# COGITO



**Use-Case Based** 

**Dynamic Modeling** 

Link Grammar Based
Static Modeling

### **TOOL DESCRIPTION**

- Dowser is a tool to extract the static model of a system from a textual description
- Link grammar is used to parse the natural language textual description
- Dowser outputs the class diagram of the system which includes classes, attributes, operations, associations, inheritance and aggregations
- Dowser also parses the use-cases to produce sequence diagrams
- Dowser provides an editor to specify the domain ontology
- Dowser validates the static and the dynamic models against each other and against the domain ontology
- Suggestions are shown for the inconsistencies

#### **PROGRAM FEATURES**

#### DOWSER FEATURES INCLUDE:

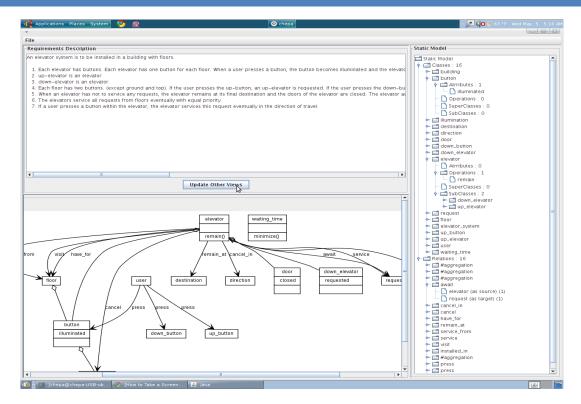
- Generation of class diagram and static model from textual description
- Validation of static model using WordNet dictionary
- Easy manipulation of static model
- GUI which shows the textual description, model and diagram side-by-side

## **USE-CASE EDITOR FEATURES INCLUDE**

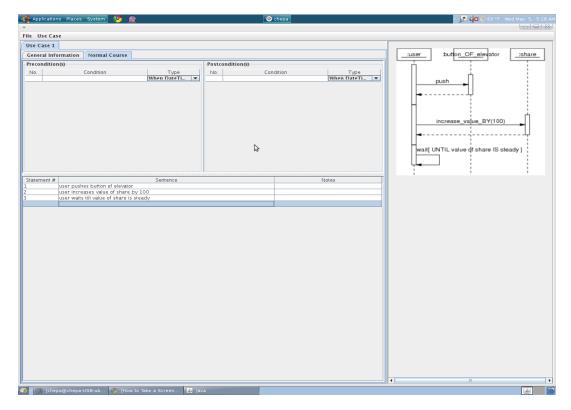
- Editor for writing use-cases
- On-the-fly suggestions for writing use-case conforming to the controlled grammar
- Validation of use-cases against the static model and ontology
- Generation of sequence diagrams from use-cases



#### **DOWSER SAMPLE SCREENS**



#### 1: Dowser



2: Use-Case Editor



Z. USE-Case Luitoi

## **AVAILABILITY**

## SYSTEM REQUIREMENTS

The Dowser is available for download on the project website. The Dowser distribution includes Dowser and Cogito (source code). It can be downloaded from the website. The provided README describes how to install and set up the system on Ubuntu.

- Ubuntu (8.0 or later)
- WordNet (3.0 or later)
- Sun-Java6-JDK
- 'plotutils' package (Ubuntu)
- 'imagemagick' package(Ubuntu)
- 'graphviz' package (Ubuntu)

## **CONTACT INFORMATION**

chepa@gatech.edu

spencer@cc.gatech.edu

http://www.cc.gatech.edu/projects/dowser

