

Requirements Engineering with GRAIL/KAOS: From Goal Analysis to Automatically Derived Requirements Documents

Denis Ballant, Christophe Belpaire, Robert Darimont, Emmanuelle Delor, Denis Genard,
Cédric Nève, Jean-Luc Roussel, Alain Vanbrabant
CEDITI, Avenue Georges Lemaître 21, B-6041 Charleroi, Belgium
E-mail : {requirements@cediti.be}

GRAIL[1] is a tool designed by RE practitioners for RE practitioners, to help them really **engineer requirements**. The tool relies on **KAOS**[2], the **goal-driven** requirements methodology. It helps industrial projects to succeed by **effectively** and **systematically eliciting** the requirements, defining system's agents and artefacts along with their expected behaviours. These elements are gathered, and linked together in a unique coherent model. GRAIL automates authoring process by **deriving** the requirements documents directly from the model.

The presentation covers the following aspects:

- it outlines the **practical process** typically followed to build a requirements document with KAOS.
- it describes in details how the new version of the GRAIL tool supports the **new features of the KAOS language** (obstacles, domain properties, agent dependency, ...) and its standardization to **UML-compliant notations**.

- it illustrates how GRAIL can automatically derive from a KAOS model a goal-driven structured requirement document compliant with a corporate standard including navigational traceability links.
- it shows how this approach has been successfully applied in several industrial projects, a.o., a system engineering project at Alcatel.
- it describes how GRAIL (the tool that supports the KAOS methodology) can be integrated in a Unified Development Process.

References

- [1] More information on GRAIL at Cediti can be found at URL http://www.cediti.be/EN/Solutions_Services/requirements/
- [2] More information on KAOS at UCL can be found at URL <http://www.info.ucl.ac.be/research/projects/AVL/ReqEng.html>

