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Jenkins Integration Hands-on

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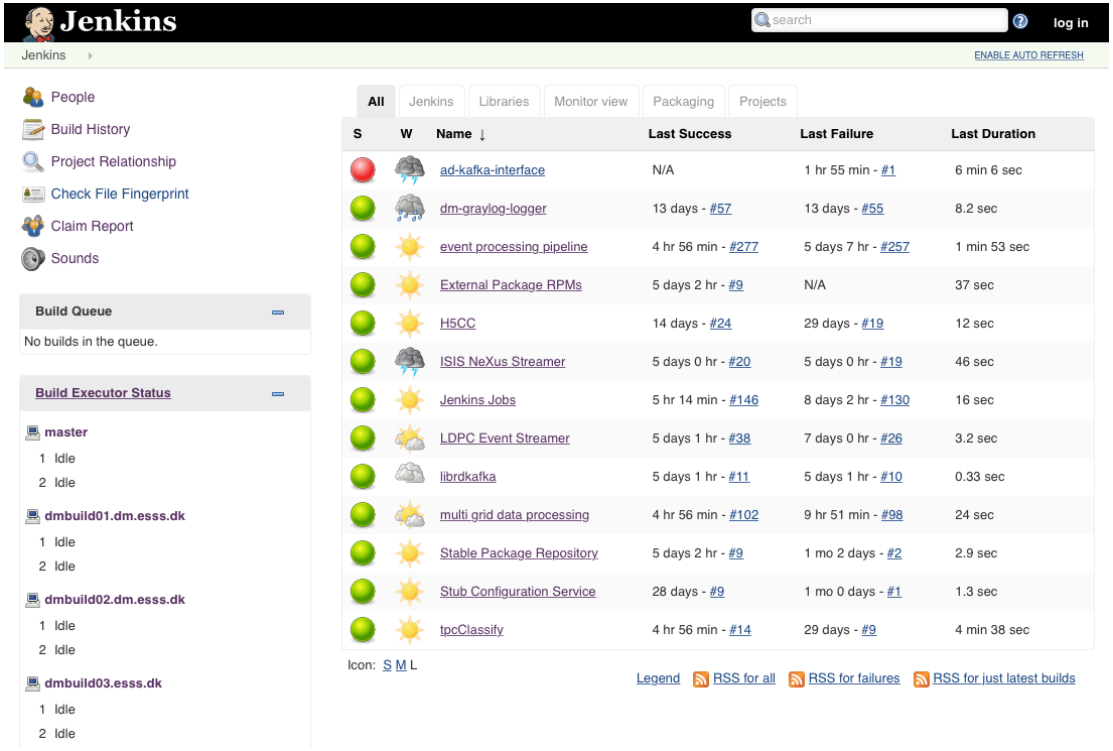
Agenda

- Available infrastructure
- Sample job setup
- Hands-on activities

Available infrastructure

- Data Management Group Jenkins master at https://jenkins.esss.dk/dm/



Available infrastructure

- Three CentOS build nodes available with different dependencies installed; base build tools plus:
  - General node: librdkafka, HDF5
  - ROOT node: ROOT, Boost, HDF5, Qt5
  - EEE node: EEE, librdkafka
- Windows build node for ISIS requested
- We have administrative privileges in the build nodes
- Three CentOS VMs currently unused, with privileges to install packages and manage services

Available infrastructure

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- Configuration under version control:
  - dm-jenkins-jobs: scripts to generate Jenkins jobs using the Job DSL plugin
  - dm-ansible: build node configuration kept in Ansible roles (with the exception of the EEE installation, that uses an ICS Ansible setup)
  - dm-rpms: generate customised RPMs for external packages we use: librdkafka, hdf5, kafka, zookeeper, kafka-manager

Available infrastructure

- Build monitor view

Sample job setup

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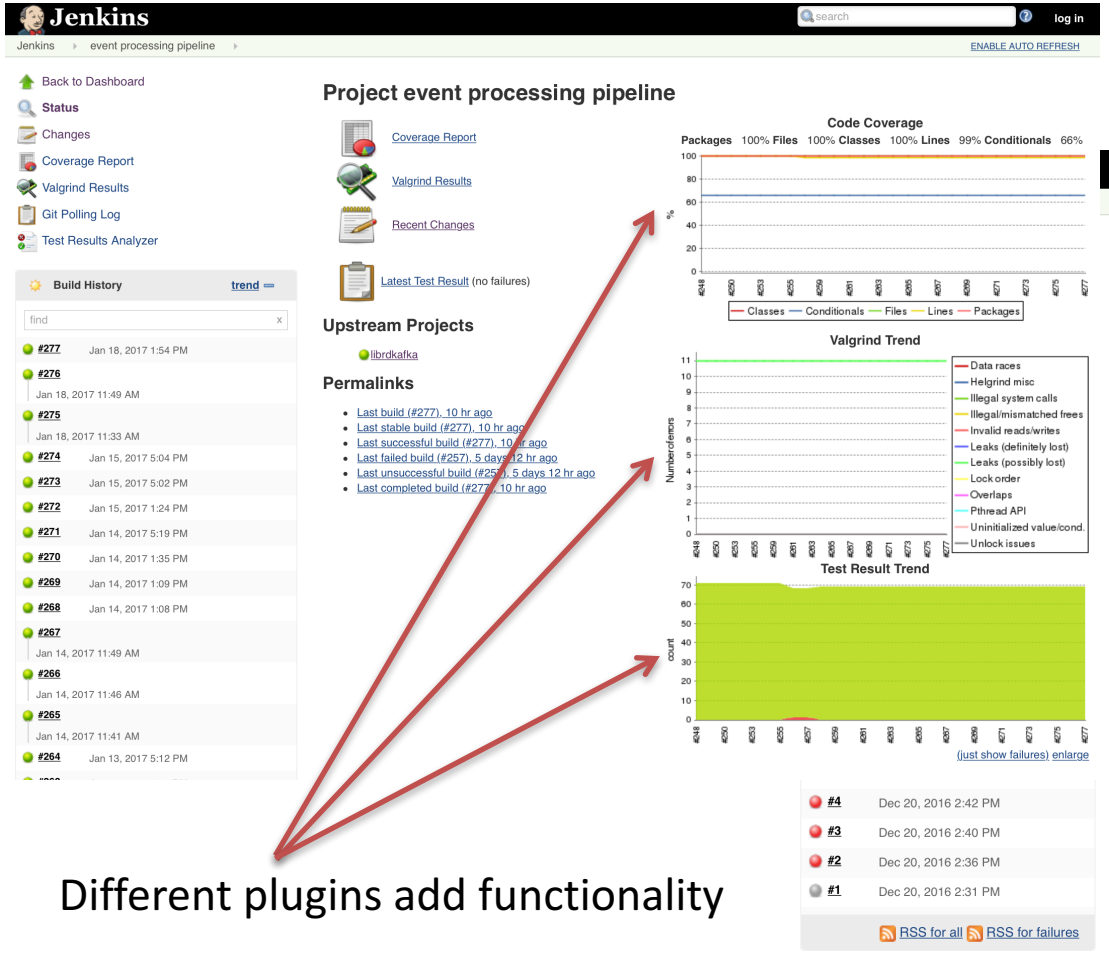
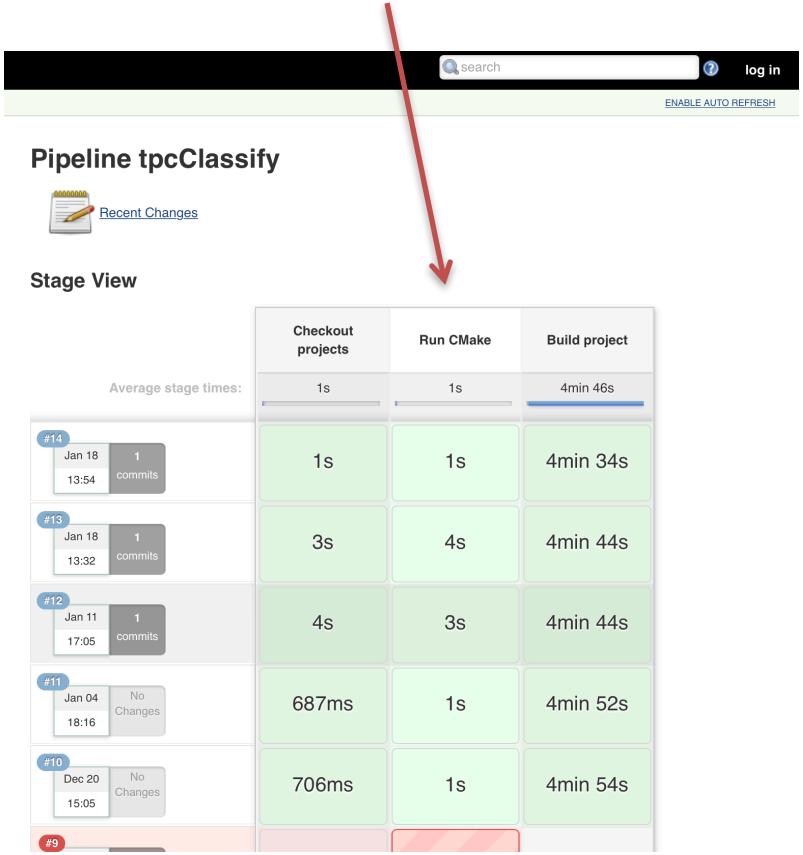
- Freestyle jobs are very flexible, and usually support all plugins
- Pipeline jobs lack support for some useful plugins, such as Cobertura for test coverage reports, but offer the possibility of executing parallel steps, with a nice visualisation
- In both cases the job configuration and build scripts can be kept under version control, using different approaches (shell scripts or pipeline scripts)

Freestyle and pipeline jobs



Pipeline view



Different plugins add functionality

Hands-on session

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- Suggested plan:
  - Choose a project not currently on Jenkins
  - Create a new job using the web interface
  - Configure job and add reports
  - Automate job creation using the Job DSL plugin