Computer Systems Practical 6 25 May 2021

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| Counter results |
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| Modified code counter results Count up to F |
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| Modified code counter results. Count down from F |
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| With an if statement looking at the state if DEC one can toggle between counting up or down. |
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| If dec == 0 |
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|  | The counter counts till ten then is set to zero as seen in the code on the left. Ten in binary is 1010.  The code is then modified to count to F. F is 15 in decimal and 1111 in binary. |
|  | Modified code to allow counter to count to 15. |
|  | Modified code to count down from F to zero and then repeat.  Adding a if statement allows one to toggle between using a up counter or a down counter. |

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| Counter code with changes |
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| Counter\_sim.vhdl with code changes |
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