File   Edit   Project   Compile   Simulate   Window   Help

Workspace: Work = atv05
Toplevel = testarquitetura

- Workspace 'atv05' Files
  - Library ieee => $SYMPHONYEDA/li
  - Library atv05 => C:/Users/w
    - stateconverter.vhdl
    - inib.vhdl
    - enable.vhdl
    - sevenSegDecoder.vhdl
    - display.vhdl
    - arquitetura.vhdl
    - testArquitetura.vhdl
    - testEnable.vhdl
    - testInib.vhdl
    - testStateConverter.vhdl

```vhdl
entity stateConverter is
        port(
                temp: in bit_vector(7 downto 0);
                state: out bit_vector(2 downto 0);
                transition: out bit_vector(2 downto 0)
        );
end entity;

architecture behavior of stateConverter is

begin

        state <= "000" when temp >= "00000000" and temp < "00001010" else
                 "001" when temp >= "00001010" and temp < "00010100" else
                 "010" when temp >= "00010100" and temp < "00011110" else
                 "011" when temp >= "00011110" and temp < "00111100" else
                 "100" when temp > "00111100";

        transition <=   "001" when temp = "00001010" else
                        "010" when temp = "00010100" else
                        "011" when temp = "00011110" else
                        "100" when temp = "00111100" else
                        "000";

end architecture;
```