

ETS LIMITED



EUROPEAN COMMISSION

DIRECTORATE-GENERAL
CLIMATE ACTION

EU Registry

Version Change Management

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1. ROLES AND RESPONSABILITIES

Please refer to [**Roles and Responsibilites**].

2. VERSION CHANGE PROCEDURE

This procedure describes how the EU Registry evolves from a version to another. It must not be confused with the Change Management Procedure which describes how a single change request is handled. Both procedures are interconnected because new versions are meant to address one or more change requests.

This procedure is followed for all release of the EU Registry. The normal flow of the procedure is presented below.

1. Definition of the scope and schedule of the release
2. Implementation of the release
3. Delivery and acceptance of the release.
4. Deployment of the release

In the case where issues occur during one of the steps, then the procedure is re-started from step 1. The following sub-sections depict each of the procedure steps.

2.1. Definition of the scope and schedule of the release

During the development of the EU Registry, the number of releases, their content, and their schedule is agreed upon by the central administrator and the maintenance team leader at the beginning of the development project. During the maintenance of the EU Registry, the decision to organise a new release can be prompted by 2 reasons:

- Normal release: The implementation of new functionalities, the improvement of existing functionalities, and the resolution of non-critical bugs,
- Emergency release: the resolution of critical bugs.

A bug is considered critical if it prevents the users to perform important operations or if it results in a corruption of the business data stored in the EU Registry. The scope of a release will be expressed in the form of a set of JIRA issues capturing the various requirements of the European Commission with regards to the new release. The normal releases will be scheduled in order to allow sufficient time for a correct implementation and testing of the EU Registry's new version. Emergency release will be scheduled in order to have the required bug fixes implemented, tested, and deployed as fast as possible. The scope and schedule of the releases are agreed upon by the central administrator and the maintenance team leader.

2.2. Implementation of the release

Once the scope and schedule of the release is decided, the maintenance team members develop the new version of the EU Registry with respects to **[Software Development Plan]** and perform the factory acceptance as described in the **[Project Test Plan]**.

2.3. Delivery and acceptance of the release

The procedure for the delivery and acceptance is presented in section 2.3 of **[Acceptance Test Plan]**. A typical delivery will contain the following:

- Source code (optional),
- J2EE archives (EARs, WARs, and JARs) built from the source code,
- Installation guide,
- Release notes,

- FAT report,
- Set of Weblogic scripts for updating the Weblogic domains,
- Set of SQL scripts for modifying the database schema,
- Set of SQL scripts for uploading data into the database.

2.4. Deployment of the release

At this point, the new EU Registry's release has been delivered, tested and accepted by European Commission. The following procedure is then followed for deploying the provided release in the Production environment.

1. Schedule of the deployment: for normal releases, the central manager chooses a date where the usage of the EU Registry is expected to be low in order to limit the disruption of the service for the users. For emergency releases, the central manager will choose the closest possible date.
2. Notification of the stakeholders: with regards to the strategy presented in section 8, the central administrator notifies all the stakeholders about the the impending update of the EU Registry and the consequent disruption of service.
3. Stopping the EU Registry: the network administrator stops all the Weblogic applications which compose the EU Registry.
4. Failover preparation: in order to cope with a failure during the deployment, the network administrator takes a snapshot of the Weblogic domains; while the database administrator takes a snapshot of the database.
5. Installation of the release: with respects to the instructions provided in the delivery's installation guide, the DIGIT network administrator updates the Weblogic domains with the provided Weblogic scripts and installs the provided J2EE archives. The DIGIT database administrator uses the delivered SQL scripts for updating the database schema and uploading new data.
6. Re-start of the EU Registry and evaluation: the network administrator re-starts all the Weblogic applications which compose the EU Registry. Once it is done, the network administrator verifies through the Weblogic consoles and the other available monitoring tools that the EU Registry is running correctly.

If issues are found during the installation of the new release or its evaluation; then the network administrator will restore the Weblogic domains with the previously taken snapshots. The database administrator will do the same but for the database.

3. TESTING ENVIRONMENTS

The DG Clima is using 2 test environments named respectively TEST and ACC (acceptance). Both test environments have the following environments:

- A load balancer,
- An access to ECAS,
- A Weblogic 11 cluster, each server contains all the J2EE archives contained in a release,
- An access to an Oracle 11 database,
- An access to an EUTL test instance,

- An access to an ITL test instance, the TEST environment is connected to the Developer Test environment of UNFCCC and the ACC environment is connected to the Registry Test environment of UNFCCC.

Those environments are kept up and running permanently and there are no plans to take them down in the future. Furthermore those environments are part of the test cycles organised by the UNFCCC, see **[Registry Test Cycle]**.

4. DATA MANAGEMENT DURING RELEASE

4.1. Database upgrade

As stated above, a new release delivery can contain a set of SQL script which modifies the structure of the EU Registry's database and possibly introduces new operational data (basic data required for the operation of the EU Registry such as account type code enumeration). The review and test of those scripts is performed by the maintenance team during the factory tests and by the Central Administrator during the acceptance tests in order to ensure that no business data will be corrupted or lost because of those scripts.

4.2. Migration

The EU Registry is a consolidated registry which will host the registry of each ETS-Member states. Therefore the European Commission has devised a migration procedure (see **[Migration Plan]**) for ensuring the safe transfer of data from the deprecated registry system towards the EU Registry. This procedure would be re-sued if other registries join the EU Registry later on.

5. SOFTWARE BUILD AND VERSION CONTROL

As presented in section 6.2 of **[Software Development Plan]**, the EU Registry's deliverables are built thanks to [Maven](#) and the version changes of the source code are handled by [Subversion](#).

6. DOCUMENTATION CONTROL

Please refer to section 2.1 of **[Acceptance Plan]**.

Please note that a short summary to the track change is provided in each Word document.

7. NAMING CONVENTION

Each release will be identified by 2 numbers presented in this format: x.y. The first number is the major version number; the second one is the minor version number. A new version is considered as major if it brings new functionalities which represent a significant evolution of the system; otherwise it is considered as minor version.

8. NOTIFICATION STRATEGY

When a new version is about to come in Production, at least 5 working days before the deployment date, the Central Administrator will prepare an e-mail as following:

- Subject: Deployment of CSEUR version XX (where XX is the new version number)
- Content:

- The schedule of the deployment,
- the list of all the new features, improvements, and bug fixes addressed by the new version
- Recipients: the list of registry administrators, the ITL Service Desk, any other relevant STL Service Desk

The Registry Administrators are expected to inform their national users by the means they will see fit.