

Setting GearShift Points

1. Introduction

1.1. Purpose

The purpose of this document is to help understand how to set GearShift points using CodeWarrior Development Studio for StarCore 10.0.

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2.1. Scope

The StarCore simulator allows you to shift between ISS and PACC modes at runtime on the same simulator device. In a debugger perspective, the difference between the two simulator types is the absence or presence of a cache. This can be helpful to profile only a section in an application.

The GearShift capability has the following new features:

- Two new targets in the launch configurations are used to indicate the starting mode:
CCSSIM2 HS ISS and CCSSIM2 HS PACC
- A new toolbar for the debug perspective contains a button that can be used to switch between the two modes
- The following new debugger shell command can be used to facilitate the switch:
`cmdwin::sc::setGearShift ISS/PACC`

2.2. GearShift Points Definition

The definition of the GearShift points is based on:

- The capability to define debugger shell actions attached to breakpoints,
- The existence of the `setGearShift` command.

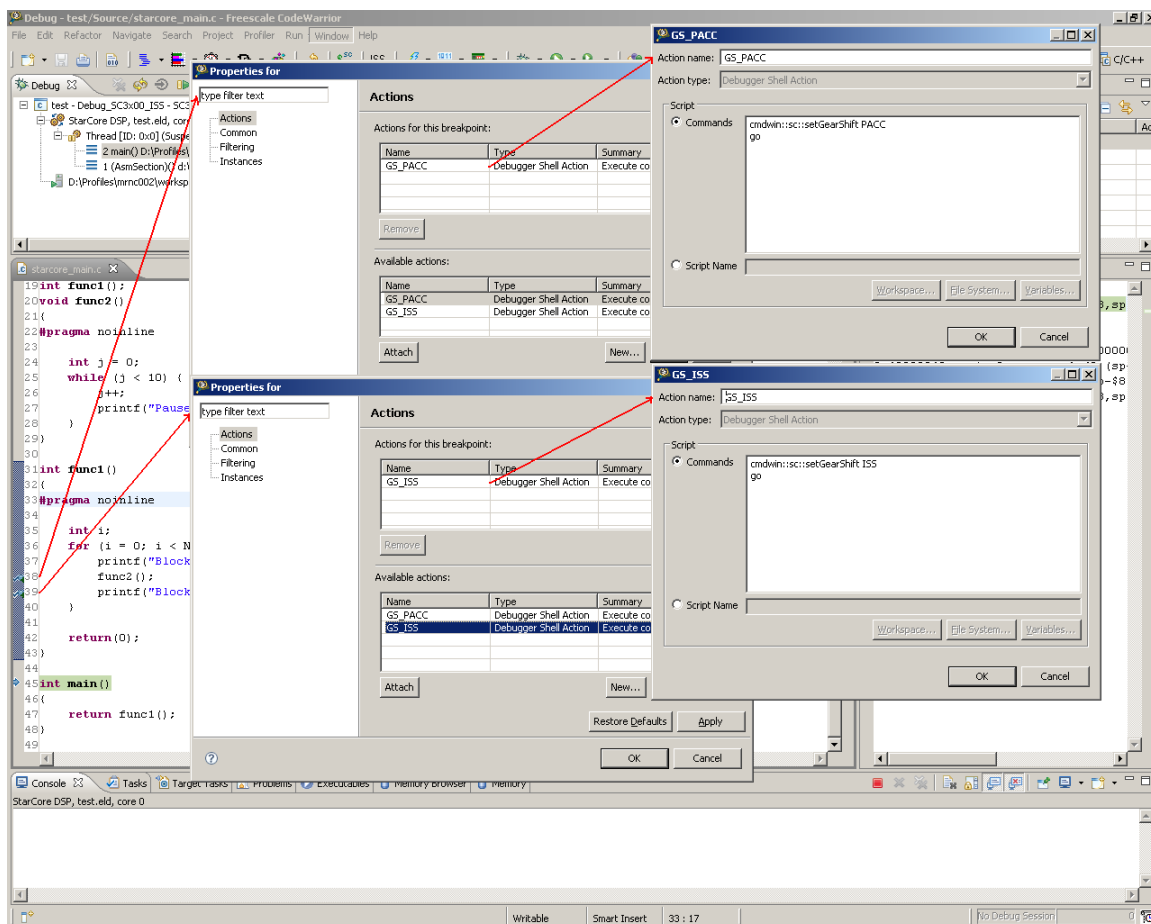
To define a GearShift point, do the following:

1. Set a breakpoint
2. Select **Properties>Actions tab>Available actions**
3. Click **New** to create a new debugger shell action:
 - a) Enter a name for the action
 - b) Select `Debugger Shell Action` as its **Action Type**
 - c) Select **Commands** and enter the following:
`cmdwin::sc::setGearShift PACC`
`go`
4. Click **Attach** to attach the newly created action to the breakpoint and save the breakpoint settings

When this breakpoint is reached, the mode changes to PACC, but the execution will not be suspended.

Figure 1 shows a case in which you want to profile only part of an application (func2). Two breakpoints are set. The first breakpoint is set on the func2() function call to attach a switch to PACC mode. The second breakpoint is set after the func2() function call, to attach a switch to ISS mode. The initial mode set in the launch configuration is CCSSIM2 HS ISS because you do not want to stop the application when these breakpoints are reached. Both actions include a go command.

Figure 1. GearShift Points



How to Reach Us:

Home Page:
www.freescale.com

E-mail:
support@freescale.com

USA/Europe or Locations Not Listed:

Freescale Semiconductor
Technical Information Center, CH370
1300 N. Alma School Road
Chandler, Arizona 85224
+1-800-521-6274 or +1-480-768-2130
support@freescale.com

Europe, Middle East, and Africa:

Freescale Halbleiter Deutschland GmbH
Technical Information Center
Schatzbogen 7
81829 Muenchen, Germany
+44 1296 380 456 (English)
+46 8 52200080 (English)
+49 89 92103 559 (German)
+33 1 69 35 48 48 (French)
support@freescale.com

Japan:

Freescale Semiconductor Japan Ltd.
Headquarters
ARCO Tower 15F
1-8-1, Shimo-Meguro, Meguro-ku,
Tokyo 153-0064, Japan
0120 191014 or +81 3 5437 9125
support.japan@freescale.com

Asia/Pacific:

Freescale Semiconductor Hong Kong Ltd.
Technical Information Center
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Tai Po Industrial Estate
Tai Po, N.T., Hong Kong
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