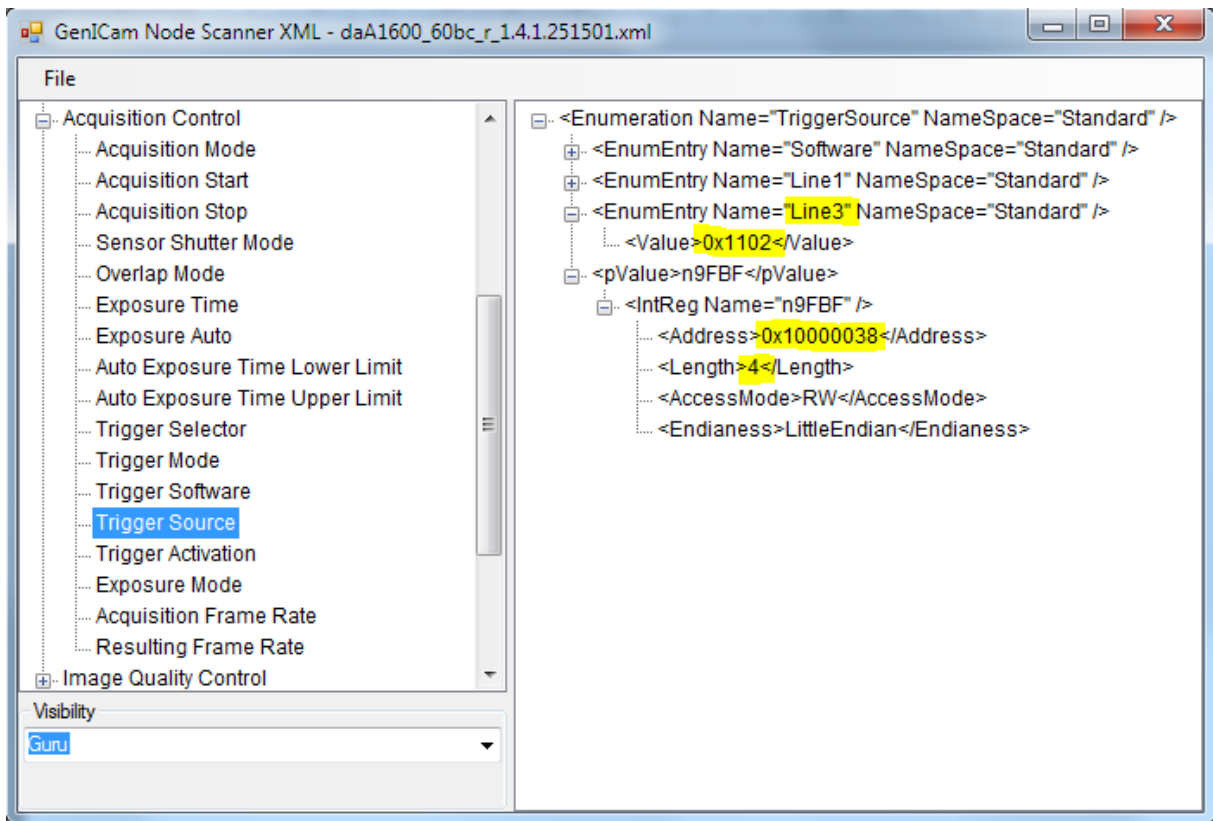


## **Configure BCON Camera for Hardware Trigger and Start Acquisition**

1. Power on camera
2. Write "TriggerSource" -> "Line3"
3. Write "TriggerMode" -> "On"
4. Write "AcquisitionMode" -> "Continuous"
5. Write "AcquisitionStart" -> '1'
6. Apply Trigger to Line CC0

## Write "TriggerSource" -> "Line3"



In order to set "TriggerSource" to "Line3", we need to write the value 0x1102 to register address 0x10000038.

WRITEMEM\_CMD:

'V', 'S', 'L', 'C', 0x4000, 0x0802, 0x000C, 0x0001, 0x0000000010000038, 0x00001102, CRC16=0x2737

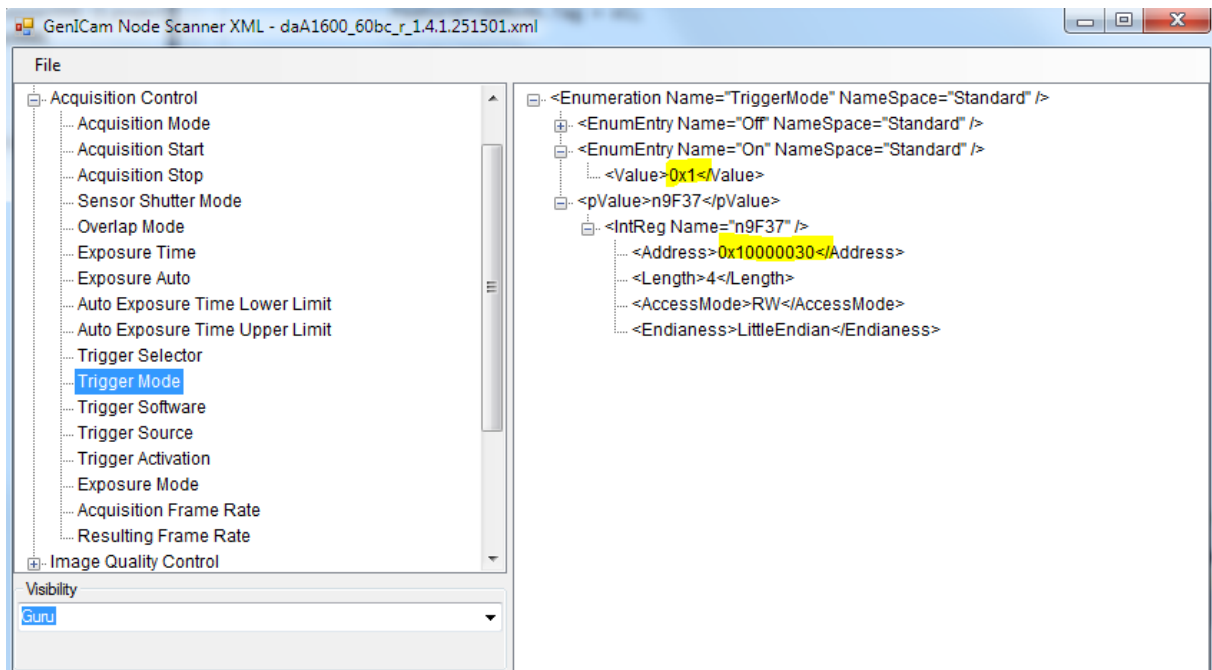
I2C Write (little endian):

0x56, 0x53, 0x4C, 0x43, 0x00, 0x40, 0x02, 0x08, 0x0C, 0x00, 0x01, 0x00, 0x38, 0x00, 0x00, 0x10, 0x00, 0x00, 0x00, 0x00, 0x02, 0x11, 0x00, 0x00, 0x37, 0x27

I2C Read WRITEMEM\_ACK from camera will return:

0x56, 0x53, 0x4C, 0x43, 0x00, 0x00, 0x03, 0x08, 0x04, 0x00, 0x01, 0x00, 0x00, 0x00, 0x04, 0x00, 0x8F, 0x01

## Write "TriggerMode" -> "On"



In order to set "TriggerMode" to "On", we need to write the value 0x1 to register address 0x10000030.

WRITEMEM\_CMD:

'V', 'S', 'L', 'C', 0x4000, 0x0802, 0x000C, 0x0002, 0x0000000010000030, 0x00000001, CRC16=0xBFD5

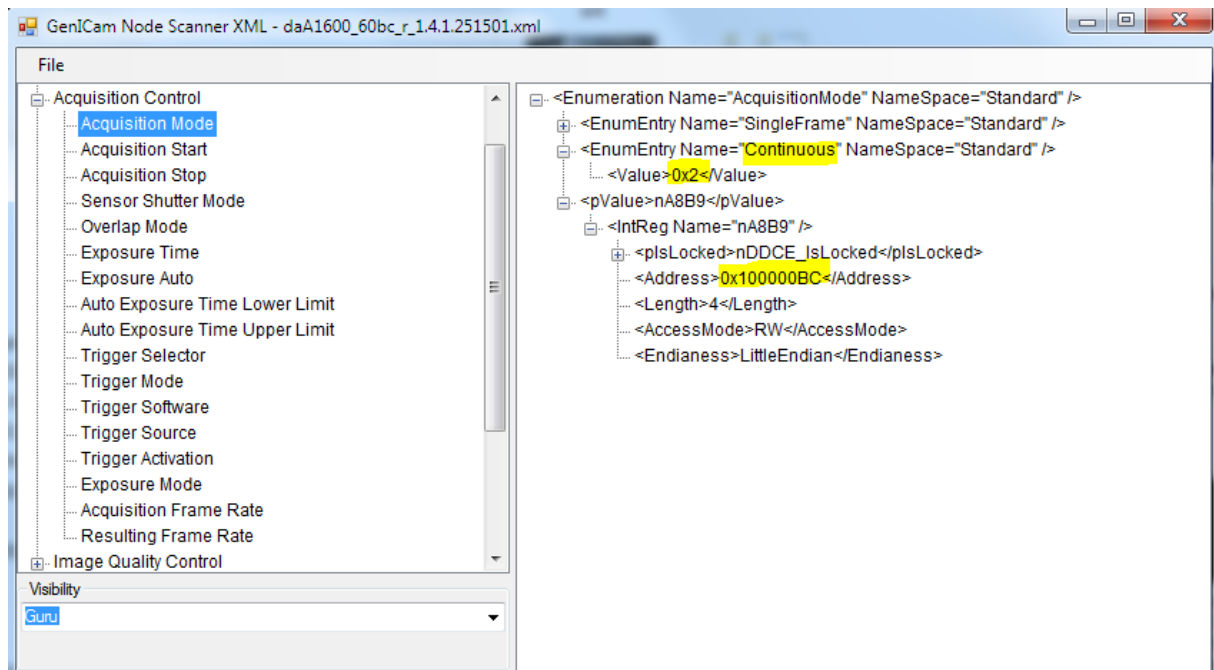
I2C Write (little endian):

0x56, 0x53, 0x4C, 0x43, 0x00, 0x40, 0x02, 0x08, 0x0C, 0x00, 0x02, 0x00, 0x30, 0x00, 0x00, 0x10, 0x00, 0x00, 0x00, 0x00, 0x01, 0x00, 0x00, 0x00, 0xD5, 0xBF

I2C Read WRITEMEM\_ACK from camera will return:

0x56, 0x53, 0x4C, 0x43, 0x00, 0x00, 0x03, 0x08, 0x04, 0x00, 0x02, 0x00, 0x00, 0x00, 0x04, 0x00, 0x8F, 0x32

## Write "AcquisitionMode" -> "Continuous"



In order to set "AcquisitionMode" to "Continuous", we need to write the value 0x2 to register address 0x100000BC.

WRITEMEM\_CMD:

'V', 'S', 'L', 'C', 0x4000, 0x0802, 0x000C, 0x0003, 0x00000000100000BC, 0x00000002, CRC16=0x54C7

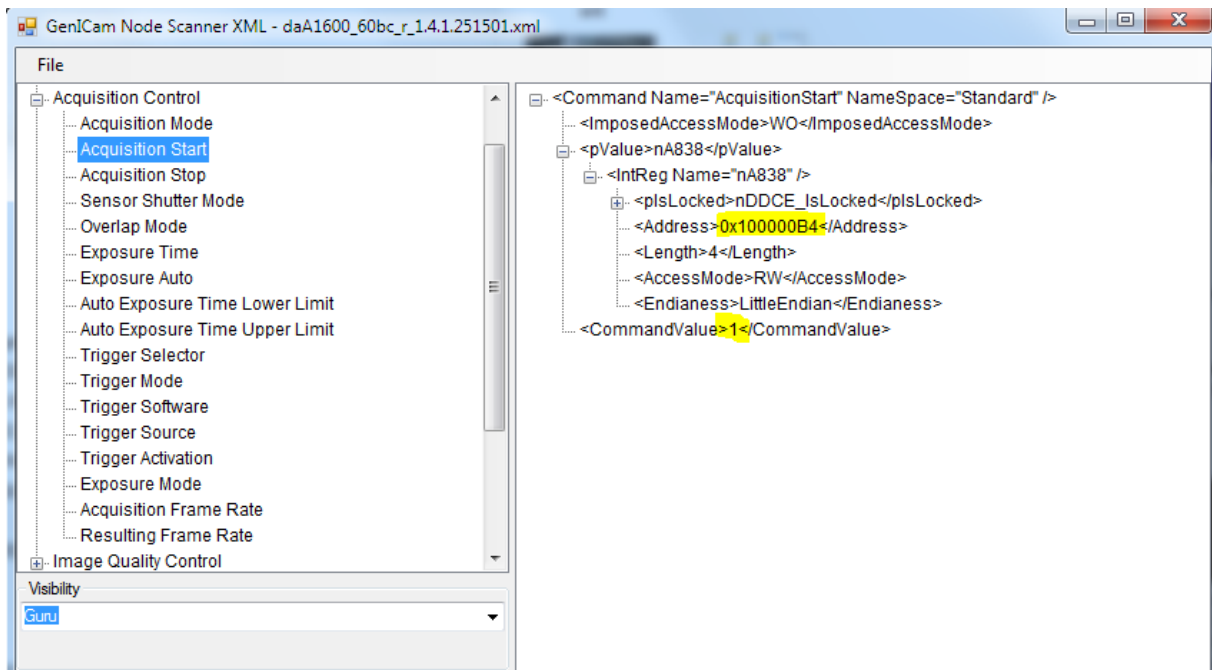
I2C Write (little endian):

0x56, 0x53, 0x4C, 0x43, 0x00, 0x40, 0x02, 0x08, 0x0C, 0x00, 0x03, 0x00, 0xBC, 0x00, 0x00, 0x10, 0x00, 0x00, 0x00, 0x00, 0x02, 0x00, 0x00, 0x00, 0xC7, 0x54

I2C Read WRITEMEM\_ACK from camera will return:

0x56, 0x53, 0x4C, 0x43, 0x00, 0x00, 0x03, 0x08, 0x04, 0x00, 0x03, 0x00, 0x00, 0x00, 0x04, 0x00, 0x8E, 0xE3

## Write "AcquisitionStart" -> '1'



In order to execute "AcquisitionStart", we need to write the value 0x1 to register address 0x100000B4.

WRITEMEM\_CMD:

'V', 'S', 'L', 'C', 0x4000, 0x0802, 0x000C, 0x0004, 0x00000000100000B4, 0x00000001, CRC16=0x0820

I2C Write (little endian):

0x56, 0x53, 0x4C, 0x43, 0x00, 0x40, 0x02, 0x08, 0x0C, 0x00, 0x04, 0x00, 0xB4, 0x00, 0x00, 0x10, 0x00, 0x00, 0x00, 0x00, 0x01, 0x00, 0x00, 0x00, 0x20, 0x08

I2C Read WRITEMEM\_ACK from camera will return:

0x56, 0x53, 0x4C, 0x43, 0x00, 0x00, 0x03, 0x08, 0x04, 0x00, 0x04, 0x00, 0x00, 0x00, 0x04, 0x00, 0x8F, 0x54

***Now, applying hardware trigger on CC0 will capture and send an image.***