
example

ipxact2systemverilog

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**CHAPTER
ONE**

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>	<i>reg4</i> is a very useful register. It can take down the moon when configured correctly.
0x05	<i>reg5</i>	<i>reg5</i> is as useful as <i>reg4</i> but without a reset value defined.
0x06	<i>reg6</i>	<i>reg6</i> is a read only register.
0x07	<i>reg7</i>	write something useful for <i>reg7</i>
0x08	<i>reg8</i>	register with empty and no descriptions of the fields

1.2 reg0

Name

reg0

Address

0x0

Reset Value

0x00000000

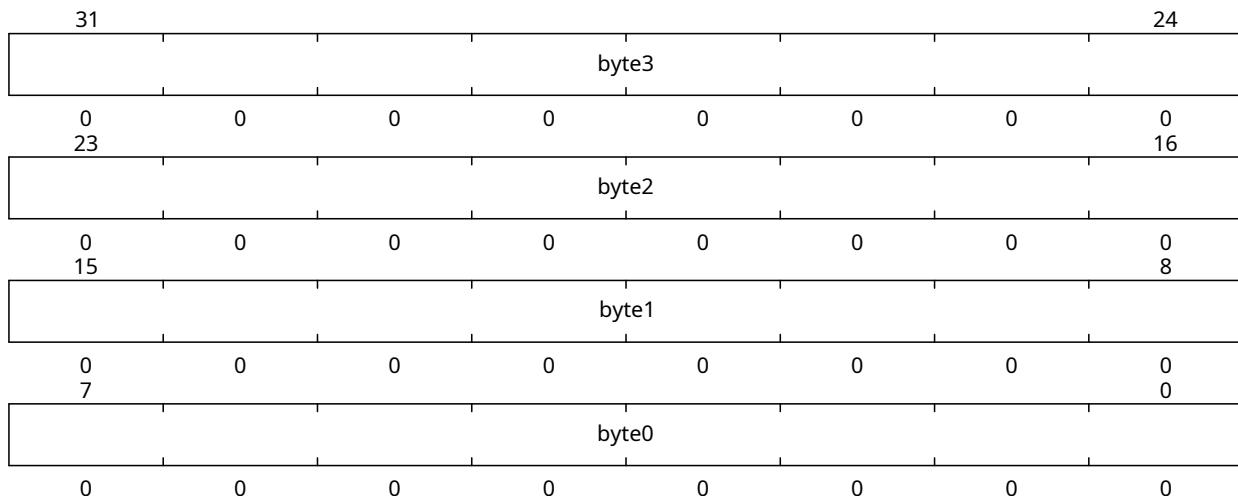
Access

read-write

Description

write something useful for *reg0*

example



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

Maximum
0x07

1.3 reg1

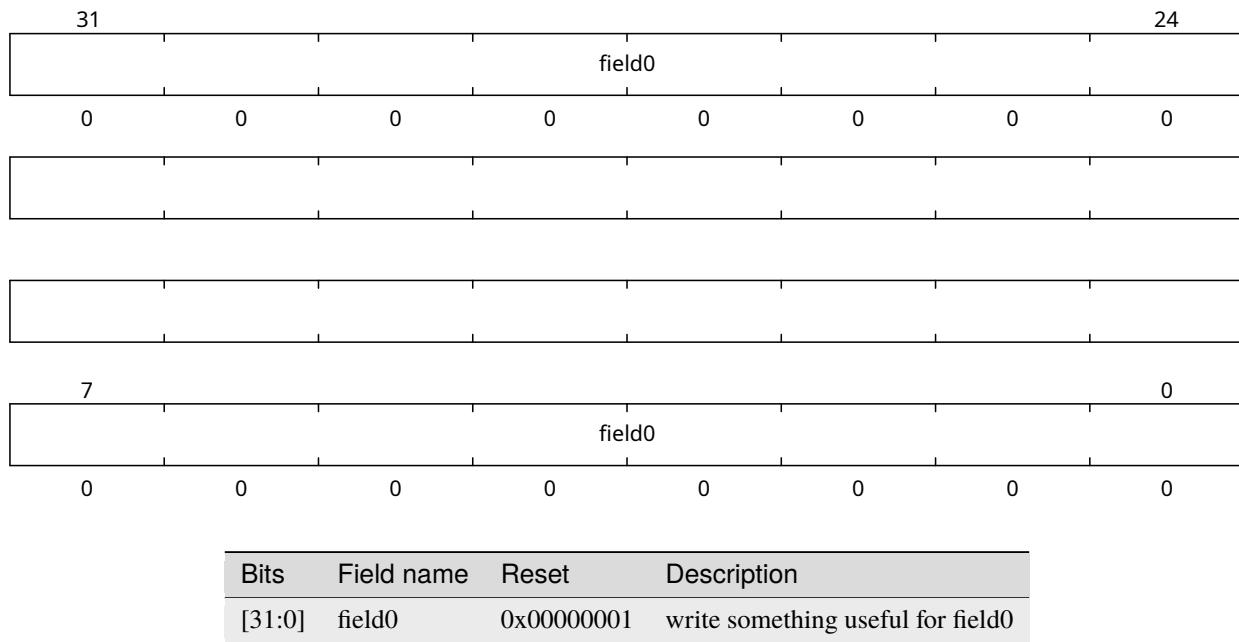
Name
reg1

Address
0x1

Reset Value
0x00000001

Access
read-write

Description



1.3.1 field0

Minimum

0x00000004

Maximum

0x000000014

1.4 reg2

Name

reg2

Address

0x2

Reset Value

0x00000001

Access

read-write

Description

write something useful for reg2

example

31	30	29	28	27	26	25	24
0	0	0	0	0	0	0	0
23	22	21	20	19	18	17	16
0	0	0	0	0	0	0	0
15	14	13	12	11	10	9	8
0	0	0	0	0	0	0	0
monkey3	monkey2	monkey	power2	power			
0	0	0	0	0	0	0	1

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

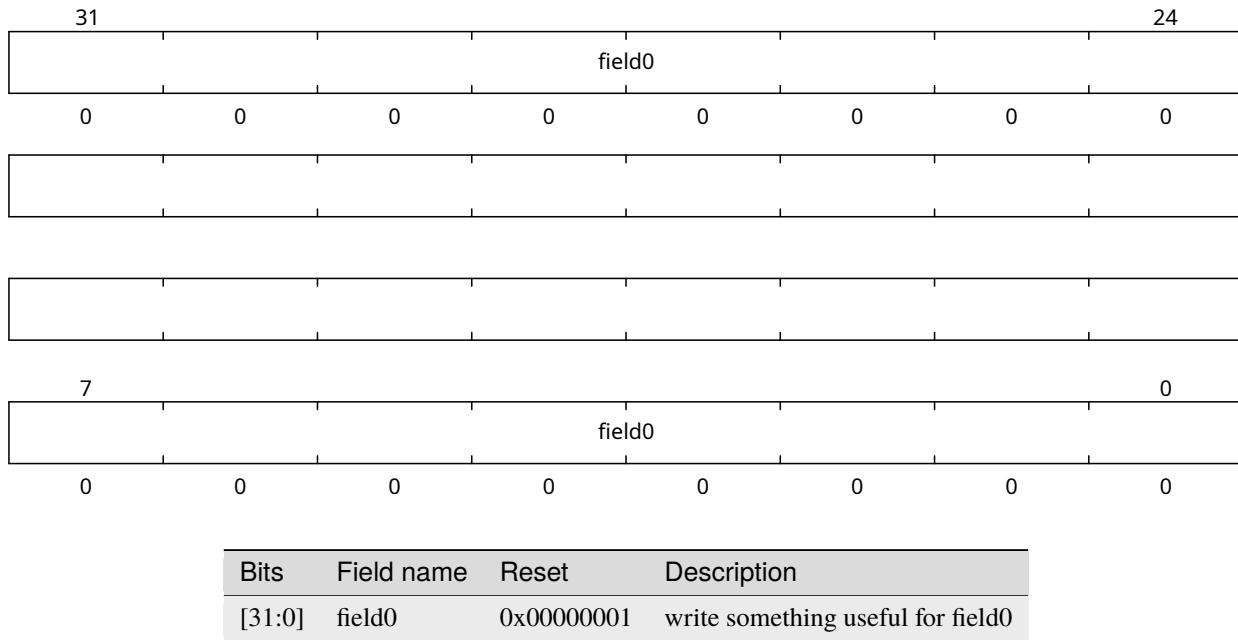
Address
0x3

Reset Value
0x00000001

Access
read-write

Description
write something useful for reg3

example



1.6 reg4

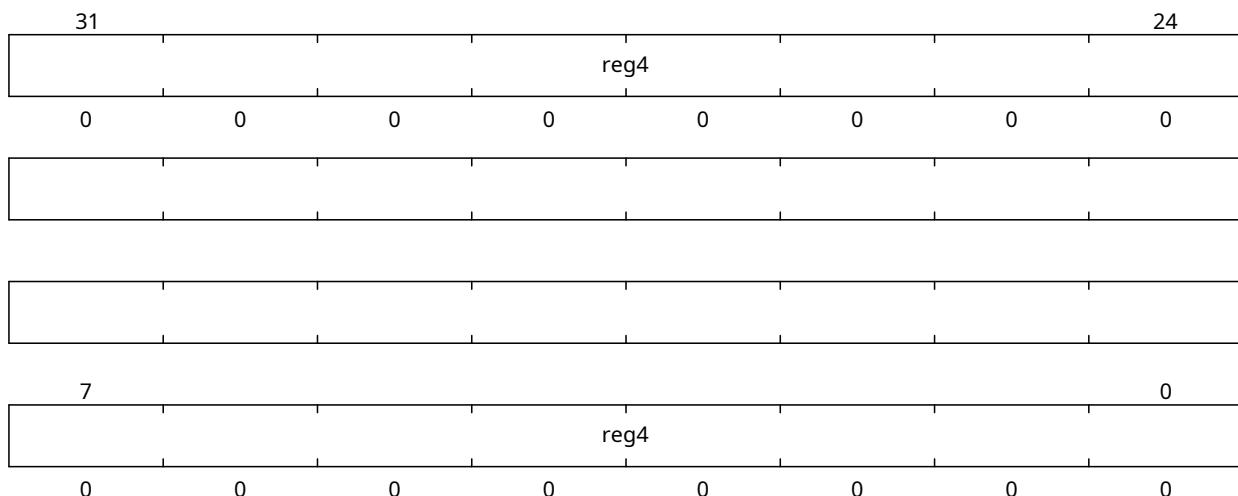
Name
reg4

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

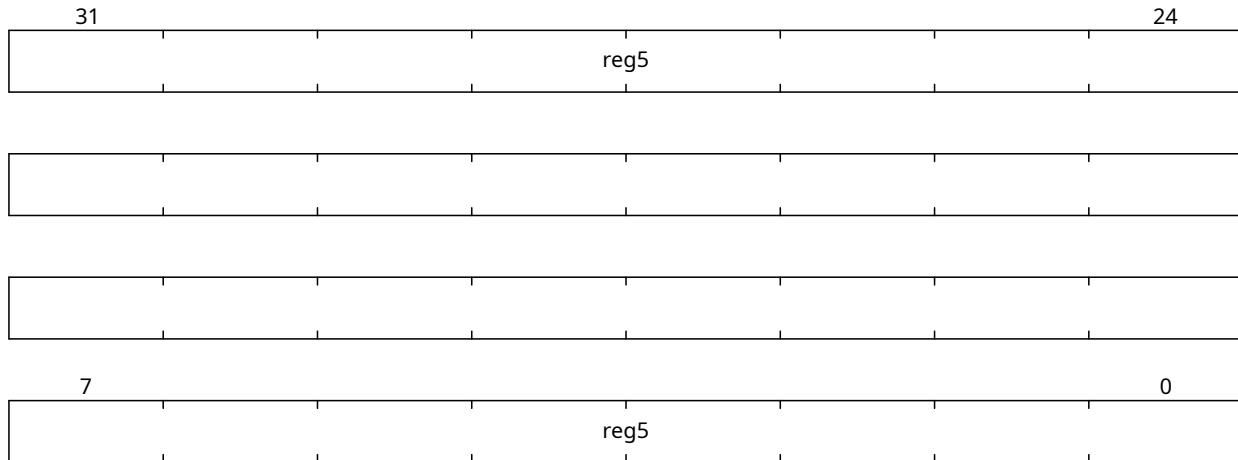
0x5

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

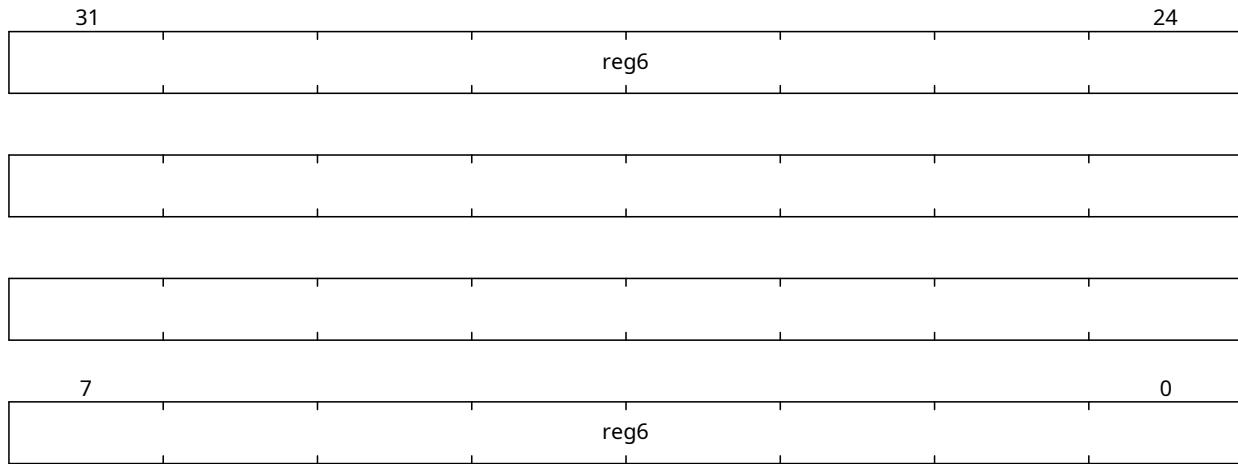
Access

read-only

Description

reg6 is a read only register.

example



Bits	Field name	Description
[31:0]	reg6	

1.9 reg7

Name

reg7

Address

0x7

Reset Value

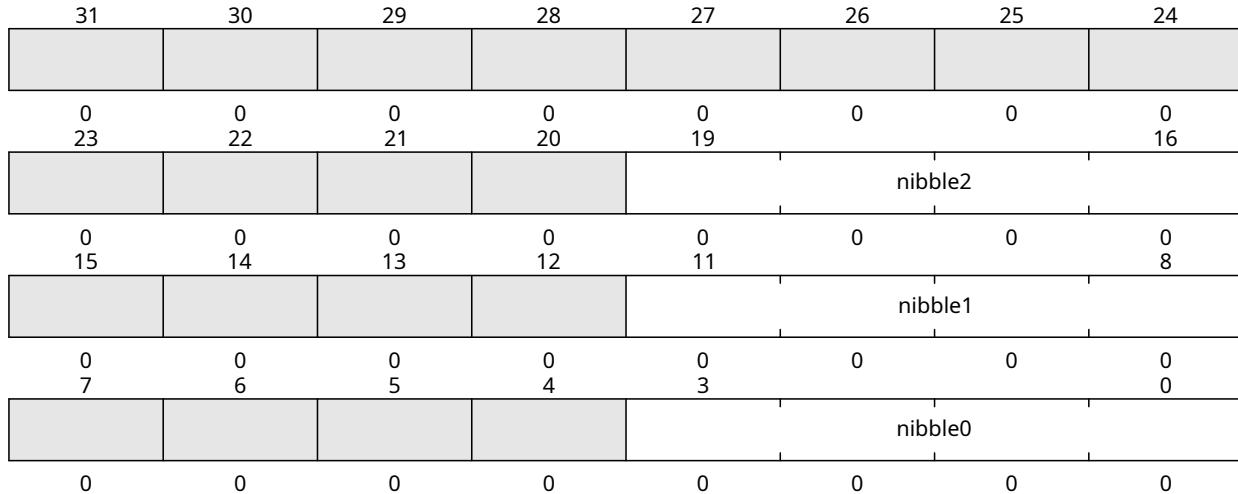
0x00000000

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

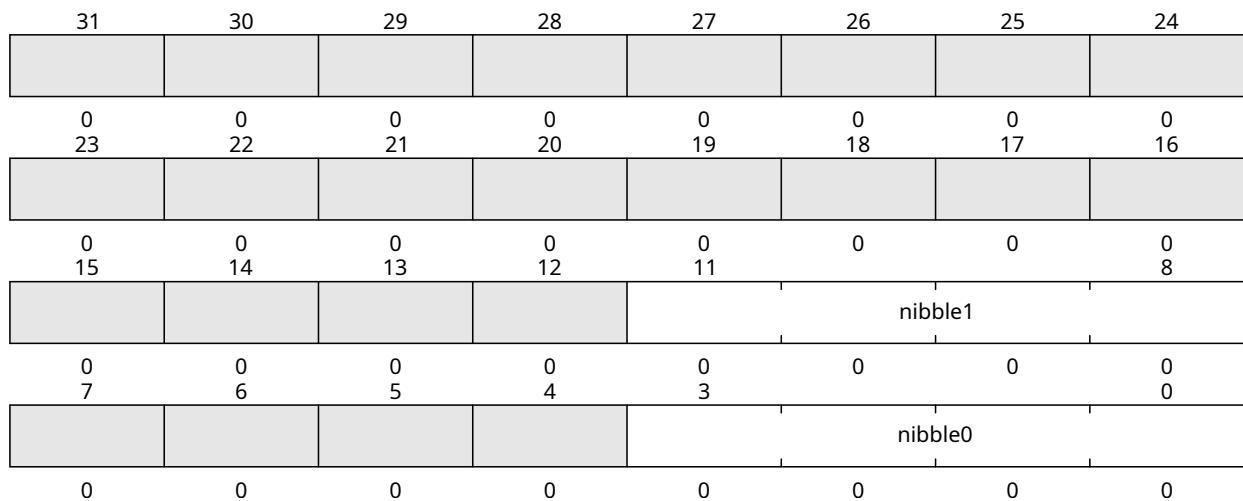
0x00000000

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	