
example

ipxact2systemverilog

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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

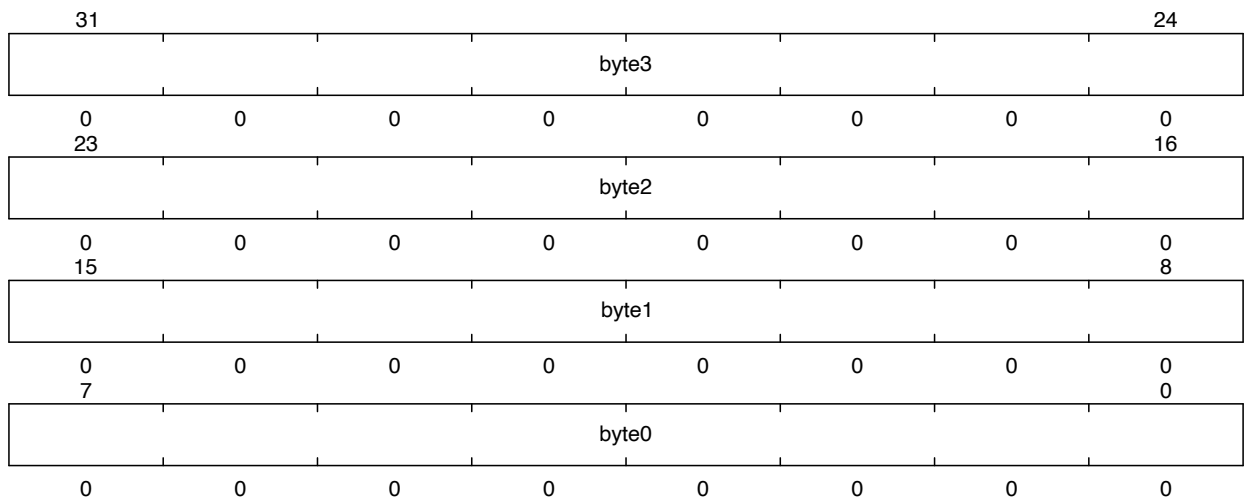
Name
reg0

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

Maximum
0x07

1.3 reg1

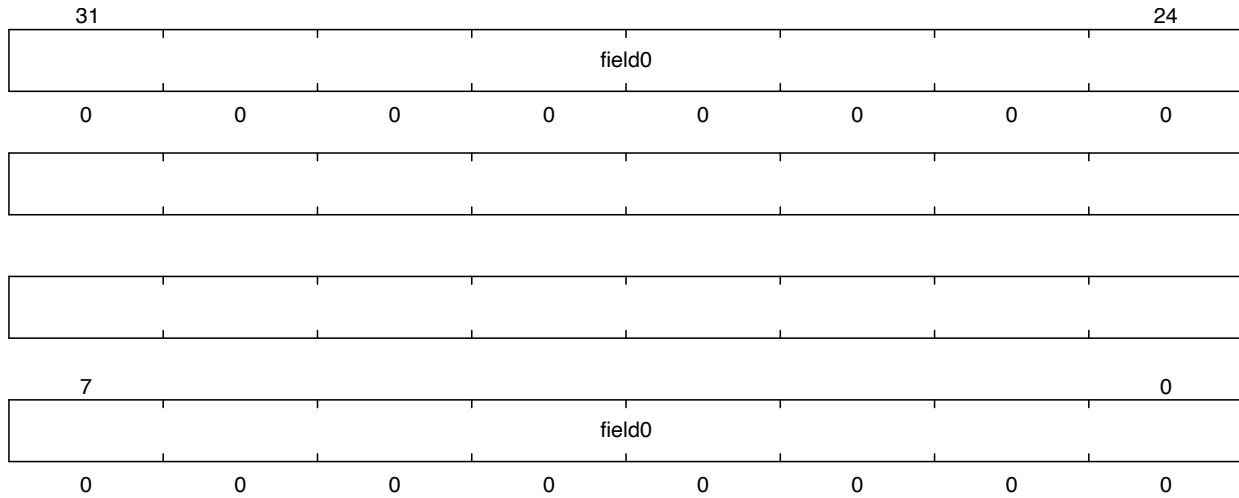
Name
reg1

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

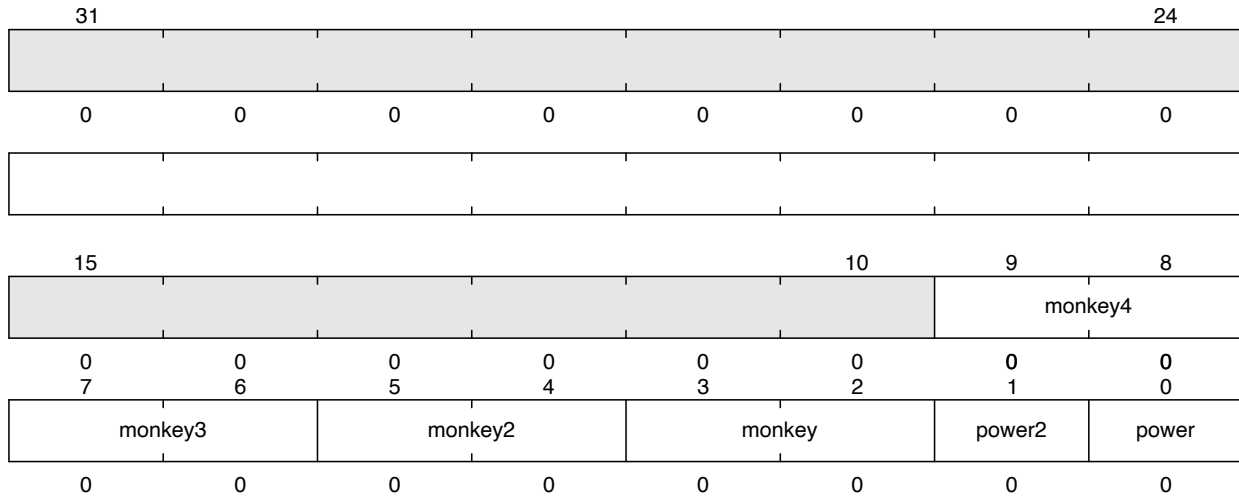
Address
0x2

Reset Value
0x00000001

Access
read-write

Description
write something useful for reg2

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

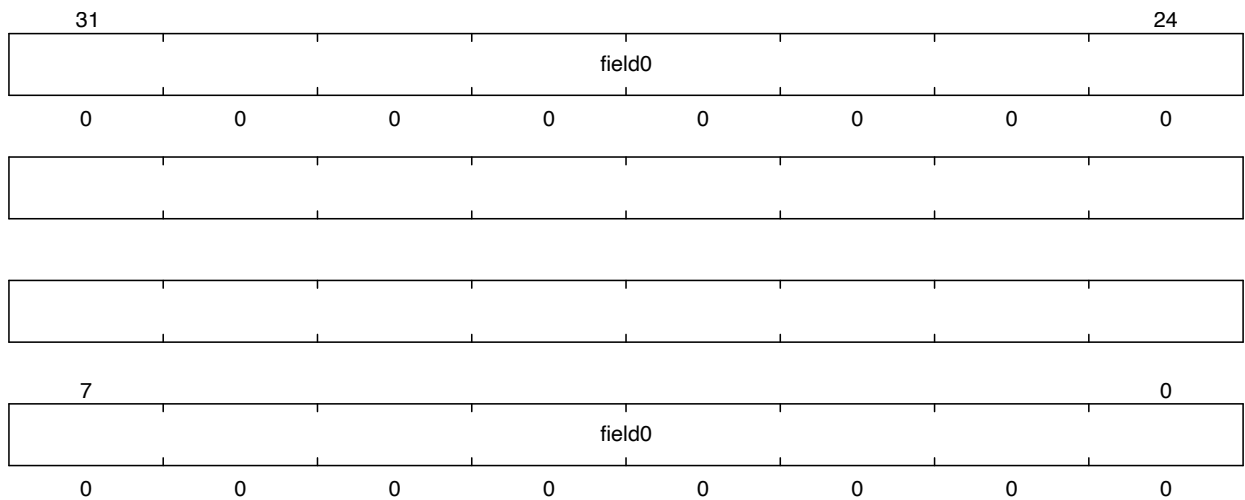
0x00000001

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

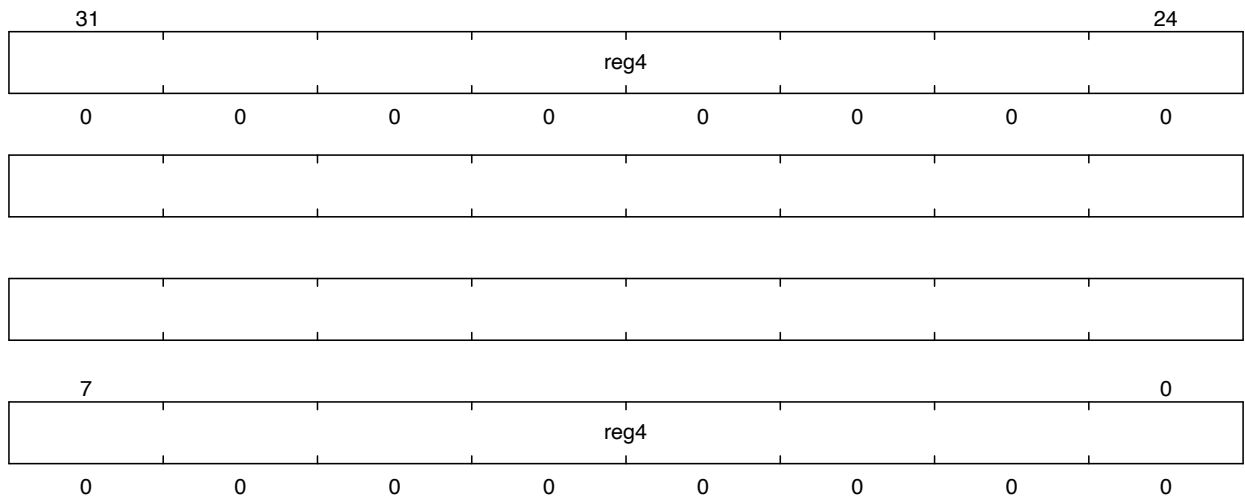
Name
reg4

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

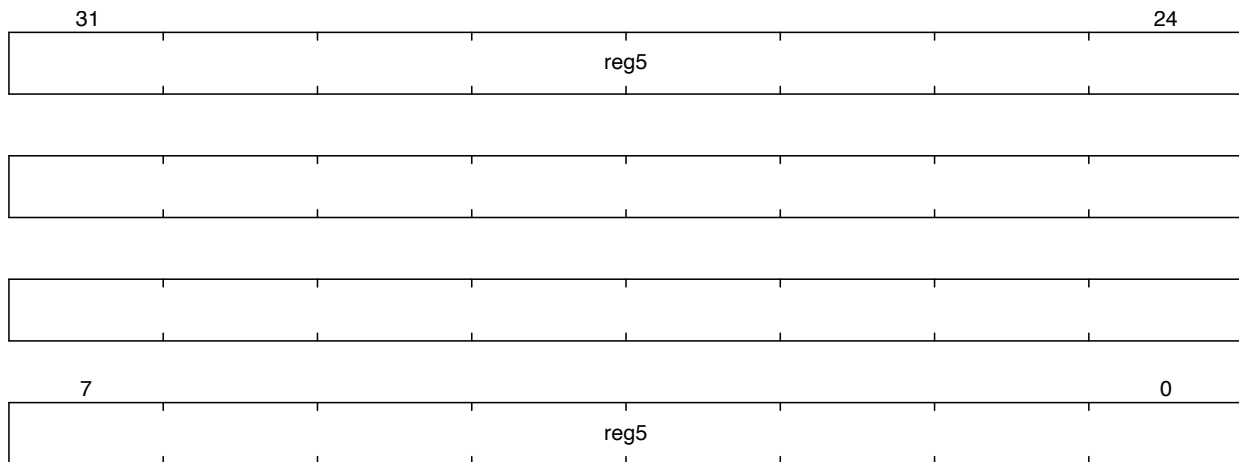
0x5

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

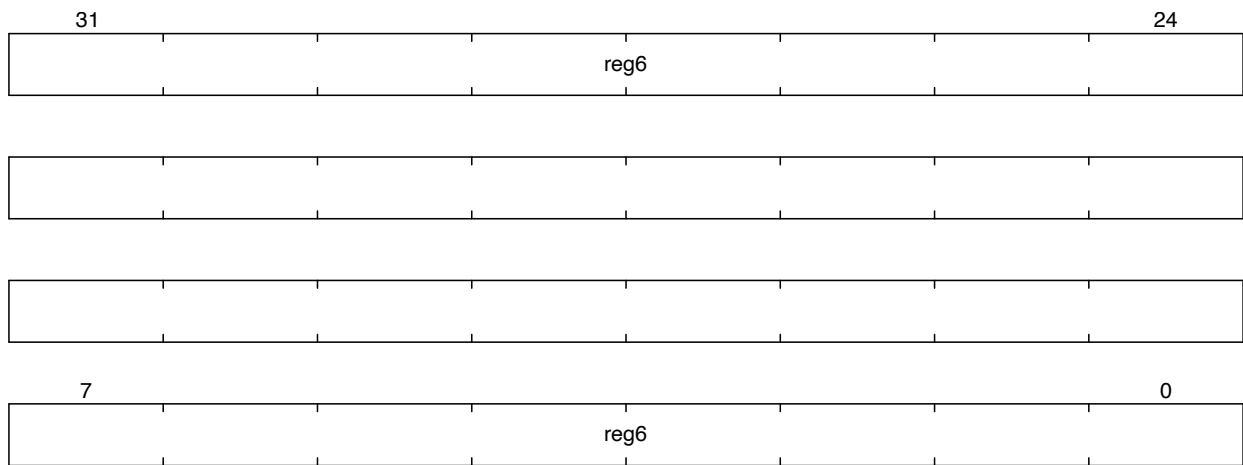
0x6

Access

read-only

Description

reg6 is a read only register.



| Bits | Field name | Description |
|--------|------------|-------------|
| [31:0] | reg6 | |

1.9 reg7

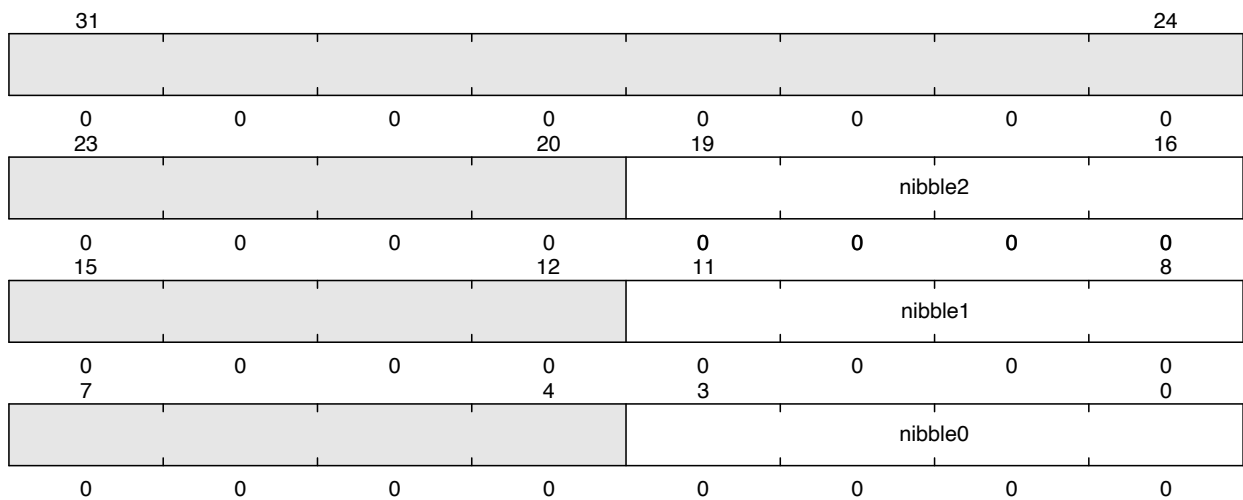
Name
reg7

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

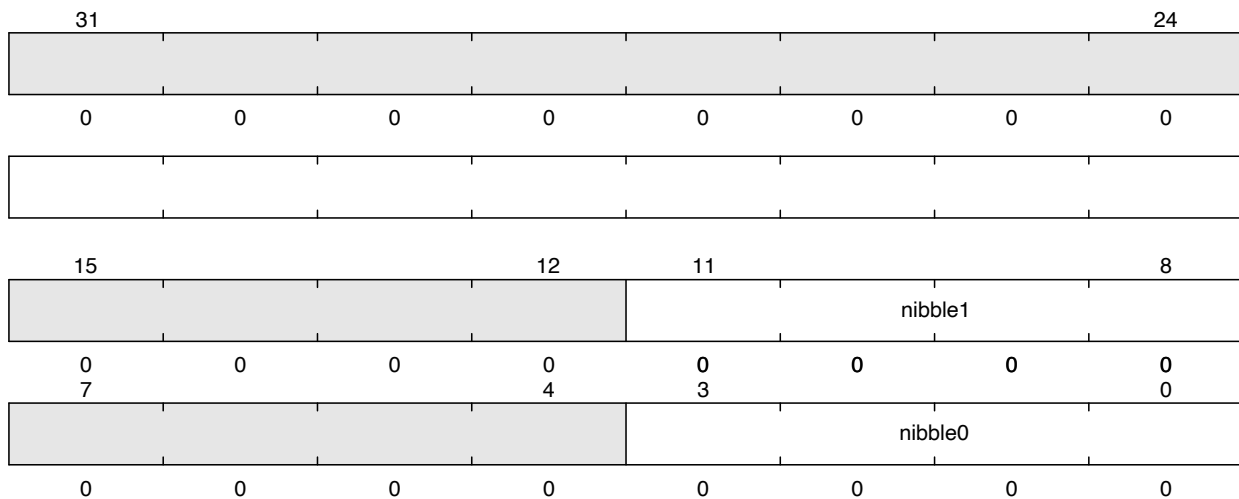
0x00000000

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 | |