



INDIGO - DataCloud

Software Quality Assurance (SQA) Report

22-26 Aug 2016

IM (Infrastructure Manager)

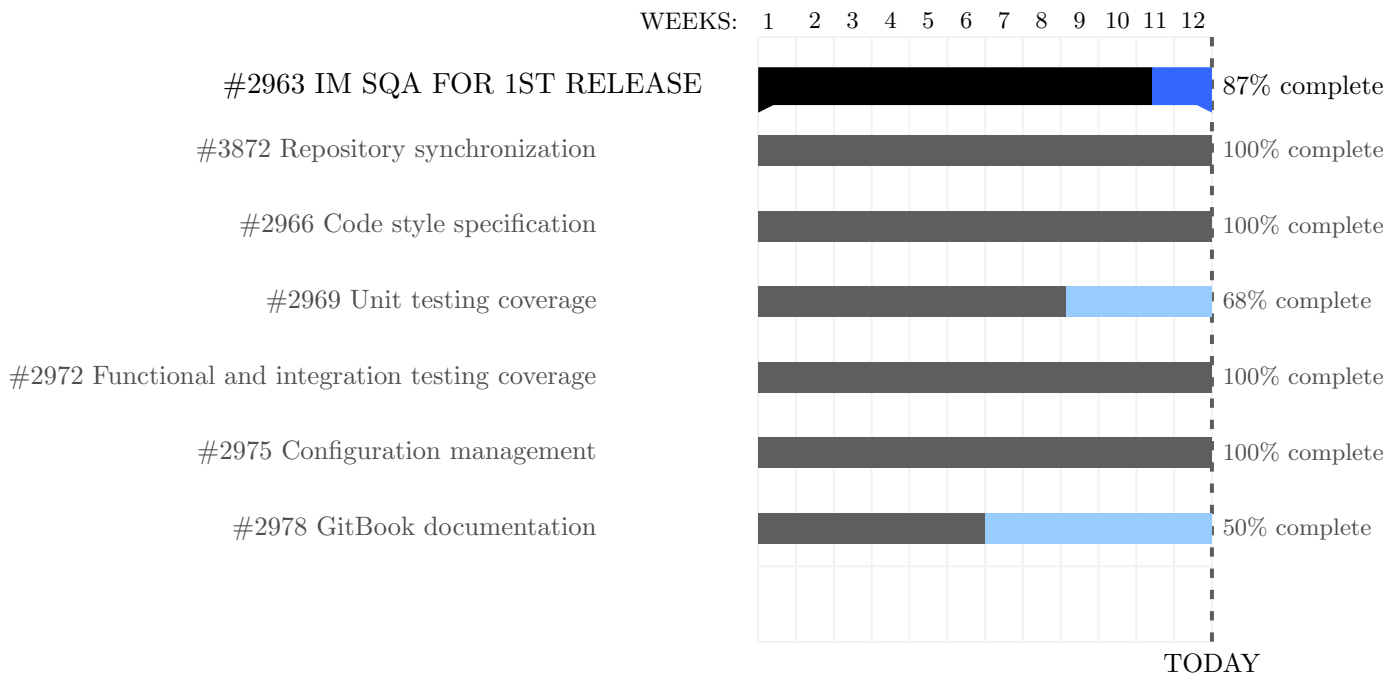
SQA Progress Status **COMPLETE**

87% done

GitHub repository	COMPLETE
Code style adherence	COMPLETE
Code coverage	IN PROGRESS - WP3
Functional/integration testing	IN PROGRESS - WP3
GitBook documentation	COMPLETE
Automated deployment	COMPLETE

Part I

Task Progress for the 1st Release



1 Repository synchronization

Products contributing to INDIGO-DataCloud project must have their code available under GitHub's `indigo-dc` organization.

Repository exists under `indigo-dc` GitHub organization:

- <https://github.com/indigo-dc/im.git>

2 Code Style

Products contributing to INDIGO-DataCloud project are expected to be adhered to a community or de-facto standard code style definition. Exceptions can be made to the selected standard. Custom style guides are accepted but nonetheless not recommended.

Code style definition	PEP 8 – Style Guide for Python Code		
Community/de-facto standard	Yes		
Exceptions	2 (E501, E402)		
Richness	73	Errors 63	Warnings 10 link

2.1 Build status

Last build status on Jenkins CI [im-codestyle](#).

3 Unit Testing

Code coverage will be tracked for the INDIGO-DataCloud related products and must not decrease during the project's duration. Recommended threshold is 70%.

3.1 Observations

- Job execution in Jenkins is currently facing some problems with the pytest tool (WP3 duty).

4 Functional/Integration testing

Functional testing must cover at least the basic functionalities that the product was requested to fulfill within the INDIGO-DataCloud project scope. Integration testing must cover the interactions with other components. Both types of testing will be automated whenever feasible by integrating them in the project's continuous integration service.

Tests currently being defined at Jenkins CI service.

4.1 Test coverage

1. Create Infrastructure
2. Get Infrastructure information
3. Reconfigure a Infrastructure
4. Add a node to a Infrastructure
5. Remove a node from a Infrastructure
6. Destroy a Infrastructure

4.2 Observations

- Functional tests have been provided and integration in Jenkins started: [im-functional](#).

5 GitBook documentation

*Product-related documentation must be uploaded to GitBook's **indigo-dc** central repository. Types of documentation includes a) Developer b) Deployment and Administration c) Command-line Interface (CLI) and Application Program Interface (API) d) User Documentation. All these types may not be applied for every product. Those products that offer functionalities out of the scope of INDIGO-DataCloud project needs may not provide all the spectrum, but links to the official documentation.*

Documentation available under **indigo-dc** GitBook organization:

<https://indigo-dc.gitbooks.io/im/content/>

5.1 Types of documentation currently provided

Readme	Deployment documentation	API documentation
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5.2 Observations

- Points to improve in the documentation:
 - README: summarize/elaborate on:
 - * How/where IM fits within the INDIGO architecture? What other components/services are needed/used?
 - * IAM integration?
 - * TCP ports need to be open?
 - Deployment guide
 - * Use INDIGO repository for installing the (rpm, deb) packages (instead of downloading from GitHub)

6 Configuration Management

Those products released by INDIGO-DataCloud project that need to be deployed by the end user must rely on a maintained open-source configuration management tool to provide an automated means to install and configure the product. The recommended tool is Ansible.

Tool	ansible
Deployment coverage	installation/configuration
Manifest link	https://raw.githubusercontent.com/indigo-dc/im/master/ansible_install.yaml

6.1 Build status

Ubuntu 14.04 LTS	successful
CentOS7	successful

6.2 Observations

- Ansible playbook does cover the full deployment (installation and configuration).

Part II

How to read this document

1 Summary (front) page

Both the overall product's SQA adherence and per-task status codes are explained below:

COMPLETE

Task has been successfully completed and fulfills the project's SQA requirements, listed in [Deliverable D3.1](#) and [Extensions to Software Quality Assurance](#) documents.

NOT COMPLETE

Task has not been completed, yet some missing required bits have not been provided.

IN PROGRESS

Task has not been completed, but can proceed as it is.

WP3 PENDING

Task has some pending work from WP3 side, meaning that the product team already submitted the required data but it has not been yet consumed by WP3.

2 Task Progress

2.1 Code style

Code style definition

Name and link of the standard to which the product is adhered.

Community/de-facto standard

Whether the adopted standard is community-wide accepted.

Exceptions

Number of exceptions from the standard definition.

Number of rules defined in the adopted standard.

Richness

Additionally (whenever available) the **number of errors**, **number of warnings** documented in the standard will be displayed as well as the **link** to the latest definition.

2.2 Unit testing

This section will display the a) **trend graph** with the evolution of the code coverage over time and b) the **Cobertura report**, with the coverage results of different methods. Both are taken from the project's Jenkins continuous integration service.

Note: resultant coverage value is the lowest of the ones for the different methods: packages, files, classes, lines, conditionals.

2.3 Functional/Integration testing

2.4 GitBook documentation

Whenever the documentation of the product is available at the project's GitBook repository, both the a) **link** to the documentation index and b) **type of documentation** provided will be displayed in the report.

2.5 Configuration Management

Whenever the product has an recipe to be deployed automatically the following information will be available:

Tool	Configuration management tool used.
Manifest link	URL pointing to the manifest/s.
Deployment level	Whether installation , configuration or both.
Build status	Current build status for the project's supported OS distributions.