MULTIPLE-DEVICE JTAG CONFIGURATION IN THE SILICON LABS IDE

1. JTAG Chain Configuration

To configure the Multiple-Device JTAG Chain feature of the Silicon Labs IDE you need to provide the following information:

- The number of devices before and after the target.
- The number of bits in the IR registers of the devices before and after the target.

In the Silicon Labs IDE, select **Connection Options...** from the **Options** menu. In the **Connection Options** window, press the **JTAG Chain Configuration** button to open the **Multi-device JTAG Programming** dialogue box shown below. In versions of the IDE previous to v2.0, press the key combination **ctrl+shift+m** to open the **Multi-device JTAG Programming** dialogue box.
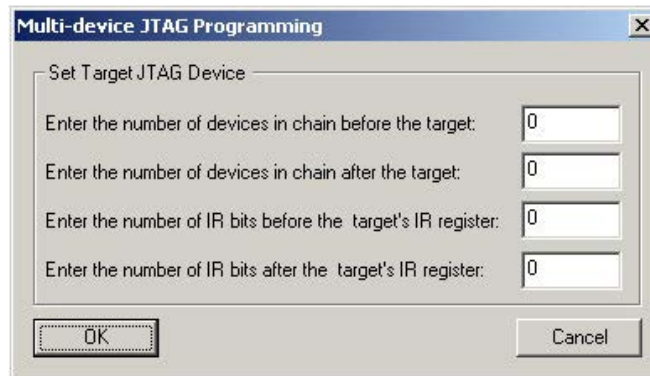

Figure 1. Multi-Device JTAG Programming Dialogue Box

2. Order of Devices

See Figure 2 to determine the order of the devices in the chain.

- Device #0 is before Device #1 and Device #2
- Device #1 is before Device #2 and after Device #0.
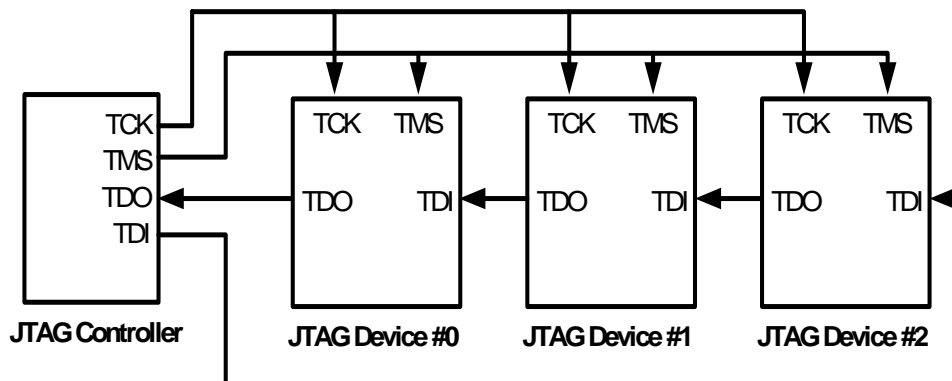- Device #2 is after Device #1 and Device #0.

Figure 2. Typical JTAG Chain Connection

3. Example

This example uses three devices placed in the order shown on the previous page with the following configuration:

Device #0 has a 16 bit IR register.
Device #1 has an 8 bit IR register.
Device #2 has a 16 bit IR register.

If the Silicon Labs device that you want to program is Device #0, enter the following configuration information into the Multi-device JTAG Programming window as shown in Figure 3:

■ There are 0 devices before the target.
■ There are 2 devices after the target.
■ There are 0 IR bits before the target's IR register.
■ There are 24 IR bits after the target's IR register.
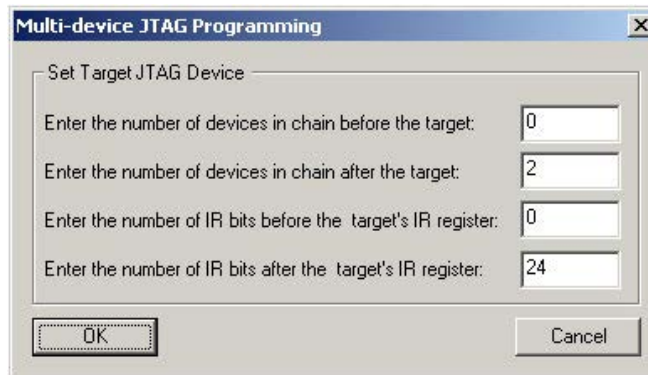
Figure 3. Multi-Device JTAG Programming Example

DOCUMENT CHANGE LIST

Revision 1.1 to Revision 1.2

■ Updated last paragraph in "1. JTAG Chain Configuration" on page 1.
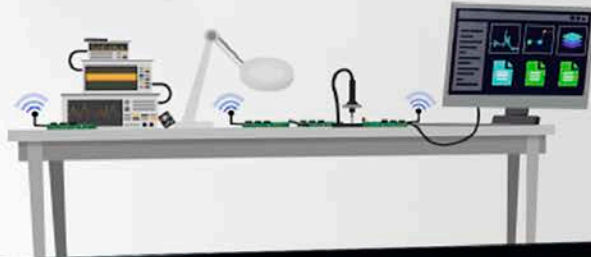
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