## 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 switch[0]]

set\_property IOSTANDARD LVCMOS33 [get\_ports switch[0]]

set\_property PACKAGE\_PIN V16 [get\_ports switch[1]]

set\_property IOSTANDARD LVCMOS33 [get\_ports switch[1]]

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

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

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

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

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

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

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

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

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

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

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

set\_property IOSTANDARD LVCMOS33 [get\_ports {switch[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]

set\_property IOSTANDARD LVCMOS33 [get\_ports LED]

#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 {segment[0]}]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

set\_property IOSTANDARD LVCMOS33 [get\_ports DP]

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

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

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

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

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

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

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

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

##Buttons

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

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

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

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

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

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

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

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

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

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

##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 {JXADC[0]}]

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

##Sch name = XA2\_P

#set\_property PACKAGE\_PIN L3 [get\_ports {JXADC[1]}]

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

##Sch name = XA3\_P

#set\_property PACKAGE\_PIN M2 [get\_ports {JXADC[2]}]

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

##Sch name = XA4\_P

#set\_property PACKAGE\_PIN N2 [get\_ports {JXADC[3]}]

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

##Sch name = XA1\_N

#set\_property PACKAGE\_PIN K3 [get\_ports {JXADC[4]}]

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

##Sch name = XA2\_N

#set\_property PACKAGE\_PIN M3 [get\_ports {JXADC[5]}]

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

##Sch name = XA3\_N

#set\_property PACKAGE\_PIN M1 [get\_ports {JXADC[6]}]

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

##Sch name = XA4\_N

#set\_property PACKAGE\_PIN N1 [get\_ports {JXADC[7]}]

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

##VGA Connector

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

set\_property PACKAGE\_PIN P19 [get\_ports hsynch]

set\_property IOSTANDARD LVCMOS33 [get\_ports hsynch]

set\_property PACKAGE\_PIN R19 [get\_ports vsynch]

set\_property IOSTANDARD LVCMOS33 [get\_ports vsynch]

##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 clkIn]

set\_property IOSTANDARD LVCMOS33 [get\_ports clkIn]

set\_property PULLUP true [get\_ports clkIn]

set\_property PACKAGE\_PIN B17 [get\_ports dIn]

set\_property IOSTANDARD LVCMOS33 [get\_ports dIn]

set\_property PULLUP true [get\_ports dIn]

##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]