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

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

1.2 reg0

Name

reg0

Address

0x0

Reset Value

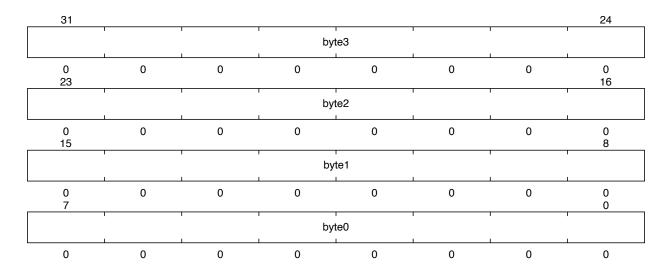
0x00000000

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

1.3 reg1

Name

reg1

Address

0x1

Reset Value

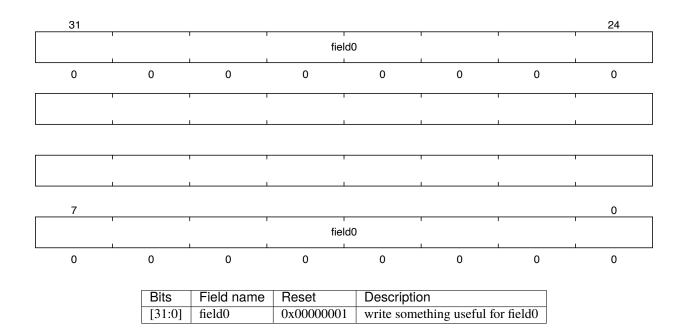
0x00000001

Access

read-write

Description

2 Chapter 1. example



1.4 reg2

Name

reg2

Address

0x2

Reset Value

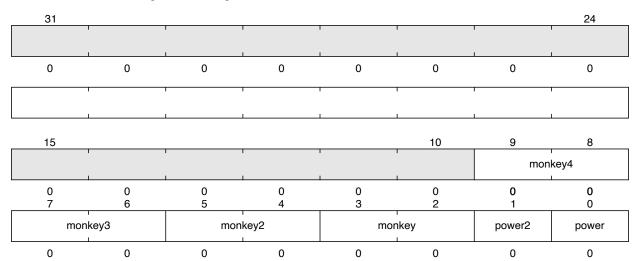
0x00000001

Access

read-write

Description

write something useful for reg2



1.4. reg2 3

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

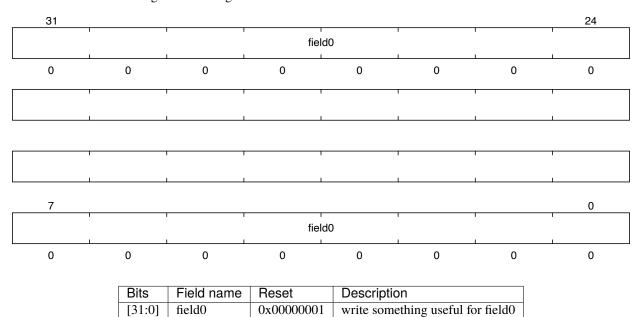
0x00000001

Access

read-write

Description

write something useful for reg3



1.5. reg3 5

1.6 reg4

Name

reg4

Address

0x4

Reset Value

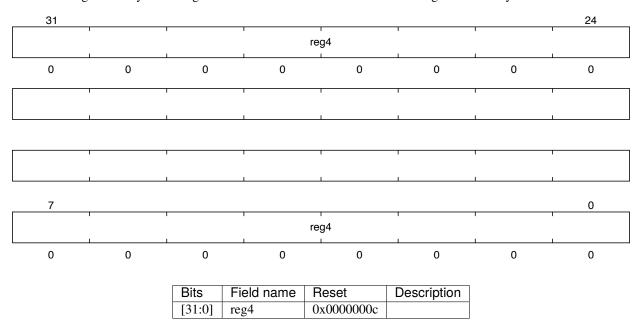
0x0000000c

Access

read-write

Description

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



1.7 reg5

Name

reg5

Address

0x5

Access

read-write

Description

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

31			·	1			24
			re	g5			
	1			I	1		
	ı	·	ı	ı	ı	ı	
	L	1	<u>I</u>	<u>I</u>	<u> </u>	<u> </u>	1
	ı	ı	ı	ı	ı	ı	
	I	I	I	I	I	I.	ı
7							0
			re	g5			

Bits	Field name	Description
[31:0]	reg5	

1.8 reg6

Name

reg6

Address

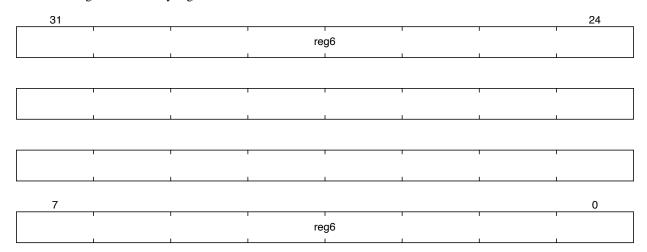
0x6

Access

read-only

Description

reg6 is a read only register.



Bits	Field name	Description		
[31:0]	reg6			

1.8. reg6 7

1.9 reg7

Name

reg7

Address

0x7

Reset Value

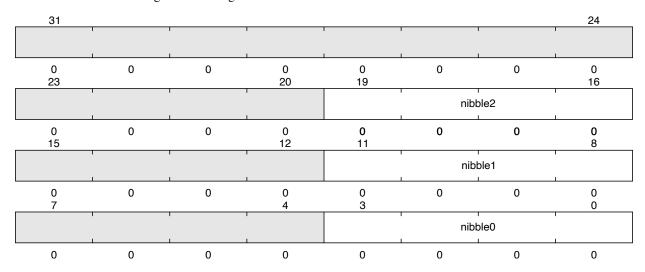
0x00000000

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

8

read-write

Description

register with empty and no descriptions of the fields

31							24
	1	1	1	1	1	1	'
0	0	0	0	0	0	0	0
	1	1	ı	ı	ı	ı	1
15	_		12	11			8
		'	'		nibble1		
0 7	0	0	0 4	0 3	0	0	0 0
	1	1	1	nibble0			
0	0	0	0	0	0	0	0

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

1.10. reg8 9