

Version Management

Status Report

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Use Cases

- 1 build a build
- 2 use a build

XML configuration file

```
<gversions>
<package name="jana" version="0.7.2"/>
<package name="sim-recon" version="2014-09-23"/>
<package name="hdds" version="3.0"/>
<package name="cernlib" version="2005" word_length="64-bit"/>
<package name="xerces-c" version="3.1.1"/>
<package name="clhep" version="2.0.4.5"/>
<package name="geant4" version="9.4"/>
<package name="root" version="5.34.00"/>
<package name="ccdb" version="1.03"/>
</gversions>
```

generate environment variables

- version variables
- home variables (assumes directory structure)
- C-shell
- build_scripts makefiles key off version
- gluex_install assumes same directory structure
- gluex_env (in build scripts) keys off home directories

Environment Settings

```
setenv GLUEX_TOP /usr/local/ gluex
setenv JANA_VERSION 0.7.2
setenv JANA_HOME /usr/local/ gluex/ jana/ jana_0.7.2/
setenv SIM_RECON_VERSION 2014-09-23
setenv HALLD_HOME /usr/local/ gluex/ sim-recon/ sim-recon-2014-09-23
setenv HDDS_VERSION 3.0
setenv HDDS_HOME /usr/local/ gluex/ hdds/ hdds-3.0
setenv CERNLIB_VERSION 2005
setenv CERN /usr/local/ gluex/ cernlib
setenv CERN_LEVEL 2005
setenv CERNLIB_WORD_LENGTH 64-bit
setenv XERCES_C_VERSION 3.1.1
setenv XERCESROOT /usr/local/ gluex/ xerces-c/ xerces-c-3.1.1
setenv CLHEP_VERSION 2.0.4.5
setenv CLHEP /usr/local/ gluex/ clhep/ 2.0.4.5
setenv ROOT_VERSION 5.34.00
setenv ROOTSYS /usr/local/ gluex/ root/ root_5.34.00
setenv CCDB_VERSION 1.03
setenv CCDB_HOME /usr/local/ gluex/ ccdb/ ccdb_1.03
```

customization for use

- if not using the same directory structure?
- version-system home area definitions can be over-ridden explicitly
- subsequent `gluex_env` will respect those

future work

- consistency checking, e. g., is version of jana used consistent with ccdb chosen
 - ▶ not a problem with original build effort
 - ▶ can be a problem when using for set-up at using software or developing software
 - ▶ setenv system captures versions used during build. leverage this info
- tested on complete gluex_install build
- alpha testing release next: something that someone else can use
- documentation