```
## 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 clkin]

    set_property IOSTANDARD LVCMOS33 [get_ports
clkin]
    create_clock -add -name sys_clk_pin -period
10.00 -waveform {0 5} [get_ports clkin]

## 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
{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
```

```
{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]
```