

## Help

```
#if defined(PremiaCurrentVersion) && PremiaCurrentVersion < (2008+2) //The "#els
#else
/*****
/*                               mlsolv.h                               */
/*****
/*                               */
/* Multi-Level SOLVers                               */
/*                               */
/* Copyright (C) 1992-1995 Tomas Skalicky. All rights reserved.       */
/*                               */
/*****
/*                               */
/*      ANY USE OF THIS CODE CONSTITUTES ACCEPTANCE OF THE TERMS       */
/*      OF THE COPYRIGHT NOTICE (SEE FILE COPYRGHT.H)                   */
/*                               */
/*****

#ifndef MLSOLV_H
#define MLSOLV_H

#include "
href../../../../common/math/highdim_solver/laspack/highdim_vector_h_src.pdfhighd
#include "
href../../../../common/math/highdim_solver/laspack/highdim_matrix_h_src.pdfhighd
#include "
href../../../../common/math/highdim_solver/laspack/qmatrix_h_src.pdfqmatrix.h"
#include "
href../../../../common/math/highdim_solver/laspack/itersolv_h_src.pdfitersolv.h"
#include "
href../../../../common/math/highdim_solver/laspack/copyright_h_src.pdfcopyright.h"

Vector *MGStep(int NoLevels, QMatrix *A, Vector *x, Vector *b,
               Matrix *R, Matrix *P, int Level, int Gamma,
               IterProcType SmoothProc, int Nu1, int Nu2,
               PrecondProcType PrecondProc, double Omega,
               IterProcType SolvProc, int NuC,
               PrecondProcType PrecondProcC, double OmegaC);
Vector *MGIter(int NoLevels, QMatrix *A, Vector *x, Vector *b,
               Matrix *R, Matrix *P, int MaxIter, int Gamma,
```

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        IterProcType SmoothProc, int Nu1, int Nu2,
        PrecondProcType PrecondProc, double Omega,
        IterProcType SolvProc, int NuC,
        PrecondProcType PrecondProcC, double OmegaC);
Vector *NestedMGIter(int NoLevels, QMatrix *A, Vector *x, Vector *b,
        Matrix *R, Matrix *P, int Gamma,
        IterProcType SmoothProc, int Nu1, int Nu2,
        PrecondProcType PrecondProc, double Omega,
        IterProcType SolvProc, int NuC,
        PrecondProcType PrecondProcC, double OmegaC);
Vector *MGPCGIter(int NoLevels, QMatrix *A, Vector *x, Vector *b,
        Matrix *R, Matrix *P, int MaxIter, int NoMGIter, int Gamma,
        IterProcType SmoothProc, int Nu1, int Nu2,
        PrecondProcType PrecondProc, double Omega,
        IterProcType SolvProc, int NuC,
        PrecondProcType PrecondProcC, double OmegaC);
Vector *BPXPrecond(int NoLevels, QMatrix *A, Vector *y, Vector *c,
        Matrix *R, Matrix *P, int Level,
        IterProcType SmoothProc, int Nu,
        PrecondProcType PrecondProc, double Omega,
        IterProcType SmoothProcC, int NuC,
        PrecondProcType PrecondProcC, double OmegaC);
Vector *BPXPCGIter(int NoLevels, QMatrix *A, Vector *x, Vector *b,
        Matrix *R, Matrix *P, int MaxIter,
        IterProcType SmoothProc, int Nu,
        PrecondProcType PrecondProc, double Omega,
        IterProcType SmoothProcC, int NuC,
        PrecondProcType PrecondProcC, double OmegaC);

#endif /* MLSOLV_H */

#endif //PremiaCurrentVersion

```