

GammaLib - Central_repository_workflow_for_maintainers - # 3

{{lastupdated_at}} by {{lastupdated_by}}

Central repository workflow for maintainers

This page describes the integration workflow for maintainers. In summary, the following steps are to be executed:

1. Clone central GammaLib repository
2. Integrate feature branch
3. Verify the integration
4. Merge feature into devel
5. Delete the feature branch

Clone central GammaLib repository

As first step, a clone of the central GammaLib repository is needed:

```
$ git clone https://manager@cta-git.irap.omp.eu/gammlib
Cloning into 'gammlib'...
Password:
remote: Counting objects: 22150, done.
remote: Compressing objects: 100% (7596/7596), done.
remote: Total 22150 (delta 17330), reused 18491 (delta 14497)
Receiving objects: 100% (22150/22150), 80.12 MiB | 192 KiB/s, done.
Resolving deltas: 100% (17330/17330), done.
```

where manager is the user name of the integration manager.

Integrate feature branch

Rebase or merge

If there are only a few commits, consider rebasing to upstream:

```
$ git checkout 007-my-new-feature
$ git fetch origin
$ git rebase origin/devel
```

If there are a longer series of related commits, consider a merge instead:

```
$ git checkout 007-my-new-feature
$ git merge --no-ff origin/devel
```

Note the --no-ff above. This forces git to make a merge commit, rather than doing a fast-forward, so that these set of commits branch off devel then rejoin the main history with a merge, rather than appearing to have been made directly on top of devel.

Check the history

Now, in either case, you should check that the history is sensible and you have the right commits:

```
$ git log --oneline --graph
$ git log -p origin/devel..
```

The first line above just shows the history in a compact way, with a text representation of the history graph. The second line shows the log of commits excluding those that can be reached from devel (origin/devel), and including those that can be reached from current HEAD (implied with the .. at the end). So, it shows the commits unique to this branch compared to devel. The -p option shows the diff for these commits in patch form.

Merge into integration branch

Now it's time to merge the feature branch in the integration branch:

```
$ git checkout integration
Branch integration set up to track remote branch integration from origin.
Switched to a new branch 'integration'
$ git merge 007-my-new-feature
Updating ccba491..623d38d
Fast-forward
 .gitignore      | 20 ++++++---
 pyext/GDerivative.i | 77 ++++++
 pyext/GFunction.i | 46 ++++++
 pyext/gammlib/numerics.i | 2 +
4 files changed, 139 insertions(+), 6 deletions(-)
create mode 100644 pyext/GDerivative.i
create mode 100644 pyext/GFunction.i
$ git push origin integration
Password:
Counting objects: 7, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 392 bytes, done.
Total 4 (delta 3), reused 0 (delta 0)
remote: To https://github.com/gammlib/gammlib.git
remote: ccb491..623d38d integration -> integration
remote: 065af59..8c6cc48 github/007-my-new-feature -> github/007-my-new-feature
To https://jknodseder@cta-git.irap.omp.eu/gammlib
 ccb491..623d38d integration -> integration
```

Verify the integration

The push will automatically launch the [integration pipeline on Jenkins](#).

You should verify the all checks are passed with success.

Merge feature into devel

Once the new feature is validated, merge the feature in the devel branch:

```
$ git checkout devel
Switched to branch 'devel'
$ git merge integration
Updating cb9b2fe..623d38d
Fast-forward
 pyext/GFunction.i | 1 -
1 files changed, 0 insertions(+), 1 deletions(-)
$ git push origin
Total 0 (delta 0), reused 0 (delta 0)
remote: To https://github.com/gammlib/gammlib.git
remote: cb9b2fe..623d38d devel -> devel
remote: ccb491..623d38d github/integration -> github/integration
To https://jknodseder@cta-git.irap.omp.eu/gammlib
 cb9b2fe..623d38d devel -> devel
```

Delete the feature branch

```
$ git checkout devel
Already on 'devel'
$ git branch -D 007-my-new-feature
Deleted branch 007-my-new-feature (was 816ac2c).
$ git push origin :007-my-new-feature
Password:
remote: To https://github.com/gammalib/gammalib.git
remote: - [deleted]      007-my-new-feature
remote: cb9b2fe..623d38d github/devel -> github/devel
To https://jknodlseder@cta-git.irap.omp.eu/gammalib
- [deleted]      007-my-new-feature
```

Note the colon : before 007-my-new-feature. See also: <http://github.com/guides/remove-a-remote-branch>