

# Using the new OSApi in a Makefile

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# Preamble

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## 1.1 Purpose

This is a small tutorial describing how you can use the OSApi in a Makefile. An important precondition is of course that the OSApi has been downloaded and extracted (and assumed completed). In the following is it presumed that this has been done and the extracted files placed in `/home/stud/apps/OSApi`. <- *THIS IS VERY IMPORTANT TO REMEMBER!!!*

# Setting up a Makefile for utilizing the OSApi library

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To explain how this can be done, a simple makefile building only a single `main.cpp` file is listed below:

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**Listing 2.1:** Simple Makefile

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```
1 # Quick and dirty (does not handle changes in h-file - if you want this
   extract from earlier exercise)
2 # List of files to build
3 SRCS=main.cpp
4 OBJS=$(SRCS:.cpp=.o)
5 BASEPATH=/home/stud/apps/OSApi # Assumed path... but where did you place it
   ?
6 # Determine whether this is a debug build or not
7 ifdef DEBUG
8 CXXFLAGS=-ggdb -O0
9 LIBPATH=$(BASEPATH)/lib/host/debug
10 else
11 CXXFLAGS=-O2
12 LIBPATH=$(BASEPATH)/lib/host/release
13 endif
14 # Setup the CFLAGS to ensure that the relevant warnings, includes and
   defines.
15 CXXFLAGS+=-Wall -D_REENTRANT -DOS_LINUX -I$(BASEPATH)/inc
16
17 #%.o : %.cpp
18 # g++ $(CXXFLAGS) -c -o $@ $^
19 # Then again, note how the flags are NOT part of the linking process
20 main: $(OBJS)
21     g++ -o main $(OBJS) -L$(LIBPATH) -lOSApi -lrt -lpthread
22
23 all: main
24
25 clean:$(OBJS)
26     rm -f *.o main
```

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Finally notice that it has been locked to *host* specific files, if this is not acceptable then fix it...

# Revision History

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Revision	Date	Author(s)	Description
1.0	14/10-2011	SHAN	Initial version
1.1	14/10-2011	SHAN	Reviewed and rewritten in Latex
1.2	21/5-2012	SHAN	Updated makefile example
1.3	15/11-2012	SHAN	Updated minor details
2.0	2/8-2017	sha	Copied to new file and removed eclipse contents