

# Chapter 8

## Digital and Analog Interfacing Methods

# Lesson 8

## Flash Memory Interface

# Flash Exemplary Uses

Saving-

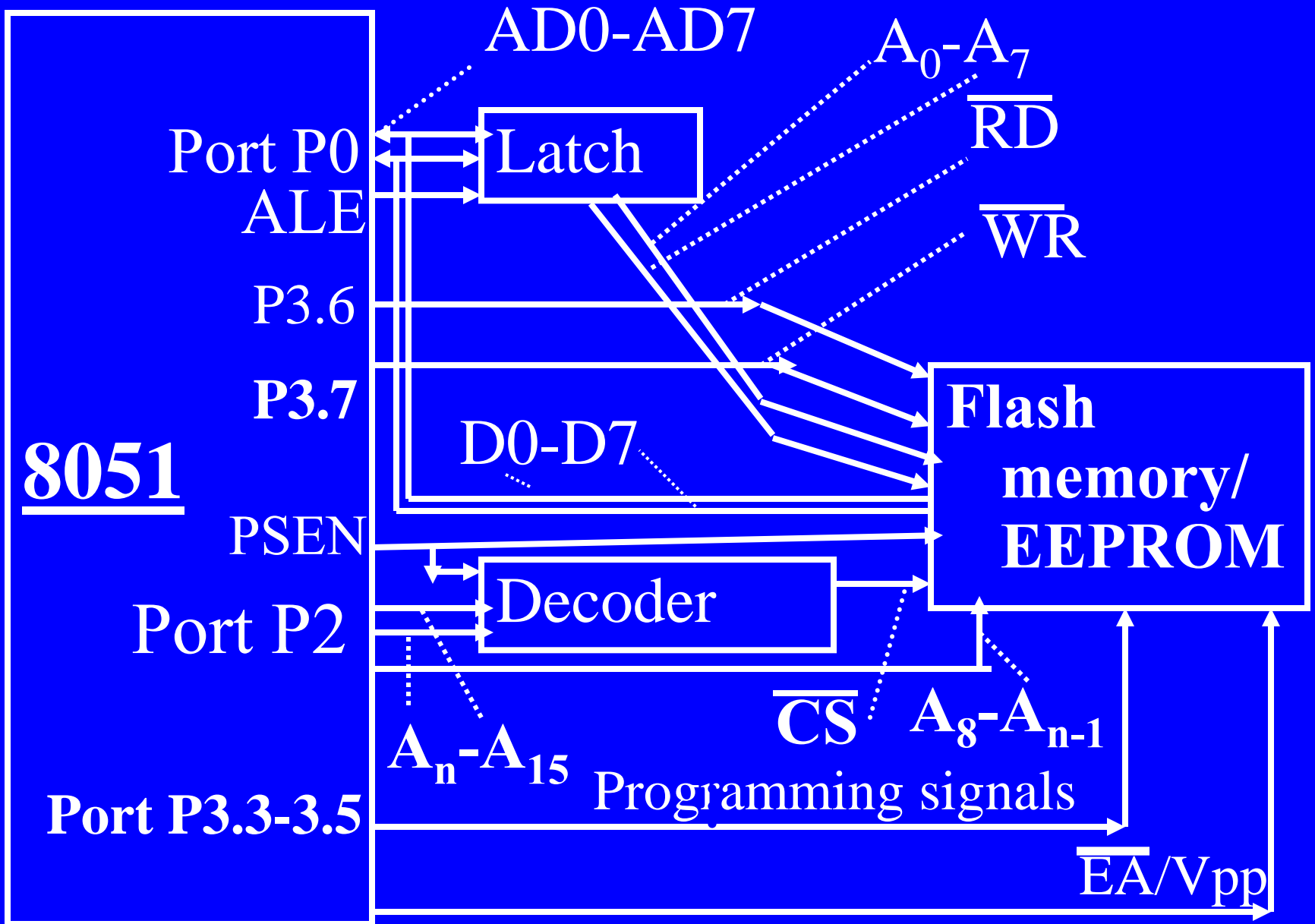
- user-defined program data
- an ECG machine captured ECG waveform data
- in a process with multiple stages, the status that the previous stage(s) successfully completed

# Flash Interfacing

- Address lines  $A_0$ - $A_7$  connect the flash through a latch and  $A_8$ - $A_{n-1}$  directly and  $A_n$  to  $A_{15}$  remaining lines through decoder to  $\overline{CS}$  pin at flash

# Flash Interfacing

- Port P0 pins connect D0-D7 inputs of the flash
- Vpp pin connects Vpp of the flash and to a + 5V or + 12V supply, if flash needs a high voltage pulse



# Summary

# We learnt

## Flash

- Flash interfaces similar to a ROM
- Erasing is by writing 1s at the byte(s)
- Writing is always on the erased byte (s)
- A programming pulse is present when erasing or writing. Programming signals sent using P4.3-P3.5 pins in the interface
- Programming voltage sent using EA/Vpp pin in the 8051



# End of Lesson 8

## Flash Memory Interface