

## Help

```
#if defined(PremiaCurrentVersion) && PremiaCurrentVersion < (2008+2) //The "#els
#else
/*****
*   CPS - A simple C PDE solver                                     *
*                                                                 *
*   Copyright (c) 2007,                                           *
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*                                                                 *
*****/
#include "
href../../common/math/highdim_solver/cps_grid_tuner_h_src.pdfcps_grid_tuner.h
#include "
href../../common/math/highdim_solver/cps_grid_h_src.pdfcps_grid.h"
#include "
href../../common/math/highdim_solver/cps_grid_node_h_src.pdfcps_grid_node.h"
#include "
href../../common/math/highdim_solver/cps_utils_h_src.pdfcps_utils.h"
#include "
href../../common/math/highdim_solver/cps_assertions_h_src.pdfcps_assertions.h

/* private implementation functions */
static int generic_tuner(grid_tuner *tuner, grid *g)
{
    /* generically tune grid time */
    REQUIRE("tuner_not_null", tuner != NULL);
    REQUIRE("grid_not_null", g != NULL);

    g->delta[T_DIM] = (g->max_value[T_DIM] - g->min_value[T_DIM]) / (double)(g->ti
    g->is_tuned = 1;

    ENSURE("grid_is_tuned", g->is_tuned);
    return OK;
}

/* public interface */
```

```

int grid_tuner_create(grid_tuner **tuner)
{
    STANDARD_CREATE(tuner, grid_tuner);
    (*tuner)->tuners[GENERIC_TUNER] = generic_tuner;
    return OK;
}

int grid_tuner_destroy(grid_tuner **tuner)
{
    STANDARD_DESTROY(tuner);
    return OK;
}

int grid_tuner_set_argument(grid_tuner *tuner, void *arg)
{
    /* set argument to tuner */
    REQUIRE("tuner_not_null", tuner != NULL);
    REQUIRE("argument_not_null", arg != NULL);

    tuner->argument = arg;

    ENSURE("argument_set", tuner->argument == arg);
    return OK;
}

int grid_tuner_set_tuner(grid_tuner *tuner, int type, grid_tuner_proc proc)
{
    /* set a tuner procedure of given type */
    REQUIRE("tuner_not_null", tuner != NULL);
    REQUIRE("valid_type", type > 0 && type < MAX_TUNERS);
    REQUIRE("tuner_proc_not_null", proc != NULL);

    tuner->tuners[type] = proc;

    return OK;
}

int grid_tuner_apply(grid_tuner *tuner, int type, grid *grid)
{
    /* apply given type of tuner */
    grid_tuner_proc proc;

```

```
    REQUIRE("tuner_not_null", tuner != NULL);
    REQUIRE("valid_type", type >= 0 && type < MAX_TUNERS);
    REQUIRE("grid_not_null", grid != NULL);

    proc = tuner->tuners[type];
    proc(tuner, grid);
    grid->is_tuned = 1;
    ENSURE("grid_is_tuned", grid->is_tuned);
    return OK;
}

#endif //PremiaCurrentVersion
```