

Compiling and setting up OCaml

From Termux Wiki

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OCaml + Termux

OCaml native on android!

This is a copy of the original article, available at
<http://ygrek.org.ua/p/ocaml-termux.html> (<http://ygrek.org.ua/p/ocaml-termux.html>)

Install

Use binary OPAM package for aarch64 to build OCaml

1. Install OPAM

```
echo "deb [arch=all,aarch64] http://ygrek.org.ua/files/debian/termux
./" >> data/data/com.termux/files/usr/etc/apt/sources.list
apt-get update # repository is not signed for now :)
pkg install opam
```

2. Install OCaml

```
opam init --comp=4.03.0+termux termux https://github.com/camlunity/op
am-repository.git#termux
```

Build

Build OCaml to build OPAM to build OCaml

1. Prepare proper build environment.

```
pkg install build-essential diffutils m4 patch
```

2. NB termux lacks `/bin/sh` (and all other standard unix file paths for that matter), so the main problem during builds is hardcoded shell path in <https://github.com/termux/termux-packages/issues/98> (<https://github.com/termux/termux-packages/issues/98>).

To overcome it - use `sh ./script` instead of just `./script`.

3. Build OCaml

```
mkdir ~/tmp
export TMPDIR=$HOME/tmp # add to ~/.profile
git clone https://github.com/ygrek/ocaml.git -b termux-4.03.0
cd ocaml
sh ./configure -prefix $PREFIX
make world.opt install
```

4. Build OPAM

```
curl -LO https://github.com/ocaml/opam/releases/download/1.2.2/opam-full-1.2.2.tar.gz
tar -xzf opam-full-1.2.2.tar.gz
cd opam-full-1.2.2/
sed -i 's|/bin/sh|sh|' src/core/opamSystem.ml OCamlMakefile
CONFIG_SHELL=sh sh ./configure -prefix "$PREFIX"
OCAMLPARAM="safe-string=0,_" make lib-ext all install
```

5. Add OPAM remote with Termux patches

```
opam remote add termux https://github.com/camlunity/opam-repository.git#termux
```

6. Install OCaml via OPAM and remove system OCaml (built in step 3) to avoid confusion with OPAM switches

```
opam sw 4.03.0+termux # 4.02.3+termux 4.04.0+termux
rm /data/data/com.termux/files/usr/man/man1/ocaml*
rm /data/data/com.termux/files/usr/bin/ocaml*
rm -rf /data/data/com.termux/files/usr/lib/ocaml
opam sw remove system
```

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