Appendix D

Deployment Instructions

D.1   Repository Deployment Instructions

This Section presents the deployment guide to install the Repository component.

D.1.1   Software Requirements

The software requirements needed to run the BlogForever Repository are either Linux packages or Python packages. The Linux packages will be installed automatically in the installation process described in the next subsection. The commands that do this part are:

```
sudo -u www-data make install-jquery-plugins
sudo -u www-data make install-jquery-tokeninput
sudo -u www-data make install-jstimeline-plugin
sudo -u www-data make install-mathjax-plugin
sudo -u www-data make install-mediaelement
```

Regarding the Python packages, the source files include several files listing the packages needed. These files are `requirements.txt`, `requirements-extras.txt`, `requirements-flask.txt`, and `requirements-flask-ext.txt` In Debian, for example, it is easy to use these files. The following commands will install the packages using the appropriated version of each of them.

```
sudo pip install -r requirements.txt
sudo pip install -r requirements-extras.txt
sudo pip install -r requirements-flask.txt
sudo pip install -r requirements-flask-ext.txt
```

D.1.2   Instructions

The code of the BlogForever repository is divided in 2 different git code repositories:

- One of them is a new branch on top of Invenio's `next` branch and has the features developed for BlogForever that can be used in Invenio (they are generic to any digital repository). The name of this branch is `invenio-blogforever-next`. We will refer to it as "the Invenio side".

- The second one is a different repository where you can find the features developed that are not compatible with the general-purpose version of Invenio. This repository can be found in http://invenio-software.org/repo/blogforever/ and the latest branch is called next. We talk about is as "the BlogForever side"

Therefore, you will need 2 different directories with the source files. From now on, we will assume `/src/invenio` and `/src/blogforever`.

To bring the latest version of the BlogForever side under the right directory:

```
cd  /src
git clone http://invenio-software.org/repo/blogforever/
cd blogforever
git fetch
git checkout next
```

To bring the latest version of the Invenio side under the right directory:

```
cd  /src
git clone http://invenio-software.org/repo/invenio/
cd invenio
git remote add
 jgarcial http://invenio-software.org/repo/personal/invenio-jgarcial
git fetch jgarcial invenio-blogforever-next
git checkout invenio-blogforever-next
```

Now you have all the latest source files. Let's install all of it. First, we install the Invenio side. According to the Invenio install instructions, you do:

```
This is needed only the first time
cd  /src/invenio
aclocal-1.9
automake-1.9 -a
autoconf
./configure

These 2 lines are only ones needed every time you reinstall the code
sudo make
sudo -u www-data make install

This is needed only the first time
sudo -u www-data make install-jquery-plugins
sudo -u www-data make install-jquery-tokeninput
sudo -u www-data make install-jstimeline-plugin
sudo -u www-data make install-mathjax-plugin
sudo -u www-data make install-mediaelement
pip install -r requirements.txt
pip install -r requirements-extras.txt
pip install -r requirements-flask.txt
pip install -r requirements-flask-ext.txt
```

Let's install the BlogForever side sources:

```
cd  /src/blogforever
make
sudo -u www-data make install
```

Now, all the source files are in the right directories (by default `/opt/invenio`). We need to load the config variables and restart apache:

```
These 2 commands will also be needed every time you reinstall the sources
sudo -u www-data /opt/invenio/bin/inveniocfg --update-all
sudo /etc/init.d/apache2 restart
```

Let's create the database and fill it with the default values:

```
sudo -u www-data /opt/invenio/bin/inveniomanage database create
sudo -u www-data /opt/invenio/bin/inveniocfg --create-demo-site
```

And there you go. Your site will be up and running... hopefully. I guess you also want some records. For this, you will need to get your BibSched ready: This will tell the scheduler to start running the tasks in the queue. You can also stop it.

```
sudo -u www-data /opt/invenio/bin/bibsched start
```

Config variables to be added in your `invenio-local.conf` file:

```
CFG_BIBUPLOAD_FFT_ALLOWED_LOCAL_PATHS = /tmp,/home,/opt
CFG_BIBSCHED_MAX_NUMBER_CONCURRENT_TASKS = 2
CFG_FLASK_SERVE_STATIC_FILES = 1
CFG_BLOGFOREVER_SITE = 1
CFG_FLASK_CACHE_TYPE = redis
CFG_DEVEL_TOOLS = werkzeug-debugger
CFG_FLASK_DISABLED_BLUEPRINTS = webdeposit_blueprint
CFG_WEBSTYLE_TEMPLATE_SKIN = blogforever.css
```

After adding this configuration to your `invenio-local.conf` file you should run the following command so they are taken into account:

```
sudo -u www-data /opt/invenio/bin/inveniocfg --update-all
```

Let's add the fetcher task. It will download data from the spider (BF4 instance in this case). It will upload records into the database:

```
Note that this all is just one command
sudo -u www-data /opt/invenio/bin/bibtasklet
 -T bst_fetch_records_from_spider
 -a url='http://bf4.itc.auth.gr/Spider20130620/SpiderService.svc?wsdl'
 -a api_key='DZFbrYM5pmOs6xKafZSz9+lLeJVoIyWhgF3VQU0+4dg='
 -a constant_set=20 -u admin
```

This task keeps the id of the last record fetched from the spider. If you want to start fetching all the records from the beginning again, you will need to remove the file where the last id was stored (`/opt/invenio/var/tmp/last_id`) Probably you will also want to remove all the current records. To do that you just need to run the following command:

```
sudo -u www-data /opt/invenio/bin/inveniocfg --remove-demo-records
```

In order to be able to find the records when searching or browsing, you'll need to add other tasks to the BibSched queue:

```
These commands will load the basic tasks that will run every 5 minutes
sudo -u www-data /opt/invenio/bin/bibindex -f50000 -s5m -u admin
sudo -u www-data /opt/invenio/bin/bibreformat -oHB -s5m -u admin
sudo -u www-data /opt/invenio/bin/webcoll -v0 -s5m -u admin
sudo -u www-data /opt/invenio/bin/bibrank -f50000 -s5m -u admin
sudo -u www-data /opt/invenio/bin/bibsort -s5m -u admin


These commands will load housekeeping tasks that will run only once a week
sudo -u www-data /opt/invenio/bin/bibrank -f50000 -R -wwrd -s14d
                                   -L Sunday -u admin
sudo -u www-data /opt/invenio/bin/bibsort -R -s7d
                                   -L 'Sunday 01:00-05:00' -u admin
sudo -u www-data /opt/invenio/bin/inveniogc -a -s7d
                                   -L'Sunday 01:00-05:00' -u admin
```