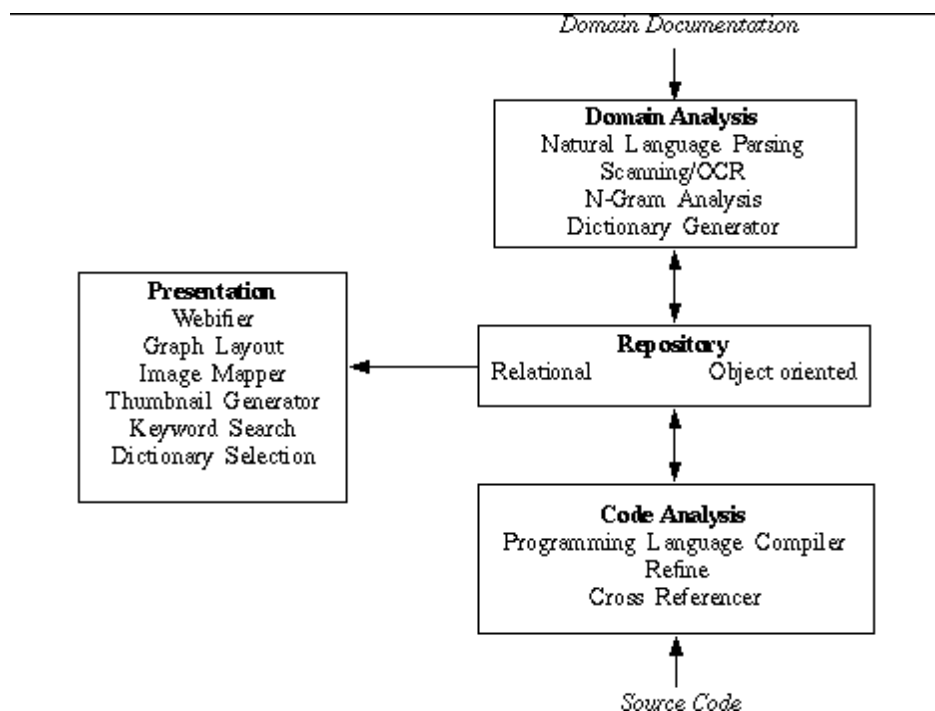


Program Description

Dowser is a framework and toolset to support domain-oriented reverse engineering. Using it, an analyst can

- Browse source code and documentation using application domain terminology
- Acquire and maintain domain knowledge
- Analyze source code
- Link domain knowledge to source-code features
- Establish architectural descriptions

The Dowser framework provides a toolset supporting domain-based reverse-engineering tasks. The overall organization of the Dowser Framework is shown in the following diagram.



The reverse engineer uses Dowser tools to develop program models with code analysis tools and collect application-domain models with domain analysis tools. Support tools, include a relational database, a graph layout tool, a keyword search mechanism. The tools store the models and provide the analyst a variety of ways to navigate among the documents and source code files.



Program Features

Dowser features include:

- Navigation of source code and documents using domain vocabulary
- Source code analysis tools
- Multiple views of both application-domain knowledge and code models
- Document analysis tools
- Architectural model definition
- Pattern-based searching for domain and code features

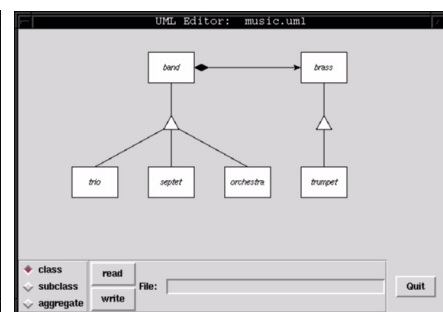
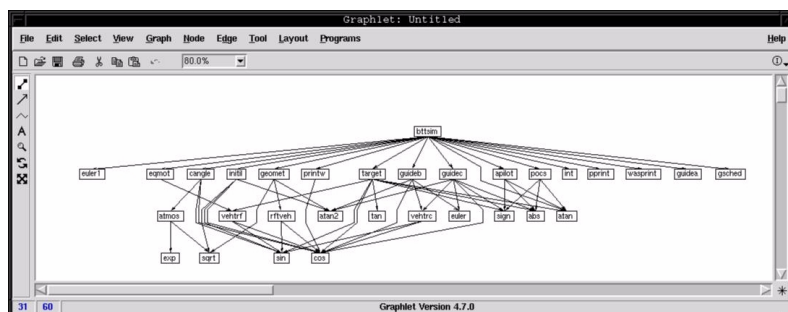
MORALE

Dowser supports the Mission Oriented Architectural Legacy Evolution (MORALE) reengineering process. The goal of the MORALE project is to facilitate the evolution of legacy software systems. Facilitation takes the form of improved quality by requirements validation, reduced risk via architectural evaluation and assessment, and increased productivity from maintenance and access to design rationale and from high level reuse of architectural components.

Dowser Sample Screens

The screen shot on the left shows the call-graph tool. The call-graph tool queries a relational database for caller-called information about a program and uses the information returned from the database to construct a call graph.

The screen shot on the right shows a UML editing and browsing tool. The analyst may construct hypothetical system architectures from derived domain and program information, linking each architectural feature back to the information from which it was derived.



Availability

The Dowser is in Beta release. The Dowser distribution includes documentation and source code. It can be downloaded from the MORALE tools page at <http://www.cc.gatech.edu/morale/tools>. The Dowser analyzes C or FORTRAN code compiled with Solaris debugging information.

Contact Information

morale-support@cc.gatech.edu
<http://www.cc.gatech.edu/morale>

System Requirements

- SUN Solaris 2.5 (and its compiler)
- Tcl 8.0 and Tk 8.0
- MySQL relational database.
- Noweb 2.7

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