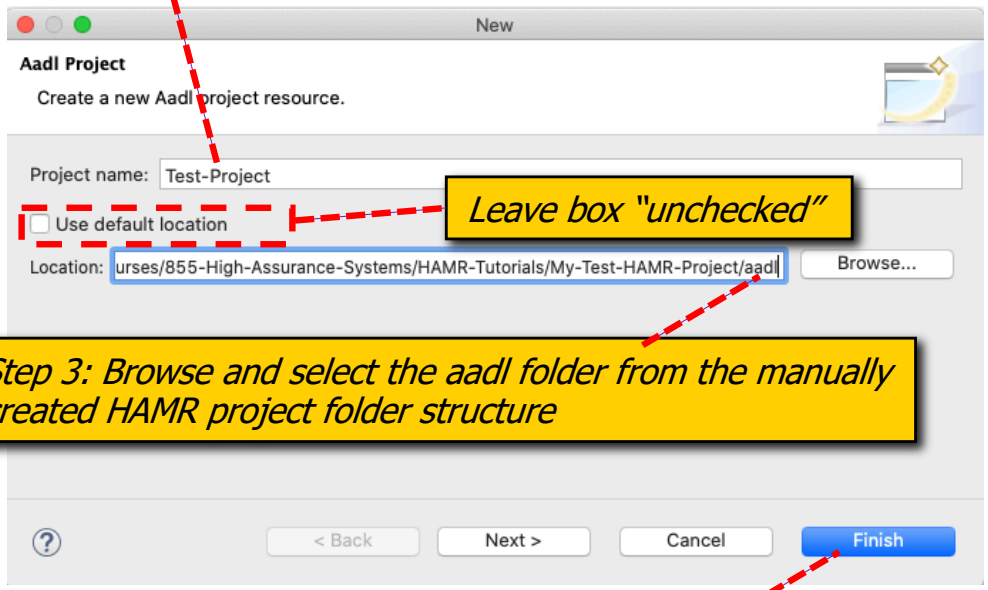
When Creating a New AADL Project…

When creating a new AADL project, DO NOT use the default location. Instead, create the HAMR project structure using your OS, and then use the browse capability to navigate and select the AADL folder from your HAMR project structure.

Step 1: Manually create HAMR project folder structure (e.g.. "My-Test-HAMR-Project") in your OS



Step 2: Give your AADL project files a name to be used within OSATE (doesn't have to match file system name)



Leave box "unchecked"

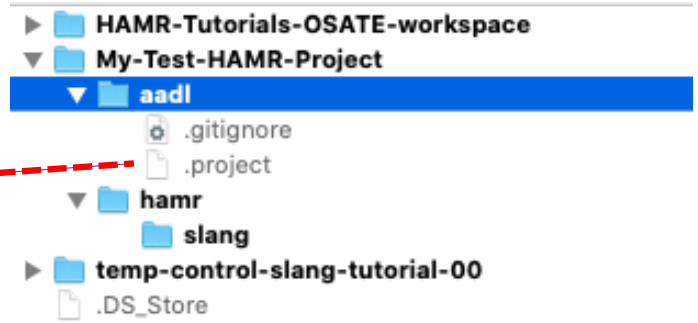
Step 3: Browse and select the aadl folder from the manually created HAMR project folder structure

Step 4: Click Finish

When Creating a New AADL Project…

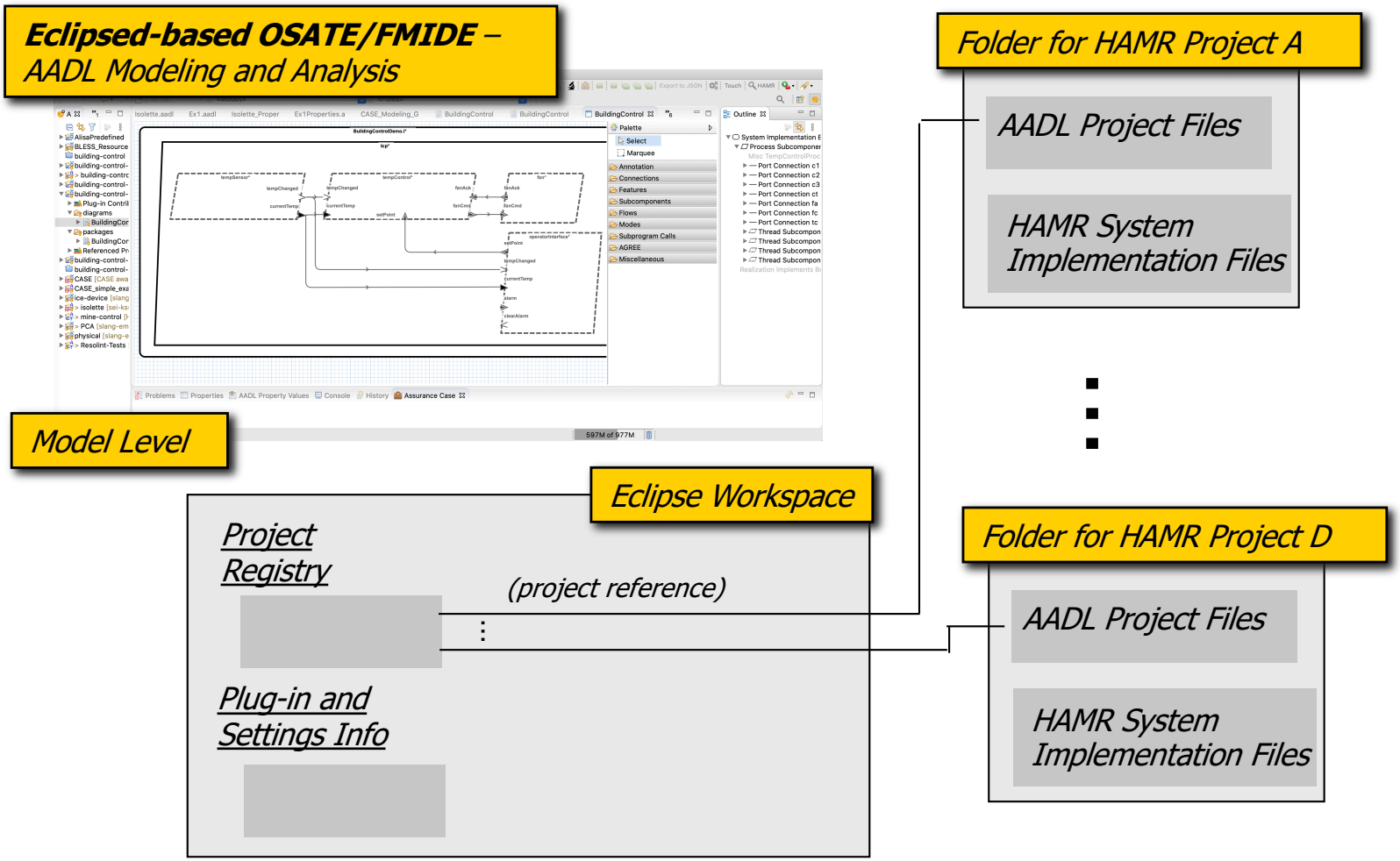
OSATE will initialize the folder you select in **Location:** with initial OSATE/Eclipse project files

The selected folder (e.g., aadl folder) is now initialized to be an Eclipse/OSATE/AADL project.



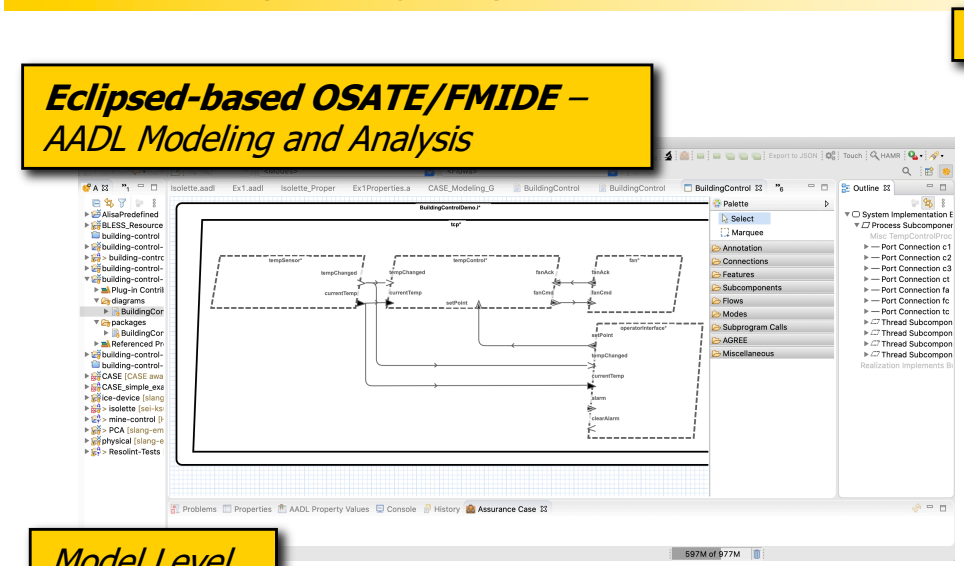
OSATE Organization of Projects

You will typically have the AADL files from multiple HAMR projects referenced in your work space (each will be a separate AADL/OSATE project)



OSATE Organization of Projects

One of the reasons that we want the files stored outside of the workspace is so they can be more easily managed by GIT and other version control systems.



Eclipsed-based OSATE/FMIDE – *AADL Modeling and Analysis*

Model Level

Git Repo 1

Folder for HAMR Project A

AADL Project Files

HAMR System Implementation Files

Folder for HAMR Project B

AADL Project Files

HAMR System Implementation Files

Git Repo 2

Folder for HAMR Project C

AADL Project Files

HAMR System Implementation Files

Eclipse Workspace

Project Registry

(project reference)

Plug-in and Settings Info

Folder for HAMR Project D

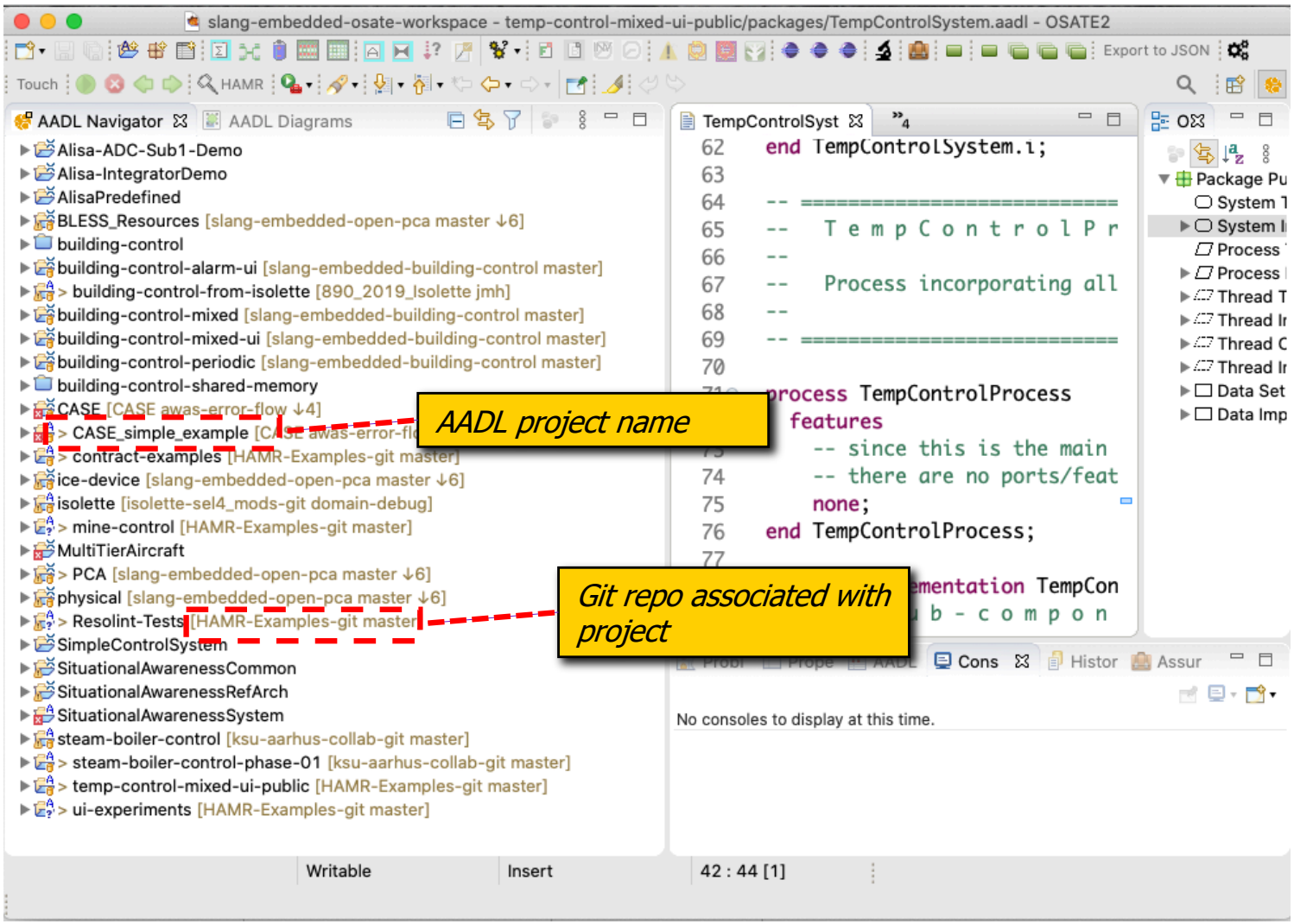
AADL Project Files

HAMR System Implementation Files

(not in a git repo)

OSATE Workspace with Multiple Projects

Example OSATE workspace with multiple projects in multiple git repositories



Multiple Workspaces in OSATE

You can have multiple workspaces in Eclipse/OSATE – grouping your related projects. However, you can only be using one workspace at any given time.

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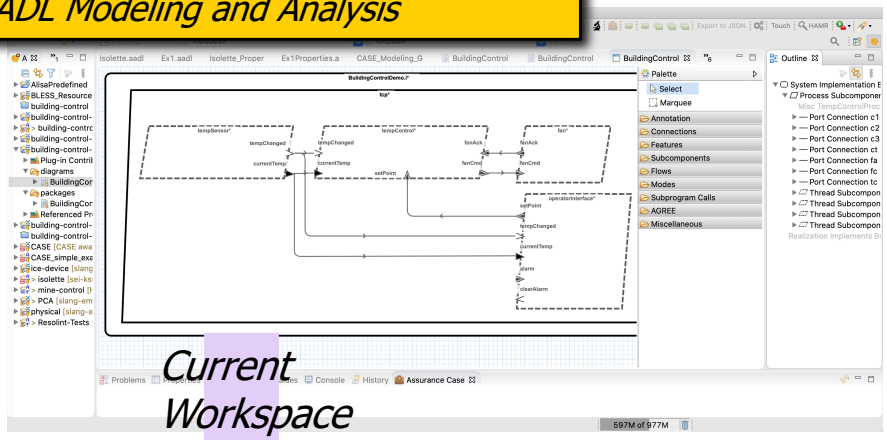


Current Workspace

Eclipse Workspace 1

Project Registry

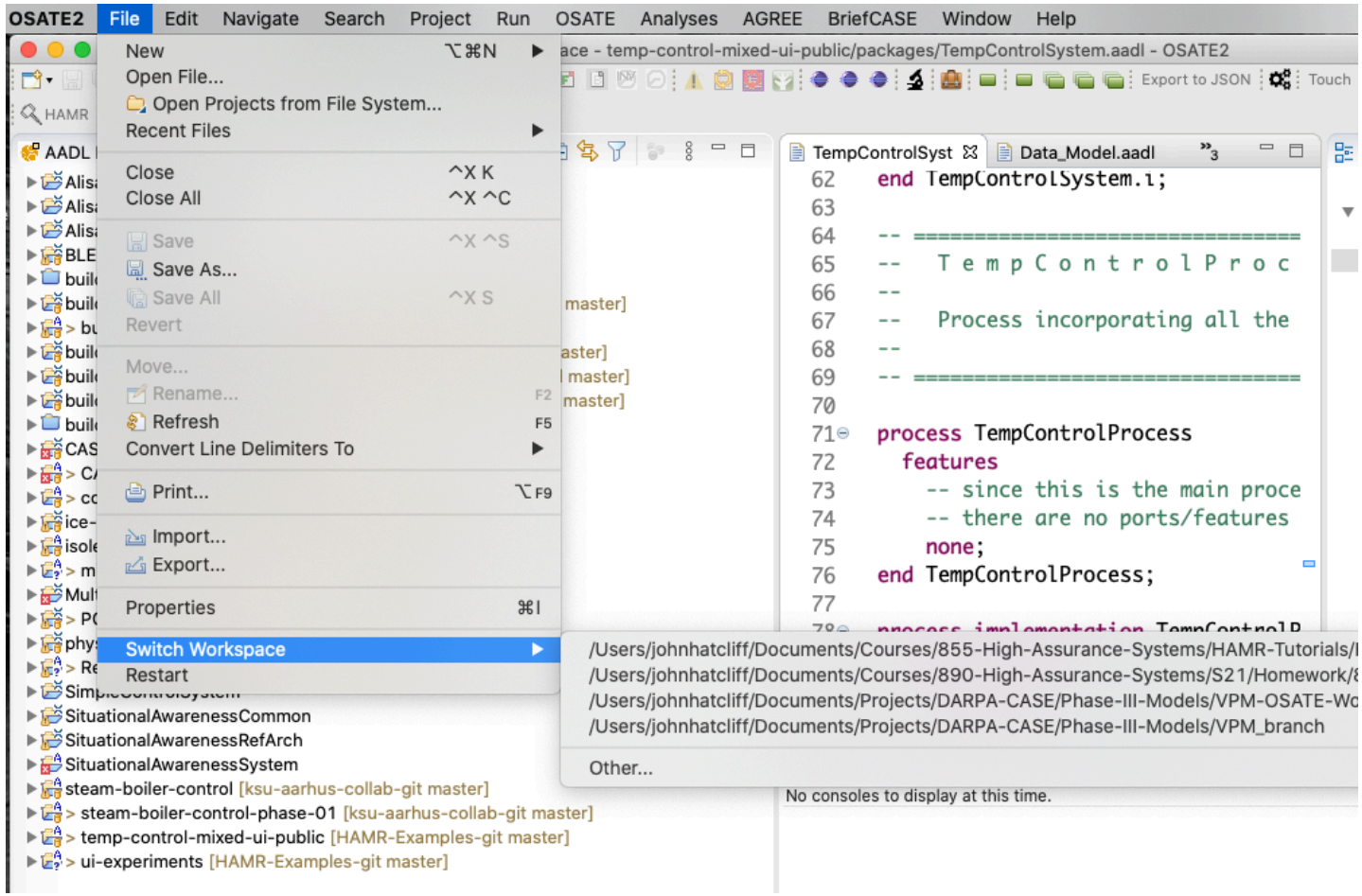
Plug-in and Settings Info

...

Eclipse Workspace N

Project Registry

Plug-in and Settings Info

Switch Workspaces

The **Switch Workspace** menu option lets you switch between recent workspaces or define create new ones (using the **Other** option)