

### 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
/*****
*   CPS - A simple C PDE solver                               *
*                                                                 *
*   Copyright (c) 2007,                                       *
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*                                                                 *
*****/
#ifndef STENCIL_PATTERN_H
#define STENCIL_PATTERN_H

#include "cps_types.h"

#define GLOC_BOUNDARY 0x1a
#define GLOC_INTERNAL 0x1b
#define GLOC_EXTERNAL 0x1c

struct stencil_application_t {

    double value;
    unsigned int position;
    unsigned int order;
    unsigned short grid_location;
};

struct stencil_pattern_t {

    unsigned int count;
    unsigned int cursor;
    stencil_application *application[MAX_STENCIL_SIZE];
};
```

```
int stencil_pattern_create(stencil_pattern **);
int stencil_pattern_destroy(stencil_pattern **);
int stencil_pattern_put(stencil_pattern *, unsigned int,
    stencil_application *);
/* iterators */
int stencil_pattern_start(stencil_pattern *);
int stencil_pattern_after(const stencil_pattern *);
int stencil_pattern_forth(stencil_pattern *);
int stencil_pattern_item(const stencil_pattern *, stencil_
    application **);
/* stencil_application */
int stencil_application_create(stencil_application **);
int stencil_application_destroy(stencil_application **);
int stencil_application_is_boundary(const stencil_applicati
    on *);
int stencil_application_is_external(const stencil_applicati
    on *);
int stencil_application_is_internal(const stencil_applicati
    on *);
int stencil_application_set_boundary(stencil_application *)
    ;
int stencil_application_set_external(stencil_application *)
    ;
int stencil_application_set_internal(stencil_application *)
    ;
int stencil_application_set_order(stencil_application *, un
    signed int);
#endif

#endif //PremiaCurrentVersion
```

## References