Software Installation Guide

CertWare Safety Case Workbench

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Introduction

This guide describes how to install the CertWare feature into an Eclipse workbench.A different sort of installation that installs a self-contained workbench with CertWare features already installed is possible with a CertWare Product. This guide does not yet describe the product installation method. This guide first describes how to install Eclipse, if necessary, and then describes how to install the CertWare feature into the Eclipse installation.   After installing the software the user should be able to start using the CertWare feature in the Eclipse workbench. The last section provides some quick start hints.

Install Eclipse

If the user does not already have a recent Eclipse application installation, go to the Eclipse site and download and install an Eclipse product for the desired platform. The download site is

http://www.eclipse.org/downloads/

While a minimal Eclipse Classic or Eclipse IDE for Java Developers platform could be used to start with, owing to the many Eclipse Modeling components that CertWare uses it would be faster to download the larger but more comprehensive **Eclipse Modeling Tools** platform. The Eclipse Indigo distribution (3.7 or later) is best for the latest CertWare feature. A recent list is shown in the figure below. If you already have an Eclipse and merely want to install CertWare into it, then move on to the next next.

After installing the Eclipse IDE, the user can then install the CertWare feature into the IDE. Use one of the two following sections according to how the CertWare feature was delivered.

Installing CertWare From Update Site

This user should follow this installation procedure to acquire and install the CertWare feature from the project's online update site.

Launch Eclipse, select a workspace if prompted, and then run the **Help -> Install New Software...** command. This raises the **Install** dialog as shown below.
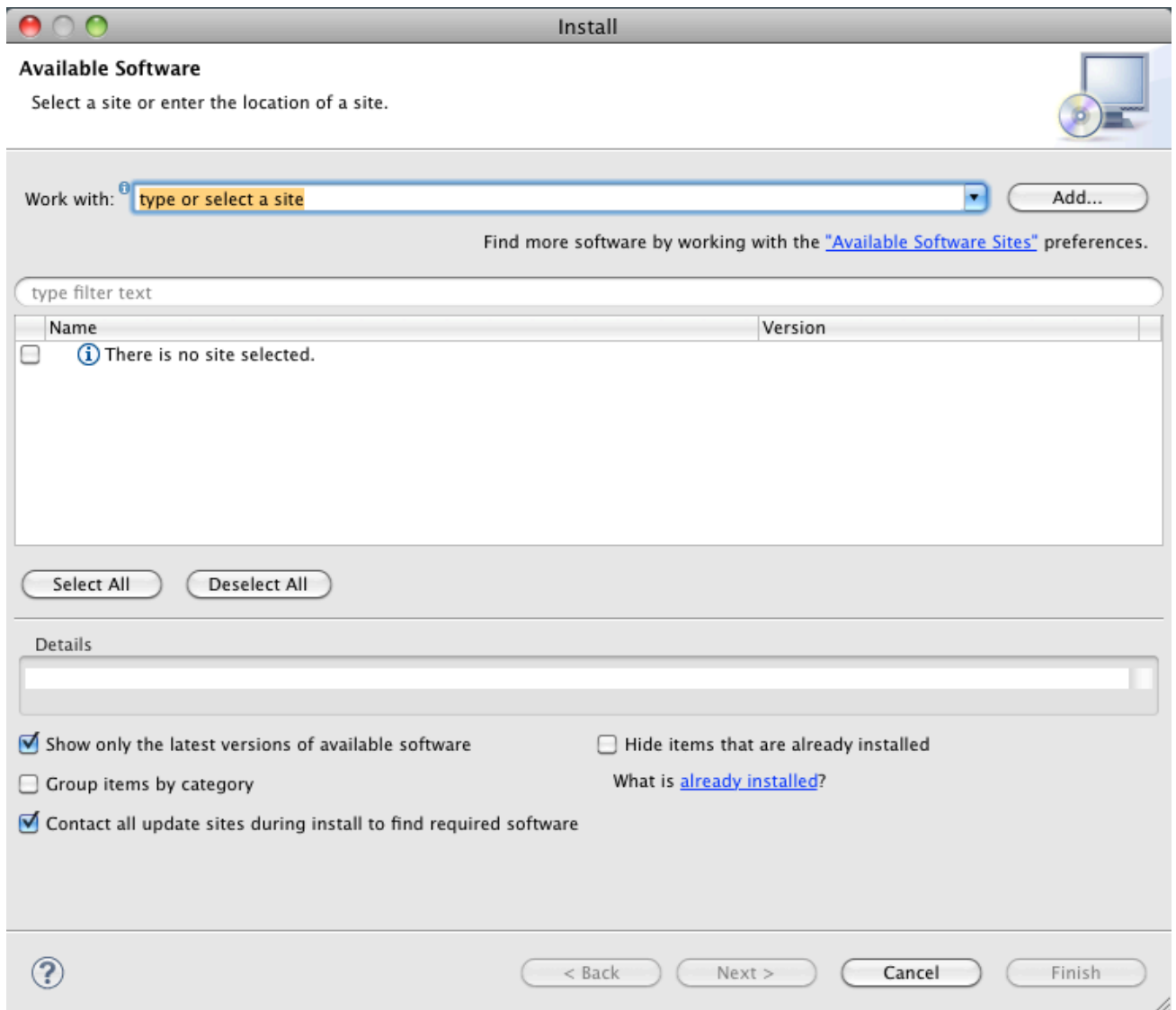
The default Eclipse installation will already have some update sites installed; these are important because Eclipse will look in these locations to find dependencies while installing CertWare. For example, the Helios delivery will be checked in the default installation. You can see this in the "Work with" drop-down list.
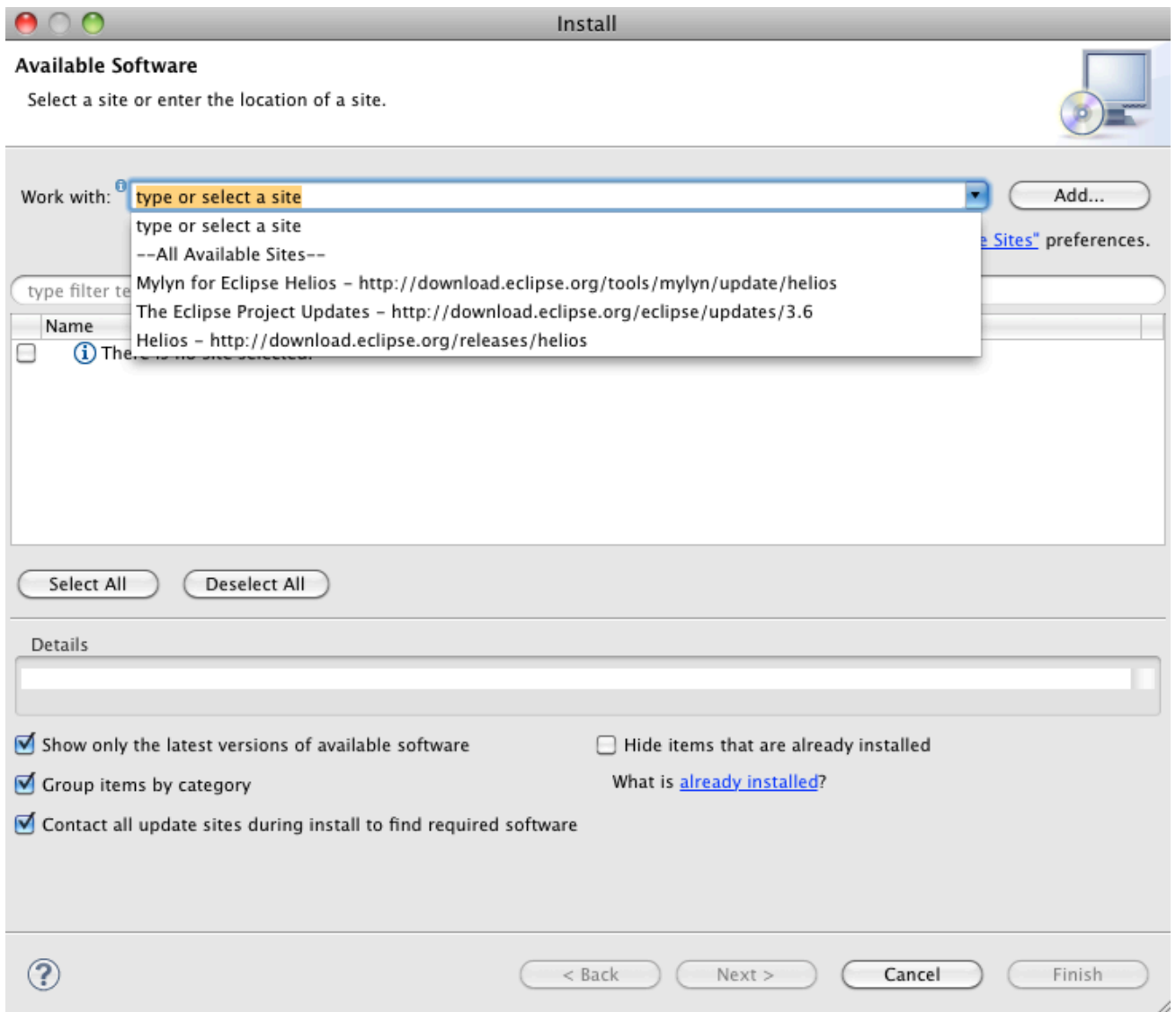
Click the **Add...** button to create a software site pointing to the update site URL. Enter the name **CertWare** and location

`https://github.com/nasa/CertWare/raw/master/net.certware.feature.updatesite`

as shown below. Note that this URL points to the update site from the source repository at GitHub. If you have cloned this repository locally to work on the software, you can install using the update site in your repository using the URL

`[path to repository]/net.certware.feature.updatesite`
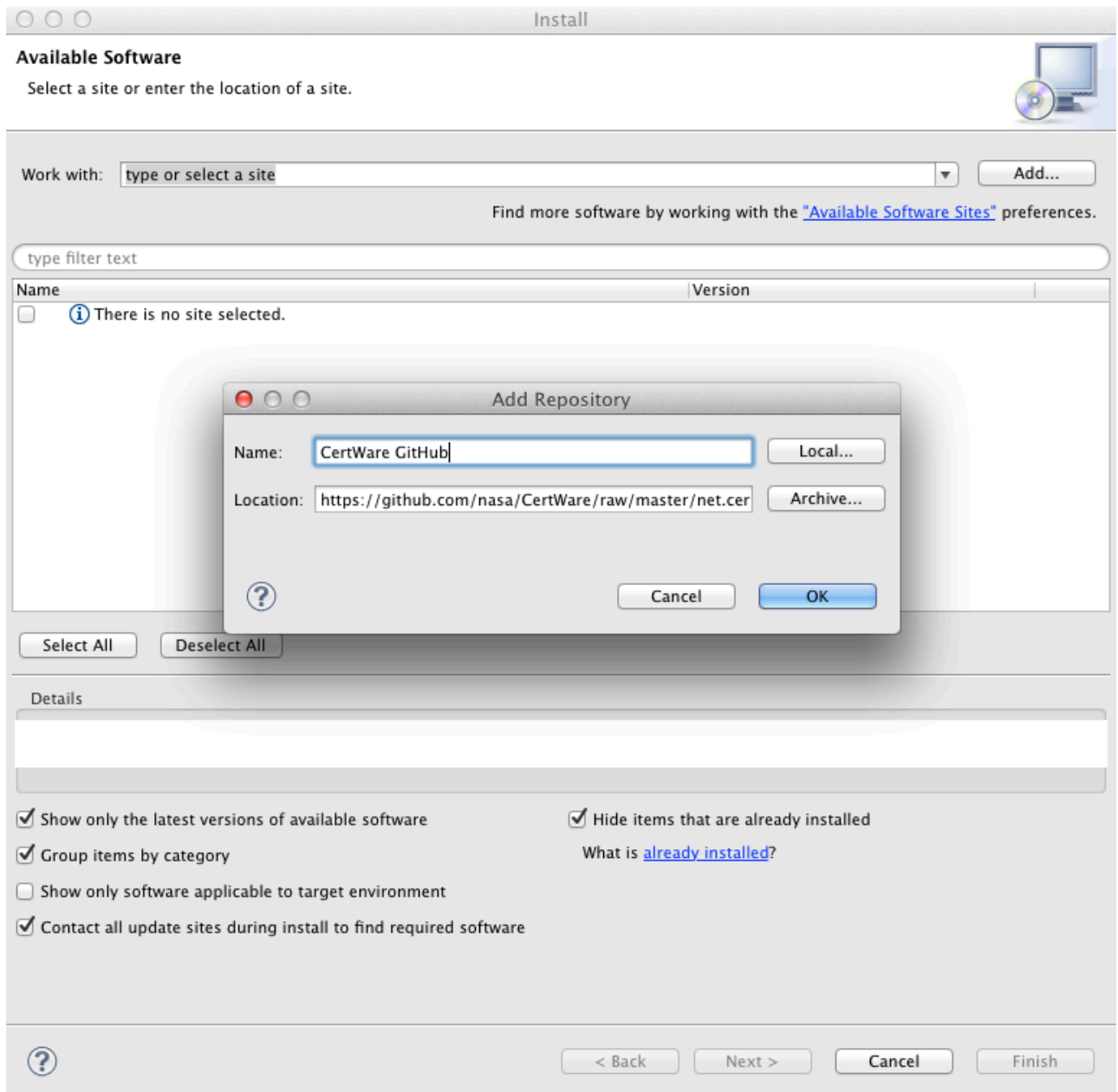
Click **OK** to save the new software site, then continue with the installation. From the **Work with:** list in the Install dialog choose the new CertWare site to see its contents in the selection list. (If nothing appears in the list, deselect the **Group items by category** check box.) If it has not yet been installed, the Eclipse Acceleo, EGit, JGit, and Epsilon features necessary for CertWare are also included in the list as shown below. Select all of the features for installation and then click **Next** to continue.
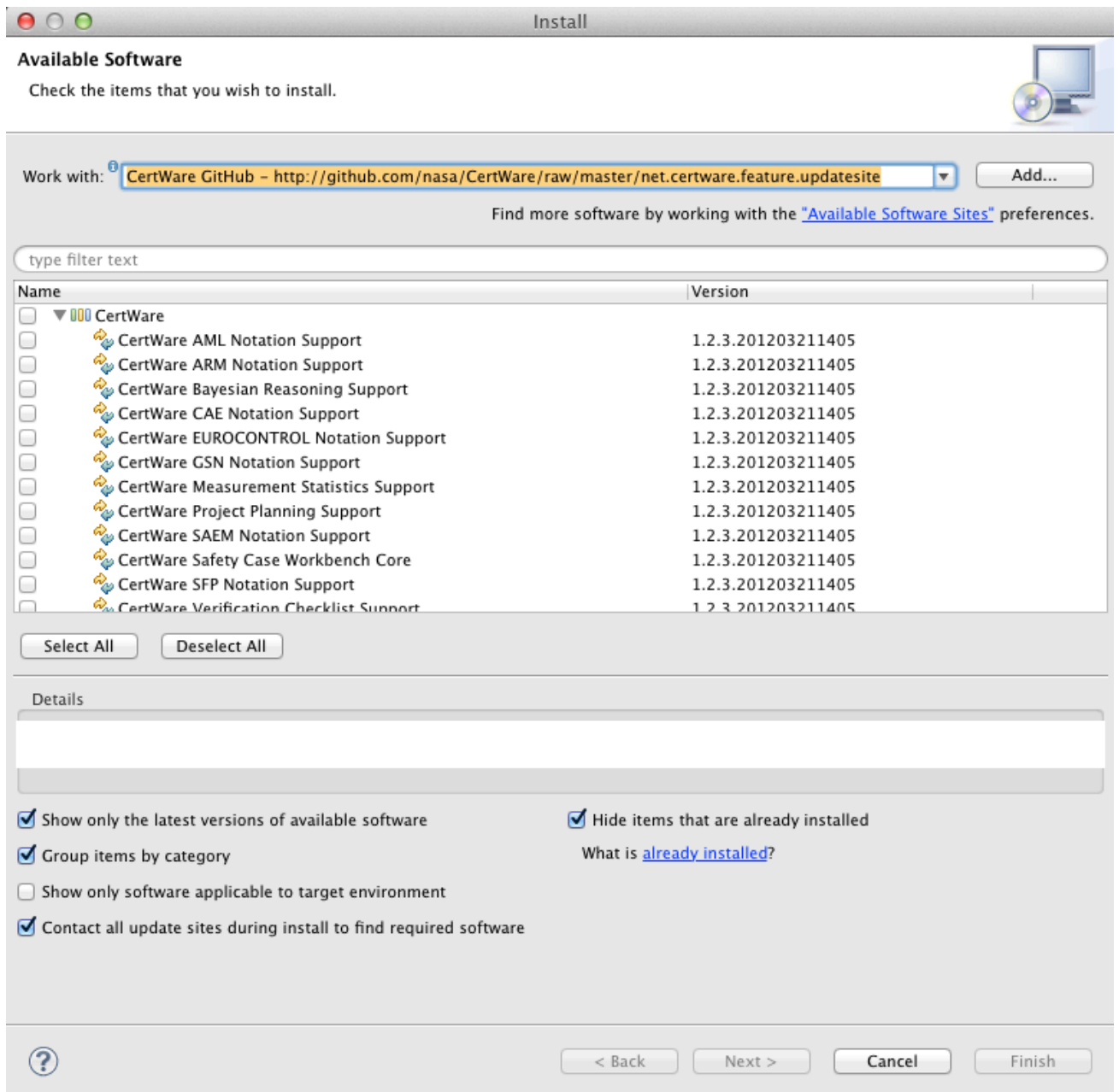
Select the desired features or the whole group for installation:
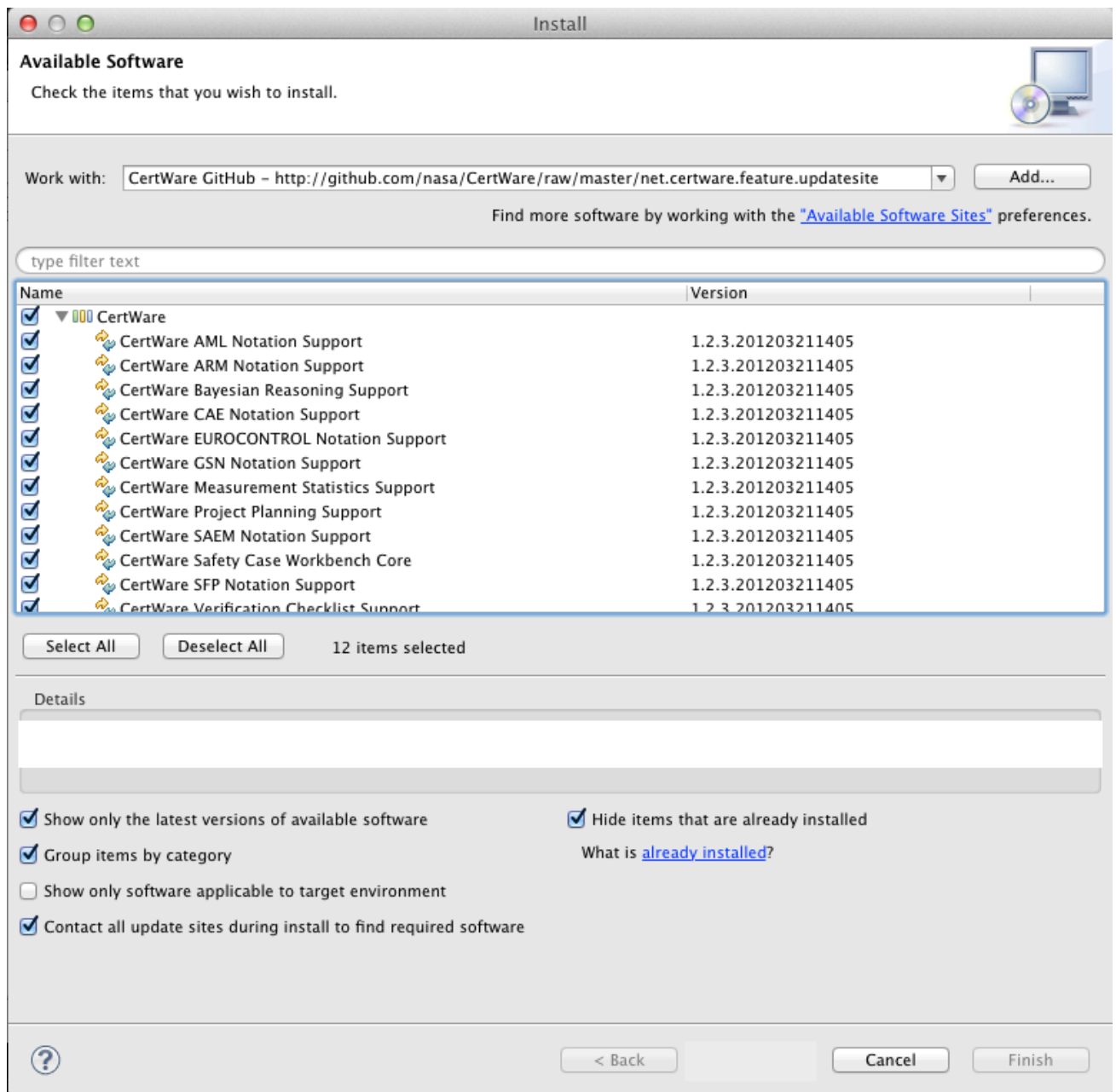
Click the **Finish** button. The list of items to be installed will be shown for confirmation. This list will include prerequisites that are required, if any, and which will be installed along with CertWare. In the example below some of the modeling framework plug-ins will also be installed. These will be installed from other locations in the available software sites. Click **Next** again to confirm the plugins to be installed, then **Next** again to see the licenses.

Review the license terms for the software pending installation. CertWare is provided under a NASA Open Source Agreement. **Note:** The full CertWare installation contains a Bayesian reasoning engine that is provided by UCLA under an educational and non-commercial use license. If you cannot agree to this license, please back up the installation and deselect the CertWare Bayesian Reasoning Support feature as shown below, then resume installation.

Install

Available Software
Check the items that you wish to install.

Work with: CertWare GitHub – http://github.com/nasa/CertWare/raw/master/net.certware.feature.updatesite ▾   [Add...]

Find more software by working with the "Available Software Sites" preferences.

| type filter text |

Name	Version	
▾ ▮▮▮ CertWare		
☑ 🔧 CertWare AML Notation Support	1.2.3.201203211405	
☑ 🔧 CertWare ARM Notation Support	1.2.3.201203211405	
☐ 🔧 CertWare Bayesian Reasoning Support	1.2.3.201203211405	
☑ 🔧 CertWare CAE Notation Support	1.2.3.201203211405	
☑ 🔧 CertWare EUROCONTROL Notation Support	1.2.3.201203211405	
☑ 🔧 CertWare GSN Notation Support	1.2.3.201203211405	
☑ 🔧 CertWare Measurement Statistics Support	1.2.3.201203211405	
☑ 🔧 CertWare Project Planning Support	1.2.3.201203211405	
☑ 🔧 CertWare SAEM Notation Support	1.2.3.201203211405	
☑ 🔧 CertWare Safety Case Workbench Core	1.2.3.201203211405	
☑ 🔧 CertWare SFP Notation Support	1.2.3.201203211405	
☑ 🔧 CertWare Verification Checklist Support	1.2.3.201203211405	

[Select All] [Deselect All]   11 items selected

Details

☑ Show only the latest versions of available software   ☑ Hide items that are already installed

☑ Group items by category   What is already installed?

☐ Show only software applicable to target environment

☑ Contact all update sites during install to find required software

(?)   [< Back] [Next >] [Cancel] [Finish]

You will be presented with the NASA Open Source Agreement license, and if you selected the Bayesian Reasoning Support feature then you will also be presented with a second license for that feature. Select the **I accept the terms of the license agreements** radio button if agreed, then click **Finish** to proceed to the last step.

During installation the installer may warn that "unsigned content" is being installed. This occurs because the CertWare software (and possibly other prerequisite software) has not yet been signed with a digital certificate for authentication. Review the details. Click **OK** to continue if the content is just CertWare, or make your own decisions for other content.
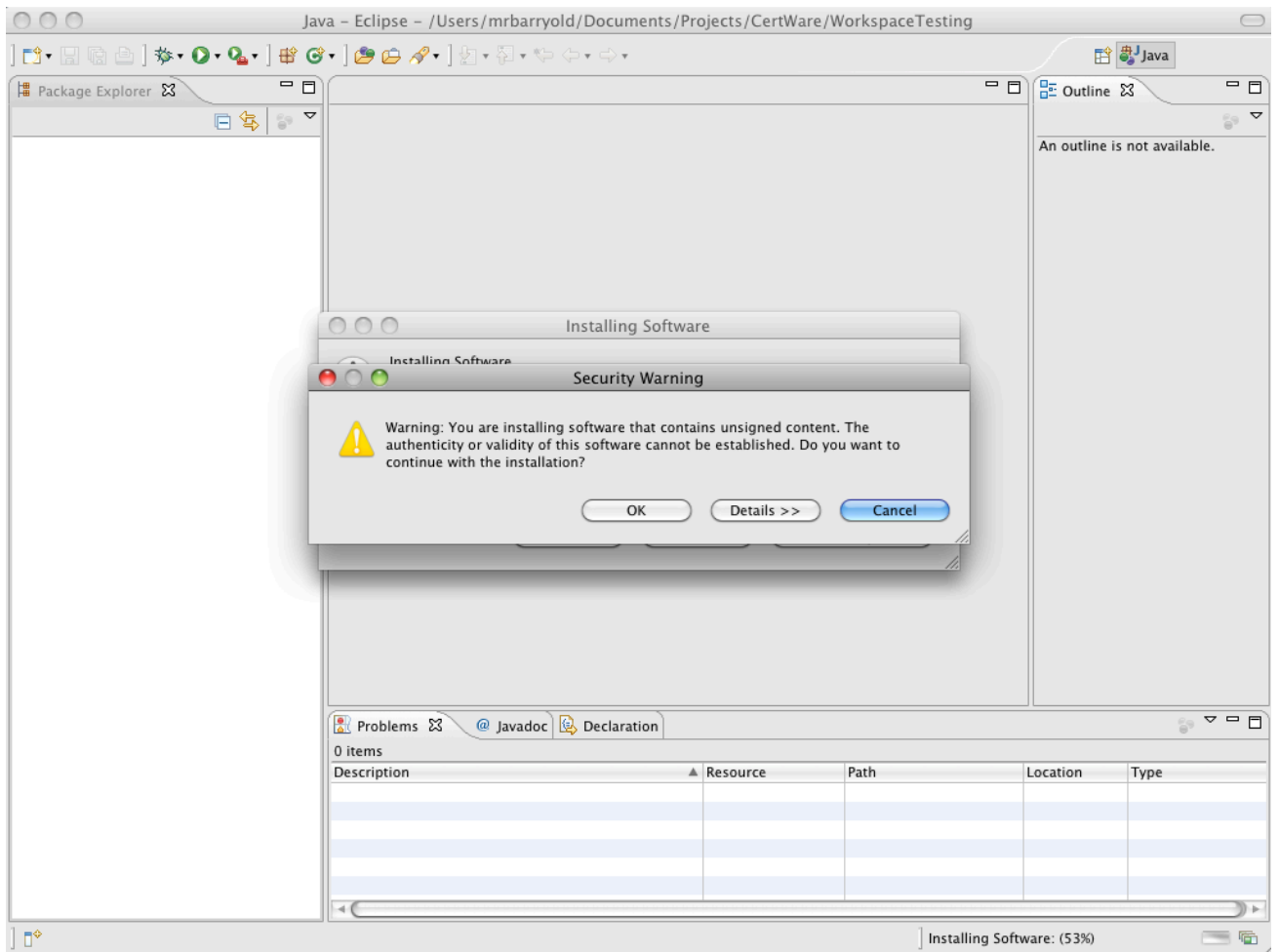
Upon completion, the installer will prompt to restart the workbench. This is necessary to register the commands, views, menu items, and so on. Click **Restart Now**.
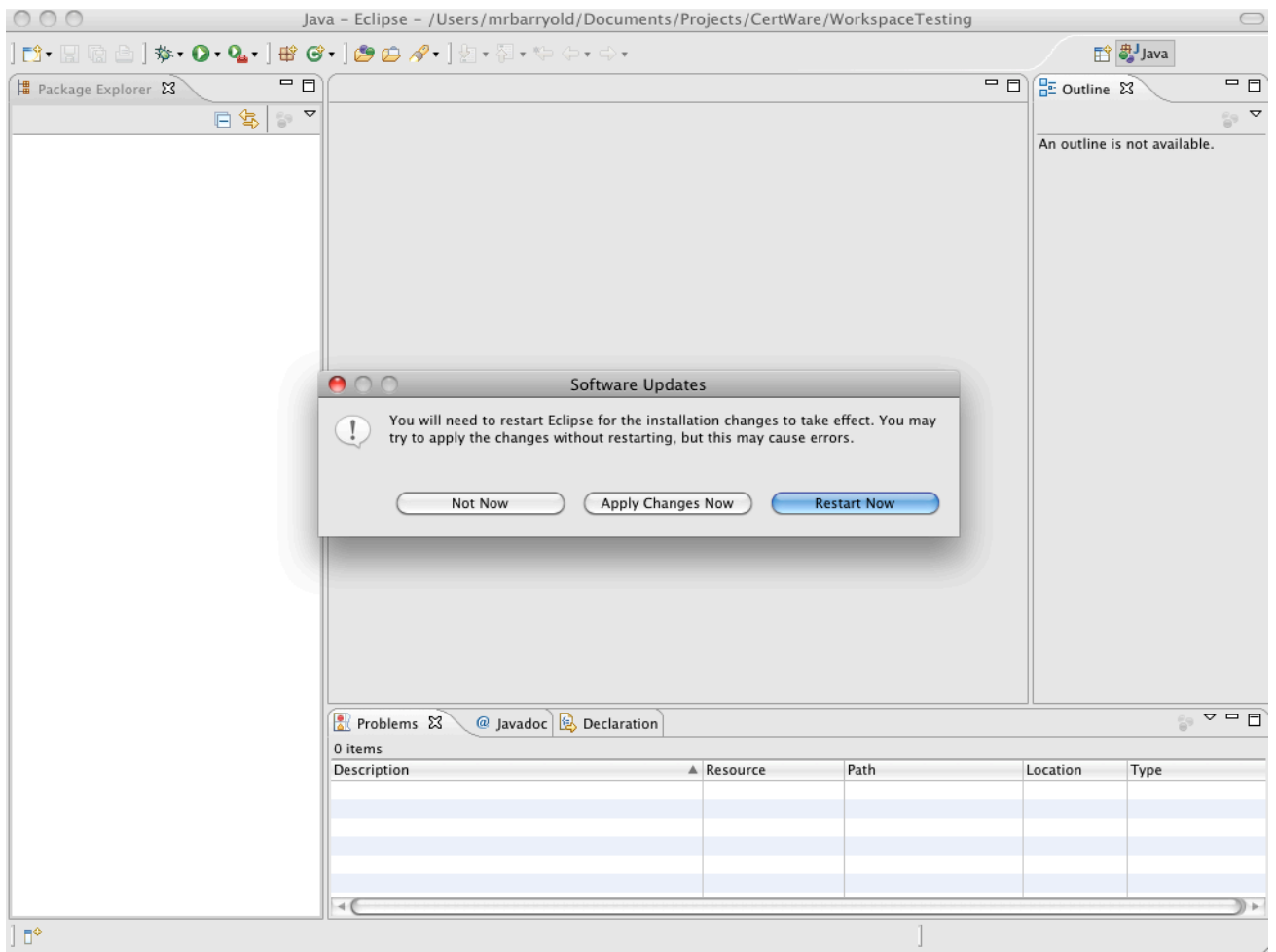
CertWare is ready to use. Continue with the Quick Start section below.

Quick Start

With the Eclipse IDE workbench running with CertWare installed, the CertWare argument models, diagrams, wizards, and other features are available within the workbench. The first time the workbench opens with newly-installed features you may be presented with the "Universal Intro" page that offers introductions to these and other key features.
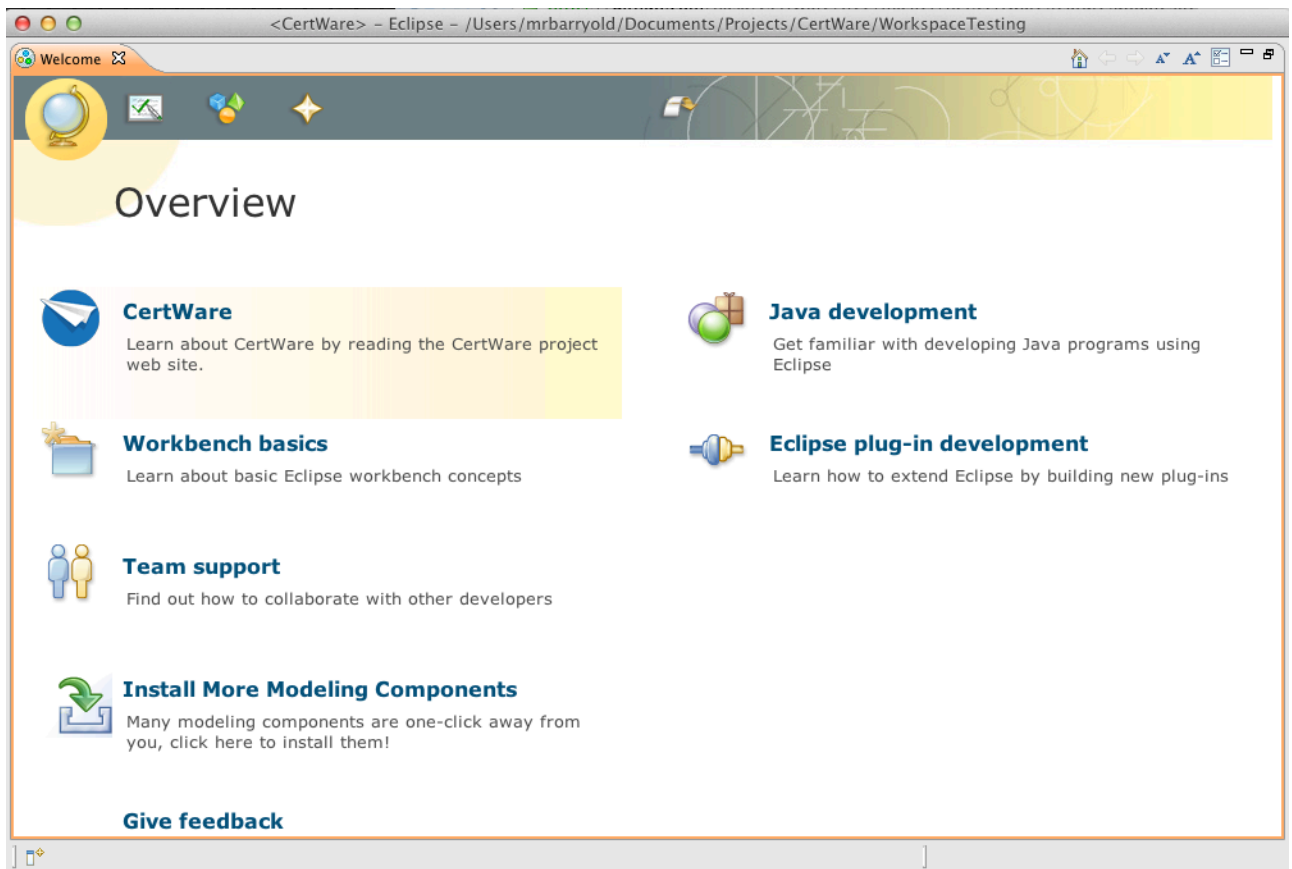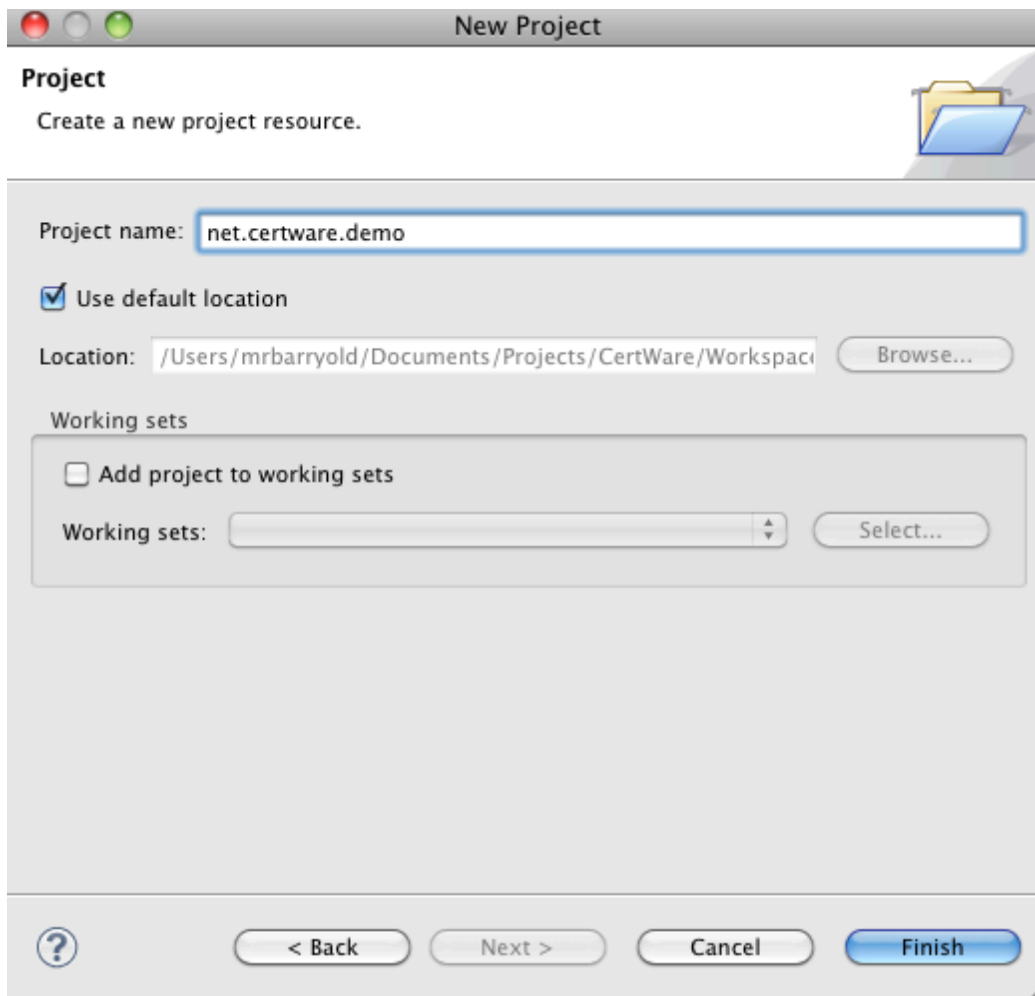

As a quick start, create a new project to contain a new safety case argument diagram from the CertWare examples wizard. To create a new project, right-click (or control-click) on the Package Explorer (or Project Explorer if it is running), and create a New Project... from the menu.
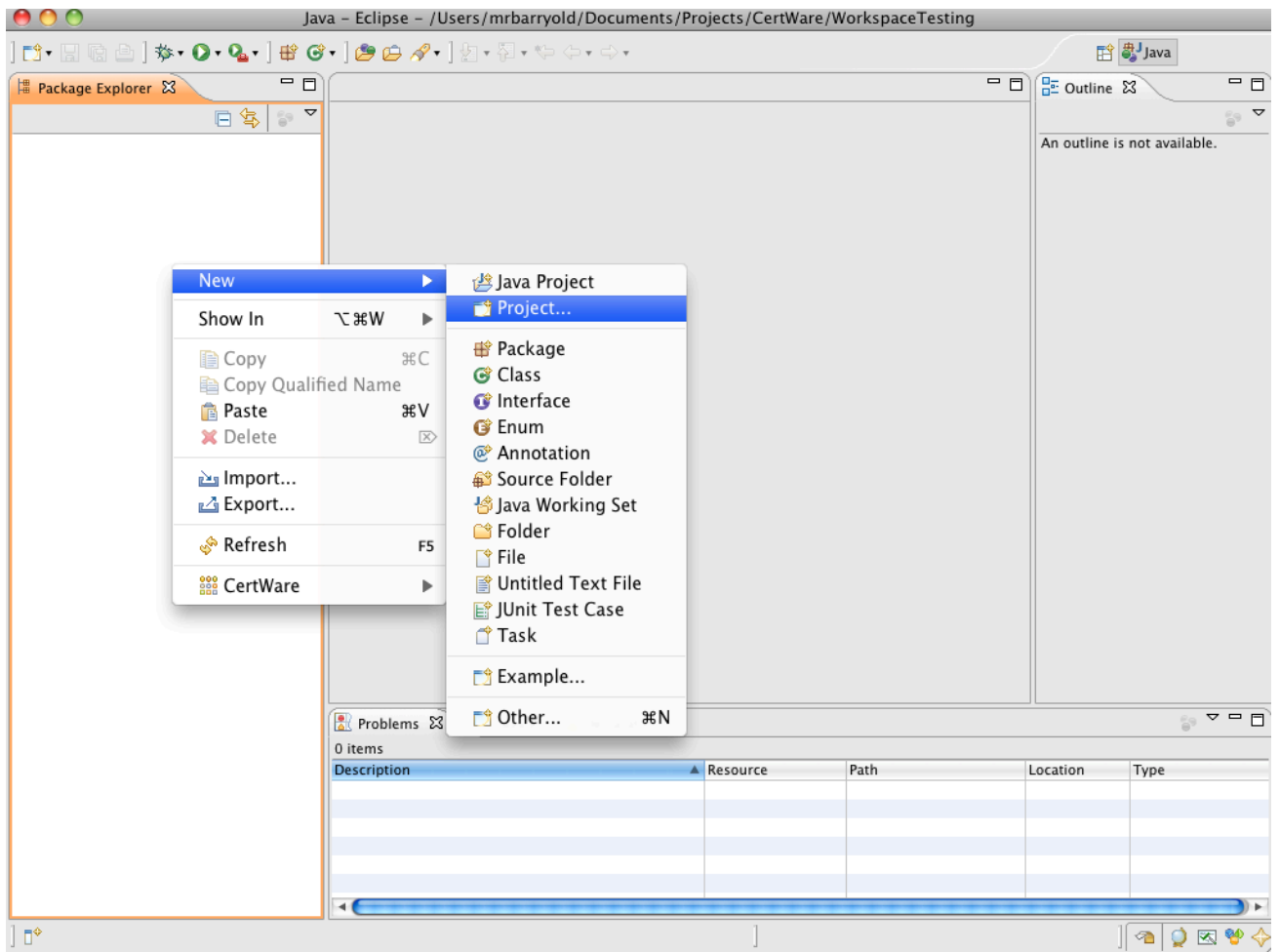
Select the basic type General Project to contain the safety case artifacts.
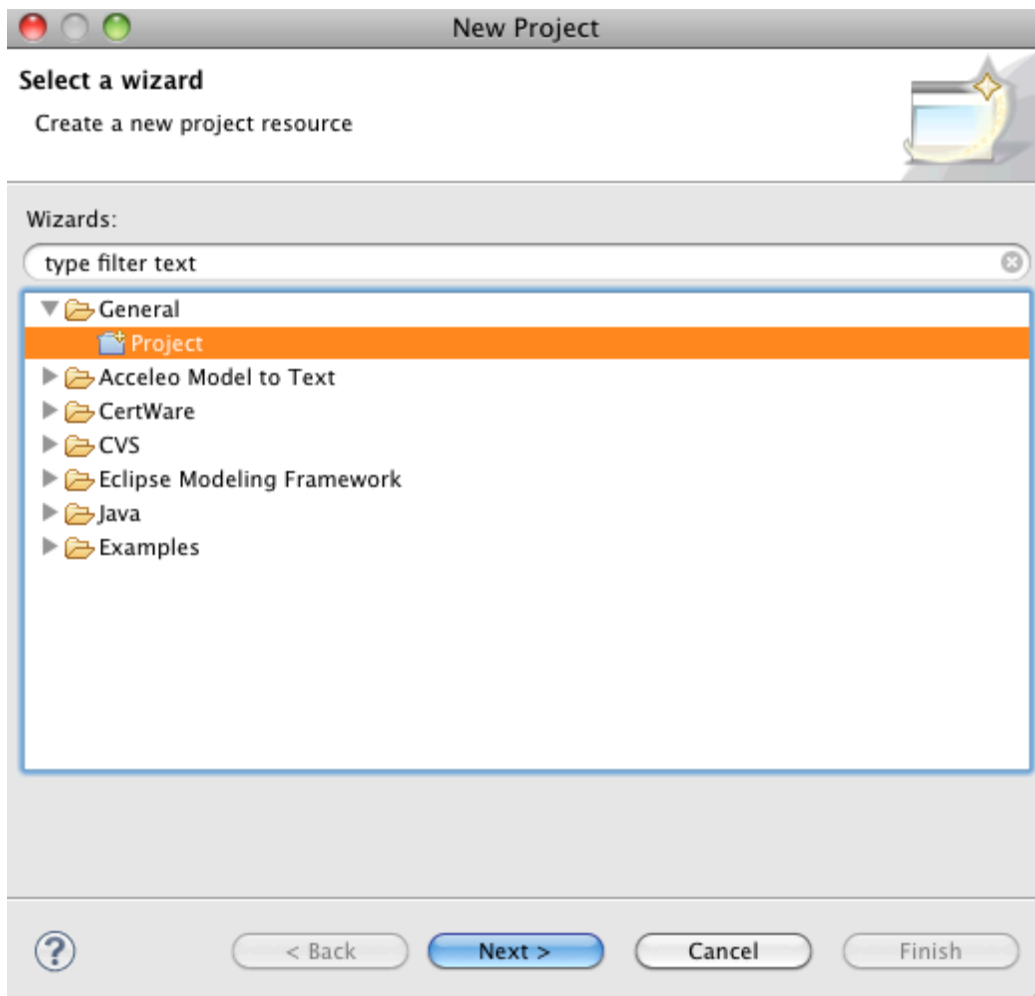
Give the project any suitable name (**net.certware.demo** is shown below) and click **Finish** to create the project.

We will use the project as the container for the safety case artifacts. CertWare offers a
collection of example files to use as models for new activities. Right-click (or control-click) on
the project name and run the Example wizard by choosing **New -> Example...**.
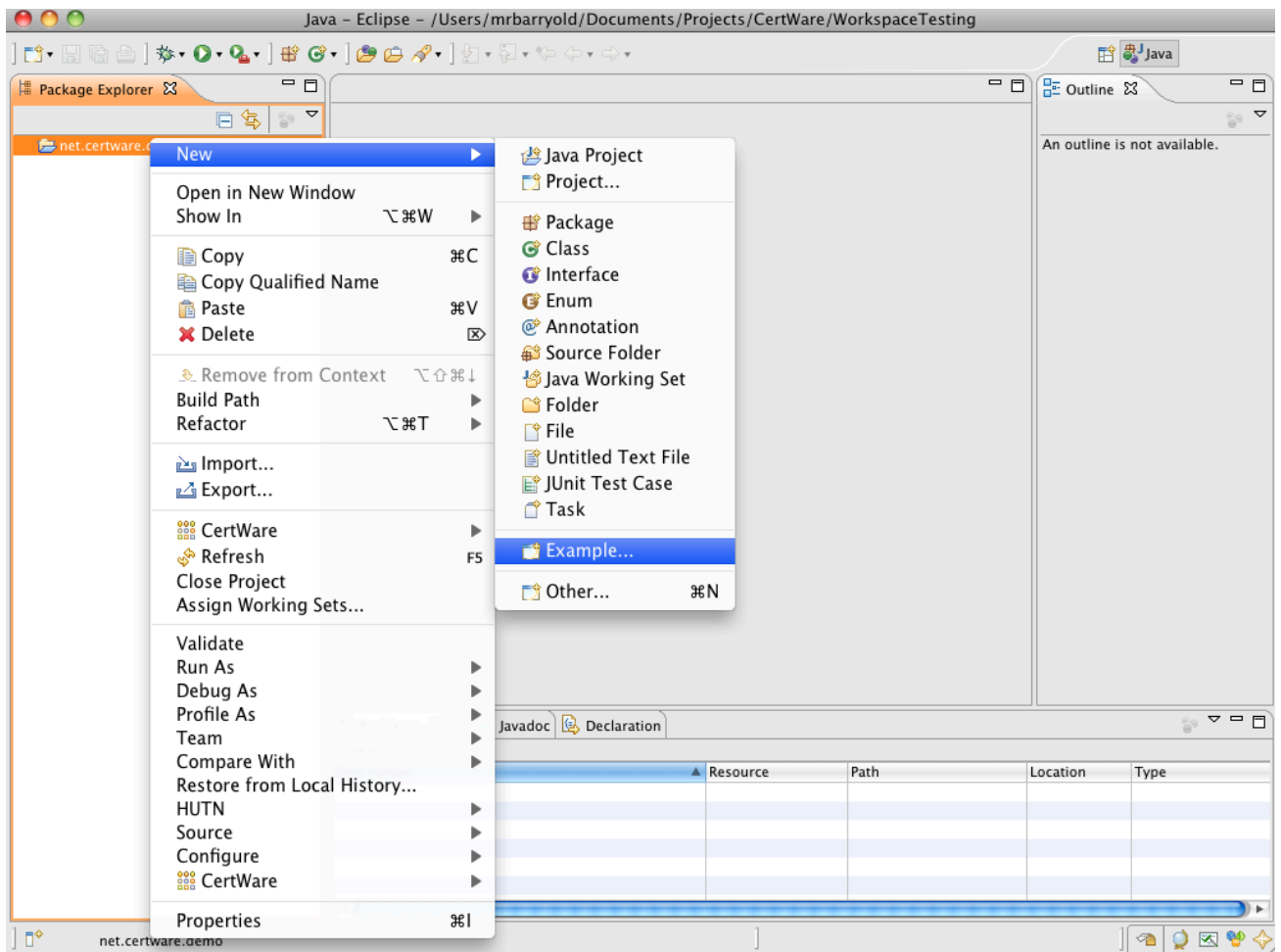
This invokes the New Example wizard. From the example selections, find the **CertWare Examples** category and choose the **Safety Case Example** wizard. Click **Next** to launch the safety case example wizard.
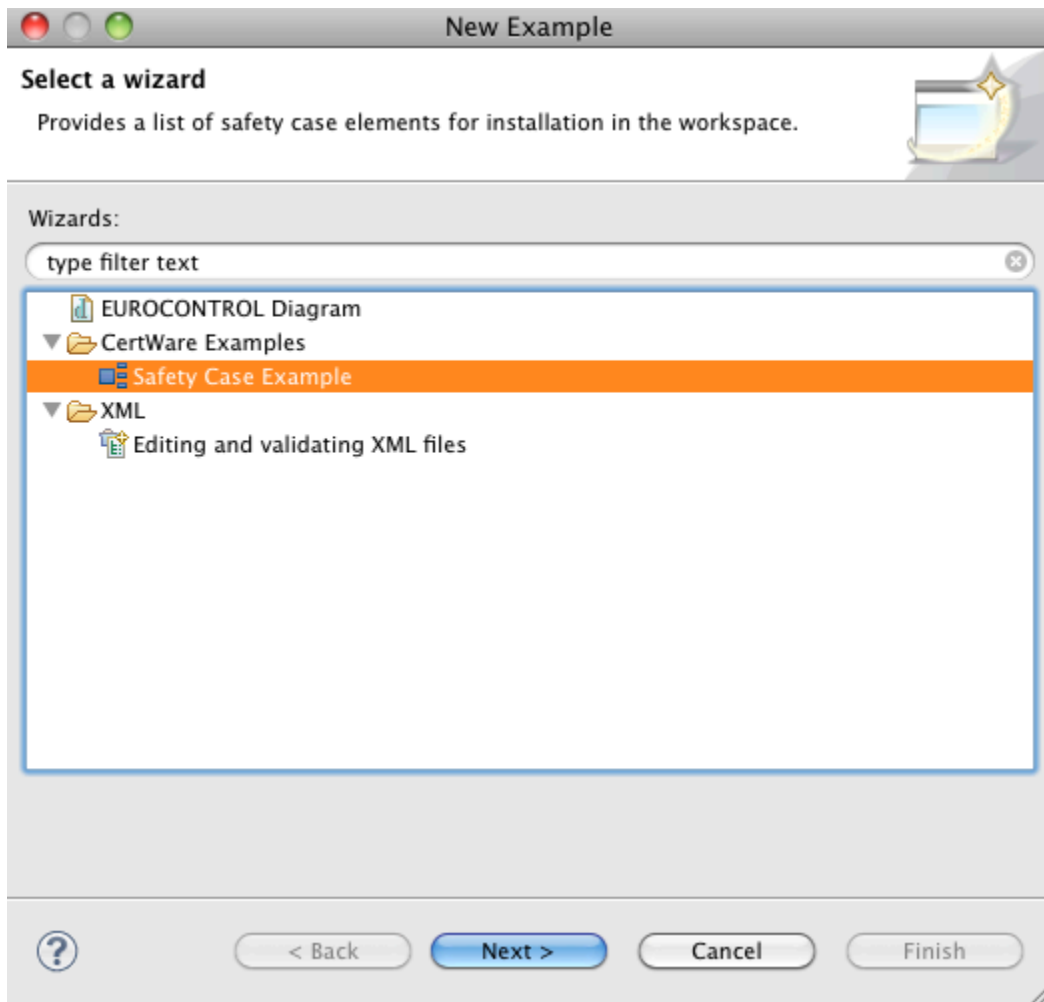
From the safety case examples wizard, choose the **Pattern** category and choose any of these examples. Selecting an item on the left of the page will show relevant detail on the right of the page. In this figure the EUROCONTROL safety case development manual diagram choice is selected. Notice on the right-hand side that this example provides two resources (artifacts), the safety case model and its safety case model diagram overlay. Click **Finish**. The example wizard then copies these two resources into the selected project.
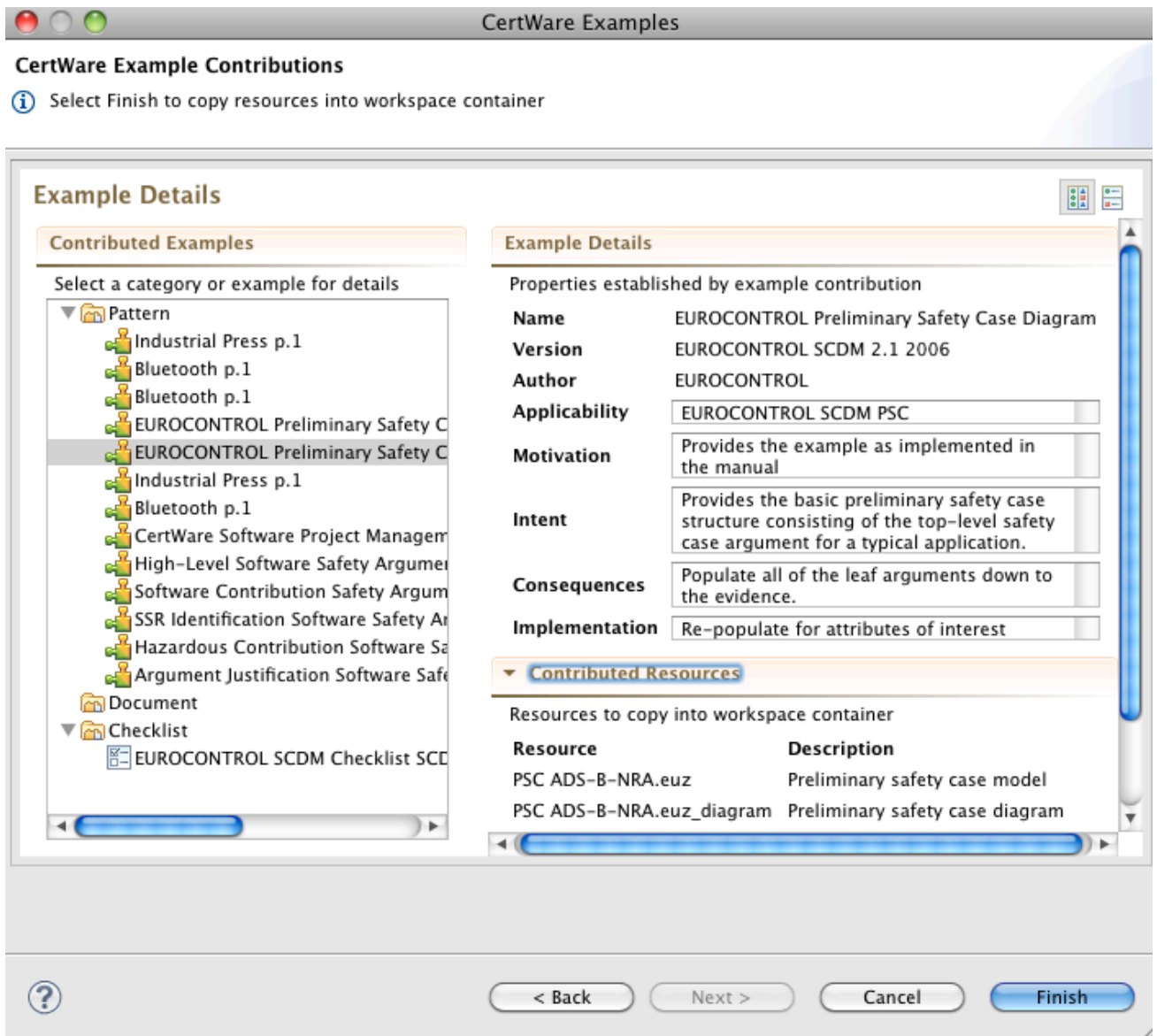
After the wizard closes find the diagram file in the project container in the explorer.
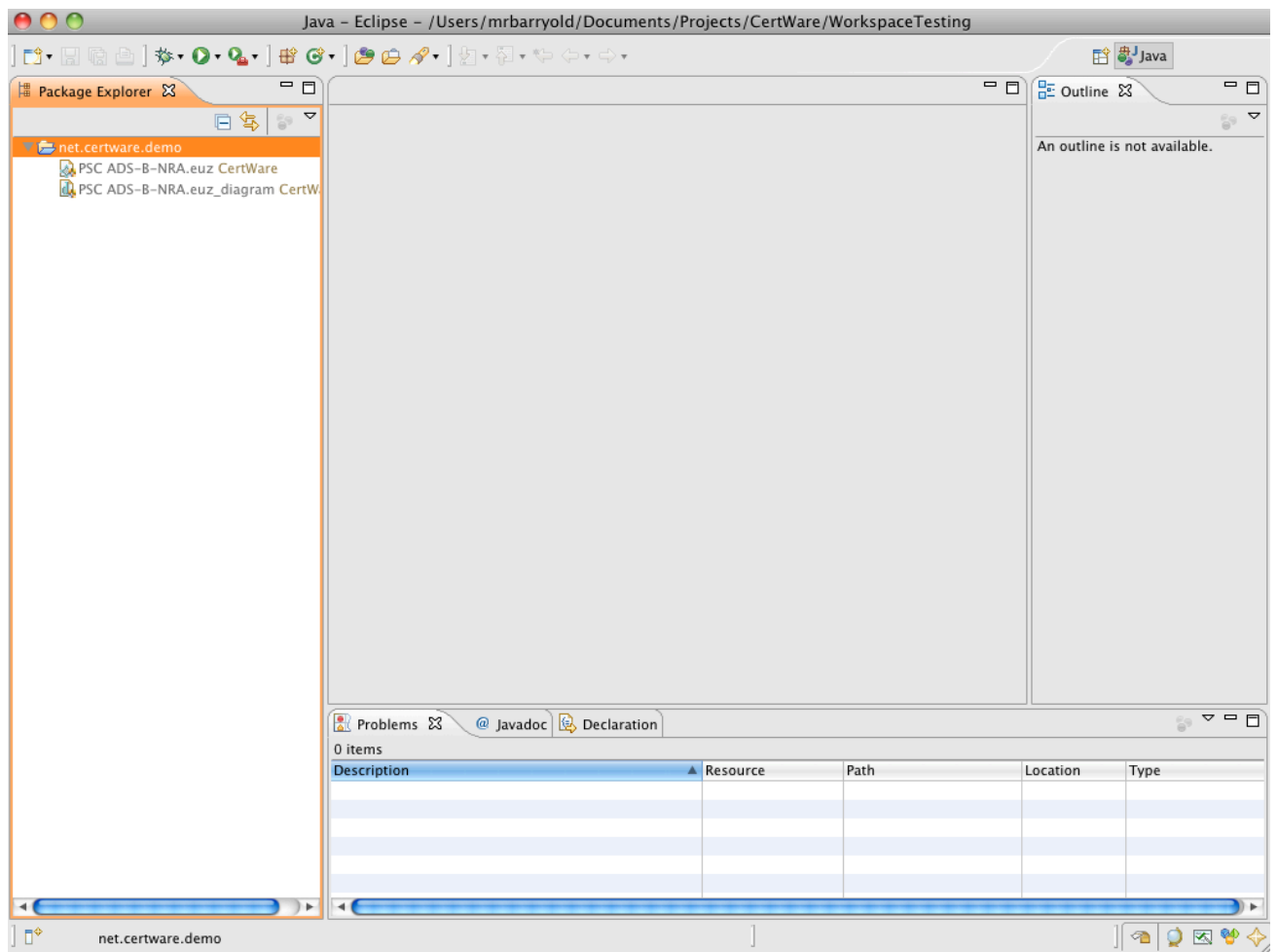
Double-click the diagram file to launch the graphical diagram editor.
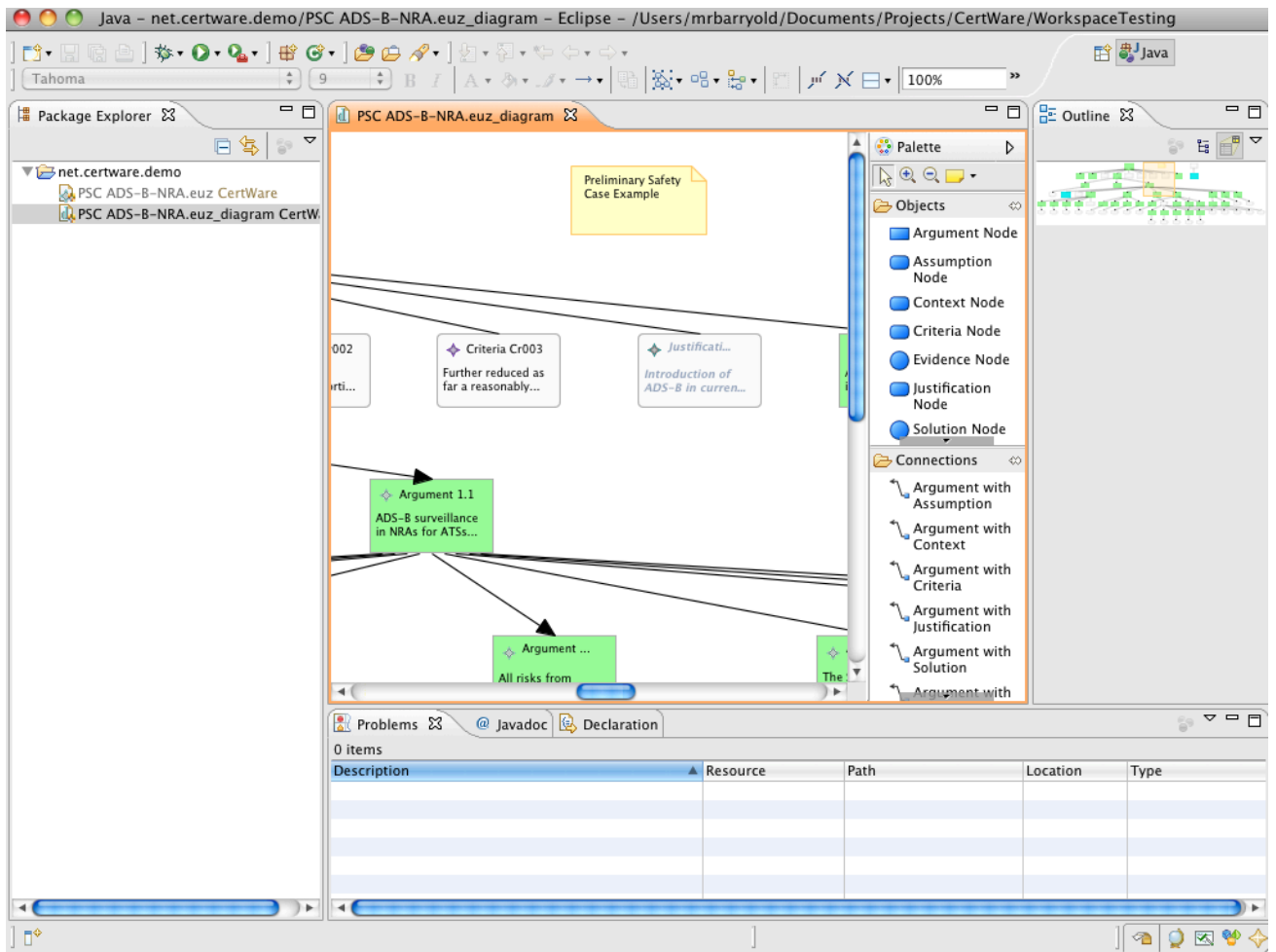
The safety case wizard, examples, and editors are provided by the CertWare feature. All other Eclipse IDE features are also available. Off and running!

- End -