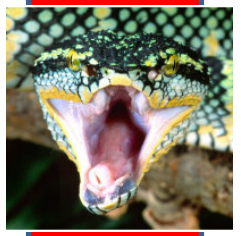
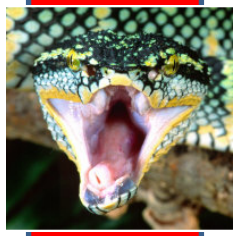


Lab Work Environment

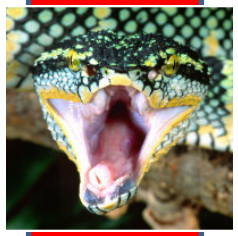
A Quick Overview
(More Information in Installation and Getting Started Guides)

Lab Environment – Preinstalled



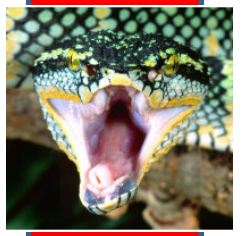
- User: “`training`” Password: <see sticker>
- CentOS 7.5 (1804)
- Installed:
  - OpenCPI 1.4 (w/ ANGRYVIPER IDE)
  - Xilinx Vivado (2017.1)
  - Various support utilities (python, matplotlib, git, etc)
- Configured SELinux and firewall for NFS export to Matchstiq-Z1

Lab Environment – Pre-Built Projects



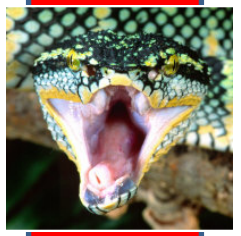
- Built “Core Project”
  - Instructions from the Getting Started Guide
  - Located in `~/ocpi_core`
  - Built RCC Workers (x86_64 and ARM)
  - Built All HDL (targeting “matchstiq_z1” and “xsim” platforms)
  - Registered in Registry as `ocpi.core`
- Built “OCPI Assets” project
  - Located in `~/ocpi_assets`
  - Built RCC Workers (x86_64 and ARM)
  - Built HDL (targeting “matchstiq_z1” and “xsim” platforms)
  - Registered in Registry as `ocpi.assets`
- `ocpidev show projects`

Lab Environment – Falling Behind



- If you find yourself falling behind, *e.g.* you did not complete a lab
  - A script is available
    - `provided/scripts/complete_lab.sh`
    - Expects lab number of the one you want to be completed *up to*
    - Export `BUILD_HDL=1` to synthesize as well
    - (Not vigorously tested)

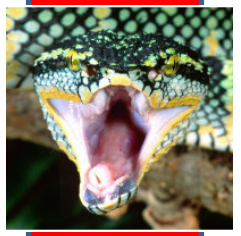
Lab Environment – Matchstiq Usage



- The USB console connection is using a port intended by the manufacturer for *debug-only* usage. **It is very delicate and easily breaks**, which is why the unit and the associated cables are affixed. **Do not move them.**

- If sharing a Matchstiq between adjacent students, use the "`reboot`" command when moving the USB cable. This will ensure its NFS mounts point to the correct student's laptop.
  - If needed, unplugging the power from the mains is preferred over the connection on the front of the radio

Lab Environment – Conclusion



- Serving `/home/training` and `/opt/opencpi` via NFS
- Locations
  - IDE: `/usr/bin/ocpigui`
  - Core Project: `~/core`
  - OCPI Assets: `~/assets`
- Global variables (for all users)
  - `OCPI_XILINX_LICENSE_FILE` pre-configured for WebPACK