STEP — Simple Extensible for Teaching Purposes

A (very) short introduction

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The **STEP Framework** is an open-source, multi-layer, Java enterprise application framework, with support for Web Applications (Servlet/JSP) and Web Services.

The main design goals of STEP are simplicity and extensibility, and it's been designed for teaching/learning purposes.

The project is hosted at SourceForge.net, in the following address:
http://sourceforge.net/projects/stepframework

What is a framework?

A framework is a basic conceptual structure used to solve or address complex issues.

More specifically, a **software framework** is a re-usable design for a software system. A software framework may include support programs, code libraries, a scripting language, or other software to help develop and glue together the different components of a software project. Various parts of the framework may be exposed through an Application Programming Interface (API).

More information at:
http://en.wikipedia.org/wiki/Framework

What makes STEP unique?

The STEP framework source code is intended to be **small** and **simple** enough to allow any developer to read it and understand it thoroughly, seeing how the multiple layers are implemented in practice. In short, we aim to *keep it small, keep it simple!*

The STEP Framework is also novel in the way it combines the features of a Web Application framework with a **distributed** application model, using different domains and crossing physical and trust boundaries. The extensions feature is also an advanced mechanism to support non-functional requirements.

STEP leverages other open-source projects, like Hibernate (http://www.hibernate.org) for data persistence, Stripes (http://www.stripesframework.org/) for the web interface, Sun's JAX-WS reference implementation (https://jax-ws.dev.java.net/) for Web Services, etc. STEP also relies on Apache Ant (http://ant.apache.org/) for application configuration and building.

The STEP framework aims to be a learning step towards more complete and powerful application frameworks, like some of the following:

- **Java Enterprise Edition** (the official Java framework): http://java.sun.com/javaee/
- Spring: http://www.springframework.org/
- Google Web Toolkit: http://code.google.com/webtoolkit/
- Click: http://click.sourceforge.net/
- Echo: http://echo.nextapp.com/site/echo2
- Thinwire: http://www.thinwire.com/
- Wicket: http://wicket.apache.org/
- WingS: http://wingsframework.org/cms/
- ZK Framework: http://www.zkoss.org/
- Etc.

One of the important STEP Framework simplifications is that each version is tested only on a single configuration, including: Java Developer Kit, application server, and other dependencies.

Where to start?

To get started with the STEP framework, download the source code and try out the **Trip Planner** example. See the readme.txt file for installation instructions.

The source code is intended to be self-describing, with the help of relevant comments and diagrams.

For guides to developing new applications, refer to the **cookbooks**.