

Help

```
#if defined(PremiaCurrentVersion) && PremiaCurrentVersion < (2008+2) //The "#els
#else
/*****
*   CPS - A simple C PDE solver                               *
*                                                           *
*   Copyright (c) 2007,                                       *
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*                                                           *
*****/
#ifndef PROBLEM_SOLVER_H
#define PROBLEM_SOLVER_H

#include "
href../../common/math/highdim_solver/laspac/qmatrix_h_src.pdf/laspac/qmatrix
#include "
href../../common/math/highdim_solver/laspac/highdim_vector_h_src.pdf/laspac/
#include "
href../../common/math/highdim_solver/laspac/itersolv_h_src.pdf/laspac/iterso
#include "
href../../common/math/highdim_solver/laspac/operats_h_src.pdf/laspac/operats
#include "
href../../common/math/highdim_solver/laspac/errhandl_h_src.pdf/laspac/errhan
#include "
href../../common/math/highdim_solver/laspac/rtc_h_src.pdf/laspac/rtc.h"

#include "
href../../common/math/highdim_solver/cps_types_h_src.pdf/cps_types.h"

#define SOLVER_MODE_IMP 0xF1
#define SOLVER_MODE_EXP 0xF0

#define SOLVER_ALG_CG 0xA1
#define SOLVER_ALG_GMRES 0xA2
#define SOLVER_ALG_BICGS 0xA3

#define MAX_MAIN_SOLVER_ITERATIONS 20
```

```

#define MAX_BACKUP_SOLVER_ITERATIONS 100

#define FULL_CORRECTION 0xC1
#define FAST_CORRECTION 0xC2

struct problem_solver_t
{
    int mode;
    int step;
    int algorithm;
    int correction_mode;
    pde_problem *problem;
    QMatrix Dc, Dn;
    Vector uc, un, bc;
    IterProcType iterative_solver;
};

int problem_solver_create(problem_solver **);
int problem_solver_destroy(problem_solver **);
int problem_solver_setup(problem_solver *, pde_problem *);
int problem_solver_reset(problem_solver *);
int problem_solver_set_mode(problem_solver *, int);
int problem_solver_set_correction_mode(problem_solver *, int);
int problem_solver_set_algorithm(problem_solver *, int);
int problem_solver_step(problem_solver *);
int problem_solver_get_solution_element(problem_solver *, unsigned int, double *)
#endif

#endif //PremiaCurrentVersion

```