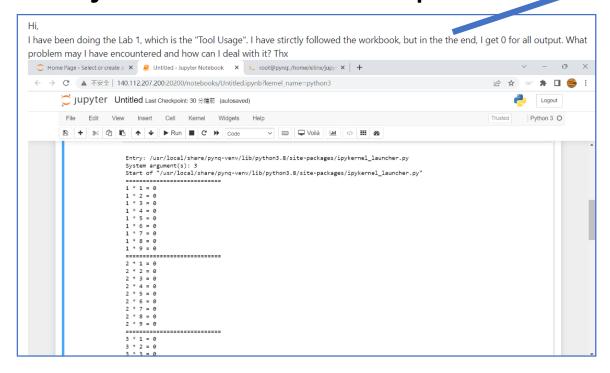# Guidelines for Posting in Forum

Let's look at a post in the Github HLS Discussion

Subject: course-1-lab question

Hi,
I have been doing the Lab 1, which is the "Tool Usage". I have stirctly followed the workbook, but in the the end, I get 0 for all output. What problem may I have encountered and how can I deal with it? Thx

How can people help him based on the above description ?

Guidelines

- Picking the right forum
- The Subject – Offer the Clue to your problem
- Search online solutions, e.g. Google
- State what you have already tried
- Steps to Re-create your Problem
- Provide Information about what errors you get
- Show the portion of the code that is failing
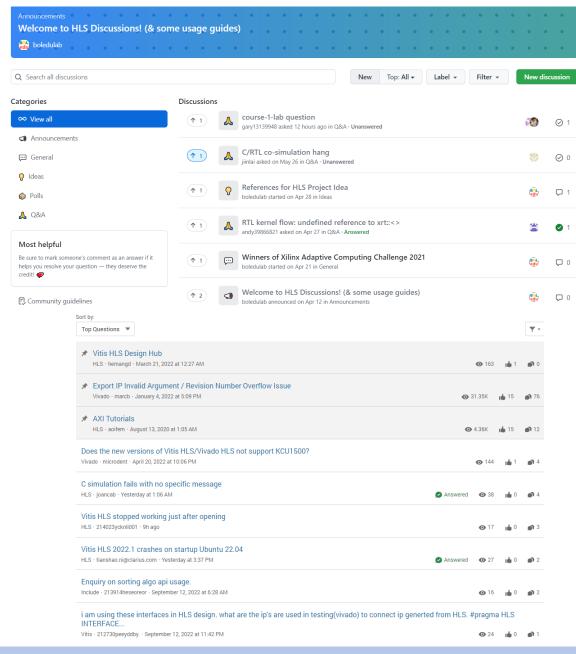- Others

Picking the Right Forum

- Participate in Github HLS Discussion:

https://github.com/bol-edu/HLS-Discussions/discussions

- Submit question to Xilinx HLS Forum:
https://support.xilinx.com/s/topic/0TO2E000000YKXtWAO/hls?language=en_US

The Subject – Offer the Clue to your problem

Subject: course-1-lab question

Subject: Problem with Course-1-lab - getting all zero in the result

Search online solution first, e.g. Google

- Search Google with error number
- If can not find what you want on Google or you don't understand what you have seen, then, post the question

State what you have already tried

vitis hls 2020.2 Pre-synthesis failed, but it didn't prompt any errors. How can I find out the cause of the error and fix it?

```
void read_data(kern_colmeta *colmeta
, int ncols
    , HeapTupleHeaderData *htup
, cl_char tup_dclass[READ_COL]
, cl_long  tup_values[READ_COL])
{
 char   *addr ;//__attribute__((unused));
 EXTRACT_HEAP_TUPLE_BEGIN(addr, colmeta, ncols, htup);//*(cl_uint*)addr == 4
 EXTRACT_HEAP_TUPLE_NEXT(addr); //*(cl_uint*)addr == 1085693
 EXTRACT_HEAP_TUPLE_NEXT(addr);
 EXTRACT_HEAP_READ_32BIT(addr, tup_dclass[3],tup_values[3]); //*(cl_uint*)addr == 85694
 EXTRACT_HEAP_TUPLE_NEXT(addr);//*(cl_uint*)addr == 1
 EXTRACT_HEAP_TUPLE_NEXT(addr);
 EXTRACT_HEAP_TUPLE_NEXT(addr);
 //EXTRACT_HEAP_READ_POINTER(addr,tup_dclass[1],tup_values[1]);
 EXTRACT_HEAP_TUPLE_NEXT(addr);
 //EXTRACT_HEAP_READ_POINTER(addr ,tup_dclass[2],tup_values[2]);
 EXTRACT_HEAP_TUPLE_END();
}

extern "C"{
void accel (char *a, kern_colmeta *b){
#pragma HLS INTERFACE m_axi depth=125  port=a
//#pragma HLS INTERFACE m_axi depth=1984  port=b
#pragma HLS INTERFACE m_axi depth=16  port=b
//kern_colmeta col[16];
//memcpy(col, b, sizeof(kern_colmeta)*16);
HeapTupleHeaderData *htup;
htup = (HeapTupleHeaderData *)a;
cl_char tup_dclass[READ_COL];
cl_long  tup_values[READ_COL];
read_data(b, 16, htup, tup_dclass, tup_values);
```

The top function is accel(), error occurs in the code when calling EXTRACT_HEAP_READ_32BIT(). C simulation results are normal, but as once try to run synthesis, it faild. error log just like as follows:
INFO: [HLS 200-1510] Running: csynth_design
INFO: [HLS 200-111] Finished File checks and directory preparation: CPU user time: 0 seconds. CPU system time: 0 seconds. Elapsed time: 0 seconds; current allocated

By the way, It's an interesting phenomenon。 When changing the code as below, it works fine!
```
void read_data(kern_colmeta *colmeta
, int ncols
    , HeapTupleHeaderData *htup
, cl_char tup_dclass[READ_COL]
, cl_long  tup_values[READ_COL])
{
 char   *addr ;//__attribute__((unused));
 EXTRACT_HEAP_TUPLE_BEGIN(addr, colmeta, ncols, htup);//*(cl_uint*)addr == 4
 EXTRACT_HEAP_READ_32BIT(addr, tup_dclass[3],tup_values[3]);
 EXTRACT_HEAP_TUPLE_NEXT(addr); //*(cl_uint*)addr == 1085693
 EXTRACT_HEAP_TUPLE_NEXT(addr);
 //*(cl_uint*)addr == 85694
 EXTRACT_HEAP_TUPLE_NEXT(addr);//*(cl_uint*)addr == 1
```

When changing the code as below, it's still normal..
```
void read_data(kern_colmeta *colmeta
, int ncols
    , HeapTupleHeaderData *htup
, cl_char tup_dclass[READ_COL]
, cl_long  tup_values[READ_COL])
```

When changing the code as below, it's still normal..
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void read_data(kern_colmeta *colmeta
, int ncols
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 char   *addr ;//__attribute__((unused));
 EXTRACT_HEAP_TUPLE_BEGIN(addr, colmeta, ncols, htup);//*(cl_uint*)addr == 4
 EXTRACT_HEAP_TUPLE_NEXT(addr); //*(cl_uint*)addr == 1085693
 EXTRACT_HEAP_READ_32BIT(addr, tup_dclass[3],tup_values[3]);
 EXTRACT_HEAP_TUPLE_NEXT(addr);
  //*(cl_uint*)addr == 85694
 EXTRACT_HEAP_TUPLE_NEXT(addr);//*(cl_uint*)addr == 1;
```

But it fails when the code is as follows. Why?
```
void read_data(kern_colmeta *colmeta
, int ncols
    , HeapTupleHeaderData *htup
, cl_char tup_dclass[READ_COL]
, cl_long  tup_values[READ_COL])
{
 char   *addr ;//__attribute__((unused));
 EXTRACT_HEAP_TUPLE_BEGIN(addr, colmeta, ncols, htup);//*(cl_uint*)addr == 4
 EXTRACT_HEAP_TUPLE_NEXT(addr); //*(cl_uint*)addr == 1085693
 EXTRACT_HEAP_TUPLE_NEXT(addr);
 EXTRACT_HEAP_READ_32BIT(addr, tup_dclass[3],tup_values[3]);
  //*(cl_uint*)addr == 85694
 EXTRACT_HEAP_TUPLE_NEXT(addr);//*(cl_uint*)addr == 1
...
```

The sample code zip package has been uploaded. How can I fix it ? thanks

ZIP
test1

Steps to Re-create your Problem

Vitis HLS 2022.1 crashes on startup Ubuntu 22.04

Hello,

Vitis HLS crashes on Ubuntu 22.04, also crashes on my other machine running Ubuntu 21.04. I can see splash screen pop up but it then exits:

```
tian@tianmsi:~$ source /tools/Xilinx/Vitis_HLS/2022.1/settings64.sh
tian@tianmsi:~$ vitis_hls
```

```
****** Vitis HLS - High-Level Synthesis from C, C++ and OpenCL v2022.1 (64-bit)
  **** SW Build 3526262 on Mon Apr 18 15:47:01 MDT 2022
  **** IP Build 3524634 on Mon Apr 18 20:55:01 MDT 2022
   ** Copyright 1986-2022 Xilinx, Inc. All Rights Reserved.
```

```
source /tools/Xilinx/Vitis_HLS/2022.1/scripts/vitis_hls/hls.tcl -notrace
INFO: [HLS 200-10] Running '/tools/Xilinx/Vitis_HLS/2022.1/bin/unwrapped/lnx64.o/vitis_hls'
INFO: [HLS 200-10] For user 'tian' on host 'tianmsi' (Linux_x86_64 version 5.15.0-47-generic) on Tue Sep 13 15:19:50 PDT 2022
INFO: [HLS 200-10] On os Ubuntu 22.04 LTS
INFO: [HLS 200-10] In directory '/home/tian'
INFO: [HLS 200-10] Bringing up Vitis HLS GUI ...
INFO: [HLS 200-112] Total CPU user time: 12.24 seconds. Total CPU system time: 0.59 seconds. Total elapsed time: 4.11 seconds; peak allocated memory: 19.289 MB.
INFO: [Common 17-206] Exiting vitis_hls at Tue Sep 13 15:19:54 2022...
```

Does not crash on my windows 11 machine.
The following post has a similar issue and suggests it might be caused by a memory issue but I have 25G of free memory when I launched Vitis_hls:
https://support.xilinx.com/s/question/0D52E00006lMPOqSAO/vitis-hls-20211-crash-when-start?language=en_US

Any help is appreciated!
Tian

Provide Information about what errors you get

vivado giving error when getting ip from Vivado hls ...

i am synthesyzing TPG hls ip , but i am getting error with newly installed Vivado 2020.1
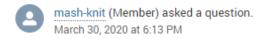
```
****** Vivado v2020.1 (64-bit)
**** SW Build 2902540 on Wed May 27 19:54:35 MDT 2020
**** IP Build 2902112 on Wed May 27 22:43:36 MDT 2020
** Copyright 1986-2020 Xilinx, Inc. All Rights Reserved.

source run_ippack.tcl -notrace
bad lexical cast: source type value could not be interpreted as target
while executing
"rdi::set_property core_revision 2205041141 {component component_1}"
invoked from within
"set_property core_revision $Revision $core"
(file "run_ippack.tcl" line 940)
INFO: [Common 17-206] Exiting Vivado at Wed May 4 11:41:14 2022...
ERROR: [IMPL 213-28] Failed to generate IP.
command 'ap_source' returned error code
while executing
"source /home/chaitusvk/Documents/sdi/sdi_tx/sdi_tx.runs/design_1_v_tpg_0_0_synth_1/runhls.tcl"
("uplevel" body line 1)
invoked from within
"uplevel \#0 [list source $arg] "

INFO: [HLS 200-112] Total elapsed time: 54.06 seconds; peak allocated memory: 400.766 MB.
INFO: [Common 17-206] Exiting vivado_hls at Wed May 4 11:41:17 2022...
```

Download

vivado_hls

https://support.xilinx.com/s/question/0D52E000079rt7fSAA/vivado-giving-error-when-getting-ip-from-vivado-hls-?language=en_US

BOL edu

Show the portion of the code that is failing

mash-knit (Member) asked a question.
March 30, 2020 at 6:13 PM

Malfunction of ap_int on ofstream's insertion operator with hexadecimal format

I'm new to Vivado HLS and trying to write a test code, and I found a strange behavior about 'ap_int' as follows.
It makes inconvenience on writing test code, since I should handle a lot of long stream data with hex format.

```
1    // io manipulation error
2    int main(){
3        using namespace std;
4        int int_val = 256;
5        ap_int<16> ap_int_val = int_val;
6        cout << hex << setw(4) << setfill('0') << int_val     << endl; // 0100 -> OK
7        cout << hex << setw(4) << setfill('0') << ap_int_val << endl; // 0x100 -> NG, setfill is ignored
8    }
```

```
1    // ofstream error
2    int main(){
3        using namespace std;
4        ofstream ofile("result.txt");
5        int int_val = 256;
6        ap_int<16> ap_int_val = int_val;
7        ofile << hex << setw(4) << setfill('0') << int_val     << endl; // 0100 -> OK
8        ofile << hex << setw(4) << setfill('0') << ap_int_val << endl; // 0256 -> NG, hex is ignored
9        ofile.close();
10   }
```

I'm already aware that the reason is in the header files that are provided with Vivado HLS 2019.2 ('ap_int_base.h' and 'ap_private.h').
Is there anyone who knows if there is a plan to fix this problem, or good work around?
Thank you.

https://support.xilinx.com/s/question/0D52E00006hprN8SAI/malfunction-of-apint-on-ofstreams-insertion-operator-with-hexadecimal-format?language=en_US

Others

- Don't write a novel. Be specific and concise.

- Questions that are obviously basic probably aren't going to get helpful replies.

- We aren't here to do your work for you. You should have your due diligence