

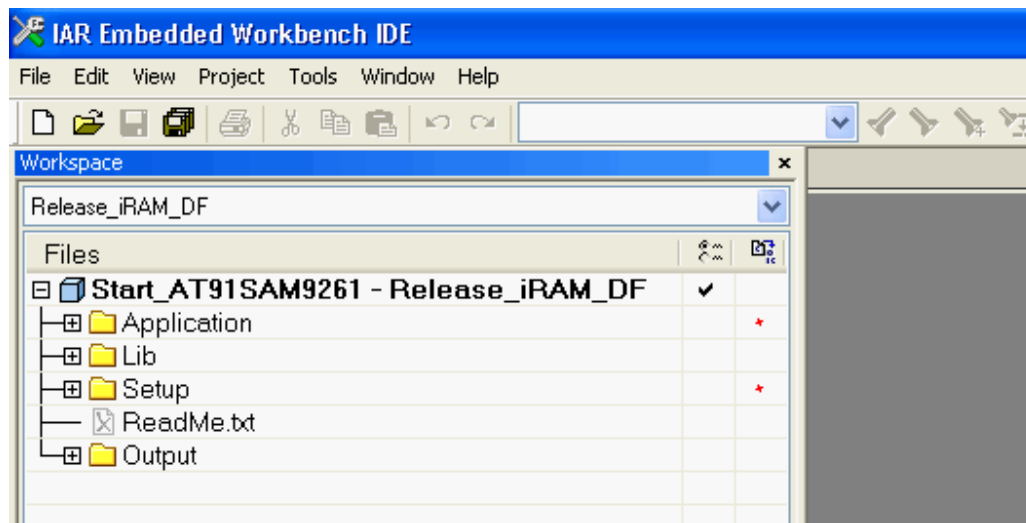
## How to update *BSP for AT91SAM9261* with configuration *Release\_SDRAM\_DF*

Start EWARM 5.50

Select PowerPac example project "BSP for AT91SAM9261" and save to new location.

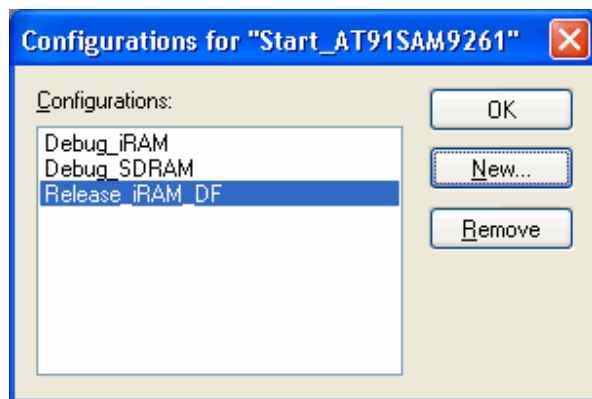
### Add new configuration

Select configuration "Release\_iRAM\_DF"



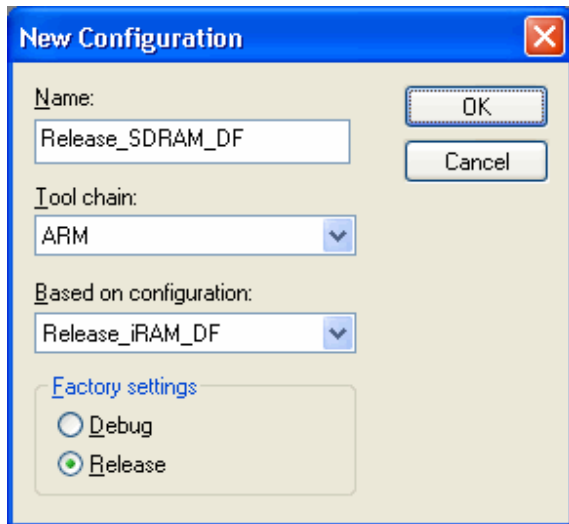
Run menu command: "Project > Edit Configurations..."

Make sure configuration "Release\_iRAM\_DF" is highlighted.



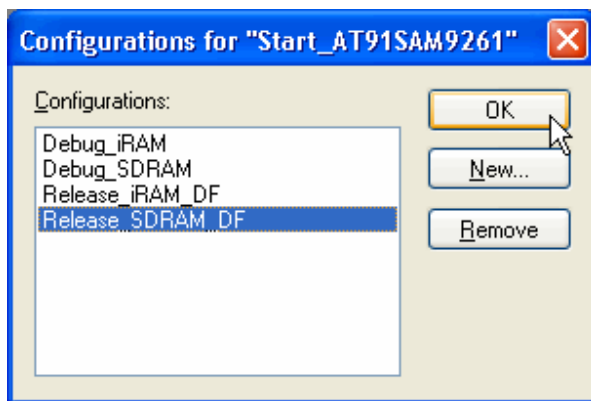
Click button "New..."

Enter name: "Release\_SDRAM\_DF"



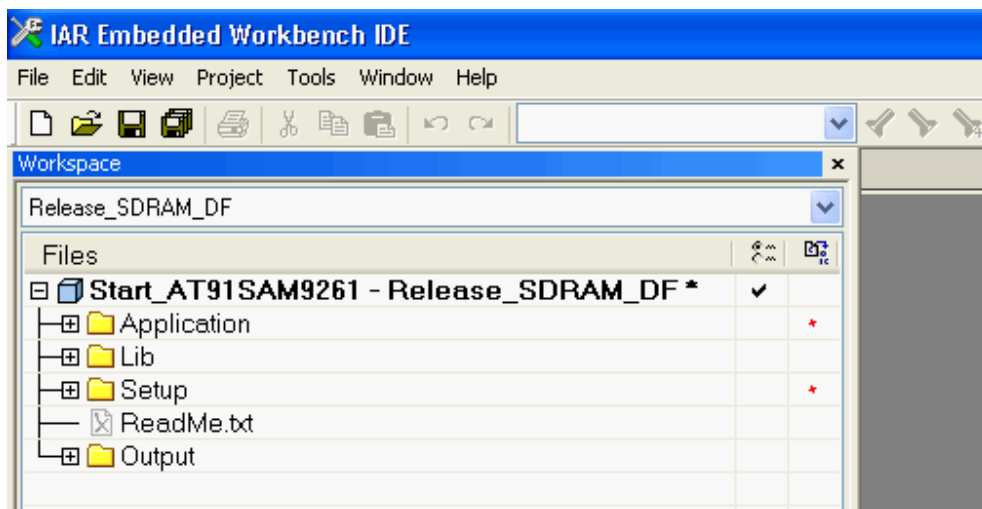
Click button: OK

The new configuration is added



Click button: OK

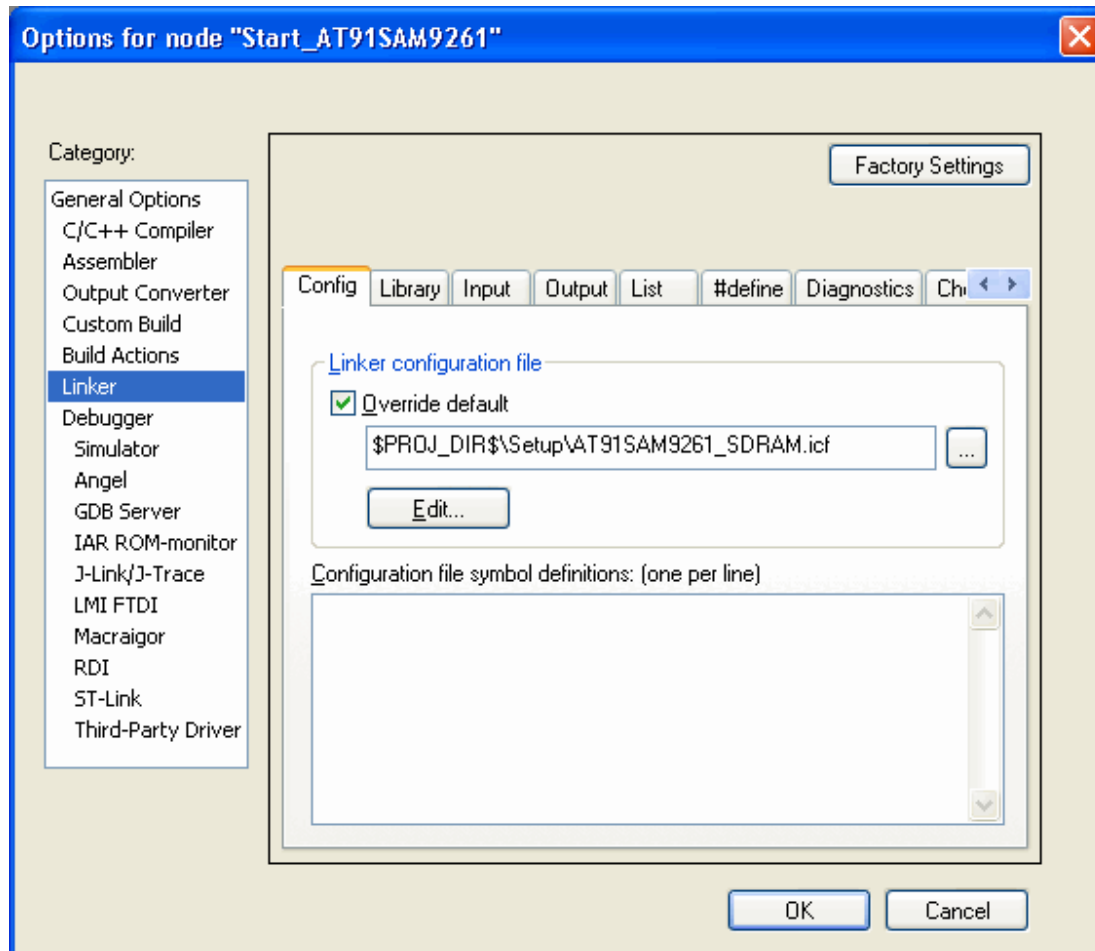
The new configuration "Release\_SDRAM\_DF" is now selected.



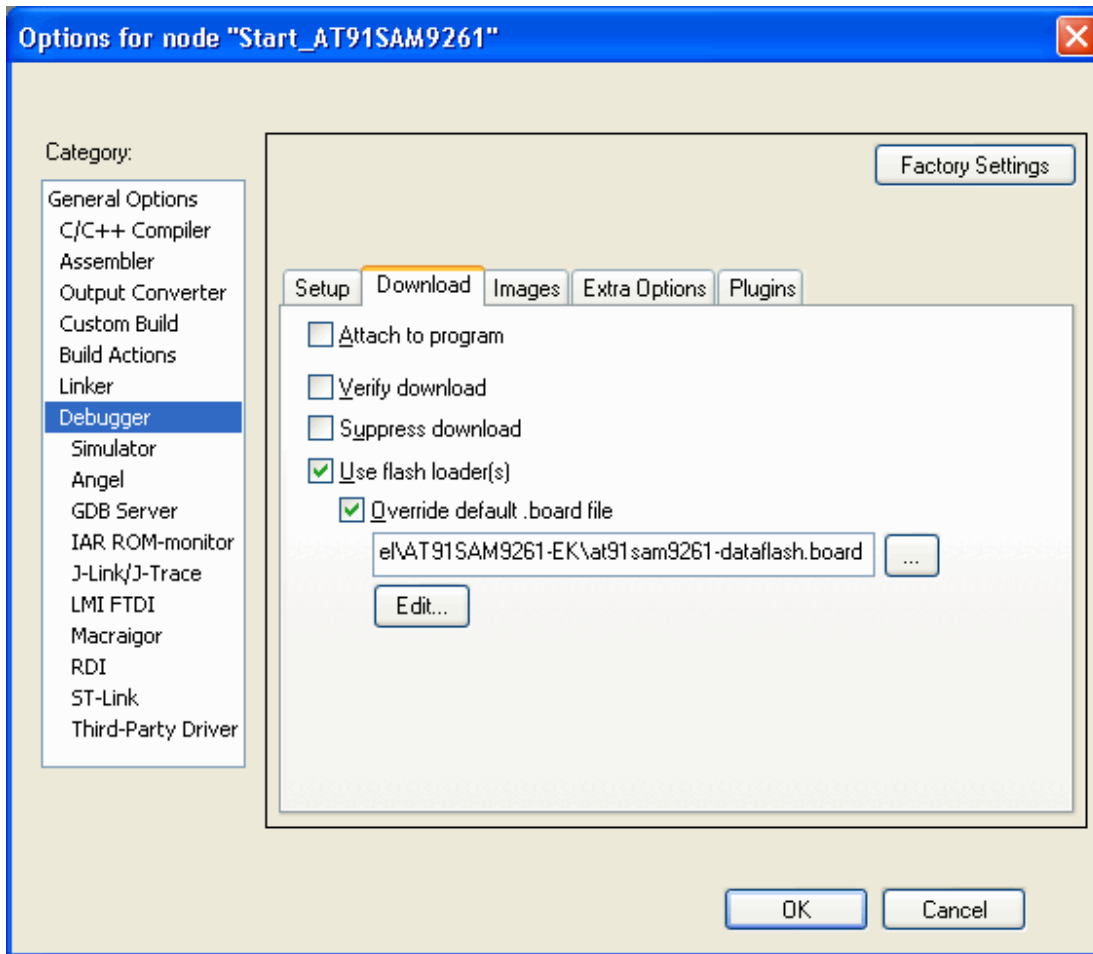
## Update project options

Run menu command: "Project > Options..."

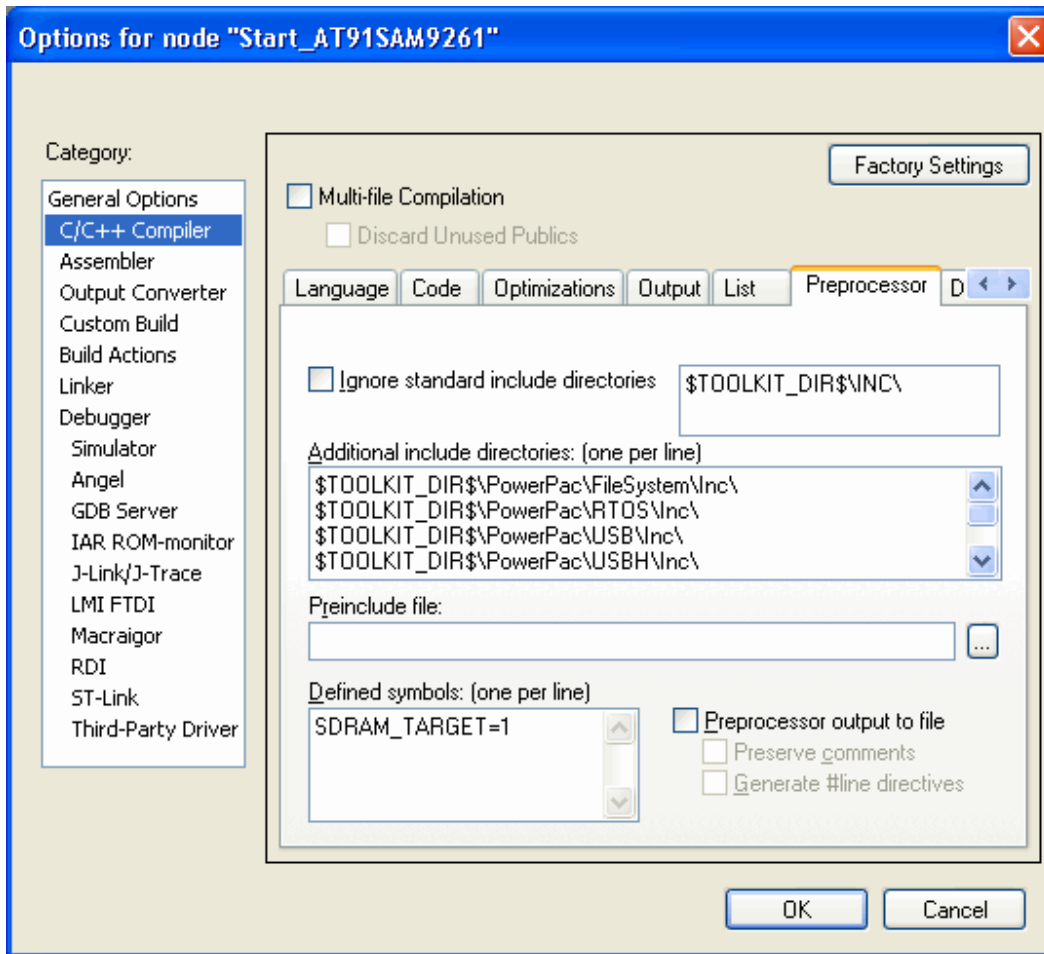
Modify option "Linker > Config > Linker configuration file":  
\$PROJ\_DIR\$\Setup\AT91SAM9261\_SDRAM.icf



Modify option "Debugger > Download > Use flash loader(s) > Override default .board file":  
\$TOOLKIT\_DIR\$\config\flashloader\Atmel\AT91SAM9261-EK\at91sam9261-dataflash.board



Modify option "C/C++ Compiler > Preprocessor > Defined symbols":  
Add symbol: "SDRAM\_TARGET=1"



Click button: OK

## Build and download application

Run menu command: "Project > Rebuild All"

The linker issues a warning:

*Warning[Lp005]: placement includes a mix of sections with content (example "rw data section .data in OSGLOBAL.o(os5t\_al\_\_r.a)") and sections without content (example "zi section .bss in ...AT91SAM9261\_SDRAM.icf 46 OS\_Start\_LEDBlink.o")*

To fix the warning message, modify AT91SAM9261\_SDRAM.icf

Replace

```
place in RAM_region    { readwrite,  
                        block HEAP };
```

with

```
place in RAM_region    { readwrite };  
place in RAM_region    { zi };  
place in RAM_region    { block HEAP };
```

Rebuild and then click button "Download and Debug" to download the application to dataflash (stop debugger).

## Build and download secondary bootloader

Open folder: \arm\examples\Atmel\at91bootstrap\

Open workspace: at91bootstrap-at91sam9261-ek.eww

Set as active: dataflash2sdram - DF Card

Build and then click button "Download and Debug" to download the secondary bootloader to dataflash (stop debugger).

Note: For a description about the preprocessor symbols, see main.c

## Run application in SDRAM

When the board is power cycled or the reset button is pushed, the application will be loaded to SDRAM and executed.

The C-SPY debugger can be attached by clicking the button "Debug without Downloading"