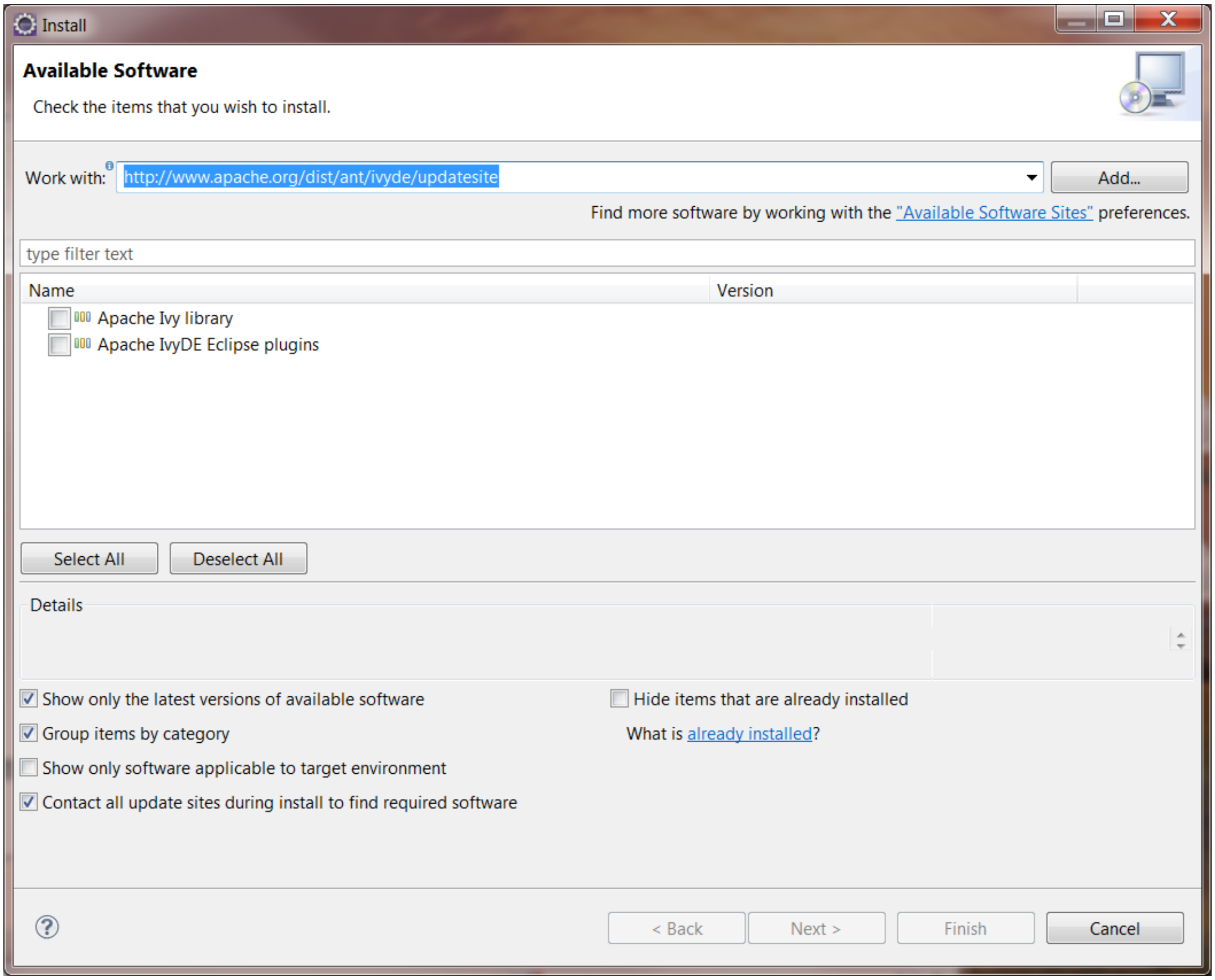
Environment Setup for Eclipse

1. Download and install Java 1.6 Java SE development kit. http://www.oracle.com/technetwork/java/javase/downloads/jdk-6u25-download-346242.html
2. Setup JAVA_HOME environment variable to point to your 1.6 java directory.
3. Add %JAVA_HOME%\bin to the path environment variable.
4. Download Eclipse from www.eclipse.org or your favorite IDE. I put eclipse in C:\env\eclipse, using the env directory as a focal point. Any directory is ok.
5. Go to site ftp://ftpgolden.pentaho.com/ user name ftpgolden. You will need a password to login.
6. Navigate to PentahoGolden/installer/bisuite/4.5.0-GA directory and download the pentaho-business-analytics-4.5.0-GA-x64.exe file. Execute the file to install Pentaho suite. This will install Pentaho as a stand-alone application. This step is not required for the local development build but can give you a working version to refer to.
7. Google subclipse and find a site that gives you the instructions on how to install subclipse in the eclipse application. I found this here. http://subclipse.tigris.org/servlets/ProjectProcess?pageID=p4wYuA
8. Register the SVN repository. Start Eclipse and open the SVN perspective. Right-click on the blank area that contains the source repositories and select "new", and then "Repository Location". Enter the URL of svn://source.pentaho.org/svnroot for the repository.
9. To check out the 7 projects needed for the "Platform" system, open the svnroot repository and navigate to pentaho-platform-trunk. Each of the folders shown under trunk will become a project in Eclipse. You can right click on each folder individually or select all of them and right click followed by checkout. The folders to checkout at the time of this document are:
   - api
   - core
   - repository
   - scheduler
   - extensions
   - user_console
   - assembly

   The names are listed in order of increasing dependency. Building the projects in order listed guarantees that dependent projects will be built before the projects that depend on them.

10. Google IvyDe and download the two Ivy plugins from *http://www.apache.org/dist/ant/ivyde/updatesite*. Two products were displayed as shown below. At the time we did this, one of them was a beta although this is not obvious.



Install

Available Software

Check the items that you wish to install.

Work with: http://www.apache.org/dist/ant/ivyde/updatesite

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

type filter text

Name	Version
□ Apache Ivy library	
□ Apache IvyDE Eclipse plugins	

Details

☑ Show only the latest versions of available software

☑ Group items by category

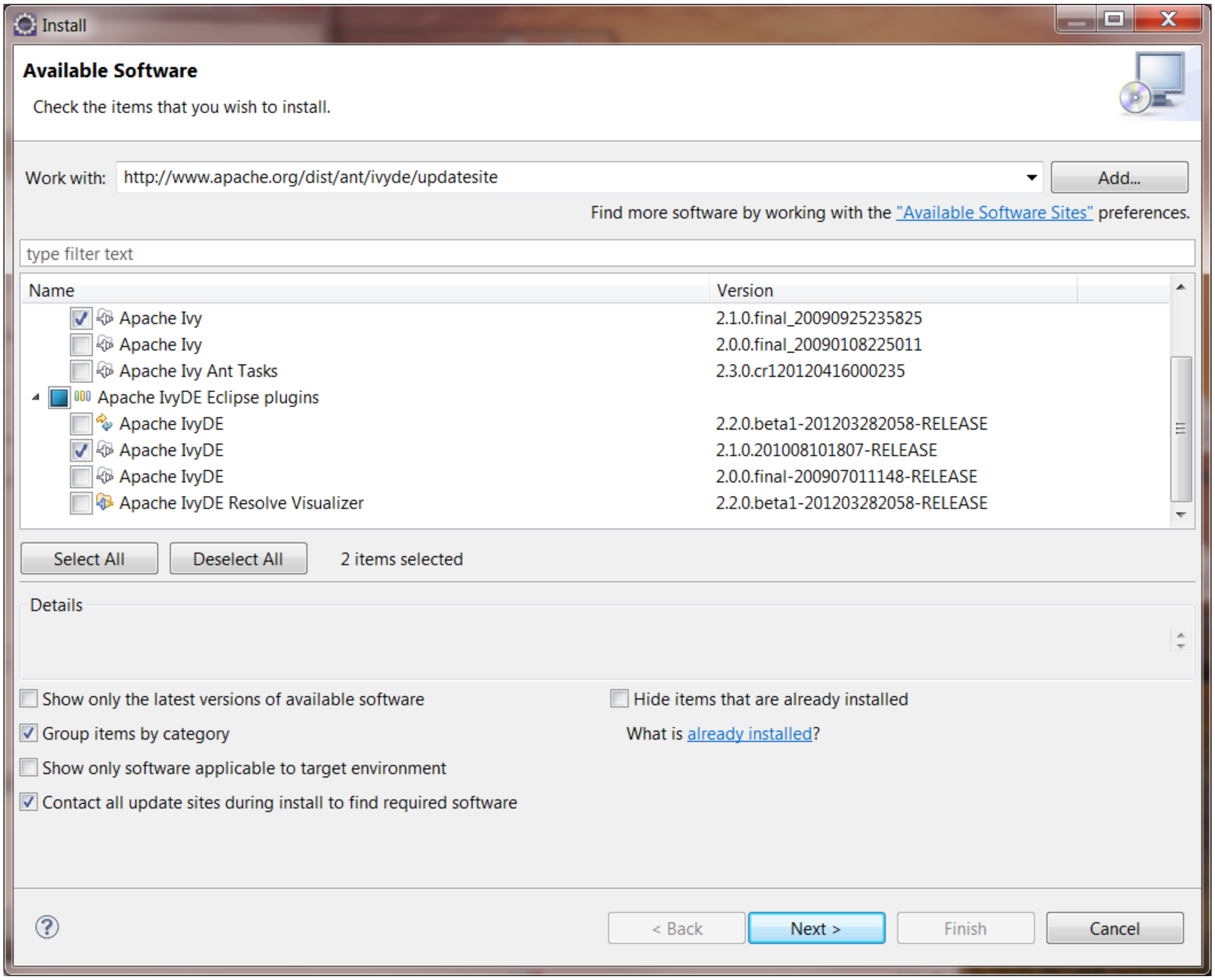
□ Show only software applicable to target environment

☑ Contact all update sites during install to find required software

□ Hide items that are already installed

What is already installed?

To check the versions and avoid downloading a beta version, un-check the latest version checkbox and open the folders to see the available versions as shown below:



Available Software

Check the items that you wish to install.

Work with: http://www.apache.org/dist/ant/ivyde/updatesite

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

type filter text

Name	Version
☑ Apache Ivy	2.1.0.final_20090925235825
☐ Apache Ivy	2.0.0.final_20090108225011
☐ Apache Ivy Ant Tasks	2.3.0.cr120120416000235
■ Apache IvyDE Eclipse plugins	
☐ Apache IvyDE	2.2.0.beta1-201203282058-RELEASE
☑ Apache IvyDE	2.1.0.201008101807-RELEASE
☐ Apache IvyDE	2.0.0.final-200907011148-RELEASE
☐ Apache IvyDE Resolve Visualizer	2.2.0.beta1-201203282058-RELEASE

2 items selected

Details

☐ Show only the latest versions of available software

☑ Group items by category

☐ Show only software applicable to target environment

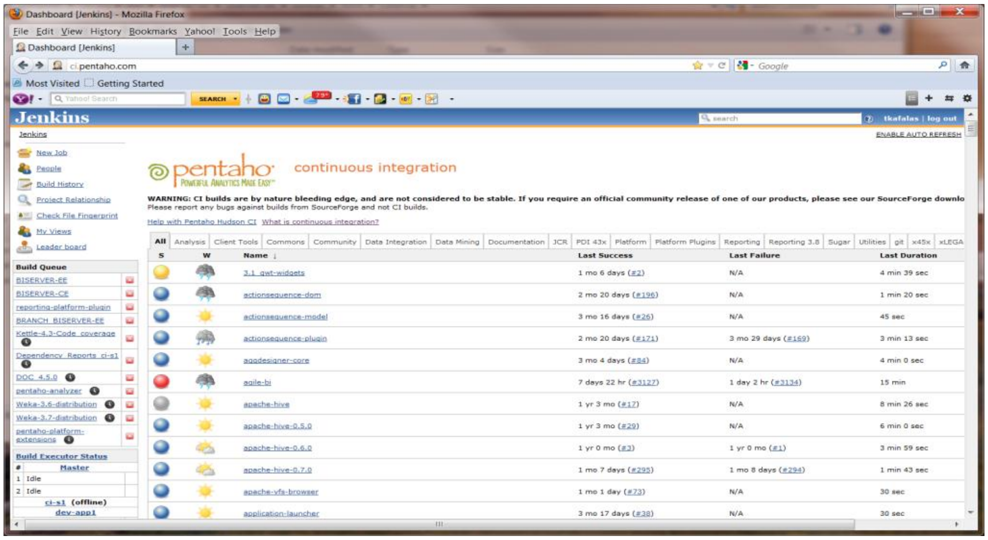
☑ Contact all update sites during install to find required software

☐ Hide items that are already installed

What is already installed?

We found the beta did not work correctly so we uninstalled and reinstalled the version shown above.

11. Enter ci.pentaho.com as the URL to your favorite browser. You will need to click on the “log in” button on the top right of the screen. Enter your name and password.



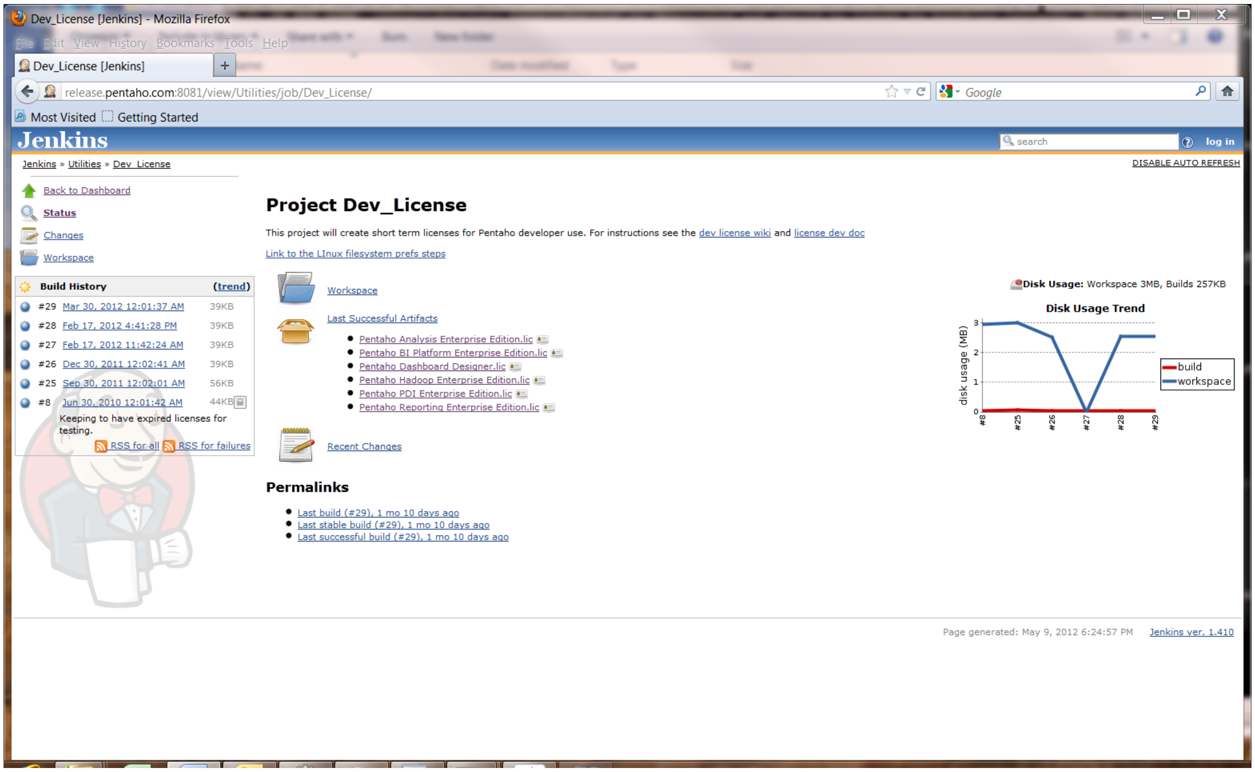
WARNING: CI builds are by nature bleeding edge, and are not considered to be stable. If you require an official community release of one of our products, please see our SourceForge downlo
Please report any bugs against builds from SourceForge and not CI builds.

Build Queue
BISERVER-EE
BISERVER-CE
reporting-platform-plugin
BRANCH_BISERVER-EE
Kettle-4.3-Code_coverage
Dependency_Reports_ci-s1
DOC_4.5.0
pentaho-analyzer
Weka-3.6-distribution
Weka-3.7-distribution
pentaho-platform-extensions

Build Executor Status	
#	Master
1	Idle
2	Idle
ci-s1 (offline)	
dev-app1	

S	W	Name ↓	Last Success	Last Failure	Last Duration
●	☁	3.1_gwt-widgets	1 mo 6 days (#2)	N/A	4 min 39 sec
●	☁	actionsequence-dom	2 mo 20 days (#196)	N/A	1 min 20 sec
●	☀	actionsequence-model	3 mo 16 days (#26)	N/A	45 sec
●	☁	actionsequence-plugin	2 mo 20 days (#171)	3 mo 29 days (#169)	3 min 13 sec
●	☀	aggdesigner-core	3 mo 4 days (#84)	N/A	4 min 0 sec
●	☁	agile-bi	7 days 22 hr (#3127)	1 day 2 hr (#3134)	15 min
●	☀	apache-hive	1 yr 3 mo (#17)	N/A	8 min 26 sec
●	☀	apache-hive-0.5.0	1 yr 3 mo (#29)	N/A	6 min 0 sec
●	⛅	apache-hive-0.6.0	1 yr 0 mo (#3)	1 yr 0 mo (#1)	3 min 59 sec
●	⛅	apache-hive-0.7.0	1 mo 7 days (#295)	1 mo 8 days (#294)	1 min 43 sec
●	☀	apache-vfs-browser	1 mo 1 day (#73)	N/A	30 sec
●	☀	application-launcher	3 mo 17 days (#38)	N/A	30 sec

12. There is a set of tabs above the list of items. Click on the Sugar tab. Next click on the BISERVER-EE reference. You will be brought to a page listing Last Successful Artifacts; under which will be possible downloads for the Enterprise edition BI server. I clicked on biserver-ee-TRUNK-SNAPSHOT-jenkins-BISERVER.EE-4409.jar but the number will vary. This will start a download of the Enterprise Edition BISERVER (alias BA Server).
13. Unzip the above downloaded file in your directory. I put it in \env\biserver-ee.
14. The enterprise edition must be licensed to use. Go to http://release.pentaho.com:8081/view/Utilities/job/Dev_License/. You should see a list of 6 artifacts all ending with ".lic". These are the temporary licenses you need to install for the enterprise edition. Click on all the links to download all the licenses. Remember where they are as you will need them shortly.



Project Dev_License

This project will create short term licenses for Pentaho developer use. For instructions see the dev license wiki and license dev doc

Link to the LInux filesystem prefs steps

Workspace

Last Successful Artifacts

- Pentaho Analysis Enterprise Edition.lic
- Pentaho BI Platform Enterprise Edition.lic
- Pentaho Dashboard Designer.lic
- Pentaho Hadoop Enterprise Edition.lic
- Pentaho PDI Enterprise Edition.lic
- Pentaho Reporting Enterprise Edition.lic

Recent Changes

Permalinks

- Last build (#29), 1 mo 10 days ago
- Last stable build (#29), 1 mo 10 days ago
- Last successful build (#29), 1 mo 10 days ago

Build History		(trend)
#29	Mar 30, 2012 12:01:37 AM	39KB
#28	Feb 17, 2012 4:41:28 PM	39KB
#27	Feb 17, 2012 11:42:24 AM	39KB
#26	Dec 30, 2011 12:02:41 AM	39KB
#25	Sep 30, 2011 12:02:01 AM	56KB
#8	Jun 30, 2010 12:01:42 AM Keeping to have expired licenses for testing.	44KB

RSS for all RSS for failures

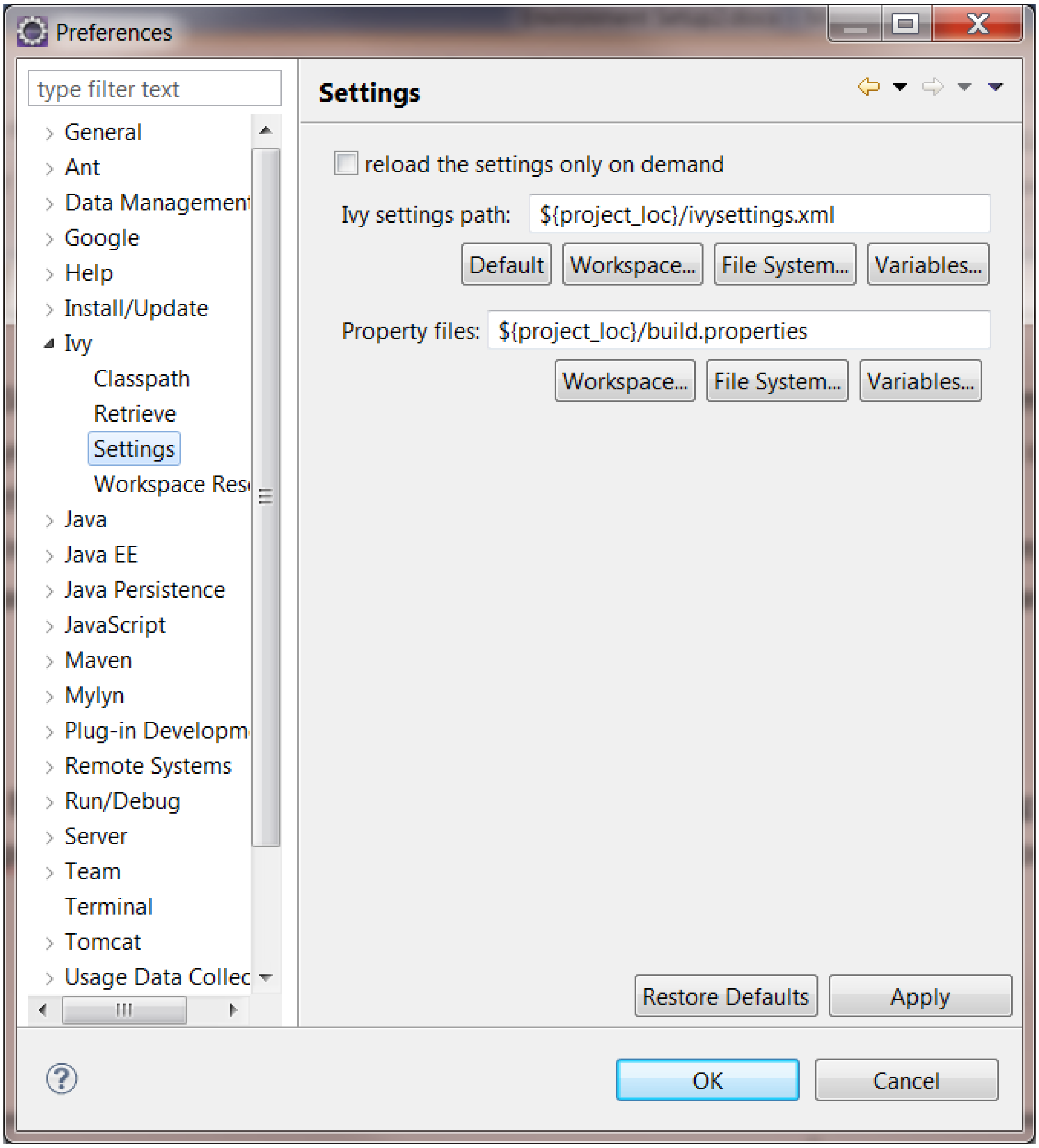
Disk Usage: Workspace 3MB, Builds 257KB

Page generated: May 9, 2012 6:24:57 PM Jenkins ver. 1.410

15. Start a windows cmd session. Make sure you start this session as an administrator. To do this you can click on the start button, type CMD into the text box, then right click on the cmd.exe that should display in select "Run as Administrator".
16. In the session just created, navigate to the directory that contains the unzipped BISERVER-EE and execute the following dos commands. Your directory names may vary.

```
cd C:\env\biserver-ee\license-installer
install_license install C:\Users\YourUserName\Downloads\*.lic
```

17. If you do not have an Ant view setup already, you may do so by selecting Window→Show View→ Ant. Now for each of the 7 projects, drag the build.xml file into your ant view.
18. Back in Eclipse, go to Windows → Preferences and select Ivy → Settings from the dialog's tree. Fill in the Ivy Settings and Property Settings as shown below.



Settings

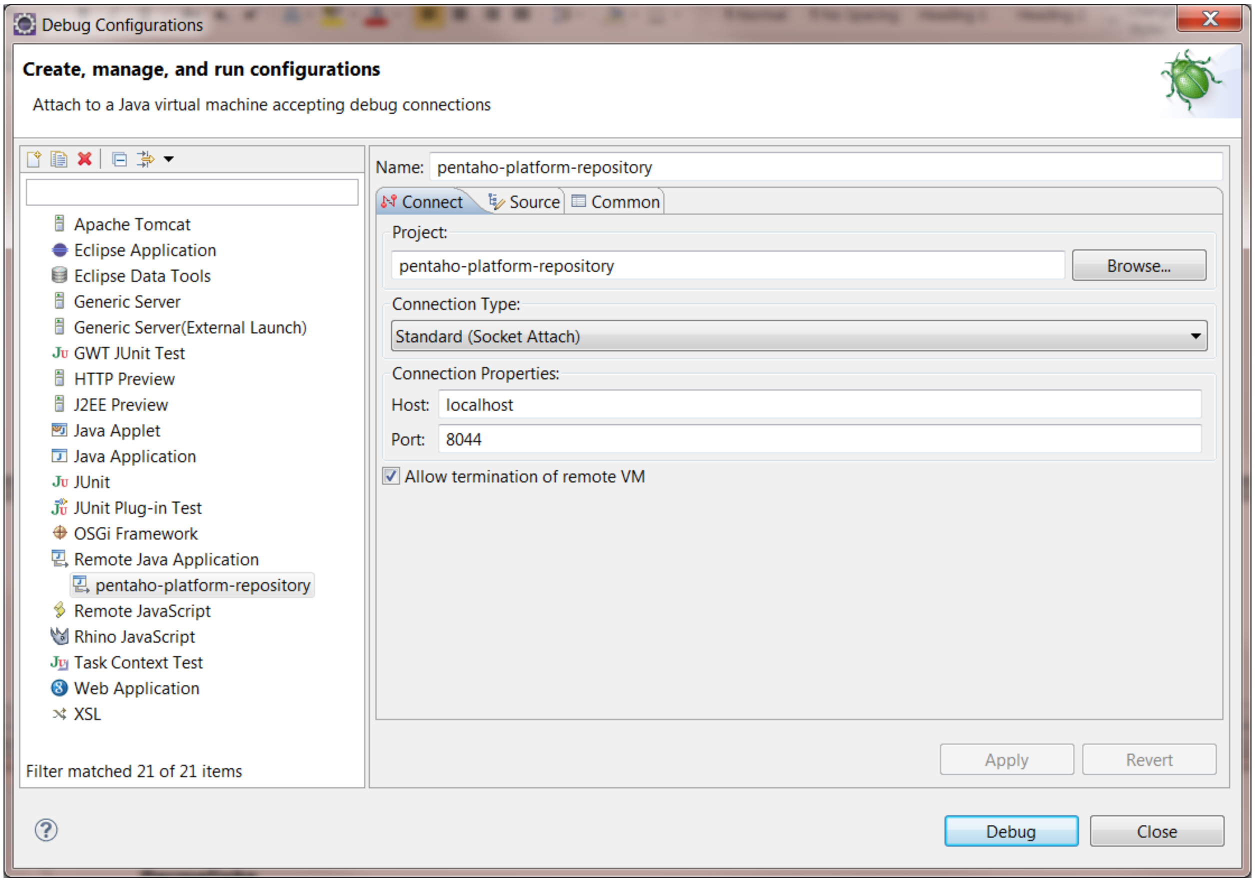
□ reload the settings only on demand

Ivy settings path: ${project_loc}/ivysettings.xml

Property files: ${project_loc}/build.properties

19. For each of the projects listed in step 9 (in the order listed), execute the “clean-all”, “resolve” and “test” targets in the ant script for that target. Exception (When executing scripts for the pentaho-user-console project, (named Pentaho Mantle), execute the “dist-full” target instead of the “test” target.
20. If Ivy is working properly you can also resolve dependencies using the Ivyde plugin you installed. Right click on the “pentaho-platform-api” project, select Ivy → Resolve and get Ivy to load in all the dependent jars into the class path.
21. You can check what Ivy loaded by right clicking the Project, selecting Properties → Java Build Path. Next select the Libraries tab and open the ivy.xml group from the middle list.
22. If Ivy is still not working, you can manually load the dependent jars by running the create-dot-classpath ant target. This will manually adjust the .classpath file for the project.

23. Now that you have gotten the build path working for the api. Repeat steps 20 and 21 on each of the projects. Do this in the order the projects are listed in step 8.
24. We are ready to setup a project to run Tomcat in debug mode. Select the pentaho-platform-repository project. In eclipse choose Run→ Debug Configurations from the menu. In the dialog that follows select Remote Java Application from the list and change the port to 8044. This is the port number configured in the BISERVER-EE product you downloaded earlier.



Debug Configurations

Create, manage, and run configurations

Attach to a Java virtual machine accepting debug connections

Name: pentaho-platform-repository

Project: pentaho-platform-repository

Connection Type: Standard (Socket Attach)

Connection Properties:

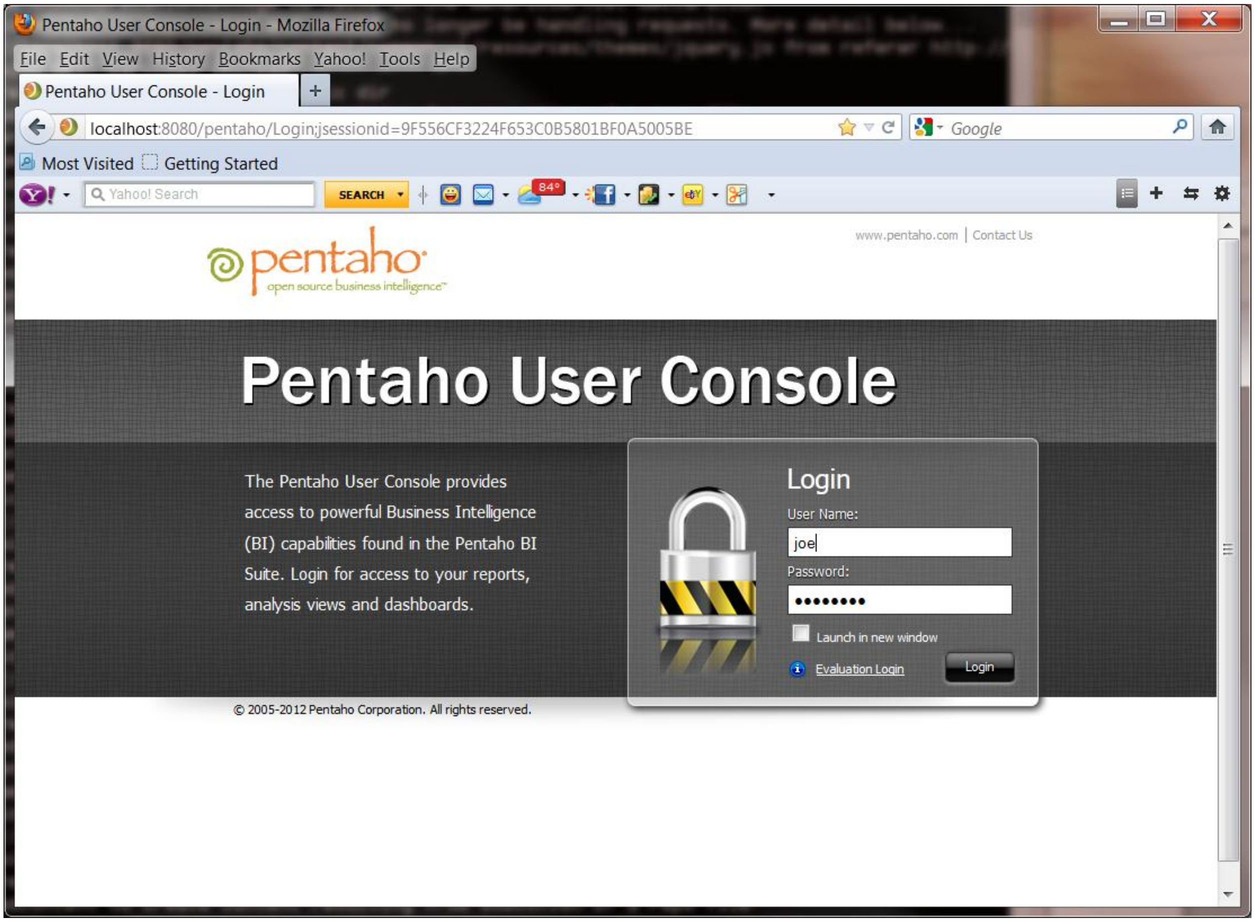
Host: localhost

Port: 8044

☑ Allow termination of remote VM

Filter matched 21 of 21 items

25. In preparation for a debug test, put a breakpoint in the newTenant method of the SampleDataRepositoryLifecycleManager class.
26. Startup Tomcat by going to the Tomcat folder (a subfolder of biserver-ee folder you created) and run the start-pentaho-debug.bat file. Confirm that Tomcat is running. You may want to make a shortcut to this bat file since you will probably be running it often.
27. Now start a debug session in Eclipse by choosing Run → Debug Configurations, selecting the debug configuration you created earlier, and hitting the debug key. You may also add this to the debug menu by checking the check box for Debug in “Display in favorites menu”.
28. Fire up your favorite browser and enter http://localhost:8080/pentaho/Login for the url. If youd see the Pentaho User Console come up, you are running.



Pentaho User Console - Login - Mozilla Firefox

localhost:8080/pentaho/Login;jsessionid=9F556CF3224F653C0B5801BF0A5005BE

Pentaho User Console

The Pentaho User Console provides access to powerful Business Intelligence (BI) capabilities found in the Pentaho BI Suite. Login for access to your reports, analysis views and dashboards.

Login

User Name: joe

Password: ••••••••

□ Launch in new window

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After you log in eclipse should break on the line you set the breakpoint at.

29. You are now ready to develop at will! As changes are made, you can run the “dist” target in the appropriate project to generate the jar file to move into the tomcat directory such as C:\env\biserver-ee\biserver-ee\tomcat\webapps\pentaho\WEB-INF\lib.