Sakai

Installing Sakai for Eidgenössische Technische Hochschule Zürich

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The Sakai Project

Overview

- Where to get Sakai code
  - The Sakai CVS server
- The Installation Process
  - Getting Clean
  - Downloading and Building
- Advanced Installation Topics
  - Databases
  - Integration

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Before You Start

- Have a look at the release directions on http://cvs.sakaiproject.org/release.
- These directions are augmented by documentation in the Sakaipedia and Sakai Knowledgebase.
- Support is available on collab.sakaiproject.org in the sakai-devel worksite.

Hardware Considerations

- Sakai will run on most operations systems (Mac, Windows, Linux, SunOS).
- The size and power of your server(s) will depend on demand.
- Separation of database server from the Sakai server is recommended.

Two Sakai Packages

- QuickStart
  - Bundled with Tomcat
  - Download, decompress, and run it.
- CVS Build
  - Install Tomcat
  - Download code
  - Build using Maven

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Installing QuickStart

- Directions at
  http://cvs.sakaiproject.org/release/1.5.0/
- Download code from
- http://cvs.sakaiproject.org/release/1.5.0/
  src/sakai_quickstart_1-5-0.zip
- Unzip it and it should be ready to go.
- This is a demo/pilot setup, however.

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Installing from CVS

- Set up the environment:
  - Get Java 1.4 or later from
    http://java.sun.com/j2se/1.4.2/download.html
  - Install maven from
    http://maven.apache.org/start/download.html
  - Install tomcat from
    http://jakarta.apache.org/tomcat/index.html
  - If developing code, we recommend Eclipse from
    http://www.eclipse.org/

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Test Tomcat

- Test that your Tomcat environment is correctly installed.
- Startup up Tomcat.
- Use a browser and link to
  http://localhost:8080/
- You should see the Tomcat welcome page.

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Get Clean

- If this is a first time install, you environment should be clean, otherwise:
- Sakai Webapps   rm -rf TOMCAT/webapps/sakai-*
- Sakai .wars   rm -rf TOMCAT/webapps/sakai-*.war
- Tomcat Logs   rm -rf TOMCAT/logs/*
- Tomcat Shared Lib   rm -rf TOMCAT/shared/lib/*
- Tomcat Common Lib rm -rf TOMCAT/common/lib/hsqldb-*.jar
                                rm -rf TOMCAT/common/lib/sakai*.jar
- Tomcat Server Lib   rm -rf TOMCAT/server/lib/sakai*.jar
- Tomcat Work   rm -rf TOMCAT/work/*
- Maven Repo.   rm -rf ~/.maven/repository/sakaiproject

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Download Code

- Setup rsh access with a security certificate.
- Check out the sakai code using the sakai root (or a branch name).
- Watch for errors.

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Build Sakai

- Bring up the command window.
- Change location to your sakai directory.
- Run "maven".
  - The first time must be on-line and will download code from a remote repository.
- Run "maven reg"
- Run "maven conf_db"
- Run "maven tomcat_context"

Setup Configuration File

Sakai looks in files on the server to get configured. As shipped, Sakai finds these in:

> /usr/local/sakai/

The contents of this folder can be populated by copying the files and folders from the Sakai reference module's "usr_local_sakai" folder to your machine's /usr/local/sakai/ folder, something like this:

> cp -r $SAKAI_DEV/reference/src/usr_local_sakai/* /usr/local/sakai/

> (where $SAKAI_DEV is your Sakai development folder)

Make sure that the /usr/local/sakai folder has permissions to allow you (during development) and tomcat (at runtime) to read, create and write files.

[Some configuration or other setup may be needed at this point]

Test Sakai Install

- Startup up Tomcat.
- In a browser, link to
  http://localhost:8080/
- You should see the Sakai home page.
- You can log into Sakai using
  admin/admin.

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Advanced Topic: Database

- Download and install MySQL from
  http://dev.mysql.com/downloads/
- Download and install the MySQL driver
  http://dev.mysql.com/downloads/connector/j/3.0.html
- Use the scripts in
  "../sakai/confdb/db/mysql" to build
  database tables.

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Sakai Database Configuration

Configure Sakai to communicate with MySQL. Enable the MySQL parameters in ../sakai/localfiles/sakai.properties:

```
# MySQL database settings
sql.vendor=mysql
sql.driver=com.mysql.jdbc.Driver
sql.connect=jdbc:mysql://localhost:3306/sakai?useUnicode=true&ch
aracterEncoding=UTF-8&characterSetResults=UTF-8
sql.user=sakaiuser
sql.pw=sakaipassword
```

Start the database and start Sakai.

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Advanced Topic: Integration

- In most cases, enterprise integration will require some software development.
- For Sakai 1.5, code is available to authenticate users against LDAP.
- Other kinds of integration, such as to a student information or registrar system will require a plug-in (etc) to be written.

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Demonstration

A demonstration of Sakai can be shown if Internet access is available.

Questions?