

# A Users Guide to the PAMGUARD SVN Code Repository

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## Introduction

The PAMGUARD source code repository was moved from a CVS based system to SVN on 18 May 2011. The move to SVN should simplify code management and make merging between branches much simpler.

The code is still hosted on sourceforge, and remains fully open source and publically accessible.

An excellent guide to SVN is available in pdf format (free download) or book format (costs money) at <http://svnbook.red-bean.com/>

Sourceforge information on their SVN implementation is available at <https://sourceforge.net/p/forgedocumentation/svn/>

You can browse through the code from any internet browser at <http://www.sourceforge.net/p/pamguard/svn/>

Note that the source code has now all been placed in a sub folder of the root directory of each branch called src.

Please also note that I've moved the Pamguard main class from the root folder of the project to a .pamguard folder. This means that if you're trying to use existing launchers, you'' need to tell it where to find the main class over again.

## Do's and Don'ts

- Read the SVN book
- Do ask if you have any questions.
- Do always work in your own development branch unless explicitly invited to check code into someone else's branch.
- Don't merge changes into the core and beta branches in ./trunk unless in close consultation with the PAMGUARD team.

## Essential Information

If you're already familiar with SVN, then this is the important information that you'll need in order to access the repository.

### Repository location

<http://svn.code.sf.net/p/pamguard/svn/>

All the Java code for PAMGUARD and essential associated Java libraries are in the folder

<http://svn.code.sf.net/p/pamguard/svn/PamguardJava>

Other C based libraries which are required for some PAMGUARD functionality are (or will be) in sub folders off:

<http://svn.code.sf.net/p/pamguard/svn/PamguardCLib>

It took quite a few updates to get everything onto the SVN system, so it's very unlikely that you'll want to ever look at any revision prior to 19.

## trunk and branches

The SVN layout pretty much follows standard procedure, with a `./trunk` and a `./branches` folder off the PamguardJava folder.

The trunk folder contains two further sub folders `./core` and `./beta` which are for building the Core and Beta releases. Generally, these should only be modified by the PAMGUARD guardians at the University of St Andrews.

Individuals and teams of developers will have one or more branches off the `./branches` sub folder. When the SVN repository was first created, branches were made for several developers who had requested them. These were all exact copies of the core and beta versions in the trunk folder made on 18 May 2011 and are almost identical (apart from a major code clean-up) to the Beta version in the old CVS repository.

If you need a branch and don't feel competent to make one yourself, then please contact [support@pamguard.org](mailto:support@pamguard.org).

## Read/Write Access

You should be able to check out the code without being asked for a user name or password. Writing to the repository will require a sourceforge account (which is free) and permissions from the PAMGUARD team.

## Branching and Merging

The branching and merging procedures in SVN are very different to those in CVS. One of the first things that happens when you do a merge is that the branch you are merging from copies straight over your local working copy – you can then selectively select changes to move onto your SVN server branch, but may have to revert back to that if you don't want all the changes - be warned ! Read the book!

## Accessing the Repository Using Eclipse

### Install Subversive

If you're using the Eclipse IDE, then you will need to install some additional software before you can connect directly to the SVN server.

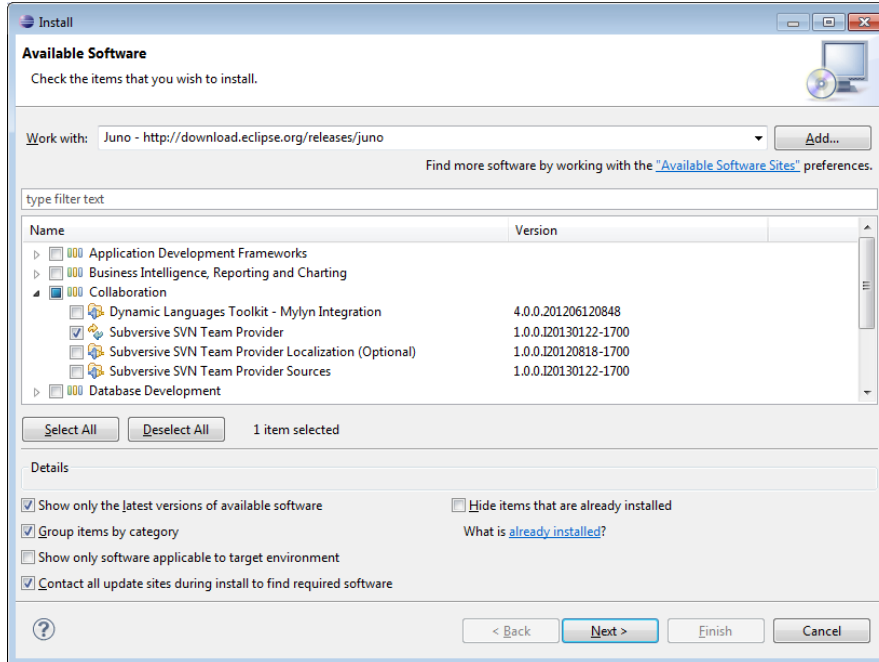
Detailed information is available at <http://www.eclipse.org/subversive/>

You will need to install both the Subversive plug-in and the Subversive SVN Connectors

In Eclipse, go to “Help > Install New Software...”

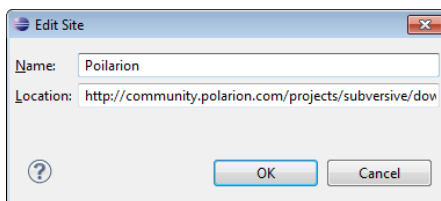
Choose Work with the standard releases URL for your version of eclipse.

Navigate to Collaboration > Subversive SVN Team Provider and continue the installation of that.



You may need to restart eclipse. When it restarts you will be prompted to install an SVN Connector (You can install multiple now then choose which to use later). At time of writing the only one that works with sourceforge’s “svn+ssh” protocol is SVNKit and choose the latest available. Some versions of eclipse do not automatically prompt installation of an SVN Connector. In this case go again to Install New Software... Under Work with, choose Add... then set up a Site for Polarion(the company that makes the SVN Connector) with the URL

<http://community.polarion.com/projects/subversive/download/eclipse/3.0/kepler-site/>



(Note this says is for eclipse version “Kepler” but may work with other versions or you may need to look at the polarion site

<https://www.polarion.com/products/svn/subversive/download.php>

To find the URL)

Then navigate to Subversive SVN Connectors > SVNKit X.XXX Implementation

## Check out your branch of the Project

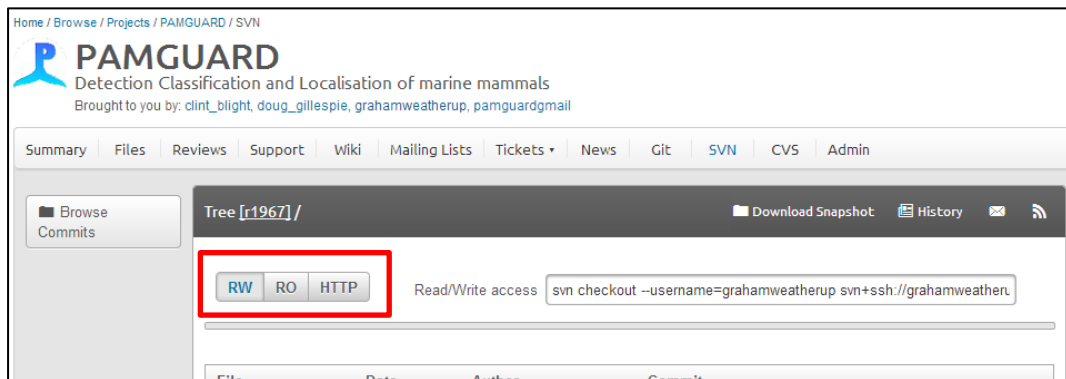
If you're just taking a look around, then you should probably check out the latest `./trunk/beta` branch. That should be reasonably stable and will contain all the latest features.

Our preferred option is that you contact the PAMGUARD team before starting work and we will create a branch for you to work in and you can then check that out and do what you will with it.

## Check out procedure

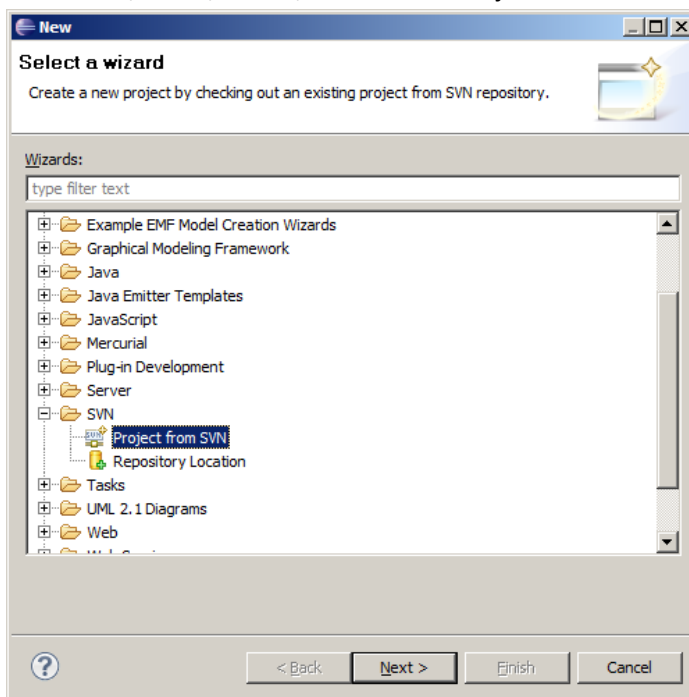
Starting with a blank Eclipse workspace, perform the following commands:

1. Work out what access you have and require. To see what access types you have, login to Sourceforge and go to <http://sourceforge.net/p/pamguard/svn> The access types are shown in the red box. If you would like to commit code and have no RW access contact [support@pamguard.org](mailto:support@pamguard.org) with details of what work you would like to contribute to request elevation.

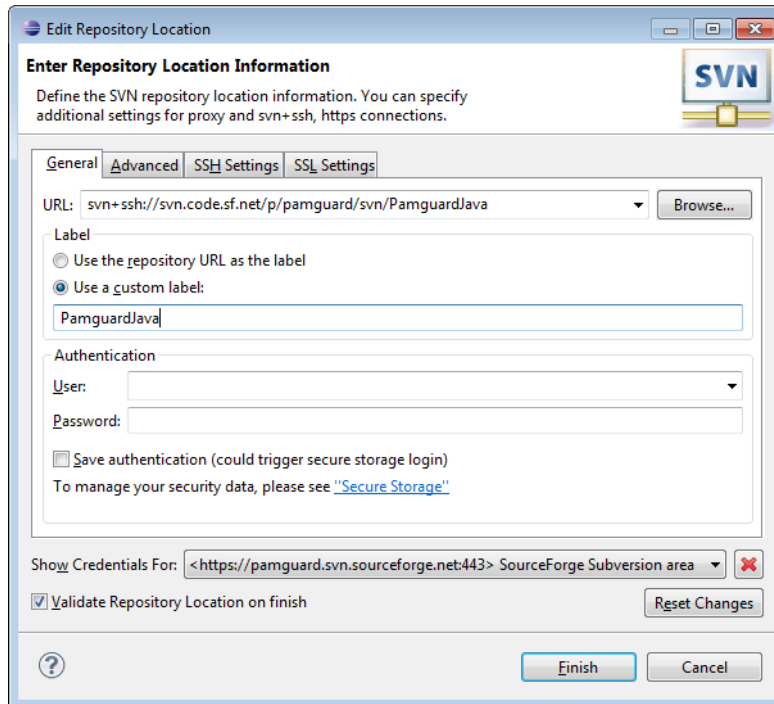
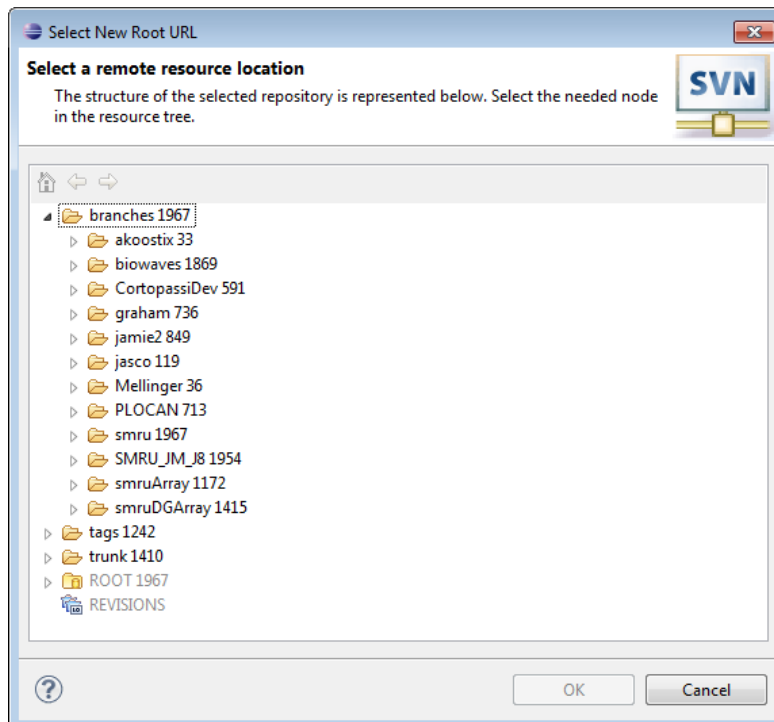


Read Only	<code>svn://svn.code.sf.net/p/pamguard/svn/PamguardJava</code>
Read Write	<code>svn+ssh://svn.code.sf.net/p/pamguard/svn/PamguardJava</code>

3. File menu / New / Other, then select 'Project from SVN'



## 4. Select 'Create a new repository location'

5. Under URL (see step 2) enter <svn+ssh://svn.code.sf.net/p/pamguard/svn/PamguardJava/> and then press Browse. From the branches tree, select the folder you want and hit 'Ok'.

- This will update the information in the URL field of the previous dialog. Enter a custom label, or use the repository URL to give it a name you will easily recognise.

**Edit Repository Location**

**Enter Repository Location Information**

Define the SVN repository location information. You can specify additional settings for proxy and svn+ssh, https connections.

General | Advanced | SSH Settings | SSL Settings

URL: svn+ssh://svn.code.sf.net/p/pamguard/svn/PamguardJava

Label

Use the repository URL as the label

Use a custom label:

PamguardJava

Authentication

User: YourSourceForgeUserName

Password: .....

Save authentication (could trigger secure storage login)

To manage your security data, please see "[Secure Storage](#)".

Show Credentials For: <https://pamguard.svn.sourceforge.net:443> SourceForge Subversion area

Validate Repository Location on finish

- Enter your user authentication information and hit Next.
- You will almost definitely want to check out the latest (Head) revision, but the next dialog would allow you to take an earlier one.

**Checkout from SVN**

**Select Resource**

Select a resource which will be checked out as project.

URL: https://pamguard.svn.sourceforge.net/svnroot/pamguard/PamguardJava/trunk/beta

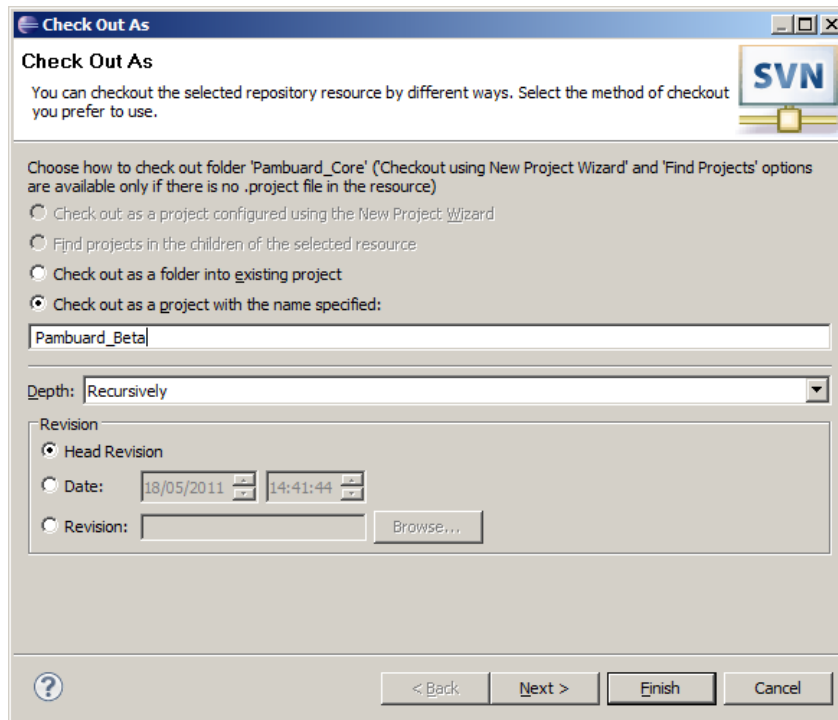
Revision

Head Revision

Date: 18/05/2011 14:41:44

Revision:

9. Once you hit 'Finish' and you'll get a final dialog asking you to give a name to the project you are about to check out



10. Hit finish on this dialog and it will start to copy the files down onto your computer. Files will be copied into a new folder in your workspace with the name you specified in the last stage.

The transfer to your local working copy will include all the java files, a whole lot of html help files, assorted image files used in both the help and in the PAMGUARD graphics. It should also contain some jar library files you need (in the .jars) folder and some library files in .lib

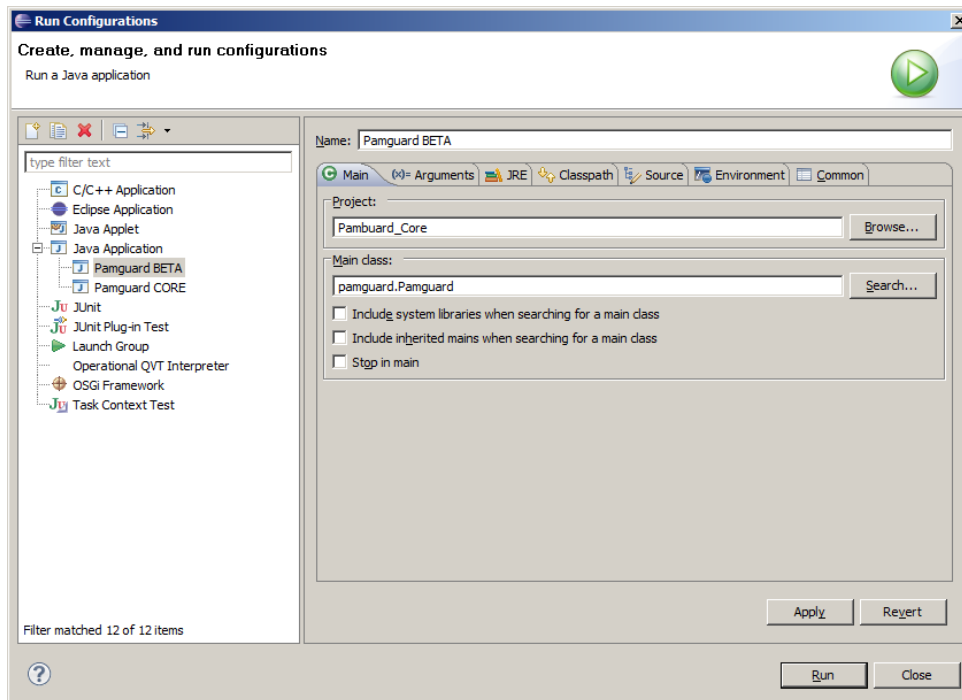
## Using multiple branches

It is quite easy to have multiple branches in the same Eclipse project space, each in a separate sub folder.

## Running from Eclipse

Click on the menu tag close to the green run button and select 'Run Configurations'

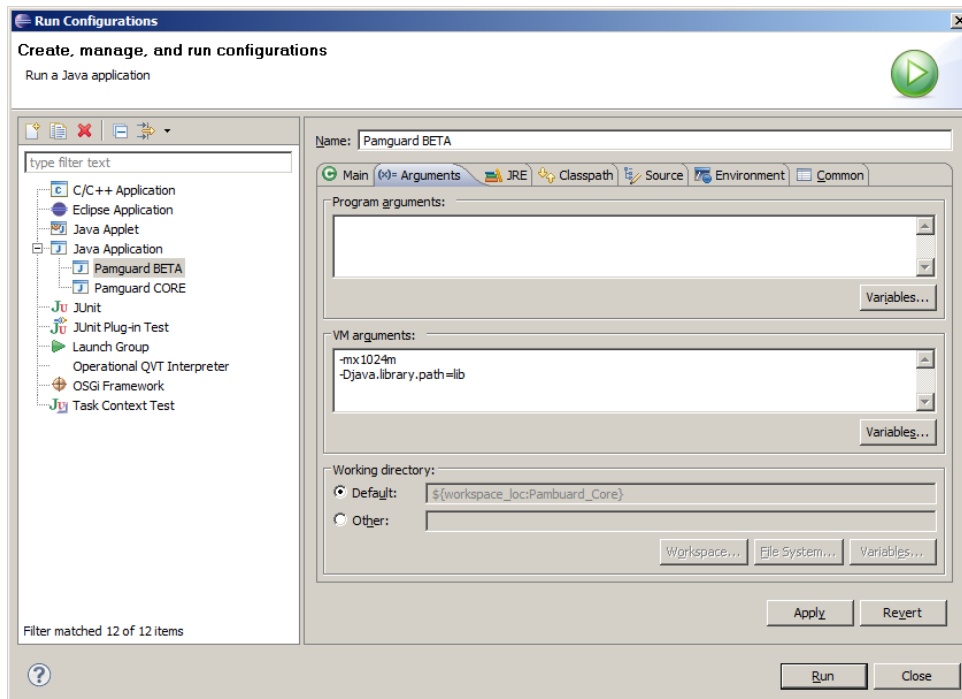
Right click on Java Application and select 'New' from the drop down menu, enter a sensible name and Search for the main class (pamguard.Pamguard)



Click on the Arguments tab and enter

-mx1024m

-Djava.library.path=lib



Press Run.

You only have to do this once and it's relatively easy to make copies of existing run configurations.



If you want to run in Viewer mode, put a `-v` in the Program arguments in the above dialog.

