

# Project Manual

**Project Name: JBI Design**

**JBI Architecture Details** - J-Bus Interface is one block in the open sparco processor. We will be working on this block. For details refer to JBI Architecture & Specifications.pdf file in LMS

**Project Database Path:** /home/pdsa/PD33/jbi

**Technology used:** 14nm

Copy the "jbi" folder to your home directory, which has "synth" folder for running synthesis.

## Synthesis:

Go through the README file in the "synth" directory, which has the details about directory structure and different files.

As per the "synthesis\_dc\_full.tcl" file in "scripts" directory, run the synthesis in the work directory.

Try to understand the synthesis script, which has different DC commands and tcl files for reading libraries, RTL files and timing constraints.

### Synthesis Goals:

To deliver a netlist & SDC file, which meets timing, area, power requirements and which is routable

### Deliverables to PD :

1. Netlist file - to be saved in **outputs** directory
2. SDC file -- to be saved in **outputs** directory
3. Timing Reports - to be saved in **reports** directory
4. Reports of check design and check timing - to be saved in **reports** directory

## Physical Design:

Change to "pd" folder within "jbi" folder for running PD. Go through the "Project\_Readme" file in the "pd" folder to understand the directory structure.

Inputs Folder:

1. Netlist File -- To copy (or link) from "outputs" directory of "synth"
2. SDC File -- To copy (or link) from "outputs" directory of "synth"
3. DEF File (Block Size & Pin locations)

### Physical Design Goals:

To provide routed database which is DRC, LVS clean and timing clean (no violations)

### Physical Design Deliverables for project assessment:

1. DRC clean report

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2. LVS Clean report
  3. QOR Report
  4. Clock tree report
  5. Setup report
  6. Hold report

### **Where to submit the project for assessment?**

Create a folder with name "project\_submission" in your home directory. It will be something like /home/pd3351ce21/project\_submission.

Copy the above report files for assessment into project submission folder and send a message in whatsapp to lab trainer, along with the path.

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Submitted the project

path: /home/<your home>/project\_submission

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