

GECO FUNCTIONALITY

GECO provides the following capabilities:

1. Configuration data repository

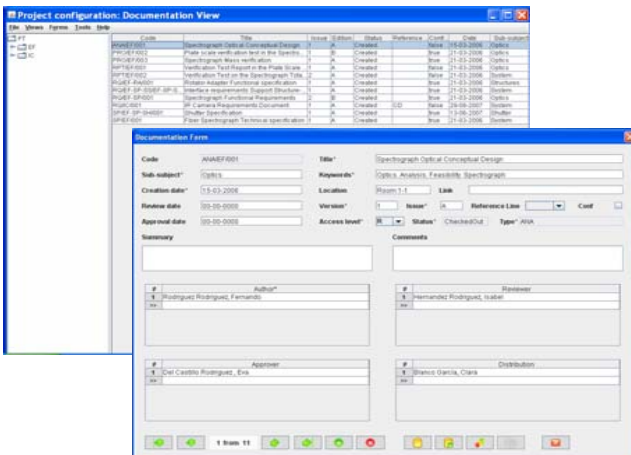
As described in the Overview, all the configuration data generated in a project can be stored in **GECO**.

The data can be modified, added or only read according to the rights assigned to the user who has logged into the tool.

The users can choose how to display the data in two ways:

- ▶ A summary data view which displays the most relevant record fields in a table.
- ▶ A full data view that displays all record fields in a form. Specifically, the relationships across requirements, documents, individuals, etc. are shown in the full view.

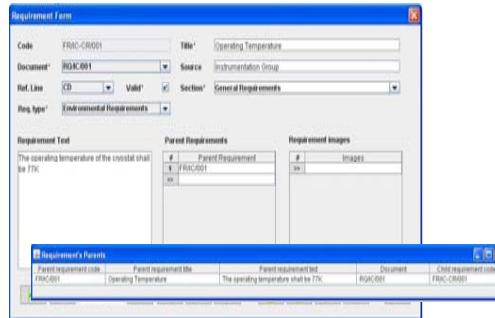
In both views, **GECO** provides the user all the filtering and sorting capabilities that are needed to search the desired data.



2. Data traceability

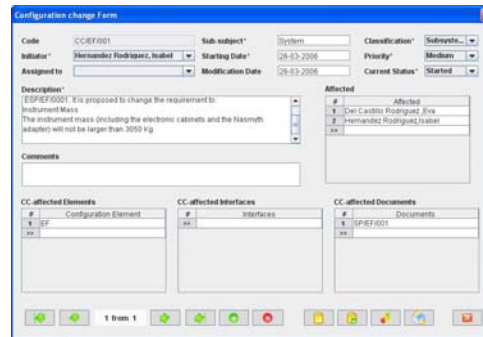
Cross-relationships among the configuration data (mainly parent-child requirement traceability) can be introduced. The data traceability is critical for keeping the coherence of the system.

GECO searches parent or child requirements by taking into account the relationships put into the Requirements form.



3. Configuration management and quality control

GECO helps to manage configuration changes, non-conformities and anomalies during their lifecycle and maintain the related users informed by sending e-mails at their state transitions.



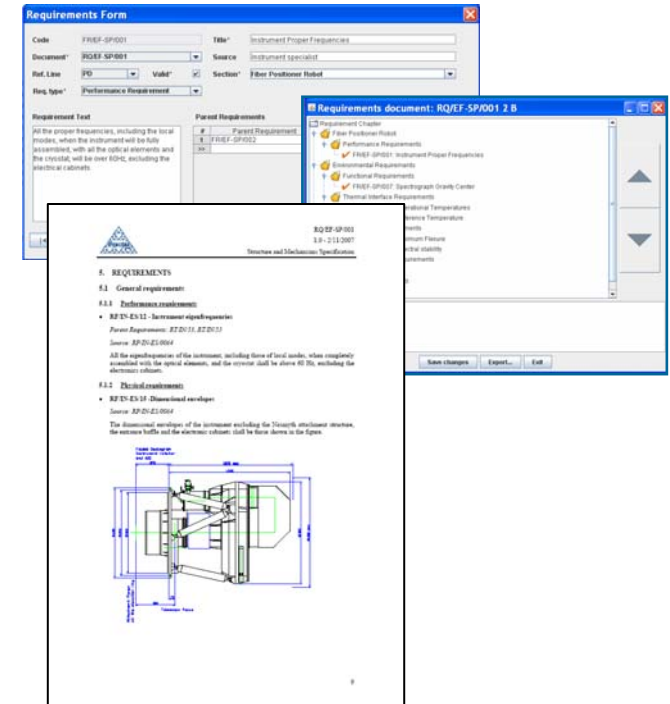
Prior to start the system verification, the technical requirements can be automatically introduced into the verification matrix.

4. Automatic generation of requirement documents

The requirement section of the documents can be generated automatically from the requirements stored in **GECO**.

This function helps to keep a coherent set of requirements and to avoid maintaining duplicated information.

GECO allows to organize the requirements into sections and subsections, which can be arranged before exporting them to the requirement document.



Requirement Documents are an important view of the requirement set and are, mainly, needed to interface with external parties, such as contractors and customers, and to comply with the intended project milestones and reviews.

GECO OVERVIEW

GECO provides the means to manage the configuration data generated in all phases of a project, i.e., not only during the design phases of a system but also during its integration, verification and operation.

The configuration data that can be stored and managed by **GECO** are:

- ▲ Product Tree elements
- ▲ Parts
- ▲ Table of interfaces
- ▲ Requirements, interface requirements and the relationships between parent and child requirements
- ▲ Requirement verification matrix
- ▲ Configuration changes
- ▲ Non-conformities.
- ▲ Verification and operation anomalies.
- ▲ Project documentation.

The configuration information is laid out hierarchically, following the system's Product Tree. This way of displaying the subsystems provides an intuitive view of the system's breakdown structure, and thus allows the user to access, with a few mouse clicks, to a Product Tree element, its requirements, interfaces, associated documents, etc.

GECO contains a relational database and a graphical user interface developed in Java.

Why GECO is needed in a project?

Software tools help to manage the big amount of information that is generated during the lifetime of any project, which is particularly important for geographically distributed organizations. In this case, it becomes essential to keep the project's information in an electronic format, well organized and easily accessible to all people involved.

The **FRACTAL System & Project Suite** includes:

1. System engineering and configuration control

The configuration data management tool, **GECO**, helps to track correctly the system development in order to ensure that the final system meets the initial high level requirements and can be integrated

2. Project documentation control

The documentation management tool, **DOCMA**, helps to keep and organize documents and to improve the internal communication among the different members involved in a project.

3. Project management tool

The project management tool, **MANATEE**, helps to manage the projects in any organization controlling the three projects parameters (scope, schedule and budget).

All applications can be used in an independent manner or in an integrated way.

A trial license or more information about these tools can be found at:

Web: <http://www.fractal-es.com>

e-mail: info@fractal-es.com



Configuration Management Tool

<http://www.fractal-es.com>