Integrate R StateEt as Eclipse Plugin

Follow these steps to install the R StatET eclipse plugin on Windows. The installation instructions are at

http://www.walware.de/goto/statet

Step 1: First, install R using the web site:
http://cran.us.r-project.org/
Make sure you remember the folder in which you choose to save R.

Next install the packages rj and rJava.
Install the R packages rj from the website:
http://www.walware.de/?page=/it/downloads/rj.mframe
You can do that in the rGui.
For example, if R is in the file location C:\Program Files\R\R- x.x.x
The Rgui.exe is then found at C:\Program Files\R\R-x.x.x\bin\i386
Next enter the following three command into the Rgui:

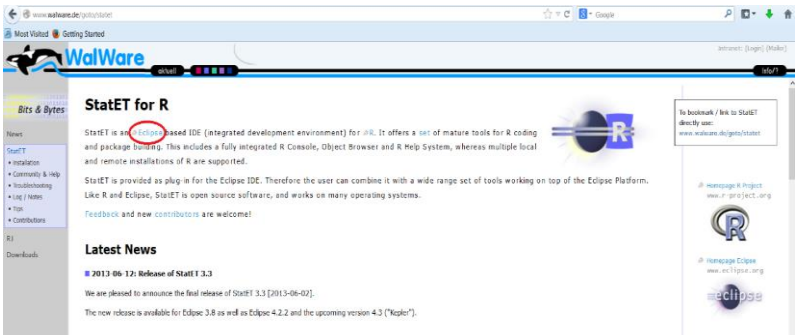
```
install.packages(c("rj", "rj.gd"),
repos="http://download.walware.de/rj-
1.1")
install.packages("rJava")
```

These packages can be copied into the folder:

…/R- x.x.x /library.

Step 2: Go to the site which hosts the WalWare plugin software

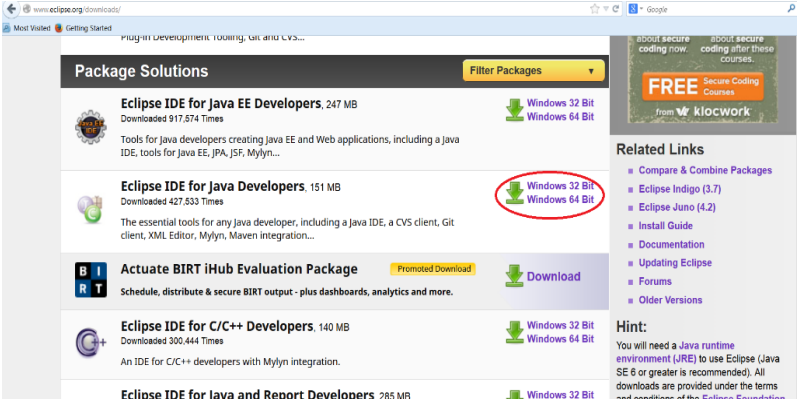
http://www.walware.de/goto/statet



Follow the installation link on this site to get the URL from which Eclipse can be download and install the software.

Step 3: Install Eclipse

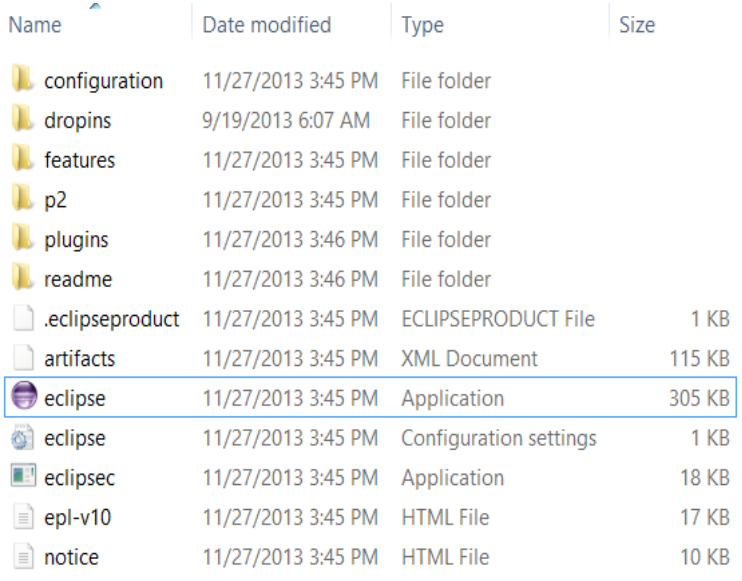
http://www.eclipse.org/downloads/



I downloaded

eclipse-jee-kepler-SR1-win32-x86_64.zip

and unzipped it into my C:\Program Files folder. I also added the eclipse executable to my task bar by using a right click on the eclipse application and choosing the option:



Name	Date modified	Type	Size
configuration	11/27/2013 3:45 PM	File folder	
dropins	9/19/2013 6:07 AM	File folder	
features	11/27/2013 3:45 PM	File folder	
p2	11/27/2013 3:45 PM	File folder	
plugins	11/27/2013 3:46 PM	File folder	
readme	11/27/2013 3:46 PM	File folder	
.eclipseproduct	11/27/2013 3:45 PM	ECLIPSEPRODUCT File	1 KB
artifacts	11/27/2013 3:45 PM	XML Document	115 KB
eclipse	11/27/2013 3:45 PM	Application	305 KB
eclipse	11/27/2013 3:45 PM	Configuration settings	1 KB
eclipsec	11/27/2013 3:45 PM	Application	18 KB
epl-v10	11/27/2013 3:45 PM	HTML File	17 KB
notice	11/27/2013 3:45 PM	HTML File	10 KB

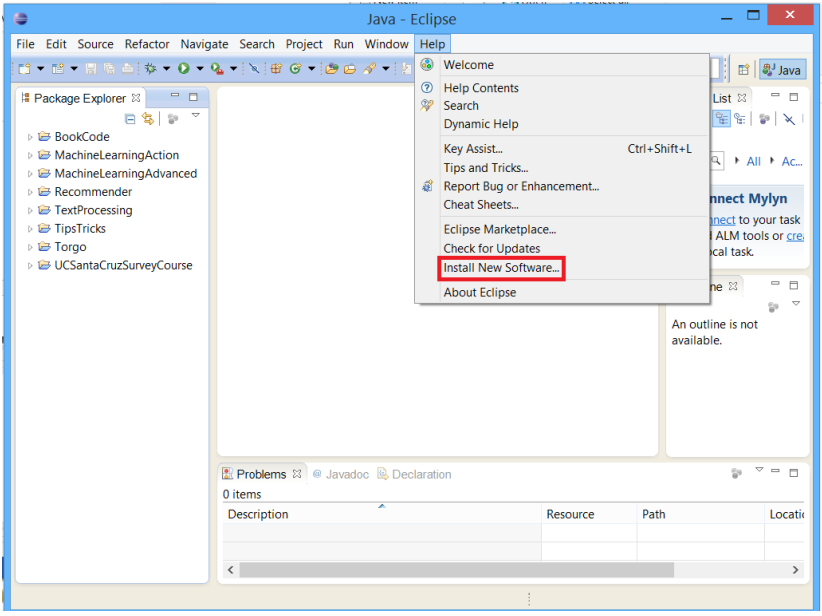
add to task bar.

Step 4: Install the StatEt software into Eclipse by using the instructions at http://help.eclipse.org/kepler/index.jsp?topi

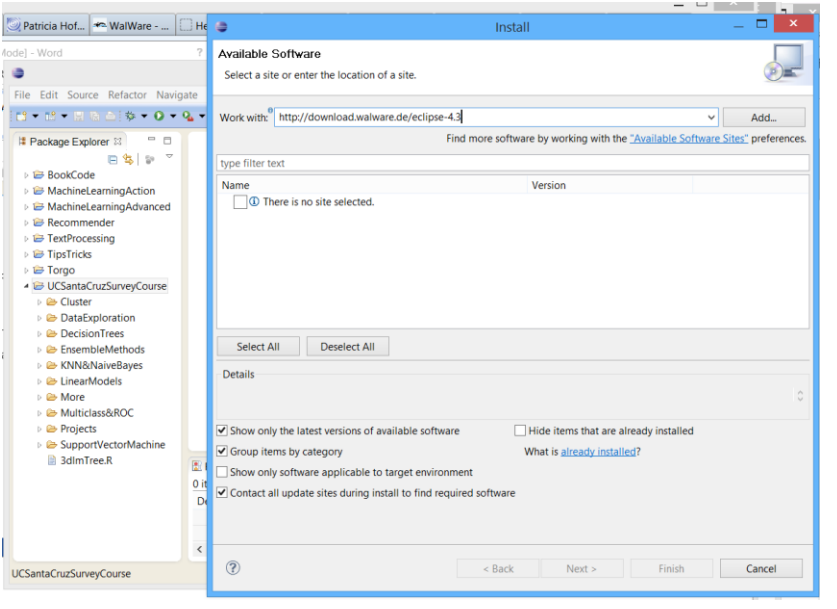
c=/org.eclipse.platform.doc.user/tasks/tasks-124.htm

Open Eclipse and go to

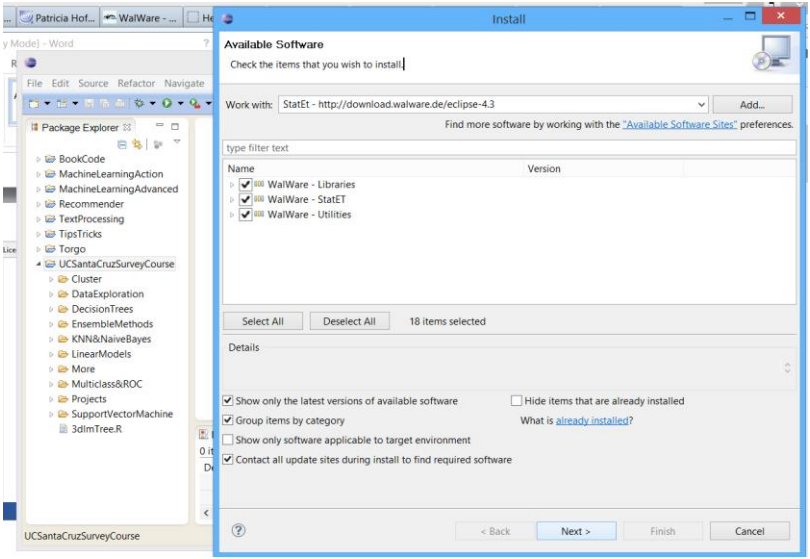
Help -> Install New Software.



Step 5: Paste the URL for the Eclipse version you chose into the box. I chose **http://download.walware.de/eclipse-4.3**



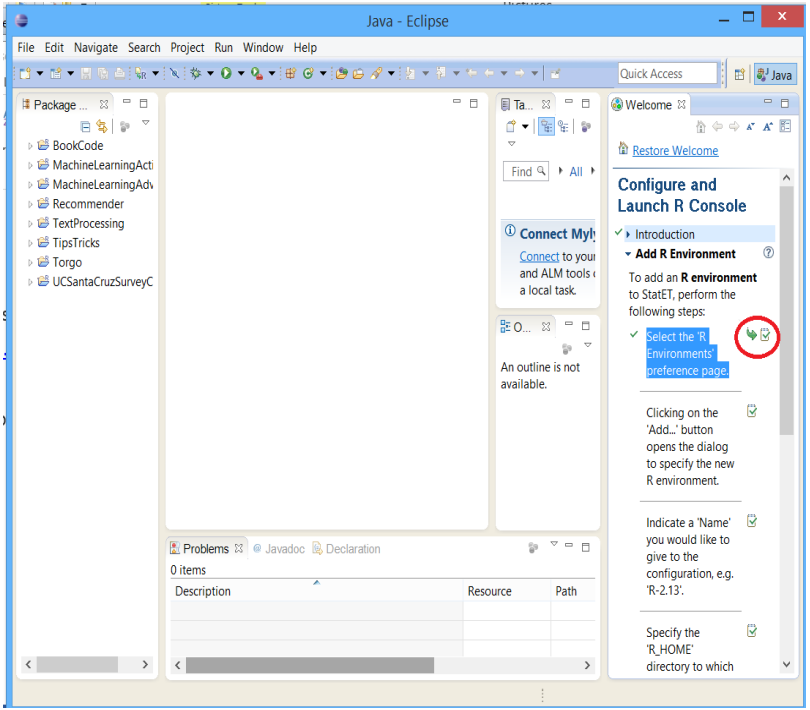
Click Add and then select All



Continue to select next and accept the terms and conditions. Finally restart Eclipse.

Step 6: Select the R Environment preference page by

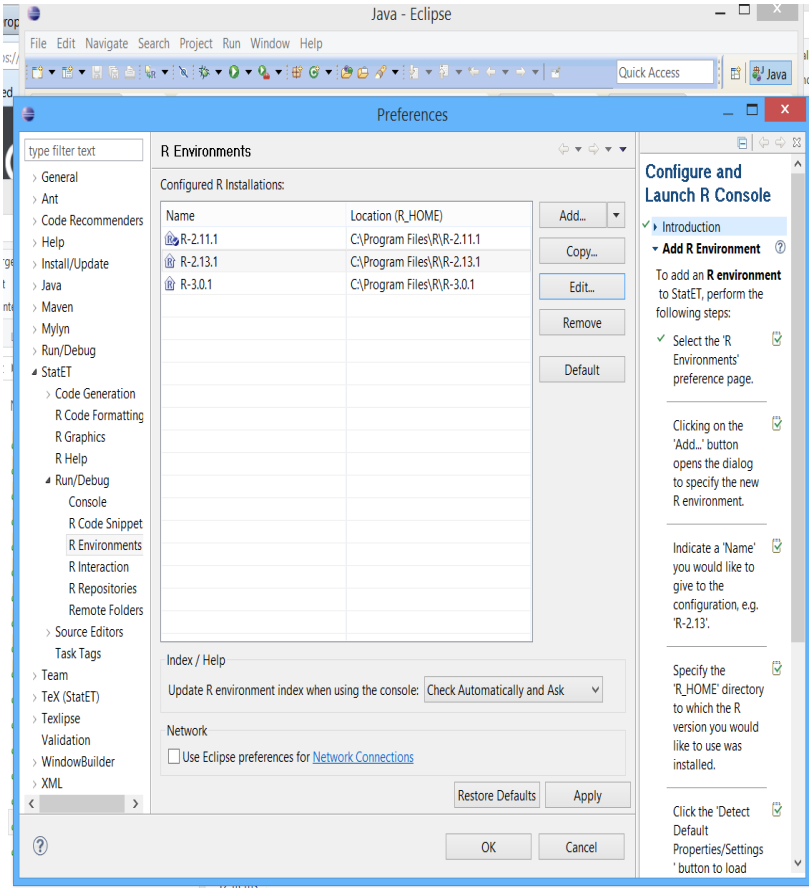
clicking on the red circle below:



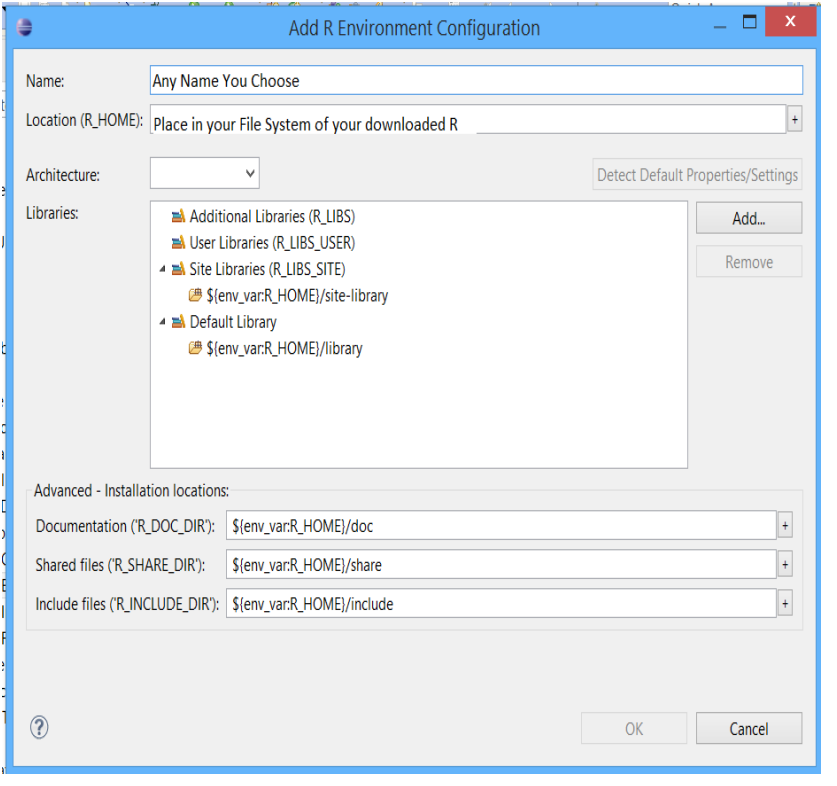
(Another way to get to this screen is to use the "Window" pull down tab at the top of the screen and

selecting:
Window>preferences>StatET>Run/Debug>R Environments)

Clicking on the 'Add...' button opens the dialog to specify the new R environment.

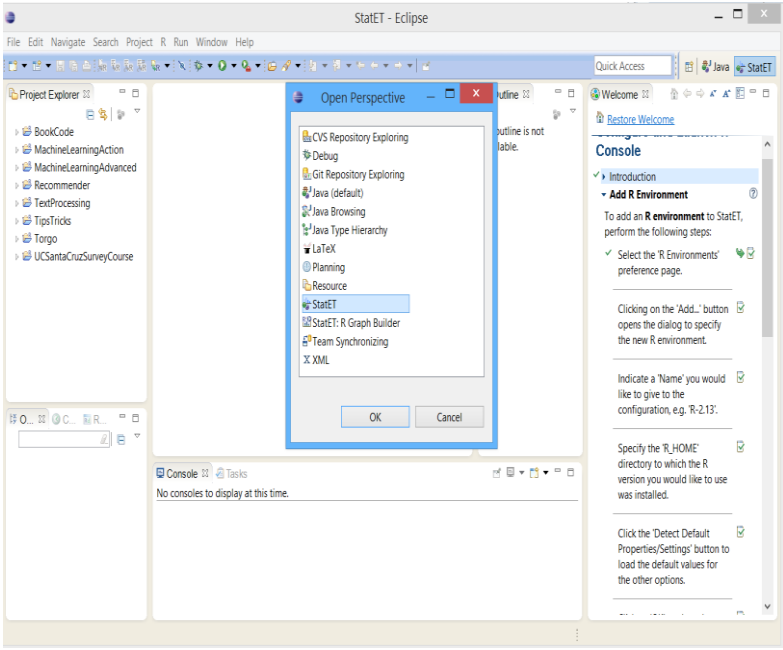

Java - Eclipse
File Edit Navigate Search Project Run Window Help
Quick Access
Java
Preferences
type filter text
General
Ant
Code Recommenders
Help
Install/Update
Java
Maven
Mylyn
Run/Debug
StatET
Code Generation
R Code Formatting
R Graphics
R Help
Run/Debug
Console
R Code Snippet
R Environments
R Interaction
R Repositories
Remote Folders
Source Editors
Task Tags
Team
TeX (StatET)
Texlipse
Validation
WindowBuilder
XML
R Environments
Configured R Installations:
Name
Location (R_HOME)
R-2.11.1
C:\Program Files\R\R-2.11.1
R-2.13.1
C:\Program Files\R\R-2.13.1
R-3.0.1
C:\Program Files\R\R-3.0.1
Add...
Copy...
Edit...
Remove
Default
Index / Help
Update R environment index when using the console:
Check Automatically and Ask
Network
Use Eclipse preferences for Network Connections
Restore Defaults
Apply
OK
Cancel
Configure and Launch R Console
Introduction
Add R Environment
To add an R environment to StatET, perform the following steps:
Select the 'R Environments' preference page.
Clicking on the 'Add...' button opens the dialog to specify the new R environment.
Indicate a 'Name' you would like to give to the configuration, e.g. 'R-2.13'.
Specify the 'R_HOME' directory to which the R version you would like to use was installed.
Click the 'Detect Default Properties/Settings ' button to load

Next let eclipse know where you downloaded R in your file system. Fill out the form as given below. By clicking on the small + sign you can browse your file system. Finally, click on "Detect Default Properties/Settings" and then click on OK.

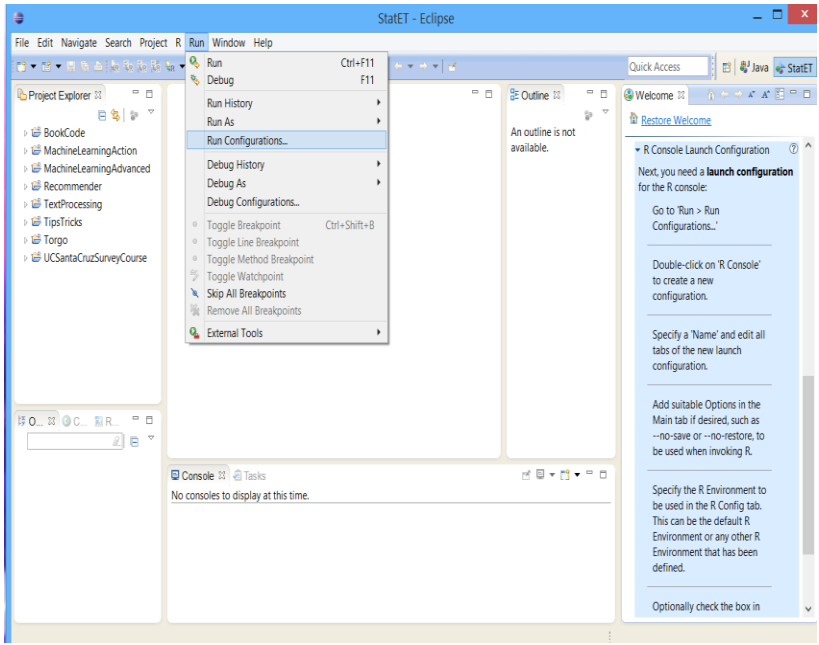

Add R Environment Configuration
Name:
Any Name You Choose
Location (R_HOME):
Place in your File System of your downloaded R
Architecture:
Detect Default Properties/Settings
Libraries:
Additional Libraries (R_LIBS)
User Libraries (R_LIBS_USER)
Site Libraries (R_LIBS_SITE)
${env_var:R_HOME}/site-library
Default Library
${env_var:R_HOME}/library
Add...
Remove
Advanced - Installation locations:
Documentation ('R_DOC_DIR'):
${env_var:R_HOME}/doc
Shared files ('R_SHARE_DIR'):
${env_var:R_HOME}/share
Include files ('R_INCLUDE_DIR'):
${env_var:R_HOME}/include
OK
Cancel

Step 7: Set up the console.

First, notice that you can open the StatET perspective by clicking on the box in the top right corner and choosing StatET. Another way to open it is under the Window tab selecting Window>Open Perspective>Other>StatET.



Go to the menu: Run > Run Configurations as below:

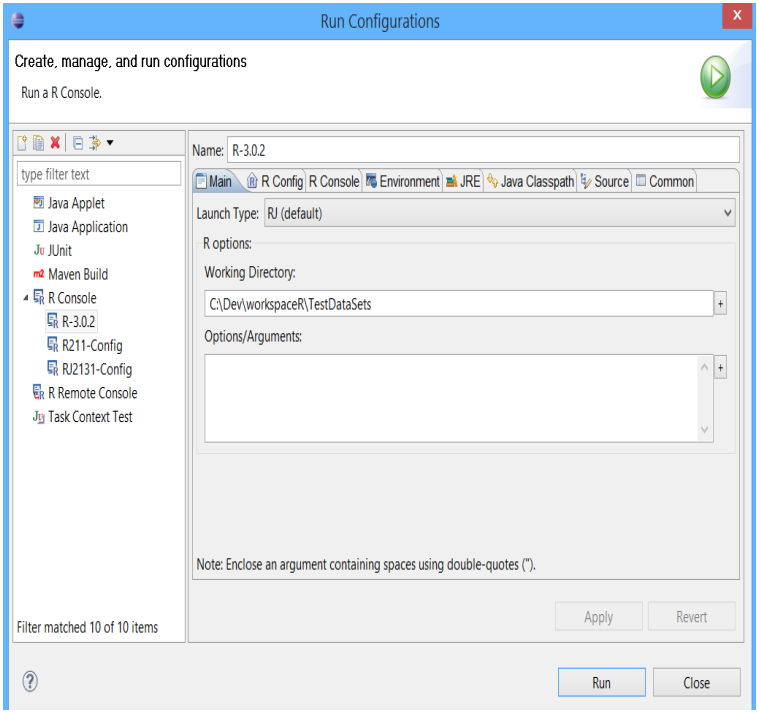


Note that it is possible to create multiple R consoles. By selecting ‘R Console’, options for creating a new console, copying a console, or deleting a console are given.

When creating a new console, a dialog form will appear. In the run dialog select 'R Console' and click the 'New launch configuration' button. Enter a name for the configuration, for example 'R-3.0.2'.

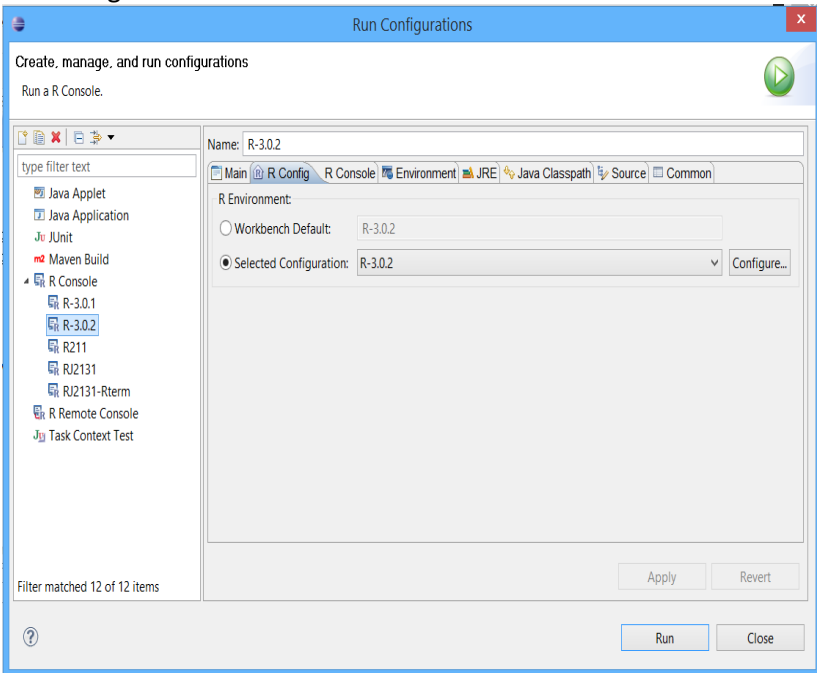
In the Main tab you can specify the working directory. (I have my data sets stored in the folder C:\Dev\workspaceR\TestDataSets.) You can leave it blank then the R system will choose the default working directory. Or you could enter variables like ${project path}. Then in this case the working directory for the R session will be set to the selected project in the 'Navigator' view.
In the Main tab you can also specify R start up options. For example, --silent causes R to start up without printing start up messages. Another Main tab option is --no-save or --no-restore, to be used when invoking R.

After clicking on 'Apply', the new console is created.



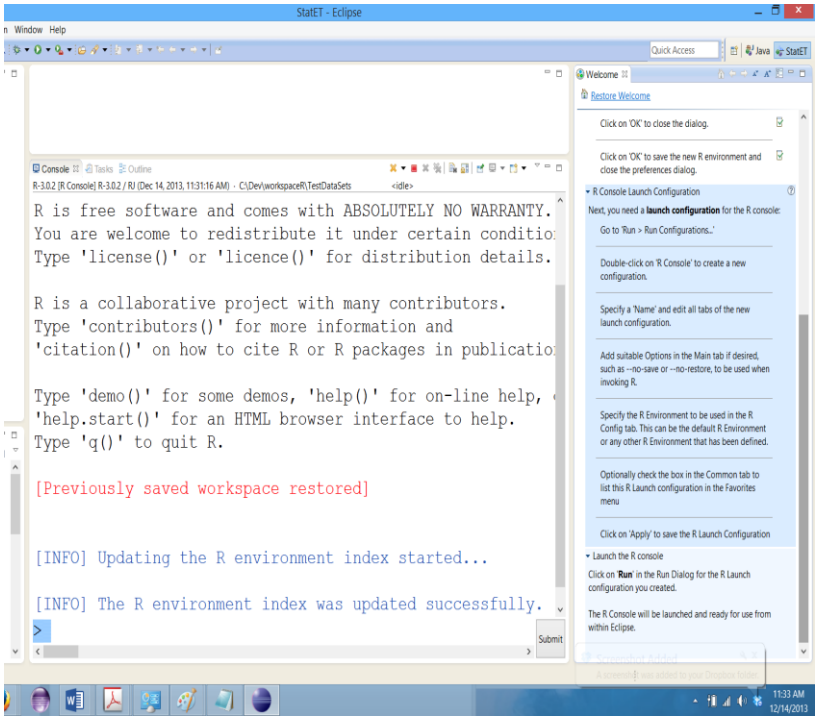
Next, go to the 'R Configuration' tab and select an R configuration (I selected R-3.02 which is the version

of R for this console.) Now click on ‘Apply’ to save the configuration.



Step 7: Now it is time to start the R console by

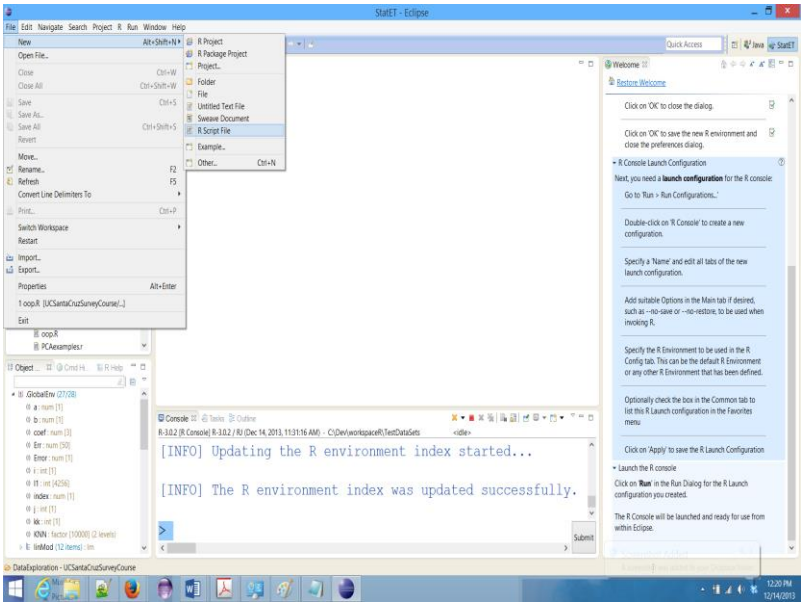
clicking on ‘Run’ to run the R console (as seen at the bottom right of the previous screen shot).
After ‘Run’ is clicked, the console appears as in the following screen shot:



Note that sometimes you may not run the R console, the ‘Run’ button is grayed. This can happen for example when no project is selected but you have set

R to start with ${project path} as the working directory.
Once the R Console has been setup, the next time you start Eclipse it can be ran again from the 'Run As' button menu on the main toolbar of Eclipse as highlighted below:

Step 8: Run an R program
Commands can be typed into the R console and will be executed simply by hitting the 'Enter' key.
New R scripts can be created by using the 'File' pull down menu and selecting File>New>R Script File as seen in the following screen shot:



The following Run options are taken verbatim from Lam's document. Run R Script in R via `source': The complete contents of the text editor is entered in R through the source command in R. In contrast to the

above method, only one command is run in R: source(<selected text file>)

Run R selection/current line in R: If a block of code is selected then only that block of code is sent to R. If nothing is selected, only the current line (the line of code where the cursor is) is sent to R.

Run R selection/current line in R and go to the next line Does the same as the above but moves the cursor to the next line in the text editor. This might be useful to run some block of statements line by line.

Run Function Definition in R This option is not accessible from the menu but is accessed by the short cut key Ctr+R, Ctr+F. In a text editor, if the cursor is in a function definition then use the short cut key to submit the function definition. StatET will recognize the beginning and the ending of the function. The user does not need to select the whole function and use `run R selection' to define the function.