

SUMMARY

In Microsoft C, the `strtok()` function takes two strings as arguments. The first is a series of zero or more tokens separated by delimiters defined by the second string. The first call to `strtok()` returns a pointer to the first token in the first argument. To get the next token in the original string, a call to `strtok()` must be made with `NULL` as the first argument, which tells `strtok()` to search for the next token in the previous token string.

Keep the following information in mind when using `strtok()`:

- `strtok()` will replace a delimiter in the original string with a `NULL` each time the function is called using the same string, so the original string is modified by the use of `strtok()`.
- The second argument to `strtok()` can be changed at any time to a different delimiter.
- Only single characters are considered to be delimiters

On the first call to `strtok()`, the function searches the string argument given as the first parameter for any token delimiter defined in the second string argument. Any further call to `strtok()` with `NULL` as the first argument will return a pointer to the next token in the original string. The following sample program from page 603 of the "Microsoft C Optimizing Compiler: Run-Time Library Reference" manual for version 5.1 shows how `strtok()` searches a token string:

Sample Code

```
/* Compile options needed: none
*/

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

char string[] = "a string,of ,,tokens";
char *token;

void main(void)
{
```

```

        token = strtok(string, " ,"); /*There are two
delimiters here*/
        while (token != NULL){
            printf("The token is:  %s\n", token);
            token = strtok(NULL, " ,");
        }
}

```

The output of this program is as follows:

- The token is: a
- The token is: string
- The token is: of
- The token is: tokens

The following is a sample representation of the area in memory around the token pointer during execution of the above program. Note the replacement of the delimiter with a NULL character each time a token is found:

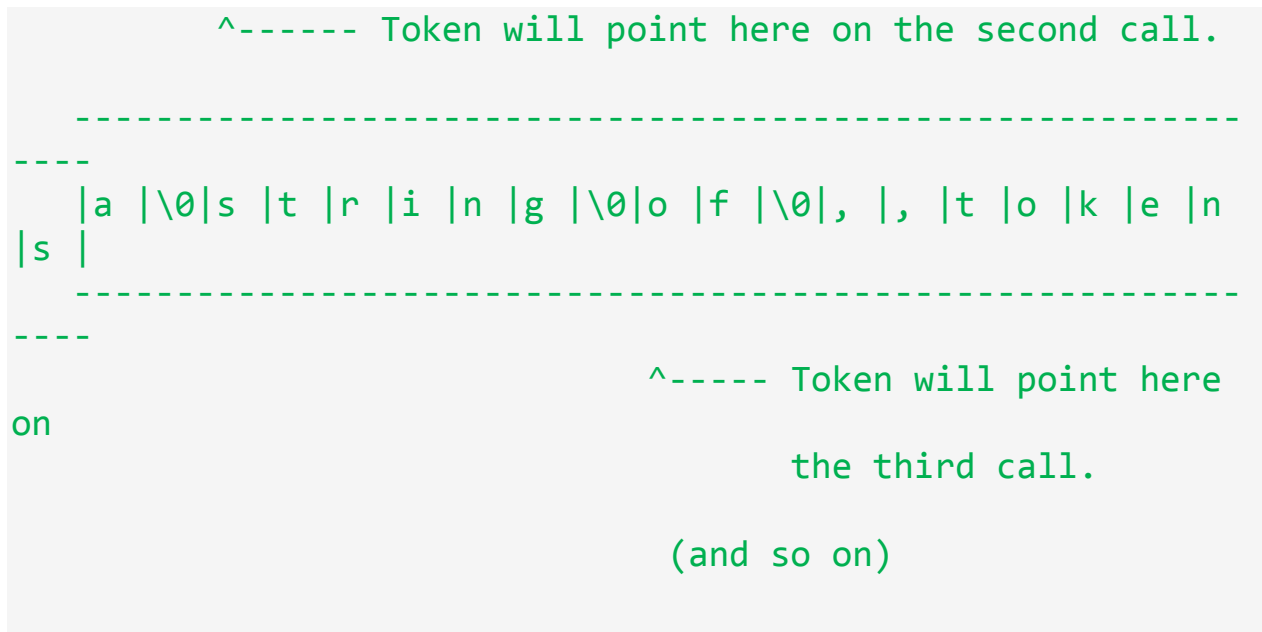
```

-----
----
|a |  |s |t |r |i |n |g |, |o |f |  |, |, |t |o |k |e |n
|s |
-----
----
This is the original string before the first call to
strtok().

-----
----
|a |\0|s |t |r |i |n |g |, |o |f |  |, |, |t |o |k |e |n
|s |
-----
----
^----- Token will point here on the first call.

-----
----
|a |\0|s |t |r |i |n |g |\0|o |f |  |, |, |t |o |k |e |n
|s |
-----
----

```



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Article ID: 51327 - Last Review: July 5, 2005 - Revision: 3.1

APPLIES TO

- The C Run-Time (CRT), when used with:
 - Microsoft C Professional Development System 6.0a
 - Microsoft C Professional Development System 6.0a
 - Microsoft Visual C++ 1.0 Professional Edition
 - Microsoft Visual C++ 1.5 Professional Edition
 - Microsoft Visual C++ 1.0 Professional Edition
 - Microsoft Visual C++ 2.0 Professional Edition
 - Microsoft Visual C++ 4.0 Standard Edition
 - Microsoft Visual C++ 5.0 Standard Edition
 - Microsoft Visual C++ 6.0 Service Pack 5

Keywords: kbcode kbcr t kbinfo KB51327

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