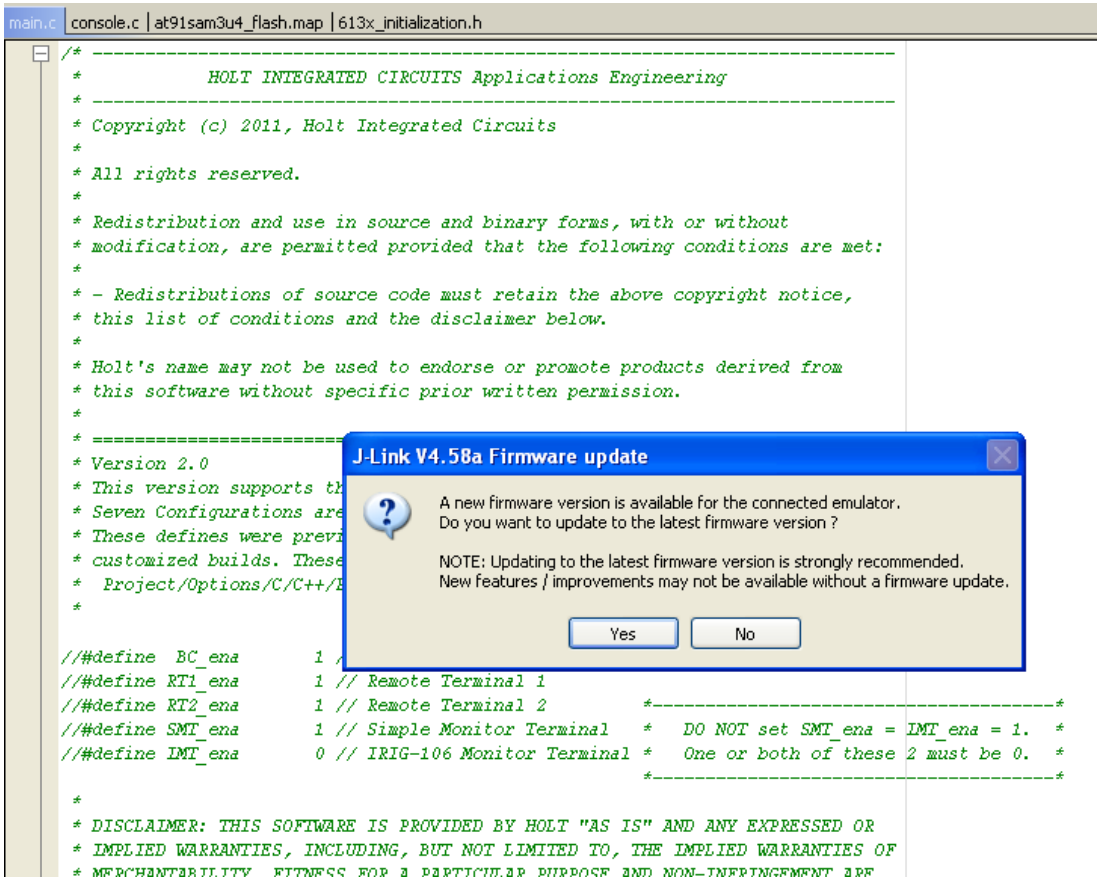
Holt Technical Note – IAR for ARM Debugger Troubleshooting guide 4/12/15

1. Debugger connection issues.

   When connecting to the board for the first time EWARM displays a message informing that a new J-LINK driver is available. Allow this update to occur by clicking Yes. An internet connection is required.



   This will update the drivers and then download the demo project into the ARM processor on the demo board.

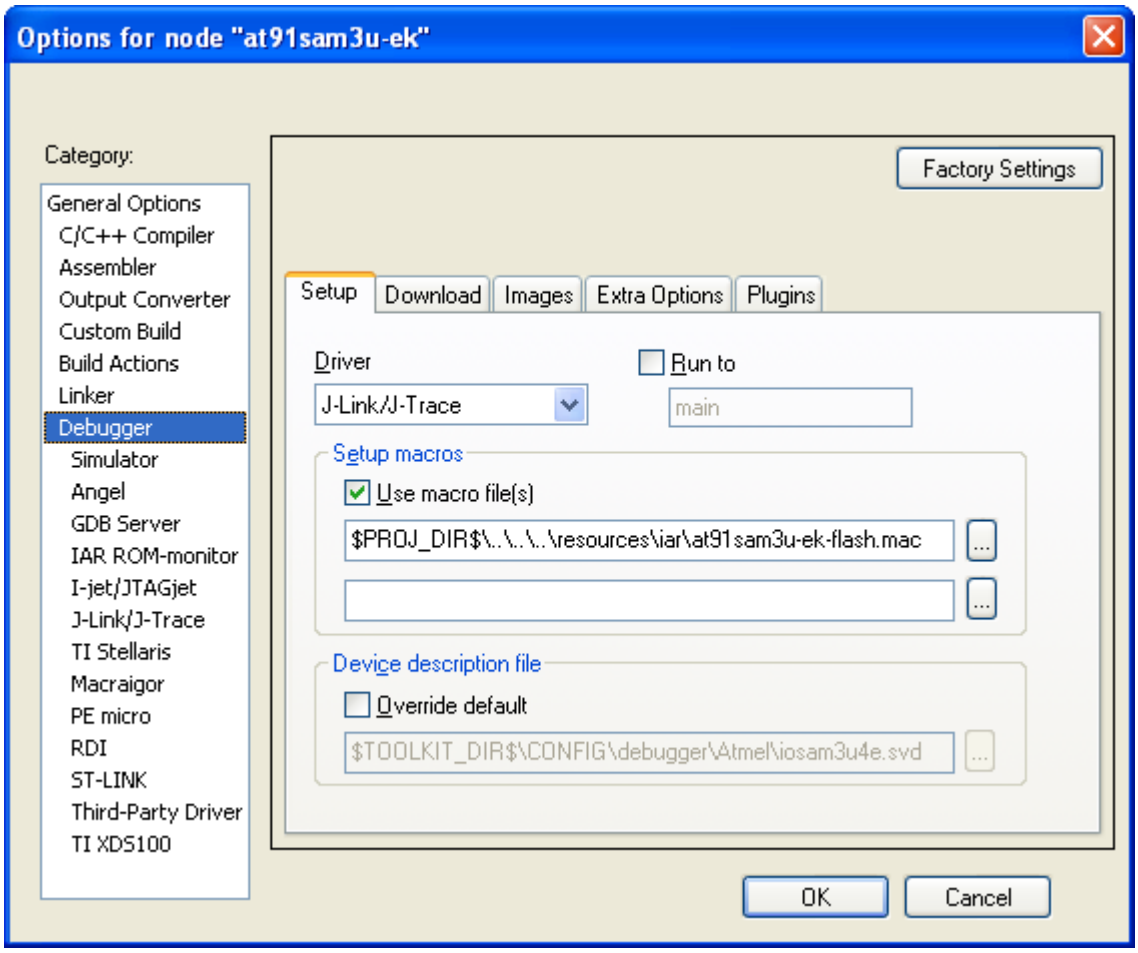
   After the first time, to download the Holt demo program, press the “download and debug” button which appears on the EWB as a green triangle icon near the top of the screen. When the downloading to flash works, a green progress bar is quickly shown and the debugger window appears. When this doesn’t work an error message might appear.

   If any error message appears, check the following two debugger project settings.

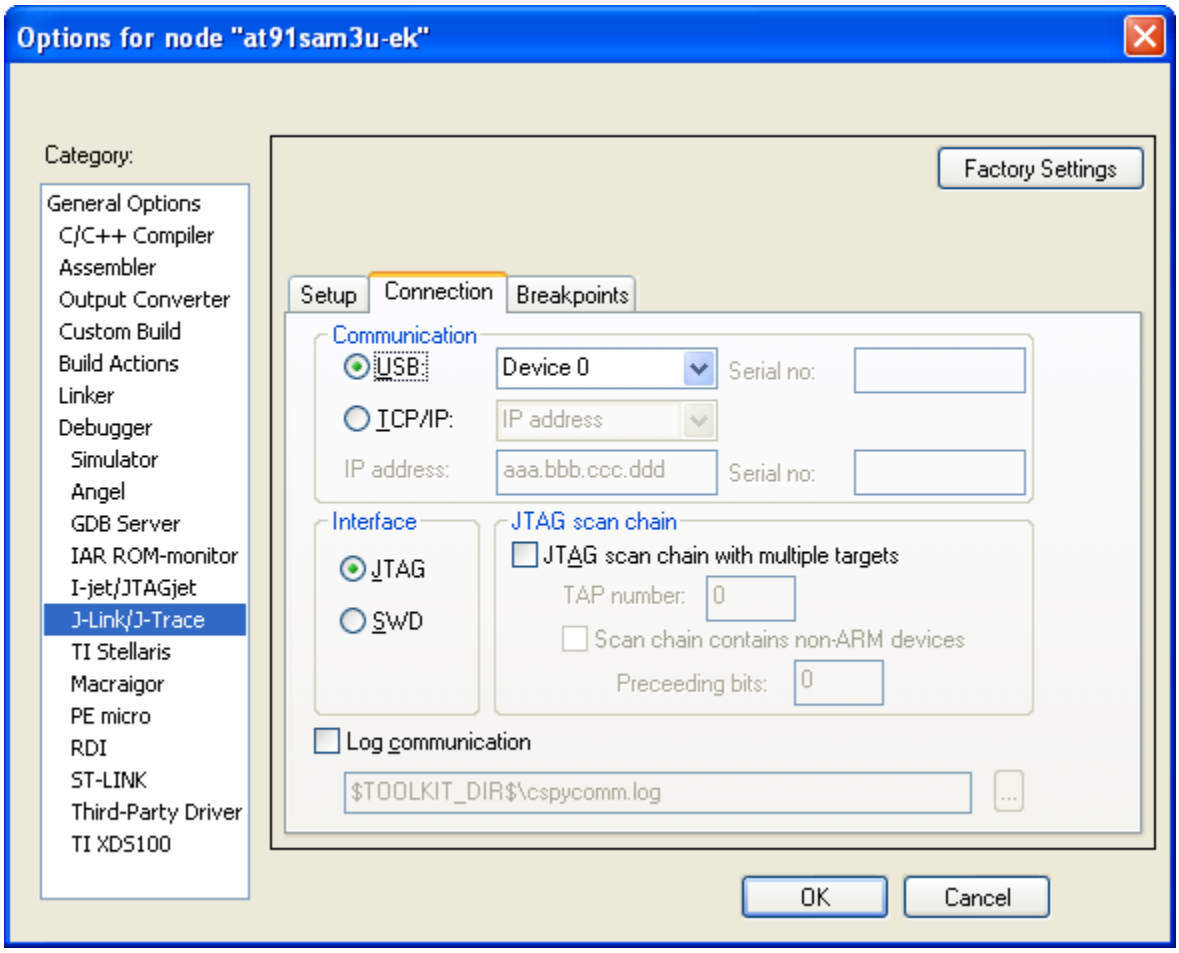
   From the Project pull down menu, click Options then select Debugger on the left side.

   The Driver should appear like the screen below with the Driver set to “J-Link/J-Trace”:

   Sometimes this may appear as “simulator” so this would need to be changed to “J-Link/J-Trace”.


Options for node "at91sam3u-ek"
Category:
General Options
C/C++ Compiler
Assembler
Output Converter
Custom Build
Build Actions
Linker
Debugger
Simulator
Angel
GDB Server
IAR ROM-monitor
I-jet/JTAGjet
J-Link/J-Trace
TI Stellaris
Macraigor
PE micro
RDI
ST-LINK
Third-Party Driver
TI XDS100
Factory Settings
Setup
Download
Images
Extra Options
Plugins
Driver
J-Link/J-Trace
Run to
main
Setup macros
Use macro file(s)
$PROJ_DIR$\..\..\..\resources\iar\at91sam3u-ek-flash.mac
Device description file
Override default
$TOOLKIT_DIR$\CONFIG\debugger\Atmel\iosam3u4e.svd
OK
Cancel

Select J-Link/J-Trace from the side menu and select the connection tab and verify the screen is similar to this:



If the problem persists, select SWD in the Interface box instead of the JTAG selection. Normally both should work.

2. Ensure the USB cable connected from the PC is connected to the USB connector J8 “DEBUG” on the board and the 5V adapter is supplying power to the board. In some cases after making these changes a complete power down is needed. Power down the board and the PC and power everything back up and try it again. When the board is powered up without the USB cable connected to the PC LED2 next to the DEBUG USB connector should flash. If the LED does not flash contact Holt, a replacement may be required. When the cable is plugged into the PC USB port is should stop flashing and stay On.

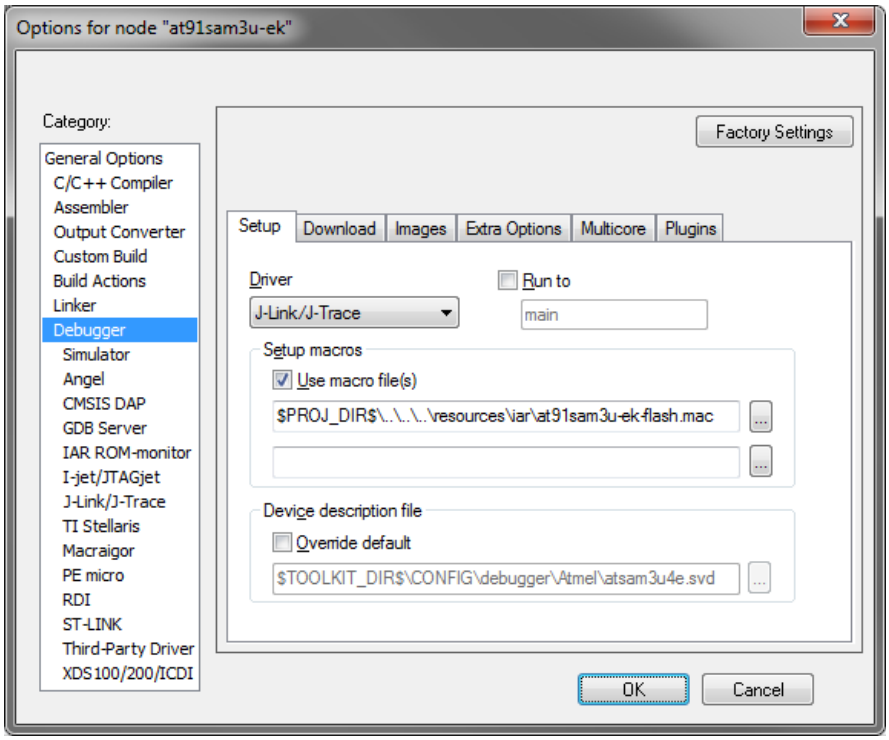
3. If problems still occur please provide the following information to Holt:

- Computer OS:
- IAR EWARM version, screen capture from the “help/about” pull down menu.
- Screen capture of the beginning of main.c in the Holt demo program showing the Version number.
- Screen captures of any error messages.

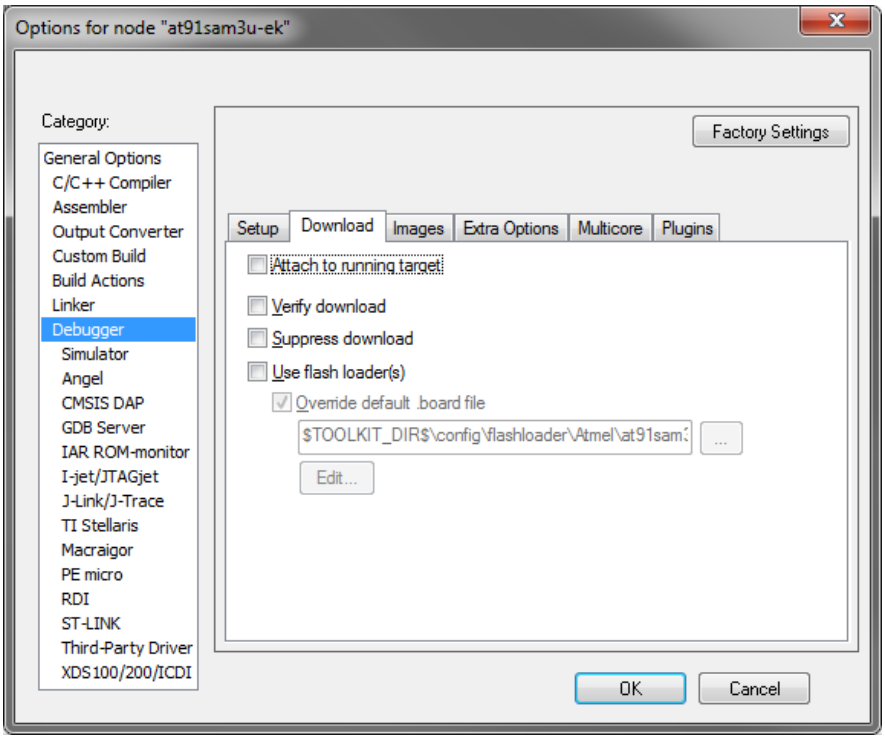
Using IAR Systems I-jet USB debugger:

Holt projects are configured for J-Link which is selected in the project options debugger settings shown below:

This setting works for IAR systems J-link – ARM (yellow debugger) or the Holt integrated USB J-link debugger implementations.



To use the IAR I-Jet debugger, select I-jet/JTAGjet from the Driver pull-down menu and from the Download tab Un - select the “Use flash loader(s)” shown below:



IAR debugger USB issues:

If the green LED2 flashes, this is a good indication the Holt demo board is OK at least with the USB debugger communication. In this case the issues are typically related to an USB driver issue on the PC. Try another USB port or another PC to isolate the problem or contact IAR technical support. When reporting an issue to Holt please include whether the LED2 flashes or not.