

Module: UVM-2

Register Abstraction Layer

RAL

Assignment 03

➤ Register Block:

Reg Block
<pre>class reg_blk extends uvm_reg_block; // Factory Registration `uvm_object_utils(reg_blk) // Register instances ctrl ctrl; reg1 r1; reg2 r2; reg3 r3; reg4 r4; // Constructor function new (string name = "reg_blk"); super.new(name, UVM_NO_COVERAGE) endfunction : new // Build function void build(); ctrl = ctrl::type_id::create("ctrl"); ctrl.build; ctrl.configure(this); r1 = reg1::type_id::create("r1"); r1.build; r1.configure(this); r2 = reg2::type_id::create("r2"); r2.build; r2.configure(this); r3 = reg3::type_id::create("r3"); r3.build; r3.configure(this); r4 = reg4::type_id::create("r4"); r4.build; r4.configure(this);</pre>

```
// Map
default_map = create( "default_map", 0, 4, UVM_LITTLE_ENDIAN, 1 )

default_map.add_reg( ctrl, 'h0, "RW" );
default_map.add_reg( r1, 'h4, "RW" );
default_map.add_reg( r2, 'h8, "RW" );
default_map.add_reg( r3, 'hC, "RW" );
default_map.add_reg( r4, 'h10, "RW" );
endfunction : build

endclass : reg_blk
```