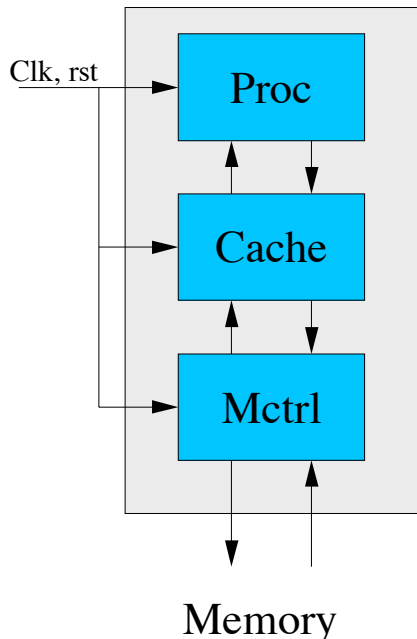


- ◆ Grouping of signals makes code readable and shows the direction of the dataflow



```
use work.interface.all;
```

```
entity cpu is port (  
    clk      : in std_logic;  
    rst      : in std_logic;  
    mem_in   : in mem_in_type;  
    mem_out  : out mem_out_type);  
end;
```

```
architecture rtl of cpu is  
    signal cache_out : cache_type;  
    signal proc_out   : proc_type;  
    signal mctrl_out  : mctrl_type;  
begin  
  
    u0 : proc port map  
        (clk, rst, cache_out, proc_out);  
  
    u1 : cache port map  
        (clk, rst, proc_out, mem_out cache_out);  
  
    u2 : mctrl port map  
        (clk, rst, cache_out, mem_in, mctrl_out,  
         mem_out);  
  
end architecture;
```