DAR

1. Preliminaries

The current DART implemenation targets Emulab. Thus, order to use DART, you will first need to obtain an account on Emulab. In the rest of this document, we assume that your Emulab username is the same as the username on the machine where you are running DART from.

DART is also currently implemented in Python and has been tested primarly on Redhat 7.3 using Python 2.2. If your platform differs from this, you may experience some Python versioning issues, although, should they occur, they are likely to require minor fixes.

2. Installing the Software

DART is distributed as a tarball. Deal with it! In particular, make sure to untar it at the top-level in your home directory.

3. Writing a Distributed Test

A DART test consists of several key pieces: (1) a set of files to install on each node, (2) an optional preeecution script, (3) scripts that run at specific times on subsets of nodes (e.g., a big "run" script that runs on all nodes), (4) a postexecution script and (5) a reset script (which

```
    <dst>$DART_COMMON_DIR/server</dst>
  </dir>
  <dir>
    <src>/homes/bnc/pier/client</src>
    <dst>$DART_COMMON_DIR/client</dst>
  </dir>
  <dir>
    <src>/homes/bnc/pier/sensors</src>
    <dst>$DART_COMMON_DIR/sensors</dst>
  </dir>
  <dir>
    <src>/homes/bnc/pier/scripts</src>
    <dst>$DART_COMMON_DIR/scripts</dst>
  </dir>
  <file>
    <src type="remote">/proj/planetlab/tarfiles/edata.tar.gz</src>
    <dst>$DART_COMMON_DIR/edata.tar.gz</dst>
  </file>
  <file>
    <src type="remote">/proj/planetlab/rpms/j2sdk-1_4_2_03-Tinux-i586.rpm</src>
    <dst>$DART_COMMON_DIR/j2sdk-1_4_2_03-Tinux-i586.rpm</dst>
  </file>
</commonfiles>

<preexecution>
  <script>$DART_COMMON_DIR/scripts/preexecution</script>
</preexecution>

<execution duration="700">
  <nodegroup>
    <nodes>*</nodes>
    <cmd>$DART_COMMON_DIR/scripts/startPier</cmd>
  </nodegroup>
  <nodegroup>
    <nodes>*</nodes>
    <cmd>$DART_COMMON_DIR/scripts/startsensors</cmd>
  </nodegroup>

  <!-- Wait 120 seconds for PIER, 10 seconds between each test -->
  <nodegroup>
    <nodes>0</nodes>
    <cmd time="120">$DART_COMMON_DIR/scripts/sq.selectall/runclient -b 1 1</cmd>
  </nodegroup>
  <nodegroup>
    <nodes>0</nodes>
    <cmd time="250">$DART_COMMON_DIR/scripts/sq.selectall/runclient -b 4 1</cmd>
  </nodegroup>
  <nodegroup>
    <nodes>0</nodes>
    <cmd time="380">$DART_COMMON_DIR/scripts/sq.selectall/runclient -b 16 1</cmd>
  </nodegroup>
  <nodegroup>
    <nodes>0</nodes>
```

```
<cmd
```