Search,fill bit patterns

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Here is a list of all documented files with brief descriptions:

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File Documentation

2.1 bits.c File Reference

Function definitions for bit pattern check and fill.

```
#include "bits.h"
```

Functions

- void process_pattern (unsigned char pattern, int plength)

  Computes and stores the byte sequences that repeat using the given pattern.
- unsigned char * check_bit_pattern (unsigned char *start_addr)

  Checks whether the memory contains continuos repetition of the bit pattern from the given start address.
- void fill_pattern (unsigned char *start_addr, unsigned char *end_addr)

  Fills the memory with continuos repetition of the bit pattern from start address to end address.
- void init_zero (unsigned char *start_addr, unsigned char *end_addr)

  Initializes the memory with 0 from start address to end address.

Variables

- static unsigned char * shifted_patterns

  An array to store all possible byte sequences which repeats. eg: 5 bit-pattern has 5 repeating byte sequences.
- static int length

  Stores the length of the pattern (in bits)

2.1.1 Detailed Description

Function definitions for bit pattern check and fill.

This contains the function definitions for checking whether the memory is continuous repetition of given bit pattern and also to fill memory with the bit pattern.

Author

Freeze Francis

2.1.2 Function Documentation

2.1.2.1 unsigned char* check_bit_pattern (unsigned char * *start_addr*)

Checks whether the memory contains continuos repetition of the bit pattern from the given start address.

Parameters

start_addr	pointer to the starting address

Returns

pointer to the point where the bit pattern repetition fails

2.1.2.2 void fill_pattern (unsigned char * *start_addr,* unsigned char * *end_addr*)

Fills the memory with continuos repetition of the bit pattern from start address to end address.

Parameters

start_addr	pointer to the starting address
end_addr	pointer to the end address

Returns

void

2.1.2.3 void init_zero (unsigned char * *start_addr,* unsigned char * *end_addr*)

Initializes the memory with 0 from start address to end address.

Parameters

start_addr	pointer to the starting address
end_addr	pointer to the end address

Returns

void

2.1.2.4 void process_pattern (unsigned char *pattern,* int *plength*)

Computes and stores the byte sequences that repeat using the given pattern.

Parameters

pattern	the bit pattern to be processed
plength	length of the pattern in bits

Returns

void

2.2 bits.h File Reference

Function prototypes for bit pattern check and fill.

```
#include <stdio.h>
#include <stdlib.h>
```

Macros

- #define **BYTE_SIZE** 8

Functions

- unsigned char * check_bit_pattern (unsigned char *start_addr)

  Checks whether the memory contains continuos repetition of the bit pattern from the given start address.
- void fill_pattern (unsigned char *start_addr, unsigned char *end_addr)

  Fills the memory with continuos repetition of the bit pattern from start address to end address.
- void init_zero (unsigned char *start_addr, unsigned char *end_addr)

  Initializes the memory with 0 from start address to end address.
- void process_pattern (unsigned char pattern, int plength)

  Computes and stores the byte sequences that repeat using the given pattern.

2.2.1 Detailed Description

Function prototypes for bit pattern check and fill.

This contains the prototypes for checking whether the memory is continuous repetition of given bitpattern and also to fill memory with the bitpattern.

Author

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2.2.2.1 unsigned char* check_bit_pattern (unsigned char * *start_addr*)

Checks whether the memory contains continuos repetition of the bit pattern from the given start address.

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start_addr	pointer to the starting address

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pointer to the point where the bit pattern repetition fails

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Fills the memory with continuos repetition of the bit pattern from start address to end address.

Parameters

start_addr	pointer to the starting address
end_addr	pointer to the end address

Returns

void

2.2.2.3 void init_zero (unsigned char * *start_addr,* unsigned char * *end_addr*)

Initializes the memory with 0 from start address to end address.

Parameters

start_addr	pointer to the starting address
end_addr	pointer to the end address

Returns

void

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Computes and stores the byte sequences that repeat using the given pattern.

Parameters

pattern	the bit pattern to be processed
plength	length of the pattern in bits

Returns

void

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