Massey University

159.251 Software Design and Construction

Tutorial 6 - ANT

Prerequisites (what you are expected to know <u>before</u> you come to the tutorial)

1. everything that was a prerequisite in any of the previous tutorials
2.

Objectives

1. customise an existing ANT script
2. implement a target
3. use properties
4. use time formats

Description

Download the tax calculator project from Stream, then import this project into Eclipse.

This project has a build script **build.xml**. Run the build with the default target in Eclipse. Note that to do so, you must add the library lib/jdepend-2.9.1.jar to the ANT build path:

Run As > Ant Build .. > Classpath > Add Jars
Or
Right click on Project > properities > Java Build Path > Add Jars

Add a new target **backup** to the build script that does the following:

1. backup creates a backup file in the folder backup within the project folder
2. whenever backup runs, **a new backup file** is generated
3. backup files are unique - this is achieved by making a timestamp part of the file name. Example: backup-29012018-122028.zip. The first component of the timestamp is the date (year month day), the second component is the time (hour minutes seconds).
4. the format of the backup files is zip
5. the zip file contains three folders:
   a. **src** - contains copies of the current Java source files excluding tests

      b. **tests** - contains copies of the current tests
      c. **reports** - contains copies of the qa-reports generated by the build - these are the jdepend and the junit reports

Challenge for good students

1. include a file **about.txt** with information about the vendor, the name and the current version of the software

Hints

1. In http://ant.apache.org/manual/ read the sections describing the ZIP and the TSTAMP tasks
2. a sample backup file can be found on stream

What to Submit

A zipped Eclipse project folder. In Eclipse, use the following function to export:

Export > General > Archive File > check project (incl all files, incl. `.project`, `.classpath`). After exporting, check this file by unzipping its content, and verifying that all source code files and libraries are included.