example

Demo example used for the testing of the ipxact2systemverilog tool.

Base Address

0x0

# Registers

|  |  |  |
| --- | --- | --- |
| Address | Register Name | Description |
| 0x00 | [reg0](#reg0) | write something useful for reg0 |
| 0x01 | [reg1](#reg1) |  |
| 0x02 | [reg2](#reg2) | write something useful for reg2 |
| 0x03 | [reg3](#reg3) | write something useful for reg3 |
| 0x04 | [reg4](#reg4) | reg4 is a very useful register. It can take down the moon when configured correctly. |
| 0x05 | [reg5](#reg5) | reg5 is as useful as reg4 but without a reset value defined. |
| 0x06 | [reg6](#reg6) | reg6 is a read only register. |
| 0x07 | [reg7](#reg7) | write something useful for reg7 |
| 0x08 | [reg8](#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 |
| [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 |

# 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 |

# 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 |
| [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 | write something useful for nibble1 |
| [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 |  |