

LogicWorks5 Tutorial

1. Creating a subpart
2. Building a PROM
3. Building a RAM
4. Clock
5. Register



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BEFORE WE START



MOST IMPORTANT OF ALL!!

IF YOU ARE STUCK, DO NOT WAIT UNTIL THE DAY BEFORE
THE ASSIGNMENT DUE DATE, AND HOPING THAT TAs CAN
LOOK AT THEM AND FIX THEM.

WE ARE GOOD, BUT NOT ALWAYS ☺

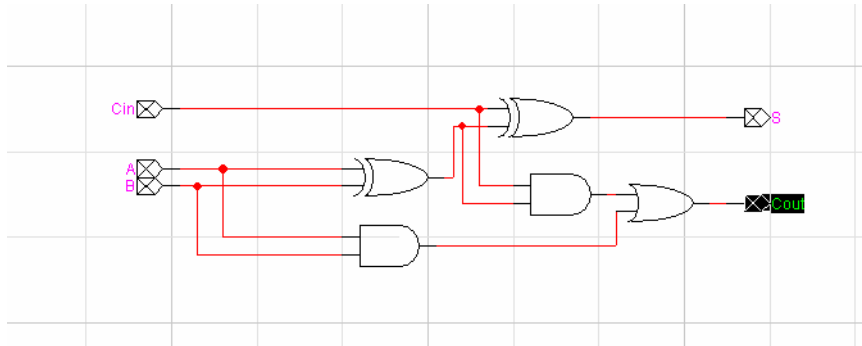
IT TAKES US A WHILE TO HELP YOU DEBUG YOUR CIRCUIT.

COME TO THE LAB HOURS AND ASK!!



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1. Creating a subpart

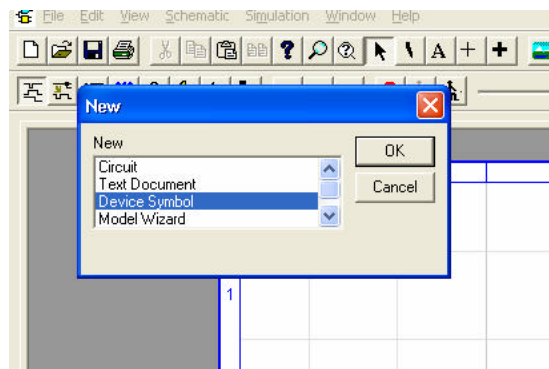


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1. Creating a subpart



File->New->DeviceSymbol

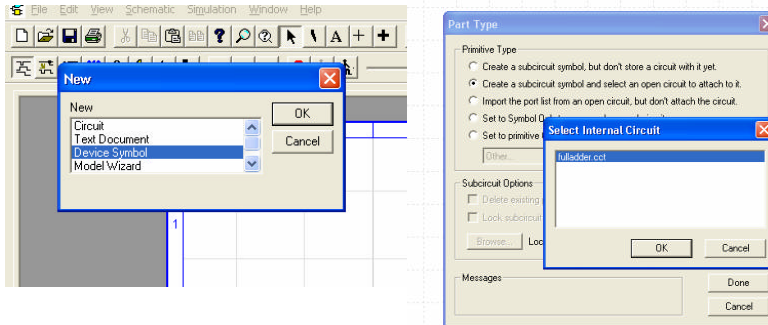


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1. Creating a subpart



Option->Subcircuit and PartType->(Create a sub...circuit to attach it)->done



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1. Creating a subpart



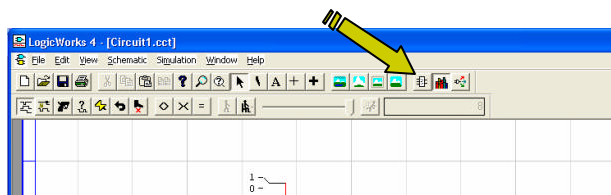
- Option->Auto Create Symbol->Extract pin list->Generate Symbol
(you can change the component name by double-clicking the name)
- Save as
- Name the component
- Newlib (unless you already have one for yourself)
- Select the library name and save

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2. Building a PROM

- Click on the button!

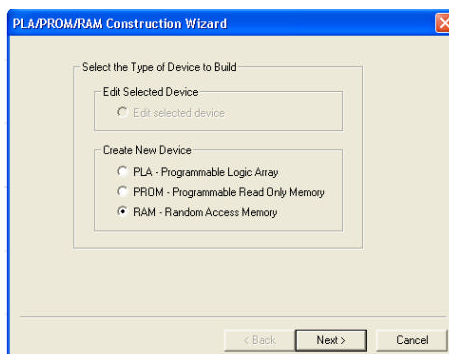


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2. Building a PROM

- Select a desired device.



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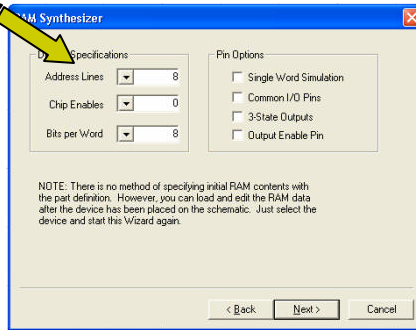
-
- PROM Synthesizer**
- Device Specifications**
- Address Lines: 8 Bits per word: 8
- Data Entry Method**
- ☒ Read data from an Intel-format hex file
 - ☐ Read data from a raw hex file
 - ☐ Enter hex data manually
- < Back Next > Cancel

2. Building a PROM

-
- A screenshot of a Windows Notepad application window titled "p1test1.dmi - Notepad". The menu bar includes File, Edit, Format, View, and Help. The main text area contains two lines of hexadecimal data:
-
-
- 0x0c2038000000000000000000000000000000000000000000000000000000000000
-
- 8656c6cf2057f726c6421000000000486
-
-
- The status bar at the bottom shows the cursor position as column 19, row 1.

3. Building a RAM

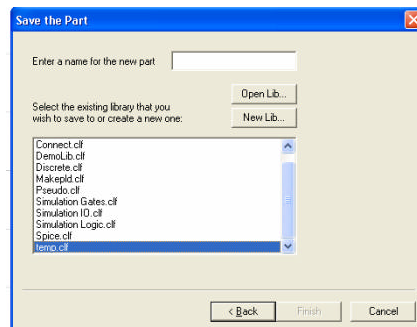
- 8bit processor: address lines should have 8bits as well.
- One word is 8bit.
- HIT NEXT!



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3. Building a RAM

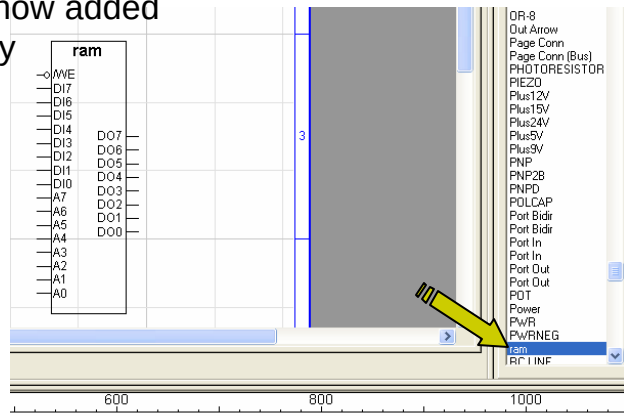
- Click on New Lib.. To create a new library or Click on Open Lib.. To use the existing library.
- Enter a name for the new part
- Click Finish when you are done.



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3. Building a RAM

- Your ram is now added to your library

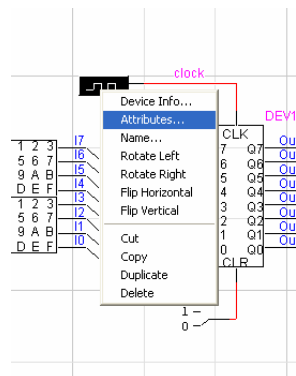


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4. CLOCK



- Right Click on the clock and select attribute



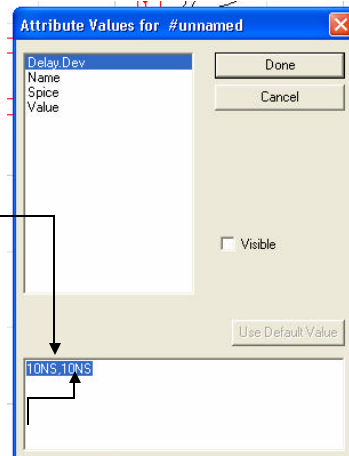
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4. CLOCK



CLOCK STAYS LOW for 10 ns

CLOCK STAYS HIGH for 10 ns



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4. CLOCK



- Why is this important?
 - because Anthony said so? That's right!

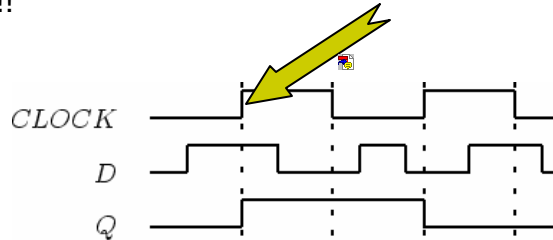
more reasons?

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5. Register



- Edge-triggered register!!
- If you want to chat about flip-flops, come and see us!!



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Questions?



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