

section11_Ex.6&12

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6. What is meant by non-destructive readout?

- If the reset pulse is not sent after the pixel is addressed and the signal digitized, then **the IR detector simply keeps on integrating.**
 - the charge is not altered when reading
 - Just sample the present value.
 - Multiple readouts are allowed, which leads to the decrease in readout noises.

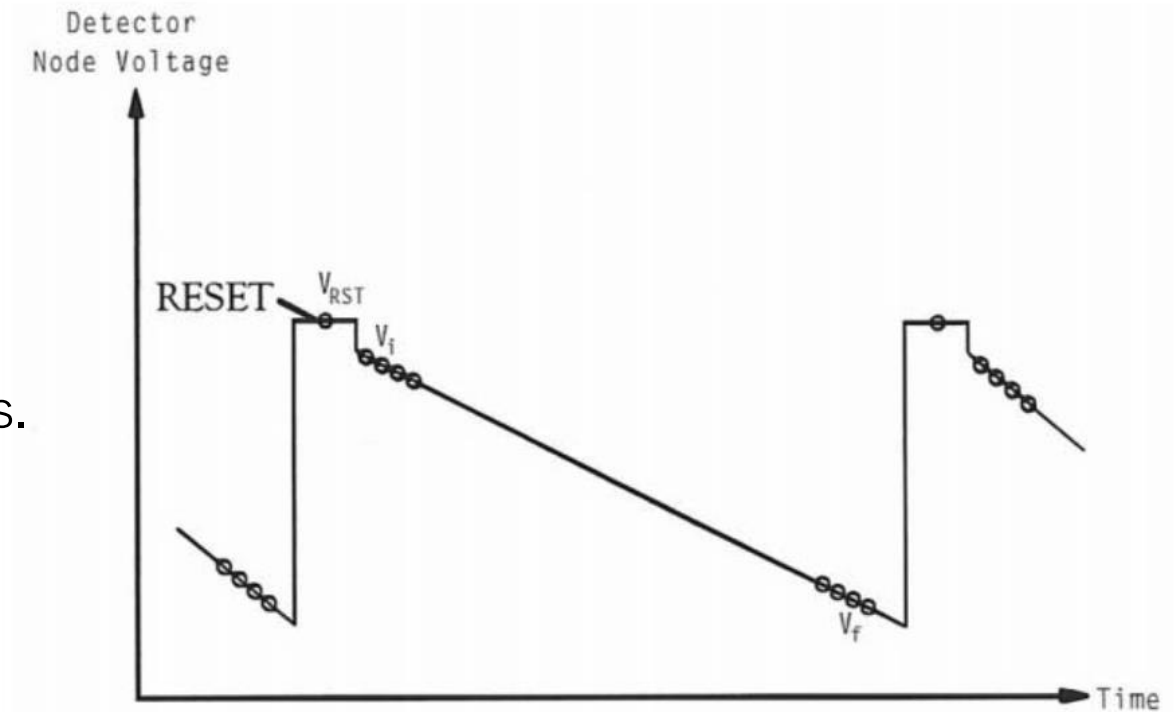
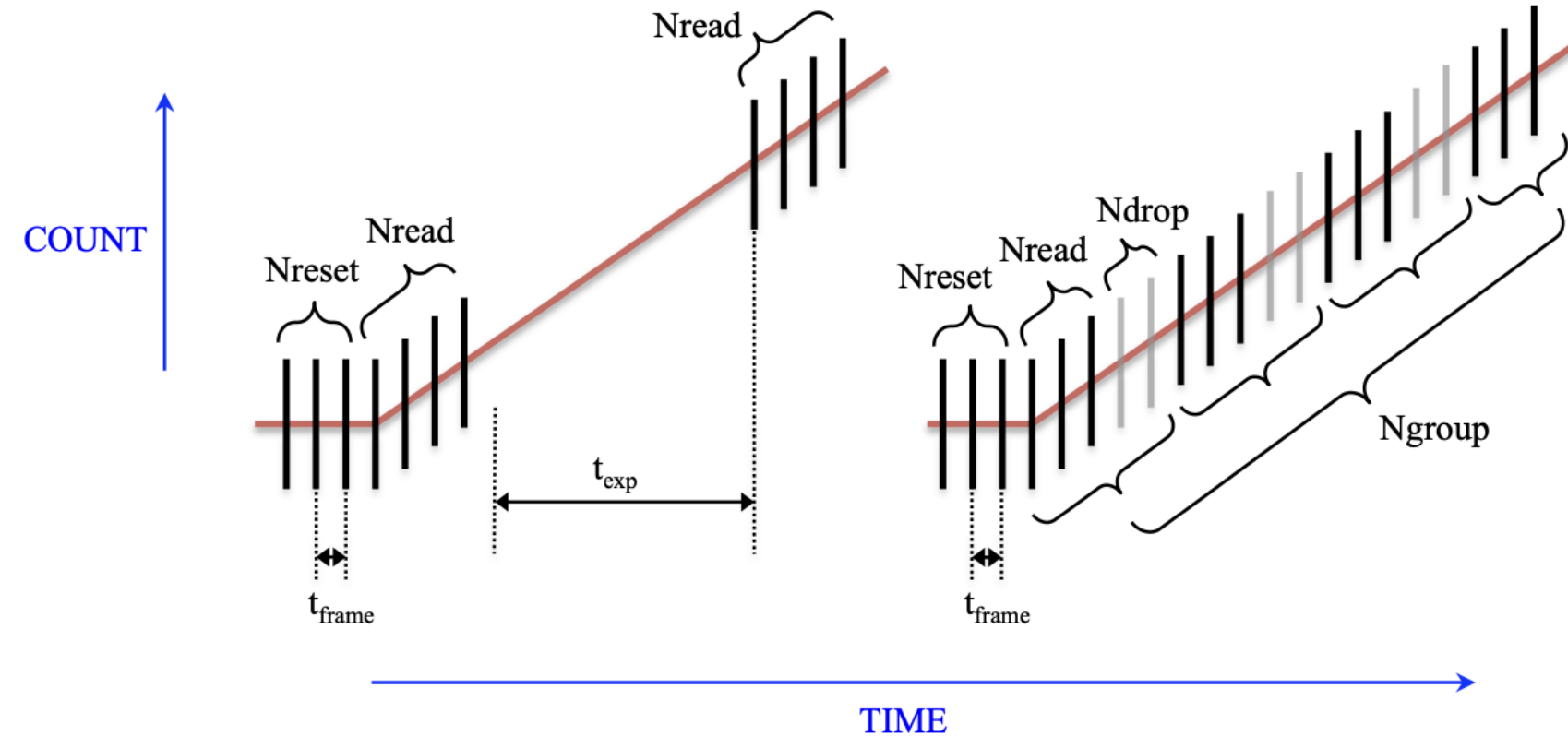


Figure 11.12. The schematic variation of the output voltage as a function of time for a typical pixel in an infrared array detector. Associated readout modes are described in the text.

12. Describe the concept of up-the-ramp sampling

Fowler Sampling

Ramp Sampling



➤ A best-fitting straight line can be applied to the data points to get the mean flux rate.

(todo 2014)