tb_axis.v

AUTHORS

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DATES

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INFORMATION

Brief

Test bench for axis_string_to_axis_data using axis stim and clock stim.

License MIT

tb_axis

```
module tb_axis
```

Test bench for axis_string_to_axis_data. This will run a file through the system and write its output. These can then be compared to check for errors. If the files are identical, no errors. A FST file will be written.

INSTANTIATED MODULES

clk_stim

```
clk_stimulus #(
                                                                                .
CLOCKS(1),
                                                                                .
CLOCK_BASE(1000000),
                                                                                .
CLOCK_INC(1000),
                                                                                .
RESETS(1),
                                                                                .
RESET_BASE(2000),
                                                                                .
RESET_INC(100)
) clk_stim ( .clkv(tb_dut_clk), .rstnv(tb_dut_rstn), .rstv() )
```

Generate a 50/50 duty cycle set of clocks and reset.

slave_axis_stim

```
slave_axis_stimulus #(
                                                                                .
BUS_WIDTH(BUS_WIDTH),
                                                                                .
USER_WIDTH(USER_WIDTH),
                                                                                .
DEST_WIDTH(DEST_WIDTH),
                                                                                .
FILE("in.txt")
) slave_axis_stim ( .m_axis_aclk(tb_dut_clk), .m_axis_arstn(tb_dut_rstn), .r
```

Device under test SLAVE stimulus module.

dut

```
axis_string_to_axis_data #(
                                                                                .
DELIMITER(";"),
                                                                                .
TERMINATION("\n"),
                                                                                .
STRING_LEN(4),
                                                                                .
MBUS_WIDTH(BUS_WIDTH),
                                                                                .
USER_WIDTH(USER_WIDTH),
                                                                                .
DEST_WIDTH(DEST_WIDTH),
                                                                                .
PREFIX_LEN(1),
                                                                                .
DATA_PREFIX("#"),
                                                                                .
DEST_PREFIX("&"),
                                                                                .
USER_PREFIX("*"),
                                                                                .
KEYWORD_LEN(3),
                                                                                .
SET_KEYWORD("set"),
                                                                                .
```

```
 CLR_KEYWORD("clr")
) dut ( .aclk(tb_dut_clk), .arstn(tb_dut_rstn), .m_axis_tdata(tb_dut_data),
```

Device under test, axis_string_to_axis_data

master_axis_stim

```
 master_axis_stimulus #(
                                                                                .
 BUS_WIDTH(BUS_WIDTH),
                                                                                .
 USER_WIDTH(USER_WIDTH),
                                                                                .
 DEST_WIDTH(DEST_WIDTH),
                                                                                .
 FILE("out.bin")
) master_axis_stim ( .s_axis_aclk(tb_dut_clk), .s_axis_arstn(tb_dut_rstn),
```

Devie under test MASTER stimulus module.