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Description :- Project **Steganography (encode.h)**

**\*/**

#ifndef ENCODE\_H

#define ENCODE\_H

#include "types.h" // Contains user defined types

/\*

\* Structure to store information required for

\* encoding secret file to source Image

\* Info about output and intermediate data is

\* also stored

\*/

#define MAX\_SECRET\_BUF\_SIZE 1

#define MAX\_IMAGE\_BUF\_SIZE (MAX\_SECRET\_BUF\_SIZE \* 8)

#define MAX\_FILE\_SUFFIX 4

typedef struct \_EncodeInfo

{

/\* Source Image info \*/

char \*src\_image\_fname;

FILE \*fptr\_src\_image;

uint image\_capacity;

uint bits\_per\_pixel;

char image\_data[MAX\_IMAGE\_BUF\_SIZE];

/\* Secret File Info \*/

char \*secret\_fname;

FILE \*fptr\_secret;

char extn\_secret\_file[MAX\_FILE\_SUFFIX];

char secret\_data[MAX\_SECRET\_BUF\_SIZE];

long size\_secret\_file;

/\* Stego Image Info \*/

char \*stego\_image\_fname;

FILE \*fptr\_stego\_image;

} EncodeInfo;

/\* Encoding function prototype \*/

/\* Check operation type \*/

OperationType check\_operation\_type(char \*argv[]);

/\* Read and validate Encode args from argv \*/

Status read\_and\_validate\_encode\_args(char \*argv[], EncodeInfo \*encInfo);

/\* Perform the encoding \*/

Status do\_encoding(EncodeInfo \*encInfo);

/\* Get File pointers for i/p and o/p files \*/

Status open\_files(EncodeInfo \*encInfo);

/\* check capacity \*/

Status check\_capacity(EncodeInfo \*encInfo);

/\* Get image size \*/

uint get\_image\_size\_for\_bmp(FILE \*fptr\_image);

/\* Get file size \*/

long get\_file\_size(FILE \*fptr);

/\* Copy bmp image header \*/

Status copy\_bmp\_header(FILE \*fptr\_src\_image, FILE \*fptr\_dest\_image);

/\* Store Magic String \*/

Status encode\_magic\_string(char \*magic\_string, EncodeInfo \*encInfo);

/\* Encode Secret file extn size \*/

Status encode\_secret\_file\_extn\_size(int size, FILE \*fptr\_src\_image, FILE \*fptr\_stego\_image);

/\* Encode secret file extenstion \*/

Status encode\_secret\_file\_extn(char \*file\_extn, EncodeInfo \*encInfo);

/\* Encode secret file size \*/

Status encode\_secret\_file\_size(int file\_size, EncodeInfo \*encInfo);

/\* Encode secret file data\*/

Status encode\_secret\_file\_data(EncodeInfo \*encInfo);

/\* Encode function, which does the real encoding \*/

Status encode\_data\_to\_image(char \*data, int size, FILE \*fptr\_src\_image, FILE \*fptr\_stego\_image, EncodeInfo \*encInfo);

/\* Encode a byte into LSB of image data array \*/

Status encode\_byte\_to\_lsb(char data, char \*image\_buffer);

/\* Encode size to lsb \*/

Status encode\_size\_to\_lsb(int size, char \*image\_buffer);

/\* Copy remaining image bytes from src to stego image after encoding \*/

Status copy\_remaining\_img\_data(FILE \*fptr\_src, FILE \*fptr\_dest);

#endif