

## 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
/*****
    *****/
/*
                                highdim_vector.h
                                */
/*****
    *****/
/*
                                */
/* type VECTOR
                                */
/*
                                */
/* Copyright (C) 1992-1995 Tomas Skalicky. All rights res
    erved.
                                */
/*
                                */
/*****
    *****/
/*
                                */
/*      ANY USE OF THIS CODE CONSTITUTES ACCEPTANCE OF TH
    E TERMS
                                */
/*      OF THE COPYRIGHT NOTICE (SEE FILE copyright.h
    )
                                */
/*
                                */
/*****
    *****/

#ifndef HIGHDIM_VECTOR_H
#define HIGHDIM_VECTOR_H

#include <stdlib.h>

#include "lastypes.h"
#include "elcmp.h"

```

```

#include "copyright.h"

typedef struct {
    char *Name;
    size_t Dim;
    InstanceType Instance;
    int LockLevel;
    double Multipl;
    Boolean OwnData;
    double *Cmp;
} Vector;

void V_Constr(Vector *V, char *Name, size_t Dim, InstanceT
    ype Instance,
    Boolean OwnData);
void V_Destr(Vector *V);
void V_SetName(Vector *V, char *Name);
char *V_GetName(Vector *V);
size_t V_GetDim(Vector *V);
void V_SetCmp(Vector *V, size_t Ind, double Val);
void V_SetAllCmp(Vector *V, double Val);
void V_SetRndCmp(Vector *V);
double V_GetCmp(Vector *V, size_t Ind);
void V_AddCmp(Vector *V, size_t Ind, double Val);

/* macros for fast access */
#define V__SetCmp(PtrV, Ind, Val) (PtrV)->Cmp[Ind
    ] = (Val)
#define V__GetCmp(PtrV, Ind) (PtrV)->Cmp[Ind
    ]
#define V__AddCmp(PtrV, Ind, Val) (PtrV)->Cmp[Ind
    ] += (Val)

void V_Lock(Vector *V);
void V_Unlock(Vector *V);

#endif /* HIGHDIM_VECTOR_H */

#endif //PremiaCurrentVersion

```

## References