Install Area for GLAST

A short overview

1 - Directory layout and status
2 - How to install public data files
3 – Environment variables
4 – Next steps

Details at
http://www.slac.stanford.edu/~hansl/soft/TestInstall/

1- Directory layout

- **CMTPATH path1:path2:etc**
  - typically path1 = development area
    path2 = Release area (GlastRelease or ScienceTools)
  - To each entry of CMTPATH corresponds one InstallArea

- **Each InstallArea : contains the public files**

<path>/InstallArea/${tag}/bin/ ...	executables *.exe
/${tag}/lib/ ...	libraries *.so *.a
/include/<package>/	headers *.h
/jobOptions/<package>/ ...	*.txt
/pfiles/..	*.par
/xmlData/ ...	*.xml, *.dtd
/data/...	other public data

Colour code: working, for GR only, for ST only, for GR & ST

${tag} = rh9_gcc32 or rh9_gcc32opt or … several builds may be made available

2 - How to install data files

- **xml files (similar for pfiles)**

```
<package>_root/xml/*.xml *.dtd
apply_pattern declare_xmls files="file1.xml *.dtd"
```

- **jobOptions**

```
<package>_root/options/*.txt

apply_pattern declare_joboption files=aaa.txt
apply_pattern declare_joboption files="aaa.txt bbb.txt"
apply_pattern declare_joboption files="*.txt«

When jobOptions include other public jobOptions files, they have
   to follow the C++ style
#include "<package>/xxx.txt"
```

- **Other runtime data files**

```
apply_pattern declare_data files="file1.xxx file2.yyy *.zzz"
```

3 - Environment Variables

- **Location of InstallArea**
  `$CMTINSTALLAREA`

- **Access to data files**
  `$XMLPATH`
  `$JOBOPTSEARCHPATH`
  `$DATAPATH`

- **Gaudi understands a JOBOPTSEARCHPATH which is composed of several entries**

- **For data files: new Tool to find data and directories in data path of format**
  `path1:path2:etc  (WIN32  path1;path2;etc)`

  `Tool/PathResolver`

4 - What next [1]

- **Modification of GlastPolicy requirements**
  - build-strategy with_install_area
  - use exInstpolicy v* examples

  Sufficient to get $CMTINSTALLAREA/*/bin, /*/lib, /include
  for GlastRelease and ScienceTools
  see /nfs/slac/g/glast/users/glground/hansl/stv1r3
  /nfs/slac/g/glast/users/glground/hansl/grv4r1

- **Installation of data for ScienceTools**

  xmls, pfiles, data patterns are prepared
  Migration should not be painful - Coordination by Jim Chiang

- **Installation of data for GlastRelease**

  Well planned coordination and some cleanup needed for migration

Next CMT release v1r16 foreseen for end of February, but we may as well get experience with what is available now

What next [2]

I have asked Richard and Toby that the InstallArea is taken over by a group, which has the mandate for Software Infrastructure and Tools – I will be available to help

Down the road

- **How to use the InstallArea for distribution of executables and data**
- **Use a commercial Tool?**
- **Use Pacman ?**

See http://physics.bu.edu/~youssef/pacman/index.html

Pacman ½ day Workshop at Brookhaven National Laboratories, March 17 2004