

# example

Demo example used for the testing of the ipxact2systemverilog tool.

**Base Address** 0x0

## Registers

Address	Register Name	Description
0x00	reg0	write something useful for reg0
0x01	reg1	
0x02	reg2	write something useful for reg2
0x03	reg3	write something useful for reg3
0x04	reg4	reg4 is a very useful register. It can take down the moon when configured correctly.
0x05	reg5	reg5 is as useful as reg4 but without a reset value defined.
0x06	reg6	reg6 is a read only register.
0x07	reg7	write something useful for reg7
0x08	reg8	register with empty and no descriptions of the fields

### reg0

**Name** reg0

**Address** 0x0

**Reset Value** 0x00000000

**Access** read-write

**Description** write something useful for reg0

Bits	Field name	Reset	Description
[31:24]	byte3	0x00	write something useful for field3
[23:16]	byte2	0x00	write something useful for field2
[15:8]	byte1	0x00	write something useful for field1

Bits	Field name	Reset	Description
[7:0]	byte0	0x00	write something useful for field0

### byte0

**Minimum** 0x00

**Maximum** 0x07

### reg1

**Name** reg1

**Address** 0x1

**Reset Value** 0x00000001

**Access** read-write

**Description**

Bits	Field name	Reset	Description
[31:0]	field0	0x00000001	write something useful for field0

### field0

**Minimum** 0x00000004

**Maximum** 0x00000014

### reg2

**Name** reg2

**Address** 0x2

**Reset Value** 0x00000001

**Access** read-write

**Description** write something useful for reg2

Bits	Field name	Reset	Description
[31:10]	unused0	0x0000000	unused
[9:8]	monkey4	0x0	which monkey
[7:6]	monkey3	0x0	which monkey
[5:4]	monkey2	0x0	which monkey
[3:2]	monkey	0x0	which monkey
1	power2	0x0	write something useful for field power2
0	power	0x1	write something useful for field power

## **monkey**

Name	Value	Description
chimp	0x0	a monkey
gorilla	0x1	
phb	0x2	and another monkey

## **monkey2**

Name	Value	Description
chimp	0x0	
gorilla	0x1	
phb	0x2	

## **monkey3**

Name	Value	Description
phb	0x0	
gorilla	0x1	
chimp	0x2	

## **monkey4**

Name	Value	Description
chimp	0x0	
gorilla	0x1	
bonobo	0x2	

## **reg3**

**Name** reg3  
**Address** 0x3  
**Reset Value** 0x00000001  
**Access** read-write  
**Description** write something useful for reg3

Bits	Field name	Reset	Description
[31:0]	field0	0x00000001	write something useful for field0

## reg4

**Name** reg4

**Address** 0x4

**Reset Value** 0x0000000c

**Access** read-write

**Description** reg4 is a very useful register. It can take down the moon when configured correctly.

Bits	Field name	Reset	Description
[31:0]	reg4	0x0000000c	

## reg5

**Name** reg5

**Address** 0x5

**Access** read-write

**Description** reg5 is as useful as reg4 but without a reset value defined.

Bits	Field name	Description
[31:0]	reg5	

## reg6

**Name** reg6

**Address** 0x6

**Access** read-only

**Description** reg6 is a read only register.

Bits	Field name	Description
[31:0]	reg6	

## reg7

**Name** reg7

**Address** 0x7

**Reset Value** 0x00000000

**Access** read-write

**Description** write something useful for reg7

Bits	Field name	Reset	Description
[31:20]	unused2	0x000	unused
[19:16]	nibble2	0x0	write something useful for nibble2
[15:12]	unused1	0x0	unused
[11:8]	nibble1	0x0	
[7:4]	unused0	0x0	unused
[3:0]	nibble0	0x0	write something useful for nibble0

## reg8

**Name** reg8

**Address** 0x8

**Reset Value** 0x00000000

**Access** read-write

**Description** register with empty and no descriptions of the fields

Bits	Field name	Reset	Description
[31:12]	unused1	0x00000	unused
[11:8]	nibble1	0x0	
[7:4]	unused0	0x0	unused
[3:0]	nibble0	0x0	