# example

Demo example used for the testing of the ipxact2systemverilog tool.

**Base Address** 0x0

# 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 |

## 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 |

| Bits | Field name | Reset | Description |
| --- | --- | --- | --- |
| [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 |

## byte0

**Minimum** 0x00

**Maximum** 0x07

# 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 |

## field0

**Minimum** 0x00000004

**Maximum** 0x00000014

# reg2

**Name** reg2

**Address** 0x2

**Reset Value** 0x00000001

**Access** read-write

**Description** write something useful for reg2

| Bits | Field name | Reset | Description |
| --- | --- | --- | --- |
| [31:10] | unused0 | 0x000000 | unused |

| 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 |

## monkey

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

## monkey2

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

## monkey3

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

## monkey4

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

## 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 |

## 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 | |

## 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 | |

# reg6

**Name** reg6

**Address** 0x6

**Access** read-only

**Description** reg6 is a read only register.

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

# reg7

**Name** reg7

**Address** 0x7

**Reset Value** 0x00000000

**Access** read-write

**Description** write something useful for reg7

| Bits | Field name | Reset | Description |
|------|-----------|-------|-------------|
| [31:20] | unused2 | 0x000 | unused |
| [19:16] | nibble2 | 0x0 | write something useful for nibble2 |
| [15:12] | unused1 | 0x0 | unused |
| [11:8] | nibble1 | 0x0 | |
| [7:4] | unused0 | 0x0 | unused |
| [3:0] | nibble0 | 0x0 | write something useful for nibble0 |

# 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 |
| --- | --- | --- | --- |
| [31:12] | unused1 | 0x00000 | unused |
| [11:8] | nibble1 | 0x0 | |
| [7:4] | unused0 | 0x0 | unused |
| [3:0] | nibble0 | 0x0 | |