

SCons Command-line Tagger Proposal

Purpose

Tag (i.e., call `cvs rtag` on) a package with a tag of SCons-acceptable form. Update the package's `SConscript` and `release.notes` files before tagging.

Syntax

The command is "stag", short for "SCons tagger". It ([release 0.2.5](#)) may be invoked

stag -help

or

stag -cvspath= *path-relative-to-cvsroot* **-notes=** *text-for-release.notes* (**-major** | **-minor** | **-patch** | **-custom=** *custom-version-string*) [**-S**] [**-branch=** *alter nate-branch*] [**-verbose**]

Value of **-cvspath** determines package name: it's the last component of the path. Value of **-branch** defaults to MAIN. If **-branch** is specified and is anything other than MAIN, **-custom** must be used and its value must follow the form for tags along a branch, namely `dd-dd-dd-aadd` where all the d's are digits and the a's are alphabetic characters, e.g. `01-02-00-gr01`. If **-custom** is specified for a main branch tag its value must be of the form `dd-dd-dd`. **-verbose** may add some informational messages to terminal output. The **-S** flag should be used when (and only when) tagging the package SConsfiles.

Examples

```
//simplest example. Just tag a pkg
stag -notes="Some comments" -patch -cvspath=xmlBase

//tag pkg which happens to be contained in another pkg
stag -notes="Tagging a subpackage" -minor -cvspath=celestialSources/GRB

//tag pkg which contains children (GRB, etc.). Doesn't tag the children
stag -notes="Tagging parent" -minor -cvspath=celestialSources

//tag along a branch
stag -notes="Tagging along a branch" -branch=GlastRelease-15-49-02 custom=05-04-11-gr01 -cvspath=xmlBase
```

Where to find it

stag is best used on a central SLAC machine. On rhel5 and rhel6 machines, it may be found at

```
/afs/slac.stanford.edu/g/glast/applications/install/@sys/usr/bin/stag
```

What will happen

In case one of **-major**, **-minor** or **-patch** has been specified, **stag** will generate the new version string by looking up the "highest" tag along the main branch, incrementing the specified field and zeroing fields to the right, if any, and finally prepending with the package name derived from the value of **-cvspath**. In the case of a custom string, **stag** merely prepends the package name.

stag will then check out the package into a temp directory (along branch if so specified), update the version string in the package's `SConscript` file, and add a suitable line to `release.notes`. A `release.notes` file which has been modified by **stag** will have lines with format

```
full-version-string date username comment
```

like this:

```
GoGui-00-08-07 26-Nov-2008 jrb Support exclude; more informative base inst. display
```

The complete file looks like this:

```
** @file release.notes
* Package GoGui
* Coordinator: Joanne Bogart
*
* EOH
```

GoGui-00-09-00 05-Dec-2008 jrb Support for supersede directory
GoGui-00-08-08 01-Dec-2008 jrb Add msg tab for debug info, warnings
Add edit-file function
GoGui-00-08-07 26-Nov-2008 jrb Support exclude; more informative base inst. display
GoGui-00-08-06 25-Nov-2008 jrb Fix for blank-slate use.

If, as in the above case, release.notes has a line containing the token **EOH**, **stag** will insert the new line just below it. Otherwise the new line will go at the end of the file.

If the package has subpackages, like celestialSources, the new tag will only be applied to the files belonging to the specified package, not to files belonging to children.

Prerequisites to run

User must have a working cvs client, invoked with the command **cvs. stag** will try to determine repository from the environment variable CVSROOT; if not set **stag** will fall back on default value :ext:centaurusa.slac.stanford.edu:/nfs/slac/g/glast/ground/cvs. Similarly it will attempt to determine protocol from the environment variable CVS_RSH; if not set it will use ssh.

Prerequisites to tag a package

The package must have a file called **SConscript** which includes "# Authors:" and "# Version:" lines (filled with appropriate values). See the SConscript file for package irfs for a minimal example. The package must also have a **doc** directory containing a file **release.notes**. For the first tag of a package the - **custom= custom-version-string** must be used (usually with *custom-version-string*=00-00-00).

Status

An executable of the most current version, 0.2.5, can be found below <ftp://ftp-glast.slac.stanford.edu/glast.u05/stag>. That RHEL5 build will also run on RHEL6.

Windows users please note

The most recent version available for Windows is 0.2.4. You will also need to download the libraries mingw10.dll and qtcored4.dll if you don't already have them. They can be found at <ftp://ftp-glast.slac.stanford.edu/glast.u05/GoGui/>. Select the file QtForGoGui.zip. However, we don't recommend tagging remotely.

Tagging along a branch ~~has not been tested~~ worked properly in one test case.