```
  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:
 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_endcon.3 \
 17:       man3/xbee_getpacket.3 \
 18:       man3/xbee_senddata.3 \
 19:       man3/xbee_nsenddata.3 \
 20:       man3/xbee_vsenddata.3 \
 21:       man3/xbee_getdigital.3 \
 22:       man3/xbee_hasdigital.3 \
 23:       man3/xbee_getanalog.3 \
 24:       man3/xbee_hasanalog.3 \
 25:       man3/xbee_pkt.3
 26: MANPATHS:=$(foreach dir,$(shell ls man -ln | grep ^d | tr -s ' ' | cut -d ' ' -f 9),${MANPATH}/$(dir))
 27:
 28: PDFS:=${SRCS} ${SRCS:.c=.h} makefile main.c xbee.h globals.h
 29:
 30: CC:=gcc
 31: CFLAGS:=-Wall -Wstrict-prototypes -pedantic -c -fPIC ${DEBUG}
 32: CLINKS:=-lm ./lib/libxbee.so.1.0.1 -lpthread ${DEBUG}
 33: DEFINES:=
 34:
 35: ifeq ($(strip $(wildcard ${MANPATH}/man3/libxbee.3.bz2)),)
 36: FIRSTTIME:=TRUE
 37: else
 38: FIRSTTIME:=FALSE
 39: endif
 40:
 41: ENSCRIPT:=-MA4 --color -f Courier8 -C --margins=15:15:0:20
 42: ifneq ($(strip $(wildcard /usr/share/enscript/mine-web.hdr)),)
 43:   ENSCRIPT+= --fancy-header=mine-web
 44: else
 45:   ENSCRIPT+= --fancy-header=a2ps
 46: endif
 47:
 48: SRCS:=${sort ${SRCS}}
 49: PDFS:=${sort ${PDFS}}
 50:
 51: .PHONY: all run new clean cleanpdfs main pdfs
 52: .PHONY: install install_su install_man
 53: .PHONY: uninstall uninstall_su uninstall_man/
 54:
 55:
 56: # all - do everything (default) #
 57: all: main
 58:         @echo "*** Done! ***"
 59:
 60:
 61: # run - remake main and then run #
 62: run: main
 63:         LD_LIBRARY_PATH=./lib:$LD_LIBRARY_PATH ./bin/main
 64:
 65:
 66: # new - clean and do everything again #
 67: new: clean all
 68:
 69:
 70: # clean - remove any compiled files and PDFs #
 71: clean:
 72:         rm -f ./*~
 73:         rm -f ./sample/*~
 74:         rm -f ./obj/*.o
 75:         rm -f ./lib/libxbee.so*
 76:         rm -f ./bin/main
 77:
 78: cleanpdfs:
 79:         rm -f ./pdf/*.pdf
 80:
 81:
 82: # install - installs library #
 83: install: ./lib/libxbee.so.1.0.1
 84:         @echo
 85:         @echo
```

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

```
171:            ln ./libxbee.so.1.0.1 ./lib/libxbee.so -sf
172: endif
173:
174: ./lib/:
175:            mkdir ./lib/
176:
177: ./obj/:
178:            mkdir ./obj/
179:
180: ./obj/%.o: %.c %.h xbee.h globals.h
181:            ${CC} ${CFLAGS} ${DEFINES} ${DEBUG} $*.c -o $@
182:
183: ./obj/%.o: %.c xbee.h globals.h
184:            ${CC} ${CFLAGS} ${DEFINES} ${DEBUG} $*.c -o $@
185:
186:
187: # pdfs - generate PDFs for each source file #
188: ifneq ($(strip $(wildcard /usr/bin/ps2pdf)),)
189: ifneq ($(strip $(wildcard /usr/bin/enscript)),)
190: pdfs: ./pdf/ ${addprefix ./pdf/,${addsuffix .pdf,${PDFS}}}
191:
192: ./pdf/:
193:            mkdir ./pdf/
194:
195: ./pdf/makefile.pdf: ./makefile
196:            enscript ${ENSCRIPT} -Emakefile $< -p - | ps2pdf - $@
197:
198: ./pdf/%.pdf: %
199:            enscript ${ENSCRIPT} -Ec $< -p - | ps2pdf - $@
200:
201: ./pdf/%.pdf:
202:            @echo "*** Cannot make $@ - '$*' does not exist ***"
203: else
204: pdfs:
205:            @echo "WARNING: enscript is not installed - cannot generate PDF files"
206: endif
207: else
208: pdfs:
209:            @echo "WARNING: ps2pdf is not installed - cannot generate PDF files"
210: endif
```