

# Deploying on FreeBSD 8.2 and WebObjects 5.4.3

This page describes the steps to install WebObjects 5.4.3 from scratch on a modern FreeBSD 8.2 system. This instructions do not include using the WOPort, as described in [Deploying on FreeBSD 6.x and 7.x \(WO 5.3.3\)](#). Although the WOPort would save a lot of time, it's not being actively maintained, and AFAIK does not support WO 5.4.3. This instructions are based on WOInstaller.jar, and provide all the necessary steps to a working deployment environment, including Apache web server integration.

The following steps assume you have installed the necessary ports. Those include `java/diablo-jdk16`, `www/apache22` and `devel/git`.

1. Download `WOInstaller.jar` from <http://wocommunity.org/documents/tools>

2. As root, create the `/usr/local/apple` directory:

```
mkdir /usr/local/apple
```

3. Run the following command to install the WebObjects frameworks in the directory just created:

```
java -jar WOInstaller.jar 5.4.3 /usr/local/apple
```

4. Edit `/etc/rc.conf` and add the following lines:

```
## WebObjects ##  
JavaMonitor_enable="YES"  
wotaskd_enable="YES"
```

5. Run the following commands to create needed directories and set correct permissions:

```
mkdir /var/run/webobjects/  
mkdir /var/log/webobjects/  
chmod ugo+x  
/usr/local/apple/Library/WebObjects/JavaApplications/wotaskd.woa/wotaskd  
chmod ugo+x  
/usr/local/apple/Library/WebObjects/JavaApplications/JavaMonitor.woa/JavaM  
onitor  
chgrp www /usr/local/apple/Local/Library/WebObjects/Configuration/  
chmod g+w /usr/local/apple/Local/Library/WebObjects/Configuration/
```

6. Place these two files in `/usr/local/etc/rc.d/` directory: `wotaskd` and `JavaMonitor`

7. Run the following commands to start `wotaskd` and `JavaMonitor`. After running this commands, your system should be running `wotaskd` and `JavaMonitor`. You can verify that by running `top` or `ps`. Also, you should take the time now to configure `JavaMonitor`, including setting the administration password.

```
/usr/local/etc/rc.d/wotaskd start  
/usr/local/etc/rc.d/JavaMonitor start
```

8. We need to checkout Project Wonder to obtain a copy of the Apache adaptor source. To do that, `cd` to a work directory, and run the following command. This will checkout Project Wonder from GitHub.

```
git clone https://github.com/wocommunity/wonder.git
```

9. Inside the Project Wonder directory, navigate to the `Utilities/Adaptors` directory:

```
cd Utilities/Adaptors
```

10. Edit the `make.config` file, and set the OS to FreeBSD by changing the following line:

```
# Set the platform you are building on  
ADAPTOR_OS = FreeBSD
```

11. Run the `gmake` command on that directory. Note that you have to run `gmake` and not `make`. Also, do not change directory to `Apache2.2`. The command should be run on the `Utilities/Adaptors` directory.

```
gmake
```

12. After successful compilation, enter `Utilities/Adaptors/Apache2.2` directory and install the module on Apache:

```
cd Apache2.2  
apxs -i -a -n WebObjects mod_WebObjects.la
```

13. Edit the `/usr/local/etc/apache22/httpd.conf` file and make sure the `LoadModule` line for the `WebObjects` module appears before `LoadModule` for `mod_rewrite`. If not, swap the order of both lines.

14. Still in `/usr/local/etc/apache22/httpd.conf` file, tweak the following configurations (you can do however you want, this are just suggestions to make it run plain and simply):

- Change `None` to `All` in the `Allow` line of the following configuration section:

```
<Directory />  
    AllowOverride None  
    Order deny,allow  
    Allow from all  
</Directory>
```

- Comment out the following line and section, if you want to use the default `/cgi-bin/WebObjects` URL for the `WebObjects` module:

```
# ScriptAlias /cgi-bin/ "/usr/local/www/apache22/cgi-bin/"
```

```
#<Directory "/usr/local/www/apache22/cgi-bin">
#   AllowOverride None
#   Options None
#   Order allow,deny
#   Allow from all
#</Directory>
```

15. Assuming you're still in `Wonder's Utilities/Adaptors/Apache2.2` directory (cd to it if you left it in the previous step), copy the following file to the Apache configuration directory:

```
cp apache.conf /usr/local/etc/apache22/Includes/wo.conf
```

16. Edit the destination file (`/usr/local/etc/apache22/Includes/wo.conf`). You need to make two changes:

- Comment out the `LoadModule` line, as the module is already loaded by `httpd.conf`.
- Set `WebObjectsDocumentRoot` to `/usr/local/www/apache22/data`:

```
WebObjectsDocumentRoot /usr/local/www/apache22/data
```

17. Edit `/etc/rc.conf` again and add the following lines:

```
apache22_enable="YES"
```

18. Run the following command to launch Apache:

```
/usr/local/etc/rc.d/apache22 start
```

You should now have a working web server and WebObjects deployment environment. Try to open your browser and access `http://<your-server-name>/cgi-bin/WebObjects/app.woa` and you should see the error "The requested application was not found on this server." generated by the WebObjects adaptor.

## Project Wonder

To install Project Wonder, assuming you performed all the previous steps and checked out Wonder from GitHub, do the following steps logged in as your username (not root!):

1. Install the port `devel/apache-ant` if not yet installed.

2. Run the following command:

```
mkdir -p "~/Library/Application Support/WOLips/"
```

3. On that directory, create a file named `wolips.properties` with the following content, adjusted to your paths:

```
#Wed Sep 17 01:33:31 WEST 2008
wo.system.root=/usr/local/apple
wo.user.frameworks=/home/<username>/Library/Frameworks
wo.system.frameworks=/usr/local/apple/Library/Frameworks
wo.bootstrapjar=/usr/local/apple/Library/WebObjects/JavaApplications/wotas
kd.woa/WOBootstrap.jar
wo.network.frameworks=
wo.api.root=
wo.network.root=
wo.extensions=/usr/local/apple/Local/Library/WebObjects/Extensions
wo.user.root=/home/<username>
wo.local.frameworks=/usr/local/apple/Local/Library/Frameworks
wo.apps.root=/usr/local/apple/Local/Library/WebObjects/Applications
wo.local.root=/usr/local/apple/Local
wo.systemroot=/usr/local/apple
wo.wosystemroot=/usr/local/apple
wo.wolocalroot=/usr/local/apple/Local
wo.localroot=/usr/local/apple/Local
wo.server.root=/usr/local/www/apache22/data/WebObjects
```

4. Create `/usr/local/www/apache22/data/WebObjects` directory with write permission for group `wheel` (or whatever group you are on).
5. Run the following command:

```
chmod -R g+w /usr/local/apple/Local/Library
```

Note that you can use more restrict permissions than the ones showed here. This should be only considered as an example.

6. `cd` into the Wonder directory.
7. Run the commands:

```
ant frameworks
ant frameworks.install
```

This will compile and install Wonder in your system, including the web server resources of Wonder frameworks, like Ajax.