1.Tomasz Jąder

2. Music on Console jest to konsolowy odtwarzacz przeznaczony na system linux. Program jest bardzo prosty w obsłudze i jest ceniony za małe złożycie zasobów komputera. Program obsługuje formaty plików: MP3, Ogg Vorbis, FLAC, Musepack, Speex, WAV, MOD, WavPack, AAC, SID, MIDI.

3. Instalacja programu

Instalacje programu zacząłem od stworzenia nowego katalogu i później pobrałam potrzeb zależności ze strony github programu.

```
kali@kali:~$ mkdir myapp
kali@kali:~$ cd myapp/
kali@kali:~/myapp$ sudo apt-get install libasound2-dev libcurl4-openssl-dev libogg-dev libvorbis-de
v libflac-dev libopus-dev libid3tag0-dev libsndfile1-dev libfaad-dev libavcodec-dev libsamplerate0-
dev librcc-dev

[sudo] password for kali:
Reading package lists ... Done
Building dependency tree ... Done
Reading state information ... Done
The following additional packages will be installed:
  libavutil-dev libenca0 libid3tag0 librcc0 librccgtk2-0 librcd-dev librcd0 libswresample-dev
Suggested packages:
  libasound2-doc libcurl4-doc libidn11-dev libkrb5-dev libldap2-dev librtmp-dev libssh2-1-dev
The following NEW packages will be installed:
  libasound2-dev libavcodec-dev libavutil-dev libcurl4-openssl-dev libenca0 libfaad-dev
  libflac-dev libid3tag0 libid3tag0-dev libogg-dev libopus-dev librcc-dev librcc0 librccgtk2-0
  librcd-dev librcd0 libsamplerate0-dev libsndfile1-dev libswresample-dev libvorbis-dev
0 upgraded, 20 newly installed, 0 to remove and 0 not upgraded.
Need to get 9,770 kB of archives.
After this operation, 38.7 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://kali.koyanet.lv/kali kali-rolling/main amd64 libasound2-dev amd64 1.2.4-1.1 [126 kB]
Get:2 http://http.kali.org/kali kali-rolling/main amd64 libavutil-dev amd64 7:4.3.2-0+deb11u2 [431
kB]
Get:3 http://http.kali.org/kali kali-rolling/main amd64 libswresample-dev amd64 7:4.3.2-0+deb11u2 [
```

```
Setting up libfaad-dev:amd64 (2.10.0-1) ...
Setting up libid3tag0-dev (0.15.1b-14) ...
Setting up librcd0 (0.1.13-3+b2) ...
Setting up libasound2-dev:amd64 (1.2.4-1.1) ...
Setting up librcc0 (0.2.12-0.1+b2) ...
Setting up libvorbis-dev:amd64 (1.3.7-1) ...
Setting up librcd-dev (0.1.13-3+b2) ...
Setting up libflac-dev:amd64 (1.3.3-2) ...
Setting up librccgtk2-0 (0.2.12-0.1+b2) ...
Setting up libsndfile1-dev:amd64 (1.0.31-1) ...
Setting up librcc-dev (0.2.12-0.1+b2) ...
Processing triggers for libc-bin (2.31-12) ...
Processing triggers for man-db (2.9.4-2) ...
Processing triggers for kali-menu (2021.2.3) ...
```

Potem pobrałem repozytorium programu z githuba projektu.

```
kali@kali:~/myapp$ git clone https://github.com/jonsafari/mocp.git
Cloning into 'mocp'...
remote: Enumerating objects: 10819, done.
remote: Counting objects: 100% (39/39), done.
remote: Compressing objects: 100% (24/24), done.
Receiving objects: 100% (10819/10819), 2.51 MiB | 646.00 KiB/s, done.
remote: Total 10819 (delta 17), reused 34 (delta 15), pack-reused 10780
Resolving deltas: 100% (7784/7784), done.
kali@kali:~/myapp$ ls
```

Spawdzam czy mam zainsatlowna pakiet build-essential

```
kali@kali:~/myapp$ dpkg -s build-essential
Package: build-essential
Status: install ok installed
Priority: optional
Section: devel
Installed-Size: 20
Maintainer: Matthias Klose <doko@debian.org>
Architecture: amd64
Version: 12.9
Depends: libc6-dev | libc-dev, gcc (≥ 4:10.2), g++ (≥ 4:10.2), make, dpkg-dev (≥ 1.17.11)
Description: Informational list of build-essential packages
 If you do not plan to build Debian packages, you don't need this
 package.  Starting with dpkg (≥ 1.14.18) this package is required
 for building Debian packages.
 .
 This package contains an informational list of packages which are
 considered essential for building Debian packages.  This package also
 depends on the packages on that list, to make it easy to have the
 build-essential packages installed.
 .
 If you have this package installed, you only need to install whatever
 a package specifies as its build-time dependencies to build the
 package.  Conversely, if you are determining what your package needs
 to build-depend on, you can always leave out the packages this
 package depends on.
 .
 This package is NOT the definition of what packages are
 build-essential; the real definition is in the Debian Policy Manual.
 This package contains merely an informational list, which is all
 most people need.  However, if this package and the manual disagree,
 the manual is correct.
```

Następnie wykonuje polecenie które wygeneruje plik konfiguracyjny wcześniej przechodząc katalog niżej.

```
kali@kali:~/myapp/mocp$ autoreconf -if
aclocal: warning: autoconf input should be named 'configure.ac', not 'configure.in'
libtoolize: putting auxiliary files in '.'.
libtoolize: copying file './compile'
libtoolize: copying file './config.guess'
libtoolize: copying file './config.sub'
libtoolize: copying file './depcomp'
libtoolize: copying file './install-sh'
libtoolize: copying file './missing'
libtoolize: copying file './ltmain.sh'
libtoolize: putting macros in 'm4'.
libtoolize: copying file 'm4/libtool.m4'
libtoolize: copying file 'm4/ltargz.m4'
libtoolize: copying file 'm4/ltdl.m4'
libtoolize: copying file 'm4/ltoptions.m4'
libtoolize: copying file 'm4/ltsugar.m4'
libtoolize: copying file 'm4/ltversion.m4'
libtoolize: copying file 'm4/lt~obsolete.m4'
libtoolize: putting libltdl files in 'libltdl'.
libtoolize: copying file 'libltdl/COPYING.LIB'
libtoolize: creating file 'libltdl/Makefile.am'
```

```
libtoolize: copying file 'libltdl/loaders/preopen.c'
libtoolize: copying file 'libltdl/loaders/shl_load.c'
libtoolize: copying file 'libltdl/lt__alloc.c'
libtoolize: copying file 'libltdl/lt__argz.c'
libtoolize: copying file 'libltdl/lt__dirent.c'
libtoolize: copying file 'libltdl/lt__strl.c'
libtoolize: copying file 'libltdl/lt_dlloader.c'
libtoolize: copying file 'libltdl/lt_error.c'
libtoolize: copying file 'libltdl/ltdl.c'
libtoolize: copying file 'libltdl/ltdl.h'
libtoolize: copying file 'libltdl/slist.c'
libtoolize: Remember to add 'LT_CONFIG_LTDL_DIR([libltdl])' to 'configure.in'.
libtoolize: Consider adding 'AC_CONFIG_MACRO_DIRS([m4])' to configure.in,
libtoolize: and rerunning libtoolize and aclocal.
aclocal: warning: autoconf input should be named 'configure.ac', not 'configure.in'
automake: warning: autoconf input should be named 'configure.ac', not 'configure.in'
automake: warning: autoconf input should be named 'configure.ac', not 'configure.in'
kali@kali:~/myapp/mocp$
```

Następnie wywołałem polecenie konfiguracyjne.

```
kali@kali:~/myapp/mocp$ ./configure
checking for a BSD-compatible install ... /usr/bin/install -c
checking whether build environment is sane ... yes
checking for a thread-safe mkdir -p ... /usr/bin/mkdir -p
checking for gawk ... gawk
checking whether make sets $(MAKE) ... yes
checking whether make supports nested variables ... yes
checking build system type ... x86_64-pc-linux-gnu
checking host system type ... x86_64-pc-linux-gnu
checking whether make supports the include directive ... yes (GNU style)
checking for gcc ... gcc
checking whether the C compiler works ... yes
checking for C compiler default output file name ... a.out
checking for suffix of executables ...
checking whether we are cross compiling ... no
checking for suffix of object files ... o
checking whether we are using the GNU C compiler ... yes
checking whether gcc accepts -g ... yes
checking for gcc option to accept ISO C89 ... none needed
checking whether gcc understands -c and -o together ... yes
checking dependency style of gcc ... gcc3
```

```
  checking for closedir ... yes
  checking for opendir ... yes
  checking for readdir ... yes
  checking for strlcat ... no
  checking for strlcpy ... no
  checking that generated files are newer than configure ... done
  configure: creating ./config.status
  config.status: creating Makefile
  config.status: creating config.h
  config.status: executing depfiles commands
  config.status: executing libtool commands


  _____

  MOC will be compiled with:

  Decoder plugins:    aac flac sndfile vorbis
  Sound Drivers:      OSS ALSA
  DEBUG:              yes
  RCC:                yes
  Network streams:    yes
  Resampling:         yes
  MIME magic:         yes
  _____


  WARNING: MOC will soon require librcc version 0.2.10 or later;
           plan to upgrade your RCC library soon.

  kali@kali:~/myapp/mocp$
```

Wszystko przesło bez problemu daltego przeszedłem do nastepnego kroku jakim jest kompilacja aplikacji.

```
kali@kali:~/myapp/mocp$ make -j2
make  all-recursive
make[1]: Entering directory '/home/kali/myapp/mocp'
Making all in themes
make[2]: Entering directory '/home/kali/myapp/mocp/themes'
make[2]: Nothing to be done for 'all'.
make[2]: Leaving directory '/home/kali/myapp/mocp/themes'
Making all in decoder_plugins
make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins'
Making all in aac
make[3]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/aac'
/bin/bash ../../libtool  --tag=CC  --mode=compile gcc -DHAVE_CONFIG_H -I. -I../.. -D_DEFAULT_SOU
RCE -D_XOPEN_SOURCE=600  -I../.. -pthread -g -O2 -Wall -Wextra    -I/usr/include/x86_64-linux-gnu -
MT libaac_decoder_la-aac.lo -MD -MP -MF .deps/libaac_decoder_la-aac.Tpo -c -o libaac_decoder_la-aac
.lo `test -f 'aac.c' || echo './'`aac.c
libtool: compile:  gcc -DHAVE_CONFIG_H -I. -I../.. -D_DEFAULT_SOURCE -D_XOPEN_SOURCE=600 -I../.. -p
thread -g -O2 -Wall -Wextra -I/usr/include/x86_64-linux-gnu -MT libaac_decoder_la-aac.lo -MD -MP -M
F .deps/libaac_decoder_la-aac.Tpo -c aac.c  -fPIC -DPIC -o .libs/libaac_decoder_la-aac.o
mv -f .deps/libaac_decoder_la-aac.Tpo .deps/libaac_decoder_la-aac.Plo
/bin/bash ../../libtool  --tag=CC  --mode=link gcc  -I../.. -pthread -g -O2 -Wall -Wextra    -I/us
r/include/x86_64-linux-gnu -module -avoid-version  -o libaac_decoder.la -rpath /usr/local/lib/moc/d
ecoder_plugins libaac_decoder_la-aac.lo -lid3tag -lz -lfaad -lpopt
libtool: link: gcc -shared  -fPIC -DPIC  .libs/libaac_decoder_la-aac.o   -lid3tag -lz -lfaad -lpopt
  -pthread -g -O2   -pthread -Wl,-soname -Wl,libaac_decoder.so -o .libs/libaac_decoder.so
libtool: link: ( cd ".libs" && rm -f "libaac_decoder.la" && ln -s "../libaac_decoder.la" "libaac_de
```

```
ull_out.c
mv -f .deps/null_out.Tpo .deps/null_out.Po
gcc -DHAVE_CONFIG_H -I.  -DSYSTEM_THEMES_DIR=\"/usr/local/share/moc/themes\" -DPLUGIN_DIR=\"/usr/lo
cal/lib/moc/decoder_plugins\" -D_DEFAULT_SOURCE -D_XOPEN_SOURCE=600  -pthread -g -O2 -Wall -Wextra
   -I/usr/include/x86_64-linux-gnu -MT md5.o -MD -MP -MF .deps/md5.Tpo -c -o md5.o md5.c
mv -f .deps/alsa.Tpo .deps/alsa.Po
gcc -DHAVE_CONFIG_H -I.  -DSYSTEM_THEMES_DIR=\"/usr/local/share/moc/themes\" -DPLUGIN_DIR=\"/usr/lo
cal/lib/moc/decoder_plugins\" -D_DEFAULT_SOURCE -D_XOPEN_SOURCE=600  -pthread -g -O2 -Wall -Wextra
   -I/usr/include/x86_64-linux-gnu -MT io_curl.o -MD -MP -MF .deps/io_curl.Tpo -c -o io_curl.o io_c
url.c
mv -f .deps/md5.Tpo .deps/md5.Po
mv -f .deps/io_curl.Tpo .deps/io_curl.Po
/bin/bash ./libtool  --tag=CC  --mode=link gcc  -pthread -g -O2 -Wall -Wextra    -I/usr/include/x8
6_64-linux-gnu -ldb -lasound -lmagic  -lncursesw -ltinfo -lsamplerate  -lcurl -lrcc -export-dynamic
  -o mocp log.o protocol.o server.o main.o common.o playlist.o fifo_buf.o out_buf.o audio.o decoder
.o interface.o interface_elements.o menu.o files.o options.o player.o playlist_file.o themes.o keys
.o io.o compat.o audio_conversion.o rbtree.o tags_cache.o utf8.o rcc.o softmixer.o lyrics.o lists.o
 equalizer.o oss.o alsa.o null_out.o md5.o io_curl.o -lltdl -lm -lpopt
libtool: link: gcc -pthread -g -O2 -Wall -Wextra -I/usr/include/x86_64-linux-gnu -o mocp log.o prot
ocol.o server.o main.o common.o playlist.o fifo_buf.o out_buf.o audio.o decoder.o interface.o inter
face_elements.o menu.o files.o options.o player.o playlist_file.o themes.o keys.o io.o compat.o aud
io_conversion.o rbtree.o tags_cache.o utf8.o rcc.o softmixer.o lyrics.o lists.o equalizer.o oss.o a
lsa.o null_out.o md5.o io_curl.o -Wl,--export-dynamic  -ldb -lasound -lmagic -lncursesw -ltinfo -ls
amplerate -lcurl /usr/lib/librcc.so -lltdl -lm -lpopt -pthread
make[2]: Leaving directory '/home/kali/myapp/mocp'
make[1]: Leaving directory '/home/kali/myapp/mocp'
kali@kali:~/myapp/mocp$
```

Zajeło to troche czasu ale nie było żadnych problemów.

Nastepnie przeszedłem do wykonania testów jednostkowych.

```
kali@kali:~/myapp/mocp$ make check
 Making check in themes
 make[1]: Entering directory '/home/kali/myapp/mocp/themes'
 make[1]: Nothing to be done for 'check'.
 make[1]: Leaving directory '/home/kali/myapp/mocp/themes'
 Making check in decoder_plugins
 make[1]: Entering directory '/home/kali/myapp/mocp/decoder_plugins'
 Making check in aac
 make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/aac'
 make[2]: Nothing to be done for 'check'.
 make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/aac'
 Making check in vorbis
 make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/vorbis'
 make[2]: Nothing to be done for 'check'.
 make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/vorbis'
 Making check in flac
 make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/flac'
 make[2]: Nothing to be done for 'check'.
 make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/flac'
 Making check in sndfile
 make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/sndfile'
 make[2]: Nothing to be done for 'check'.
 make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/sndfile'
 make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins'
 make[2]: Nothing to be done for 'check-am'.
 make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins'
 make[1]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins'
 make[1]: Entering directory '/home/kali/myapp/mocp'
 make[1]: Leaving directory '/home/kali/myapp/mocp'
kali@kali:~/myapp/mocp$
```

Gdy wsztkie testy przeszły zabrałem się za instalacje progamu.

```
kali@kali:~/myapp/mocp$ sudo make install
Making install in themes
make[1]: Entering directory '/home/kali/myapp/mocp/themes'
make[2]: Entering directory '/home/kali/myapp/mocp/themes'
make[2]: Nothing to be done for 'install-exec-am'.
 /usr/bin/mkdir -p '/usr/local/share/moc/themes'
 /usr/bin/install -c -m 644 transparent-background example_theme nightly_theme green_theme yellow_r
ed_theme black_theme moca_theme red_theme darkdot_theme '/usr/local/share/moc/themes'
make[2]: Leaving directory '/home/kali/myapp/mocp/themes'
make[1]: Leaving directory '/home/kali/myapp/mocp/themes'
Making install in decoder_plugins
make[1]: Entering directory '/home/kali/myapp/mocp/decoder_plugins'
Making install in aac
make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/aac'
make[3]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/aac'
 /usr/bin/mkdir -p '/usr/local/lib/moc/decoder_plugins'
 /bin/bash ../../libtool   --mode=install /usr/bin/install -c  libaac_decoder.la '/usr/local/lib/m
oc/decoder_plugins'
libtool: install: /usr/bin/install -c .libs/libaac_decoder.so /usr/local/lib/moc/decoder_plugins/li
baac_decoder.so
libtool: install: /usr/bin/install -c .libs/libaac_decoder.lai /usr/local/lib/moc/decoder_plugins/l
ibaac_decoder.la
libtool: finish: PATH="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/sbin" ldconfig
 -n /usr/local/lib/moc/decoder_plugins
----------------------------------------------------------------------
Libraries have been installed in:
   /usr/local/lib/moc/decoder_plugins

If you ever happen to want to link against installed libraries
in a given directory, LIBDIR, you must either use libtool, and
specify the full pathname of the library, or use the '-LLIBDIR'
flag during linking and do at least one of the following:
```

```
      - add LIBDIR to the 'LD_LIBRARY_PATH' environment variable
        during execution
      - add LIBDIR to the 'LD_RUN_PATH' environment variable
        during linking
      - use the '-Wl,-rpath -Wl,LIBDIR' linker flag
      - have your system administrator add LIBDIR to '/etc/ld.so.conf'

   See any operating system documentation about shared libraries for
   more information, such as the ld(1) and ld.so(8) manual pages.
   ────────────────────────────────────────────────────────────────
   make[3]: Nothing to be done for 'install-data-am'.
   make[3]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/sndfile'
   make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/sndfile'
   make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins'
   make[3]: Entering directory '/home/kali/myapp/mocp/decoder_plugins'
   make[3]: Nothing to be done for 'install-exec-am'.
   make[3]: Nothing to be done for 'install-data-am'.
   make[3]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins'
   make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins'
   make[1]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins'
   make[1]: Entering directory '/home/kali/myapp/mocp'
   make[2]: Entering directory '/home/kali/myapp/mocp'
    /usr/bin/mkdir -p '/usr/local/bin'
     /bin/bash ./libtool   --mode=install /usr/bin/install -c mocp '/usr/local/bin'
   libtool: install: /usr/bin/install -c mocp /usr/local/bin/mocp
    /usr/bin/mkdir -p '/usr/local/share/doc/moc'
    /usr/bin/install -c -m 644 config.example THANKS README README_equalizer keymap.example '/usr/loca
   l/share/doc/moc'
    /usr/bin/mkdir -p '/usr/local/share/man/man1'
    /usr/bin/install -c -m 644 mocp.1 '/usr/local/share/man/man1'
   make[2]: Leaving directory '/home/kali/myapp/mocp'
   make[1]: Leaving directory '/home/kali/myapp/mocp'
   kali@kali:~/myapp/mocp$
```

Potem spawdziłem poprwność inastalacji.

```
kali@kali:~/myapp/mocp$ sudo make installcheck
Making installcheck in themes
make[1]: Entering directory '/home/kali/myapp/mocp/themes'
make[1]: Nothing to be done for 'installcheck'.
make[1]: Leaving directory '/home/kali/myapp/mocp/themes'
Making installcheck in decoder_plugins
make[1]: Entering directory '/home/kali/myapp/mocp/decoder_plugins'
Making installcheck in aac
make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/aac'
make[2]: Nothing to be done for 'installcheck'.
make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/aac'
Making installcheck in vorbis
make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/vorbis'
make[2]: Nothing to be done for 'installcheck'.
make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/vorbis'
Making installcheck in flac
make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/flac'
make[2]: Nothing to be done for 'installcheck'.
make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/flac'
Making installcheck in sndfile
make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/sndfile'
make[2]: Nothing to be done for 'installcheck'.
make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/sndfile'
make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins'
make[2]: Nothing to be done for 'installcheck-am'.
make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins'
make[1]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins'
make[1]: Entering directory '/home/kali/myapp/mocp'
make[1]: Nothing to be done for 'installcheck-am'.
make[1]: Leaving directory '/home/kali/myapp/mocp'
kali@kali:~/myapp/mocp$
```

Następnie usunołem pliki konfiguraci z folderu źrudłowego.

```
kali@kali:~/myapp/mocp$ sudo make clean
Making clean in themes
make[1]: Entering directory '/home/kali/myapp/mocp/themes'
rm -rf .libs _libs
rm -f *.lo
make[1]: Leaving directory '/home/kali/myapp/mocp/themes'
Making clean in decoder_plugins
make[1]: Entering directory '/home/kali/myapp/mocp/decoder_plugins'
Making clean in aac
make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/aac'
test -z "libaac_decoder.la" || rm -f libaac_decoder.la
rm -f ./so_locations
rm -rf .libs _libs
rm -f *.o
rm -f *.lo
make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/aac'
Making clean in vorbis
make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/vorbis'
test -z "libvorbis_decoder.la" || rm -f libvorbis_decoder.la
rm -f ./so_locations
rm -rf .libs _libs
rm -f *.o
rm -f *.lo
make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/vorbis'
Making clean in flac
make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/flac'
test -z "libflac_decoder.la" || rm -f libflac_decoder.la
rm -f ./so_locations
rm -rf .libs _libs
rm -f *.o
rm -f *.lo
make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/flac'
Making clean in sndfile
make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/sndfile'
test -z "libsndfile_decoder.la" || rm -f libsndfile_decoder.la
rm -f ./so_locations
rm -rf .libs _libs
rm -f *.o
rm -f *.lo
make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/sndfile'
make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins'
rm -rf .libs _libs
rm -f *.lo
```

```
make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/aac'
Making clean in vorbis
make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/vorbis'
test -z "libvorbis_decoder.la" || rm -f libvorbis_decoder.la
rm -f ./so_locations
rm -rf .libs _libs
rm -f *.o
rm -f *.lo
make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/vorbis'
Making clean in flac
make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/flac'
test -z "libflac_decoder.la" || rm -f libflac_decoder.la
rm -f ./so_locations
rm -rf .libs _libs
rm -f *.o
rm -f *.lo
make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/flac'
Making clean in sndfile
make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins/sndfile'
test -z "libsndfile_decoder.la" || rm -f libsndfile_decoder.la
rm -f ./so_locations
rm -rf .libs _libs
rm -f *.o
rm -f *.lo
make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins/sndfile'
make[2]: Entering directory '/home/kali/myapp/mocp/decoder_plugins'
rm -rf .libs _libs
rm -f *.lo
make[2]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins'
make[1]: Leaving directory '/home/kali/myapp/mocp/decoder_plugins'
make[1]: Entering directory '/home/kali/myapp/mocp'
 rm -f mocp
rm -rf .libs _libs
rm -f *.o
rm -f *.lo
make[1]: Leaving directory '/home/kali/myapp/mocp'
kali@kali:~/myapp/mocp$
```

4. Poniżej umiściłem zrzuty ekranu z dałającom aplikacją.

```
kali@kali:~/myapp/mocp$ mocp -h
Music On Console (version 2.6-alpha3, revision Unversioned directory)
Usage: mocp [OPTIONS] [FILE|DIR ... ]

General options:
  -D, --debug                        Turn on logging to a file
  -M, --moc-dir=DIR                  Use the specified MOC directory instead of the default
  -m, --music-dir                    Start in MusicDir
  -C, --config=FILE                  Use the specified config file instead of the default
                                     (conflicts with '--no-config')
      --no-config                    Use program defaults rather than any config file (conflicts
                                     with '--config')
  -O, --set-option='NAME=VALUE'      Override the configuration option NAME with VALUE
  -F, --foreground                   Run the server in foreground (logging to stdout)
  -S, --server                       Only run the server
  -R, --sound-driver=DRIVERS         Use the first valid sound driver
  -A, --ascii                        Use ASCII characters to draw lines
  -T, --theme=FILE                   Use the selected theme file (read from ~/.moc/themes if the
                                     path is not absolute)
  -y, --sync                         Synchronize the playlist with other clients
  -n, --nosync                       Don't synchronize the playlist with other clients

Server commands:
  -P, --pause                        Pause
  -U, --unpause                      Unpause
  -G, --toggle-pause                 Toggle between playing and paused
  -s, --stop                         Stop playing
  -f, --next                         Play the next song
  -r, --previous                     Play the previous song
  -k, --seek=N                       Seek by N seconds (can be negative)
  -j, --jump=N{%,s}                  Jump to some position in the current track
  -v, --volume=[+,-]LEVEL            Adjust the PCM volume
  -x, --exit                         Shutdown the server
  -a, --append                       Append the files/directories/playlists passed in the command
                                     line to playlist
  -e, --recursively                  Alias for --append
  -q, --enqueue                      Add the files given on command line to the queue
  -c, --clear                        Clear the playlist
  -p, --play                         Start playing from the first item on the playlist
  -l, --playit                       Play files given on command line without modifying the
                                     playlist
  -t, --toggle=CONTROL               Toggle a control (shuffle, autonext, repeat)
  -o, --on=CONTROL                   Turn on a control (shuffle, autonext, repeat)
  -u, --off=CONTROL                  Turn off a control (shuffle, autonext, repeat)
  -i, --info                         Print information about the file currently playing
  -Q, --format=FORMAT                Print formatted information about the file currently playing
```

```
Miscellaneous options:
  -V, --version                      Print version information
      --echo-args                    Print POPT-interpreted arguments
      --usage                        Print brief usage
  -h, --help                         Print extended usage

Environment variables:

  MOCP_OPTS                          Additional command line options
  MOCP_POPTRC                        List of POPT configuration files

kali@kali:~/myapp/mocp$
```
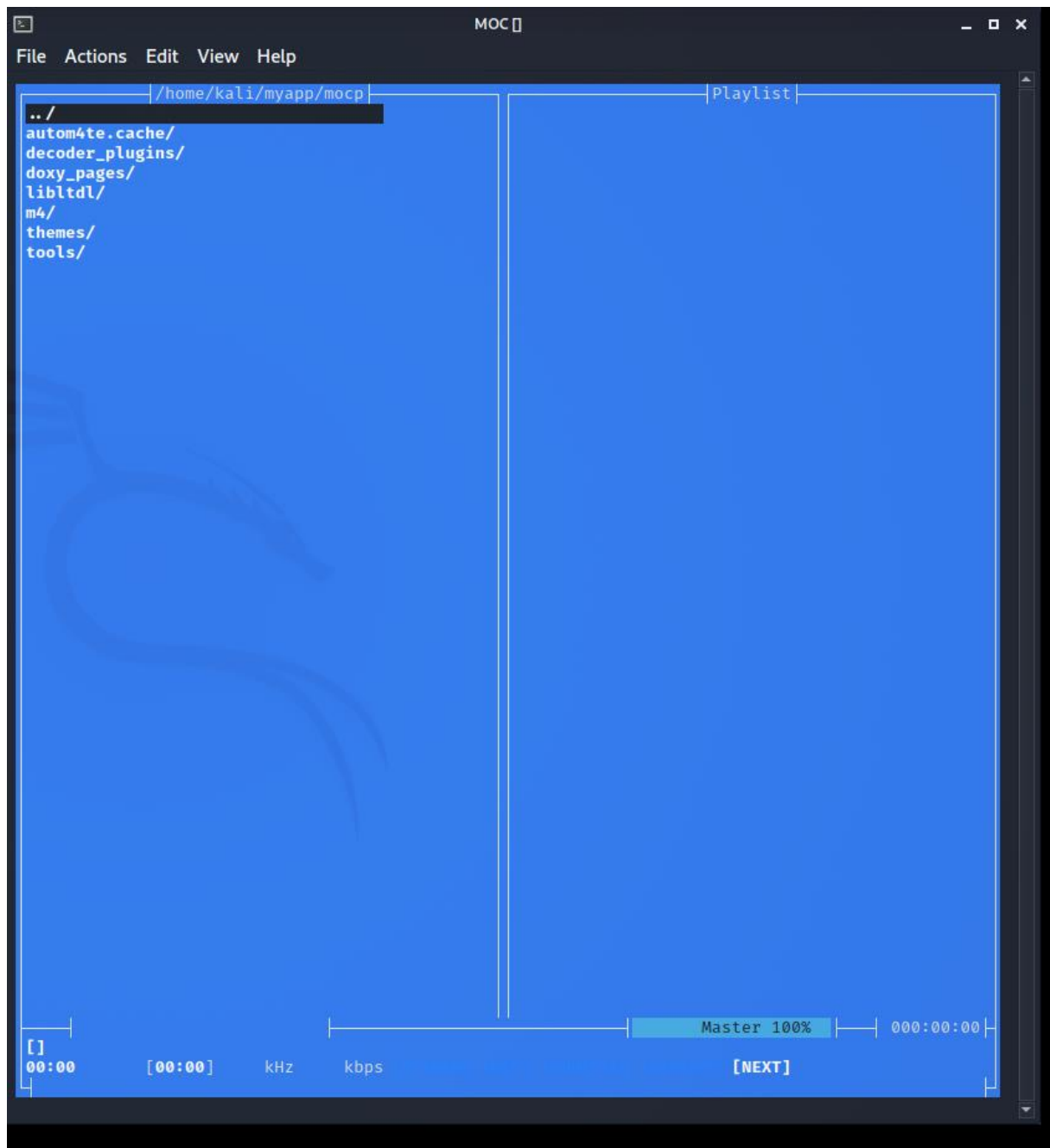
5 minimalne zalerzności to:

gcc autoconf libtool gettext libdb-dev libpopt-dev libncursesw5-dev

Rekomendowane zalerzności:

libasound2-dev libcurl4-openssl-dev libogg-dev libvorbis-dev libflac-dev libopus-dev libid3tag0-dev libsndfile1-dev libfaad-dev libavcodec-dev libsamplerate0-dev librcc-dev

6 Wnioski

Natrafiłem na problemy przy pierwszym wyołnio ./configure

Wystarczyło jeszcze raz pobrać dwa pakiety: libpopt-dev , libdb-dev

```
checking for __attribute__((format))... yes
checking for __attribute__((noreturn))... yes
checking for __attribute__((aligned))... yes
checking for __attribute__((unused))... yes
checking for library containing poptGetContext... no
configure: error: POPT (libpopt) not found.
kali@kali:~/myapp/mocp$ sudo apt-get install libpopt-dev
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  libpopt-dev
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 55.1 kB of archives.
After this operation, 156 kB of additional disk space will be used.
Get:1 http://kali.koyanet.lv/kali kali-rolling/main amd64 libpopt-dev amd64 1.18-2 [55.1 kB]
Fetched 55.1 kB in 1s (53.0 kB/s)
Selecting previously unselected package libpopt-dev:amd64.
(Reading database ... 344960 files and directories currently installed.)
Preparing to unpack .../libpopt-dev_1.18-2_amd64.deb ...
Unpacking libpopt-dev:amd64 (1.18-2) ...
Setting up libpopt-dev:amd64 (1.18-2) ...
Processing triggers for man-db (2.9.4-2) ...
kali@kali:~/myapp/mocp$ ./configure
```

```
kali@kali:~/myapp/mocp$ sudo apt-get install libdb-dev
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libdb5.3-dev
Suggested packages:
  db5.3-doc
The following NEW packages will be installed:
  libdb-dev libdb5.3-dev
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.
Need to get 768 kB of archives.
After this operation, 3,190 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://http.kali.org/kali kali-rolling/main amd64 libdb5.3-dev amd64 5.3.28+dfsg1-0.8 [766 kB
]
Get:2 http://http.kali.org/kali kali-rolling/main amd64 libdb-dev amd64 5.3.1+nmu1 [2,500 B]
Fetched 768 kB in 4s (188 kB/s)
Selecting previously unselected package libdb5.3-dev.
(Reading database ... 344951 files and directories currently installed.)
Preparing to unpack .../libdb5.3-dev_5.3.28+dfsg1-0.8_amd64.deb ...
Unpacking libdb5.3-dev (5.3.28+dfsg1-0.8) ...
Selecting previously unselected package libdb-dev:amd64.
Preparing to unpack .../libdb-dev_5.3.1+nmu1_amd64.deb ...
Unpacking libdb-dev:amd64 (5.3.1+nmu1) ...
Setting up libdb5.3-dev (5.3.28+dfsg1-0.8) ...
Setting up libdb-dev:amd64 (5.3.1+nmu1) ...
kali@kali:~/myapp/mocp$ ./configure
```

Cały proces przebiegł spawnie i nie miłem żadnych większych problemów.