```
1: #-- set this to the man directory you would like to use
 2: MANPATH:=/usr/share/man
 3:
 4: #-- uncomment this to enable debugging
5: #DEBUG:=-g -DDEBUG
 6:
 7:
8: ##### YOU SHOULD NOT CHANGE BELOW THIS LINE #####
9:
10: SHELL:=/bin/bash
11: SRCS:=api.c
12: MANS:=man3/libxbee.3 \
13:
          man3/xbee_setup.3 \
14:
          man3/xbee_setuplog.3 \
15:
          man3/xbee_newcon.3 \
16:
          man3/xbee_flushcon.3 \
17:
          man3/xbee_endcon.3 \
18:
          man3/xbee_getpacket.3 \
19:
          man3/xbee senddata.3 \
20:
          man3/xbee_nsenddata.3 \
21:
          man3/xbee_vsenddata.3 \
22:
          man3/xbee_getdigital.3 \
23:
          man3/xbee_hasdigital.3 \
24:
          man3/xbee_getanalog.3 \
25:
          man3/xbee_hasanalog.3 \
26:
          man3/xbee_pkt.3
27: MANPATHS:=$(foreach dir,$(shell ls man -ln | grep ^d | tr -s ' ' | cut -d ' ' -f 9),${MANPATH}/$(dir))
28:
29: PDFS:=${SRCS} ${SRCS:.c=.h} makefile main.c xbee.h globals.h
30:
31: CC:=gcc
32: CFLAGS:=-Wall -Wstrict-prototypes -Wno-variadic-macros -pedantic -c -fPIC ${DEBUG}
33: CLINKS:=-lm ./lib/libxbee.so.1.0.1 -lpthread ${DEBUG}
34: DEFINES:=
35:
36: ifeq ($(strip $(wildcard ${MANPATH}/man3/libxbee.3.bz2)),)
37: FIRSTTIME:=TRUE
38: else
39: FIRSTTIME:=FALSE
40: endif
41:
42: ENSCRIPT:=-MA4 --color -f Courier8 -C --margins=15:15:0:20
43: ifneq ($(strip $(wildcard /usr/share/enscript/mine-web.hdr)),)
44:
    ENSCRIPT+= --fancy-header=mine-web
45: else
    ENSCRIPT+= --fancy-header=a2ps
46:
47: endif
48:
49: SRCS:=${sort ${SRCS}}
50: PDFS:=${sort ${PDFS}}
51:
52: .PHONY: FORCE
53: .PHONY: all run new clean cleanpdfs main pdfs
54: .PHONY: install install_su install_man
55: .PHONY: uninstall uninstall_su uninstall_man/
56:
57:
58: # all - do everything (default) #
59: all: main
            @echo "*** Done! ***"
60:
61:
62:
63: # run - remake main and then run #
64: run: main
65:
            LD_LIBRARY_PATH=./lib:$LD_LIBRARY_PATH ./bin/main
66:
67:
68: # new - clean and do everything again #
69: new: clean all
70:
71:
72: # clean - remove any compiled files and PDFs #
73: clean:
            rm -f ./*~
74:
75:
            rm -f ./svn_version.c
            rm -f ./sample/*
rm -f ./obj/*.o
76:
77:
78:
            rm -f ./lib/libxbee.so*
79:
            rm -f ./bin/main
80:
81: cleanpdfs:
            rm -f ./pdf/*.pdf
82:
83:
85: # install - installs library #
```

```
86: install: ./lib/libxbee.so.1.0.1
         @echo
88:
         @echo
89: ifneq ($(shell echo $$USER),root)
90:
         @echo "### To Install this library I need the root password please!"
91:
         92:
93: endif
94:
         su -c "make install_su --no-print-directory"
95:
         @echo
96: ifeq (${FIRSTTIME},TRUE)
97:
         98:
         @echo
         @pr -h "" -o 3 -w 86 -tT ./README
99:
100:
         @echo
101:
         102: endif
103:
104: install su: /usr/lib/libxbee.so.1.0.1 /usr/include/xbee.h install man
105:
106: /usr/lib/libxbee.so.1.0.1: ./lib/libxbee.so.1.0.1
         cp ./lib/libxbee.so.1.0.1 /usr/lib/libxbee.so.1.0.1 -f
107:
108:
         @chmod 755 /usr/lib/libxbee.so.1.0.1
109:
         @chown root:root /usr/lib/libxbee.so.1.0.1
110:
         cp /usr/lib/libxbee.so.1.0.1 /usr/lib/libxbee.so.1 -sf
111:
         @chown root:root /usr/lib/libxbee.so.1
112:
         cp /usr/lib/libxbee.so.1.0.1 /usr/lib/libxbee.so -sf
113:
         @chown root:root /usr/lib/libxbee.so
114:
115: /usr/include/xbee.h: ./xbee.h
116:
         cp ./xbee.h /usr/include/xbee.h -f
         @chmod 644 /usr/include/xbee.h
117:
118:
         @chown root:root /usr/include/xbee.h
119:
120: install_man: ${MANPATH} ${MANPATHS} ${addsuffix .bz2,${addprefix ${MANPATH}/,${MANS}}}
121:
122: ${MANPATH} ${MANPATHS}:
123:
         124:
         @echo "### $@ does not exist... cannot install man files here!"
         @echo "### Please check the directory and the MANPATH variable in the makefile"
125:
126:
         127:
         @false
128:
129: ${MANPATH}/%.bz2: ./man/%
         @echo "cat $< | bzip2 -z > $@"
130:
131:
         @cat $< | bzip2 -z > $@ || ( \
          132:
133:
           echo "### Installing man page '$*' to '$@' failed..."; \
134:
           echo "#################################; )
135:
         @chmod 644 $@
136:
         @chown root:root $@
137:
138: ./doc/:
139:
         mkdir ./doc/
140:
141: html: ./doc/ ./man/
         rm -rdf ./doc/*
142:
143:
         cd ./doc/;mkdir `find ../man/ -type d -not -path *.svn* | cut -b 2-`
144:
         find ./man/ -type f -not -path *.svn* | cut -d / -f 3- | sort > .html_todo
         for item in 'cat .html_todo'; do man2html -r ./man/$$item | tail -n +3 > ./doc/man/$$item.html; done
145:
146:
         rm .html todo
147:
148: uninstall:
149:
         @echo
150:
         @echo
151: ifneq ($(shell echo $$USER),root)
152:
         153:
         @echo "### To Uninstall this library I need the root password please!"
         154:
155: endif
156:
         su -c "make uninstall_su --no-print-directory"
157:
         @echo
158:
         @echo
159:
160: uninstall_su: ${addprefix uninstall_man/,${MANS}}
         rm /usr/lib/libxbee.so.1.0.1 -f
161:
162:
         rm /usr/lib/libxbee.so.1 -f
163:
         rm /usr/lib/libxbee.so -f
164:
         rm /usr/include/xbee.h -f
165:
166: uninstall man/%:
167:
         rm \{MANPATH\}/$*.bz2 -f
168:
169: # main - compile & link objects #
170: main: ./bin/main
```

```
172: ./bin/main: ./lib/libxbee.so.1.0.1 ./bin/ ./main.c
             ${CC} ${CLINKS} ./main.c -o ./bin/main ${DEBUG}
173:
174:
175: ./bin/:
176:
             mkdir ./bin/
177:
178: ./lib/libxbee.so.1.0.1: ./lib/ ./obj/ ${addprefix ./obj/,${SRCS:.c=.o}} ./svn_version.c ./xbee.h
179: gcc -shared -Wl,-soname,libxbee.so.1 -o ./lib/libxbee.so.1.0.1 ./obj/*.o -lrt
180: ifeq ($(strip $(wildcard ./lib/libxbee.so.1)),)
             ln ./libxbee.so.1.0.1 ./lib/libxbee.so.1 -sf
181:
182: endif
183: ifeq ($(strip $(wildcard ./lib/libxbee.so)),)
184:
             ln ./libxbee.so.1.0.1 ./lib/libxbee.so -sf
185: endif
186:
187: ./lib/:
             mkdir ./lib/
188:
189:
190: ./obj/:
191:
             mkdir ./obj/
192:
193: ./svn_version.c: api.c api.h globals.h xbee.h
             echo -n 'const char *xbee_svn_version(void) { return "' > ./svn_version.c
194:
195: ifneq ($(strip $(wildcard /usr/bin/svnversion)),)
196:
             svnversion -n . >> svn_version.c
197: else
             echo 'Unknown' >> svn_version.c
199: endif
             echo -n '";}' >> svn_version.c
             ${CC} ${CFLAGS} ${DEFINES} ${DEBUG} svn_version.c -o ./obj/svn_version.o
201:
202:
203: ./obj/%.o: %.c %.h xbee.h globals.h
204:
             ${CC} ${CFLAGS} ${DEFINES} ${DEBUG} $*.c -0 $@
205:
206: ./obj/%.o: %.c xbee.h globals.h
             ${CC} ${CFLAGS} ${DEFINES} ${DEBUG} $*.c -0 $@
207:
208:
209:
210: # pdfs - generate PDFs for each source file #
211: ifneq ($(strip $(wildcard /usr/bin/ps2pdf)),)
212: ifneq ($(strip $(wildcard /usr/bin/enscript)),)
213: pdfs: ./pdf/ ${addprefix ./pdf/,${addsuffix .pdf,${PDFS}}}}
214:
215: ./pdf/:
216:
             mkdir ./pdf/
217:
218: ./pdf/makefile.pdf: ./makefile
219:
             enscript ${ENSCRIPT} -Emakefile $< -p - | ps2pdf - $@
221: ./pdf/%.pdf: %
             enscript ${ENSCRIPT} -Ec $< -p - | ps2pdf - $@
222:
223:
224: ./pdf/%.pdf:
225:
             @echo "*** Cannot make $@ - '$*' does not exist ***"
226: else
227: pdfs:
228:
             @echo "WARNING: enscript is not installed - cannot generate PDF files"
229: endif
230: else
231: pdfs:
232:
             @echo "WARNING: ps2pdf is not installed - cannot generate PDF files"
233: endif
```