Function

Young Won Lim
12/01/2011

Please send corrections (or suggestions) to youngwlim@hotmail.com.

This document was produced by using OpenOffice and Octave.

Young Won Lim
12/01/2011

Function (1)

type fourval is (X, L, H, Z); ➡ type fourvalue is ('X', 'L', 'H', 'Z');

```
function convert4val(S : fourval) return fourvalue is
begin
  case S is
    when X => return 'X';
    when L => return 'L';
    when H => return 'H';
    when Z => return 'Z';
  end case;
end convert4val;
```

Function (2)

function can be declared in entity

```
entity reg is
   port ( ... )

   function convert4val(S : fourval) return fourvalue is
   begin
     case S is
        when X => return 'X';
        when L => return 'L';
        when H => return 'H';
        when Z => return 'Z';
     end case;
   end convert4val;

end reg
```

Function (3)

function can be declared in architecture

```
architecture structure of reg is

    function convert4val(S : fourval) return fourvalue is
    begin
      case S is
        when X => return 'X';
        when L => return 'L';
        when H => return 'H';
        when Z => return 'Z';
      end case;
    end convert4val;


begin


    q <= convert4val( p );

end  structure
```

References

[1] http://en.wikipedia.org/
[2]