

Application Note

Manually Creating a DSP/BIOS Configuration File (.cdb) for the Serial Port Demonstration/Application Projects

Introduction

When DSP/BIOS configuration files are created using the graphical configuration tool contained in Code Composer Studio (CCS), their use is generally tied to the particular version of CCS under which they were created. If a *cdb* file is copied over to a different version of CCS, problems may arise. This Application Note describes the procedure to manually create a *cdb* file to be used with the Demonstration/Applications shipped with the Link Research Serial Port daughtercards.

First, an attempt should be made to compile the CCS projects exactly as provided on the CD. If errors arise during compilation related to the BIOS configuration file, perform the following steps.

With the project opened within CCS, make a note of the name of the *cdb* file associated with the project, then delete the *cdb* file. Create a new, skeletal *cdb* file by clicking on File> New> DSP/BIOS Configuration. In the window that opens, select “DSKxxxx.CDB”, where “xxxx” corresponds to the particular DSK you are using.

When the initial configuration window opens, make the following changes:

For the 6416, 6711, and 6713 DSKs only

Under the Scheduling section, insert a new PRD function with the following properties:

Period (ticks): 1
Mode: continuous
Function: `_main_loop`

Modify the properties of HWI_INT4 as follows:

General Tab:
interrupt source: `External_Pin_4`
function: `_ext_int`
monitor: Nothing
Dispatcher Tab
Select: Use Dispatcher
Interrupt Mask: self
Select: don't modify cache

***For 6416, 6711, and 6713 DSKs only.* Under the CSL – Chip Support Library section, insert a new EMIF (EMIFA for the 6416 DSK) configuration and modify the following properties of the `efimaCfg0` parameters:**

Advanced Tab:
CE2 Space Control Register: `0x5A35E823` (for the 6416 and 6711 DSKs)
CE2 Space Control Register: `0x03D00F21` (for the 6713 DSK)

Open the EMIF Resource Manager under EMIF(EMIFA for the 6416 DSK)

Select "Enable Pre-initialization"
Select Pre-initialize with: `emifaCfg0`

For the 5510 DSK only

Under the Scheduling section, insert a new PRD function with the following properties:

Period (ticks): 1
Mode: continuous
Function: _main_loop

Modify the properties of HWI_INT16 as follows:

General Tab:
 function: _ext_int
Dispatcher Tab
 Select: Use Dispatcher
 Interrupt Mask: self
 Select: don't modify cache

Under the CSL – Chip Support Library section, insert a new EMIF configuration and modify the following properties of the emifCfg0 parameters:

Advanced Tab:
 CE2 Space Control Register 1: 0x1fff
 CE2 Space Control Register 2: 0x5fff
 CE2 Space Control Register 3: 0x0000

Open the EMIF Resource Manager under EMIF

Select "Enable Pre-initialization
Select Pre-initialize with: emifCfg0

Save this DSP/BIOS configuration file under the same name as the cdb file that was deleted above.

Close the configuration window, and recompile the project.

Version History

Date	Version	Description
13-Dec-2007	1.0	Original
4-Feb-2008	2.0	Reformatted only