tb_cocotb_axi_lite.py

AUTHORS

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DATES

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INFORMATION

Brief

Cocotb test bench

License MIT

FUNCTIONS

random_bool

```
def random_bool()
```

Return a infinte cycle of random bools
Returns: List

start_clock

```
def start_clock(
dut
)
```

Start the simulation clock generator.

Parameters

dut   Device under test passed from cocotb test function

reset_dut

```
async def reset_dut(
dut
)
```

Cocotb coroutine for resets, used with await to make sure system is reset.

increment_test_write

```
@cocotb.test()
async def increment_test_write(
dut
)
```

Coroutine that is identified as a test routine. Write data to the device at the proper address and region.

Parameters

dut   Device under test passed from cocotb.

increment_test_random_ready_write_data(dut):

Coroutine that is identified as a test routine. Write data at the proper address and randomize the ram write channel ready.

Parameters

dut   Device under test passed from cocotb.

increment_test_random_ready_write_addr

```
@cocotb.test()
async def increment_test_random_ready_write_addr(
dut
)
```

Coroutine that is identified as a test routine. Random ready the write address channel.

Parameters

dut   Device under test passed from cocotb.

increment_test_timeout_no_answer

```
@cocotb.test()
async def increment_test_timeout_no_answer(
dut
)
```

Coroutine that is identified as a test routine. Timeout if no answer to write request.

Parameters

dut   Device under test passed from cocotb.

increment_test_random_ready_timeout_no_answer

```
@cocotb.test()
async def increment_test_random_ready_timeout_no_answer(
dut
)
```

Coroutine that is identified as a test routine. Randomize the ready on timeout tests.

Parameters

dut   Device under test passed from cocotb.

in_reset

```
@cocotb.test()
async def in_reset(
dut
)
```

Coroutine that is identified as a test routine. This routine tests if device stays in unready state when in reset.

Parameters

dut   Device under test passed from cocotb.

no_clock

```
@cocotb.test()
async def no_clock(
dut
)
```

Coroutine that is identified as a test routine. This routine tests if no ready when clock is lost and device is left in reset.

Parameters

dut   Device under test passed from cocotb.