Hardware Stack Protection

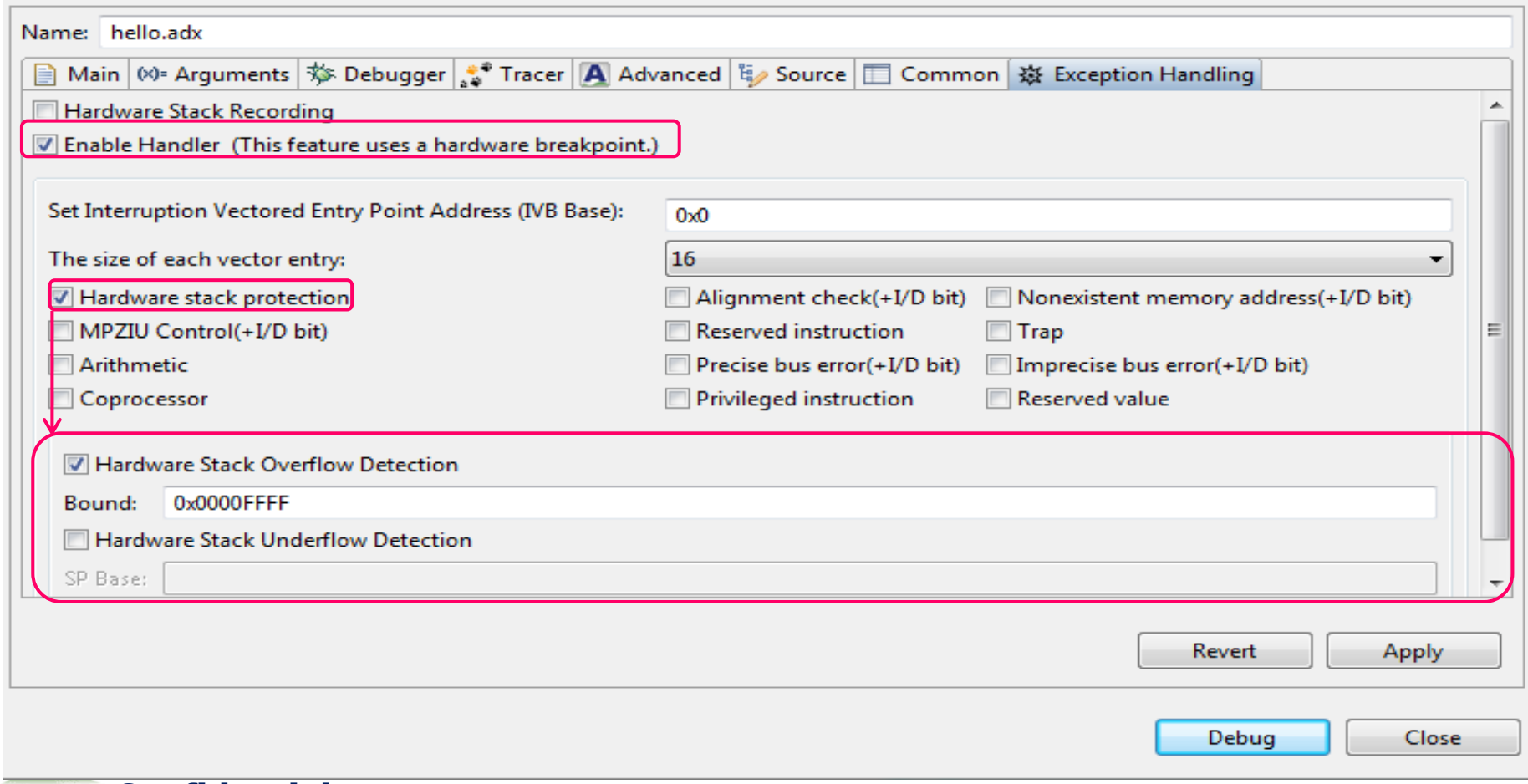
Driving Innovations™

How to Implement (1)

- Go to AndeSight™ window, import the desired project and build it.
- Right-click > Debug Configurations. Now Right click on the application program and launch a new debug session.
- Under the Exception handling tab check Enable Handler. Set IVB and size and then select the exception types that needs to be caught during execution.
- Check for Hardware Stack Protection and further specify whether to perform "**Hardware Stack Overflow Detection**" and/or "**Hardware Stack Underflow Detection**" at the bottom.
- For hardware stack overflow detection, enter the value of the stack bound register so that it can be compared with the updated value of the Stack Pointer (SP) register.

How to Implement (2)

- For hardware stack underflow detection, enter the value of the stack base register for being compared with the updated SP value. Click "Debug".



Result

- The stack status during runtime is displayed in the progress bar at the lower right corner of AndeSight™.
- Whenever a specified exception occurs, a dialog pops out notifying the user about its information.