DSD ASSIGNMENT

VERILOG HDL

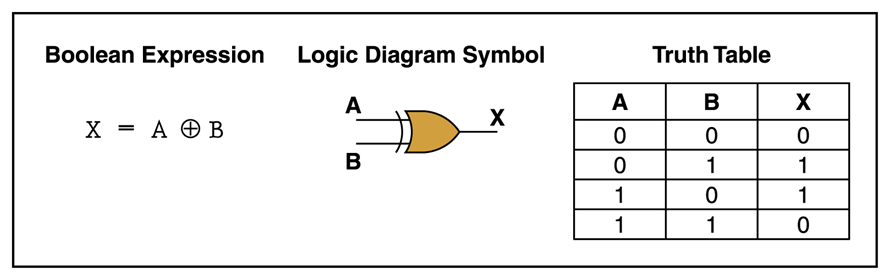
GATE LEVEL MODELLING, DATA FLOW LEVEL MODELLING, BEHAVIOURAL MODELLING

**BY – AAYUSH ARORA**

**EE17BTECH11003**

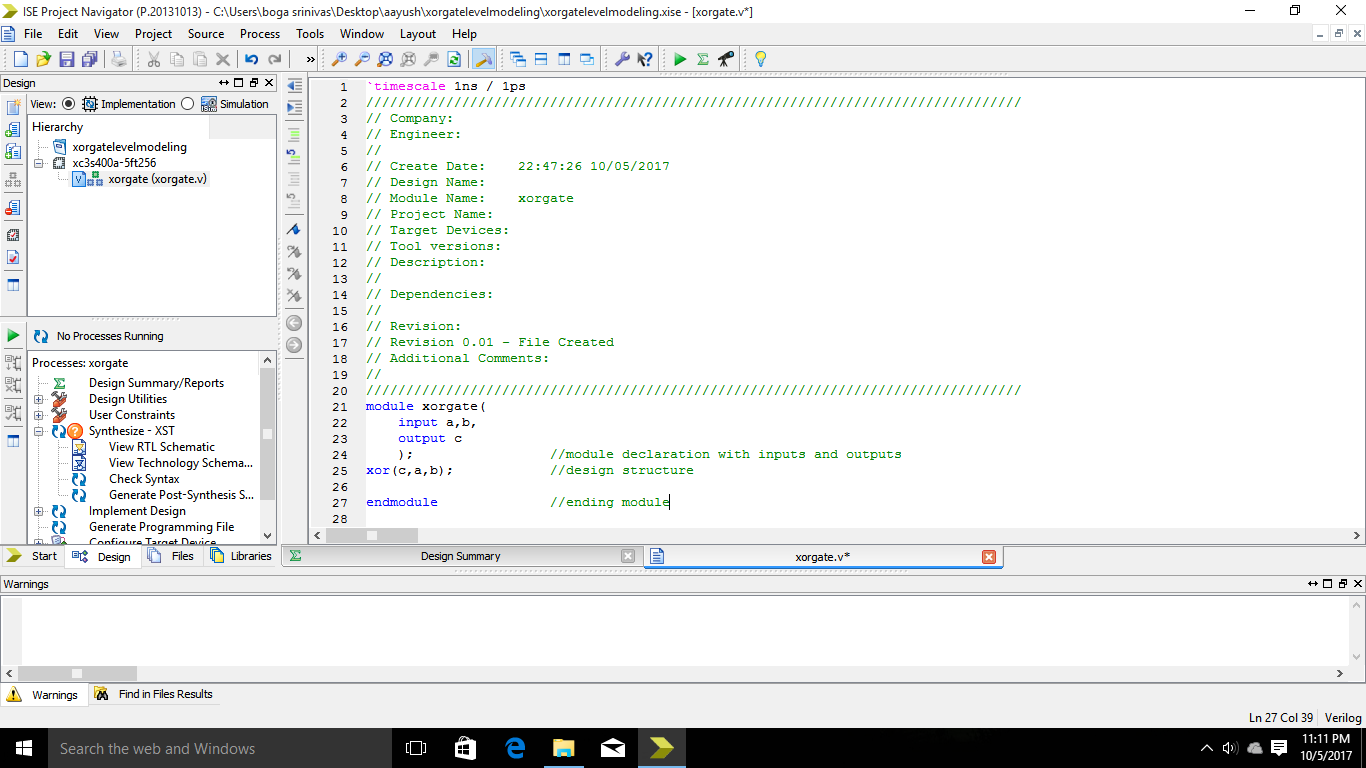
**XOR GATE:-**

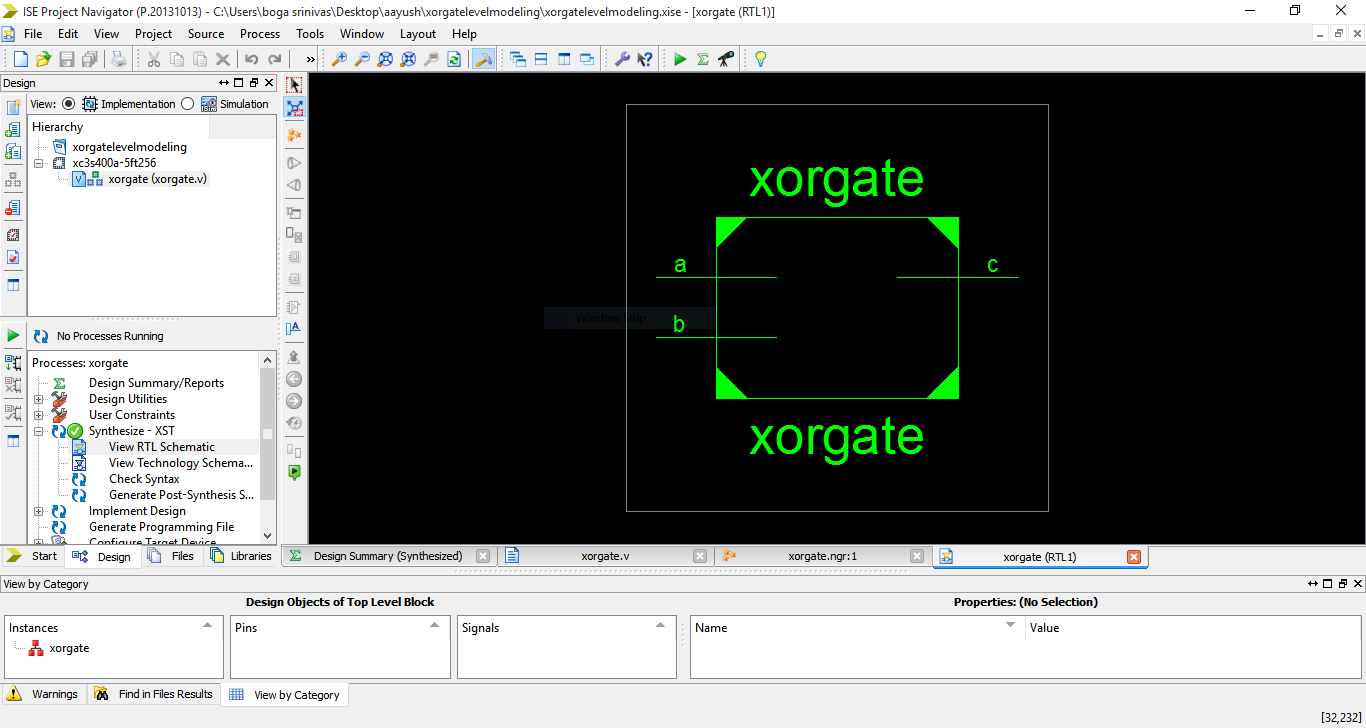
The XOR gate is a digital logic gate that gives a true (1/HIGH) output when the number of true inputs are odd.

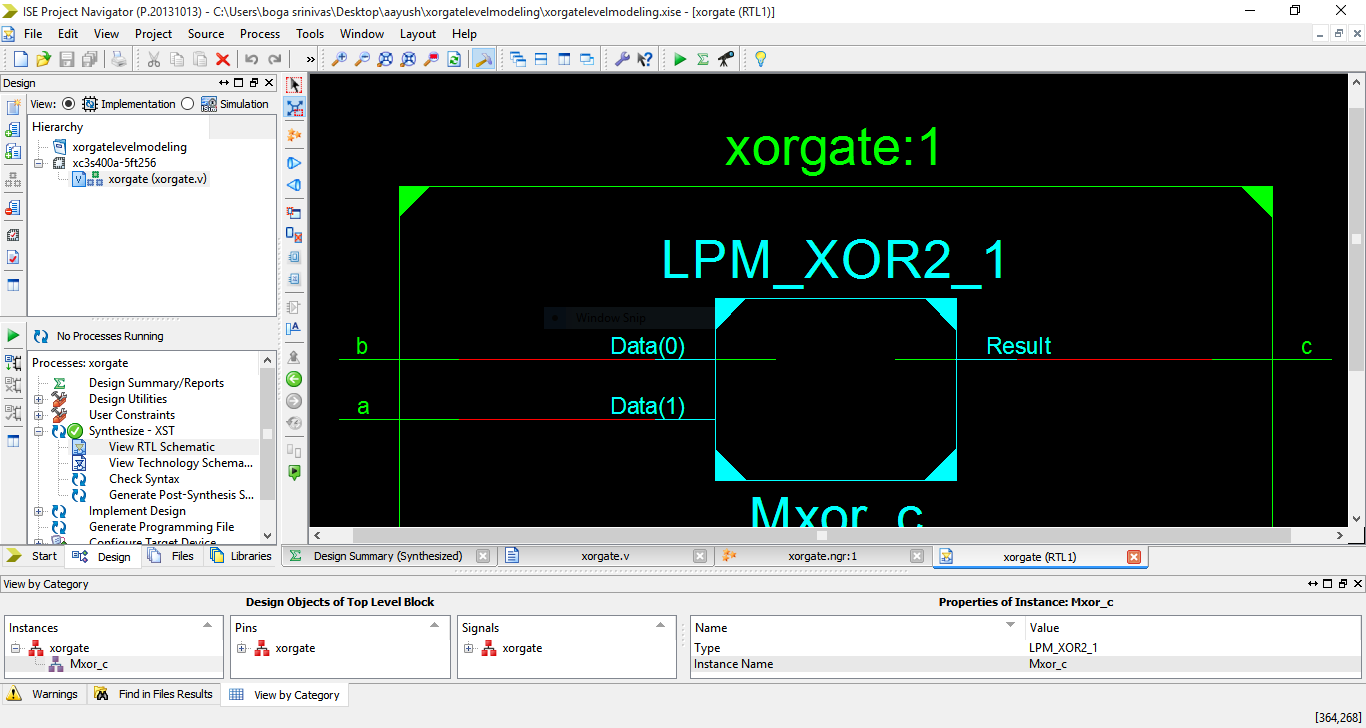


* **DATA FLOW MODEL**

**PROGRAM CODE**

** NETS-**

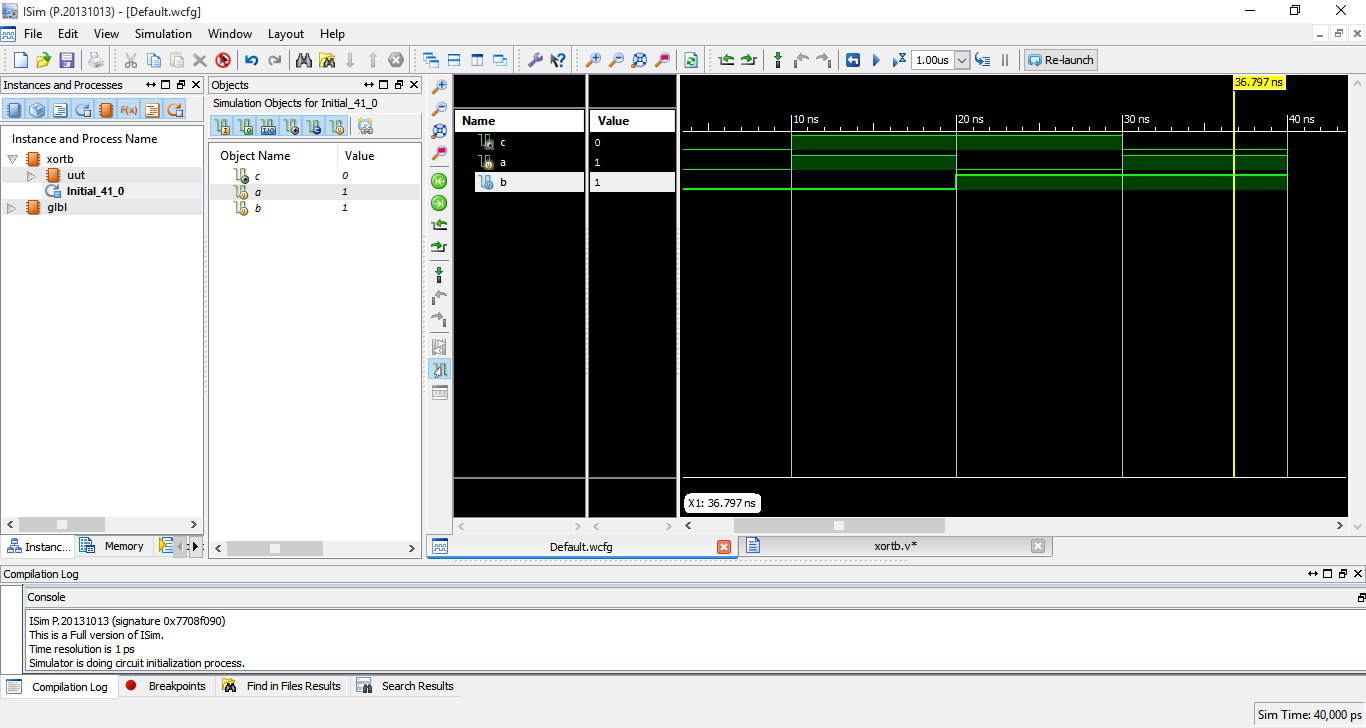
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STIMULUS-

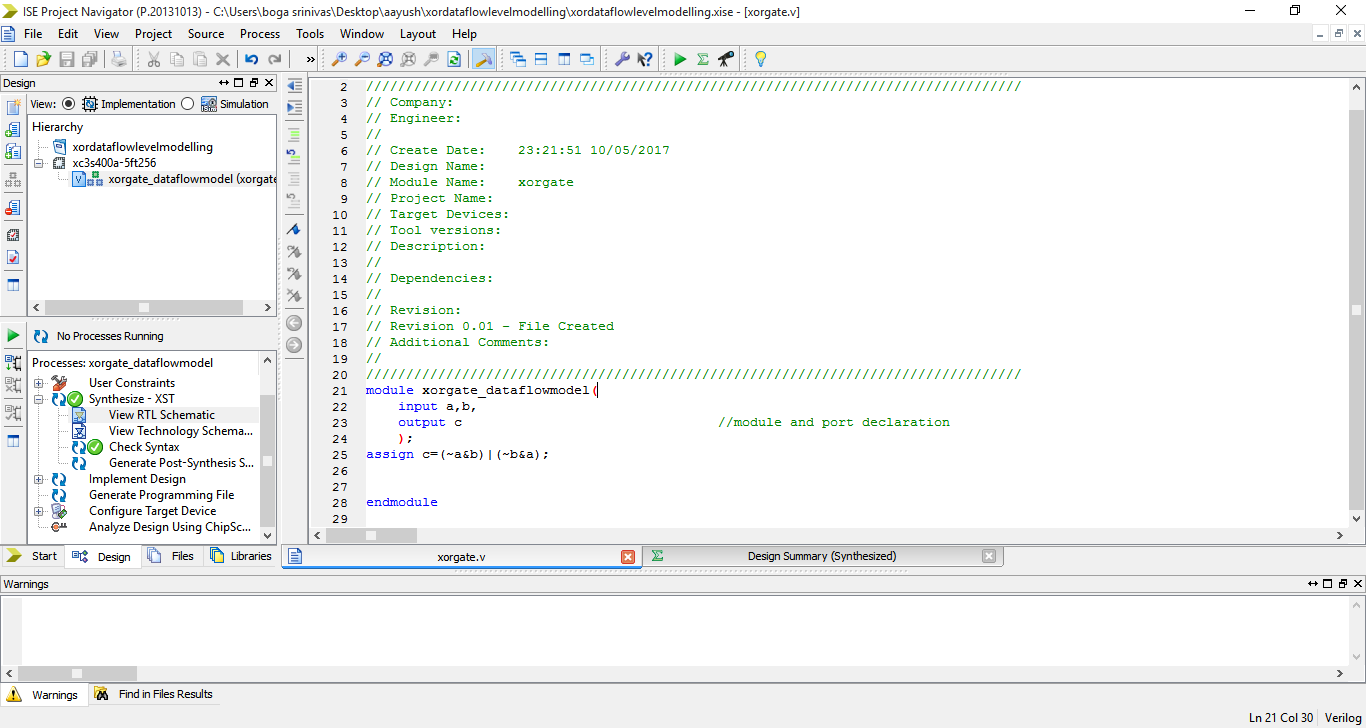


WAVE FORM-

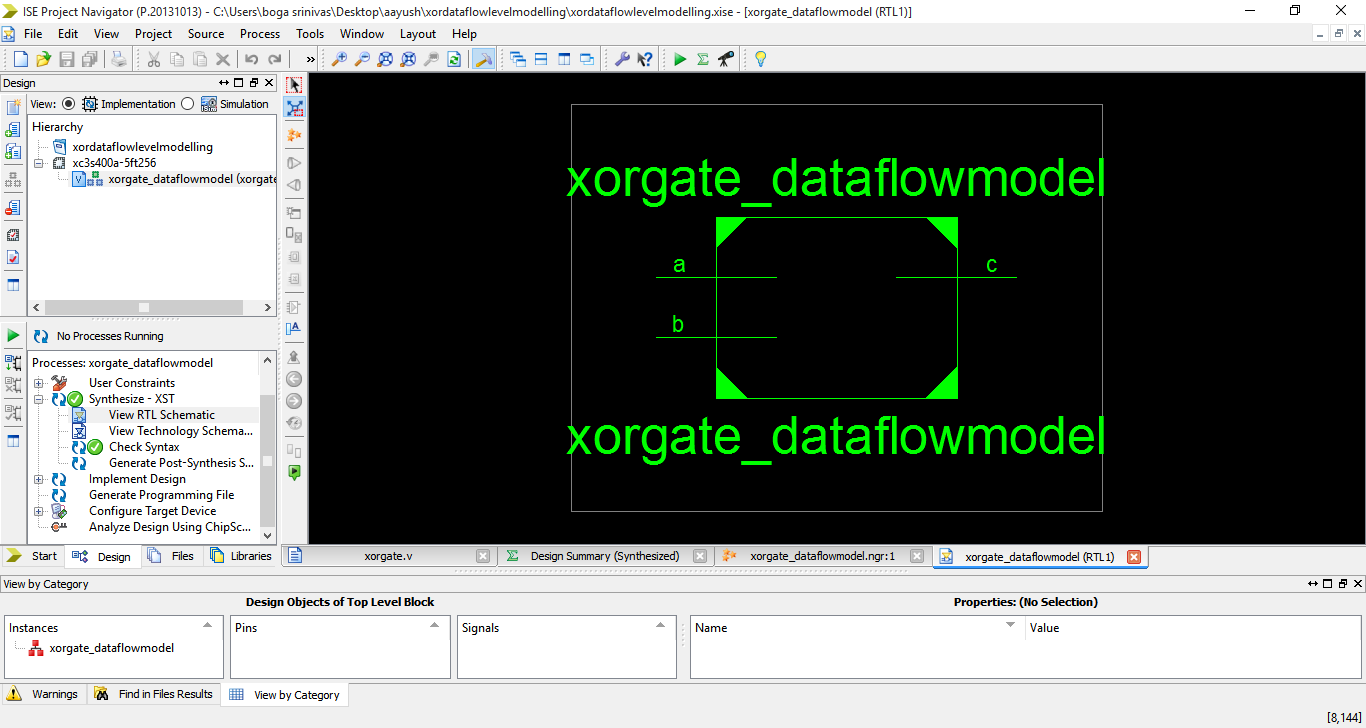


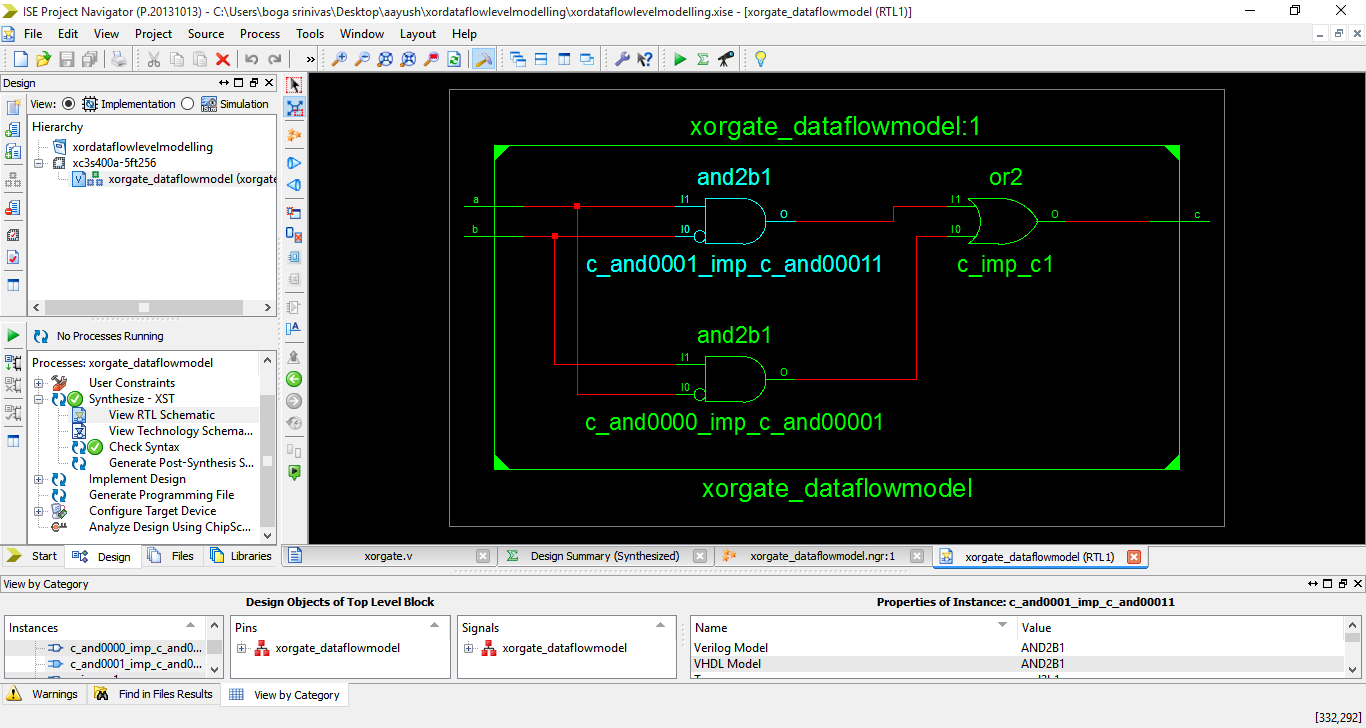
* **DATA FLOW MODEL**

**PROGRAM CODE**

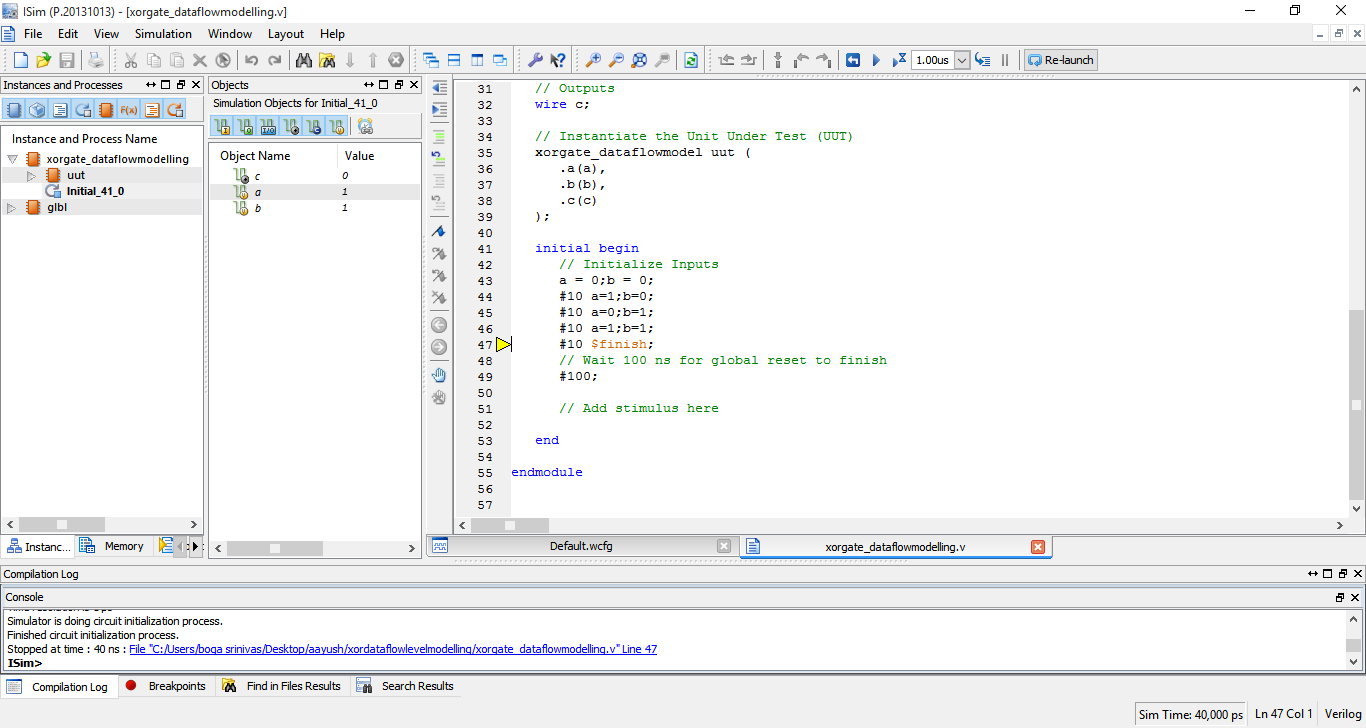
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**NETS**

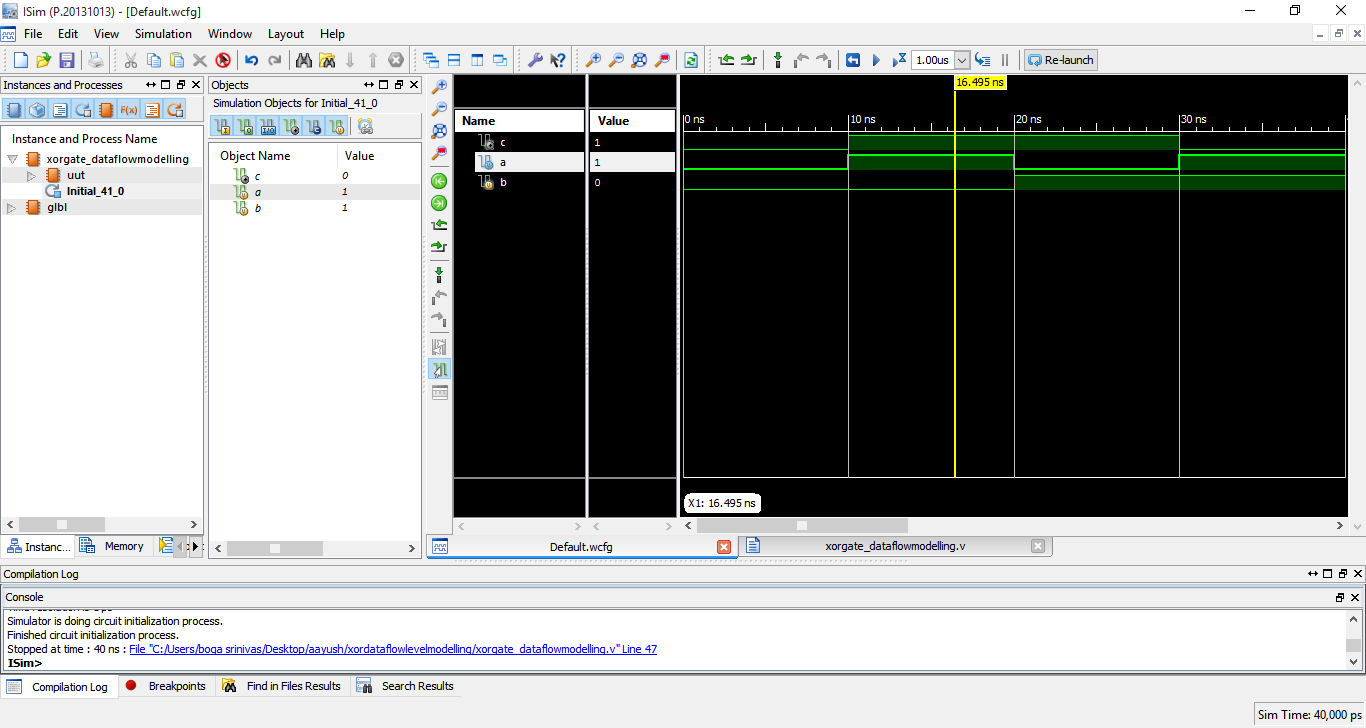
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**STIMULUS**

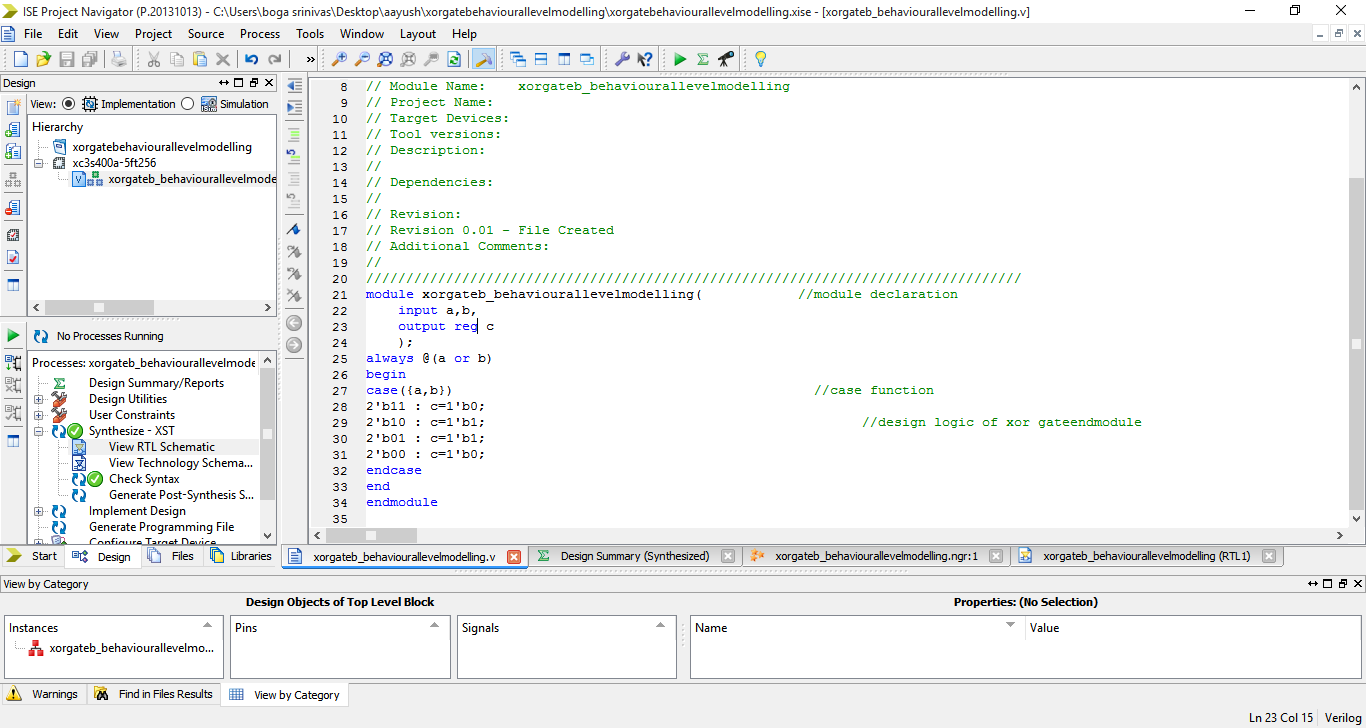
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**WAVE FORM**

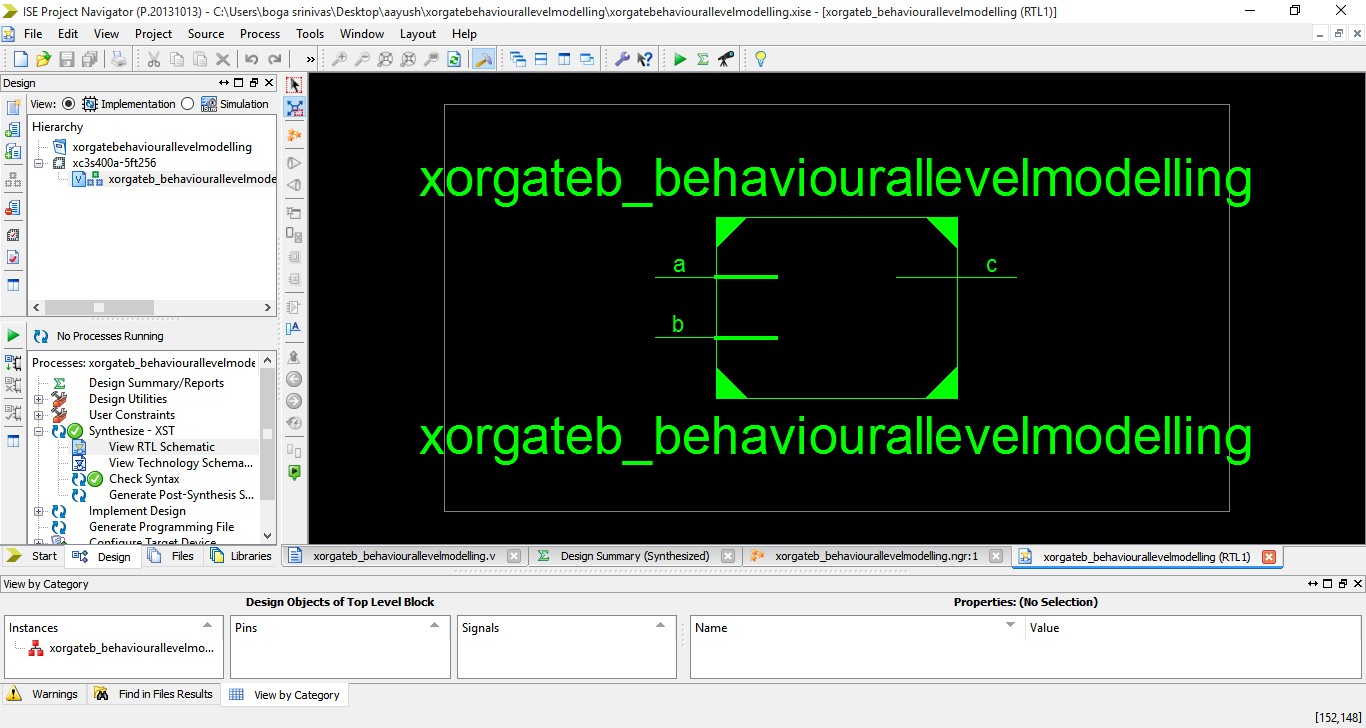
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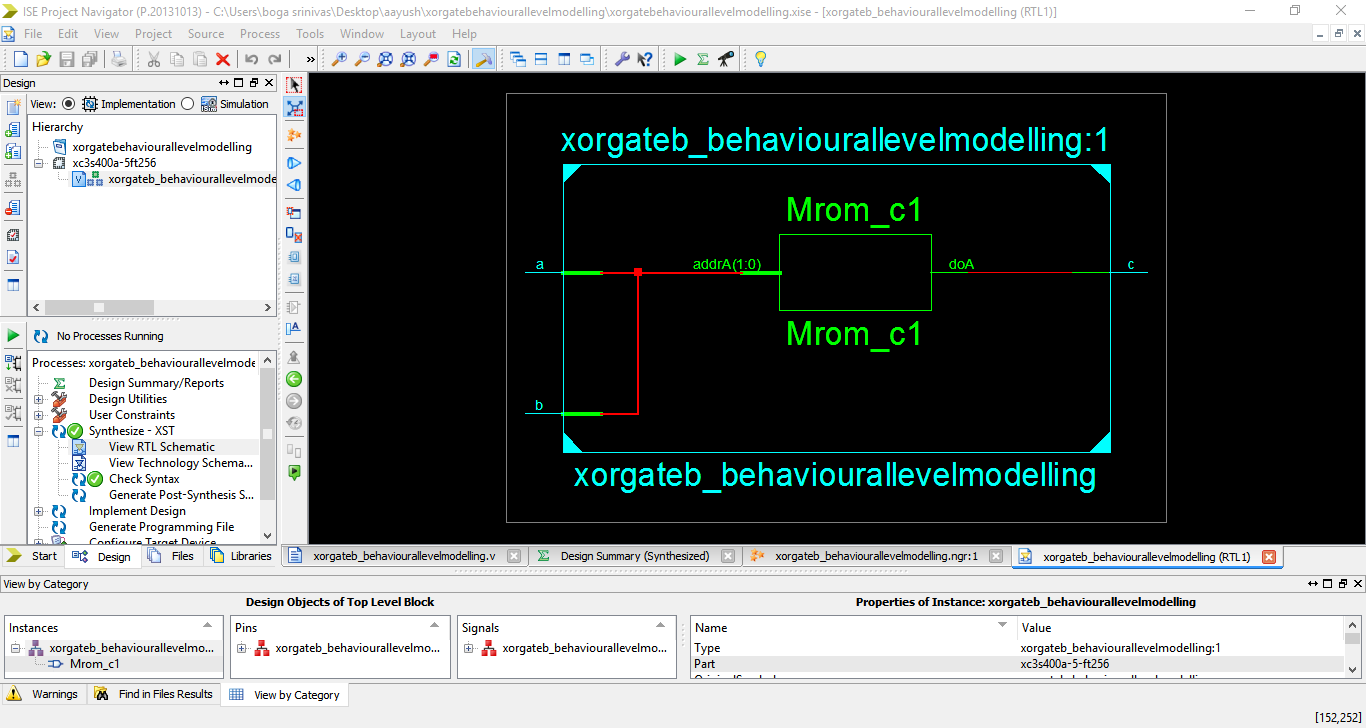
* **BEHAVIOURAL MODEL**

**PROGRAM CODE**

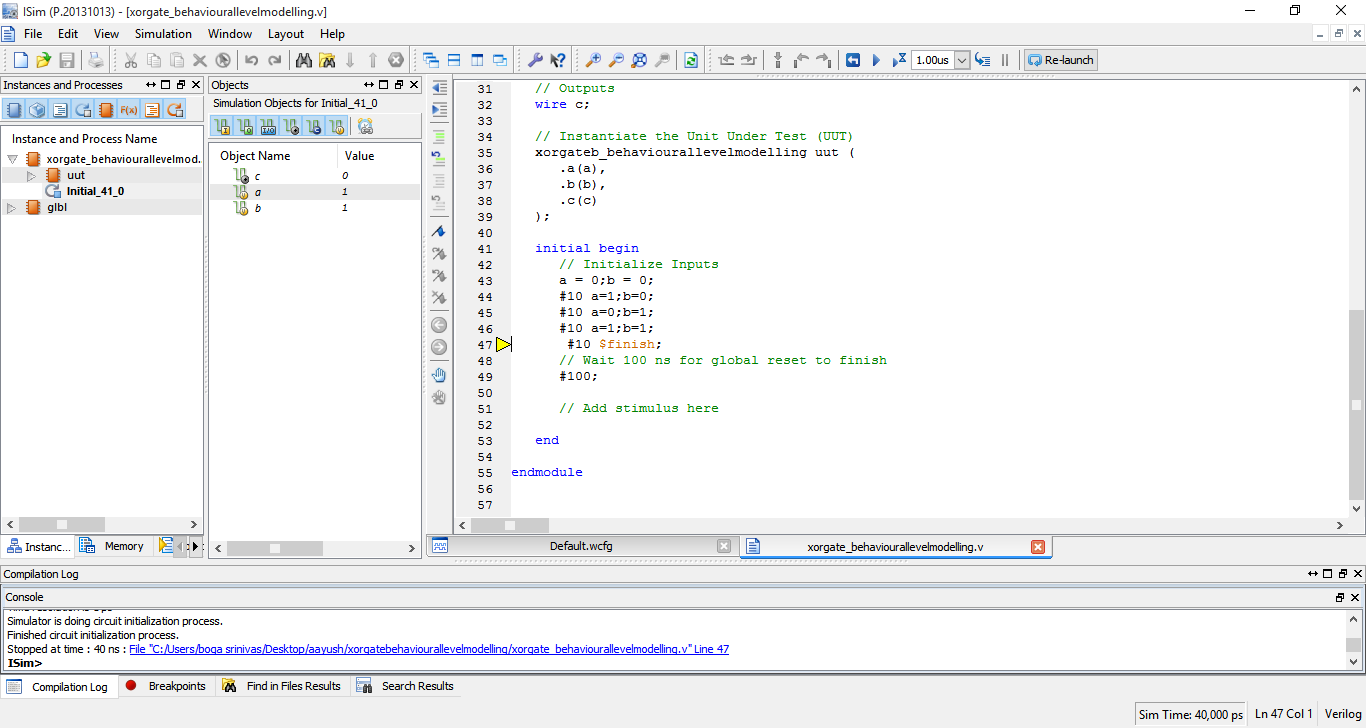
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**NETS**

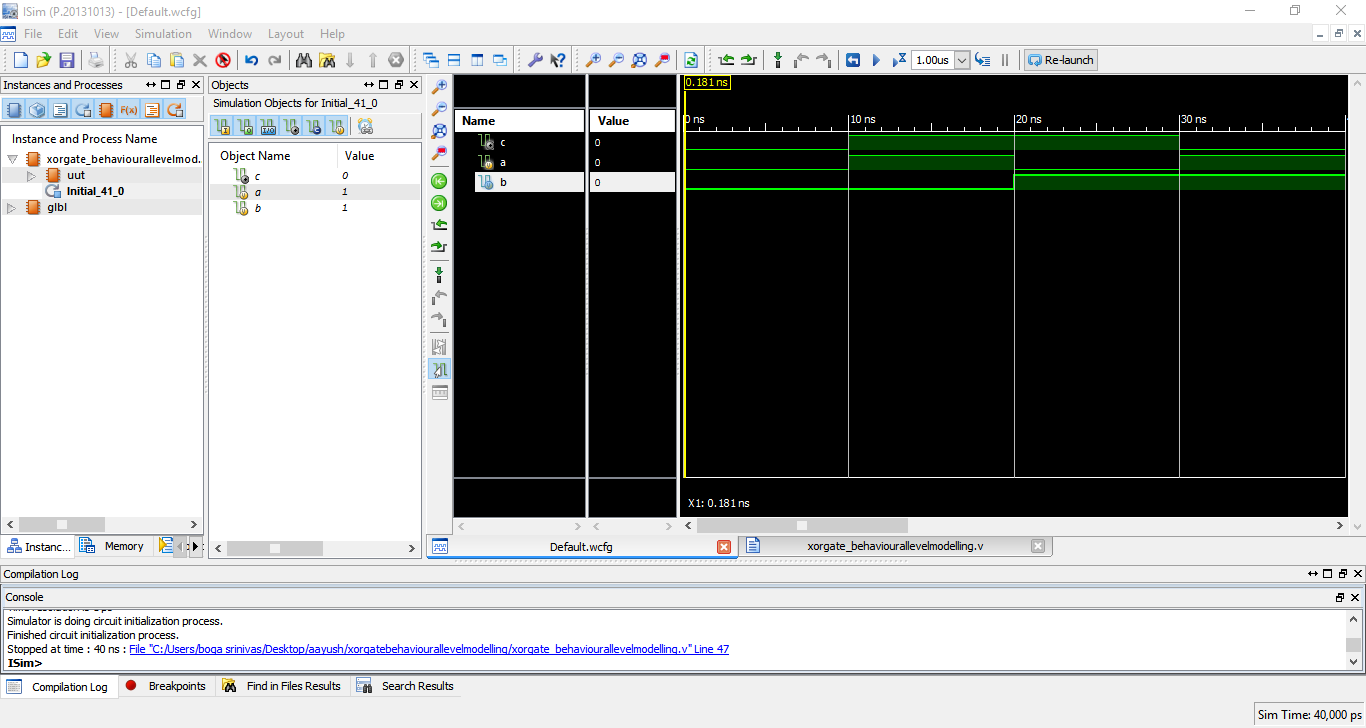
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**STIMULUS**

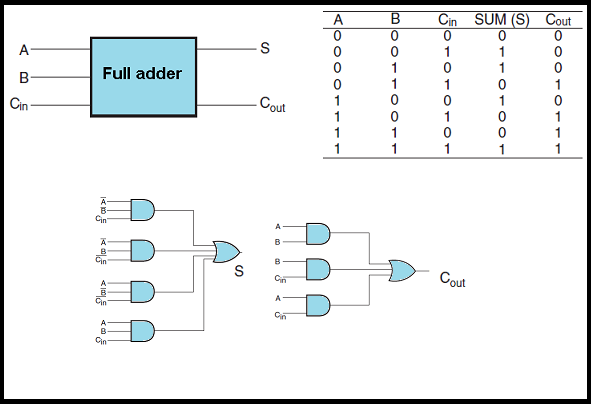
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**WAVE FORM**

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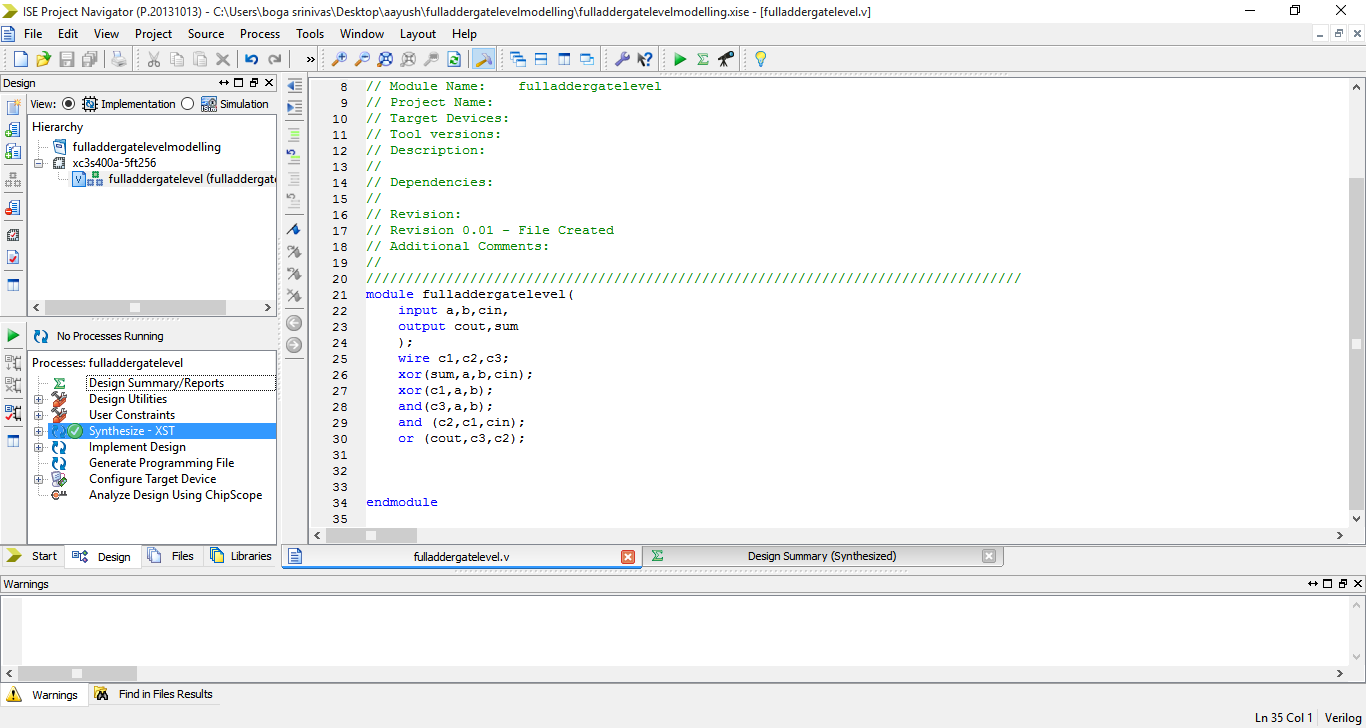
FULL ADDER:-

A full adder is a combinational circuit that adds two bits taking in account the carry input and giving sum of two numbers along with carry output for further manipulation.

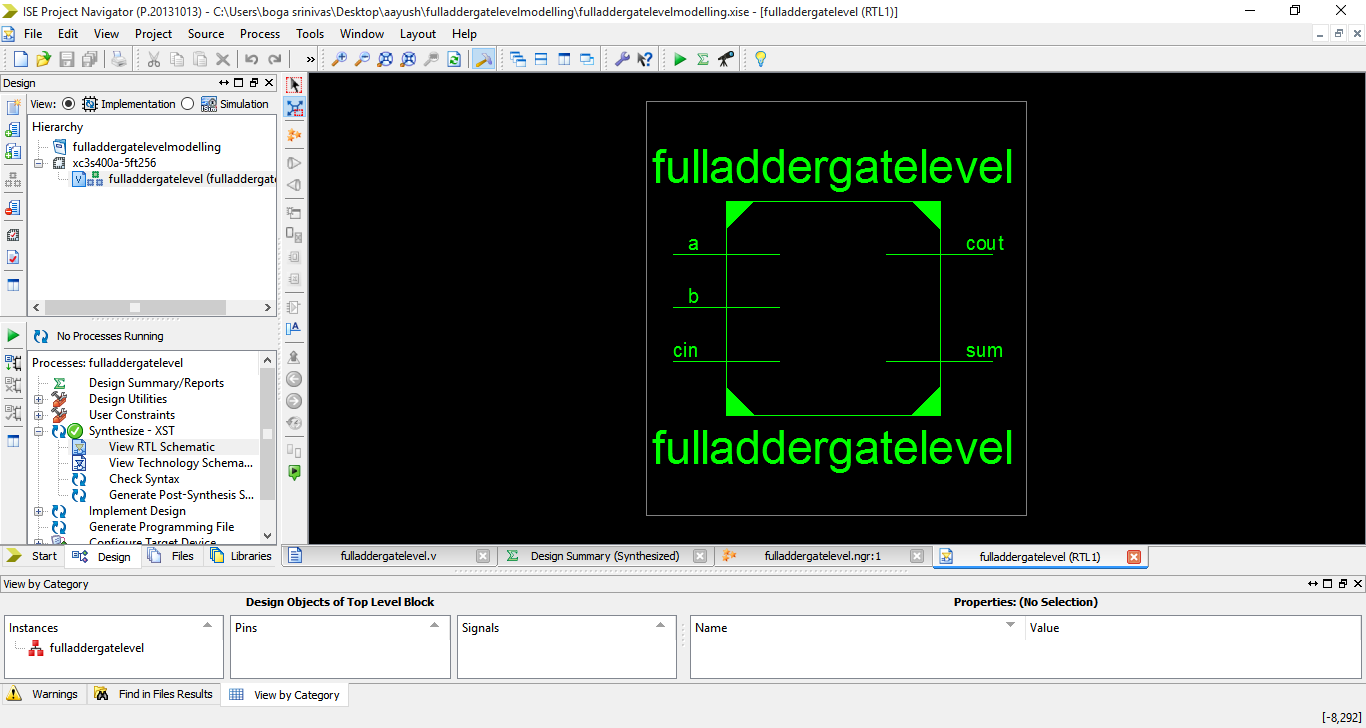


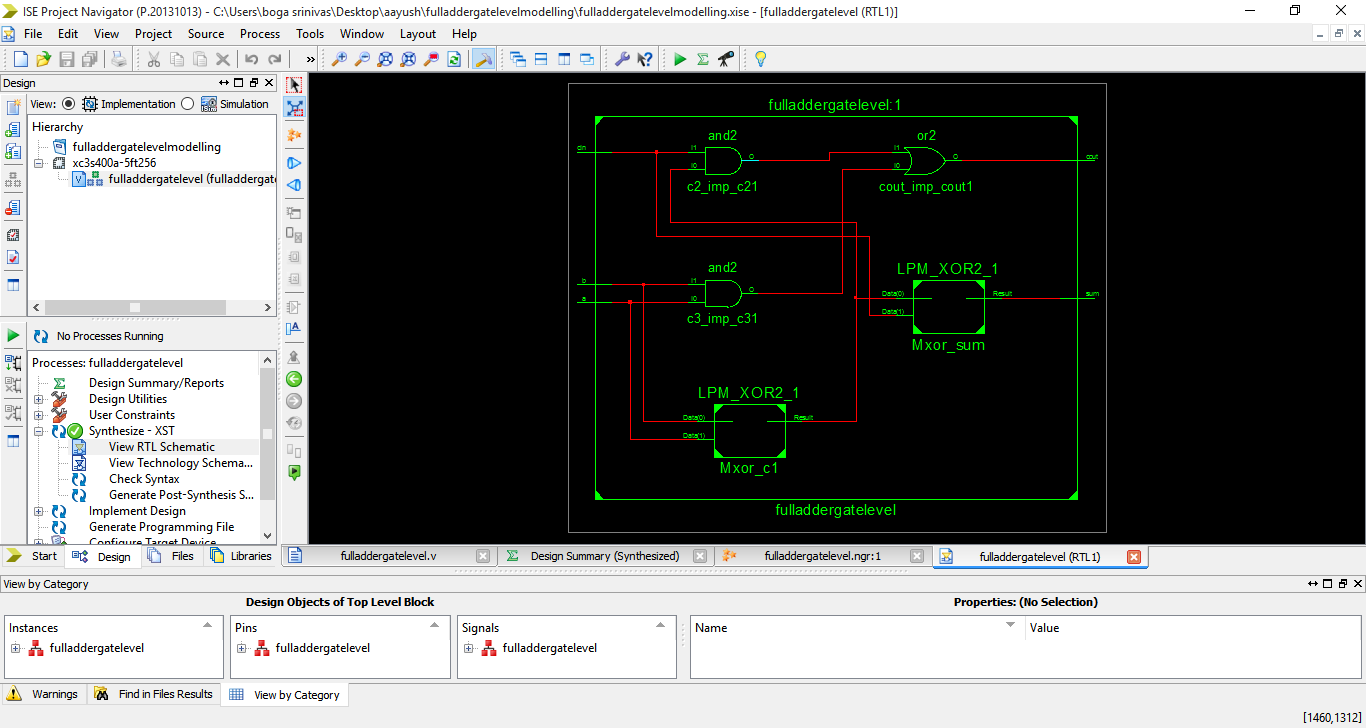
* **GATE LEVEL MODEL**

**PROGRAM CODE**

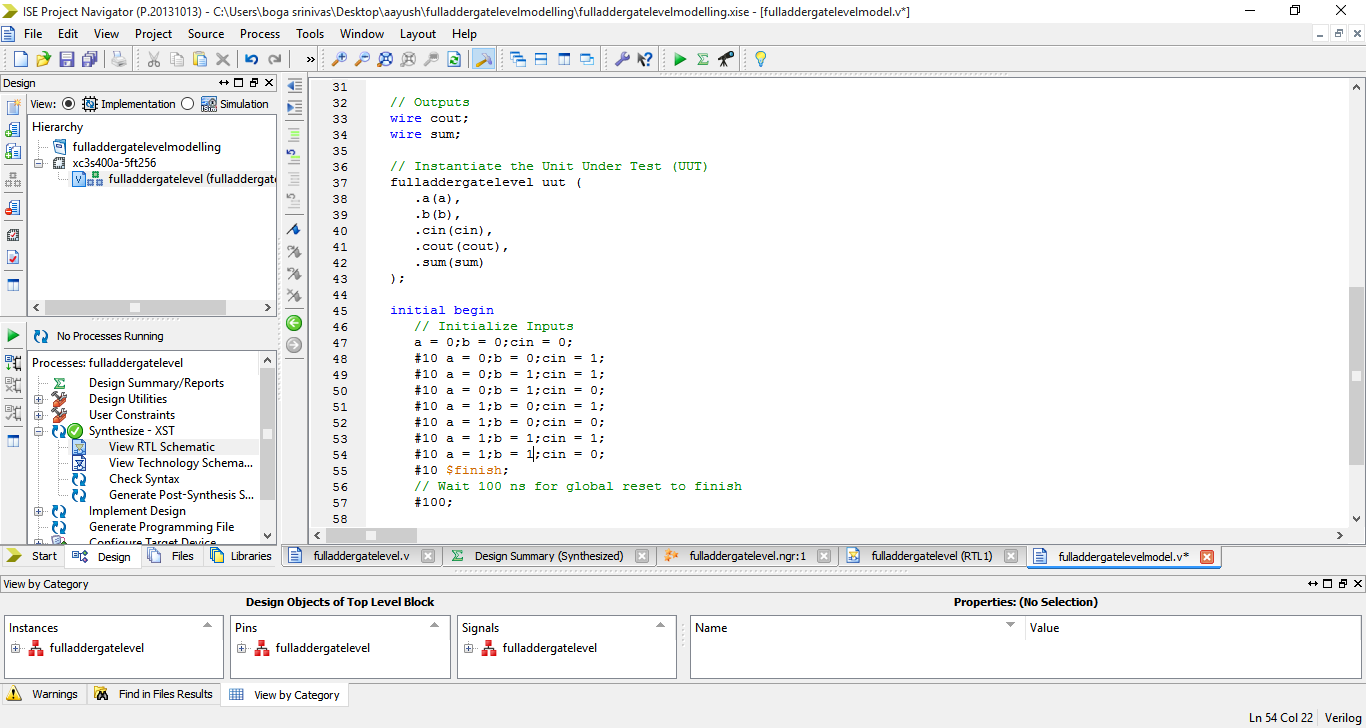
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**NETS**

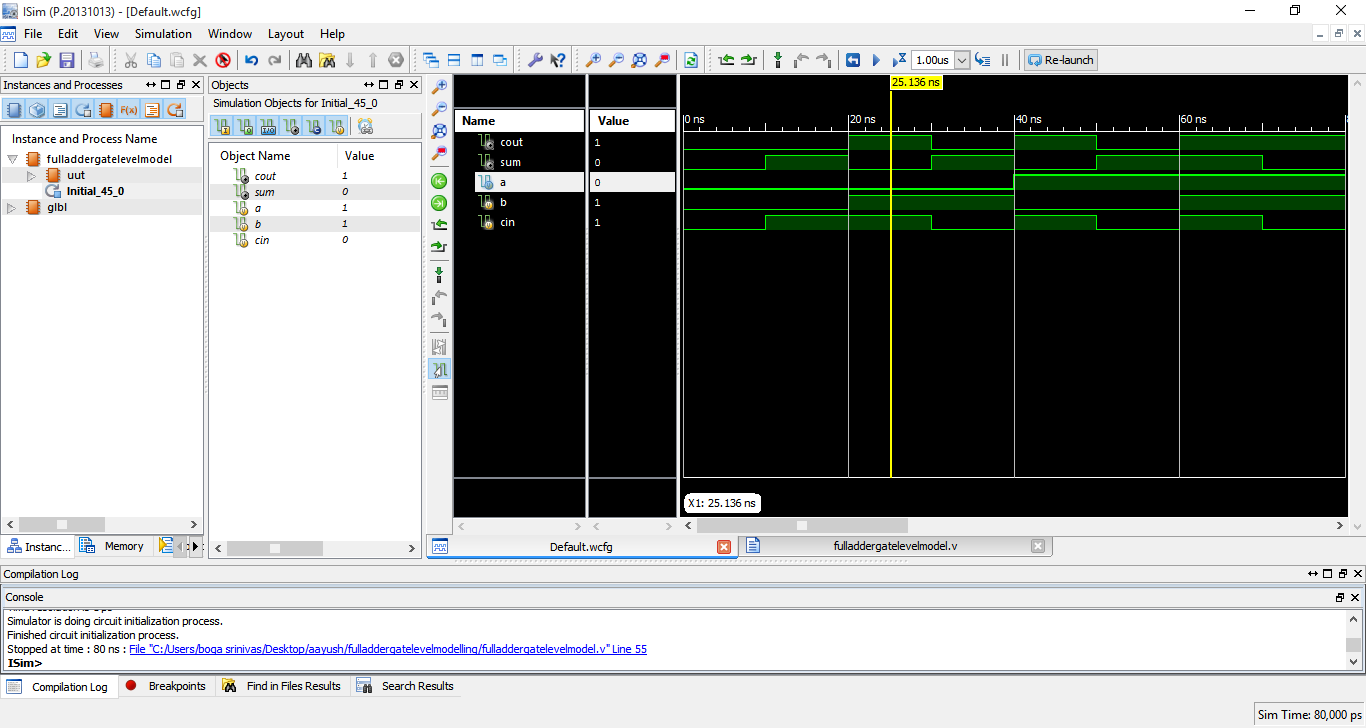
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**STIMULUS**

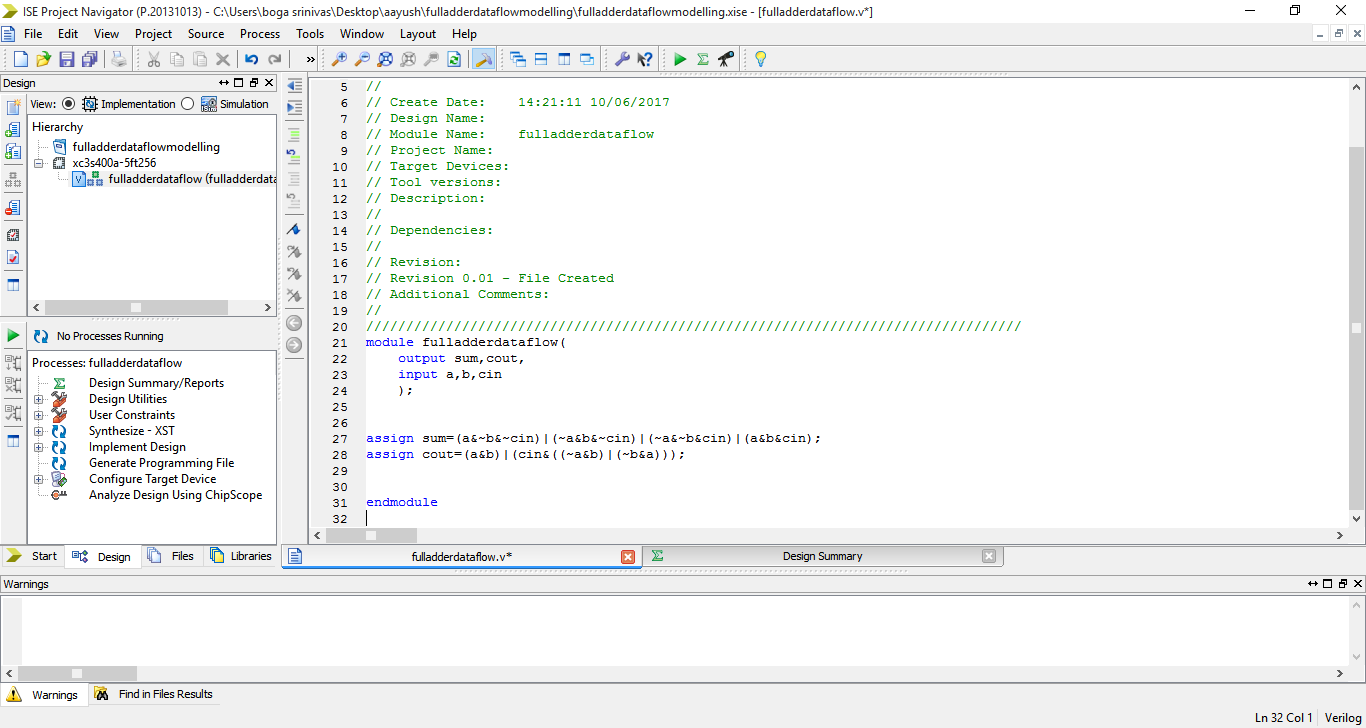
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**WAVE FORM**

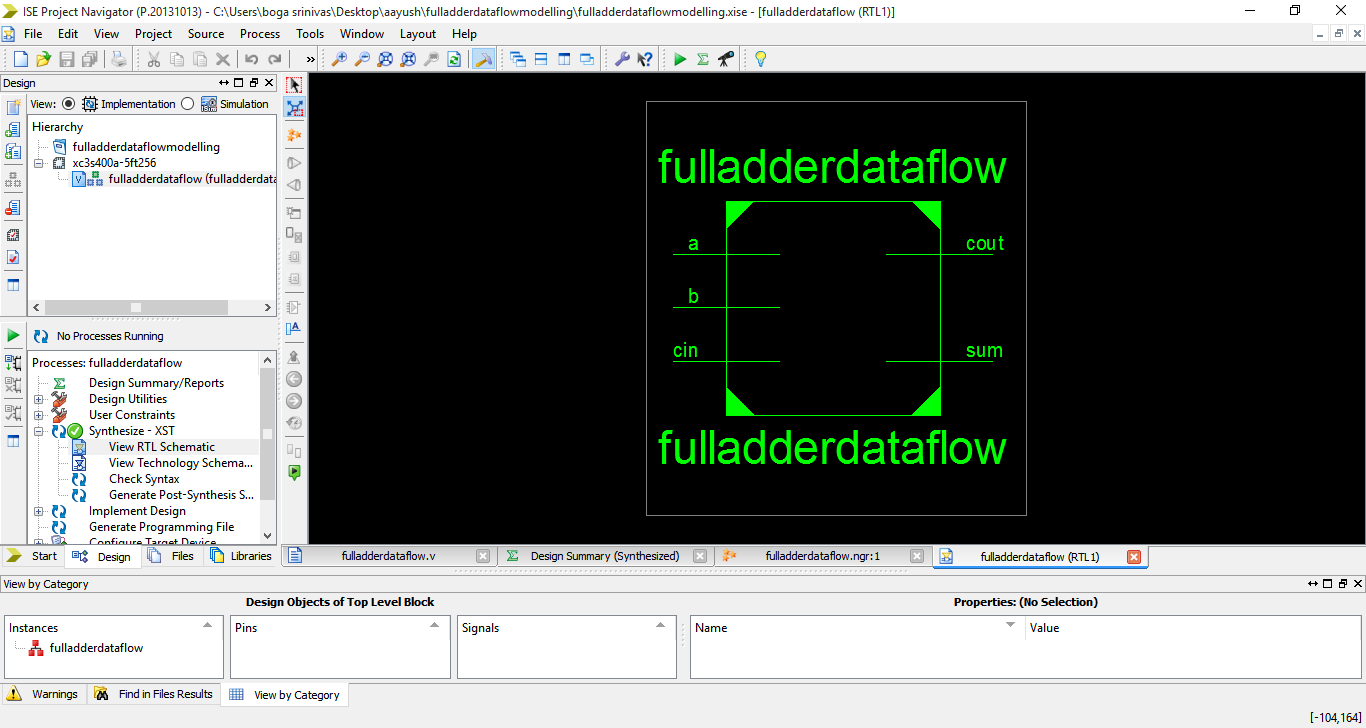
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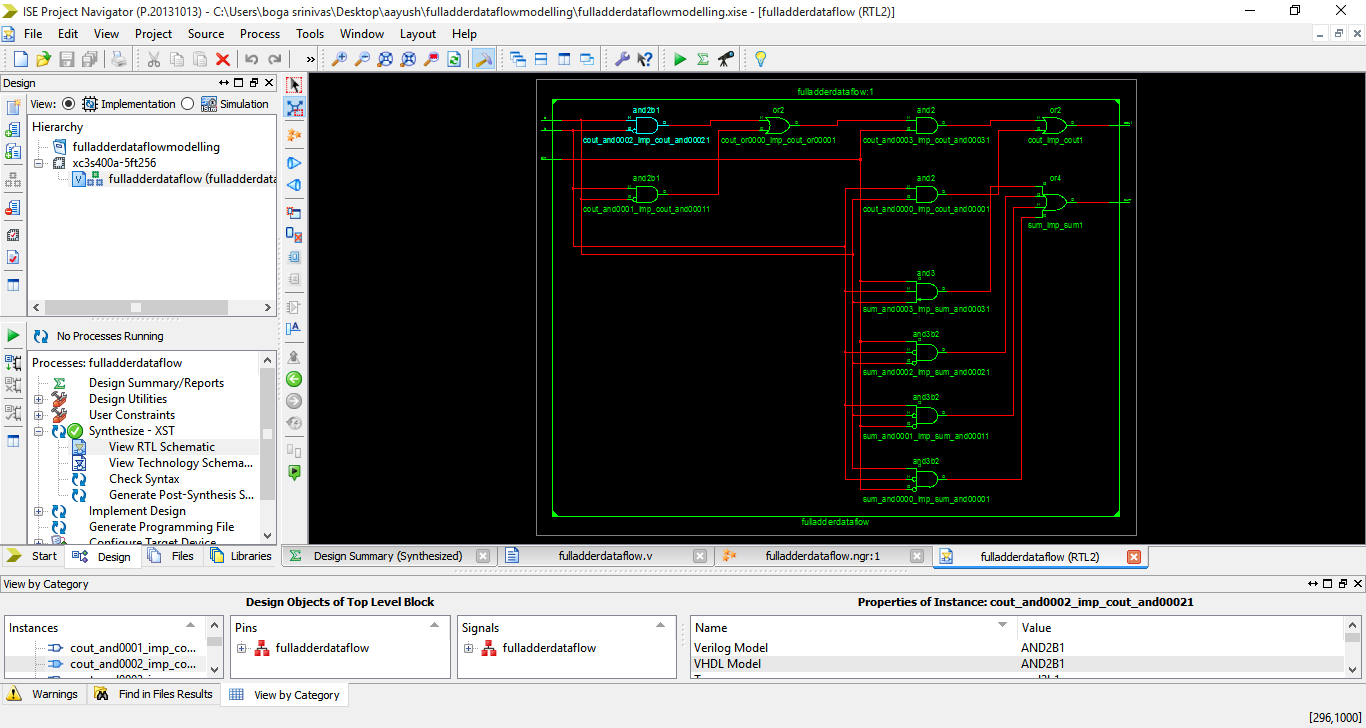
* **DATA FLOW MODEL**

**PROGRAM CODE**

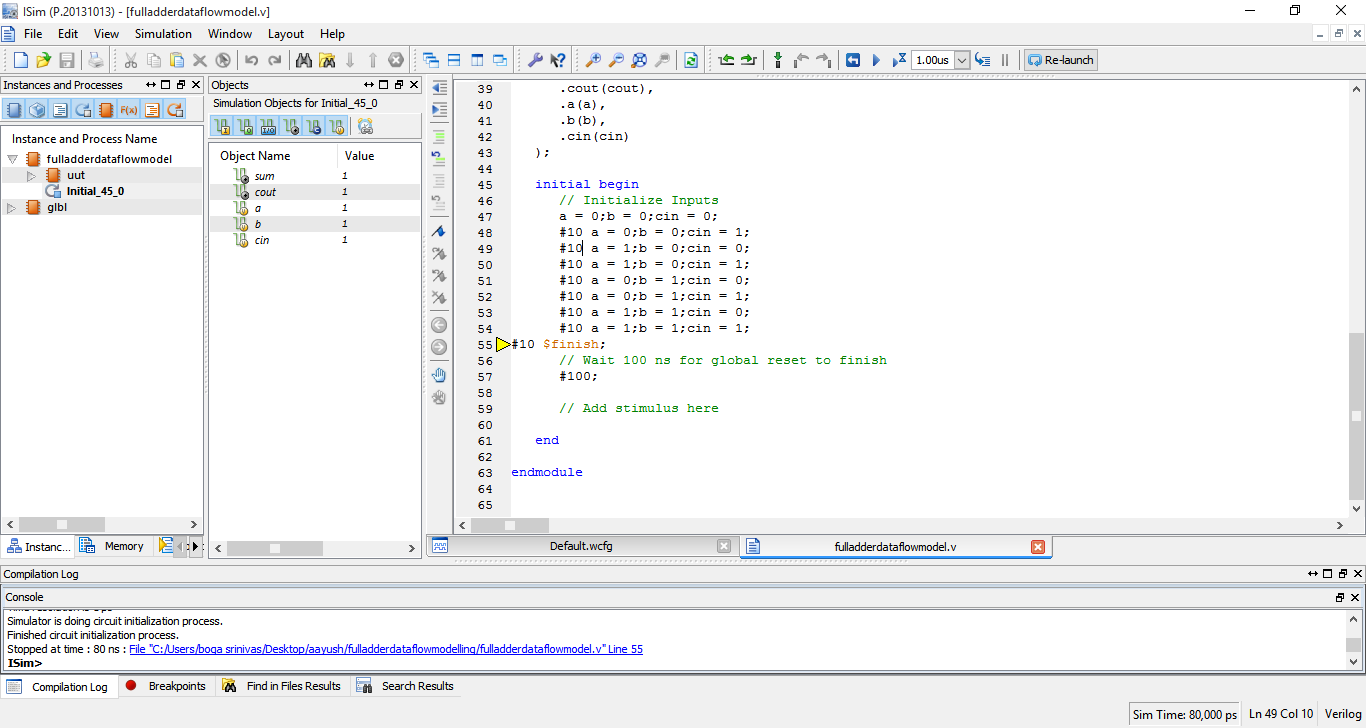
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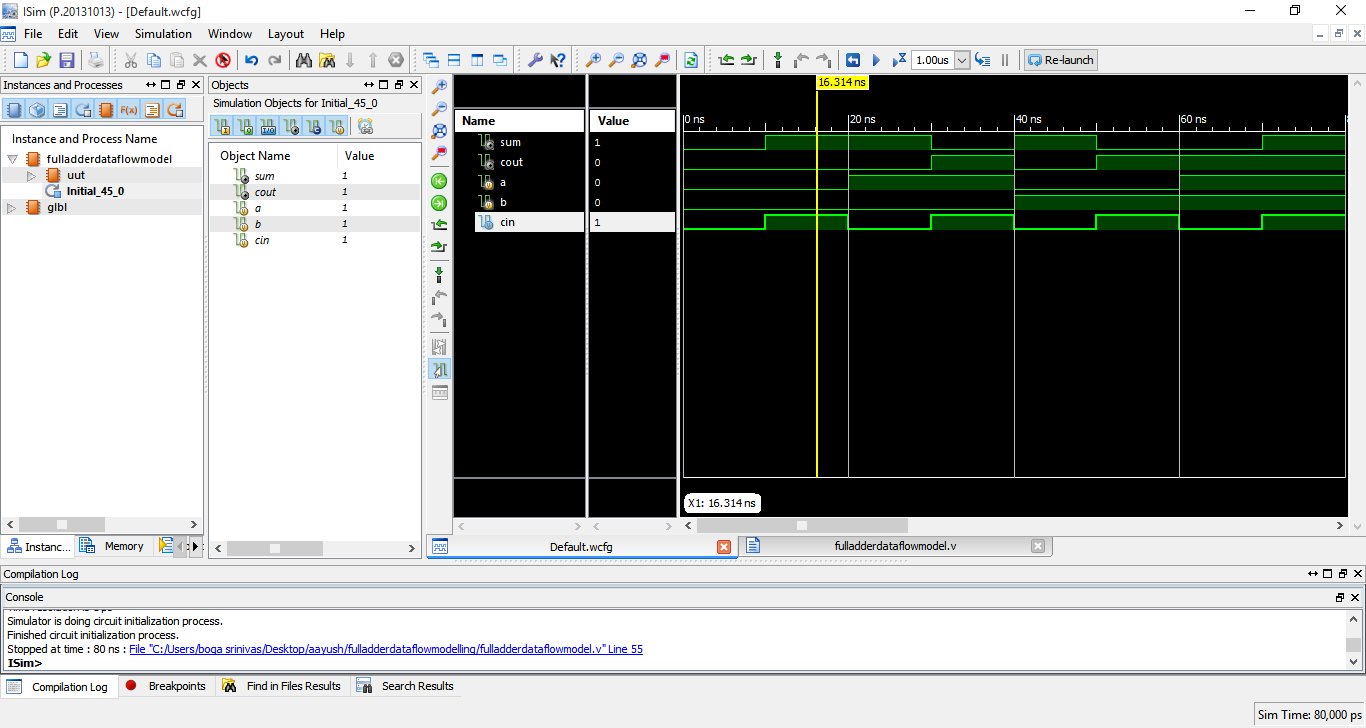
**NETS**

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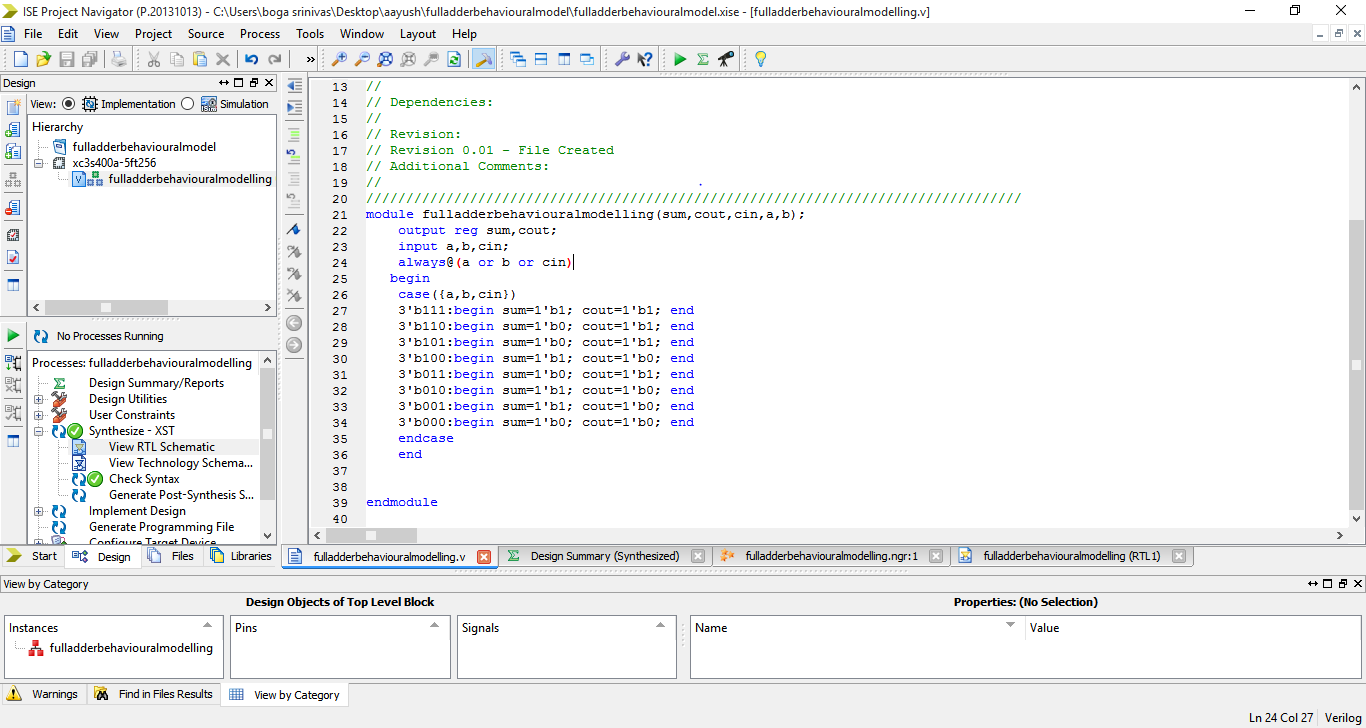
**STIMULUS**

** WAVE FORM**

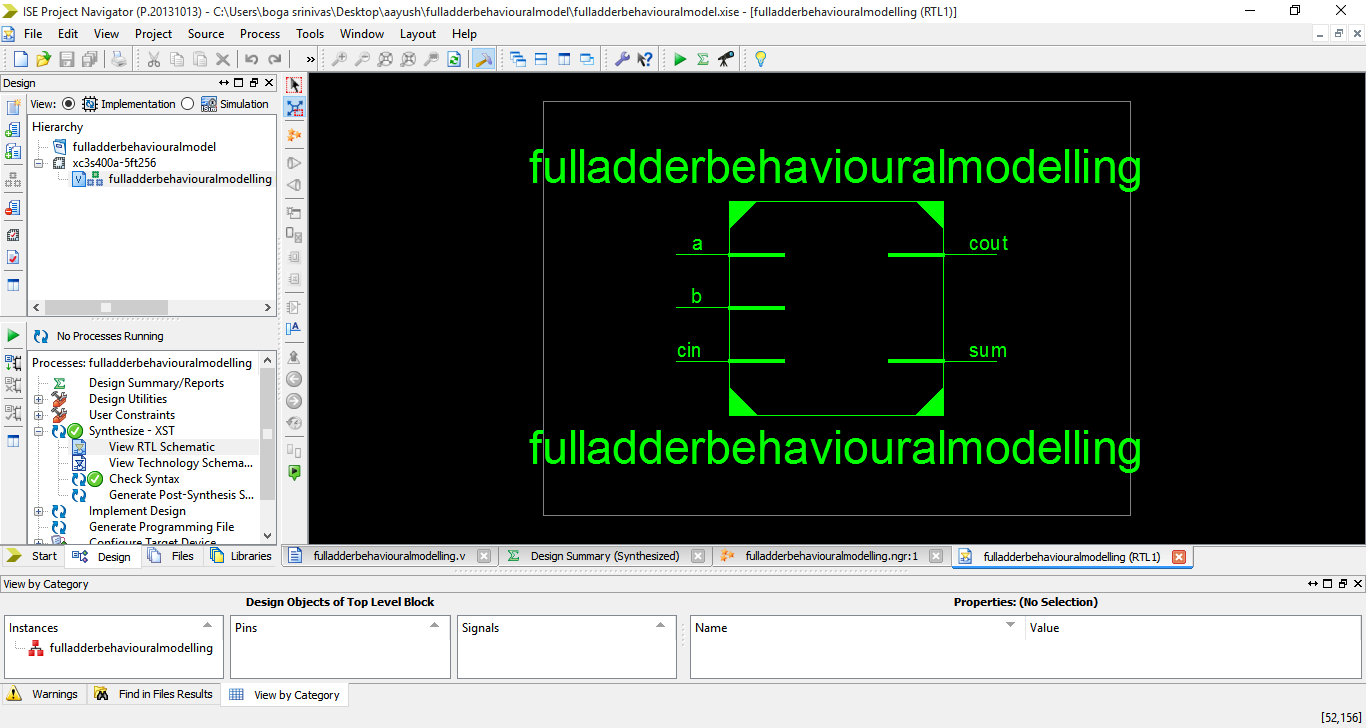
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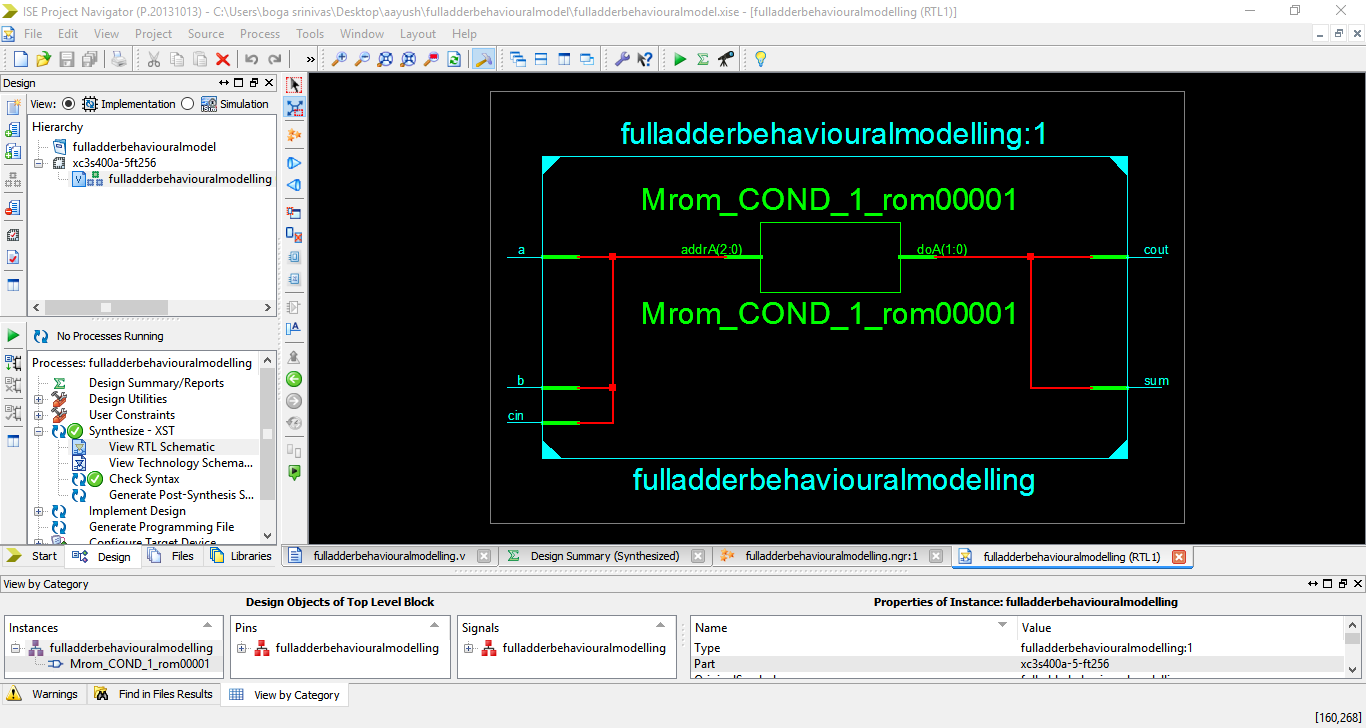
* **BEHAVIOURAL MODEL**

**PROGRAM CODE**

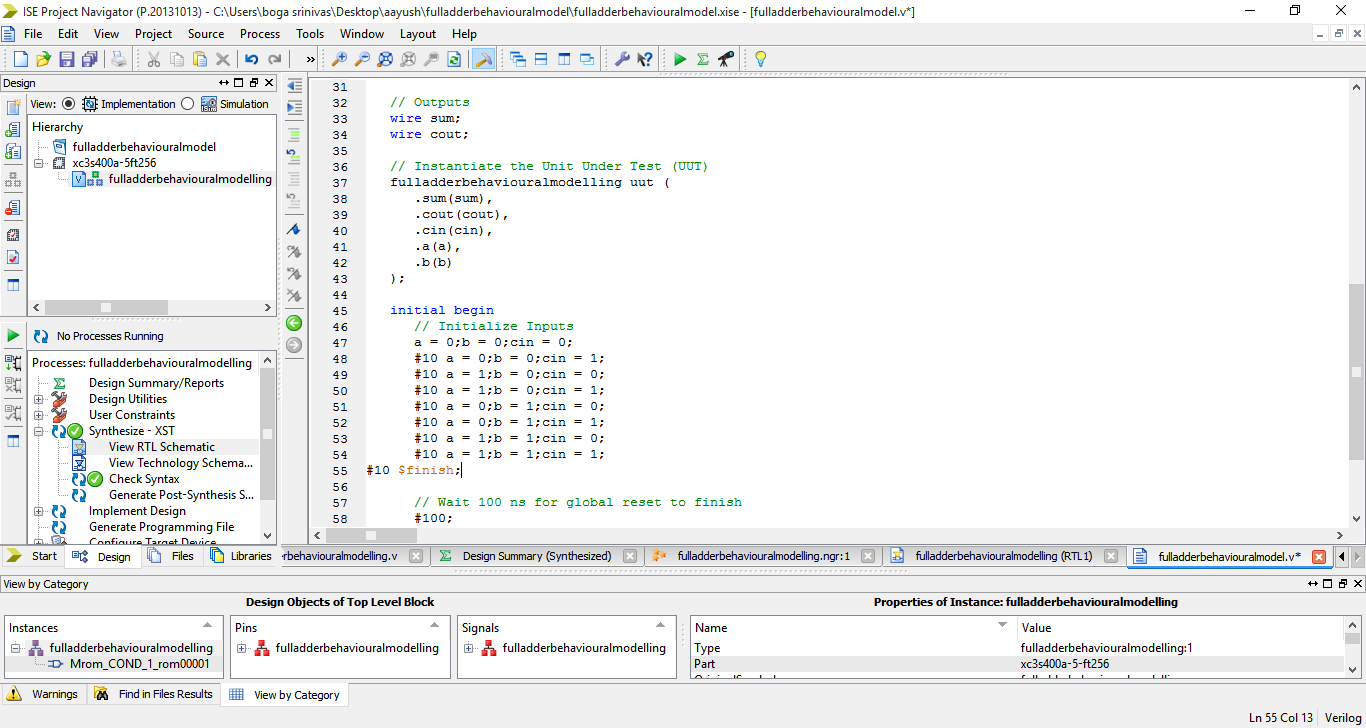
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**NETS**

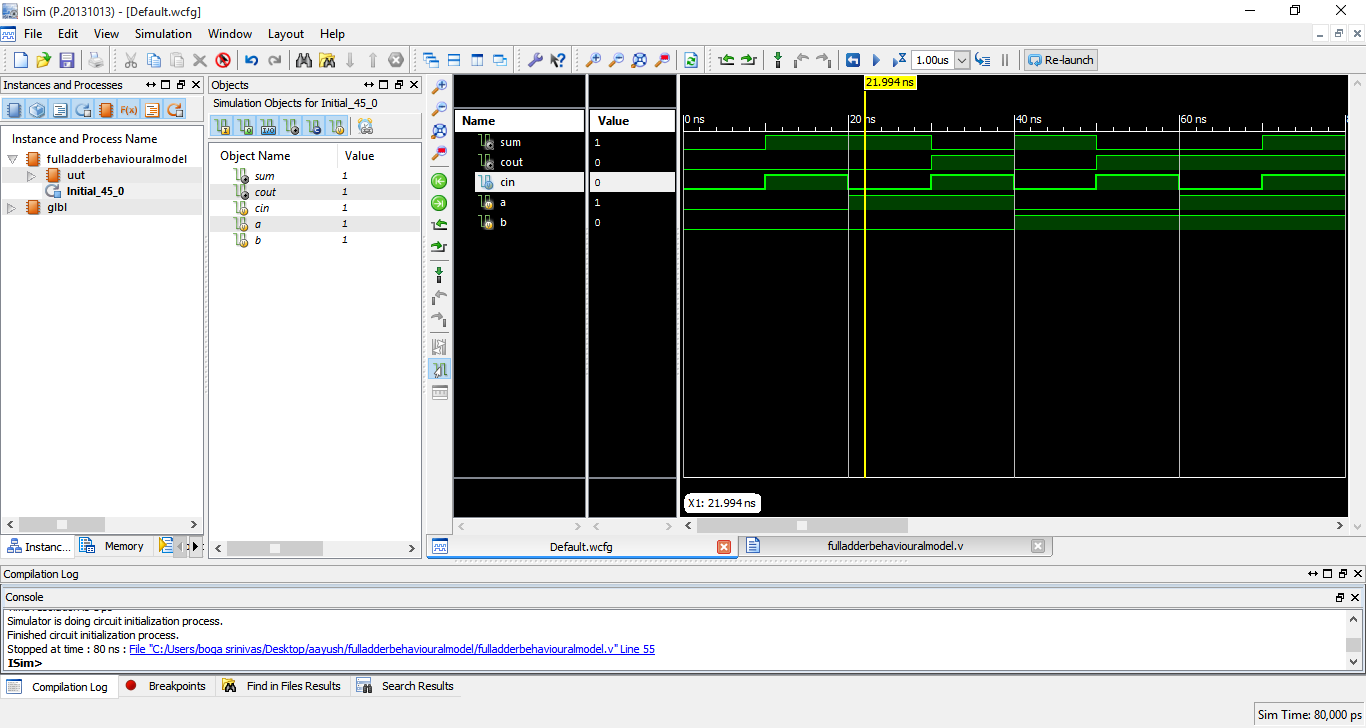
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**STIMULUS**

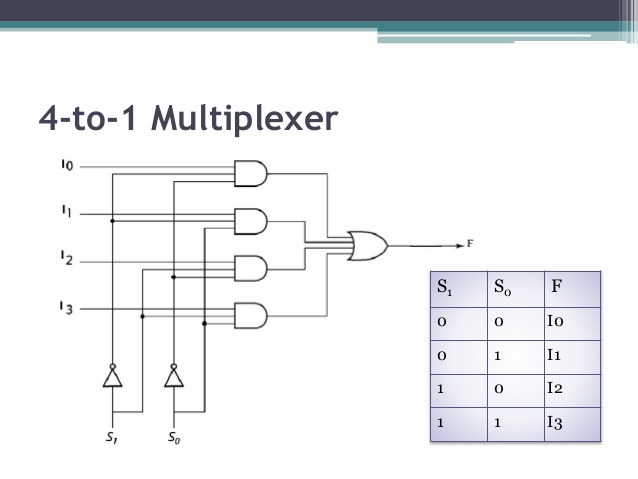
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**WAVE FORM**

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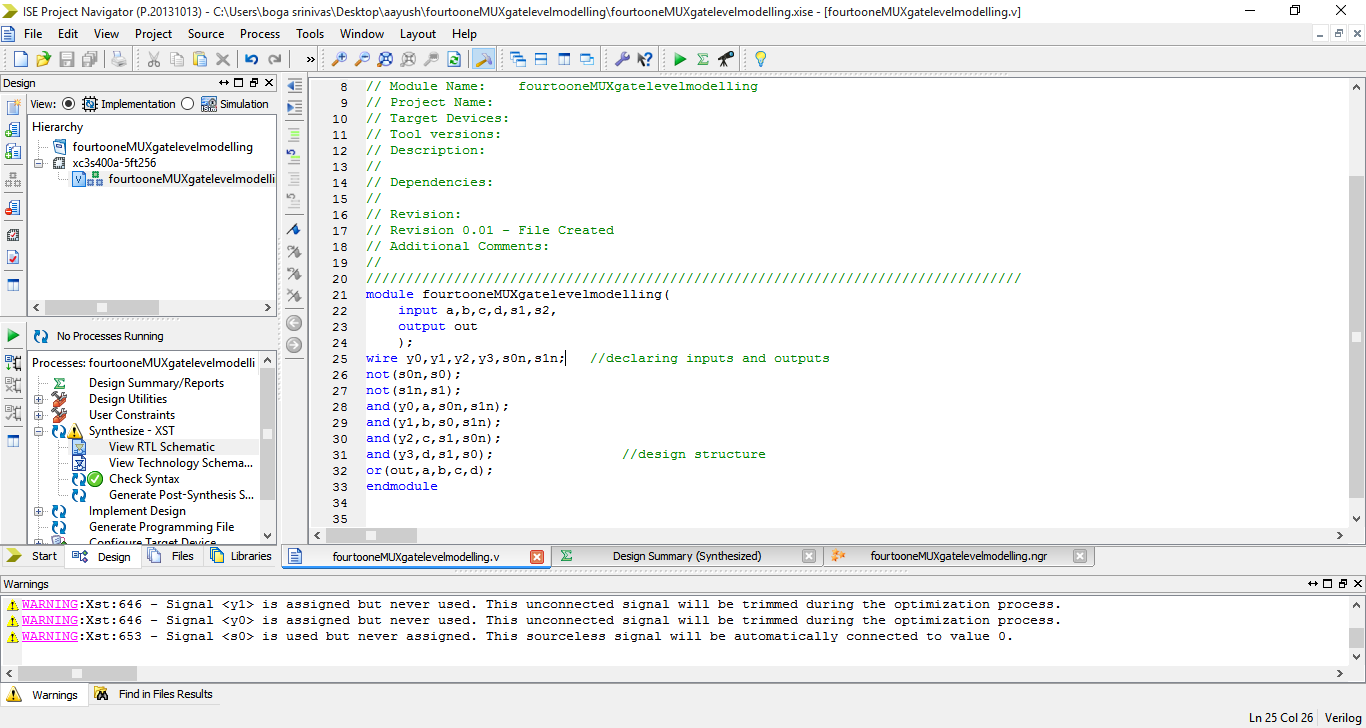
**4 to 1 Multiplexer:-**

A 4 to 1 multiplexer is basically a selector that selects any one of 4 inputs using control switches (S1 and S0) and giving them output

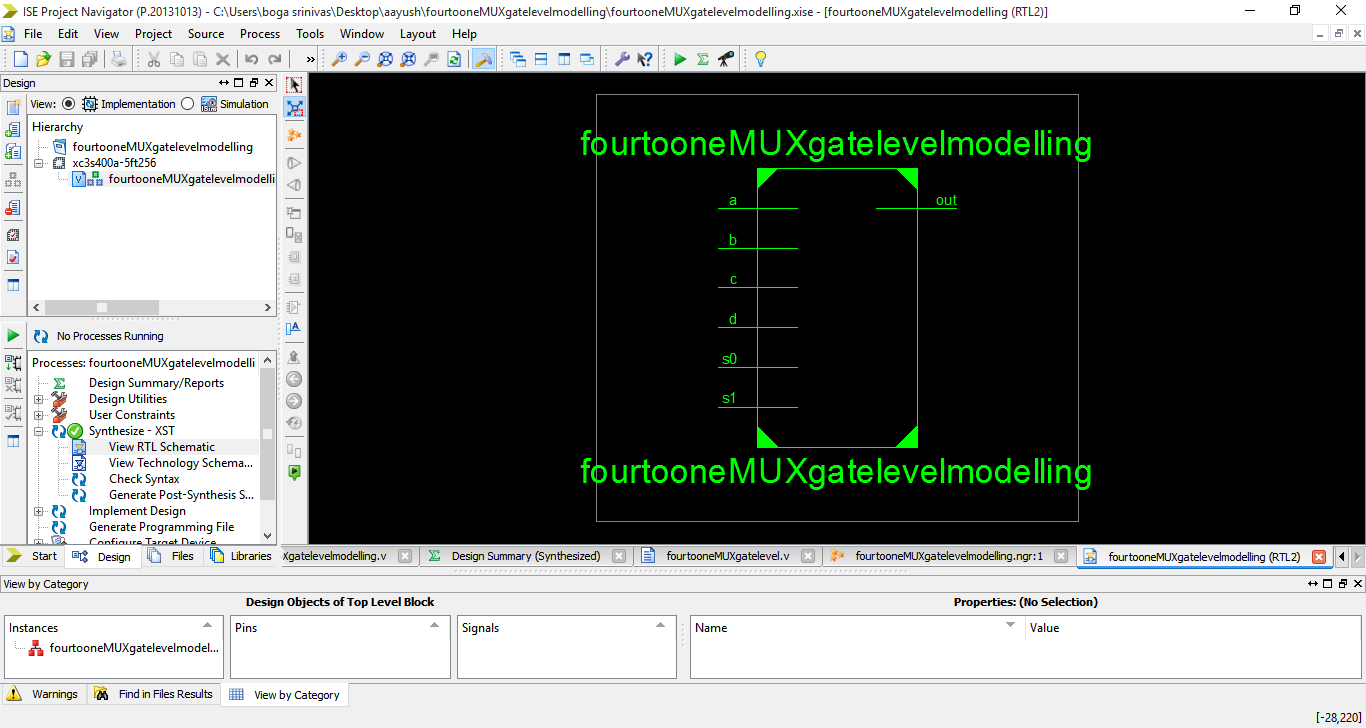


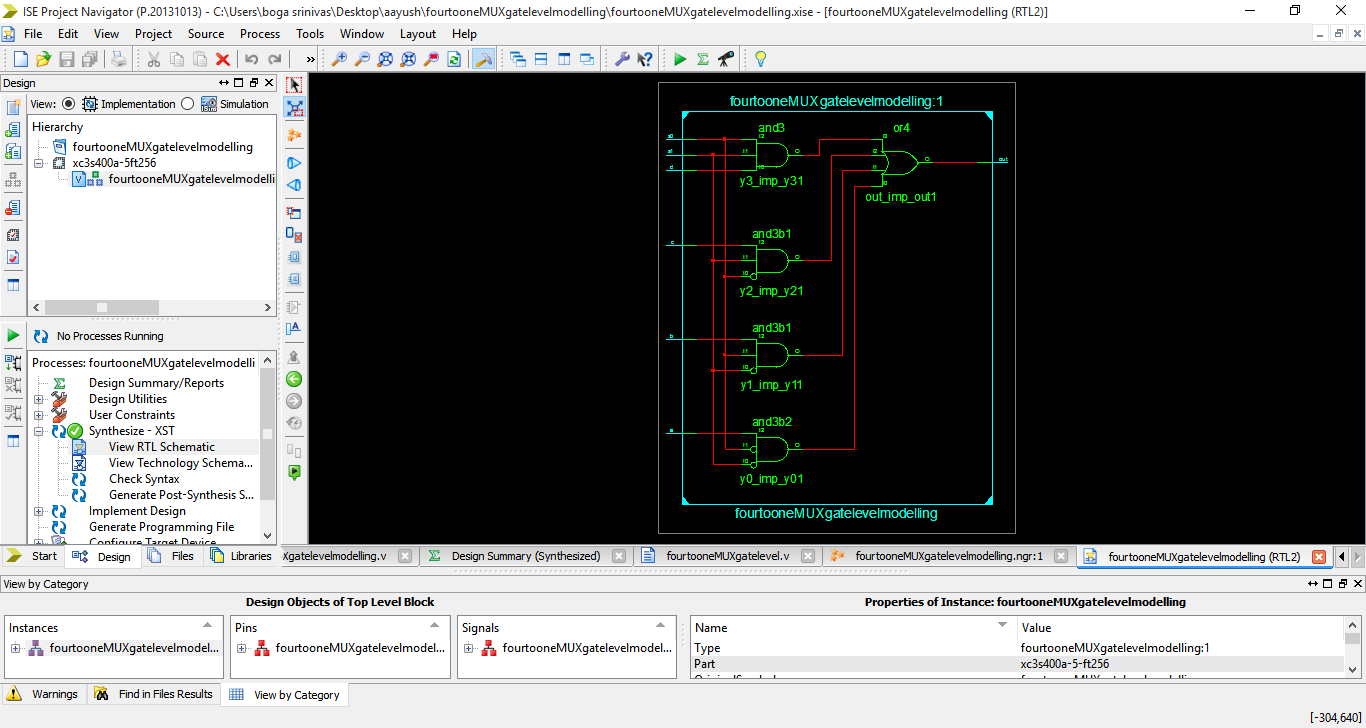
* **GATE LEVEL MODEL**

**PROGRAM CODE**

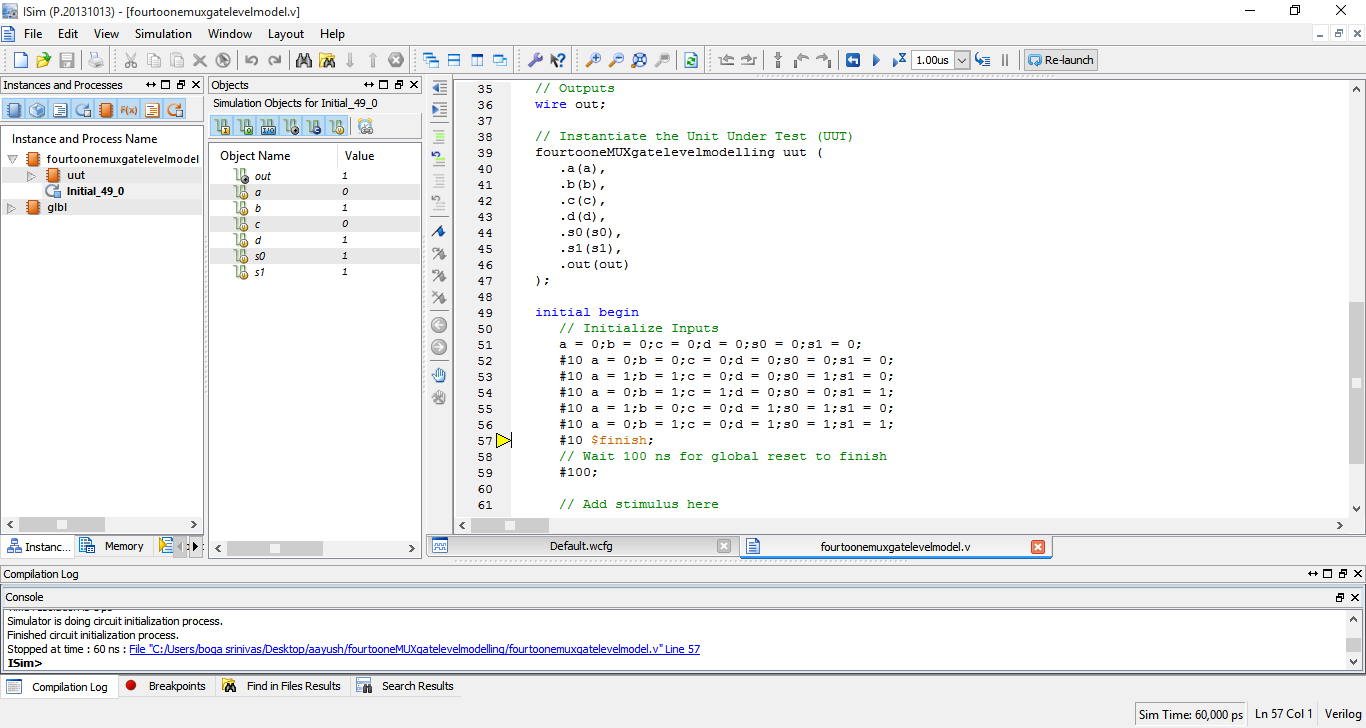
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**NETS**

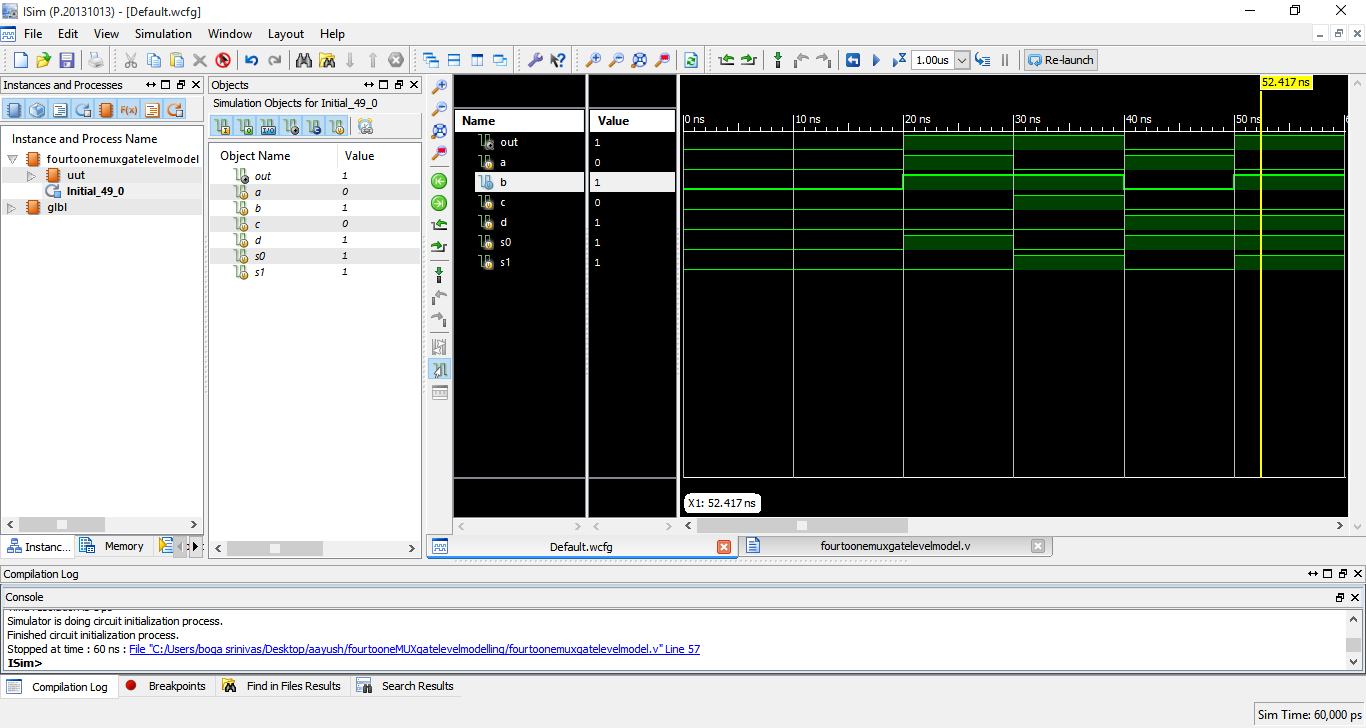
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**STIMULUS**

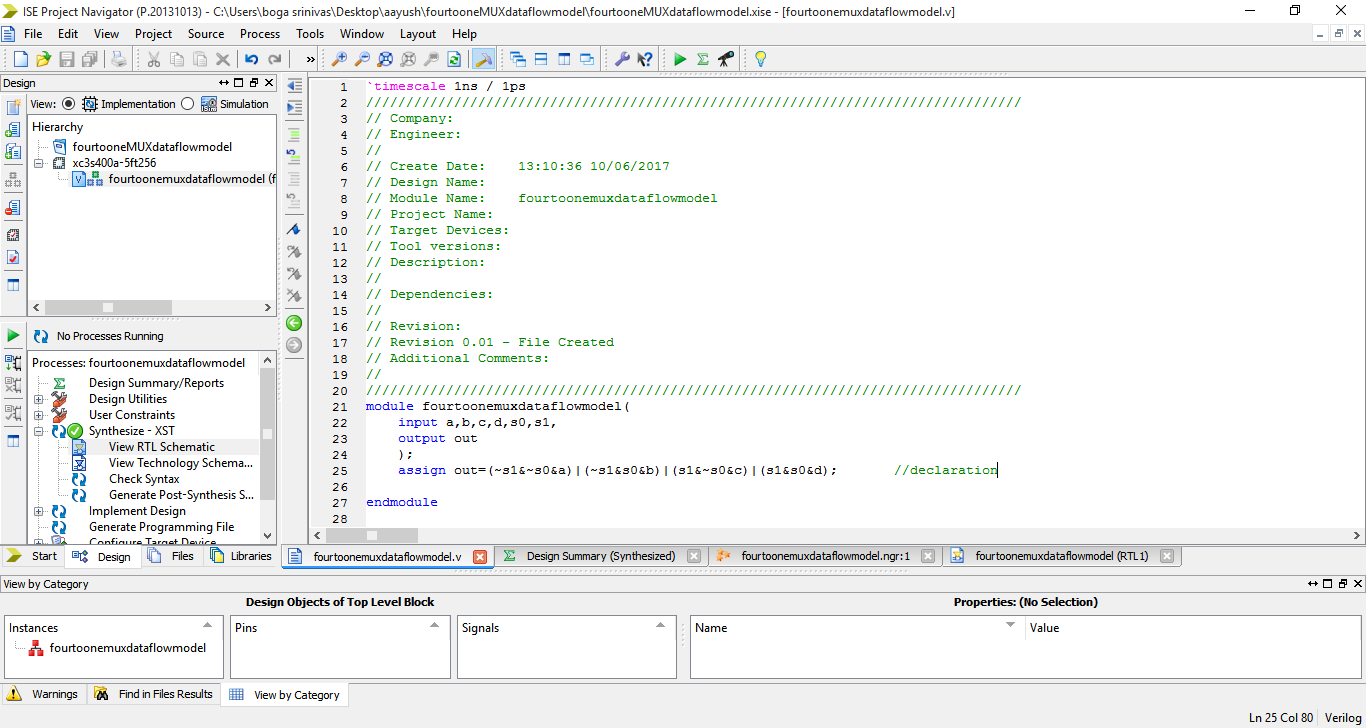
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**WAVE FORM**

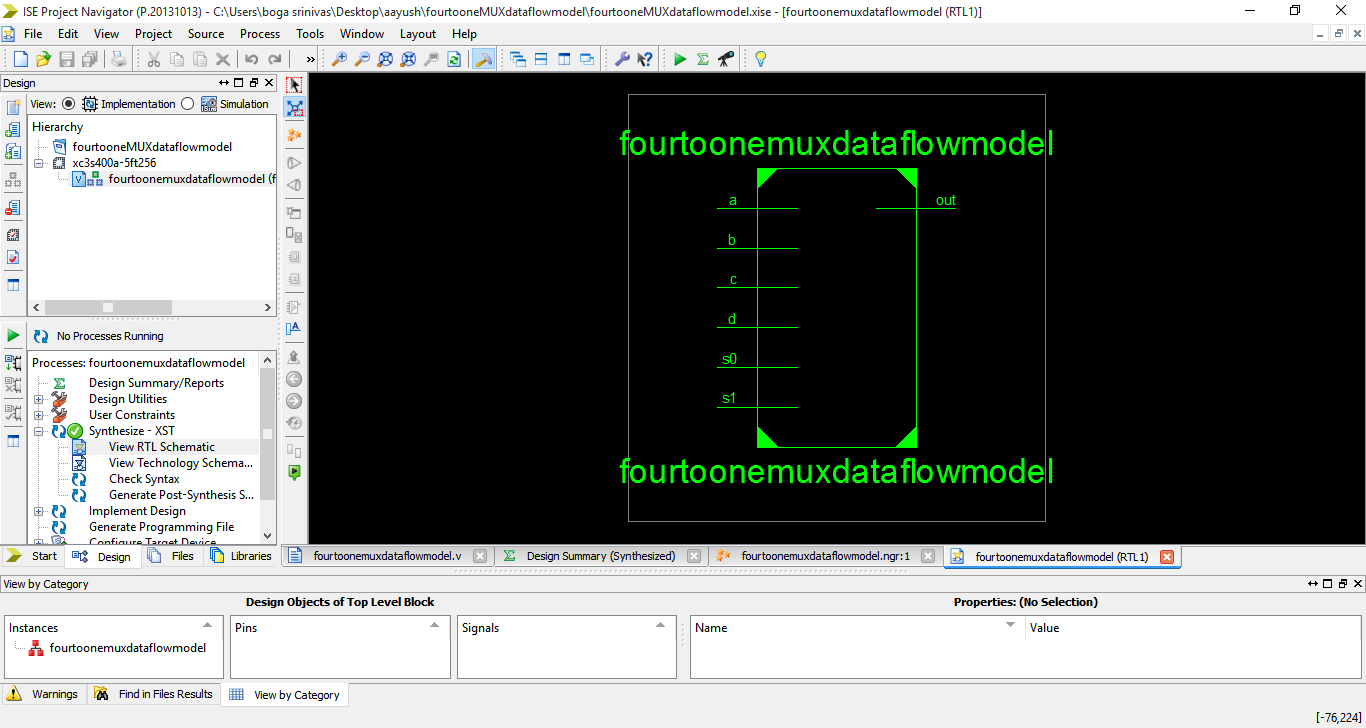
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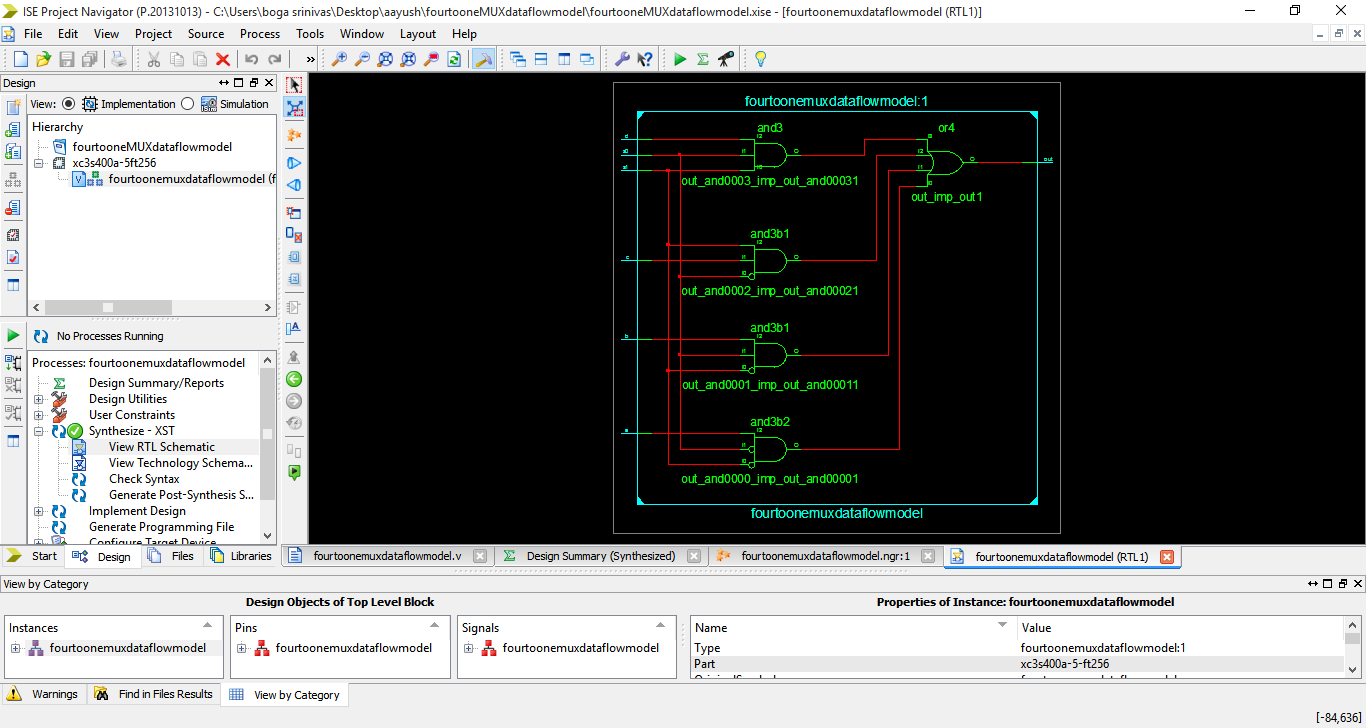
* **DATA FLOW MODEL**

**PROGRAM CODE**

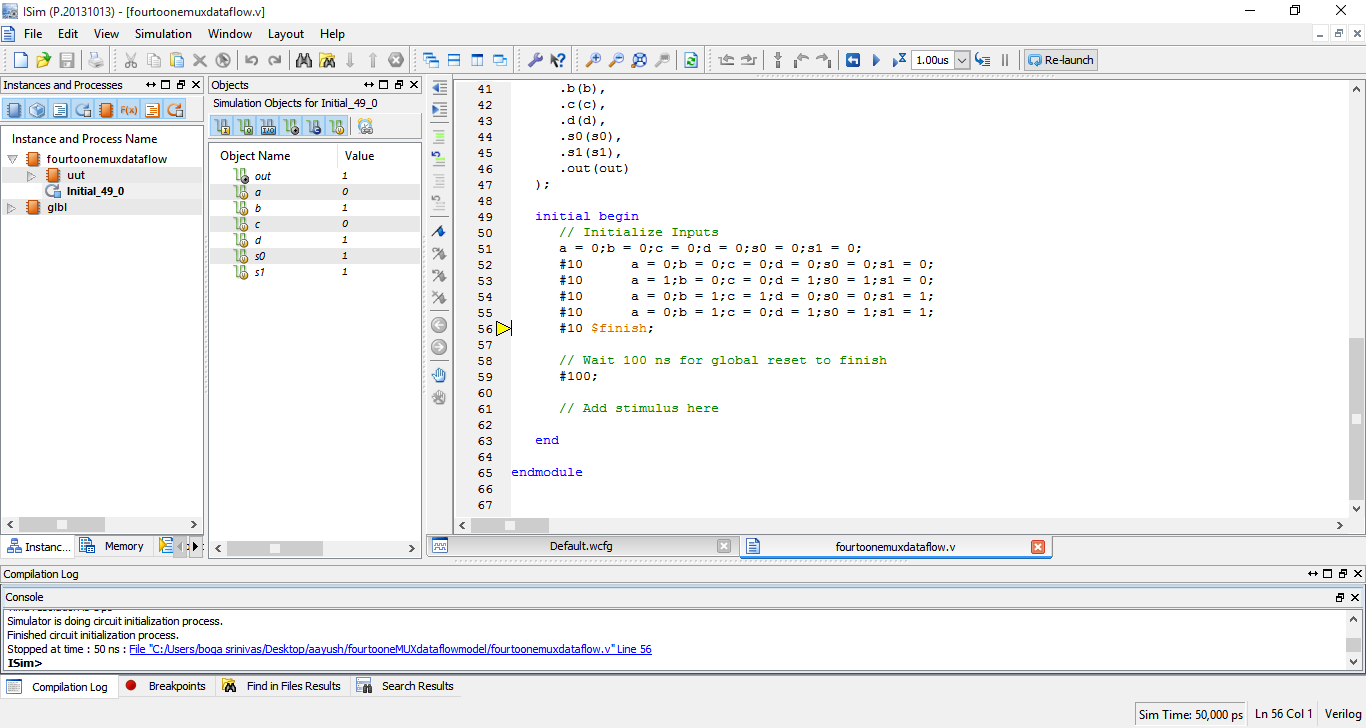
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**NETS**

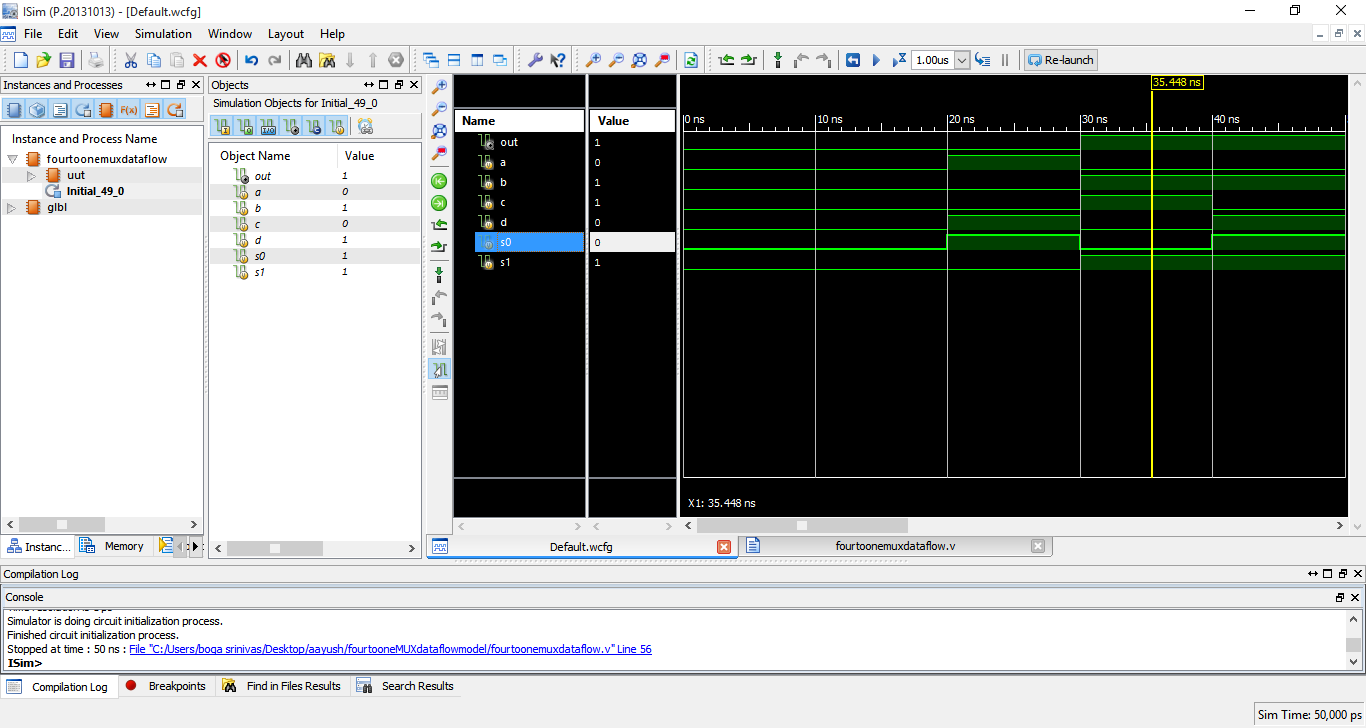
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**STIMULUS**

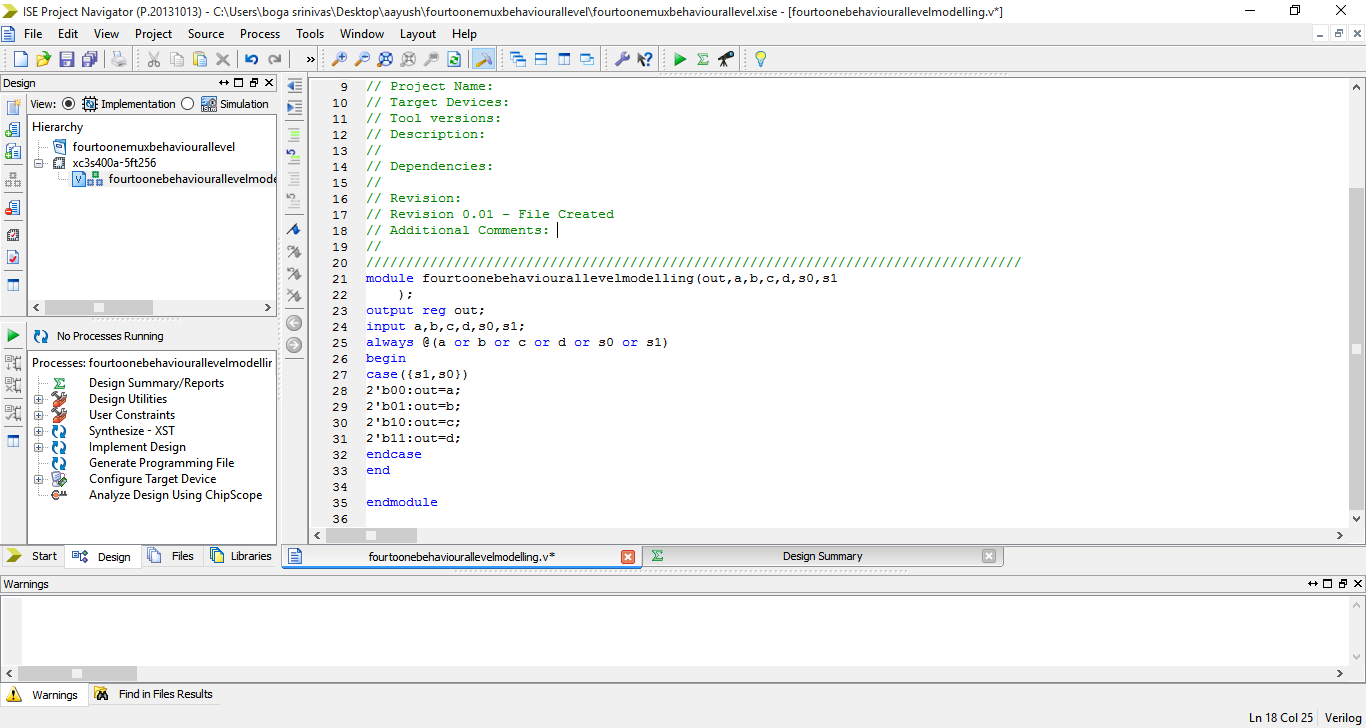
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**WAVE FORM**

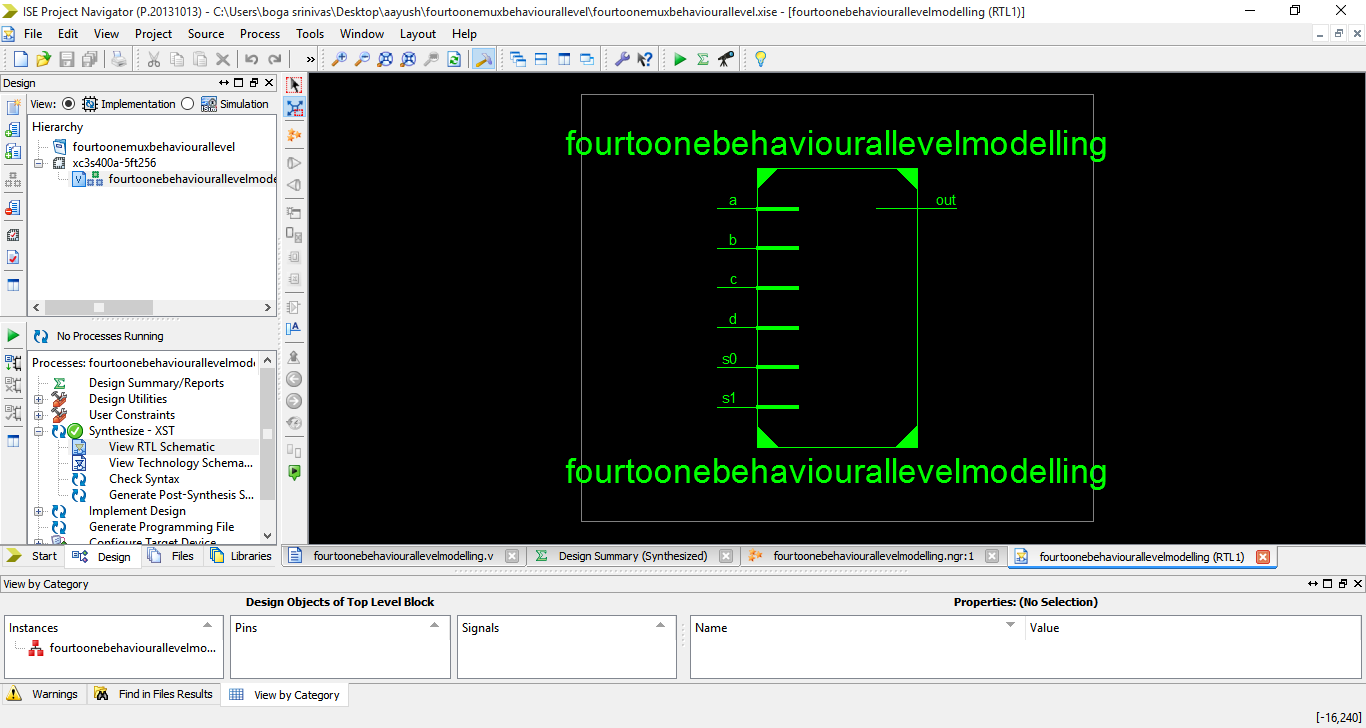
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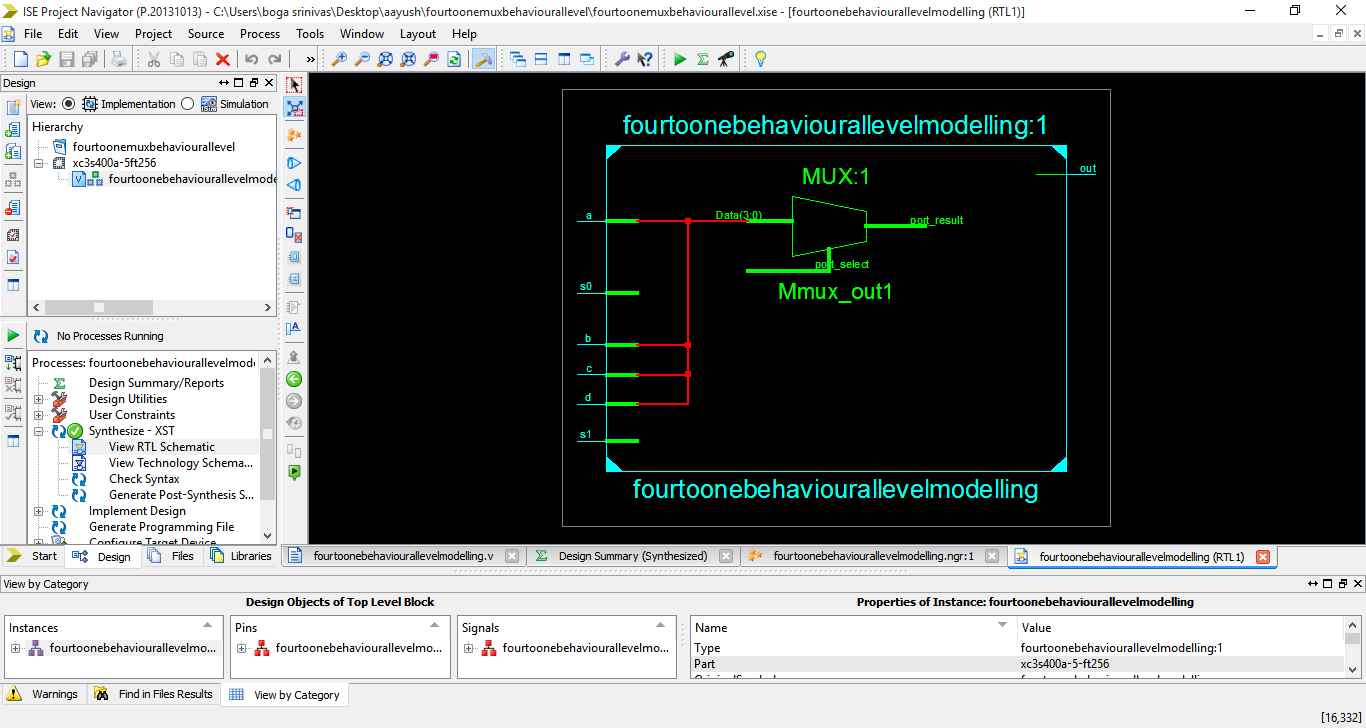
* **BEHAVIOURAL MODEL**

**PROGRAM CODE**

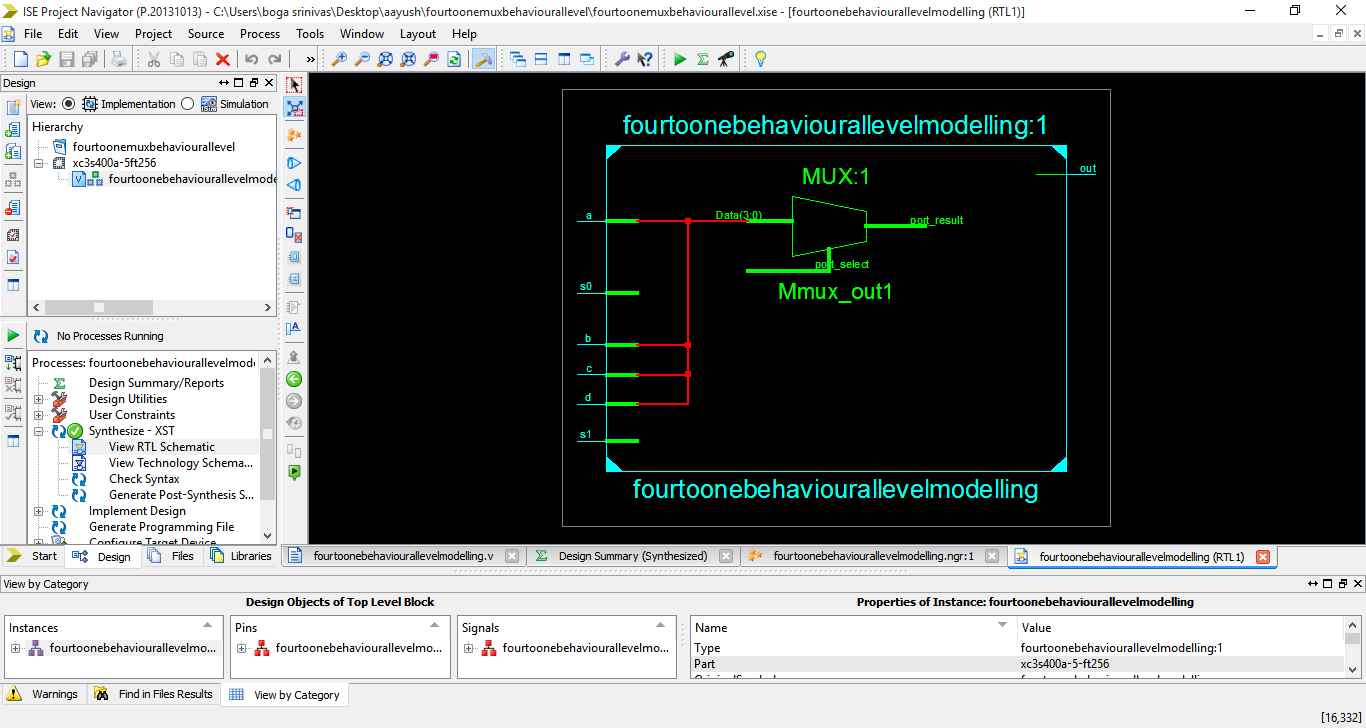
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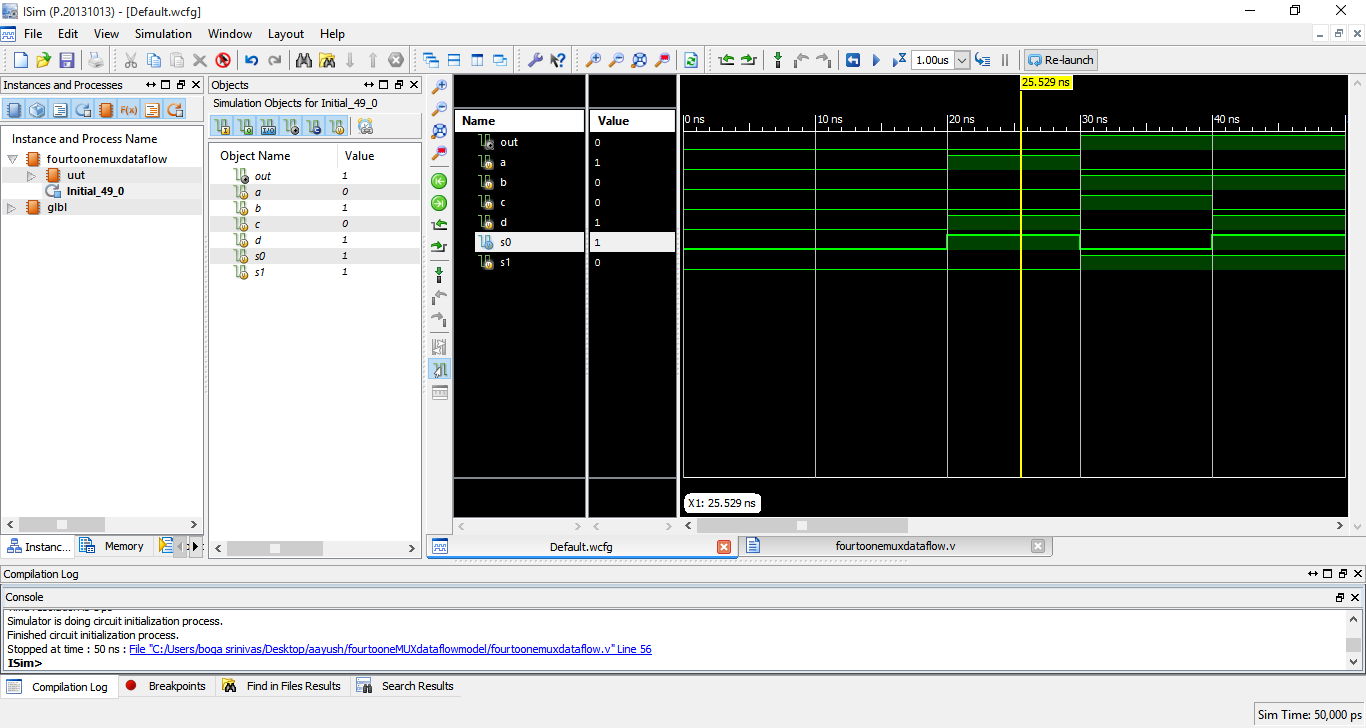
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**STIMULUS**

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**WAVE FORM**

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