This is the most basic example to start creating register specification with IDesignSpec

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| **Table of Content** | | | | |
| **Table of Content** | | | | |
| **Index** | **Component** | **Default** | **Address** | **Page** |
| 1 | [Chip](#bookmark1) |  | 0x0 - 0x2 | 1 |
| 1.1 | [Simple\_block](#bookmark2) |  | 0x0 - 0x2 | 1 |
| 1.1.1 | [Reg\_1](#bookmark3) | 0x00000000 | 0x0 | 1 |
| 1.1.2 | [Reg\_2](#bookmark4) | 0x00000000 | 0x1 | 1 |
| 1.1.3 | [Reg\_3](#bookmark5) | 0x00000000 | 0x2 | 2 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1 Chip | | | Chip | | chip | 0x0 |
| offset |  | external | |  | size |  |
|  | | | | | | |
| oid=05fa52aa-e71c-4758-a0c8-08a8b4d7d280 | | | | | | |
|  | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1.1 Simple\_block | | | Simple\_block | | block | 0x0 |
| offset |  | external | |  | size |  |
|  | | | | | | |
| oid=cf37bc9f-4282-4eff-898a-af88c6a89c7f | | | | | | |
|  | | | | | | |

Simple Registers

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1.1.1 Reg\_1 | | | | | | | | Reg\_1 | | | | | reg32 | | 0x0 |
| offset | |  | external | | |  | | | **size** | | **32** | default | | 0x00000000 | |
|  | | | | | | | | | | | | | | | |
| oid=78729e14-d9b3-4cef-8c6e-8b1f1aed2879 | | | | | | | | | | | | | | | |
| **This is a 32-bit register** | | | | | | | | | | | | | | | |
| bits | name | | | s/w | h/w | | default | | | description | | | | | |
| 31:0 | Fld1 | | | rw | rw | | 0x0 | | | **This is a register field.** | | | | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1.1.2 Reg\_2 | | | | | | | | | | | | | | | | | | | Reg\_2 | | | | | | | | | | | reg32 | | | | | | 0x1 | | | | | |
| offset | | | | | | |  | | | | | | | | external | | | | | | | | |  | | | | | | default | | | | | | 0x00000000 | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| oid=cb78a2ba-422a-41e7-9ffe-2e84f71bf904 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **This is a 32-bit fixed width register** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | 30 | | 29 | 28 | 27 | 26 | | 25 | | 24 | 23 | 22 | | 21 | | 20 | | 19 | | 18 | 17 | | 16 | 15 | 14 | 13 | 12 | 11 | 10 | | 9 | 8 | 7 | 6 | 5 | | 4 | 3 | 2 | 1 | 0 |
| bits | | name | | | | | | | s/w | | | | h/w | | | | default | | | | | description | | | | | | | | | | | | | | | | | | | |
| 31:0 | | Fld1 | | | | | | | Rw | | | | Rw | | | | 0x0 | | | | |  | | | | | | | | | | | | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1.1.3 Reg\_3 | | | | | | | | Reg\_3 | | | | | reg32 | | 0x2 |
| offset | |  | external | | |  | | | size | | 32 | default | | 0x00000000 | |
|  | | | | | | | | | | | | | | | |
| oid=6eb80ed8-4869-4e6f-a09b-03377c2473fd | | | | | | | | | | | | | | | |
| **Likewise you can add any number of blocks with registers according to design requirement, where chip is the top level component.** | | | | | | | | | | | | | | | |
| bits | name | | | s/w | h/w | | default | | | description | | | | | |
| 31:0 | Fld1 | | | rw | rw | | 0x0 | | |  | | | | | |