

tb_cocotb.py

AUTHORS

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DATES

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INFORMATION

Brief

Cocotb test bench

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FUNCTIONS

create_string

```
def create_string(
    dut,
    tx_frame
)
```

Return a string equal to the core output

Parameters

dut device under test passed from cocotb test function

tx_frame transmitted frame data

Returns: String

random_bool

```
def random_bool()
```

Return a infinite 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.

Parameters

dut Device under test passed from cocotb.

conversion_test

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

Coroutine that is identified as a test routine. This routine tests for correct output of data from string input. Core creates the expected output data, generates a string from that and then compares the input vs output raw data.

Parameters

dut Device under test passed from cocotb.

conversion_test_random_ready

```
@cocotb.test()
```

```
async def conversion_test_random_ready(  
    dut  
)
```

Coroutine that is identified as a test routine. This routine tests for correct output of data from string input. Core creates the expected output data, generates a string from that and then compares the input vs output raw data.

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.