

strncmp

Defined in header <string.h>

```
int strncmp( const char *lhs, const char *rhs, size_t count );
```

Compares at most count characters of two possibly null-terminated arrays. The comparison is done lexicographically. Characters following the null character are not compared.

The sign of the result is the sign of the difference between the values of the first pair of characters (both interpreted as `unsigned char`) that differ in the arrays being compared.

The behavior is undefined when access occurs past the end of either array lhs or rhs. The behavior is undefined when either lhs or rhs is the null pointer.

Parameters

lhs, rhs - pointers to the possibly null-terminated arrays to compare
count - maximum number of characters to compare

Return value

Negative value if lhs appears before rhs in lexicographical order.

Zero if lhs and rhs compare equal, or if count is zero.

Positive value if lhs appears after rhs in lexicographical order.

Notes

This function is not locale-sensitive, unlike `strcoll` and `strxfrm`.

Example

Run this code

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

void demo(const char* lhs, const char* rhs, int sz)
{
    int rc = strncmp(lhs, rhs, sz);
    if(rc == 0)
        printf("First %d chars of [%s] equal [%s]\n", sz, lhs, rhs);
    else if(rc < 0)
        printf("First %d chars of [%s] precede [%s]\n", sz, lhs, rhs);
    else if(rc > 0)
        printf("First %d chars of [%s] follow [%s]\n", sz, lhs, rhs);
}

int main(void)
{
    const char* string = "Hello World!";
    demo(string, "Hello!", 5);
    demo(string, "Hello", 10);
    demo(string, "Hello there", 10);
    demo("Hello, everybody!" + 12, "Hello, somebody!" + 11, 5);
}
```

Output:

```
First 5 chars of [Hello World!] equal [Hello!]
First 10 chars of [Hello World!] follow [Hello]
First 10 chars of [Hello World!] precede [Hello there]
First 5 chars of [body!] equal [body!]
```

References

- C11 standard (ISO/IEC 9899:2011):
 - 7.24.4.4 The strncmp function (p: 366)
- C99 standard (ISO/IEC 9899:1999):
 - 7.21.4.4 The strncmp function (p: 329)
- C89/C90 standard (ISO/IEC 9899:1990):
 - 4.11.4.4 The strncmp function

See also

strcmp	compares two strings (function)
wcsncmp (C95)	compares a certain amount of characters from two wide strings (function)
memcmp	compares two buffers (function)
strcoll	compares two strings in accordance to the current locale (function)
C++ documentation for strncmp	

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