

Freescall MQX RTOS Example Guide

Benchmrk example

Freescall Semiconductor MQX(TM) CodeSize script

The script analyzes the generated xMAP file produced by CodeWarrior, IAR Embedded Workbench or ARM build tools and creates codesize report in an HTML format.

The script PERL source code is located in the current folder, the script executable is located in /tools directory.

The BSP and PSP libraries as well as the application code needs to be built in a special way in different configurations and different include search-paths to the customized user_config.h files. See the "mk" folder for custom makefiles used for this purpose. Note that the makefiles depend on the master Makefiles of the MQX in the top-level /mk folder.

The reports created with this script for different build tools are available in the "report" folder. The MQX kernel configurations used for these results are available in the "config" directory.

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Supported tools:

- CodeWarrior for MCU/ColdFire 6.3 (use -c cwcf6)
- CodeWarrior for ColdFire 7.2 (use -c cwcf7)
- CodeWarrior for mobileGT 9.2 (use -c cwmpc9)
- CodeWarrior version 10 for ColdFire platforms (use -c cwcf10)
- CodeWarrior version 10 for Kinetis platforms (use -c cwarm10)
- IAR Embedded Workbench for ARM v6.10 or later (use -c iararm6)
- ARM-MDK Keil uVision v4.23 or later (use -c uv4)

Options:

- M ... print detailed MAP file analysis report
- t ... dump text output to console
- W ... enable warning messages
- o <FILE> ... specify report output file name
- n <NAME> ... alternative MAP file name displayed in the report
- c <FORMAT> .. MAP file format specifier (use before the MAP file name)

supported formats: cwcf7, cwmcu6, cwmpc9, cwcf10, cwarm10, iararm6,

uv4

Report Options:

- +PSP or -PSP .. force or suppress PSP details (default +)
- +BSP or -BSP .. force or suppress BSP details (default +)
- +MFS or -MFS .. force or suppress MFS File System details (default -)
- +RTCS or -RTCS .. force or suppress RTCS TCP/IP stack details (default -)
- +USBH or -USBH .. force or suppress USB Host stack details (default -)
- +USBL or -USBL .. force or suppress USB Dev stack details (default -)
- +SUMM or -SUMM .. force or suppress summary report (default +)

Usage examples:

```
codesize.exe -c cwc7 <MAP_file>  
codesize.exe -M -c cwc10 <MAP_file>  
codesize.exe +MFS -PSP -BSP -c cwc10 <MAP_file>  
codesize.exe -c cwc10 <MAP_file1> -c cwmpc9 <MAP_file2>
```