## **Custom Block Design IPs**

## Create user defined AXI4 peripheral IP-Core

- Start Vivado
   Start IP Manager --> New IP Location...



a. Creating a new IP Core Location - this will be a location for an Vivado Project that "hosts" all your IP Cores you develop. It is recommended to set the default part in this project to some device you use more frequently.



- 3. Select FPGA, Language, Location ... Click Finished
- 4. Click Tools Create and Package IP 5. Click Next
- 5.

4	Create and Package New IP
HLx Editions	Create and Package IP This witard can be used to accomplish following tasks: <b>Decade and will guide</b> you through the process of creating a new Vivado IP using source files and information from your current project, block design or specified directory. <b>Create and XXIA peripheral</b> This witard will guide you through the process of creating a new AXIA peripheral which includes HDL, driver, software test application, IP Integrator BPM simulation and debug demonstration design.
<b>XILINX</b> ALL PROGRAMMABLE.	Click Next to continue

6. Select "Create a new AXI peripheral" and click Next

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		Create and Pac	kage New IP		
Create Peri	pheral, Package IP or	Package a Block Desig	1		
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) Cr	eate a new AXI4 peripheral				
Cn	ate an AXI4 IP, driver, sof	tware test application, IP Int	egrator AXI4 BFM simuli	ation and debug demonstration design	ı.
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version:	1.0				
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Description:	My new AXI IP				
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Enable Interrupt Support	+-	Name	S00_AXI	
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	SOO_AXI	Interface Mode	Slave	*
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		Memory Size (Bytes)	64	~
		Number of Registers	4	(4512)
AXLS_EXAMPLE_v1.0				
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9. Select Edit IP and click Finish

Proto

- 10. Edit your IP-Core and insert your own HDL-Code into the project
  - a. Your own HDL Files should be located into the project b. All other relevant IP Files should also located into the IP-Repo folder <IP-Name> c. For detailed description of customizing IPs, see Xilinx documentation

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	✓ Compatibility	Library:	uder		
⊕- Gimulation Sources (1)	<ul> <li>File Groups</li> </ul>	Name:	AXI_S_EXAMPLE		
	<ul> <li>Customization Parameters</li> </ul>	Version:	1.0		
	✓ Ports and Interfaces	Display name:	AXLS_EXAMPLE_v1.0		
	✓ Addressing and Memory	Description:	My new AXI IP		
	✓ Customization GUI	Vendor display name	27		
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	Never a b Package	Root directory:	s:/tmp/123/p_repo/AXI_S_EXAMPLE_1.0		
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Hierarchy Lbranes Comple Order		*			
Properties ? _ D 2 ×					
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## Reference

- Vivado Design Suite Creating, Packaging Custom IP Tutorial (UG1119)
  Vivado Design Suite Creating, Packaging Custom IP (UG1118)