## This file is a general .xdc for the Basys3 rev B board

## To use it in a project:

## - uncomment the lines corresponding to used pins

## - rename the used ports (in each line, after get\_ports) according to the top level signal names in the project

# Clock signal

set\_property PACKAGE\_PIN W5 [get\_ports CLK100MHZ]

set\_property IOSTANDARD LVCMOS33 [get\_ports CLK100MHZ]

create\_clock -add -name sys\_clk\_pin -period 10.00 -waveform {0 5} [get\_ports CLK100MHZ]

# Switches

set\_property PACKAGE\_PIN V17 [get\_ports {sw[0]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {sw[0]}]

set\_property PACKAGE\_PIN V16 [get\_ports {sw[1]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {sw[1]}]

#set\_property PACKAGE\_PIN W16 [get\_ports {sw[2]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {sw[2]}]

#set\_property PACKAGE\_PIN W17 [get\_ports {sw[3]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {sw[3]}]

#set\_property PACKAGE\_PIN W15 [get\_ports {sw[4]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {sw[4]}]

#set\_property PACKAGE\_PIN V15 [get\_ports {sw[5]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {sw[5]}]

#set\_property PACKAGE\_PIN W14 [get\_ports {sw[6]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {sw[6]}]

#set\_property PACKAGE\_PIN W13 [get\_ports {sw[7]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {sw[7]}]

#set\_property PACKAGE\_PIN V2 [get\_ports {sw[8]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {sw[8]}]

#set\_property PACKAGE\_PIN T3 [get\_ports {sw[9]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {sw[9]}]

#set\_property PACKAGE\_PIN T2 [get\_ports {sw[10]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {sw[10]}]

#set\_property PACKAGE\_PIN R3 [get\_ports {sw[11]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {sw[11]}]

#set\_property PACKAGE\_PIN W2 [get\_ports {sw[12]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {sw[12]}]

#set\_property PACKAGE\_PIN U1 [get\_ports {sw[13]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {sw[13]}]

#set\_property PACKAGE\_PIN T1 [get\_ports {sw[14]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {sw[14]}]

#set\_property PACKAGE\_PIN R2 [get\_ports {sw[15]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {sw[15]}]

# LEDs

set\_property PACKAGE\_PIN U16 [get\_ports {LED[0]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {LED[0]}]

set\_property PACKAGE\_PIN E19 [get\_ports {LED[1]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {LED[1]}]

set\_property PACKAGE\_PIN U19 [get\_ports {LED[2]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {LED[2]}]

set\_property PACKAGE\_PIN V19 [get\_ports {LED[3]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {LED[3]}]

set\_property PACKAGE\_PIN W18 [get\_ports {LED[4]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {LED[4]}]

set\_property PACKAGE\_PIN U15 [get\_ports {LED[5]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {LED[5]}]

set\_property PACKAGE\_PIN U14 [get\_ports {LED[6]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {LED[6]}]

set\_property PACKAGE\_PIN V14 [get\_ports {LED[7]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {LED[7]}]

set\_property PACKAGE\_PIN V13 [get\_ports {LED[8]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {LED[8]}]

set\_property PACKAGE\_PIN V3 [get\_ports {LED[9]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {LED[9]}]

set\_property PACKAGE\_PIN W3 [get\_ports {LED[10]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {LED[10]}]

set\_property PACKAGE\_PIN U3 [get\_ports {LED[11]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {LED[11]}]

set\_property PACKAGE\_PIN P3 [get\_ports {LED[12]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {LED[12]}]

set\_property PACKAGE\_PIN N3 [get\_ports {LED[13]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {LED[13]}]

set\_property PACKAGE\_PIN P1 [get\_ports {LED[14]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {LED[14]}]

set\_property PACKAGE\_PIN L1 [get\_ports {LED[15]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {LED[15]}]

#7 segment display

set\_property PACKAGE\_PIN W7 [get\_ports {seg[0]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {seg[0]}]

set\_property PACKAGE\_PIN W6 [get\_ports {seg[1]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {seg[1]}]

set\_property PACKAGE\_PIN U8 [get\_ports {seg[2]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {seg[2]}]

set\_property PACKAGE\_PIN V8 [get\_ports {seg[3]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {seg[3]}]

set\_property PACKAGE\_PIN U5 [get\_ports {seg[4]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {seg[4]}]

set\_property PACKAGE\_PIN V5 [get\_ports {seg[5]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {seg[5]}]

set\_property PACKAGE\_PIN U7 [get\_ports {seg[6]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {seg[6]}]

set\_property PACKAGE\_PIN V7 [get\_ports dp]

set\_property IOSTANDARD LVCMOS33 [get\_ports dp]

set\_property PACKAGE\_PIN U2 [get\_ports {an[0]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {an[0]}]

set\_property PACKAGE\_PIN U4 [get\_ports {an[1]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {an[1]}]

set\_property PACKAGE\_PIN V4 [get\_ports {an[2]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {an[2]}]

set\_property PACKAGE\_PIN W4 [get\_ports {an[3]}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {an[3]}]

##Buttons

#set\_property PACKAGE\_PIN U18 [get\_ports btnC]

#set\_property IOSTANDARD LVCMOS33 [get\_ports btnC]

#set\_property PACKAGE\_PIN T18 [get\_ports btnU]

#set\_property IOSTANDARD LVCMOS33 [get\_ports btnU]

#set\_property PACKAGE\_PIN W19 [get\_ports btnL]

#set\_property IOSTANDARD LVCMOS33 [get\_ports btnL]

#set\_property PACKAGE\_PIN T17 [get\_ports btnR]

#set\_property IOSTANDARD LVCMOS33 [get\_ports btnR]

#set\_property PACKAGE\_PIN U17 [get\_ports btnD]

#set\_property IOSTANDARD LVCMOS33 [get\_ports btnD]

##Pmod Header JA

##Sch name = JA1

#set\_property PACKAGE\_PIN J1 [get\_ports {JA[0]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JA[0]}]

##Sch name = JA2

#set\_property PACKAGE\_PIN L2 [get\_ports {JA[1]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JA[1]}]

##Sch name = JA3

#set\_property PACKAGE\_PIN J2 [get\_ports {JA[2]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JA[2]}]

##Sch name = JA4

#set\_property PACKAGE\_PIN G2 [get\_ports {JA[3]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JA[3]}]

##Sch name = JA7

#set\_property PACKAGE\_PIN H1 [get\_ports {JA[4]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JA[4]}]

##Sch name = JA8

#set\_property PACKAGE\_PIN K2 [get\_ports {JA[5]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JA[5]}]

##Sch name = JA9

#set\_property PACKAGE\_PIN H2 [get\_ports {JA[6]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JA[6]}]

##Sch name = JA10

#set\_property PACKAGE\_PIN G3 [get\_ports {JA[7]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JA[7]}]

##Pmod Header JB

##Sch name = JB1

#set\_property PACKAGE\_PIN A14 [get\_ports {JB[0]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JB[0]}]

##Sch name = JB2

#set\_property PACKAGE\_PIN A16 [get\_ports {JB[1]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JB[1]}]

##Sch name = JB3

#set\_property PACKAGE\_PIN B15 [get\_ports {JB[2]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JB[2]}]

##Sch name = JB4

#set\_property PACKAGE\_PIN B16 [get\_ports {JB[3]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JB[3]}]

##Sch name = JB7

#set\_property PACKAGE\_PIN A15 [get\_ports {JB[4]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JB[4]}]

##Sch name = JB8

#set\_property PACKAGE\_PIN A17 [get\_ports {JB[5]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JB[5]}]

##Sch name = JB9

#set\_property PACKAGE\_PIN C15 [get\_ports {JB[6]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JB[6]}]

##Sch name = JB10

#set\_property PACKAGE\_PIN C16 [get\_ports {JB[7]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JB[7]}]

##Pmod Header JC

##Sch name = JC1

#set\_property PACKAGE\_PIN K17 [get\_ports {JC[0]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JC[0]}]

##Sch name = JC2

#set\_property PACKAGE\_PIN M18 [get\_ports {JC[1]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JC[1]}]

##Sch name = JC3

#set\_property PACKAGE\_PIN N17 [get\_ports {JC[2]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JC[2]}]

##Sch name = JC4

#set\_property PACKAGE\_PIN P18 [get\_ports {JC[3]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JC[3]}]

##Sch name = JC7

#set\_property PACKAGE\_PIN L17 [get\_ports {JC[4]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JC[4]}]

##Sch name = JC8

#set\_property PACKAGE\_PIN M19 [get\_ports {JC[5]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JC[5]}]

##Sch name = JC9

#set\_property PACKAGE\_PIN P17 [get\_ports {JC[6]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JC[6]}]

##Sch name = JC10

#set\_property PACKAGE\_PIN R18 [get\_ports {JC[7]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {JC[7]}]

#Pmod Header JXADC

#Sch name = XA1\_P

set\_property PACKAGE\_PIN J3 [get\_ports {vauxp6}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {vauxp6}]

#Sch name = XA2\_P

set\_property PACKAGE\_PIN L3 [get\_ports {vauxp14}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {vauxp14}]

#Sch name = XA3\_P

set\_property PACKAGE\_PIN M2 [get\_ports {vauxp7}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {vauxp7}]

#Sch name = XA4\_P

set\_property PACKAGE\_PIN N2 [get\_ports {vauxp15}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {vauxp15}]

#Sch name = XA1\_N

set\_property PACKAGE\_PIN K3 [get\_ports {vauxn6}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {vauxn6}]

#Sch name = XA2\_N

set\_property PACKAGE\_PIN M3 [get\_ports {vauxn14}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {vauxn14}]

#Sch name = XA3\_N

set\_property PACKAGE\_PIN M1 [get\_ports {vauxn7}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {vauxn7}]

#Sch name = XA4\_N

set\_property PACKAGE\_PIN N1 [get\_ports {vauxn15}]

set\_property IOSTANDARD LVCMOS33 [get\_ports {vauxn15}]

##VGA Connector

#set\_property PACKAGE\_PIN G19 [get\_ports {vgaRed[0]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {vgaRed[0]}]

#set\_property PACKAGE\_PIN H19 [get\_ports {vgaRed[1]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {vgaRed[1]}]

#set\_property PACKAGE\_PIN J19 [get\_ports {vgaRed[2]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {vgaRed[2]}]

#set\_property PACKAGE\_PIN N19 [get\_ports {vgaRed[3]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {vgaRed[3]}]

#set\_property PACKAGE\_PIN N18 [get\_ports {vgaBlue[0]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {vgaBlue[0]}]

#set\_property PACKAGE\_PIN L18 [get\_ports {vgaBlue[1]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {vgaBlue[1]}]

#set\_property PACKAGE\_PIN K18 [get\_ports {vgaBlue[2]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {vgaBlue[2]}]

#set\_property PACKAGE\_PIN J18 [get\_ports {vgaBlue[3]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {vgaBlue[3]}]

#set\_property PACKAGE\_PIN J17 [get\_ports {vgaGreen[0]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {vgaGreen[0]}]

#set\_property PACKAGE\_PIN H17 [get\_ports {vgaGreen[1]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {vgaGreen[1]}]

#set\_property PACKAGE\_PIN G17 [get\_ports {vgaGreen[2]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {vgaGreen[2]}]

#set\_property PACKAGE\_PIN D17 [get\_ports {vgaGreen[3]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {vgaGreen[3]}]

#set\_property PACKAGE\_PIN P19 [get\_ports Hsync]

#set\_property IOSTANDARD LVCMOS33 [get\_ports Hsync]

#set\_property PACKAGE\_PIN R19 [get\_ports Vsync]

#set\_property IOSTANDARD LVCMOS33 [get\_ports Vsync]

##USB-RS232 Interface

#set\_property PACKAGE\_PIN B18 [get\_ports RsRx]

#set\_property IOSTANDARD LVCMOS33 [get\_ports RsRx]

#set\_property PACKAGE\_PIN A18 [get\_ports RsTx]

#set\_property IOSTANDARD LVCMOS33 [get\_ports RsTx]

##USB HID (PS/2)

#set\_property PACKAGE\_PIN C17 [get\_ports PS2Clk]

#set\_property IOSTANDARD LVCMOS33 [get\_ports PS2Clk]

#set\_property PULLUP true [get\_ports PS2Clk]

#set\_property PACKAGE\_PIN B17 [get\_ports PS2Data]

#set\_property IOSTANDARD LVCMOS33 [get\_ports PS2Data]

#set\_property PULLUP true [get\_ports PS2Data]

##Quad SPI Flash

##Note that CCLK\_0 cannot be placed in 7 series devices. You can access it using the

##STARTUPE2 primitive.

#set\_property PACKAGE\_PIN D18 [get\_ports {QspiDB[0]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {QspiDB[0]}]

#set\_property PACKAGE\_PIN D19 [get\_ports {QspiDB[1]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {QspiDB[1]}]

#set\_property PACKAGE\_PIN G18 [get\_ports {QspiDB[2]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {QspiDB[2]}]

#set\_property PACKAGE\_PIN F18 [get\_ports {QspiDB[3]}]

#set\_property IOSTANDARD LVCMOS33 [get\_ports {QspiDB[3]}]

#set\_property PACKAGE\_PIN K19 [get\_ports QspiCSn]

#set\_property IOSTANDARD LVCMOS33 [get\_ports QspiCSn]