example

ipxact2systemverilog

Oct 26, 2025

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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

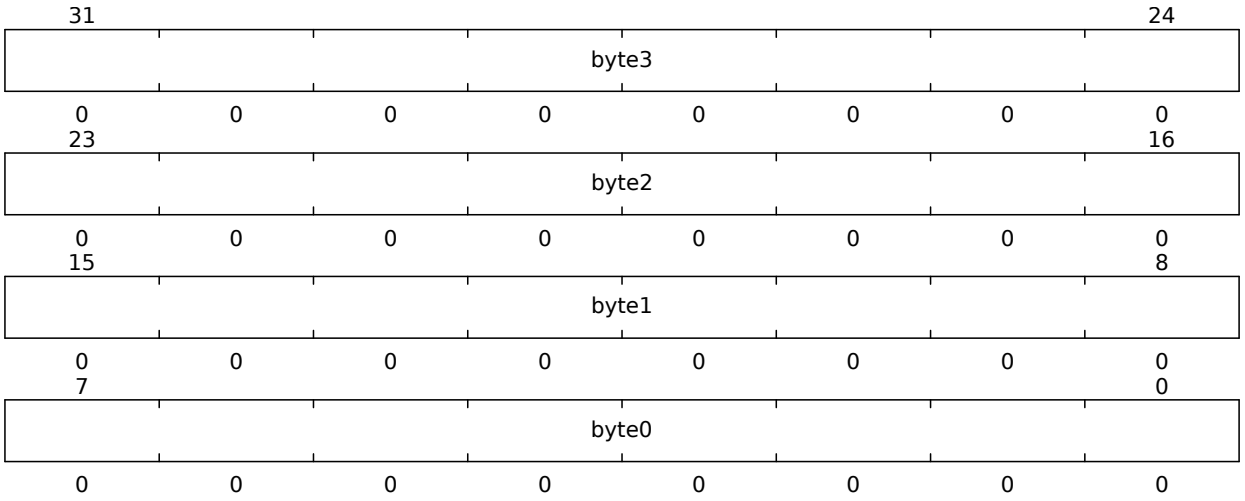
Name
reg0

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

1.2.1 byte0

Minimum
0x00

Maximum
0x07

1.3 reg1

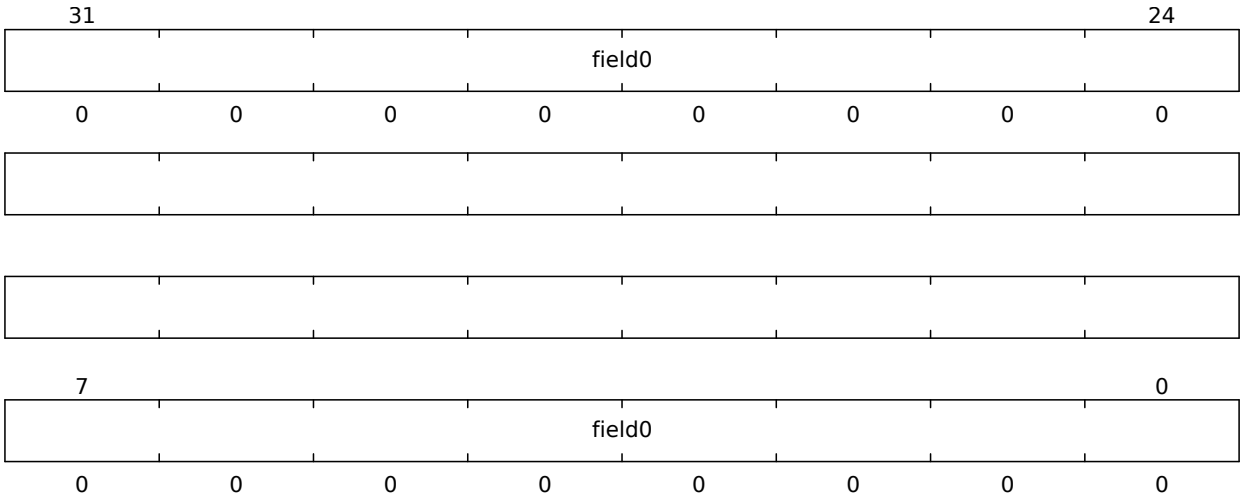
Name
reg1

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

Maximum
0x00000014

1.4 reg2

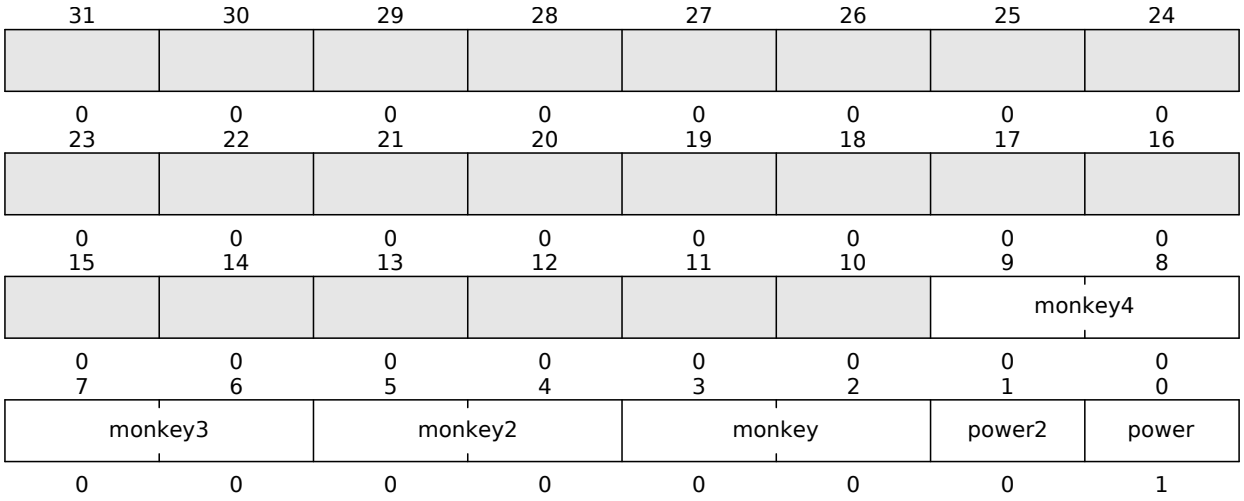
Name
reg2

Address
0x2

Reset Value
0x00000001

Access
read-write

Description
write something useful for reg2



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

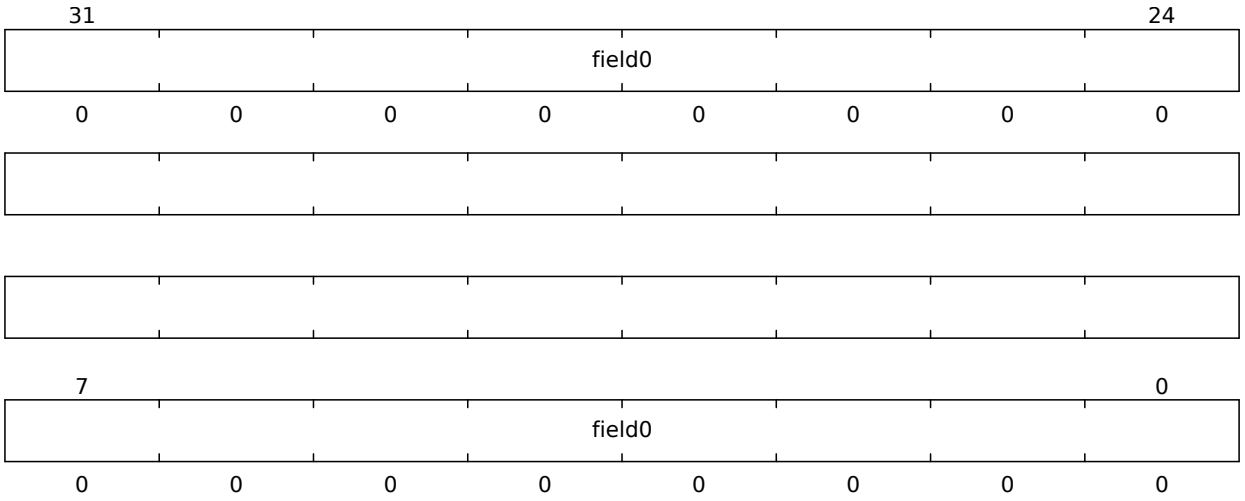
Name
reg3

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

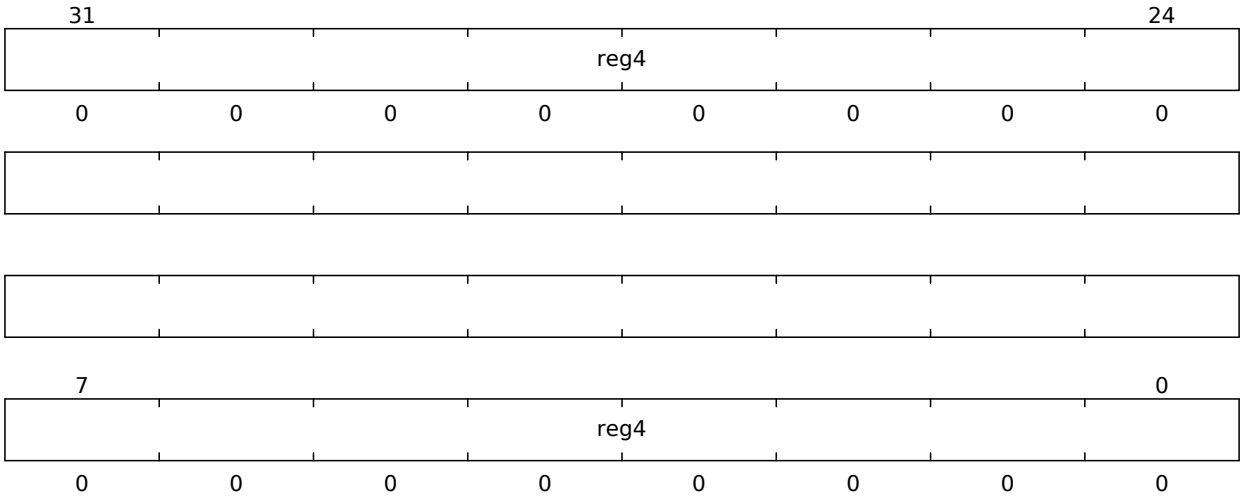
Name
reg4

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	

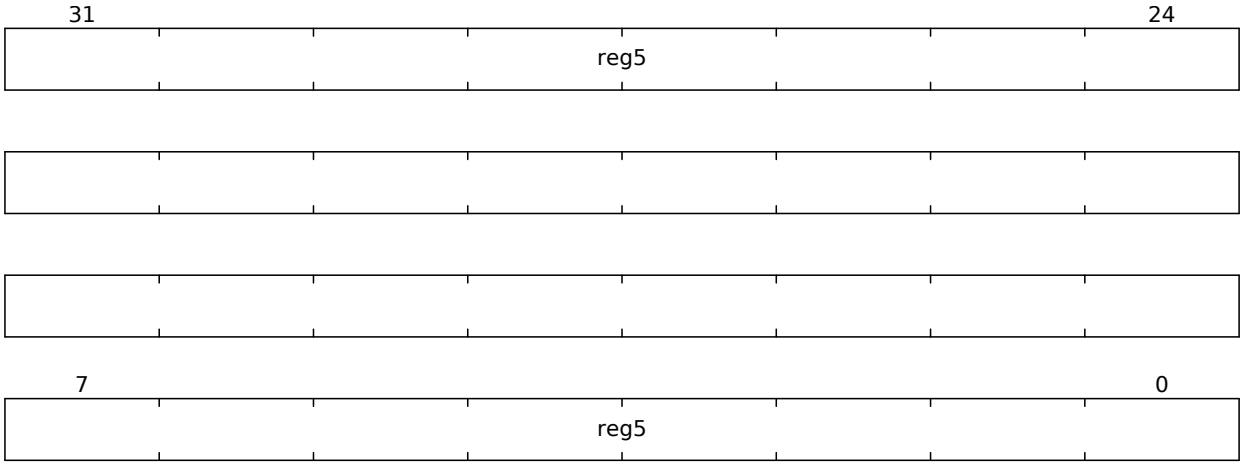
1.7 reg5

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	

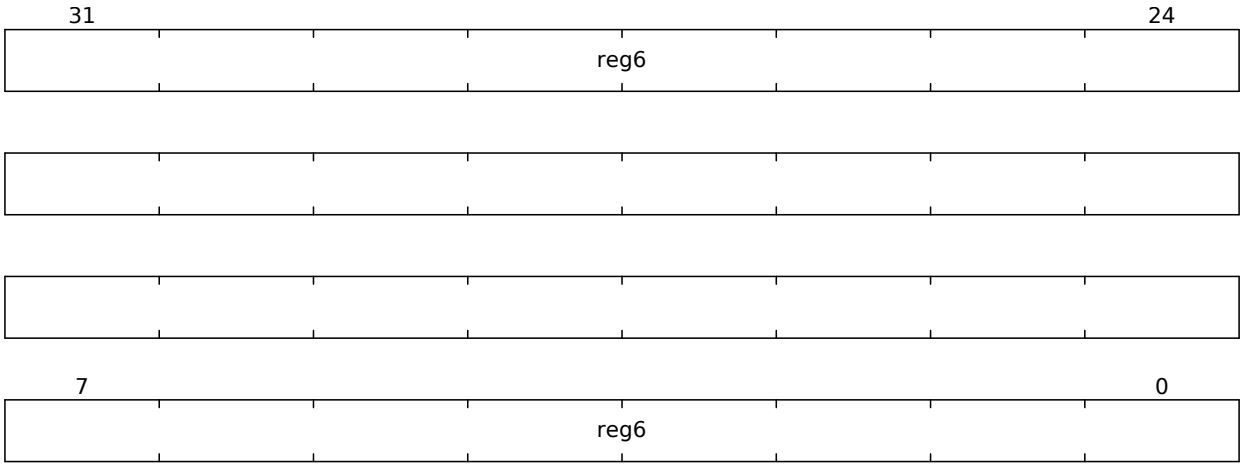
1.8 reg6

Name
reg6

Address
0x6

Access
read-only

Description
reg6 is a read only register.



Bits	Field name	Description
[31:0]	reg6	

1.9 reg7

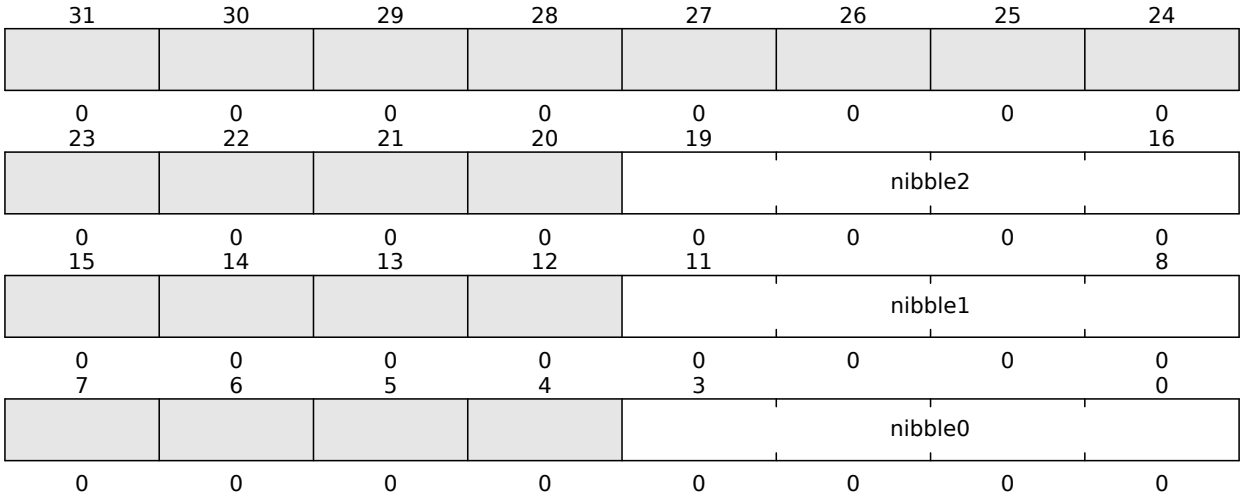
Name
reg7

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

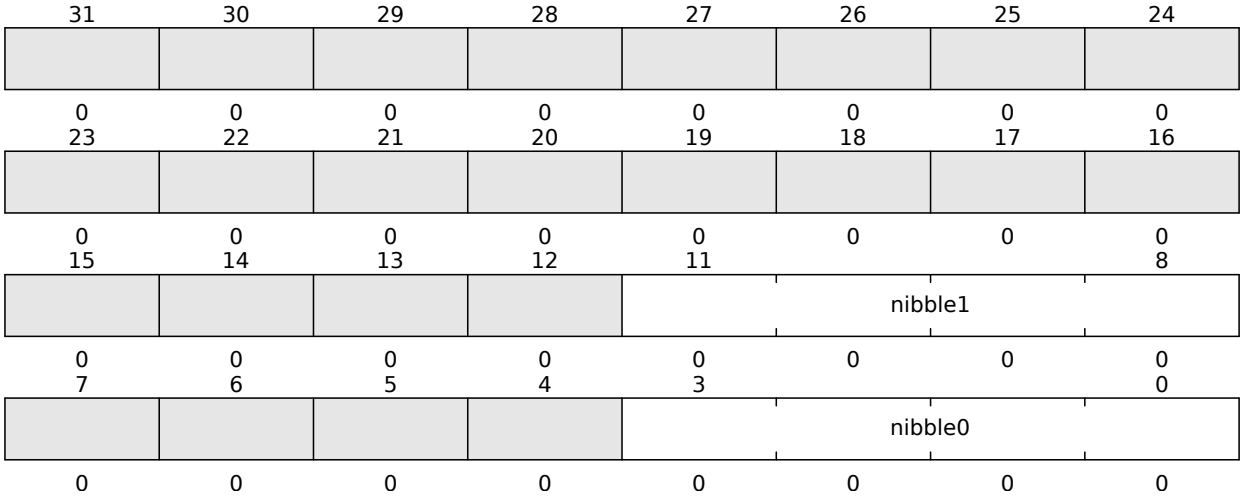
Name
reg8

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	