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**example**

**ipxact2systemverilog**

**Jul 31, 2025**



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## EXAMPLE

Demo example used for the testing of the ipxact2systemverilog tool.

**Base Address**

0x0

## 1.1 Registers

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

## 1.2 reg0

**Name**

reg0

**Address**

0x0

**Reset Value**

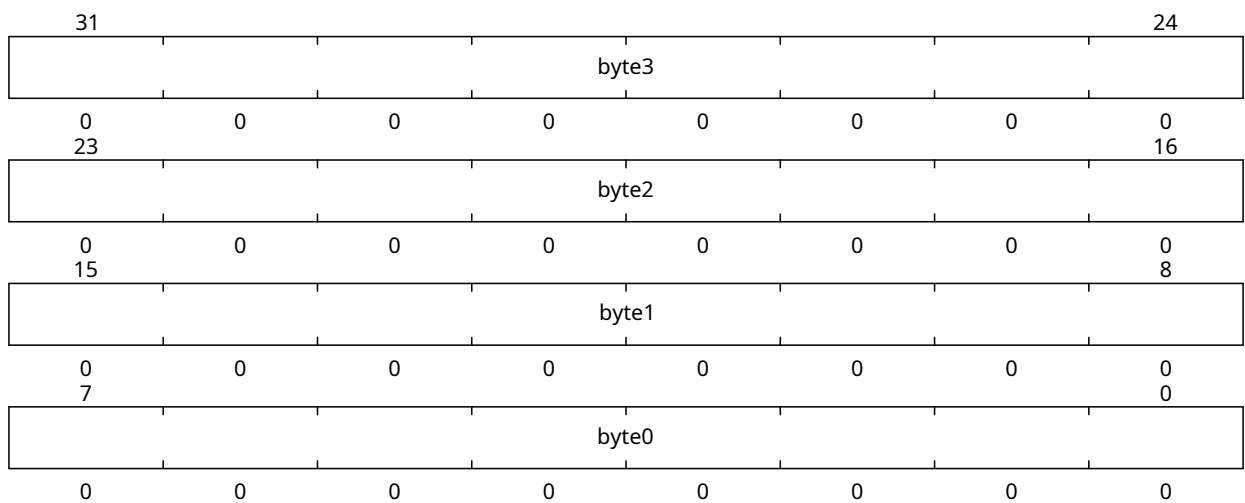
0x00000000

**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
[7:0]	byte0	0x00	write something useful for field0

1.2.1 byte0

**Minimum**  
0x00, dec: 0

**Maximum**  
0x07, dec: 7

1.3 reg1

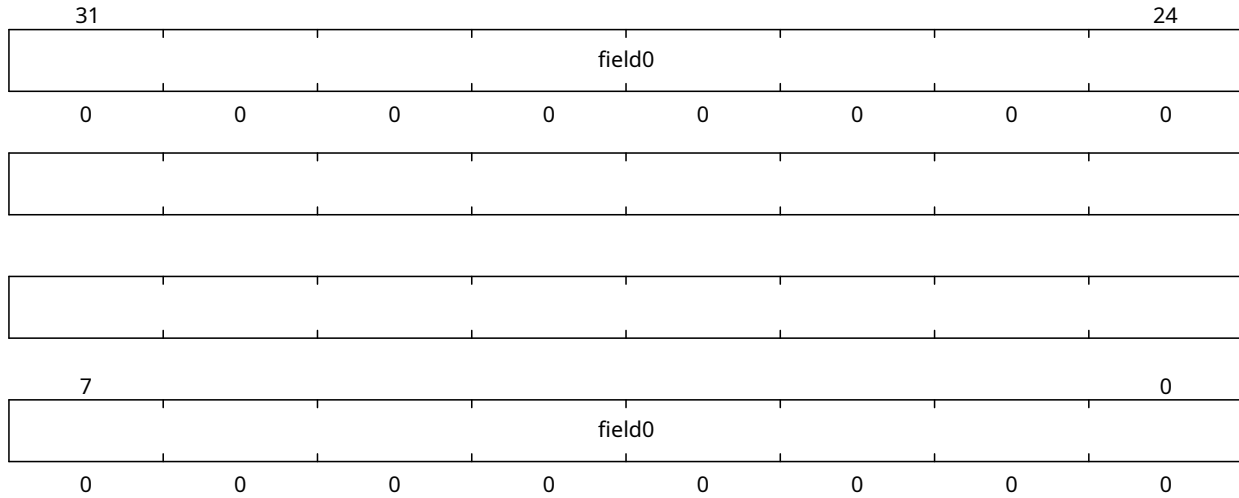
**Name**  
reg1

**Address**  
0x1

**Reset Value**  
0x00000001

**Access**  
read-write

**Description**



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

### 1.3.1 field0

**Minimum**

0x00000004, dec: 4

**Maximum**

0x00000014, dec: 20

## 1.4 reg2

**Name**

reg2

**Address**

0x2

**Reset Value**

0x00000001

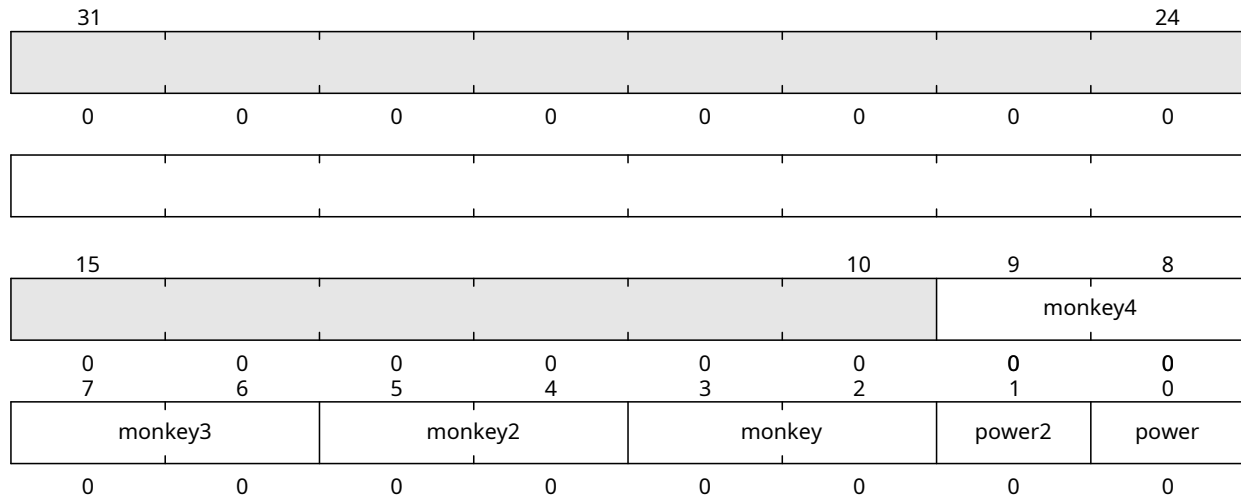
**Access**

read-write

**Description**

write something useful for reg2

## example



Bits	Field name	Reset	Description
[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

### 1.4.1 power

Name	Value	Description
false	0x0	disable
true	0x1	enable

### 1.4.2 power2

Name	Value	Description
false	0x0	
true	0x1	

### 1.4.3 monkey

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



### 1.4.4 monkey2

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

### 1.4.5 monkey3

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

### 1.4.6 monkey4

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

## 1.5 reg3

**Name**

reg3

**Address**

0x3

**Reset Value**

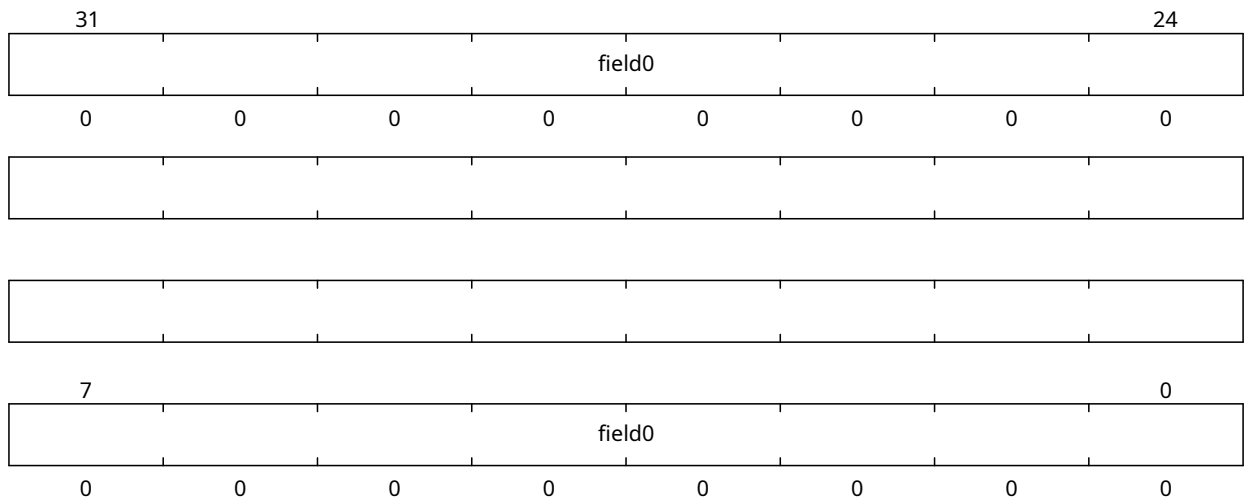
0x00000001

**Access**

read-write

**Description**

write something useful for reg3



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

1.6 reg4

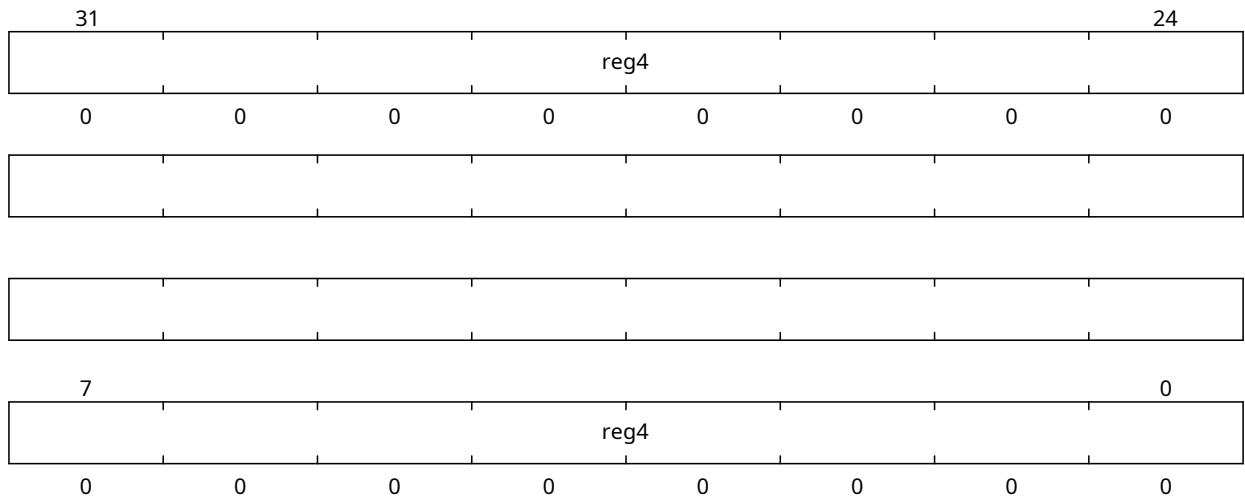
**Name**  
reg4

**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	

## 1.7 reg5

**Name**

reg5

**Address**

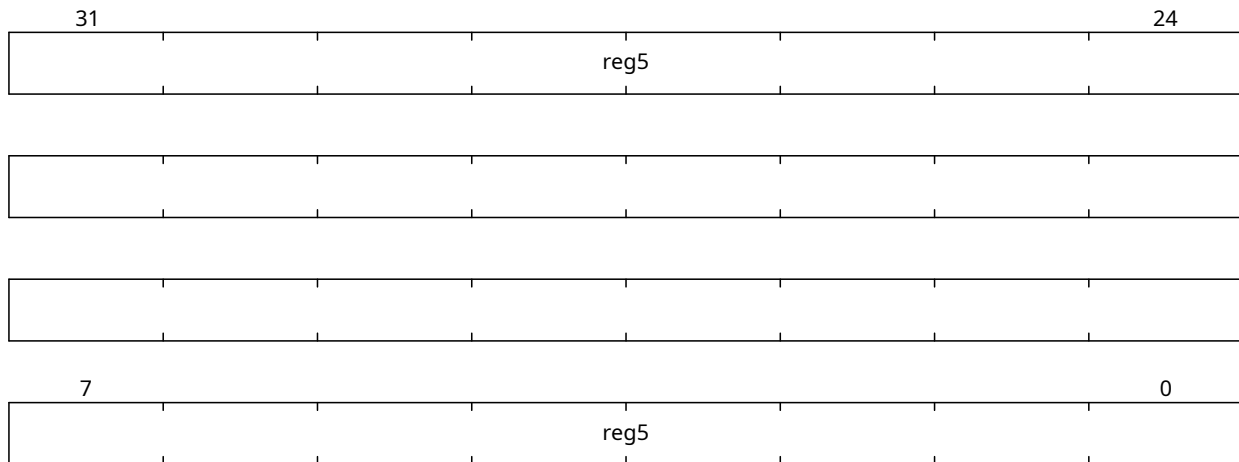
0x5

**Access**

read-write

**Description**

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



Bits	Field name	Description
[31:0]	reg5	

## 1.8 reg6

**Name**

reg6

**Address**

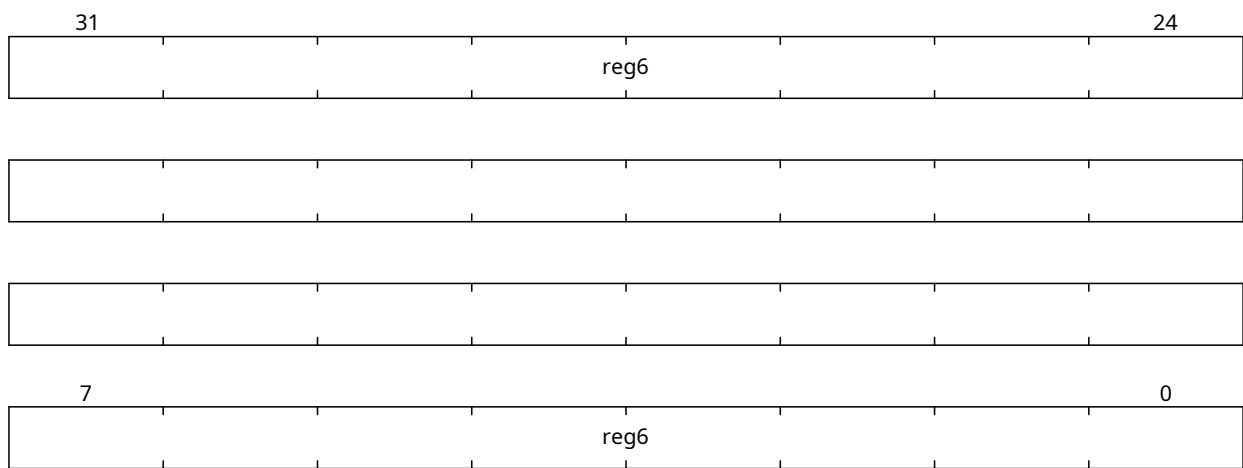
0x6

**Access**

read-only

**Description**

reg6 is a read only register.



Bits	Field name	Description
[31:0]	reg6	

1.9 reg7

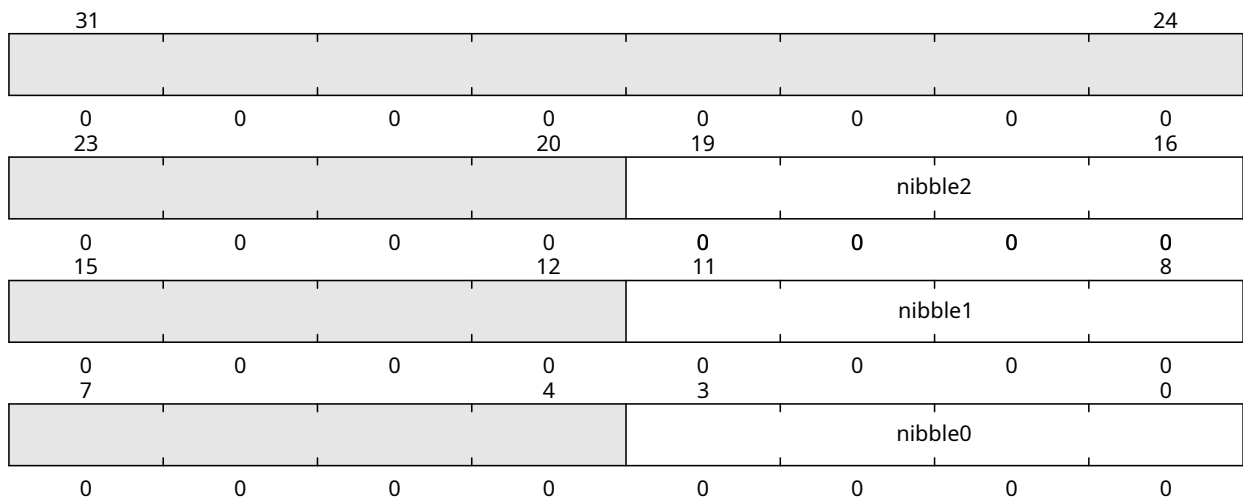
Name  
reg7

Address  
0x7

Reset Value  
0x00000000

Access  
read-write

Description  
write something useful for reg7



Bits	Field name	Reset	Description
[19:16]	nibble2	0x0	write something useful for nibble2
[11:8]	nibble1	0x0	
[3:0]	nibble0	0x0	write something useful for nibble0

## 1.10 reg8

### Name

reg8

### Address

0x8

### Reset Value

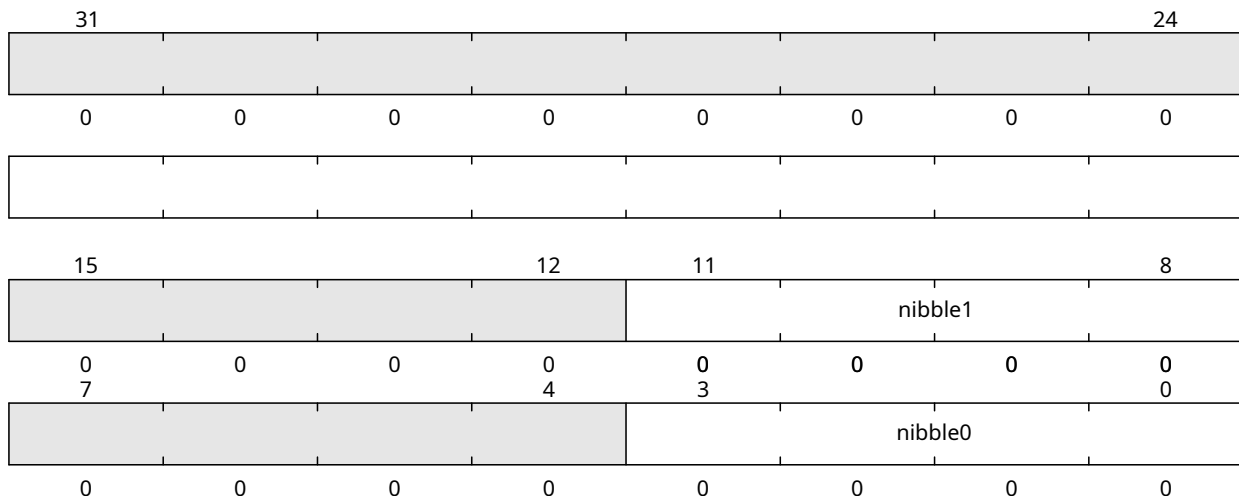
0x00000000

### Access

read-write

### Description

register with empty and no descriptions of the fields



Bits	Field name	Reset	Description
[11:8]	nibble1	0x0	
[3:0]	nibble0	0x0	