

Working with CVS using Eclipse

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CVS Basics

- CVS, stands for Concurrent Version System, is the leading open source versioning system
- CVS manages files by noting changes in them.
- The information is saved in a so called **repository** (directory tree on the hard drive, managed by the CVS server).
- The data is always put in a **branch** of the repository (the main branch is named **HEAD**).
- Each change will be given a unique **revision** number. New files start with 1.1
- A **version** is a set of files with certain revision numbers. We can create a version if the resources in your project have a state that seems worthy to be saved explicitly.

Setting Up

- Prepare for CVS connection
 - Location
 - Host: nemesis.ifs.tuwien.ac.at
 - Repository path:
/system/apps/cvs/CVSROOT[/semanticlife]
 - Authentication
 - User: <your account at IFS>
 - Password: *****
 - Connection
 - Connection type: extssh
 - Port (use default port: 22)

Setting Up – Create a New CVS Repository

- Open perspective “CVS Repository Exploring”: choose command *Window – Open Perspective – CVS Repository Exploring*.

You could choose *CVS Repository Exploring* command in the dialog appearing as [Screenshot](#)

[See ‘CVS Repositories’ perspective](#)

- Right click on this perspective to bring the short-cut (context) menu out, then choose *New – Repository Location* ([SS](#))
- After that, enter parameters for the new repository location in following dialog ([SS](#))

Problem in Connection (?)

- Recommendation: Using Eclipse 3.0 (build 2004-06-25 12:08)
- If you have any problem when accessing to CVS server, please do as follow to overcome:
 - Access to your account on `nemesis.ifs.tuwien.ac.at` (or `thor.intra.at`)
 - Open the file ".bashrc", the content of file looks like as below:

```
MAIL=/usr/mail/${LOGNAME:?}  
EDITOR=vi  
export PATH=$PATH:/system/apps/cvs/bin
```
 - Then append following statement into that file

```
export CVSROOT=/system/apps/cvs/CVSROOT
```
 - Save and try to access the CVS sever again.

Putting a Project into a CVS Repository

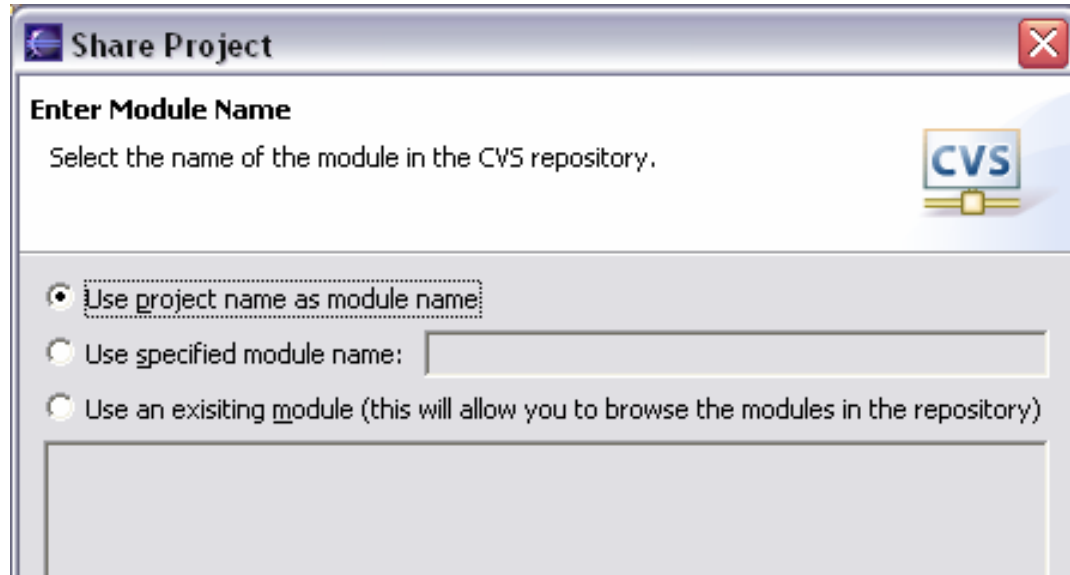
- In Eclipse, open an existing project or create a new project
- Choose the active project, and select 'Share Project...' command under 'Project' menu or 'Team' option in shortcut menu

[Screenshot](#)

- If you did not create any CVS repository, you would be asked to create a CVS repository location. [SS](#)
- Otherwise, you can choose an existing CVS repository location created in Eclipse before. [SS](#)

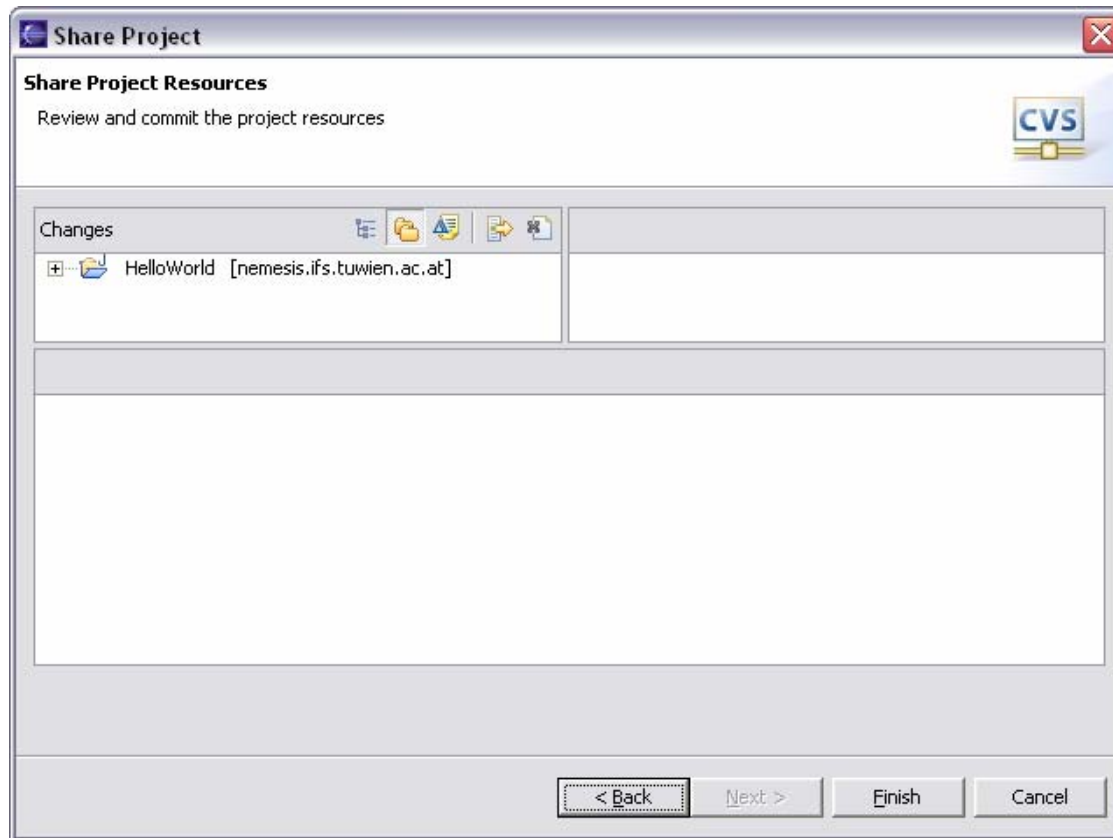
Putting... (2/5)

- Enter Module project on CVS:
 - Use project name as module name
 - Enter a new name for the module
 - Choose an existing module in the CVS Repository



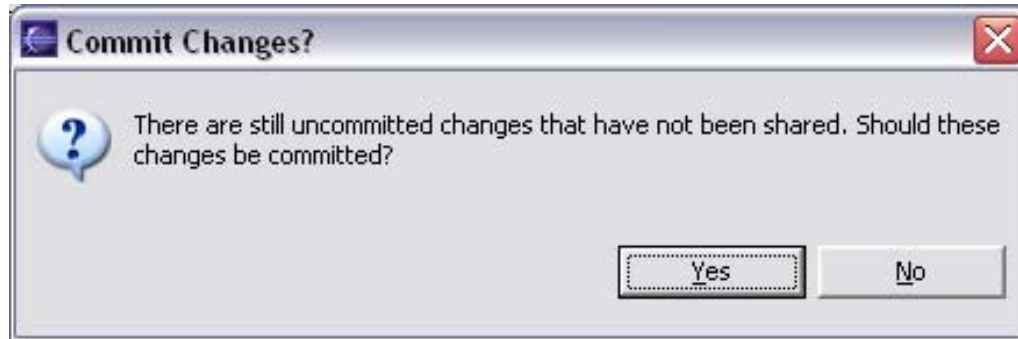
Putting... (3/5)

- Review and commit the project resources:
 - Select or deselect some resources to commit to CVS repository



Putting... (4/5)

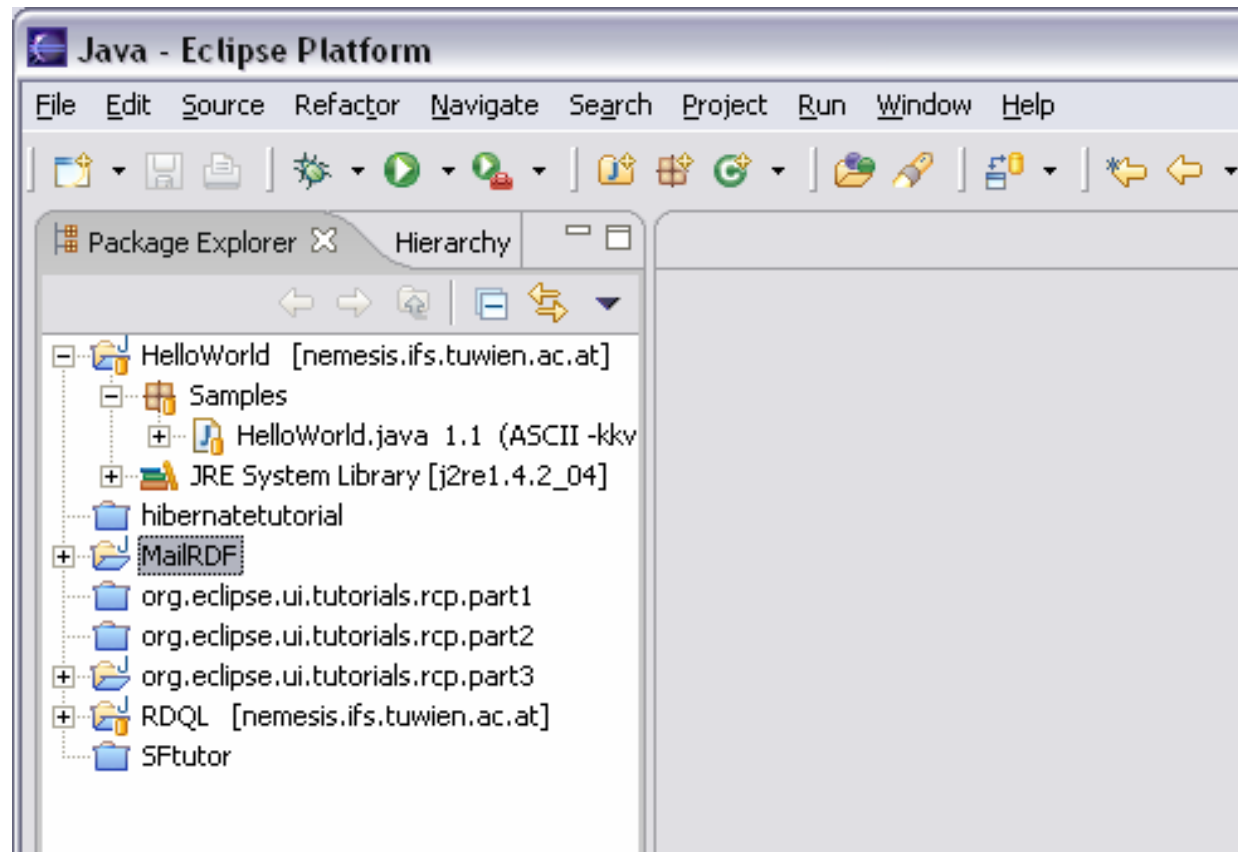
- After press “Finish” button, Eclipse would ask you to commit all new changes in the project into CVS repository



- If you choose “Yes”, you would be prompted to give a ‘commit comment’; after that changes would be committed to the CVS repository and a version control would be added to.
- If you choose “No”, you can commit changes later using command ‘Commit...’ under ‘Team’ option.
- In addition, you could add resources of the projects to Version Control by choosing command *Add to Version Control* in context menu *Team*.

Putting... (5/5)

- Finish



Check Out a Project from a CVS Repository

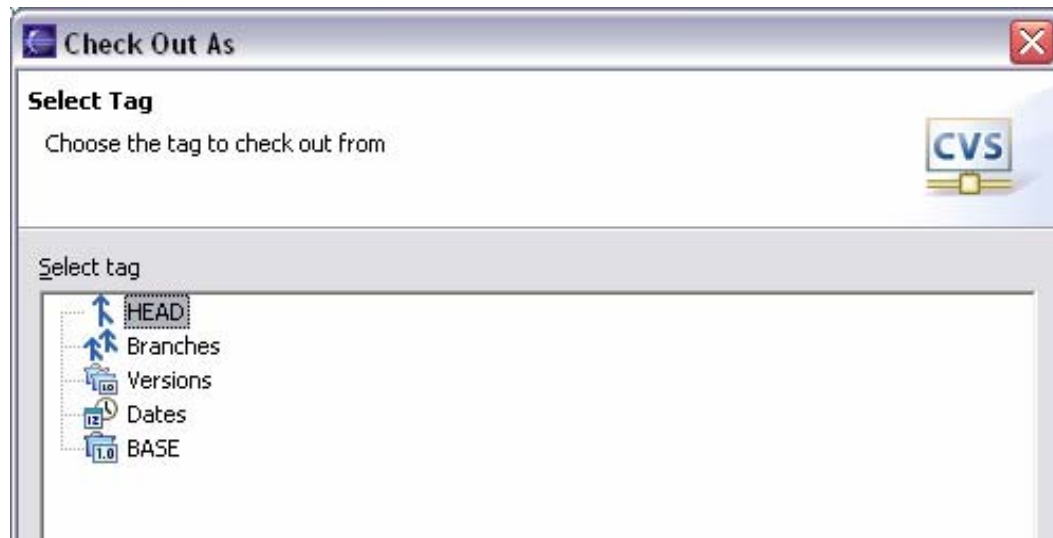
- In Eclipse, choose to create new project
- Select wizard “Check out Projects from CVS” under option “CVS”.
([SS](#))

This wizard help to create a new project by checking out an existing project from a CVS repository

- After that, we choose or create a CVS repository location to check the project out. ([SS](#))
- Select the way to checked out a project:
 - Enter name of the module
 - Browse the CVS repository to choose the module (recommended) ([SS](#))

Checkout...

- Select the method to check out ([SS](#))
 - As a new project
 - Into an existing project
- And project location in local storage. ([SS](#))
- Finally, choose a branch (HEAD is recommended) to start checking out.



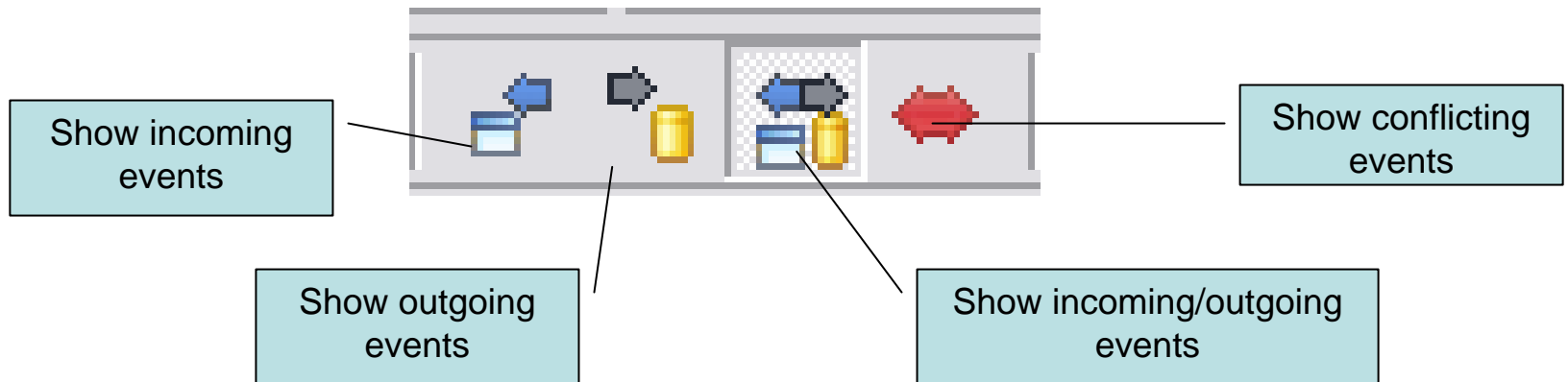
Team Working

- Synchronizing: ([SS](#))
 - *Synchronize with Repository* feature helps developers to synchronize their local resource with the base resource on CVS repository and remote resource variants as well (Three-way comparison).
 - This type of comparison involves the local resource, a remote resource variant and a base resource variant.
 - Outgoing Change/Deletion/Addition
 - Incoming Change/Deletion/Addition
 - Conflicting Change/Deletion/Addition
 - The base resource variant represents a common ancestor for the local and remote resources

Team Working (2/7)

Three types of events

- Outgoing events: there are changes in the local resource
- Incoming events: there are changes in the base resource
- Conflicting events: there are change in the local resource and the remote resource variants



Team Working (3/7)

- Seeing Differences
 - To see the differences between local resources and CVS repository, you just double click on the resource in Synchronize perspective and see the differences.

[See SS](#)

- You also can see the differences by choosing command '*Compare with – Latest from HEAD | Another Branch or Version...*'

Team Working (4/7)

- Commit changes
 - After synchronizing, Signs “>” appeared in front of some resources say that they should be committed to the CVS repository (SS)
 - Run command “Commit...” under “Team” to commit changes to the CVS repository.
- Update
 - update values of tags which could be chosen.
- Restore from Repository
 - to restore deleted files from CVS repository
- Disconnect
 - terminate CVS working mode.

Team Working (5/7)

- Revisions
 - Revisions are created when you commit changes with comments to CVS repository
 - *Revisions Viewing*
 - run command *Team – Show in Resource History* in the resources context menu
 - The view ‘CVS Resource History’ shows up. It lists the revisions of the chosen resource ([SS](#))
 - *Replacing the current vision with another one*
 - Choose ‘Get Sticky Revision’ of the revision that will replace the current revision.
 - A warning notice would appear, you choose to press OK to replace the current revision with chosen revision.

Team Working (6/7)

- Versioning

- *Versioning a project*

- Choose the project you want to version in 'CVS Repositories' view from HEAD tag ([SS](#))
 - Choose command *Tag as Version* of the project context menu, then you would be prompted to enter a version tag, e.g. "Alpha1" as follow, and press OK

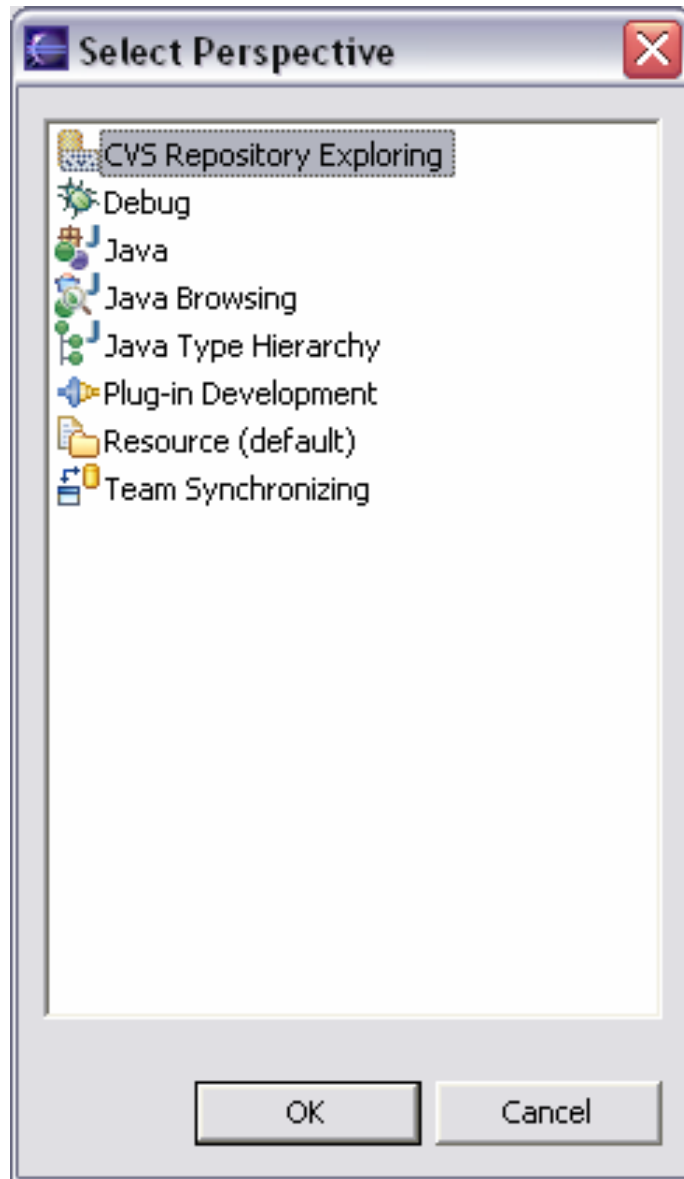


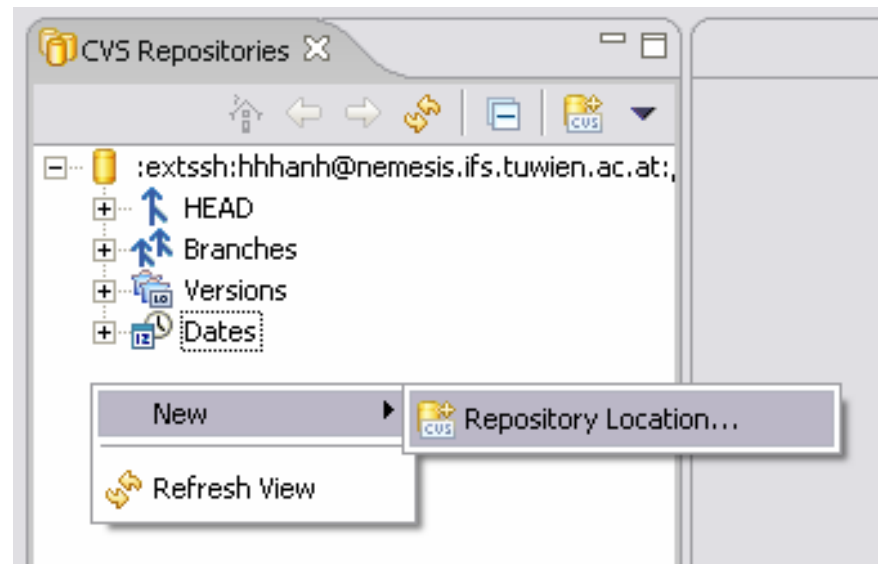
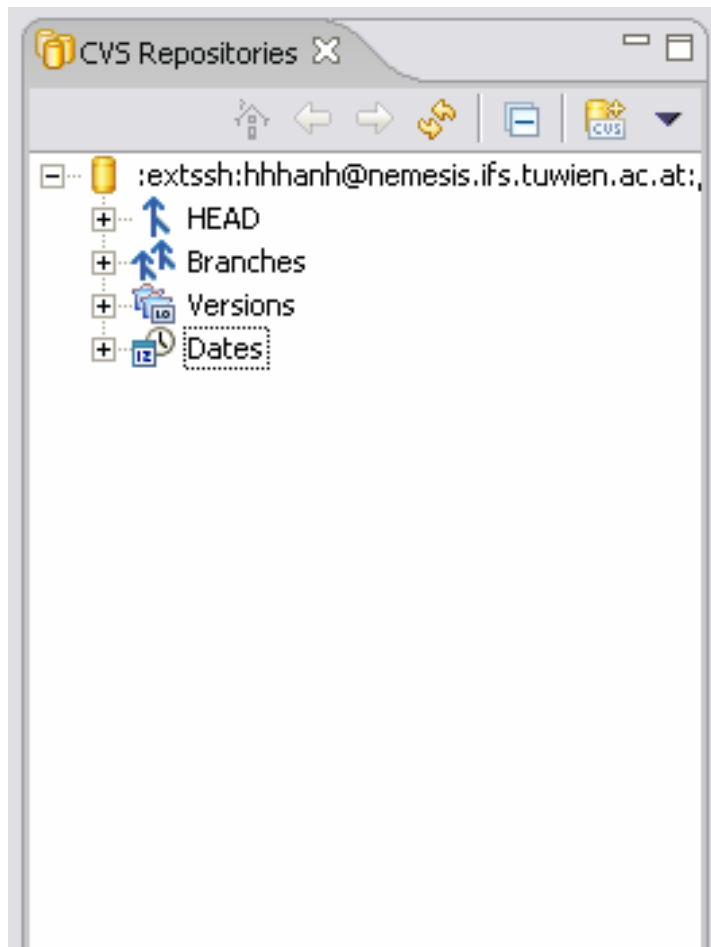
- You also can version projects from the workspace by running command *Tag as version...* in the 'Team' context menu of a chosen project

Team Working (7/7)

- Versioning (cont'd)
 - *Checking out a Version*
 - Select the version you want to load from CVS repository in 'CVS Repositories' perspective. (CVS Repositories: Versions - <project name> - <version name>)
 - Bring the context menu out; choose command 'Check Out As...' ([SS](#))
 - A dialog appears to prompt you enter a new name for the checkout project.
 - You can choose one of options of naming for the project and follow the guide of the wizard in order to complete of checking out a project from a version in CVS repository.
 - *Working with Branches*
 - Whenever you create a branch, a version is also created.
 - If a developer wants to share his changes, there is possibly a conflict with changes of another developer. It is the responsibility of the developer seeing the conflict to **merge** the changes and then try again
 - The merge will be done locally


That's all. Thank you!





Add CVS Repository

Add a new CVS Repository
Add a new CVS Repository to the CVS Repositories view



Location

Host:

Repository path:

Authentication

User:

Password:

Connection


Connection type:

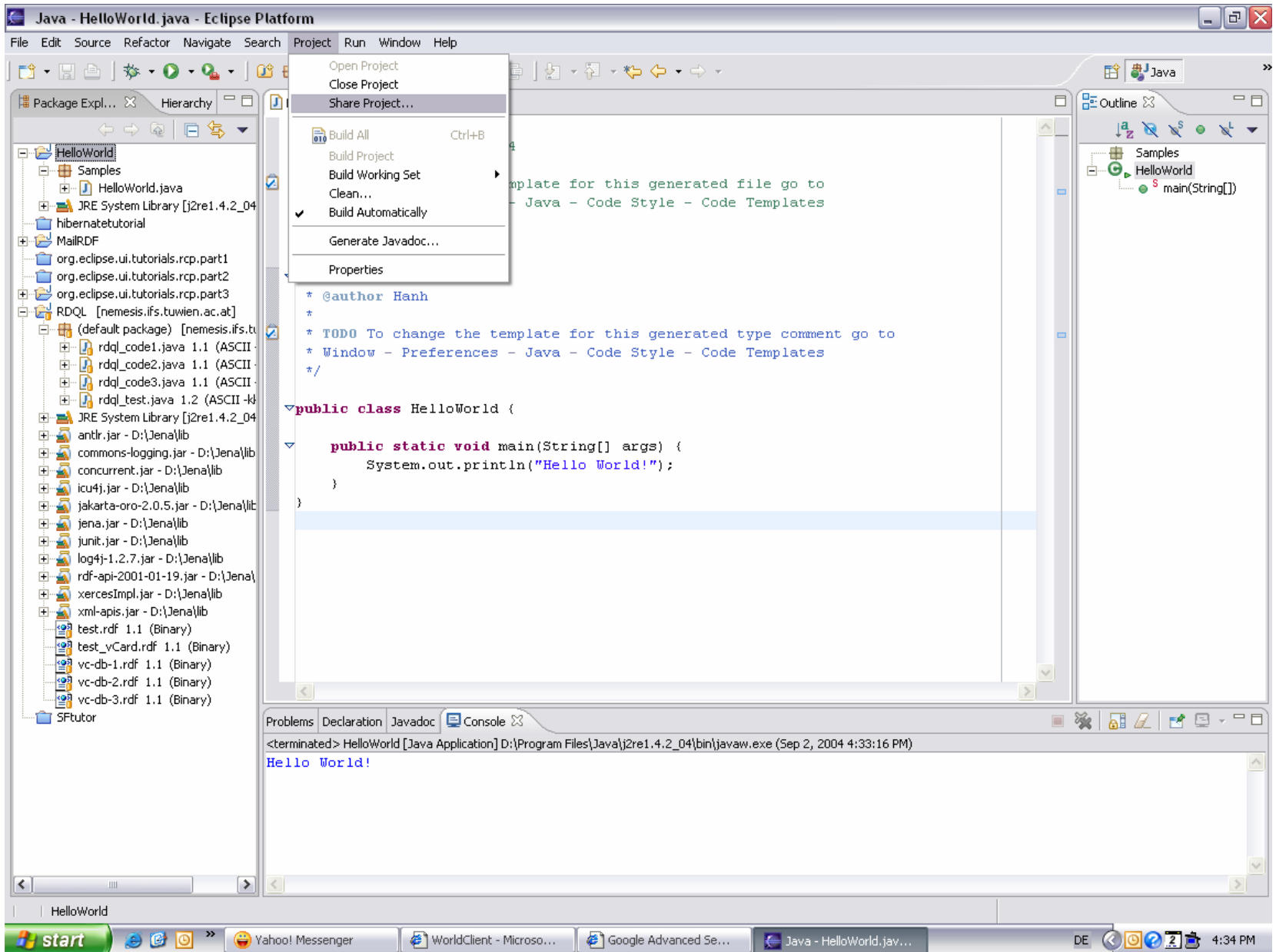
Use Default Port

Use Port:

Validate Connection on Finish

Save Password

 Saved passwords are stored on your computer in a file that's difficult, but not impossible, for an intruder to read.



Share Project

Enter Repository Location Information

Define the location and protocol required to connect with an existing CVS repository.

Location

Host:

Repository path:

Authentication

User:

Password:

Connection

Connection type:

Use Default Port

Use Port:

Save Password

 Saved passwords are stored on your computer in a file that's difficult, but not impossible, for an intruder to read.

< Back Next > Finish Cancel

Share Project

Share Project with CVS Repository

Select an existing repository location or create a new location.

This wizard will help you to share your files with the CVS repository for the first time. Your project will automatically be imported into the CVS repository, and the Synchronize view will open to allow you to commit your resources.

Create a new repository location

Use existing repository location:

< ||| >

< Back Next > Finish Cancel

New Project

Select a wizard

Create a new project by checking out an existing project from a CVS repository.



Wizards:

- Java Project
- Plug-in Project
- [-] CVS
 - Checkout Projects from CVS
- [+] Java
- [-] Plug-in Development
 - Feature Patch
 - Feature Project
 - Fragment Project
 - Plug-in Project
 - Update Site Project
- [+] Simple





Checkout from CVS



Checkout Project from CVS Repository

Select an existing repository location or create a new location.

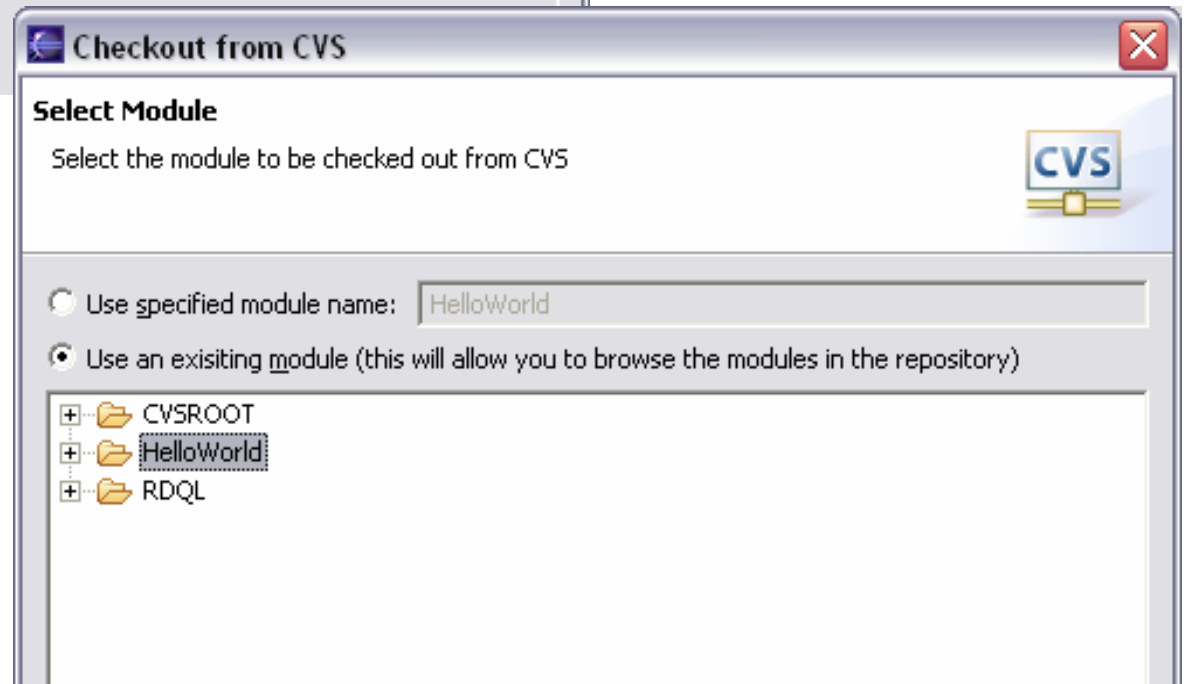
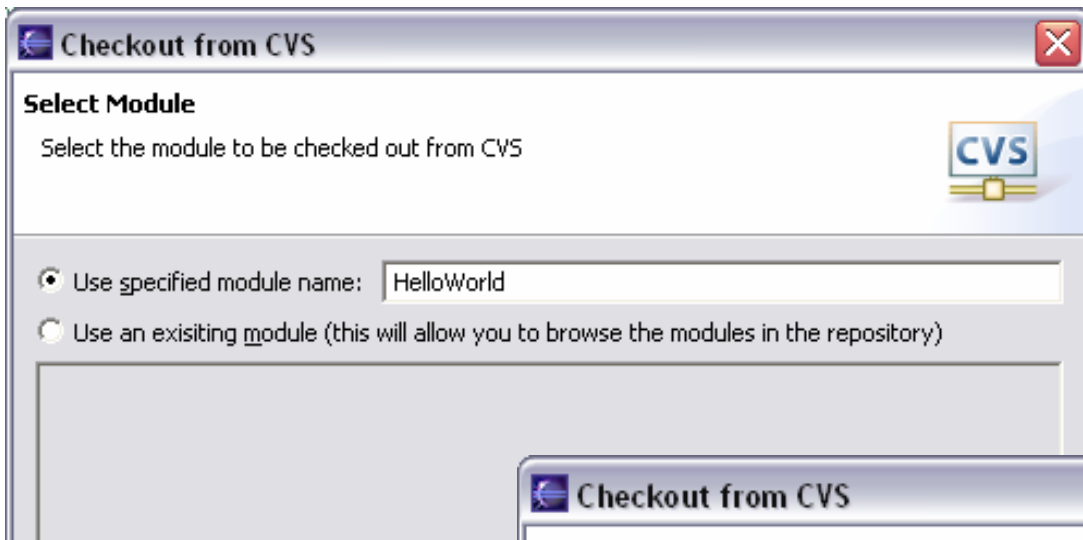


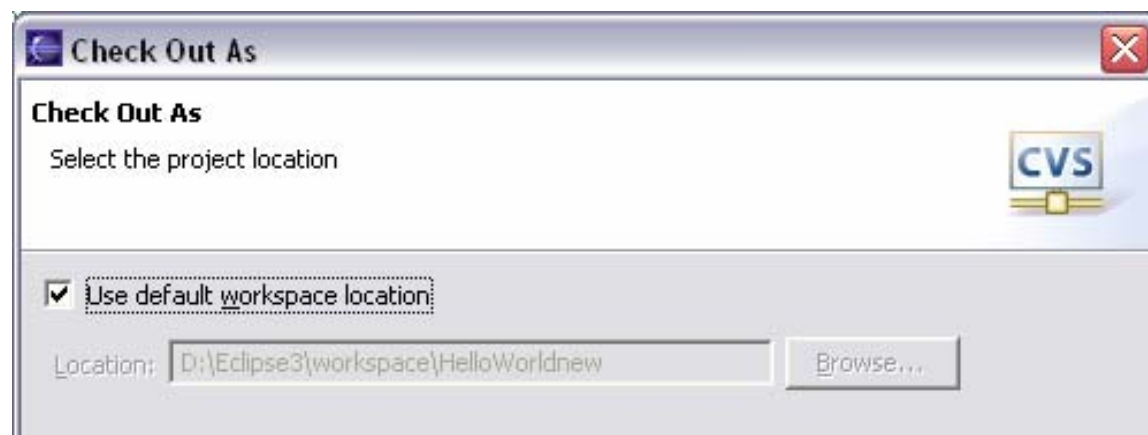
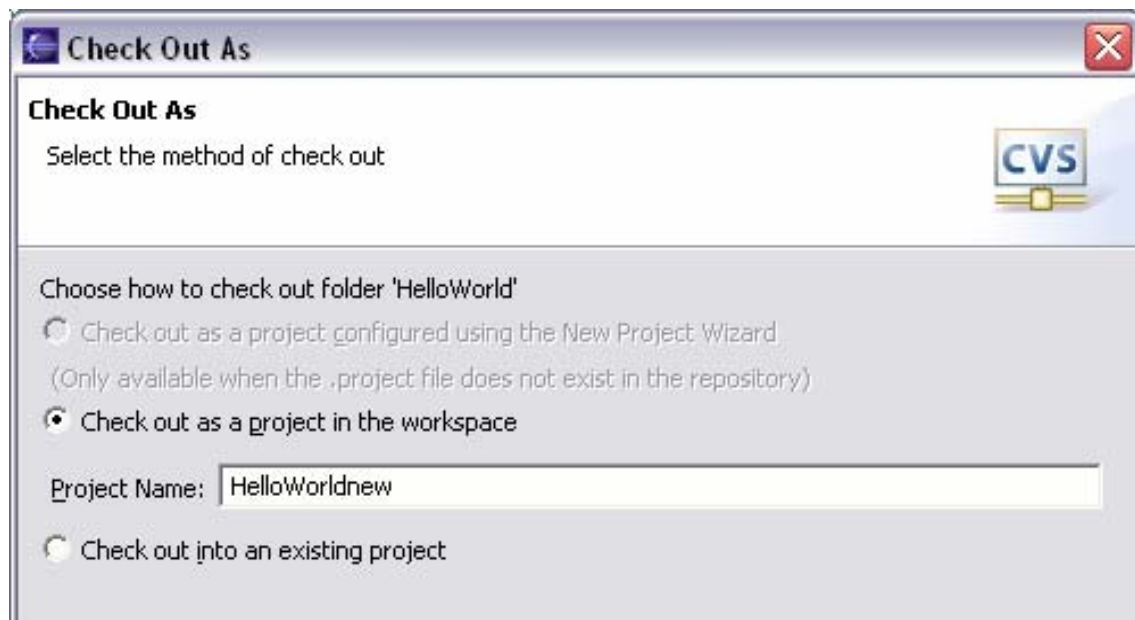
This wizard allows you to checkout projects from a CVS Repository.

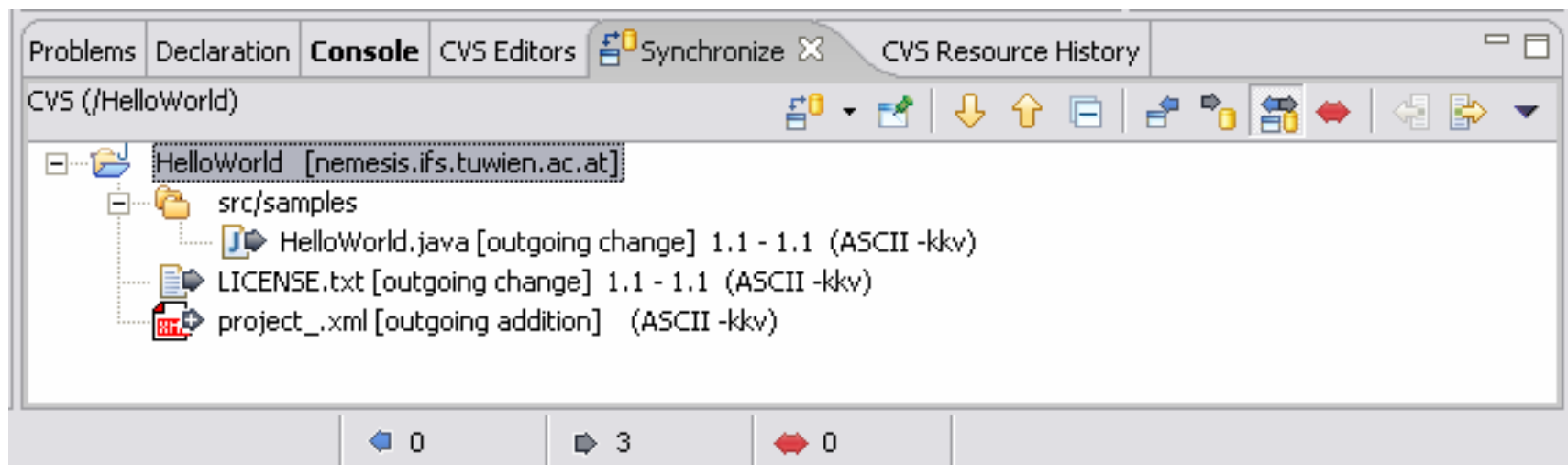
- Create a new repository location
- Use existing repository location:

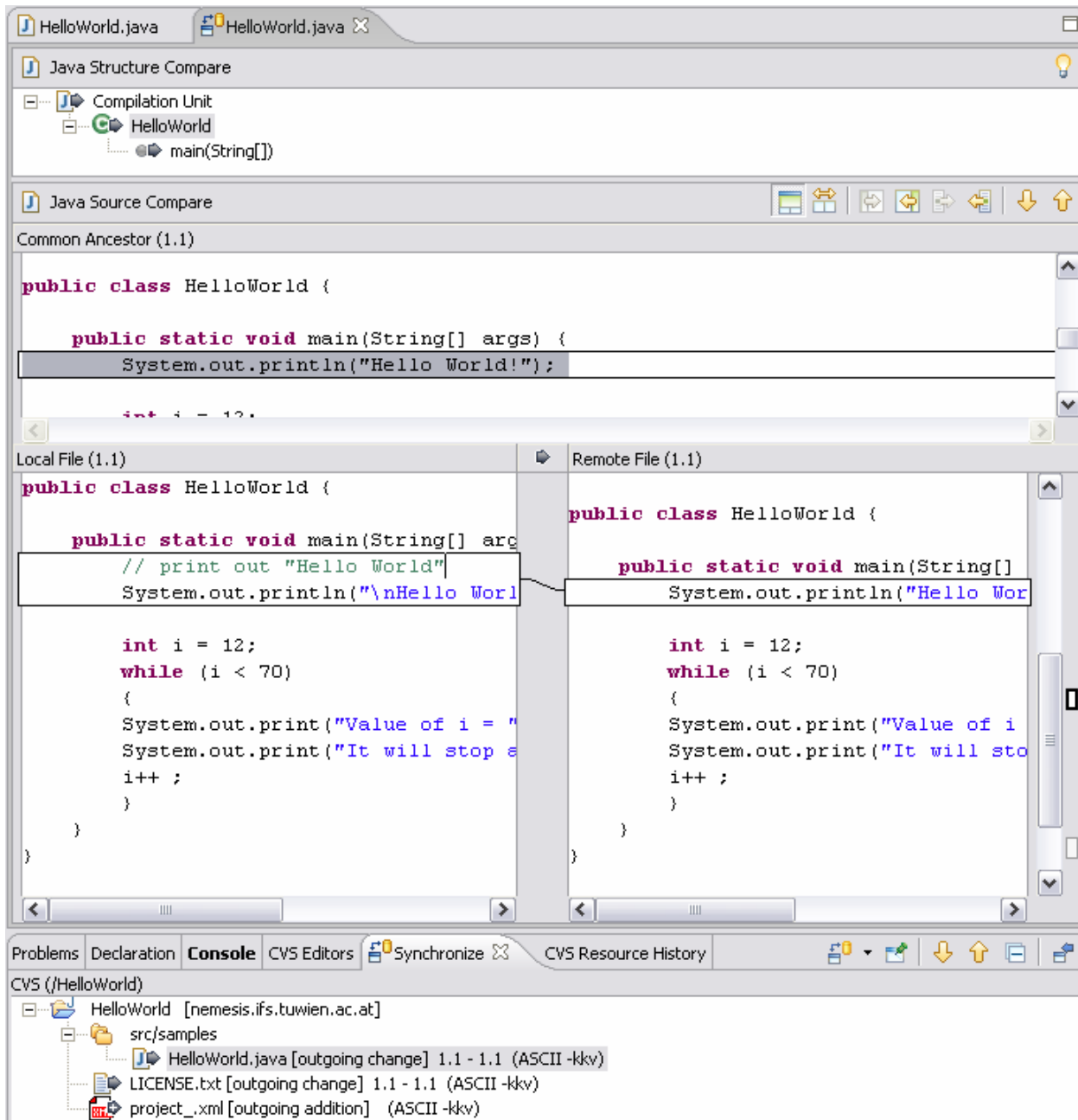


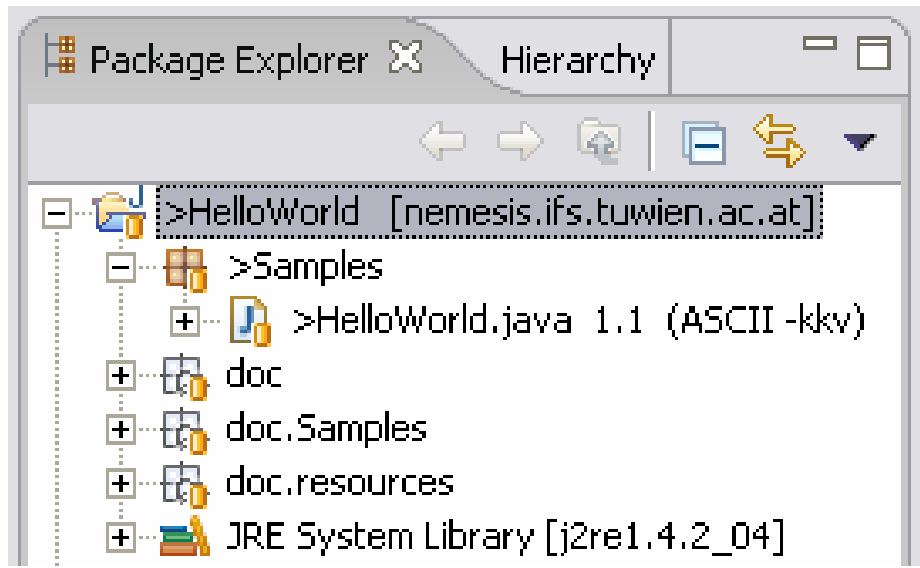
:extssh:hhhanh@nemesis.ifs.tuwien.ac.at:/system/apps/cvs/CVSROOT/semanticlife











Revision	Tags	Date	Author	Comment
*1.1.2.1		9/23/04 4:32 PM	hhhanh	Hanh edited on Fri 23.09.2004
1.1	Alpha2, Root_Alpha2, Alpha1	9/17/04 6:02 PM	hhhanh	Hanh's edit (17.09.13)

<ul style="list-style-type: none"> Alpha1 Root_Alpha2 Alpha2 	Hanh's edit (17.09.13)
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The currently used revision is marked with '*'

