


Review for final exam.

Midterm exam & quizzes


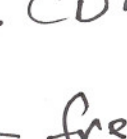
PLL → Gains and operation

Dead zone

Static phase error

Hogge PD  schematic

operation

uses of PFD or PD  in PLL  COR

frequency synthesis

PLL - Block diagrams

system transfer functions

filters

charge pump

tri-state

XOR

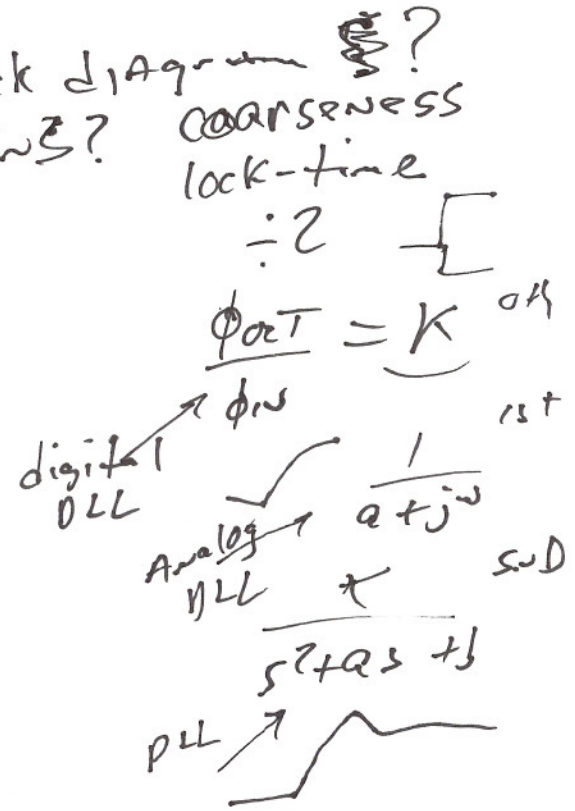
PFD

DLLs

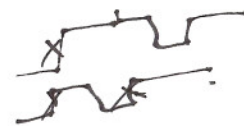
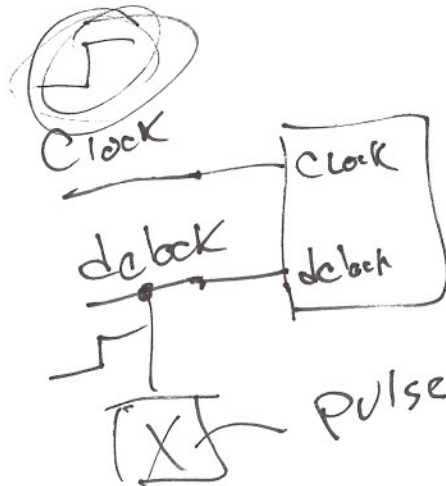


digital — sketch block diagram?
 limitations? COARSENESS
 lock-time

Analog DLLs
 * * * { Benefits
 Drawbacks



Why you can't use a PFD in a COR

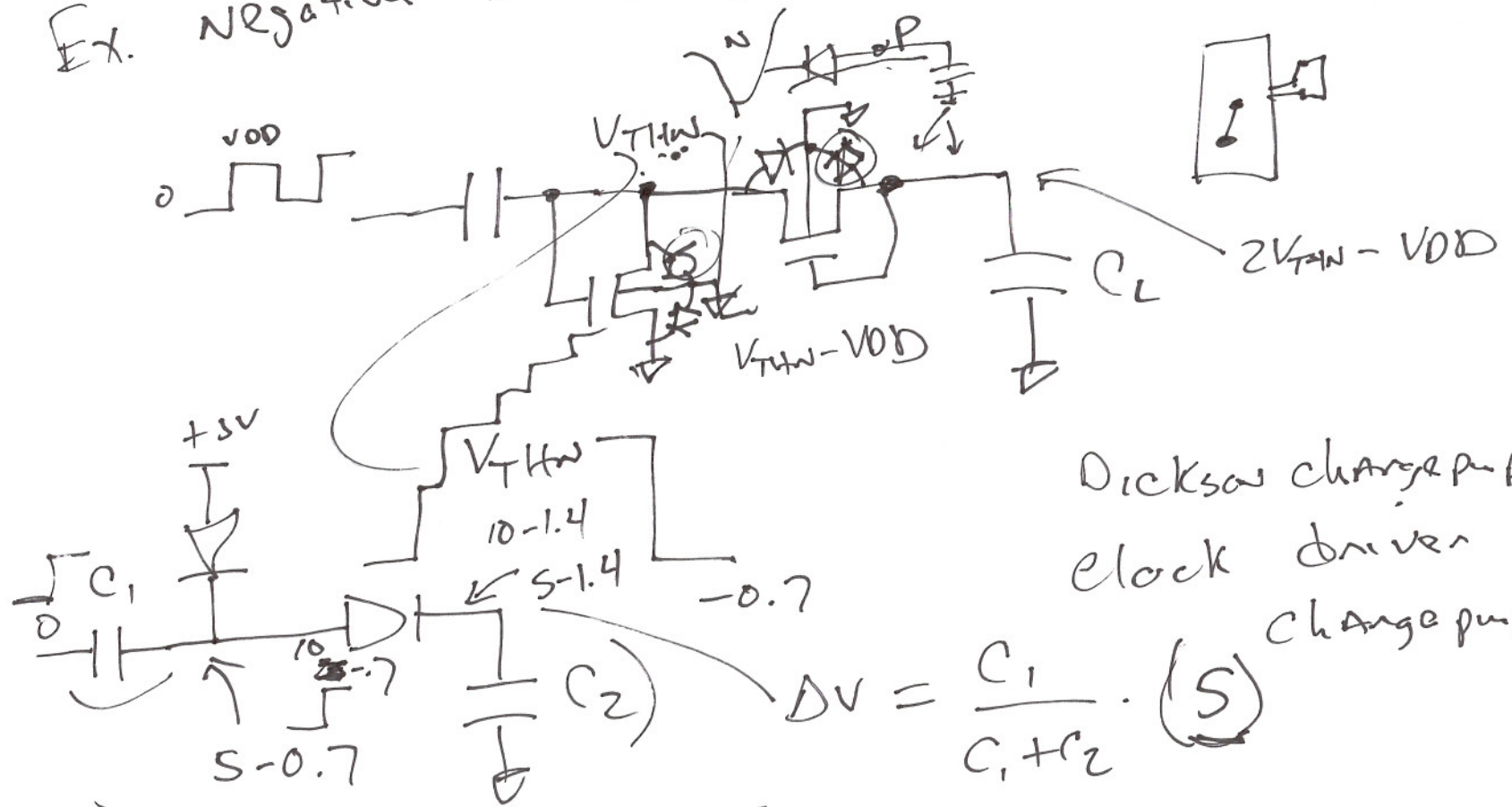


pulse swallow ~

Ch. 18

Know basic charge pumps

Ex. Negative ^{DC} voltage generating charge pump.
 forward biasing pn junction



Ch. 18

Schematics

input buffers

self-biased diff. AMP

NTP flavan input buffers.

limitations

Schmitt triggers

uses

Schematic

why they are used

Ch. 17

DS sensing

study Ch. 16
Book problems.

Ch. 16

ARRAYS → ADDRESSING

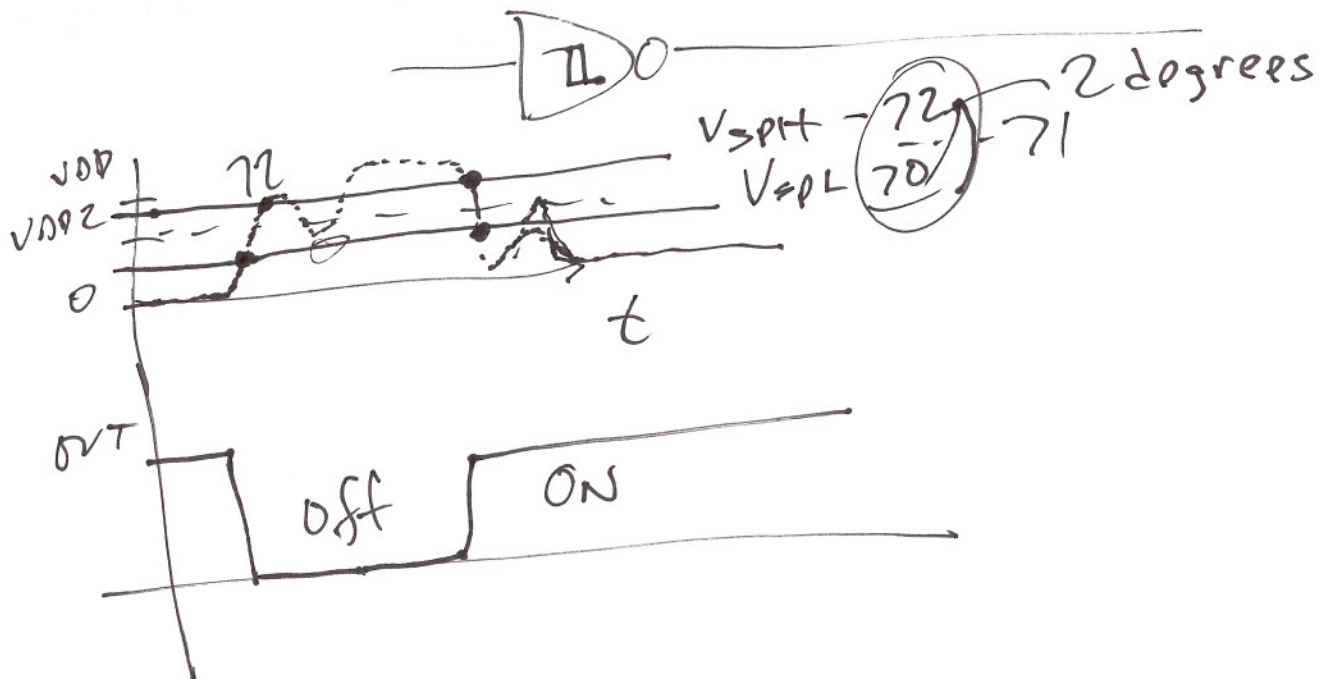
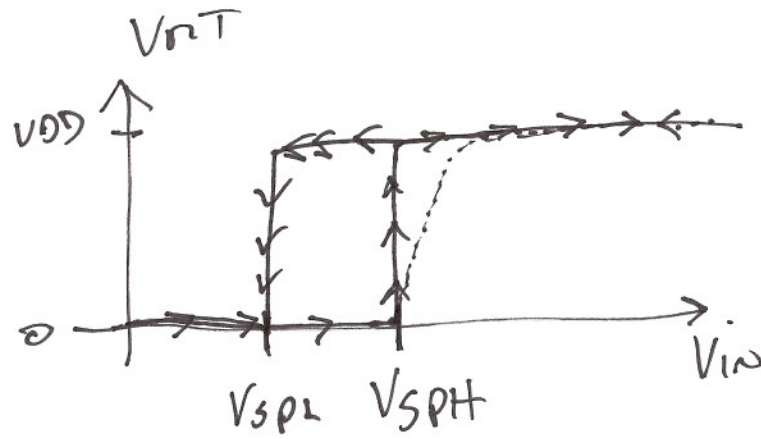
RAS

CAS

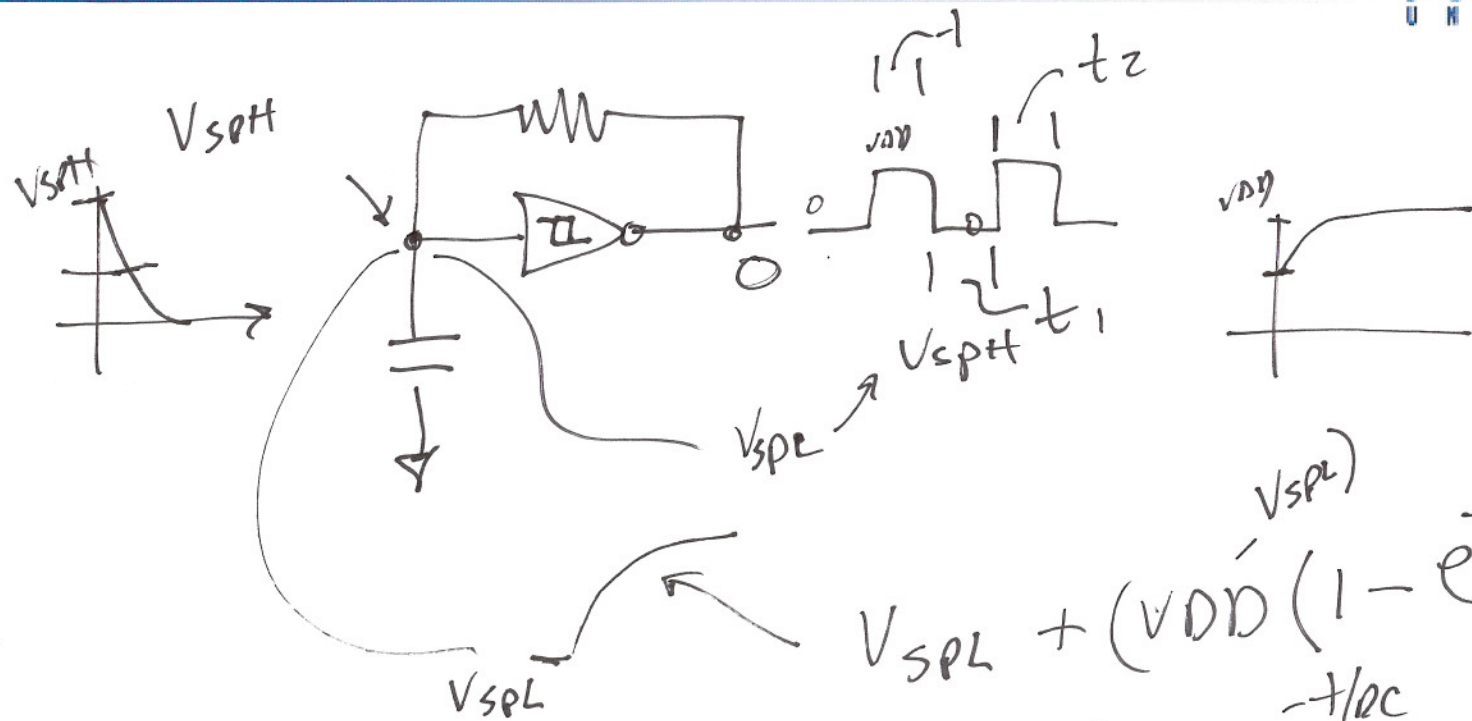
X2 PART
X4

How reduces
your address
size

Schmitt trigger



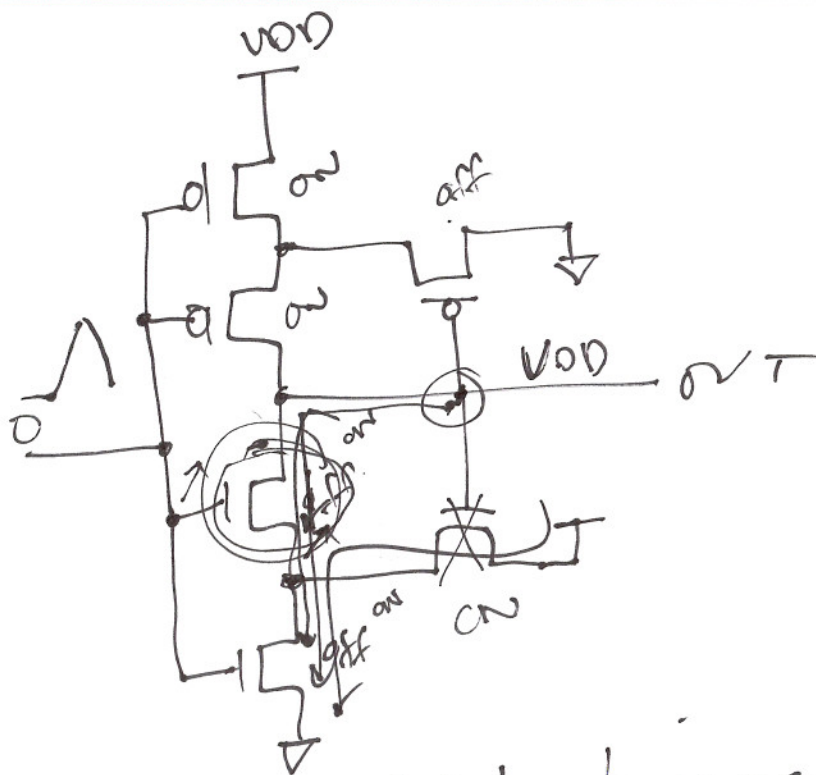
5)



$$V_{SPL} + (V_{OD} - V_{SPL}) \cdot (1 - e^{-t/RC})$$

$$V_{SPL} + (V_{OD} - V_{SPL}) \cdot (1 - e^{-t/RC}) = V_{SPH}$$

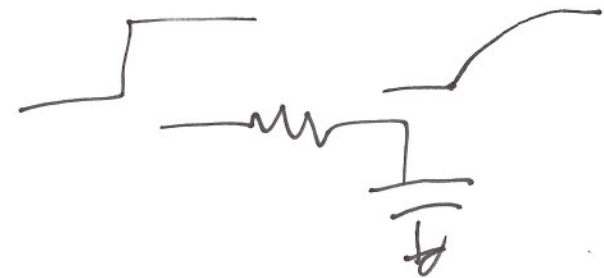
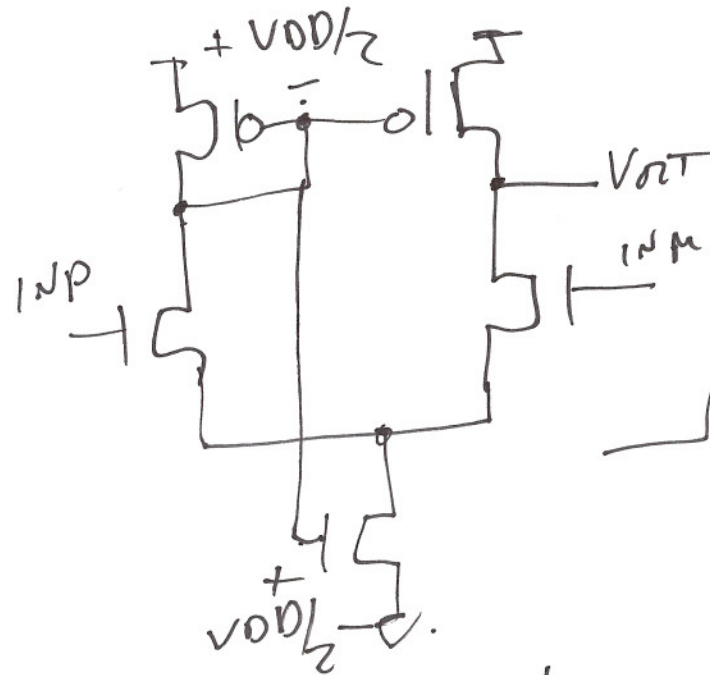
$$V_{SPH} \cdot e^{-t/RC} = V_{SPL}$$



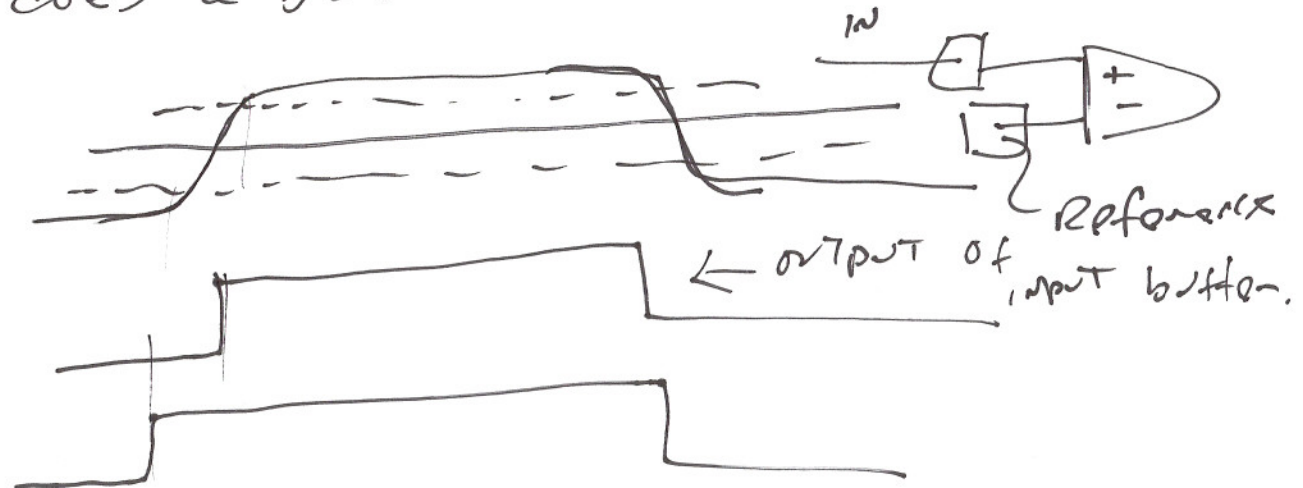
Schmitt trigger

Self-biased input buffers

6:00 on Wednesday



Why does a DREAM need a.v. input buffer?



8)