



## **Copyright notice and proprietary Information**

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# Parameter Class

- VHDL has 4 classes of objects:
  - *constant*
  - *variable*
  - *signal*
  - *file*

# Default Parameter Class

- A formal parameter of mode *'in'* will default to *constant*

```
procedure MY_PROC1 ( IN1:    in <type> ;  
                    OUT1:   out <type> ;  
                    BI_DIR1: inout <type> ) is  
  
variable VAR1 ;  
  begin . . .  
    (sequential statements. . .)  
end procedure MY_PROC1 ;
```

# Explicitly Class Declaration

```
procedure MY_PROC1 ( signal IN1:    in <type> ;  
                    OUT1:    out <type> ;  
                    BI_DIR1: inout <type> ) is  
  
variable VAR1 ;  
  begin . . .  
  (sequential statements. . .)  
end procedure MY_PROC1 ;
```

# Default Parameter Class

- A formal parameter of mode '*out*' will default to *variable*
- An '*inout*' would also default to *variable*

```
procedure MY_PRO1 ( IN1:      in <type> ;  
                   OUT1:     out <type> ;  
                   BI_DIR1: inout <type> ) is  
  
variable VAR1 ;  
  begin . . .  
  (sequential statements. . .)  
end procedure MY_PRO1 ;
```

# Explicitly Class Declaration

```
procedure MY_PROC1 (      IN1:      in <type> ;  
                           signal OUT1:   out <type> ;  
                           BI_DIR1: inout <type> ) is  
  
variable VAR1 ;  
  begin . . .  
  (sequential statements. . .)  
end procedure MY_PROC1 ;
```