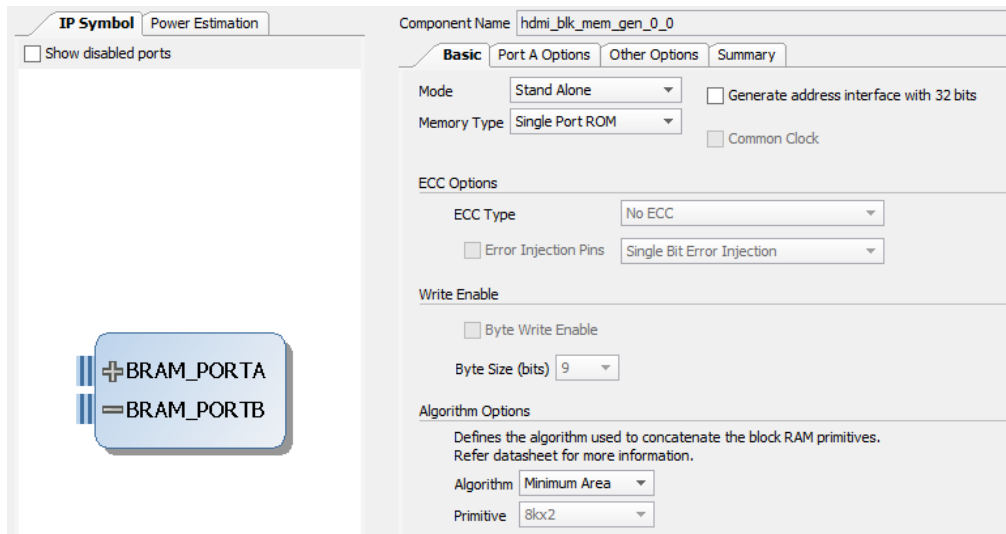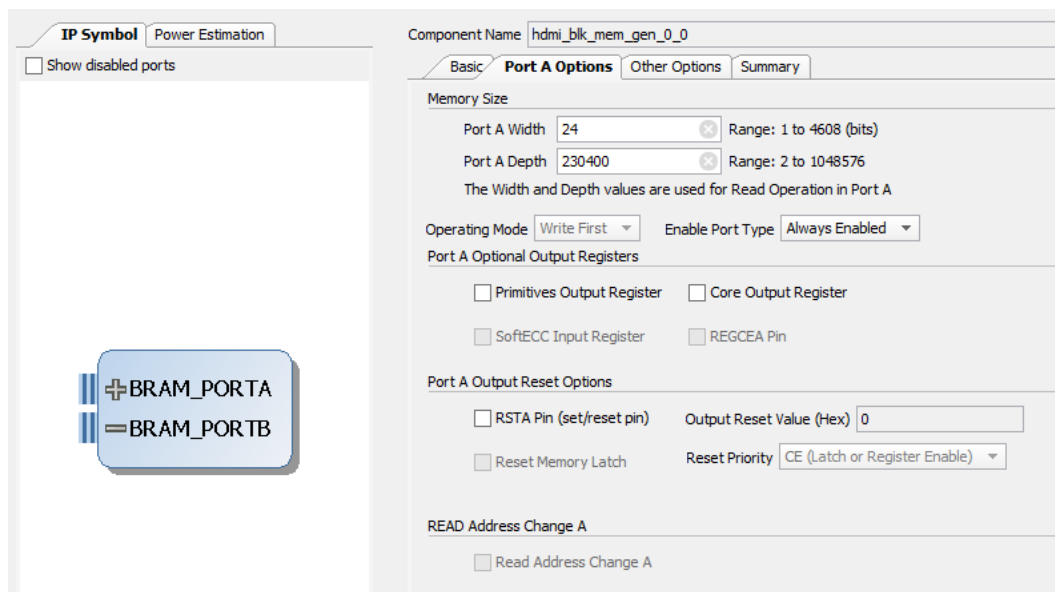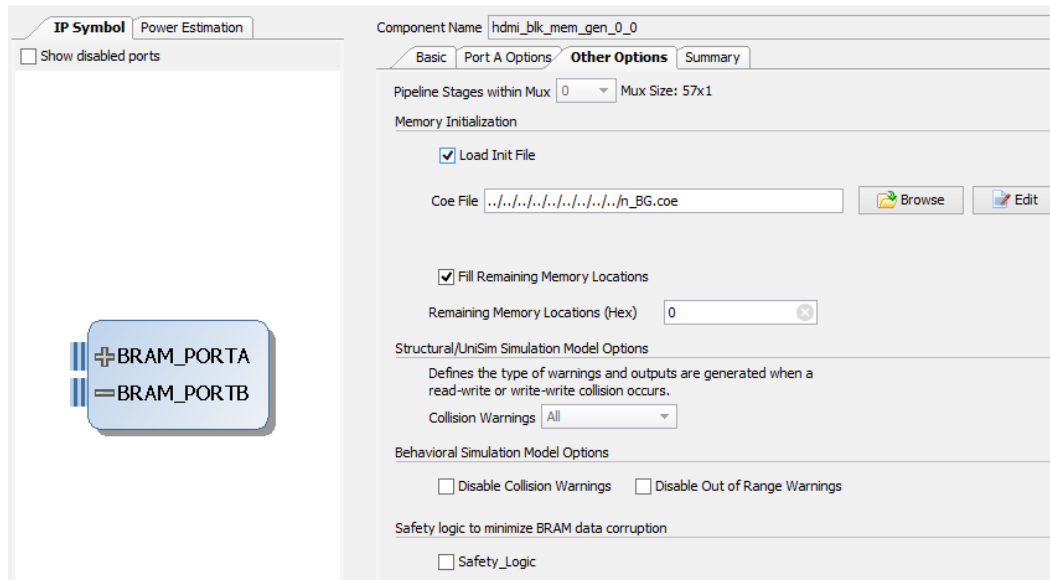## Initializing the BRAM with a Custom Image

- Open the script to convert your image to a .coe file
- Place the Xilinx BRAM IP block into your design and configure the block with the following:

- In the basic tab, set the mode to "stand alone" or "native", depending on where you open it. (Yes, you get different options for the same IP depending on where you open it)

- In the Port Options tab, set the width to 24 bits (8 bits per color) and the depth to the number of pixels in your picture. Do not use any optional output registers and have the port always enabled

- In the Other Options tab, select that you load the initialization file and fill the remaining memory locations. Enter the path for the Coe file. It will be a relative path to the hdmi_blk_mem_gen IP.

- The block set-up is complete now. To operate it, give the desired address of the pixel from 0 to # of pixel -1 address and the same clock as the requester. The corresponding 24-bit RGB value will be output on the douta in the next clock cycle.

blk_mem_gen_0

Block Memory Generator