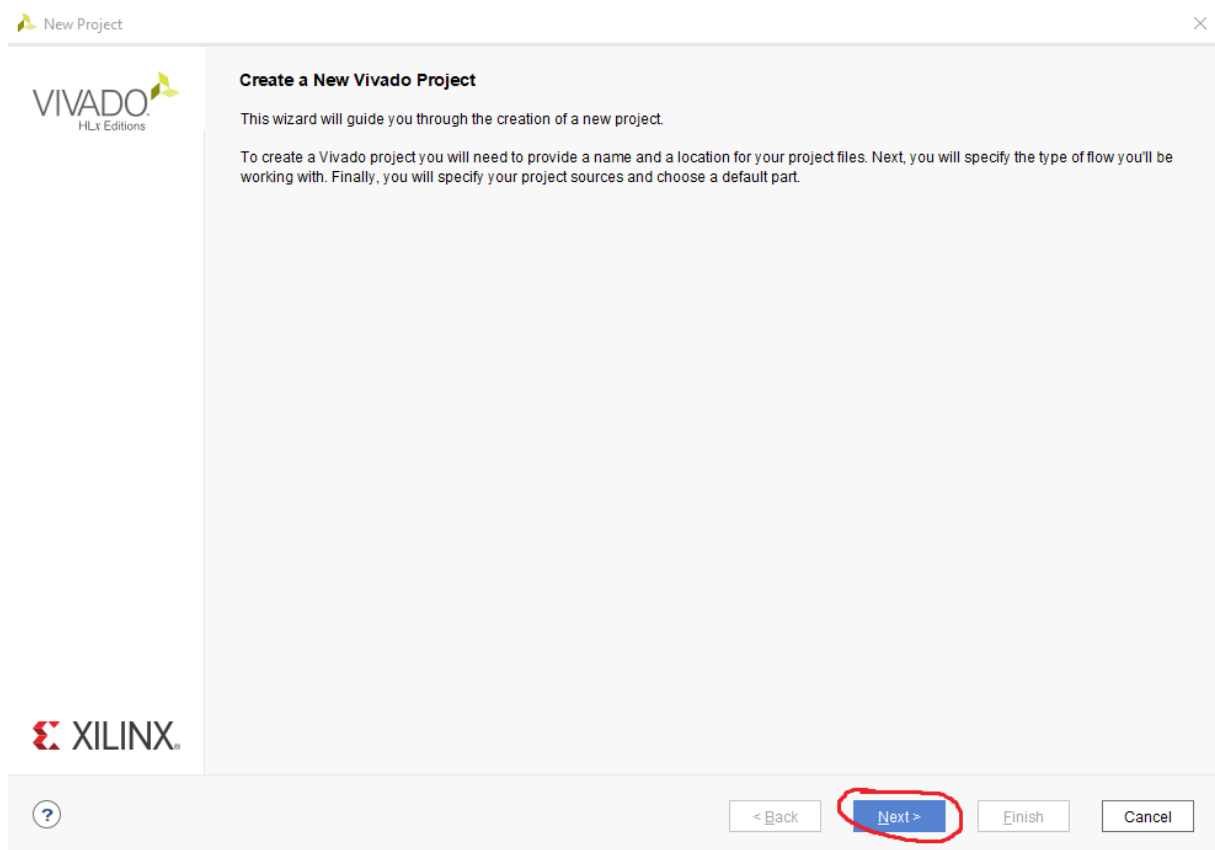
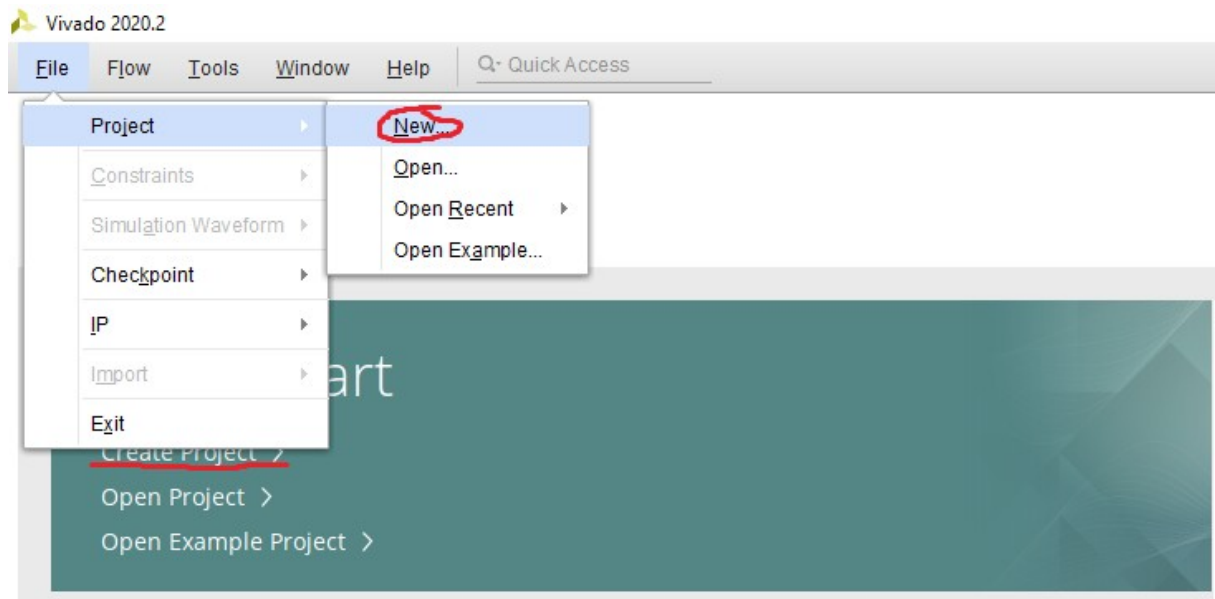


Založení projektu:



New Project

Project Name

Enter a name for your project and specify a directory where the project data files will be stored.

Project name:

Project location: ...

☒ Create project subdirectory

Project will be created at: C:/GIT/Dokuments/David-Slaskowski/Digital-electronics-1/Labs/03-vivado/comparator_2bit

? < Back **Next >** Finish Cancel

New Project

Project Type

Specify the type of project to create.

☒ **RTL Project**
You will be able to add sources, create block designs in IP Integrator, generate IP, run RTL analysis, synthesis, implementation, design planning and analysis.
☐ Do not specify sources at this time
☐ Project is an extensible Vitis platform

☐ **Post-synthesis Project**
You will be able to add sources, view device resources, run design analysis, planning and implementation.
☐ Do not specify sources at this time

☐ **I/O Planning Project**
Do not specify design sources. You will be able to view part/package resources.

☐ **Imported Project**
Create a Vivado project from a Synplify, XST or ISE Project File.

☐ **Example Project**
Create a new Vivado project from a predefined template.

? < Back **Next >** Finish Cancel

New Project

Add Sources

Specify HDL, netlist, Block Design, and IP files, or directories containing those files, to add to your project. Create a new source file on disk and add it to your project. You can also add and create sources later.

Use Add Files, Add Directories or Create File buttons below

Add Files

Add Directories

Create File

☐ Scan and add RTL include files into project

☐ Copy sources into project

☒ Add sources from subdirectories

Target language:

VHDL

 Simulator language:

VHDL

?

< Back

Next >

Finish

Cancel

New Project

Add Sources

Specify HDL, netlist, Block Design, and IP files, or directories containing those files, to add to your project. Create a new source file on disk and add it to your project. You can also add and create sources later.

Create Source File

Create a new source file and add it to your project.

File type:

VHDL

File name:

comparator_2bit

File location:

<Local to Project>

?

OK

Cancel

Add Files

Add Directories

Create File

☐ Scan and add RTL include files into project

☐ Copy sources into project

☒ Add sources from subdirectories

Target language:

VHDL

 Simulator language:

VHDL

?

< Back

Next >

Finish

Cancel

New Project

Add Sources

Specify HDL, netlist, Block Design, and IP files, or directories containing those files, to add to your project. Create a new source file on disk and add it to your project. You can also add and create sources later.

	Index	Name	Library	HDL Source For	Location
	1	comparator_2bit.vhd	xil_defaultlib	Synthesis & Simulation	<Local to Project>

Add Files

Add Directories

Create File

☐ Scan and add RTL include files into project

☐ Copy sources into project

☒ Add sources from subdirectories

Target language:

VHDL

 Simulator language:

VHDL

?

< Back

Next >

Finish

Cancel

New Project

Add Constraints (optional)

Specify or create constraint files for physical and timing constraints.

Use Add Files or Create File buttons below

Add Files

Create File

☐ Copy constraints files into project

?

< Back

Next >

Finish

Cancel

New Project

Default Part

Choose a default Xilinx part or board for your project.

Parts

Boards

Reset All Filters

Category: AllPackage: AllTemperature: AllFamily: AllSpeed: AllStatic power: All

Search: Q-

Part	I/O Pin Count	Available IOBs	LUT Elements	FlipFlops	Block RAMs	Ultra RAMs	DSPs	Gb Transceivers	GTPE2 Transceiv
xc7k70tfbg676-2L	676	300	41000	82000	135	0	240	8	0
xc7k70tfbg676-1	676	300	41000	82000	135	0	240	8	0
xc7k70tfbv484-3	484	285	41000	82000	135	0	240	4	0
xc7k70tfbv484-2	484	285	41000	82000	135	0	240	4	0
xc7k70tfbv484-2L	484	285	41000	82000	135	0	240	4	0
xc7k70tfbv484-1	484	285	41000	82000	135	0	240	4	0
xc7k70tfbv676-3	676	300	41000	82000	135	0	240	8	0
xc7k70tfbv676-2	676	300	41000	82000	135	0	240	8	0
xc7k70tfbv676-2L	676	300	41000	82000	135	0	240	8	0
xc7k70tfbv676-1	676	300	41000	82000	135	0	240	8	0
xc7k70tfbg484-2L	484	285	41000	82000	135	0	240	4	0

?

< Back

Next >

Finish

Cancel

New Project

Default Part

Choose a default Xilinx part or board for your project.

Parts

Boards

Reset All Filters

Vendor: AllName: AllBoard Rev: Latest

Search: Q-

Install/Update Boards

Display Name	Preview	Vendor	File Version	Part	I/O Pin Count	Board Rev	Available IOBs
Cmod A7-35t		digilentinc.com	1.1	xc7a35tcbg236-1	236	B.0	106
Nexys A7-100T		digilentinc.com	1.0	xc7a100tcsg324-1	324	D.0	210
Nexys A7-50T		digilentinc.com	1.0	xc7a50tcsg324-1L	324	D.0	210
Nexys4		digilentinc.com	1.1	xc7a100tcsg324-1	324	B.1	210

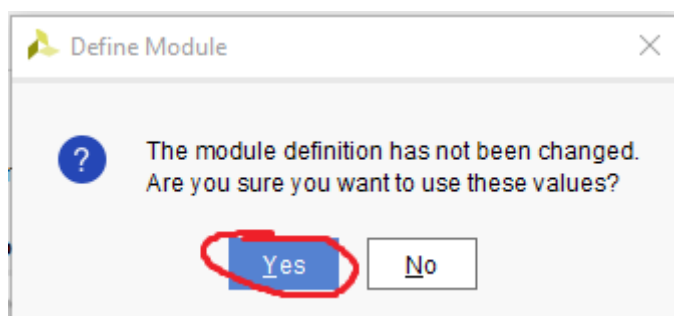
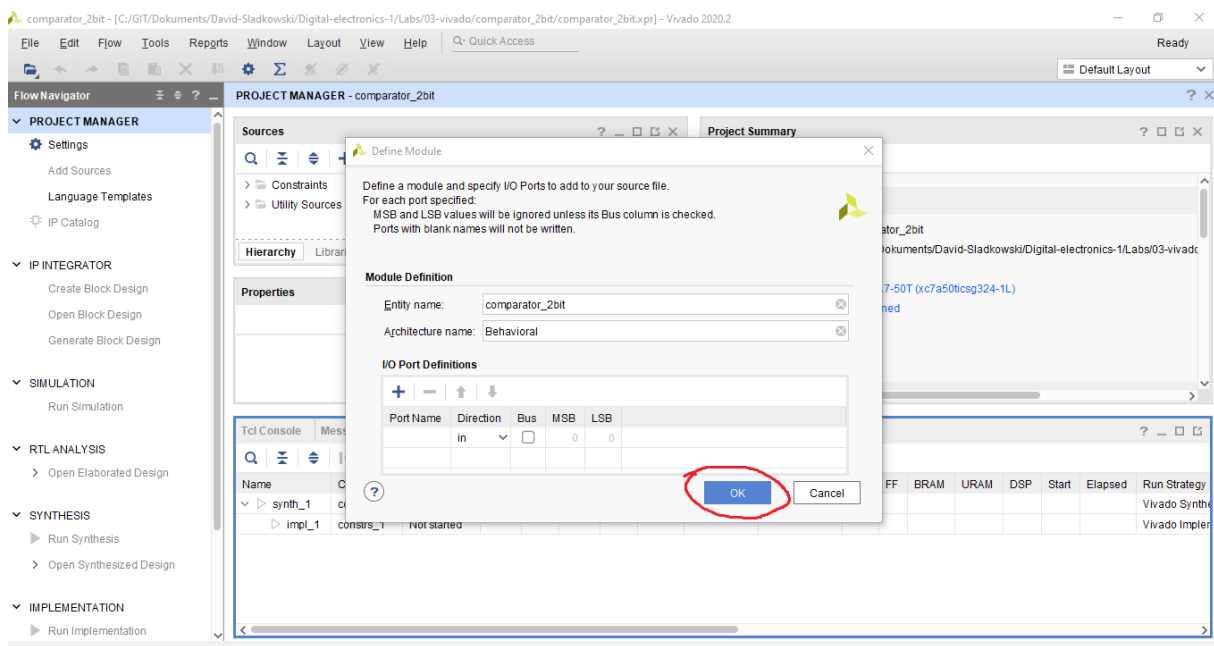
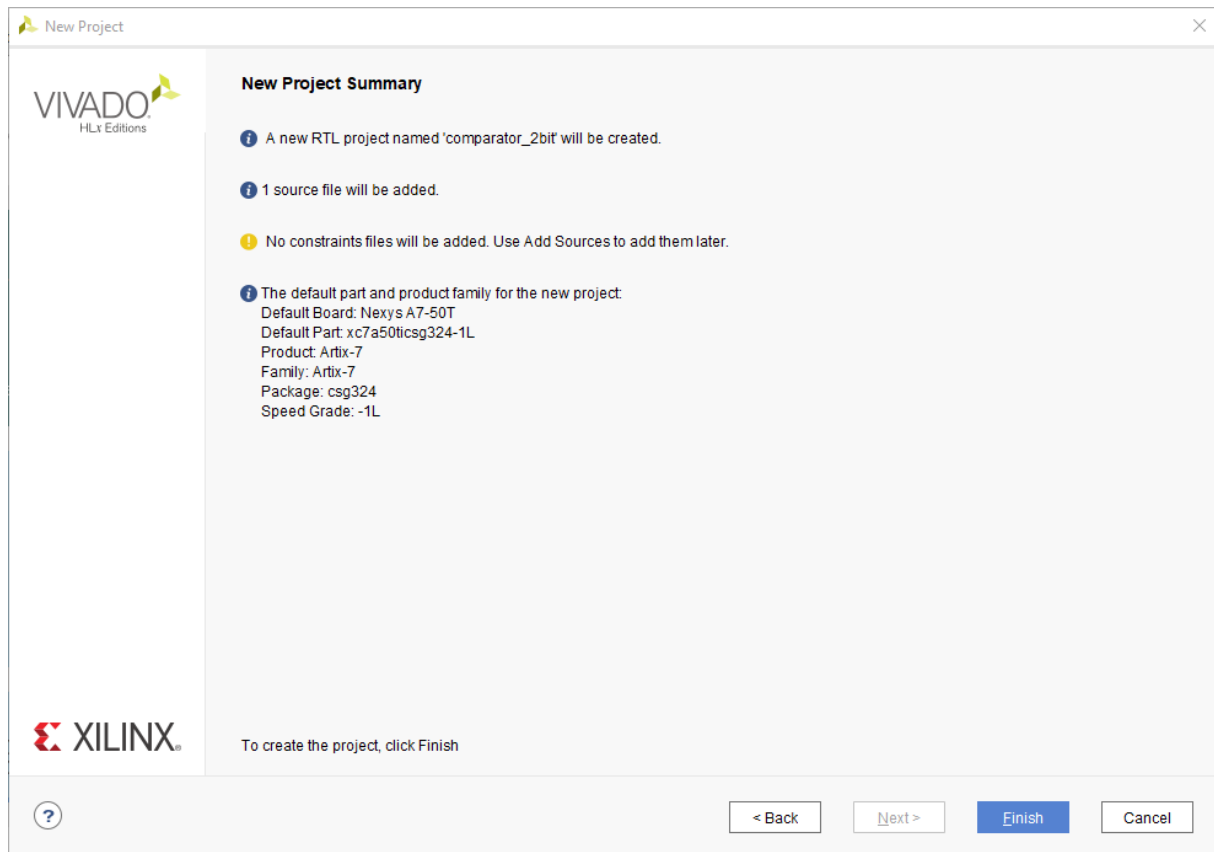
?

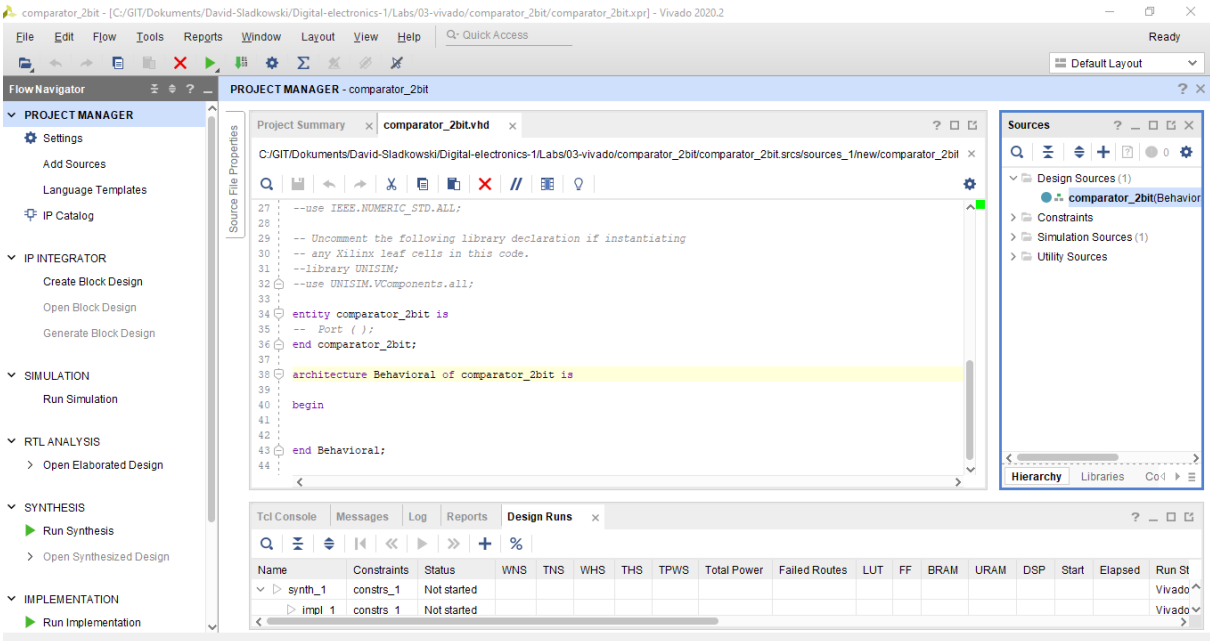
< Back

Next >

Finish

Cancel





The screenshot displays the Vivado 2020.2 IDE interface. The top menu bar includes File, Edit, Flow, Tools, Reports, Window, Layout, View, and Help. The Project Manager panel on the left shows the project 'comparator_2bit' with a list of sources. The main editor window displays the VHDL code for 'comparator_2bit.vhd', which defines a 2-bit binary comparator. The code includes a package declaration, a constant definition, and an architecture body. The Sources panel on the right shows the project hierarchy, with 'comparator_2bit(Behavior)' selected. The Design Runs panel at the bottom shows the synthesis and implementation status, with a table indicating that the synthesis and implementation are not started.

Project Manager - comparator_2bit

Project Summary x comparator_2bit.vhd x

C:/GIT/Dokumente/David-Sladkowski/Digital-electronics-1/Labs/03-vivado/comparator_2bit/comparator_2bit.srcs/sources_1/new/comparator_2bit

Q [Icons] [Settings]

```

29      B_less_A_o    : out std_logic
30  );
31  end entity comparator_2bit;
32
33  -----
34  -- Architecture body for 2-bit binary comparator
35  -----
36  architecture Behavioral of comparator_2bit is
37  begin
38      B_greater_A_o <= '1' when (b_i > a_i) else '0';
39      B_equals_A_o  <= '1' when (b_i = a_i) else '0';
40      B_less_A_o    <= '1' when (b_i < a_i) else '0';
41
42
43      -- WRITE "GREATER" AND "EQUALS" ASSIGNMENTS HERE
44
45  end architecture Behavioral;

```

Sources

Q [Icons] [Settings]

Design Sources (1)

- comparator_2bit(Behavior)

Constraints

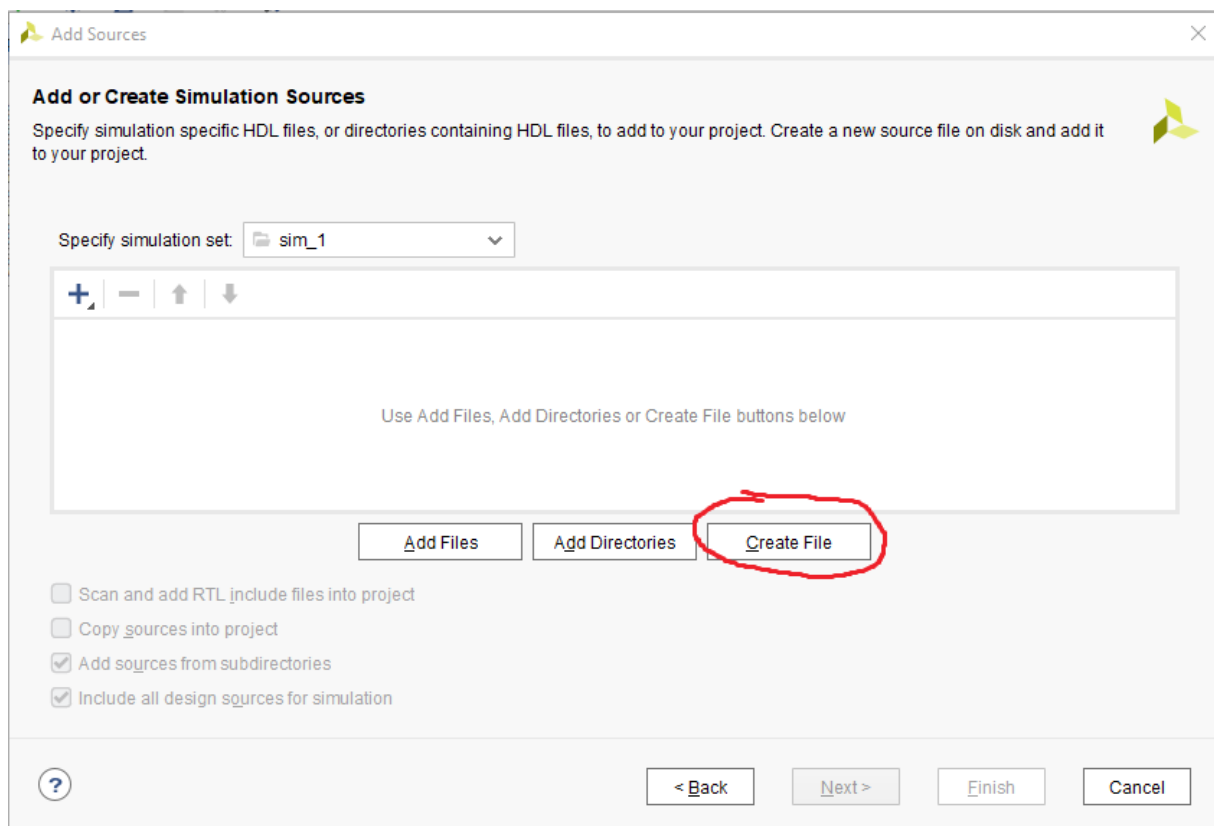
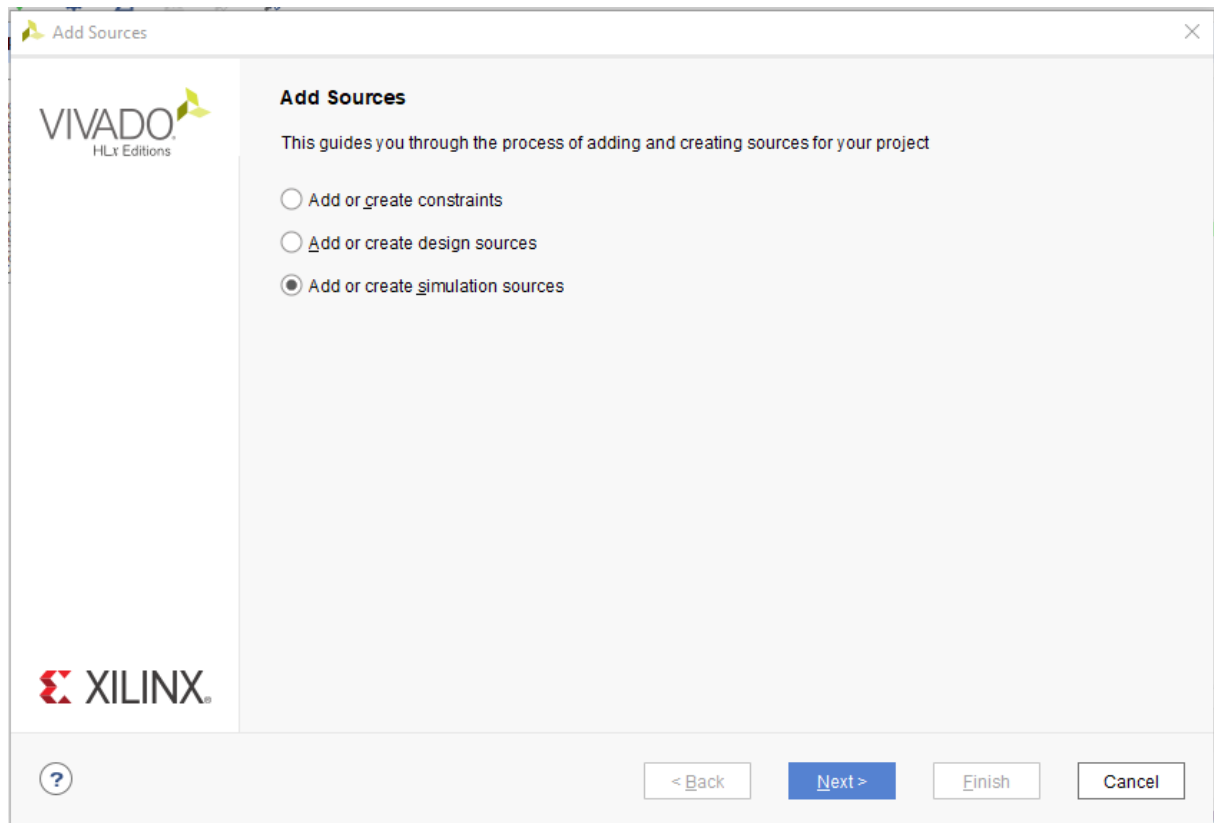
Simulation Sources (1)

Utility Sources

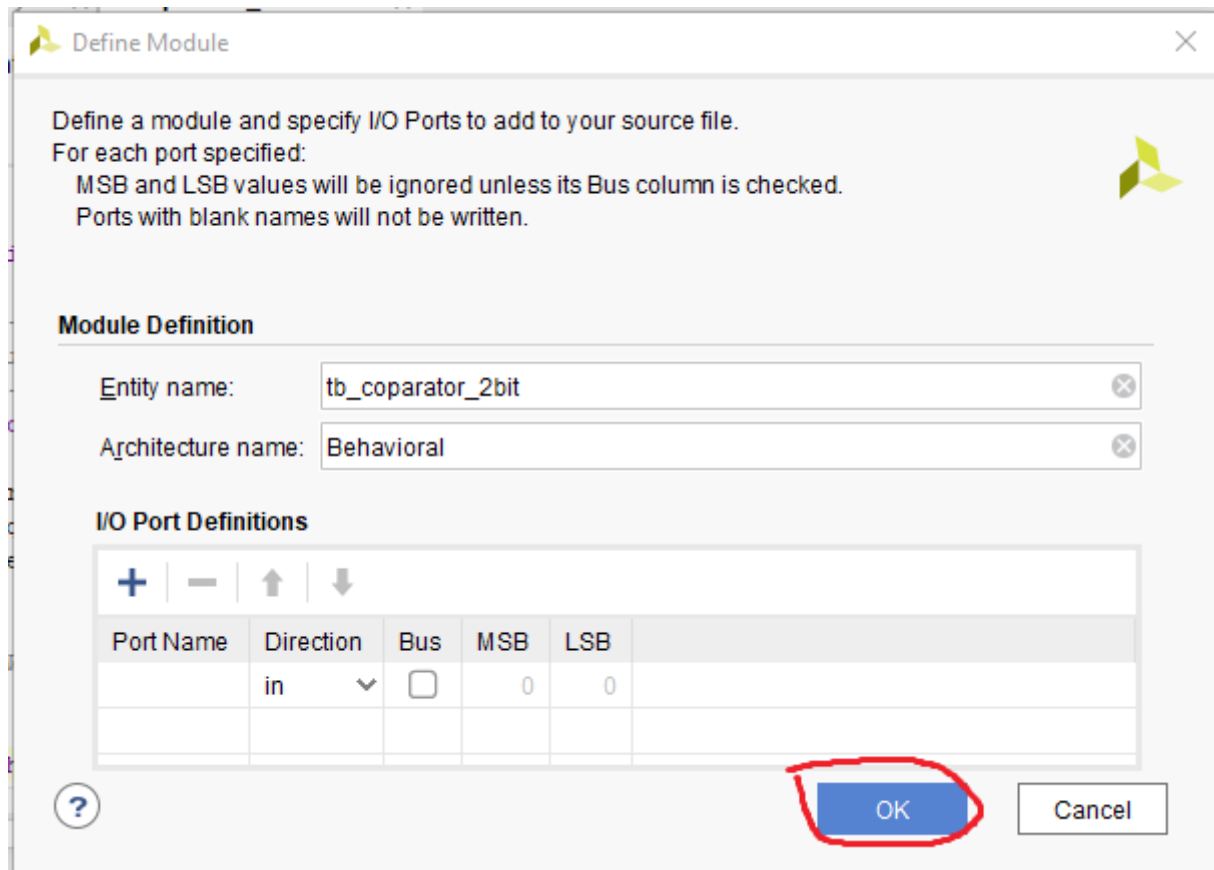
Design Runs

Name	Constraints	Status	WNS	TNS	WHS	THS	TPWS	Total Power	Failed Routes	LUT	FF	BRAM	URAM	DSP	Start	Elapsed	Run St
synth_1	constrs_1	Not started															Vivado
impl_1	constrs_1	Not started															Vivado

Specify and/or create source files to add to the project



Add Sources



Define a module and specify I/O Ports to add to your source file.
For each port specified:
MSB and LSB values will be ignored unless its Bus column is checked.
Ports with blank names will not be written.

Module Definition

Entity name:

Architecture name:

I/O Port Definitions

+

-

↑

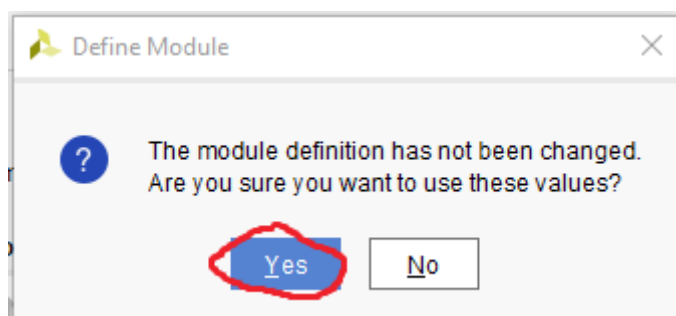
↓

Port Name	Direction	Bus	MSB	LSB
	in	<input type="checkbox"/>	0	0

?

OK

Cancel



The module definition has not been changed.
Are you sure you want to use these values?

Yes

No

Přidání připojení soubor .XCD

comparator_2bit - [C:/GIT/Dokuments/David-Sladkowski/Digital-electronics-1/Labs/03-vivado/comparator_2bit/comparator_2bit.xpr] - Vivado 2020.2

File Edit Flow Tools Repgrts Window Layout View Help Quick Access

Project Manager - comparator_2bit

Project Summary x comparator_2bit.vhd x

C:/GIT/Dokuments/David-Sladkowski/Digital-electronics-1/Labs/03-vivado/comparator_2bit/comparator_2bit.srcs/sources_1/new/comparator_2bit

```
29      B_less_A_o      : out_std_logic
30    );
31  end entity comparator_2bit;
32
33  -- Architecture body for 2-bit binary comparator
34  --
35  architecture Behavioral of comparator_2bit is
36  begin
37    B_greater_A_o <= '1' when (b_i > a_i) else '0';
38    B_equals_A_o  <= '1' when (b_i = a_i) else '0';
39    B_less_A_o    <= '1' when (b_i < a_i) else '0';
40
41    -- WRITE "GREATER" AND "EQUALS" ASSIGNMENTS HERE
42
43  end architecture Behavioral;
```

Source File Properties

Sources

- Design Sources (1)
 - comparator_2bit(Behavior)
- Constraints
- Simulation Sources (1)
- Utility Sources

Hierarchy Libraries Co

Tcl Console Messages Log Reports Design Runs x

Name	Constraints	Status	WNS	TNS	WHS	THS	TPWS	Total Power	Failed Routes	LUT	FF	BRAM	URAM	DSP	Start	Elapsed	Run St
synth_1	constrs_1	Not started															Vivado
impl_1	constrs_1	Not started															Vivado

Specify and/or create source files to add to the project

Add Sources

VIVADO_{HLx Editions}

Add Sources

This guides you through the process of adding and creating sources for your project

☒ Add or create constraints

☐ Add or create design sources

☐ Add or create simulation sources

XILINX

? < Back Next > Finish Cancel

