Production Department Report 2019

The members of the Production Department:

**Harald Leithner**
*Production Department Coordinator / Joomla! Release Lead 3.9.3+

**Luca Marzo**
(until Oct. 2019)
*Assistant DC Team Leader

**Benjamin Trenkle**
*Team Lead Joomla! Enhancement Development Team

**David Jardin**
*Team Lead Security Strike Team

**Hannes Papenberg**
*Team Lead Automated Testing Team

**Ilagnayeru (MIG) Manickam**
*Team Lead Core Translation Team

**Marco Dings**
*Team Lead Software Architecture & Strategy Team

**Mike Brandner**
(Sandra Decoux till Aug. 2019)
*Team Lead Documentation Team

**Nicola Galgano**
*Team Lead Bug Squad

**Philip Walton**
*Team Lead CMS Release Team

**Puneet Kala**
*Team Lead Google Summer of Code Joomla Team

**Robert Deutz**
*Team Lead CMS Maintenance Team

**Stefan Wajda**
*Team Lead Joomla Accessibility Team

**George Wilson**
*Joomla! Release Lead 4.0

The production department oversees all aspects related to the code of all software led by the organization. There is a wide interaction between team members and the community to bring Joomla on the right track to the future. The production department has meetings every 2 weeks, in the meetings the team members report and try to solve problems and architectural questions. Direction changes and important software decisions get discussed and fixed with a motion.
Overview from the Teams
Each team in the production department has a dedicated task. The team leaders collected a short summary per team for the last year.

Joomla! Enhancement Development Team
The Joomla! Enhancement Development Team (JEDT) is a very fresh team founded in June 2019 to have an umbrella team for all the working groups, delivering new functionality for Joomla!. The idea was to give all the working group a voice up to the Production team and having an incubator for e.g. Google Summer of Code projects to bring them to a release ready level.

Security Strike Team
2019 was a "lucky" year for Joomla in terms of security. We patched 29 security issues, none of them being critical for the majority of sites. Most of the issues have been reported by security researchers, but a considerable number of these issues was also discovered by the team itself through internal audits.

Automated Testing Team
The last year saw quite some activity in the area of automated tests for Joomla. During the development of Joomla 4.0, several different paths were tested for the (pardon the pun) testing and in 2019 the best solutions were selected. We consolidated the different CI systems which we used on mainly Drone CI and migrated our outdated Drone CI installation to the latest versions and on a more professional setup with multiple servers. Integration tests are now run on both MySQL and PostgreSQL. Even more importantly however, we improved the tests and reduced the number of false errors to a much lower level.

Core Translation Team
In the year 2019, the translations group has released language packs in a standardised way for Joomla! versions 3.9.2 through 3.9.14. Joomla! websites can now be published in 76 languages, including Kazakh and Lithuanian that were introduced in the year 2019, spoken around the world. These language packs come handy when developing both monolingual and multilingual sites using Joomla!

Software Architecture & Strategy Team
Joomla Software Architecture and strategy team was started in early summer 2019 with the goal to advise Production Department on questions and work on a more long term software architecture and strategy.
As for now we are predominantly interviewing and discussing with other developers and researching and brainstorming on ideas for the next generation of joomla. To that end we also had useful discussions at the recent forum for the future.
**Documentation Team**
The most activities on JDocs in 2019 was to prepare the release of J4 and J3.10 - both will be released at the same time. It comes with different problems, like different help pages for each main version. In the team leadership there was a change during the year Mike Brandner follows Sandra Decoux as team lead.
In October the Pizza Bugs and Fun event around the globe was a big success. We won new editors and made over 2.000 JDoc edits and translations during 24 hours.

**Bug Squad**
At the beginning of 2019 the Bug Squad was an uncoordinated team without leadership. Nicola has been elected as the new team leader in march and started to reorganize the team. One of the main goals is to reduce the open issues and pull requests on github. This is done by creating and testing pull requests. Big achievements of the JBS members was the mysql 8 compatibility for Joomla 4 and the rewrite of a big part of the database queries to use prepared statements.

**CMS Release Team**
The CMS release team has continued to test all the Joomla releases. We test the update on more complex installations looking for problems with the update and third party extensions as well as with core Joomla. We have had several new members join the team and we welcome their contribution in helping to improve the quality of the releases that finally ships. This year we introduced a sheet of tests to test against so that a set of common activities are performed and checked off.

**Google Summer of Code Joomla Team**
The Joomla GSoC team participated in GSoC 2019 program for the 12th time and had a total of 4 projects out of which 3 projects were successful and being worked on still for Joomla 4.x versions. 2019 was not the best year for the GSoC team. We probably did the least number of projects in the many past years but we had our reasons. We did manage to retain a fair percentage of our mentors from 2019 and bring them back in for the 2020 program. We spent a lot of time trying to improve our application process and student selection process. We added guides and improved GSoC JDocs to provide better information for our students.

**CMS Maintenance Team**
The CMS Maintenance Team is responsible for reviewing all patches submitted to the Joomla! CMS, merging patches into the code base, and ensuring that the high standards of Joomla are maintained at all times. In 2019 we released 11 versions of the 3.x branch and 6 Version of the 4.x branch. We made 413 commits to the staging branch and 3284 to the 4.0-dev branch. Most commits in 2019 are made by Brian Teeman (503), followed by Benjamin Trenkle (475) and Hannes Papenberg (304). The CMS Maintenance Team has at the moment 8 members doing the day to day work on the repositories.
Joomla Accessibility Team

**Joomla! Release Lead 3.9.3+**
In the beginning of 2019 the release lead of Joomla! 3.9 series changed from Michael Babker to Harald Leithner. We released 13 bugfix and security releases. 2 releases introduced new bugs that have been fixed with a new release within 24 hours. Joomla 3.9.x will be maintained till the release of Joomla! 3.10 and 4.0. Joomla! 3.10 will be a preparation release for Joomla 4.0 and is planned to be maintained two years after the first release.

**Joomla! Release Lead 4.0**
This year Joomla 4 made substantial progress towards a public release. We’ve released 5 new alphas over the year and had many people submit bug reports (and fixes!). In the meantime we’ve improved user experience with the merge of the 3rd and final draft of the atum template, added functionality to allow email editing and improved the API to cover many more components within Joomla thanks to this year’s GSOC project.
Looking ahead into 2020 with a small number of beta blockers left it’s important to focus on getting the new major version out as we are aware that many sites are holding up on important improvements whilst waiting.