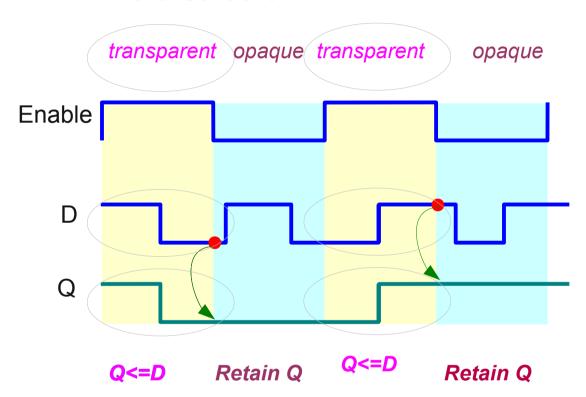
# FF and Latch

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### Latch

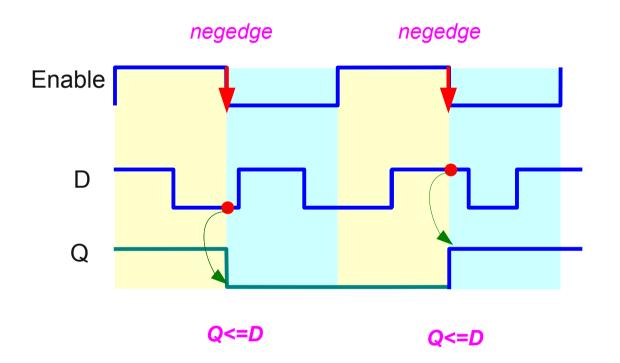
#### **Level Sensitive**



```
process (D,Enable)
begin
  if Enable = '1' then
    Q <= D;
  end if;
end process;</pre>
```

### Flip Flop

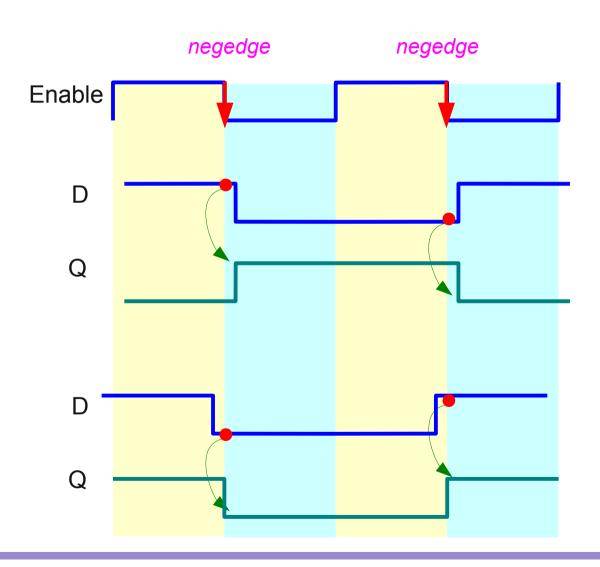
#### **Edge Sensitive**



```
DFF : process(RST, CLK)
begin
  if RST = '1' then
    Q <= '0';
  elsif CLK'event and CLK = '0'
then
    Q <= D;
  end if;
end process DFF;</pre>
```

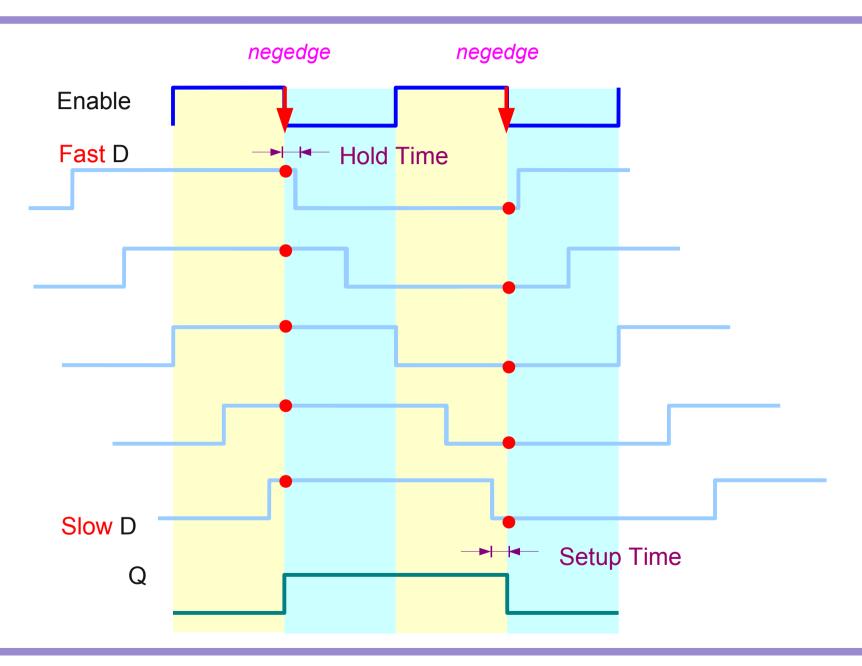
## Flip Flop (2)

#### **Edge Sensitive**



```
DFF : process(RST, CLK)
begin
  if RST = '1' then
    Q <= '0';
  elsif CLK'event and CLK = '0'
then
    Q <= D;
  end if;
end process DFF;</pre>
```

### Flip Flop Setup / Hold Time



#### References

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

[2]