## Test\_clock

Corso di ASE anno 18/19

Gruppo 14 PREVITERA GABRIELE PENNONE MIRKO PENNA SIMONE

# **Contents**

1 Class Index							
	1.1	Class List	1				
2	File	Index	3				
	2.1	File List	3				
3	Class Documentation						
	3.1	clk_tester Entity Reference	5				
	3.2	left_right_shift_register Entity Reference	6				
	3.3	my_clock Entity Reference	6				
		3.3.1 Member Data Documentation	7				
		3.3.1.1 ieee	7				
4	File Documentation						
	4.1	left_right_shift_register.vhd File Reference	9				
		4.1.1 Detailed Description	9				
	4.2	my_clock.vhd File Reference	9				
		4.2.1 Detailed Description	10				
Inc	dex		11				

# **Class Index**

## 1.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

entity clk_tester
entity left_right_shift_register
entity my_clock

2 Class Index

# File Index

## 2.1 File List

Here is a list of all documented files with brief descriptions:

left_right_shift_register.vhd		
Registro a scorrimento con ingresso seriale e uscita seriale e parallela. se left =	= '1' shifta a	
sinistra se left = '0' shifta a destra		ç
my_clock.vhd		
Clock generato tramite Wizard		c

File Index

## **Class Documentation**

## 3.1 clk\_tester Entity Reference

#### Libraries

• IEEE

#### **Use Clauses**

• STD\_LOGIC\_1164

#### Generics

• N integer:= 8

#### **Ports**

- clock\_in in STD\_LOGIC
- enable in STD\_LOGIC
- reset\_n in STD\_LOGIC
- d\_in in STD\_LOGIC
- q\_out out STD\_LOGIC
- Q out STD\_LOGIC\_VECTOR(N-1 downto 0)
- half\_clock out STD\_LOGIC
- quarter\_clock out STD\_LOGIC
- · tenth clock out STD\_LOGIC
- locked out STD\_LOGIC

The documentation for this class was generated from the following file:

clock\_tester.vhd

6 Class Documentation

## 3.2 left\_right\_shift\_register Entity Reference

#### Libraries

IEEE

#### **Use Clauses**

• STD\_LOGIC\_1164

#### Generics

• N integer:= 8

#### **Ports**

- clock in STD\_LOGIC
- enable in STD\_LOGIC
- reset\_n in STD\_LOGIC
- · left in STD\_LOGIC
- d\_in in STD\_LOGIC
- q\_out out STD\_LOGIC
- Q out STD\_LOGIC\_VECTOR(N- 1 downto 0)

The documentation for this class was generated from the following file:

• left\_right\_shift\_register.vhd

## 3.3 my\_clock Entity Reference

#### Libraries

- ieee
- unisim

### **Use Clauses**

- std\_logic\_1164
  \_\_primary\_\_\_\_\_100.000\_\_\_\_\_0.010
- std\_logic\_unsigned
- std\_logic\_arith
- numeric\_std
- vcomponents

#### **Ports**

• CLK\_IN1 in std\_logic

Clock in ports.

CLK\_OUT1 out std\_logic

Clock out ports.

- CLK OUT2 out std\_logic
- CLK OUT3 out std\_logic
- LOCKED out std logic

Status and control signals.

#### 3.3.1 Member Data Documentation

3.3.1.1 ieee

ieee [Library]

file: my\_clock.vhd

(c) Copyright 2008 - 2011 Xilinx, Inc. All rights reserved.

This file contains confidential and proprietary information of Xilinx, Inc. and is protected under U.S. and international copyright and other intellectual property laws.

DISCLAIMER This disclaimer is not a license and does not grant any rights to the materials distributed herewith. Except as otherwise provided in a valid license issued to you by Xilinx, and to the maximum extent permitted by applicable law: (1) THESE MATERIALS ARE MADE AVAILABLE "AS IS" AND WITH ALL FAULTS, AND XILINX HEREBY DISCLAIMS ALL WARRANTIES AND CONDITIONS, EXPRESS, IMPLIED, OR STATUTORY, INCLUCING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, NON- INFRINGEMENT, OR FITNESS FOR ANY PARTICULAR PURPOSE; and (2) Xilinx shall not be liable (whether in contract or tort, including negligence, or under any other theory of liability) for any loss or damage of any kind or nature related to, arising under or in connection with these materials, including for any direct, or any indirect, special, incidental, or consequential loss or damage (including loss of data, profits, goodwill, or any type of loss or damage suffered as a result of any action brought by a third party) even if such damage or loss was reasonably foreseeable or Xilinx had been advised of the possibility of the same.

CRITICAL APPLICATIONS Xilinx products are not designed or intended to be fail- safe, or for use in any application requiring fail-safe performance, such as life-support or safety devices or systems, Class III medical devices, nuclear facilities, applications related to the deployment of airbags, or any other applications that could lead to death, personal injury, or severe property or environmental damage (individually and collectively, "Critical Applications"). Customer assumes the sole risk and liability of any use of Xilinx products in Critical Applications, subject only to applicable laws and regulations governing limitations on product liability.

THIS COPYRIGHT NOTICE AND DISCLAIMER MUST BE RETAINED AS PART OF THIS FILE AT ALL TIMES.

The documentation for this class was generated from the following file:

my\_clock.vhd

8 Class Documentation

## **File Documentation**

## 4.1 left\_right\_shift\_register.vhd File Reference

Registro a scorrimento con ingresso seriale e uscita seriale e parallela. se left = '1' shifta a sinistra se left = '0' shifta a destra.

#### **Entities**

· left\_right\_shift\_register entity

### 4.1.1 Detailed Description

Registro a scorrimento con ingresso seriale e uscita seriale e parallela. se left = '1' shifta a sinistra se left = '0' shifta a destra.

Author

Gabriele Previtera, Mirko Pennone, Simone Penna

Date

04/03/2019

Version

0.2

#### Dependencies:

Nothings

## 4.2 my\_clock.vhd File Reference

Clock generato tramite Wizard.

10 File Documentation

## **Entities**

• my\_clock entity

## 4.2.1 Detailed Description

Clock generato tramite Wizard.

Author

Gabriele Previtera, Mirko Pennone, Simone Penna

Date

04/03/2019

Version

0.2

## Dependencies:

Nothings

# Index

```
clk_tester, 5
ieee
    my_clock, 7
left_right_shift_register, 6
left_right_shift_register.vhd, 9
my_clock, 6
    ieee, 7
my_clock.vhd, 9
```