Externals reorganization 2011

Eliminating the "Compiler" path element

Including a subdirectory named after compiler in the path for each external has been a mixed blessing at best. In particular it causes problems for those wishing to build a check-out package with a compiler version not among those used by the Release Manager. We propose to eliminate the compiler element in new RM builds only, to minimize disruption. This is by no means an all or nothing process; we can choose which externals to convert when. We could start with externals used in ScienceTools since ScienceTools developers are the ones inconvenienced by the current arrangement. Both build systems can handle a mixed collection of externals.

Steps towards this aim are described below.

Create new externals

For each external in active use (CVS head only or also for GR Pass7 branch?) and for each supported operating system, for each version of that external in current use, create a new external version by copying the original external to the new structure. The new external name will have a suffix **-glN**, where N is the next available number, to distinguish it from the old.

Externals **used in ScienceTools** are indicated below.

Name	Versions	OSes
CLHEP	1.9.2.2 2.1.0.1	rhel4-32, vc71 all
Fred	v0r100p2	rhel4-32, vc71
LDF	v07-01-01	rhel4-32, vc71
OmniOrb		rhel4-32, vc71
ROOT	v5.26.00a-gl4	
TMineExt		
ape	2.6	all
cfitsio	v3060A v3060A-gl1	all all but win
cppunit	1.10.2	all
f2c	3.4-gl3 3.4-gl2	snow leopard the rest
fftw	3.1.2	all
fox	1.4.34-gl1	rhel4-32, vc71
fsw		rhel4-32, vc71
gaudi	v18r1-gl4 v21r7-gl1	
geant4	9.4.p01-gl1 9.4.p01	vc71
mysql	4.1.18 5.1.39	all
obf		rhel4-32, vc71
python	2.5.1-gl1 2.6.5 2.7	rhel4-32, vc71 rhel4-64 others
swig	1.3.31	all
xerces	2.8.0 2.8.0-gl1	vc71 vc90, mac, rhel*

Create entries in allExternals.scons

Can be done bit by bit. Can be done before or after externals are created. Must tag SConsFiles package before new externals can be used.

Create and tag new requirements files

Only needed for externals used by GlastRelease. Update each of the IExternal/<External> requirements files. Potentially also requires an update to the IExternal requirements file for those externals shared between GR and ST.

Use new externals

For ScienceTools the final step is to modify ScienceTools-scons/containerSettings/externals.scons. As soon as it looks ok, do the same for GRBAnalysis-scons.

For GlastRelease cmt builds, modify and tag GlastRelease requirements file. Create tarballs and copy into u05 area for use by the installer.

For SCons builds, modify GlastRelease-scons/containerSettings/externals.scons. As soon as the ReleaseManager uses any of the new externals, it will automatically make tarballs for download with the Installler.