

MAC283 Topic: Lecture on Flip-Flops and counters

$Q(T+1) = \text{Next output}$
 $Q = \text{Current output}$
 $Q' = \text{Current output reversed}$

Next output
JK FF $Q(T+1) = (JQ' + K'Q) \cdot \text{Clock}$

When the New output depends also on the current output it is known as a feedback

T-FF $Q(t+1) = (T(+)Q) \cdot \text{Clock}$

Topic is Flip Flops 4 inputs and 2 outputs

JK FF and T FF
We use FF for

1. Static Memory
2. Electronic Latches
3. Frequency dividers
4. Counters
5. Sequence detectors

Inputs	Next Output
J K	$Q(T+1)$
0 0	Q No Change
0 1	0 Reset
1 0	1 Set
1 1	Q' Toggle

Click [here](#) to view the lecture
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