

Development on the ITER GIT platform in practice

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ITER Development Environment

- GIT revision control

- Command line: git, gtik

- Web interface : <https://git.iter.org/projects/STAB/repos/jorek/browse>



- Issue tracking

- Web interface: jira.iter.org

- Jorek issues reported within IMAS project



- Continuous Integration

- Automatic build

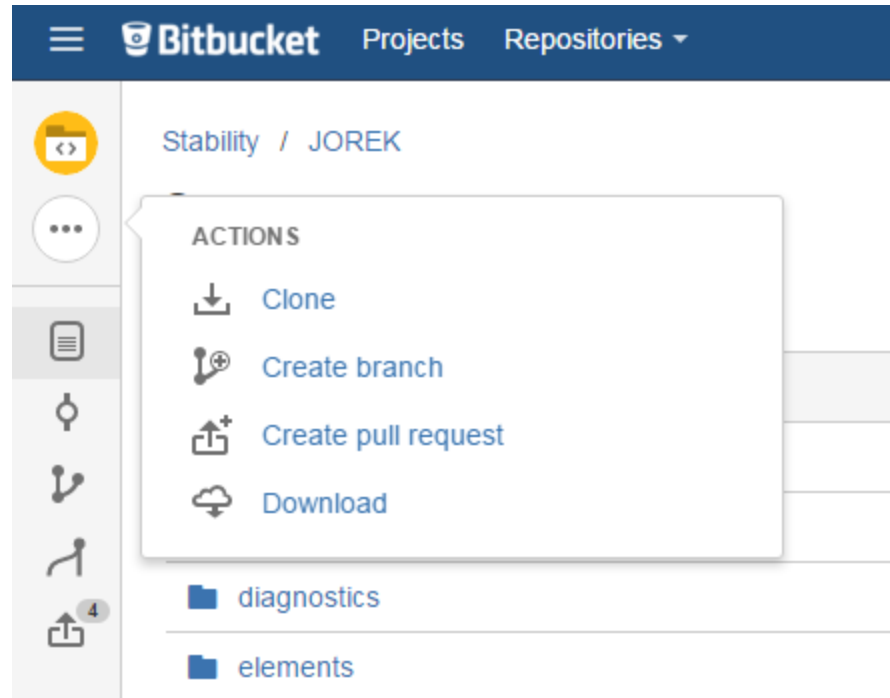
- Web interface: <https://ci.iter.org/browse/STAB-JOREK>



- JOREK is fully integrated in the ITER environment

Git website

- Find the link for cloning
- Create a new branch
- Create a pull request
- Download JOEREK



GIT website: Branches

- Browse branches:

- <https://git.iter.org/projects/STAB/repos/jorek/branches>

Now: 30 open branches

Stability / JOREK

Branches

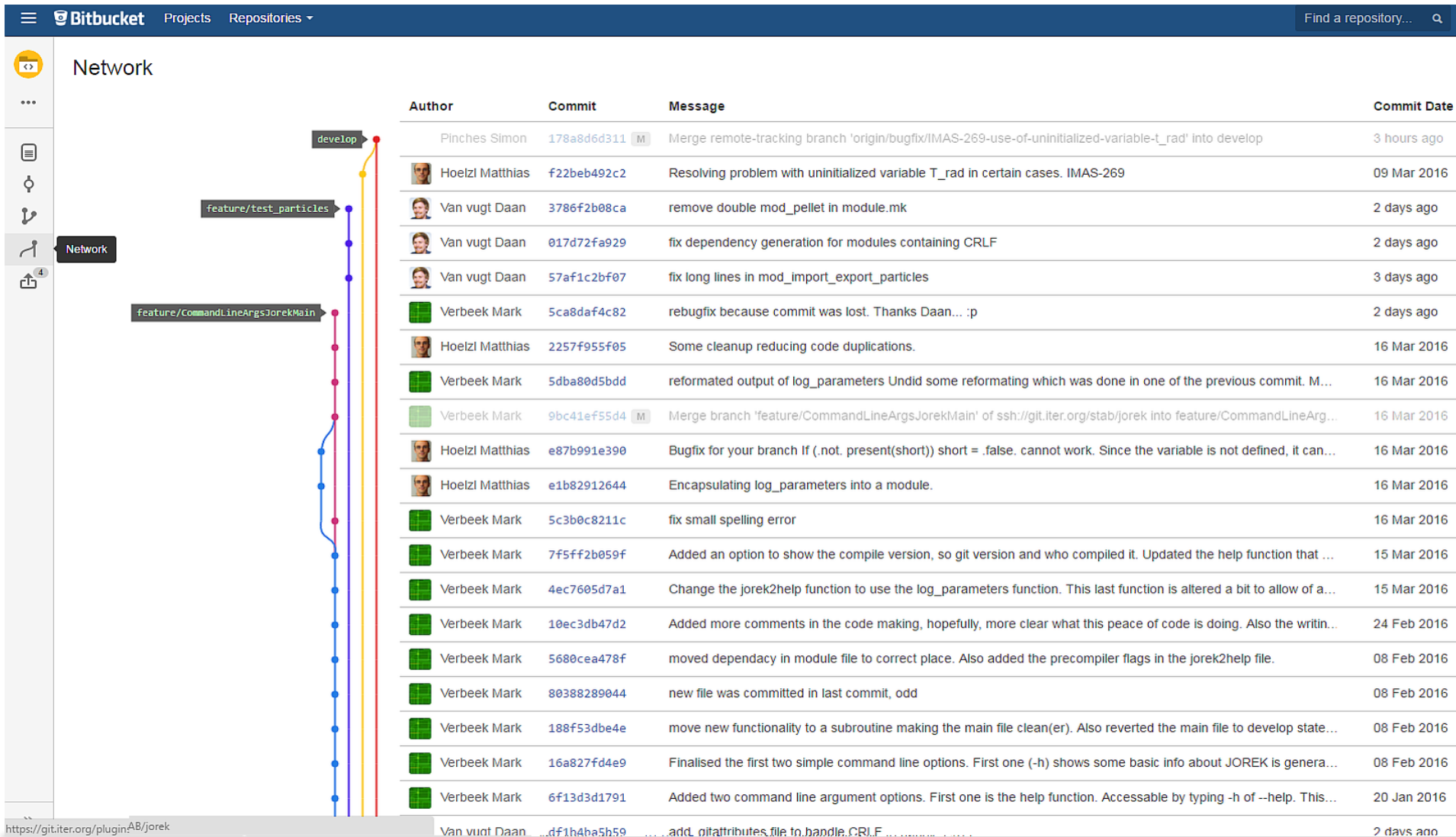
develop

Learn more

Branch	Behind/Ahead	Updated	Pull requests	Builds	Actions
develop	DEFAULT BRANCH	3 hours ago	MERGED	✓	...
feature/test_particles	15 121	2 days ago		!	...
feature/CommandLineArgs.JorekMain	14 15	2 days ago	OPEN	✓	...
bugfix/IMAS-294-line-endings-in-repository-inconsistent	2 2	2 days ago		✓	...
feature/neutral_develop	14 25	6 days ago		✓	...
feature/test_particles_gc_combined	15 147	31 Mar 2016		!	...
feature/model501	9 31	25 Mar 2016		✓	...
feature/test_GCparticles	34 65	16 Mar 2016		!	...
bugfix/new_tolerance_test_circ_333	9 6	14 Mar 2016		!	...
bugfix/diamagnetic_stabilisation	10 23	10 Mar 2016	OPEN	✓	...
feature/povray_update	9 9	08 Mar 2016		✓	...
feature/porting_curie_hpc	50 1	15 Feb 2016		!	...
feature/moreRobustGrid_to_wall	14 8	01 Feb 2016		✓	...
feature/fullIMHD_stabilized	14 2	21 Jan 2016	OPEN	!	...
feature/better_aesthetics	15 7	19 Jan 2016		✓	...
bugfix/eqdsk2jorek_F0_write_fix	15 3	12 Jan 2016		✓	...
feature/electron_density_eq	16 15	02 Dec 2015		✓	...
feature/model304	16 14	01 Dec 2015		✓	...

Git website: Network

- Browse network (links between branches + development):
 - <https://git.iter.org/plugins/servlet/network/STAB/jorek>



Bitbucket Projects Repositories Find a repository...

Network

feature/test_particles

feature/CommandLineArgsJorekMain

Author	Commit	Message	Commit Date
Pinches Simon	178a8d6d311	Merge remote-tracking branch 'origin/bugfix/IMAS-269-use-of-uninitialized-variable-t_rad' into develop	3 hours ago
Hoelzl Matthias	f22beb492c2	Resolving problem with uninitialized variable T_rad in certain cases. IMAS-269	09 Mar 2016
Van vugt Daan	3786f2b08ca	remove double mod_pellet in module.mk	2 days ago
Van vugt Daan	017d72fa929	fix dependency generation for modules containing CRLF	2 days ago
Van vugt Daan	57af1c2bf07	fix long lines in mod_import_export_particles	3 days ago
Verbeek Mark	5ca8daf4c82	rebugfix because commit was lost. Thanks Daan... :p	2 days ago
Hoelzl Matthias	2257f955f05	Some cleanup reducing code duplications.	16 Mar 2016
Verbeek Mark	5dba80d5bdd	reformatted output of log_parameters Undid some reformatting which was done in one of the previous commit. M...	16 Mar 2016
Verbeek Mark	9bc41ef55d4	Merge branch 'feature/CommandLineArgsJorekMain' of ssh://git.iter.org/stab/jorek into feature/CommandLineArg...	16 Mar 2016
Hoelzl Matthias	e87b991e390	Bugfix for your branch If (.not. present(short)) short = .false. cannot work. Since the variable is not defined, it can...	16 Mar 2016
Hoelzl Matthias	e1b82912644	Encapsulating log_parameters into a module.	16 Mar 2016
Verbeek Mark	5c3b0c8211c	fix small spelling error	16 Mar 2016
Verbeek Mark	7f5ff2b059f	Added an option to show the compile version, so git version and who compiled it. Updated the help function that ...	15 Mar 2016
Verbeek Mark	4ec7605d7a1	Change the jorek2help function to use the log_parameters function. This last function is altered a bit to allow of a ...	15 Mar 2016
Verbeek Mark	10ec3db47d2	Added more comments in the code making, hopefully, more clear what this peace of code is doing. Also the writin...	24 Feb 2016
Verbeek Mark	5680cea478f	moved dependency in module file to correct place. Also added the precompiler flags in the jorek2help file.	08 Feb 2016
Verbeek Mark	80388289044	new file was committed in last commit, odd	08 Feb 2016
Verbeek Mark	188f53dbe4e	move new functionality to a subroutine making the main file clean(er). Also reverted the main file to develop state...	08 Feb 2016
Verbeek Mark	16a827fd4e9	Finalised the first two simple command line options. First one (-h) shows some basic info about JOEREK is genera...	08 Feb 2016
Verbeek Mark	6f13d3d1791	Added two command line argument options. First one is the help function. Accessable by typing -h of --help. This...	20 Jan 2016
Van vugt Daan	df1h4ba5b59	add gitattributes file to handle CRLF	2 days ago

<https://git.iter.org/pluginAB/jorek>

GIT website: Pull requests

- List open (or closed) pull requests:
 - Includes reviewer status, build information
 - <https://git.iter.org/projects/STAB/repos/jorek/pull-requests>

The screenshot shows the Bitbucket interface for the JOREK repository. The top navigation bar includes the Bitbucket logo, 'Projects', 'Repositories', a search bar, and user avatars. The left sidebar contains icons for repository management. The main content area is titled 'Pull requests' and includes a 'Create pull request' button. Below this, there are filters for 'Open', 'Author', 'Target branch', and 'I'm reviewing'. A table lists four pull requests, each with a summary, author, target branch, comment count, reviewers, and build status.

Summary	Reviewers	Builds
Feature/CommandLineArgsJorekMain → develop Verbeek Mark, last updated yesterday	24 comments, 2 reviewers (both approved)	Build successful (green checkmark)
Feature/fullMHD stabilized → develop Costa Jose, last updated 3 days ago	1 comment, 2 reviewers (one pending, one approved)	Build failed (red exclamation mark)
Bugfix/diamagnetic stabilisation → develop Pamela Stanislas, last updated on 10 Mar 2016	3 comments, 2 reviewers (both approved)	Build successful (green checkmark)
change compile flags on jorek2vtk_3d → develop Van vugt Daan, last updated on 25 Jun 2015	3 comments, 2 reviewers (both approved)	Build successful (green checkmark)

No more pull requests

Since last meeting (5/2015): 19 pull requests merged into the development branch

Development Cycle

- Develop a new feature or correct a bug

- Create a new branch

- **bugfix**: create report in JIRA, create branch in JIRA

- branch name: `bugfix/IMAS-???-description`

- git checkout *bugfix/IMAS-???-description* (to copy remote branch to local and switch)

- **new feature**: create branch locally

- git branch (to check which branch is active)

- git branch *feature/description* (creates local branch)

- git checkout *feature/description* (switch to the new branch)

- **OR new feature**: create branch in stash

- git fetch (to update remote information)

- git checkout *feature/description* (checkout the remote branch and switch)

- git branch (to check the active branch)

Development

- Make local changes
 - git status (shows the files with changes)
- Commit your changes locally:
 - git add *files_with_changes* (adds files for commit)
 - git commit -m “a descriptive commit message”
(commits the files **locally**)
- **Regularly commit your changes in your branch to ITER/git**
 - Promotes visibility and collaboration
 - Commit to server even if you are not finished
 - git push origin *feature/description* (pushes commit to server)
 - git push -u origin *feature/description* (to link local and remote branch)

Using JIRA (jira.iter.org)

- Create and track bugfixes, feature requests
 - Creates a branch for this issue

The screenshot displays the JIRA web interface. The top navigation bar includes 'Dashboards', 'Projects', 'Issues', 'Agile', and a 'Create' button. A search bar is located on the right. The left sidebar shows a list of issues under 'Issues: Open Issues'. The main content area shows the details of issue 'IMAS-18' with the title 'ids_put does not return anything'. The issue is a 'Bug' with a status of 'OPEN' and a priority of 'Critical'. It is assigned to 'Palak Bartek' and reported by 'Lister Jo'. The description states: 'This is not normal, since it should return a success/error flag.'

Issues: Open Issues

Order by Priority ↓

- IMAS-18
ids_put does not return anything
- IMAS-188
Make FC2K agnostic to IDS list in the DD.
- IMAS-189
Make Kepler IMAS actors independent of DD
- IMAS-10
Performance
- IMAS-293
IMAS does not work with recent versions of...
- IMAS-207
Problem with modulecmd.tcl and imas mod...
- IMAS-219
Kepler is definitely too slow
- IMAS-190
Demonstrate Kepler workflow on ci.iter.org ...
- IMAS-45
Clean up IMAS issues
- IMAS-187
Adapt HFI FNA to IMAS

Refresh results

IMAS / IMAS-18

ids_put does not return anything

Assign More Resolve Issue Close Issue Pause Issue Export

Details

Type: Bug
Status: OPEN (View Workflow)
Priority: Critical
Resolution: Unresolved
Affects Version/s: 2.0.0
Fix Version/s: None
Component/s: Universal Access Layer

Description

This is not normal, since it should return a success/error flag.

People

Assignee: Palak Bartek
Assign to me

Reporter: Lister Jo

Votes: 0 Vote for this issue

Watchers: 2 Start watching this issue

Dates

Created: 18/Dec/13 08:25
Updated: 22/Mar/16 09:31

Development

- **Keep up to date with the development branch**
 - To avoid complicated merging later
- Get updated develop branch, merge new things into your local branch
 - git pull origin *feature/description*
- or (cleaner but only if new branch is **NOT** yet pushed to remote)
 - git checkout *feature/description*
 - git rebase origin/develop (*applies your changes on top of latest develop*)

Pull Request

- Create a “Pull Request” when you want the changes in your branch included in the develop branch
 - from the webpage listing the JOREK branches
 - add (at least) 2 reviewers (not from your institute)
 - Try to make each contribution as small as possible
 - Break up large contributions into smaller self-contained bits

The screenshot shows the Bitbucket 'Compare' page. The source branch is 'Stability / JOREK' and the destination branch is 'feature/test_particles'. A commit by 'Van vugt Daan' (e27b68d7b22) is shown. Below, the destination branch is 'Stability / JOREK' and the destination branch is 'develop'. A commit by 'Pinches Simon' (178a8d6d311) is shown with a 'MERGE' label. A 'Create pull request' button is visible. At the bottom, there is a table of commits.

Author	Commit	Message	Commit date	Issues	Builds
Van vugt Daan	e27b68d7b22	particle load balancing, disabled for now	2 hours ago		
Van vugt Daan	23ad35e5c5c	use current timestep size in calc_EB	2 days ago		

Useful: diff

- Diff from any two separate branches:
 - `git diff develop..origin/feature/test_particles -- jorek2_main.f90`
- With graphical interface
 - `git difftool develop..origin/feature/test_particles -- jorek2_main.f90`
- Compare two commits
 - `git diff 0b267f..4b866e – [optional filename]`

What could possibly go wrong?

- Undo a commit

- git reset HEAD^1 (undoes last commit, keeps changes to files, i.e. add/commit can be redone, **for local commits only**)
- git revert HEAD (undoes last commit by adding an inverse commit)

- See <https://www.atlassian.com/git/tutorials/undoing-changes/git-revert/>

- Undo changes to a file (back to latest commit)

- git checkout *filename*
- or get a file from any commit: git checkout *commit_ref filename*

- Remove a file from commit (after adding, before commit)

- git reset *filename*

- Please read Simon Pinches git-guide

- <https://portal.iter.org/departments/POP/CM/IMAS/IM%20Development%20Guide.do>

Commits

–Successful transition from SVN to GIT

- Some users may still need to be motivated to fully use git

