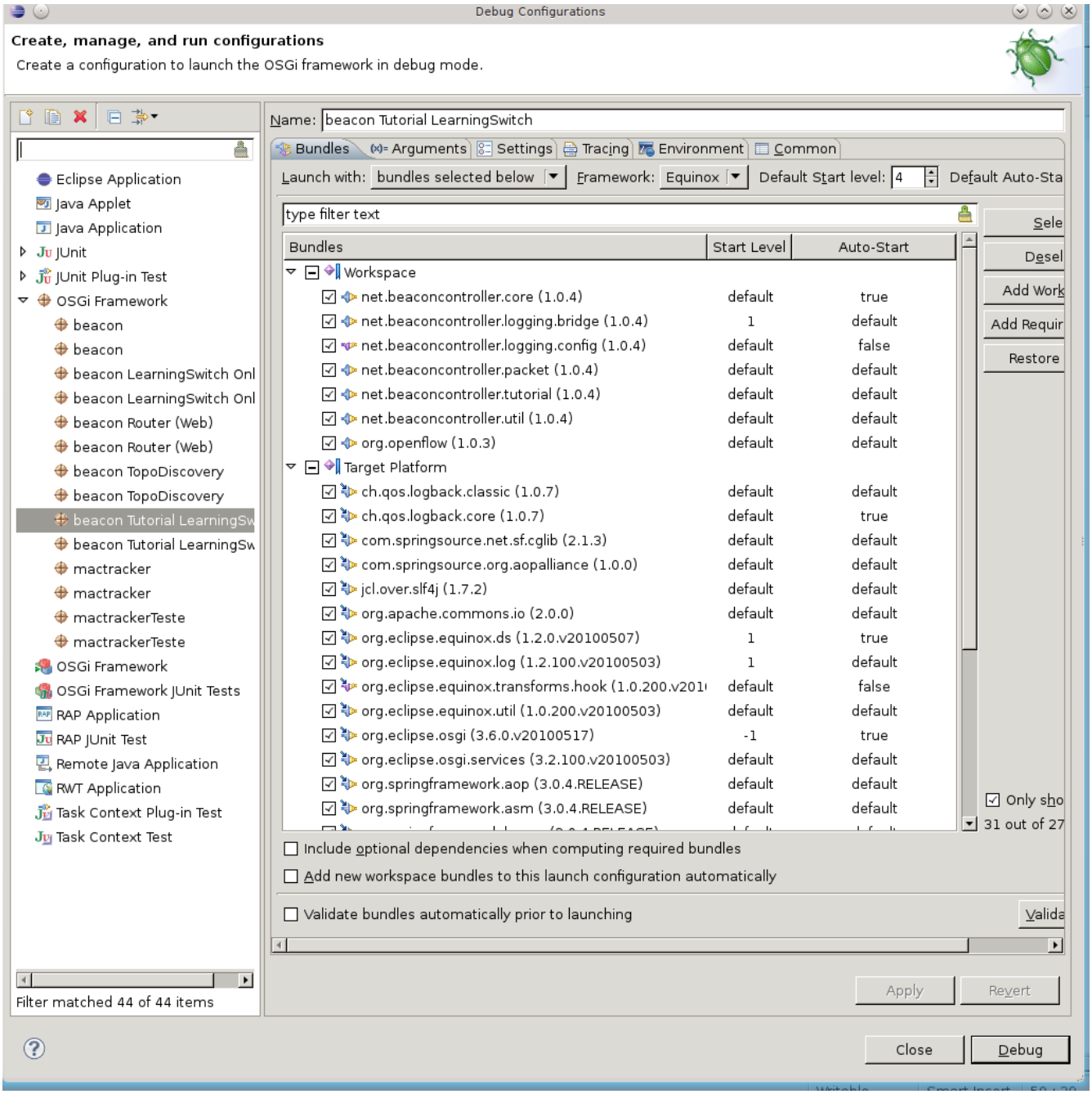
Of-IDPS

Steps for execute Of-IDPS tests:

1. Start the OpenFlow controller on Eclipse using *Eclipse/Run/DebugConfigurations*. Select "*beacon Tutorial LearningSwitch*" and click on *debug*. When OpenFlow controller is started it will be executing on 6633 TCP port, caution for do not start two or more OpenFlow controller in the same time or will appear a message warning that the port it's already in use, this is very common error, in this case use the command `netstat -a --tcp -np | grep 6633` to identify the process from OpenFlow controller port, under execution and then use the `kill` command to liberate this port.



2. Start Mininet Virtual Machine (VM):
   a) Sign in VM using SSH. IP 192.168.1.200 (configure this, on VM), user *mininet* and password *mininet*:

      ```
      $ ssh -Y mininet@192.168.1.200
      ```

   b) Inside of SSH Mininet VM connection of execute `mn` command to run tests. The controller must have the IP 192.168.1.113 (to change this IP, you must configure the file `cenarioTesteLAN-WAN.py`):

      ```
      $ sudo mn –custom \
      /home/mininet/mininet/custom/cenarioTesteLAN-WAN.py
      ```

3. On the controller mount a `/mnt/armazem/openflow/tmp/alertas/` directory to use SSH to share the alerts from IDS, for this use the command:

   ```
   $ sshfs mininet@192.168.1.200:/var/log/snort/ \
   /mnt/armazem/openflow/tmp/alertas/
   ```

Observation: In the finish of each test the files with the result of tests will be in the VM, thus tcpdump files will be in `/var/log/tcpdump` directory and snort files in `/var/log/snort` directory, all files are composed by date and time of the begin of teste execution. On each test execution the Snort files are moved to backup directory `/var/log/bkpSnort`.

Resume:

Controller/eclipse – F11 – with "*beacon Tutorial LearningSwitch*"

```
*controler$ sshfs mininet@192.168.1.200:/var/log/snort/ \
/mnt/armazem/openflow/tmp/alertas/

controller$ ssh -Y mininet@192.168.1.200

mininet$ $ sudo mn –custom \
/home/mininet/mininet/custom/cenarioTesteLAN-WAN.py
```

* - Execute `sshfs` just one time, at the begin. Always verify if the `sshfs` is running okay.