

# 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](http://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 [GDF](#). 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/>