

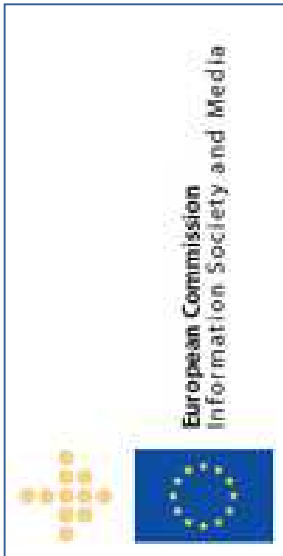


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# GLOSSARY

ABBREVIATION	DEFINITION
BlueBRIDGE	Building Research environments for fostering Innovation, Decision making, Governance and Education to support Blue growth
BTRT	Build and Test Report Tool
ETICS	e-Infrastructure for Testing, Integration and Configuration of Software
VRE	Virtual Research Environment

# DELIVERABLE SUMMARY

Deliverable D4.1 – “Software Release Procedures and Tools” aims to provide a detailed description of the procedures applied and tools used to manage releases of the gCube System within Work Package 4.

GCube System is the software at the basis of all VREs applications, data management services and portals. Given the large size of the gCube system, its high degree of modularity and the number of developers involved in the implementation, a set of procedures that formalize and simplify the integration, test, documentation and distribution of the software have been defined within Work Package 4 (in particular within task T4.4 – “Software Integration and Release”). These procedures allow to coordinate the actions and the timing of the different actors to successfully release new versions of the gCube System respecting time and quality constraints.

This deliverable type is “Other” and it consists of a set of wiki pages hosted by the gCube System Wiki [1]. The full version of the deliverable is available at the following URL:

[https://wiki.gcube-system.org/gcube/Software Integration and Distribution: Overview](https://wiki.gcube-system.org/gcube/Software%20Integration%20and%20Distribution:Overview)

The deliverable is structured in the following sections:

- The section “Release Roles” presents the six roles that have been identified within task T4.4 to manage the software release process: i) Release Manager, ii) Subsystem Manager, iii) Developer, iv) Tester, v) Documentation Editor and vi) Documentation Author. The deliverable describes for each role the responsibilities and contact persons;
- The section “Release Tools” presents the tools used to automate different phases of the release process. The main tools described are: i) Subversion [2] used to host the source code, ii) ETICS [3] and BTRT [4] used to automate the build and test of components, iii) the gCube Distribution Site [5] used to distribute the software and host the documentation and iv) Redmine [6] used to coordinate the release cycle through tickets;
- The section “Release Procedure” describes the steps and the actors of the procedures defined and executed to roll out a new version of gCube System: Continuous Integration, Release Cycle, Maintenance Release Cycle, Changelog Generation and Distribution procedure;
- The section “Test Plan” presents the type of tests (i.e. static code analysis, unit testing, functional testing and deployment testing) and the procedure to execute them for every gCube release;
- The section “Naming Convention” contains the naming conventions for gCube components to be applied in the different tools;
- The section “Release Log” summarizes all the gCube releases and contains some useful indicators for each release (e.g. number of updated components, number of integration days);

The intended readers of this deliverable are mainly technical people working on the development of the gCube System such as developers, release managers and testers. They can find in the deliverable a reference to the steps they need to follow and the tools they need to use during the release process.

# REFERENCES

1. [Online] <https://wiki.gcube-system.org/gcube/>.
2. [Online] <http://svn.research-infrastructures.eu/public/d4science/gcube/>.
3. [Online] <https://etics.esl.eng.it/etics-gui/>.
4. [Online] <http://eticsbuild2.research-infrastructures.eu/BuildReport/home/AllBuilds>.
5. [Online] <https://www.gcube-system.org/>.
6. [Online] <https://support.d4science.org/projects/gcube/>.