

# How to find the index of the first char in a string that is not in a list

Asked 16 years, 1 month ago   Modified 16 years, 1 month ago   Viewed 7k times



I know I can loop over the string or build a regex or invert the set (ASCII isn't that big after all) and search for the first instance of that, but Yuck.

1

What I'm looking for is a nice one liner.



fewer features is better, LINQ is out (for me, don't ask, it's a *long* story)



The solution I'm going with (unless I see something better)

```
static int FirstNotMeta(int i, string str)
{
    for(; i < str.Length; i++)
        switch(str[i])
        {
            case '\\':
            case '/':
            case '.':
                continue;
            default:
                return i;
        }
    return -1;
}
```

OK, I cheated, I know in advance what char's I care about.

c#

string

search

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edited Nov 19, 2008 at 6:49

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asked Nov 19, 2008 at 0:30



BCS

78.3k ● 69 ● 194 ● 298

The app needs to run on Linux without mono, so I'm also doing an auto translation to a language that doesn't need mono. Oh, boy am I having fun! Really, I am! – [BCS](#) Nov 19, 2008 at 1:00

Should have said you want the index and not the character. – [Robert Wagner](#) Nov 19, 2008 at 1:33

## 4 Answers

Sorted by: Highest score (default)



This works:

7



```
public static char FindFirstNotAny(this string value, params char[] charset)
{
    return value.TrimStart(charset)[0];
}
```



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edited Nov 19, 2008 at 0:55



Mitch Wheat

300k ● 44 ● 477 ● 550

answered Nov 19, 2008 at 0:46



Jeff B

1,876 ● 2 ● 17 ● 29

1 "nest": a word describing the condition of having bad aim on key boards and thinking something is cool – [BCS](#) Nov 19, 2008 at 1:05

@BCS: I should have read all the way to the end of your definition! nice one! i..e very nest  
– [Mitch Wheat](#) Nov 19, 2008 at 1:15

Nice, didn't even think of that. Make sure there IS a character at 0 though. – [Robert Wagner](#)  
Nov 19, 2008 at 1:32



2



If you don't have access to LINQ, I think you may just have to write a static method with a loop (which is probably more efficient than LINQ anyway. Remember the compiler will inline small methods when possible.

The simplest non-LINQ I can come up with is below. I recommend adding braces so scope and the blocks are clear:



```
public static char? GetFirstChar(string str, char[] list)
{
    foreach (char c in str) if (!list.Contains(c)) return c;
    return null;
}
```

With C# 3.0 and LINQ:

```
char[] list = { 'A', 'B' };
string str = "AABAGAF";

char first = str.ToArray().Where(c => !list.Contains(c)).FirstOrDefault();
```

In that case, if there is no non-list character, first will equal 0x0000 (or the *character* null). You could do this:

```
char? first = str.ToArray().Cast<char?>().Where(  
    c => !list.Contains(c.Value)).FirstOrDefault();
```

Then first will be null if there are no matches. This can also be written as:

```
var query = from char c in str  
            where !list.Contains(c)  
            select (char?)c;  
char? first = query.FirstOrDefault();
```

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edited Nov 19, 2008 at 0:50

answered Nov 19, 2008 at 0:36

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**Robert Wagner**

17.8k ● 9 ● 58 ● 72

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Not all that efficient, but:

1



```
char f(string str, IEnumerable<char> list)  
{  
    return str.ToCharArray().First(c => !list.Contains(c))  
}
```



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answered Nov 19, 2008 at 0:35



**Joe Strommen**

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Won't this return the value of the first char, not the index? – [Jacksonh](#) Feb 3, 2009 at 18:37

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Will this C/C++ example work for you:

1



```
char *strToSearch = "This is the one liner you want"  
char *skipChars = "Tthise";  
size_t numToSkip = strcspn(strToSearch, skipChars);
```



The `strcspn()` function scans a string for the complement of the specified set. It returns the number of initial characters that do *not* include a character in the set.

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answered Nov 19, 2008 at 1:08



[Adam Liss](#)

48.3k ● 13 ● 113 ● 152

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It'd seem the code behind `strcspn` would be what's needed...GPL version: [google.com/...](http://google.com/...)

– [Mark Brackett](#) Nov 19, 2008 at 1:14

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