

### Help

```
#if defined(PremiaCurrentVersion) && PremiaCurrentVersion <
    (2008+2) //The "#else" part of the code will be freely av
    ailable after the (year of creation of this file + 2)
#else
/*****
*   CPS - A simple C PDE solver                                *
*                                                                *
*   Copyright (c) 2007,                                        *
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*                                                                *
*****/
#ifndef UTILS_H
#define UTILS_H

#include <stdlib.h>
#include <string.h>
#include "cps_types.h"
#include "cps_assertions.h"
#include "cps_debug.h"

/* utility macros */

#ifdef WITH_GC
#include <gc.h>
#define APP_INIT GC_INIT()
#define MEM_ALLOC GC_MALLOC
#define MEM_FREE  GC_FREE
#else
#define APP_INIT
#define MEM_ALLOC malloc
#define MEM_FREE free
#endif

#define STANDARD_CREATE(PTR,TYPE)          {
    *PTR = (TYPE*)MEM_ALLOC(sizeof(TYPE));  {
    CHECK("ptr_not_null", ((*PTR)) != NULL); {
```

```
memset((*(PTR)),0,sizeof(TYPE));

#define STANDARD_DESTROY(PTR)                                {
    if((*(PTR)) != NULL)                                     {
        MEM_FREE((*(PTR)));
    }
#endif

#endif //PremiaCurrentVersion
```

## References