

[Help](#)

```
#if defined(PremiaCurrentVersion) && PremiaCurrentVersion < (2008+2) //The "#els
#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 "
href../../common/math/highdim_solver/cps_types_h_src.pdfcps_types.h"
#include "
href../../common/math/highdim_solver/cps_assertions_h_src.pdfcps_assertions.h"
#include "
href../../common/math/highdim_solver/cps_debug_h_src.pdfcps_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
```