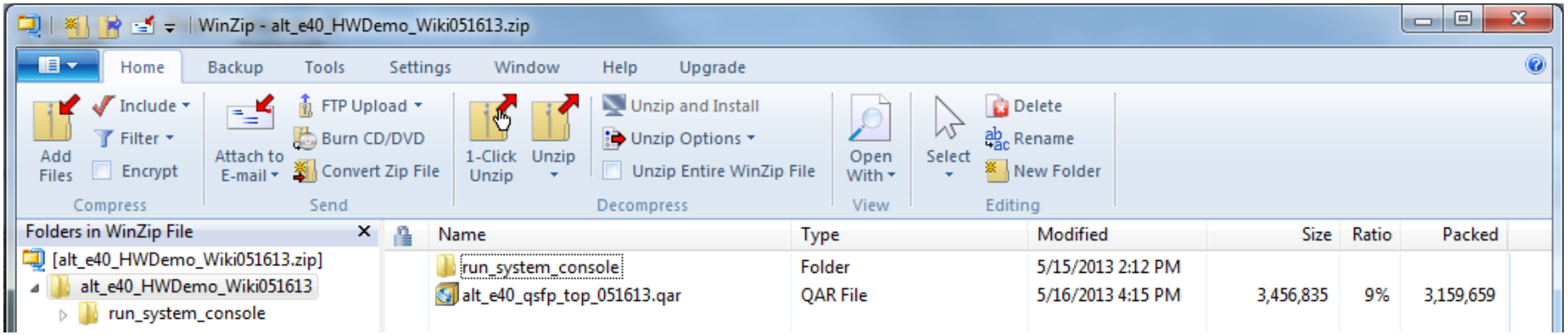
40Gbps Ethernet Hardware Demo Quick Starter Guide

Download Design From AlteraWiki

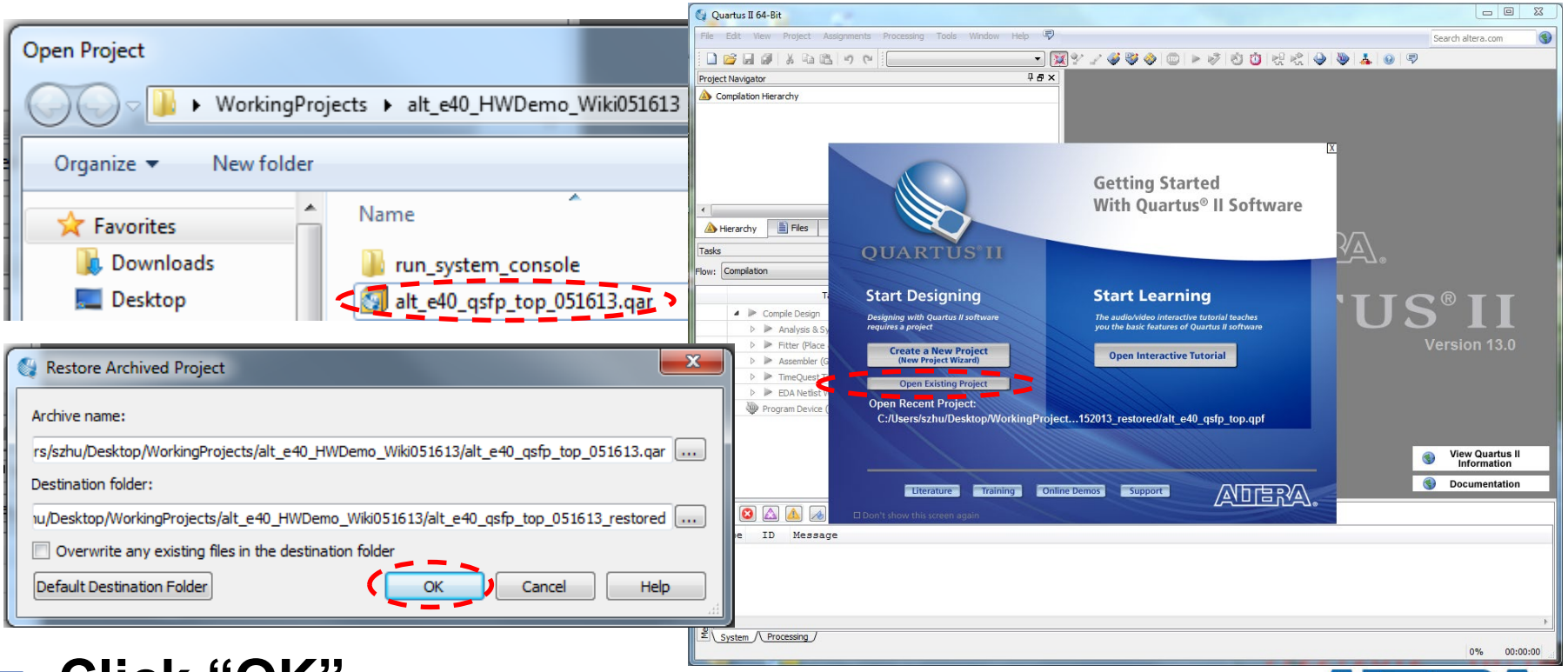
- **Download Zipped Design from this link**
  - http://www.alterawiki.com/wiki/40Gbps_Ethernet_MACPHY_IP_Hardware_Demo_Design_using_QSFP

- **Unzip the compressed package**
  - There is a Quartus Archived design
  - The directory “run_system_console” contains TCL scripts for this Demo



Start Quartus II and Load Project

- Start Quartus II software 13.0 production release
- Click “Open Existing Project”
- Open “alt_e40_qsfp_top_051613.qar”



- Click “OK”

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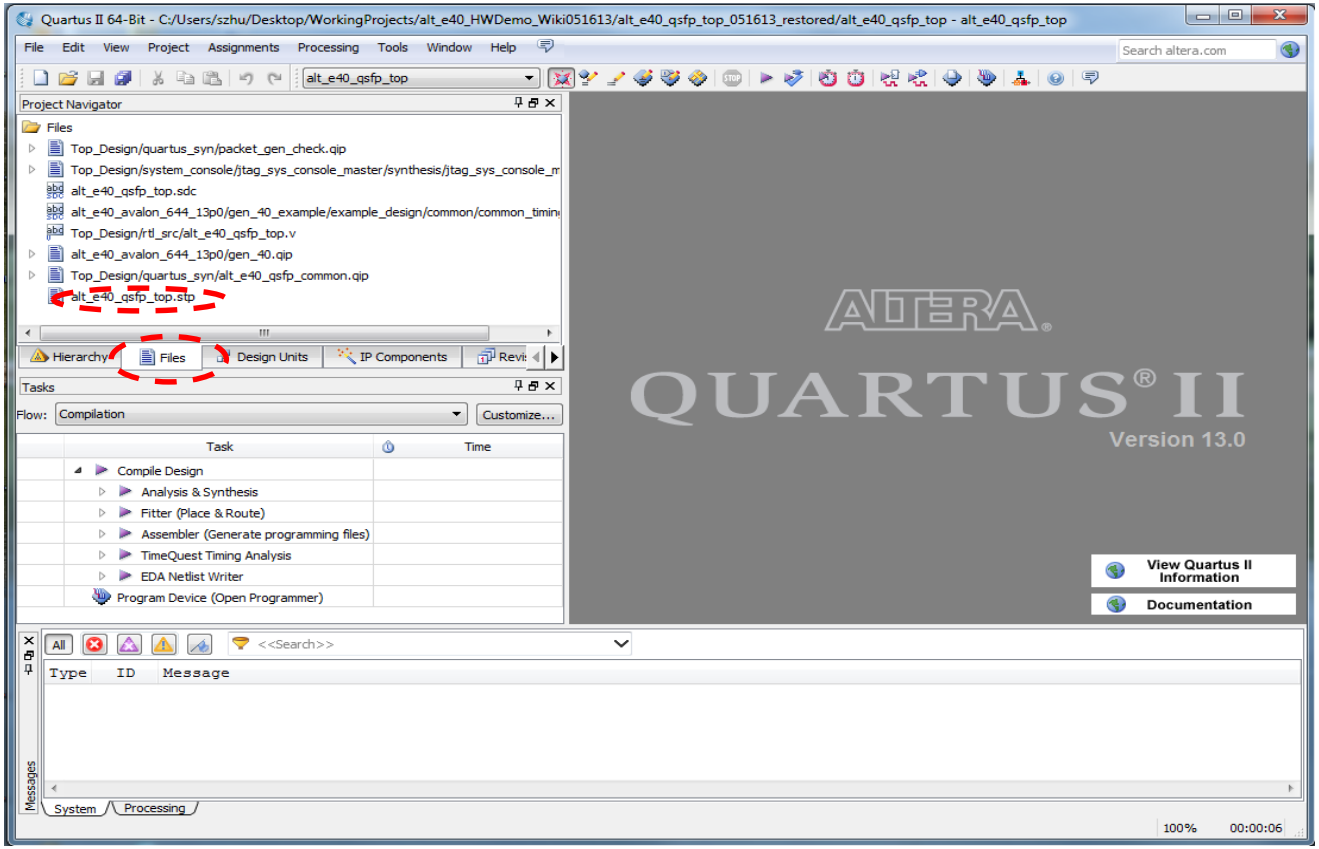
Open SignalTap II Logic Analyzer

- Click “Files”
- Double Click “alt_e40_qsfp_top.stp”



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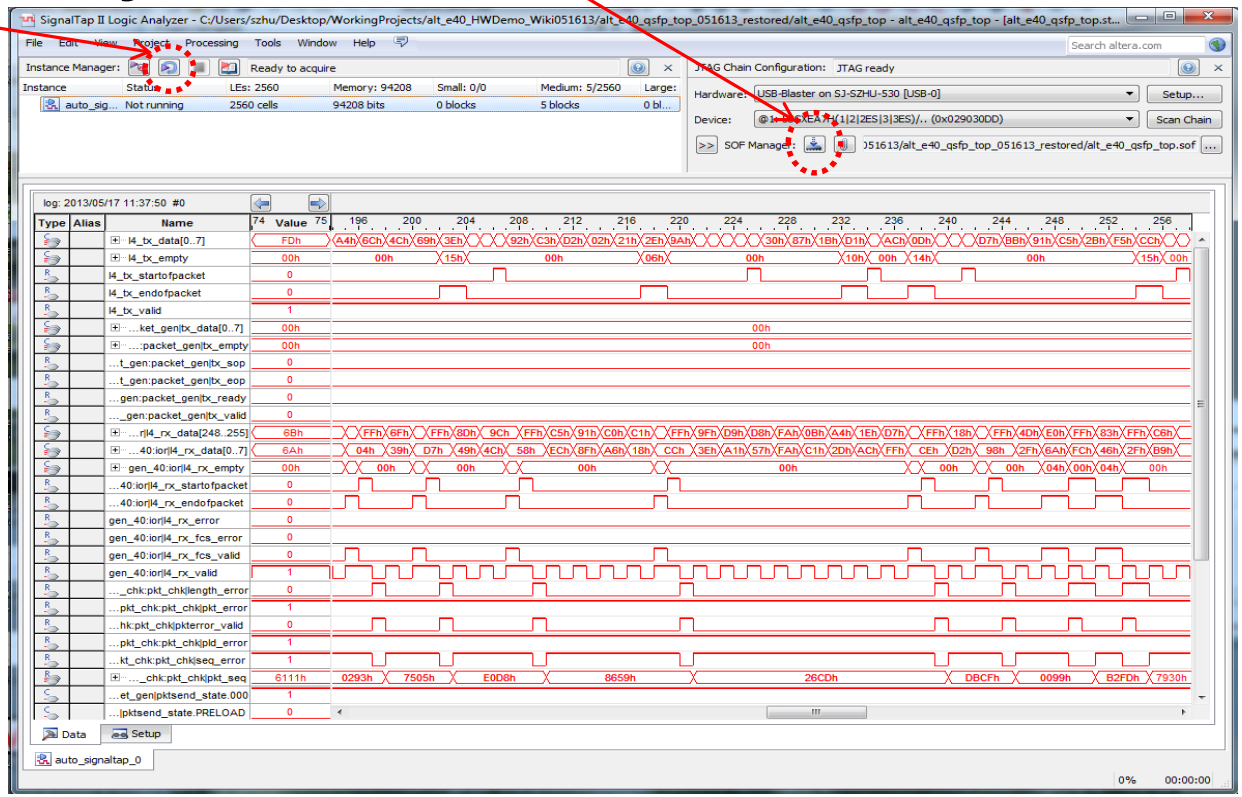
Program the Device

- Clicking “Program Device” button will program alt_e40_qsfp_top.sof into Stratix V FGPA
- Click “Autorun Analysis”



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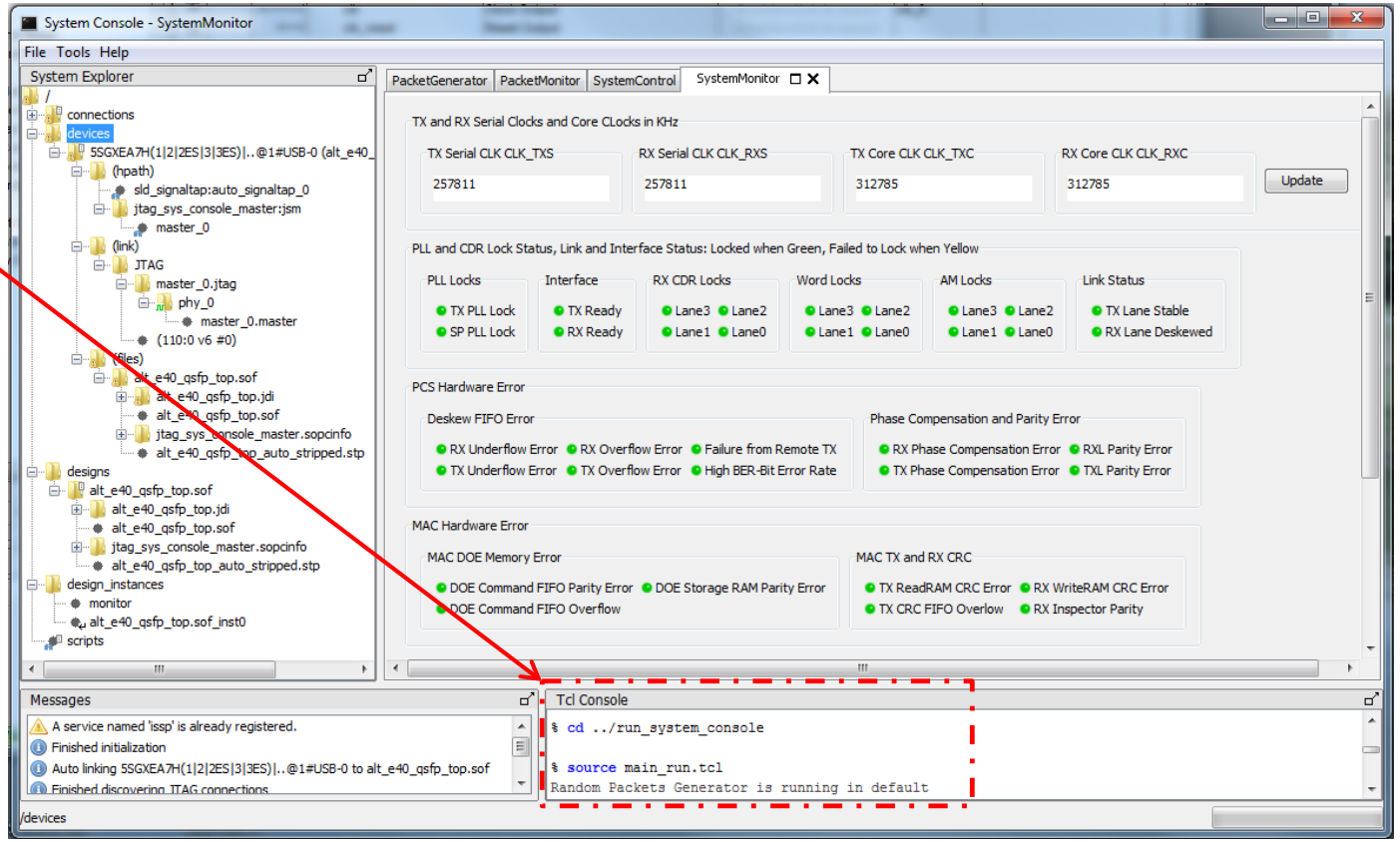
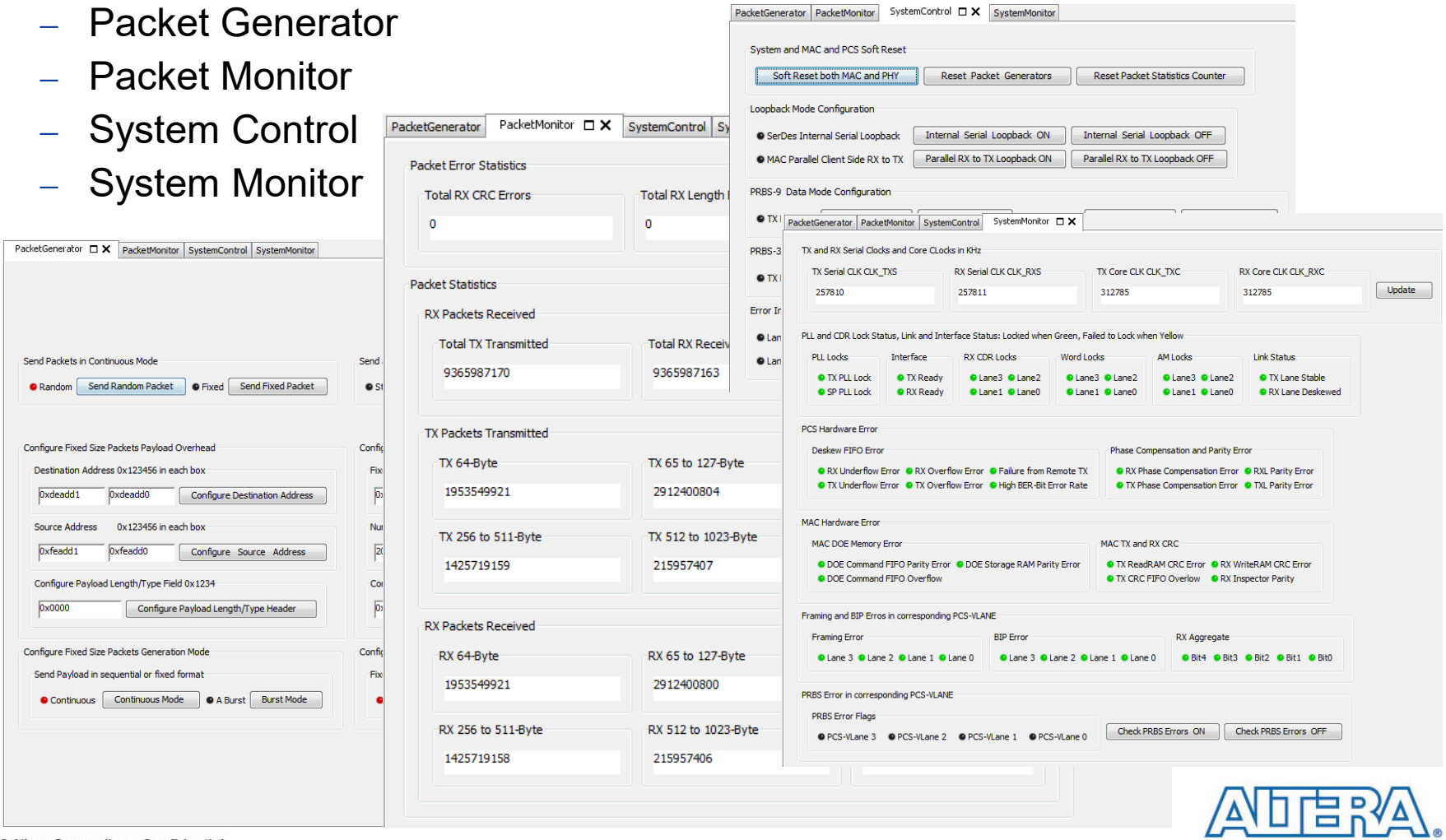
Start System Console

- **Start Qsys from Quartus II menu**
  - Tools -> Qsys
- **Start System Console from Qsys menu**
  - Tools -> System Console
- **Run**
  - main_run.tcl



40Gbps Hardware Demo System Console Control Panels

- **There are four system console control panels**
  - Packet Generator
  - Packet Monitor
  - System Control
  - System Monitor



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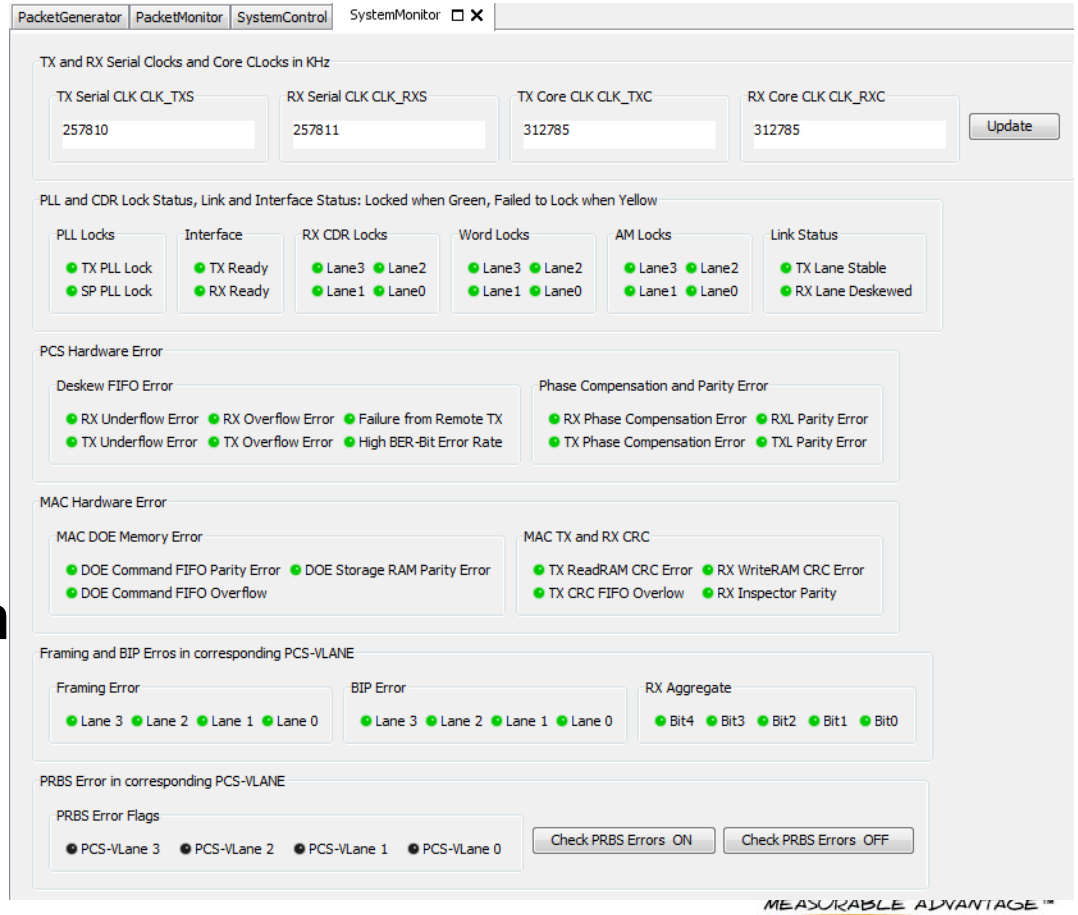
Use System Monitor to Check System Working Condition

- **main_run.tcl auto checks all status twice after start**
  - First check could show some error indicator in RED
  - Second check should show all GREEN
- **System monitor does not auto check**
- **Click "Update" will check twice**
- **Right picture shows healthy normal system working condition**



Thank You