

Homework 7
Assigned 31 March 2004; due Wednesday 7 April 2004

Notice: Some students have expressed interest in doing a lab of their own design. We're very glad when that happens, and the GSRs are happy to guide you where needed. If you do that, we'll give you up to 5 extra points (out of 100) on the course grade as extra credit. (To make it really "extra", those augmentations will be added after the end-of-course curving of all scores.)

Reading: Chapter 7 (How Many Words is a Picture Really Worth?). Sections 22.1-22.6 (Digital Logic Devices)

Problems:

P 7.2 (10 points)

P 22.4 (10 points)

P 22.6 (40 points) For this problem you should use a logic circuit simulation program called LogicWorks, available on computers in 199 Cory (and on the two downstairs computers in the EE 1 lab, 145 Cory) to simulate one stage of a full adder. Additional information will be given in class.

Machines you can use in 199 Cory: numbers C199-1 through C199-8. You'll find a shortcut to LogicWorks (green, LW...) on the desktop. A printer in that room has been made the default for LogicWorks printouts. NOTE: center your circuit in the page, or it will spread its printout over several pages.

Note from Kevin Mullaly: "The students will be prompted for an Instructional UNIX password. For those who do not have a UNIX account, I have also enabled a temporary logon/password that they can use: eecs2004/eecs2004 ."

" When running LogicWorks on an WinNT or Win2000 computer:

- Right-click on the background screen. In "Display Properties", select "Properties" (WinNT) or "Effects" (Win2K), deselect "Show window contents while dragging". NOTE: This deselection may have been done already on the machines in 199 Cory listed above."

You can find (part of) a LogicWorks tutorial on the EE1 web site by clicking on the link [LogicWorks Tutorial](#).

Hint for getting the control bar for the timing diagram, if it doesn't appear when you launch LogicWorks, on the Main toolbar at the top of the screen, click on Tools and then on Simulate.