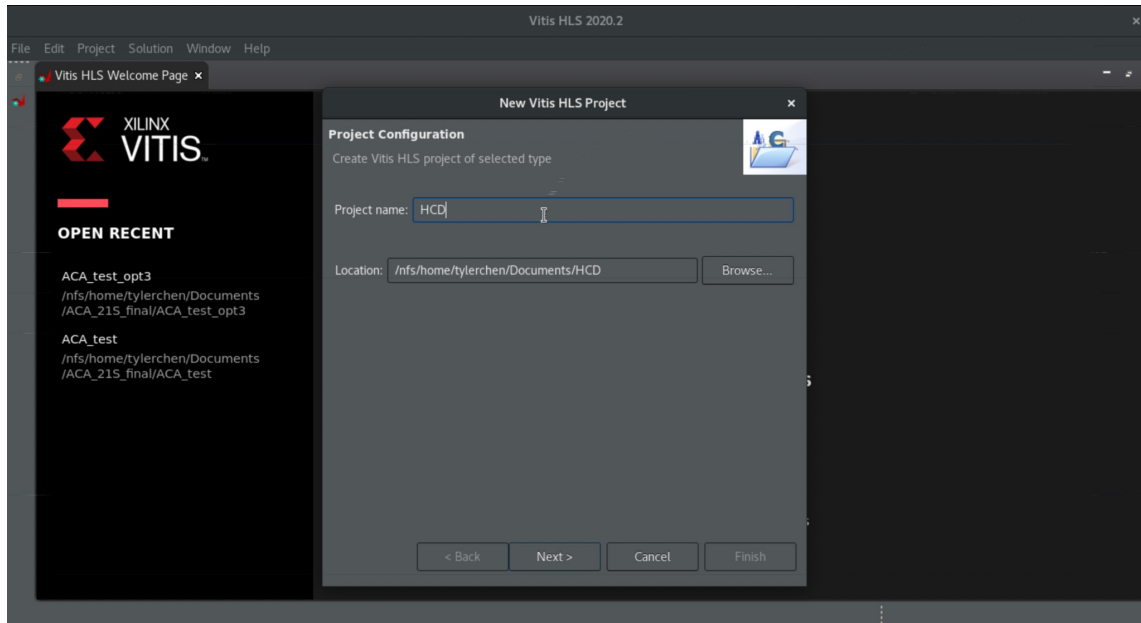## Step 0. Clone Repository

      $ git clone https://github.com/yqchenee/ACA_21S_final
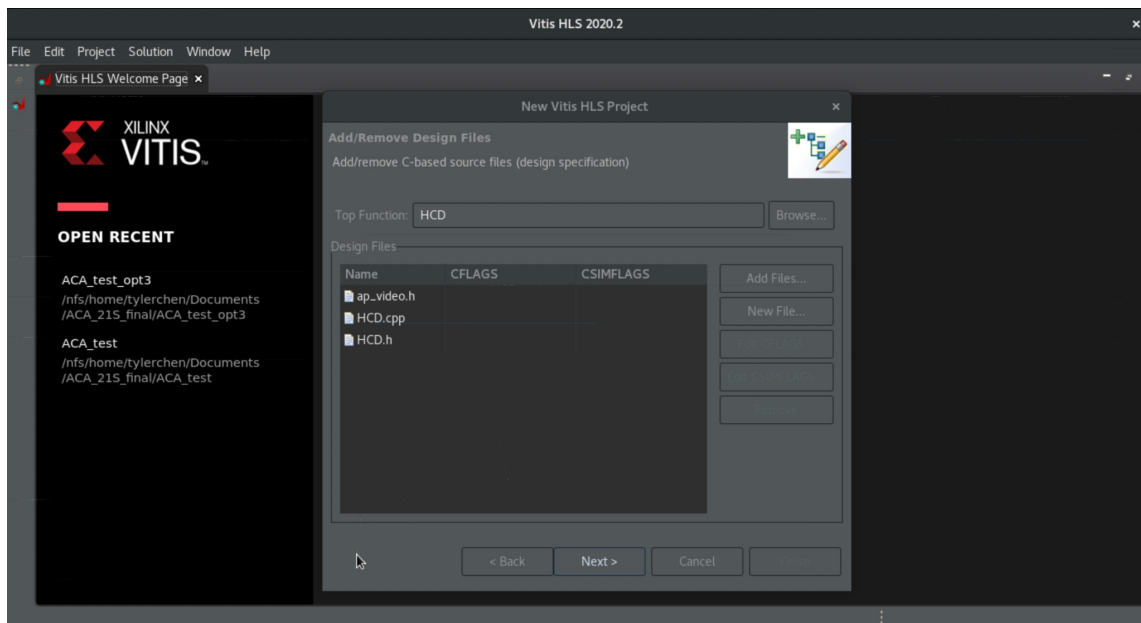
Step 1. Create Project

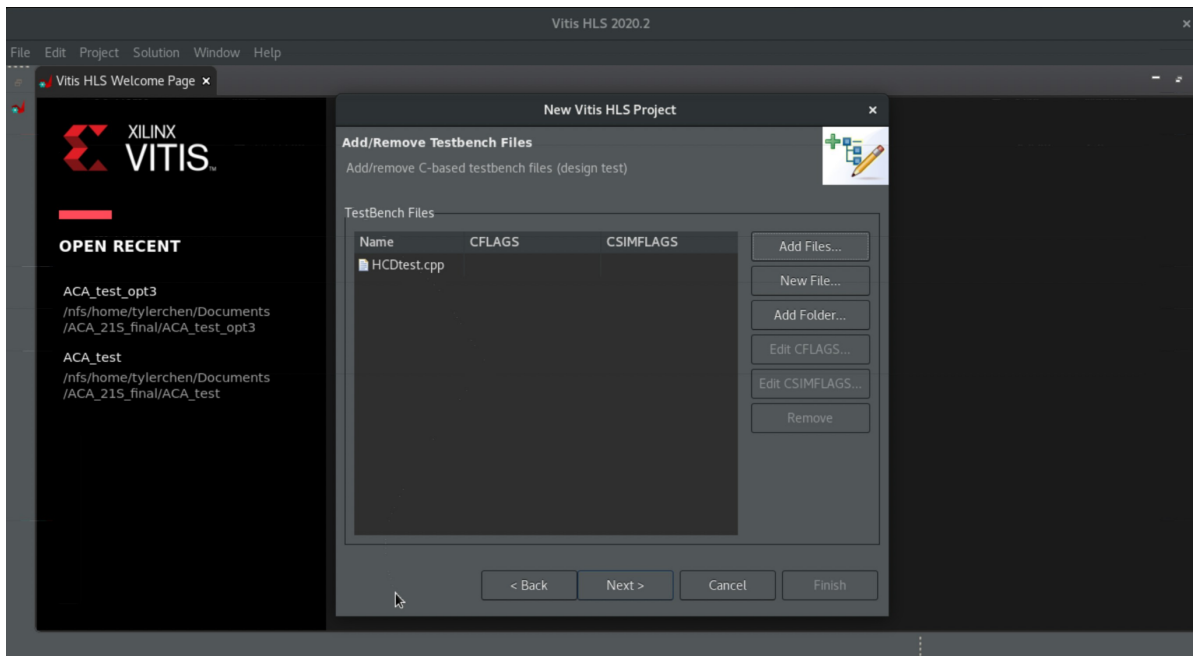Set Location to where you clone the repository

Step 2. Add Source File

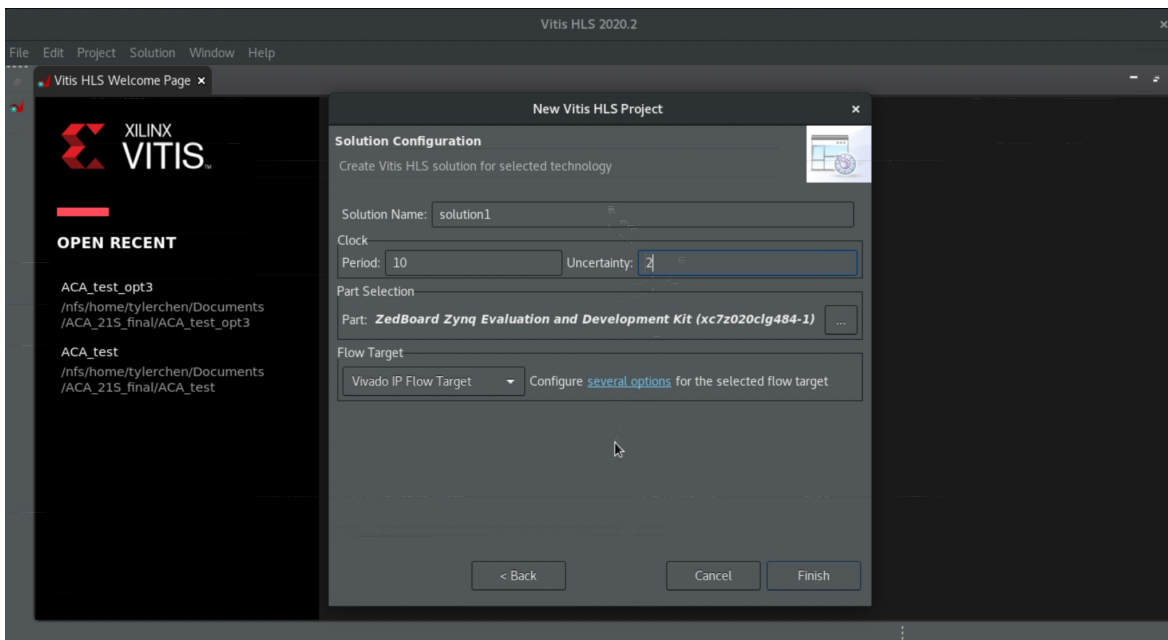Add ap_video.h, HCD.cpp, HCD.h to source.

Step 3. Add Testbench File
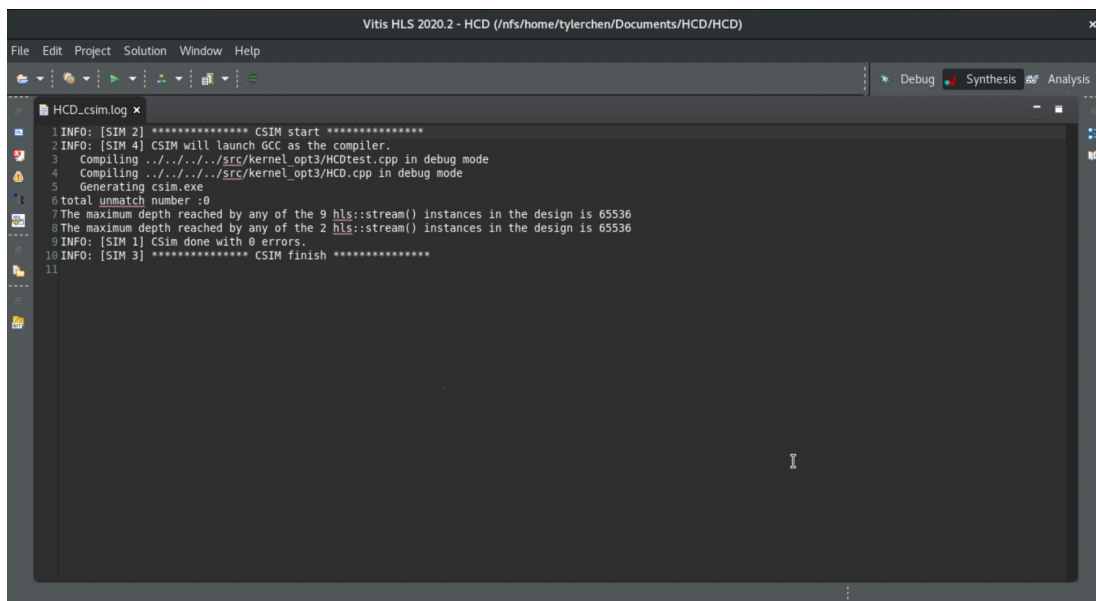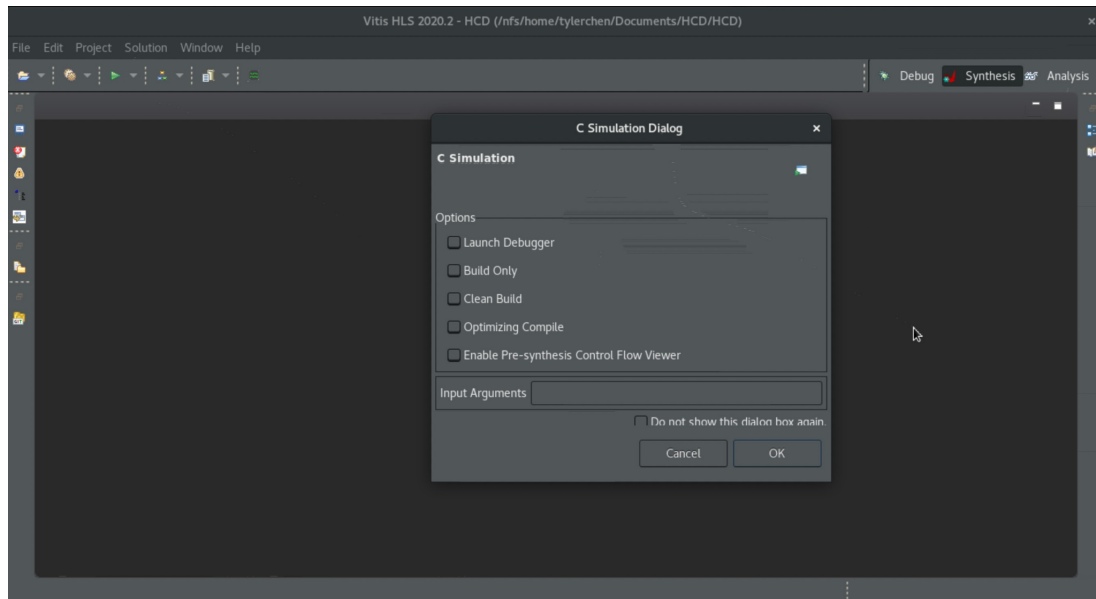
Add HCDtest.cpp to testbench

Step 4. Set Solution Configuration

Set period to 10 and uncertainty to 2. Set Zenboard Zynq in Part selection.

Step 5. Start Simulation

Step 6. Start Synthesis

Set HCD to top function first.

Target	Estimated	Uncertainty
10.00 ns	7.942 ns	2.00 ns

▾ Performance & Resource Estimates

Modules & Loops	Issue Type	Slack	Latency(cycles)	Latency(ns)	Iteration Latency	Interval	Trip Count	Pipelined	BRAM	DSP	FF	LUT	URAM
▾ HCD		-	66611	6.660E5	-	66576	-	dataflow	164	2	17557	15446	0
▸ blur_diff		-	66063	6.610E5	-	66063	-	no	36	0	7217	7407	0
▸ blur_img3		-	66062	6.610E5	-	66062	-	no	12	0	2448	2483	0
▸ find_local_maxima		-	66575	6.660E5	-	66575	-	no	100	0	2484	1847	0
▸ compute_dif		-	66059	6.610E5	-	66059	-	no	16	0	1770	1251	0
▸ compute_det_trace		-	65546	6.550E5	-	65546	-	no	0	1	1277	682	0
▸ process_input		-	65541	6.550E5	-	65541	-	no	0	1	368	314	0

Step 7. Start Co-sim