## Sdram xulalx25soc

- ubuntu12.04\$ xsload

   -usb 0 --fpga
   /testbuilds/learning\_hd
   I/MyHDL/sdram/toplevel
   bit
- MyHDL wishbone https://github.com/devel one/learning\_hdl/blob/m aster/MyHDL/sdram/sdr amdev.py
- What is the xsload command to keep the program when power is restored

## Sdram MyHDL

- MyHDL https://github.com/develone/ learning\_hdl/blob/master/My HDL/sdram/memdev.py
- python memdev.py ;make top; sudo config\_cat top.bin
- MyHDL https://github.com/develone/ learning\_hdl/blob/master/My HDL/sdram/sdramdev.py

## Sdram catzip xulalx25soc

- Autofpga project sdramdev.txt
- Catzip HX8K FPGA
- 50 MHz refresh\_clk <= 10'd391</li>
- wbsdram.v wishbone interface & sdramcontroller
- Verilator simulation arm-main\_tb compiled with sdramsim.cpp & sdramsim.h
- Wishbone 32 bit addr & 32 bit data
- 0x2000000 to 0x2FFFFF
- Write ./arm-wbregs 0x2000004 0x55aaaa55
- toplevel.v
  - main.v
    - · Wbsdram.v

- Non Autofpga project maybe soon
- Xulalx25soc LX25 or LX9 FPGA
- 80 MHz refresh clk <= 10'd625;</li>
- wbsdram.v wishbone interface & sdramcontroller
- Verilator simulation busmaster\_tb compiled with sdramsim.cpp & sdramsim.h
- Wishbone 32 bit addr & 32 bit data
- 0x2000000 to 0x2FFFFF
- Write ./wbregs 0x2000004 0x55aaaa55
- Read ./wbregs 0x2000004
- toplevel.v
  - busmaster,v
    - Wbsdram.v

## Sdram xulalx25soc

- ubuntu12.04\$ xsload

   -usb 0 --fpga
   /testbuilds/learning\_
   hdl/MyHDL/sdram/top level.bit
- xula2-lx9 toplevel.bit https://github.com/de velone/learning\_hdl/b lob/master/MyHDL/sdra m/toplevel.bit
- Ise build https://github.com/dev elone/learning\_hdl/blo b/master/MyHDL/sdra m/wbsdram\_ise\_win8 .pdf