Web Services (KWebS)

Project Overview

Related Theses:

- Stephan Wersig, *Ein Web Service für das automatische Layout von Graphen*, October 2011 (pdf)

The KWebS project aims at delivering the automatic layout of the KIELER project to users on a platform independent basis. The main component of the project is the *server*. It is based on an Eclipse Rich Client Application (RCA) and encapsulates the KIELER Infrastructure for Meta Layout (KIML) in order to expose the layout over a network. To make the layout accessible for other platforms, the server hides the java nature of the layout behind a web service and supports a variety of *formats* for the representation of user models. The server provides access to the layout based on two architectures:

- the HTTP-based service which uses simple POST requests to retrieve the layout. We provide several language bindings to connect from any language.
- the SOAP web service uses the reference implementation of the *Java API for XML - Web Services (JAX-WS)*, which is being maintained by the Metro project (jax-ws.java.net), and provides the layout on a sessionless basis
    - *Clients* enable using the service-based layout inside existing applications. As a good starting point, try the command-line layout tool.

The following subpages first show how we can download and set up a layout server on our own, e.g. to provide layout inside a companies network. Further pages discuss the specific properties of either the SOAP- or HTTP-based solution. There is also a page on the supported graph formats.

Then we get to know the API provided by KWebS, after which the integration of the service-based layout with KWebS into our own projects is discussed. The last section gives us a list of configuration options supported by the server of KWebS.

1. Setting up your own server
2. HTTP-based
3. SOAP-based
4. Graph Formats

Downloads - KIELER Layout Web Server

Headless Eclipse application for running a web server for the KIELER graph layout service. The server includes the KIELER layouters, Graphviz, and OGDF. A nightly built version of the server is running its service at http://layout.rtsys.informatik.uni-kiel.de:9442/layout (see generated info page).

Release

KWebS Sever v. 0.3.0 (53 MB). Available platforms:

- Linux: x86 32bit or x86 64bit
- Mac OS X: x86 32bit or x86 64bit
- Windows: x86 32bit or x86 64bit

Nightly Build

- http://rtsys.informatik.uni-kiel.de/~kieler/files/nightly/kwebs/