PSP MEMORY SCRUBBING APIs

CFE_PSP_MEM_SCRUB_Set

Syntax	void CFE_PSP_MEM_SCRUB_Set(uint32 newStartAddr, uint32 newEndAddr, osal_priority_t task_priority)
Description	Set the Memory Scrubbing parameters This functions set the memory scrubbing parameters.
Parameters	[in] newStartAddr - Memory address to start from, usually zero [in] newEndAddr - Memory address to end at, usually end of the physical RAM [in] task_priority - The task priority
Returns	None
Notes	After calling this function, the new settings will be applied in the next call to the Activate Memory Scrubbing funtion. If newEndAddr is set to a value larger than the actual physical memory limit, the function will use the phyisical memory limit. Task priority can only be set between MEMSCRUB_PRIORITY_UP_RANGE and MEMSCRUB_PRIORITY_DOWN_RANGE defined in cfe_psp_config.h. Default is set to MEMSCRUB_DEFAULT_PRIORITY.

CFE_PSP_MEM_SCRUB_isRunning

Syntax	bool CFE_PSP_MEM_SCRUB_isRunning(void)
Description	Check if the Memory Scrubbing task is running This function provides the status whether the Memory Scrubbing task is running.
Parameters	None
Returns	true - If task is running false - If task is not running

Notes	None

CFE_PSP_MEM_SCRUB_Delete

Syntax	void CFE_PSP_MEM_SCRUB_Delete(void)
Description	Stop the memory scrubbing task This function deletes the Memory Scrubbing task. The task is deleted and the statistics are reset.
Parameters	None
Returns	None
Notes	None

CFE_PSP_MEM_SCRUB_Status

Syntax	void CFE_PSP_MEM_SCRUB_Status(void)
Description	Print the Memory Scrubbing statistics This function outputs to the console the following Memory Scrubbing statistics: Start memory address, End memory address, current memory page and total memory pages
Parameters	None
Returns	None
Notes	Start memory address is usually 0. End memory address is usually set to the last value of RAM address. Note that a page is 4098 bytes.

CFE_PSP_MEM_SCRUB_Task

Syntax	void CFE_PSP_MEM_SCRUB_Task(void)
Description	Memory Scrubbing task This function performs the Memory Scrubbing steps.
Parameters	None
Returns	None
Notes	The scrubMemory function implemented by AiTech may never return an error.

CFE_PSP_MEM_SCRUB_Init

Syntax	void CFE_PSP_MEM_SCRUB_Init(void)
Description	Initialize the Memory Scrubbing task This function starts the Memory Scrubbing task as a child thread.
Parameters	None
Returns	None
Notes	The scrubMemory function implemented by AiTech may never return an error.

CFE_PSP_MEM_SCRUB_Enable

Syntax	void CFE_PSP_MEM_SCRUB_Enable(void)
Description	Enable the Memory Scrubbing task This function enables the Memory Scrubbing task.

Parameters	None
Returns	None
Notes	If the task is already running, do nothing. If the task is not running, then start it.

CFE_PSP_MEM_SCRUB_Disable

Syntax	void CFE_PSP_MEM_SCRUB_Disable(void)
Description	Disable the Memory Scrubbing task This function disables the Memory Scrubbing task.
Parameters	None
Returns	None
Notes	If the task is already running, delete it. If the task is not running, then do nothing.