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jliu83 (/s/profile/0052E00000N2uNNQAZ) (Customer) asked a question.

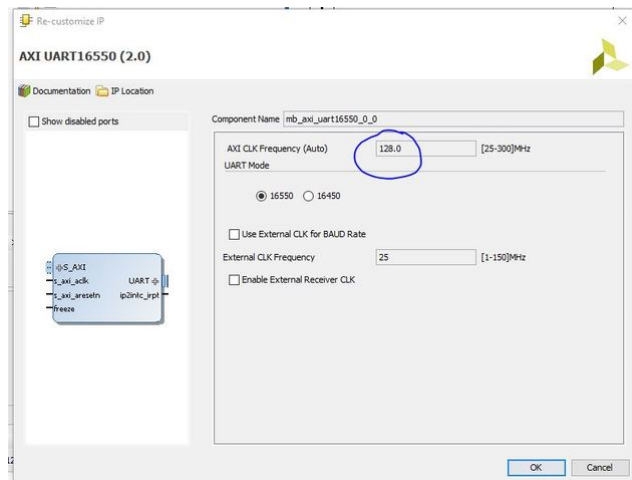
May 2, 2016 at 3:44 AM (/s/question/0D52E00006iHkzzSAC/help-with-automatic-generation-of-parameter-such-as-clock-frequency).

## Help with automatic generation of parameter such as clock frequency

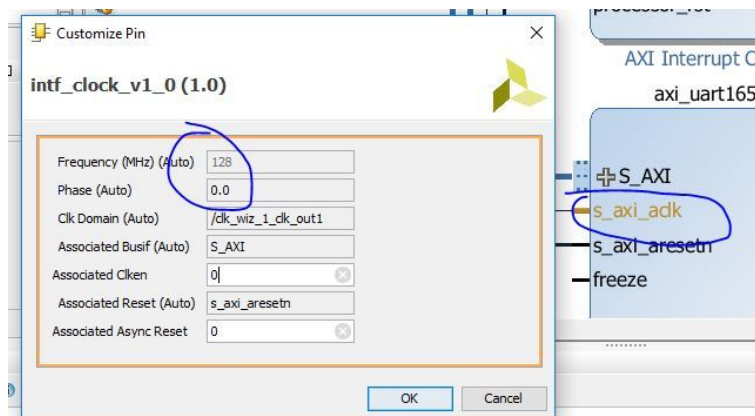
I have having trouble understanding how to get parameters to be automatically passed when creating and packaging an IP.

As an example, this is what I would like to do:

In the AXI\_UART16550\_v2\_0 IP by Xilinx. When adding this IP, then customizing, there is parameter that is automatically acquired. I want to this exact same thing in my very own custom IP. This is not as straight forward as I had hoped, and I have not been able to find the documentation for this. If any one knows how to do this when packaging and IP, I would appreciate the advice. Also, I'd like to know how to use this parameter on the VHDL side (IE. linking the IP/GUI to the actual VHDL).



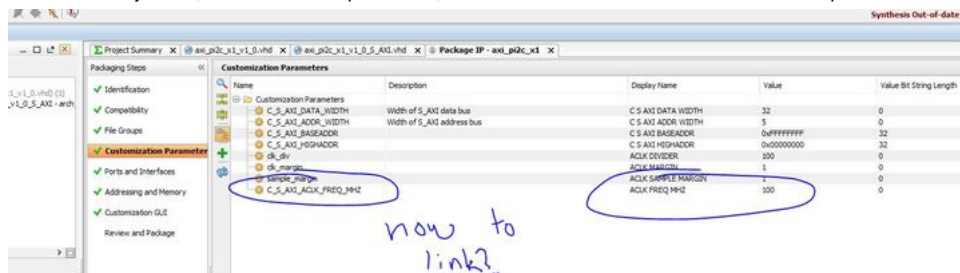
When double clicking the clock wire interface, it seems like some of the interface parameters are already there, I guess the crux of my issue is to extract this parameter somehow into my IP.



[get\_ips mb\_axi\_pi2c\_x1\_0\_1] (1 critical warning)

b\_axi\_pi2c\_x1\_0\_1 has identified issues that may require user intervention. Please review the upgrade log 'mb\_axi\_pi2c\_x1\_0\_1.upd'.

When I create my own IP, I can create these parameters, but I do not know how to link this to the interface parameter value.



Any help? Any insight would be greatly appreciated.

[PROCESSOR SYSTEM DESIGN AND AXI](#)  
[\(/S/TOPIC/0T02E000000YKXZWA4/\)](#)

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## Top Rated Answers



UserNotFound (/s/profile/0052E00000N31ZIQAJ) (Customer) (https://www.xilinx.com/)

Edited by User1632152476299482873 September 25, 2021 at 11:13 AM

**\*\*BEST SOLUTION\*\***

Solved... cost me most of my day.

Now I can program a timer that will delay the same time no matter the axi frequency

I hope this will help some other people too.

You don't need to deal with propagation if you use AXI interfaces. You simply can't access the interface parameter because it contains a dot, so you need to copy it  
 S00\_AXI.FREQ\_HZ -> C\_S00\_AXI\_FREQ\_HZ

1. Select your AXI-Interface.  
 Properties -> Name = S00\_AXI ?  
 Properties -> Config -> FREQ\_HZ = Value you want ?
2. Create Parameter to hold FREQ\_HZ (I use C\_S00\_AXI\_FREQ\_HZ)
3. Add following code lines to *proc propagate* in *bd.tcl*

```
1 set freq_hz [get_property config.FREQ_HZ [get_bd_intf_pins $cellpath/S00_AXI]]
2 set_property config.C_S00_AXI_FREQ_HZ $freq_hz [get_bd_cells $cellpath]
3
```

4. Package IP-Core
5. Update your Design
6. **RESTART VIVADO!** (or the old TCL script will run)
7. Reopen Vivado and Validate Design

If you really need to propagate try

<https://support.xilinx.com/0D52E00006hpTlzSAE> (<https://support.xilinx.com/0D52E00006hpTlzSAE>).

```
1 proc propagate { cellpath otherInfo} {
2     set cell_handle [get_bd_cells $cellpath]
3     set_property config.PARAM1 [get_property config.PARAM2 [find_bd_objs -relation connected_to [get_bd_intf_pins
    $cell_handle/Interface1]]] $cell_handle
4 }
```

Felix

Selected as Best Like 2 likes

## All Answers



jliu83 (/s/profile/0052E00000N2uNNQAZ) (Customer)

6 years ago

Any update on this? Still waiting for a response. There has to be a way to do this.

Like Reply



UserNotFound (/s/profile/0052E00000N31ZIQAJ) (Customer)

Edited by User1632152476299482873 September 25, 2021 at 11:13 AM

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```
1 proc propagate { cellpath otherInfo} {
2     set cell_handle [get_bd_cells $cellpath]
```

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## TRENDING ARTICLES

Export IP Invalid Argument / Revision Number Overflow Issue (Y2K22).  
(/s/article/76960).

[AXI Basics 1 - Introduction to AXI](/s/article/1053914)  
(/s/article/1053914)

[Debugging PCIe Issues using lspci and setpci \(/s/article/1148199\)](https://www.kernel.org/doc/html/latest/usb/usbcore.html#debugging-pcie-issues-using-lspci-and-setpci)

[PetaLinux 2021.2 - Product Update Release Notes and Known Issues \(/s/article/000032521\)](#)

[65444 - Xilinx PCI Express DMA Drivers and Software Guide \(/s/article/65444\)](#)

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