



Statoil

Continuous Integration with Jenkins

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Who am I?

- Master of Science in Industrial Mathematics, NTNU.
Graduated January 2013.
- Temporary position at SINTEF ICT.
Hired as consultant to Statoil.
- Starting PhD project in August:
Reservoir Simulation in Challenging Reservoirs.

What is Jenkins?



“Jenkins is an award-winning application that monitors execution of repeated jobs, such as building a software project or jobs run by cron.” [1]

- Written in Java
- Open-source under the MIT License
- Earlier known as *Hudson*
- Available on “all” OS

[1] <http://jenkins-ci.org>

What are the benefits?

- Builds are automatically triggered periodically and/or when changes are pushed to Git
- Building errors are detected early
- Unit and regression tests can be called after build to detect implementation errors
- A fresh build is always available for the user

Features and possibilities

- Web GUI - easy to use
- Integrated with Git (and other VCS)
- Monitor build results by RSS or e-mail
- Specify upstream/downstream projects
- Tons of plugins available

Setup at Statoil

- Automatic build for all OPM modules every night
 - cmake
 - make
 - make test
 - make install
- Build on both RH5 and RH6
- Access to newest features/bugfixes
- Failures are reported by mail
- Issue on GitHub

A working example

Set up *opm-core* and *dune-cornerpoint* on Jenkins...

<http://localhost:8080>