Contents

SECONDO-Server Installation

The web application WebGui2 requires SECONDO-Server.

Step-by-step instruction how to install SECONDO-Server on Ubuntu/Linux:

1. Installation of Berkeley-DB

   1.1. download Berkeley-DB, e.g., `db-5.3.21.NC.tar.gz`

   1.2. create a new directory: `mkdir HOME/BDB`

   1.3. unpack the downloaded file: `tar -xzf db-5.3.21.NC.tar.gz`

   1.4. change directory: `cd db-5.3.21/build-unix`

   1.5. configure: `../dist/configure -prefix=HOME/BDB -enable-cxx`

   1.6. compile: `make`

   1.7. install: `make install`

2. Save the configuration file as `.secondorc` in home directory

3. Download and unpack SECONDO

   3.1. change directory: `cd HOME`

   3.2. download SECONDO:

```
wget http://dna.fernuni-hagen.de/Secondo.html/files/secondo-v340-
LAT1.tar.gz
```

3.3. unpack the downloaded file: `tar -xzf secondo-v340-LAT1.tar.gz`

3.4. close the terminal (exit) and open a new one.

Alternatively the most actual version of SECONDO can be checked out from CVS.

3.1. change a `.bashrc` configuration file of Unix Bash to access the CVS. Add:

```
export CVSROOT=":pserver:username@zeppelin.fernuni-
hagen.de:2401/home/cvsroot"

source HOME/.secondorc HOME/secondo
```

Username should be replaced with the valid CVS user name.

3.2. start bash: `bash`

3.3. check out Secondo: `cvs co secondo.`

4. Change directory: `HOME/secondo` and compile SECONDO: `make`

5. Change a configuration file SecondoConfig.ini. The port for the server should be changed. For the project WebGUI2 SECONDO system was installed on the port 1212.

6. Change directory: `HOME/secondo/bin`

7. Start SECONDO-Server: `SecondoMonitor -s` (SecondoListener waits for the clients requests).

   For more info see http://dna.fernuni-hagen.de/secondo/

Web-Server Installation

The web application WebGui2 requires Web-Server. For the project WebGui2 Apache Tomcat Server Version 7.0.59 was installed on port 1304.

Step-by-step instruction how to install Apache Tomcat Server on Ubuntu/Linux:

1. update apt-get (from HOME directory): `sudo apt-get update`

2. download Tomcat through apt-get: `sudo apt-get install tomcat7`

3. change directory: `HOME/apache-tomcat-7.0.59/conf`

4. change a port in web.xml: `<Connector port="1304" protocol="HTTP/1.1" …>`

5. change User and Password in tomcat-users.xml : `<user username="user" password="user" roles="manager-gui"/>`

6. change directory: `HOME/apache-tomcat-7.0.59/bin` and start Tomcat: `startup.sh`

7. open in web browser: `http://server_ip_address:1304/`

8. for server stop: `shutdown.sh` (from `HOME/apache-tomcat-7.0.59/bin`)

9. for server start: `startup.sh` (from `HOME/apache-tomcat-7.0.59/bin`)

Web Application Deployment to the Web-Server

After changes in the project WebGui2 it should be deployed to the web-server. To deploy it follow the steps:

1. compile the project WebGui2: in Eclipse do right-click on the project and select `Google-->GWT compile` (see **Error! Reference source not found.**)

2. export WebGui2 in web archive (war): in Eclipse do right-click on the project and select `Google-->GWT Web App export` …. (see **Error! Reference source not found.**)

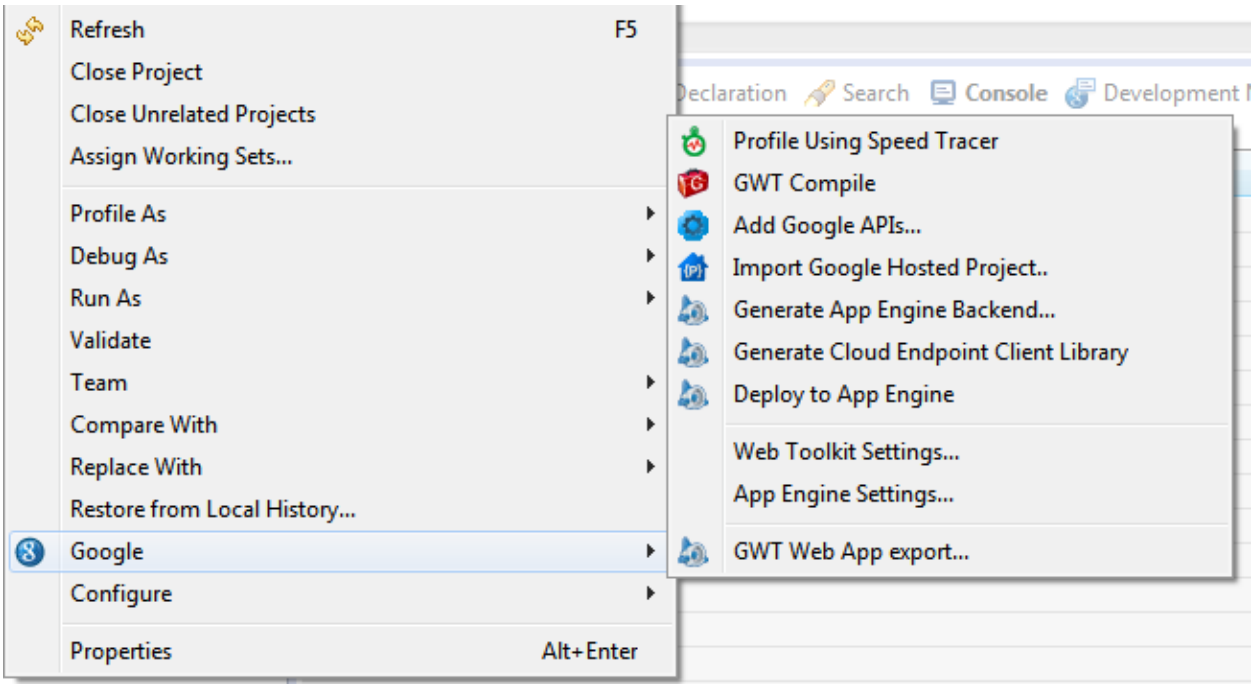


Figure 1. Google GWT compile/export in Eclipse

3. deploy War-file to the server. If web server was started, to deploy under the path **http://server_ip_address:1304/manager** in the section „`WAR file to deploy`“ (see Figure 2)

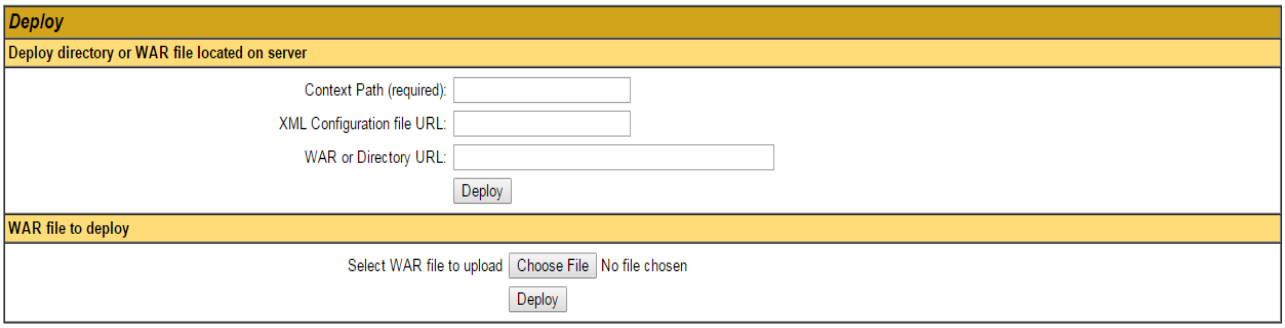


Figure 2. Tomcat Web Application Manager. Deployment

SECONDO-Server Restart

To prevent a web application from stopping in the case of DB server stop the script `local_control.sh` was created. The script is saved at the university server under path `/home/russkaya/secondo/bin` and in the CVS in the project WebGui2.

The `local_control.sh` checks every 30 sec whether `SecondoMonitor` works and if not starts it again.

`local_control.sh status` – returns the status of the script

`local_control.sh stop` – stops the script

`local_control.sh start` – starts the script

To restart the server:

1. stop `local_control.sh stop`,
2. kill process `SecondoMonitor`
3. start from `HOME/secondo/bin SecondoMonitor -s`
4. start `local_control.sh` start

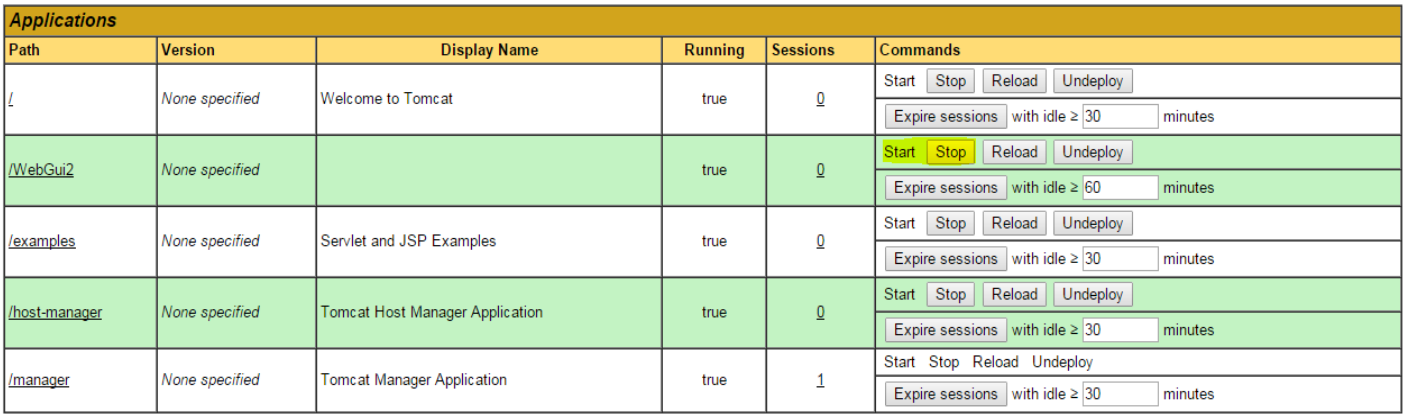
Web-Server Restart

If the Tomcat server stopped, it can be restarted with `startup.sh` (from `HOME/apache-tomcat-7.0.59/bin`). To analyze the possible reasons for the stop it is recommended to check the log file `catalina.out` in `HOME/apache-tomcat-7.0.59/logs`.

Web Application Restart

How to restart web application:

If Tomcat server is running, under the path http://server_ip_address:1304/manager (currently on the Agnesi server http://agnesi.fernuni-hagen.de:1304/manager) stop and then start the application WebGui2 as shown in the Figure 3.



Applications					
Path	Version	Display Name	Running	Sessions	Commands
/	None specified	Welcome to Tomcat	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/WebGui2	None specified		true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 60 minutes
/examples	None specified	Servlet and JSP Examples	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/host-manager	None specified	Tomcat Host Manager Application	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/manager	None specified	Tomcat Manager Application	true	1	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes

Figure 3. Tomcat Web Application Manager. Applications