

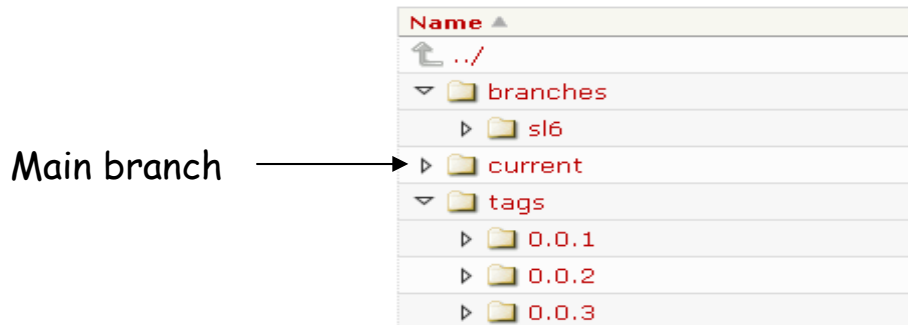
# Plans for Factorizing and Packaging PanDA

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# Packaging and Tagging

- Using PanDA repository on SVN
  - <https://svnweb.cern.ch/trac/panda/browser>
- E.g., Panda server packages
  - [panda/panda-common](#)
    - Common modules for various panda components
  - [panda/panda-server](#)
    - Source code of panda server
  - [panda/panda-bamboo](#)
    - Source code of Bamboo (interface between ATLAS production system and PanDA)
  - [panda/panda-jedi](#)
    - Source code of JEDI
- Tags and Branches

root / **panda-server**



# Making rpm/tarball

- tarball and rpm are created using the standard python distutils module after checking out HEAD/tagged version from SVN

```
Line
1 #!/bin/bash
2
3 # setup grid stuff
4 source /opt/glite/etc/profile.d/grid-env.sh
5
6 # import env vars from sysconfig
7 source @@install_dir@@/etc/sysconfig/panda_server-sysconfig
8
9 # set PYTHONPATH for LFC.py
10 export PYTHONPATH=/opt/leg/lib64/python2.5/site-packages:$PYTHONPATH
11
12 python2.5 @@install_purelib@@/pandaserver/test/add.py
```

- @@XYZ@@ is automatically replaced to a real pathname by distutils when the package is installed via tarball/rpm
- Distutils installs exe files to \$INSTALL\_DIR/usr/bin and sets them to executable

# Configuration File

```
Line |
-----|
1 | #####
2 | #
3 | # Database parameters
4 | #
5 |
6 | [db]
7 |
8 | # host
9 | dbhost = ADCR_PANDA
10 |
11 | # user
12 | dbuser = ATLAS_PANDA_WRITER
13 |
14 | # password
15 | dbpasswd = FIXME
16 |
17 | # database
18 | dbname = PandaDB
19 |
20 | # number of task buffer instances
21 | nWorkers = 5
22 |
23 |
24 |
25 |
26 | #####
27 | #
28 | # DDM parameters
29 | #
30 |
31 | [ddm]
32 |
33 | # interface config
34 | modConfig = atlas:3:pandajedi.jediddm.AtlasDDMClient:AtlasDDMClient
35 |
36 | # list of VOs which use scope
37 | voWithScope = atlas
38 |
```

- Config file written in the style of RFC822 for the standard python ConfigParser module
  - Consists of sections ([section]) and name=value entries
- Templates are converted and installed to \$INSTALL\_DIR/etc/panda by distutils
- Experiment specific parameters should be specified in config

VO:nProcesses:ModueName:ClassName  
Can define how each VO accesses their DDM system

# Future Packaging

## ➤ Current

- tarball made from the main branch
- All experiment-specific modules in the same package

## ➤ Plans

- tag + rpm
- Split to core and experiment packages
  - E.g., panda-server, panda-atlas, panda-cms, panda-ams, etc
- Specify package.module names in config files
  - No hard coding

# Factorization of Experiment-specific Stuff

- **Low-level access to DDM**
  - JEDI already has a plug-in structure
    - The same machinery could be used by the panda server
- **High-level access to DDM**
  - The Adder module of the panda server has a plug-in structure
  - Other modules (e.g., Setupper, Closer, etc) could be refactored as well
- **Brokerage**
  - Will be done by JEDI which has a plug-in structure
- **Job definition**
  - Also done by JEDI
- **Schema name**
  - Some experiments don't like the current Oracle schema name (ATLAS\_PANDA)
  - Any schema name can be used with Jarka's WrappedCursor which will be merged to the main branch soon

# Example of Re-factoring

## ➤ Adder2 module

- High-level access to DDM
- Register files and make transfer requests

