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Subject: Is there a token function?

Posted by [forlano](#) on Sat, 22 Apr 2006 20:06:10 GMT

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Hello,

my application now needs to read a file. I've already my old C function for this purpose. Because I want to make available the source code of the new rewritten application I would like to use all the U++ facilities and get rid all C functions and its flavour.

The question: at some moment my file become formatted and ';' delimited... like this:

```
NAME;          COUNTRY;BIRTHDAY;G;TITLE;IDFIDE;ELOFIDE; IDNAT;ELONAT;K;ISAVAL
AAAAAAA      ;---;00.00.00;m; GM;    0;  0;    0;  0;0;1
BBBBBBB      ;---;00.00.00;m; GM;    0;  0;    0;  0;0;1
CCCCCCC      ;---;00.00.00;m; GM;    0;  0;    0;  0;0;1
```

...  
I need to extract the field beetwen consecutive ';' in each row-record. In the past I've used the strtok() function. Is there something equivalent in U++ ? I've investigated all the code available but without success.

I've found a C++ token function here

<http://oopweb.com/Cpp/Documents/CPHOWTO/Volume/C++Programmi ng-HOWTO-7.html>

I'll try to adapt it in U++ if there is not yet one.

Luigi

PS: BTW, I'm going to use the cin operator to read the txt file. Please stop me if there is some smartest way to do it.

PPS: I spent the afternoon to learn I/O in C++. Surfing the web I found this reference that says something (but not useful in concrete sense) about serialization

<http://www.parashift.com/c++-faq-lite/serialization.html#faq -36.11>

I reminded that U++ has such feature. I wonder if it can be useful in my case or it is an argument too advanced for the moment and/or not useful for such application (it needs to save data at some moment inside 2 text files).

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Subject: Re: Is there a token function?

Posted by [mirek](#) on Sat, 22 Apr 2006 20:39:01 GMT

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Well, if you are not to process 100MB+ files that are not well divided into lines and has similar lexical syntax to C, the easiest and fastest U++ way is to LoadFile into String and then use CParser.

If you DO want to process 100MB+ files and/or they are divided into lines, usually you can use similar approach, just use CParser per each single line. Or process it in any other way - in this

particular case, I believe "Split" would be the best option (as you have fields separated by ';').

BTW, what you present is kind of import I have to provide for my customers quite often. Skeleton of such parser usually looks like

```
FileIn in(path_to_file);
in.GetLine(); // to eat "header" line
try {
    while(!in.IsEof()) {
        Vector<String> field = Split(in.GetLine(), ';');
        if(field.GetCount() != 11)
            throw CParser::Error("");
        String name = field[0];
        String country = field[1];
        CParser p(field[2]);
        Date d;
        d.day = p.ReadInt();
        p.PassChar('.');
        d.month = p.ReadInt();
        p.PassChar('.');
        d.year = p.ReadInt();
        if(d.year < 20)
            d.year += 2000;
        else
            if(d.year < 100)
                d.year += 1900;
    }
}
catch(CParser::Error) {
    // invalid file
}
```

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Subject: Re: Is there a token function?  
Posted by [fudadmin](#) on Sun, 23 Apr 2006 09:50:52 GMT  
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Why there is no String::GetLine()? or I can't find?

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Subject: Re: Is there a token function?  
Posted by [forlano](#) on Sun, 23 Apr 2006 11:31:06 GMT  
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fudadmin wrote on Sun, 23 April 2006 11:50 Why there is no String::GetLine()? or I can't find?

There is. After typing  
FileIn in(filename);  
if I add a '!' - FileIn in(filename).; - appear a list in which I can see GetLine().

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Subject: Re: Is there a token function?  
Posted by [fudadmin](#) on Sun, 23 Apr 2006 11:35:55 GMT  
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forlano wrote on Sun, 23 April 2006 12:31fudadmin wrote on Sun, 23 April 2006 11:50Why there is no String::GetLine()? or I can't find?

There is. After typing  
FileIn in(filename);  
if I add a '!' - FileIn in(filename).; - appear a list in which I can see GetLine().

```
String s;  
s.GetLine(); ???
```

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Subject: Re: Is there a token function?  
Posted by [forlano](#) on Sun, 23 Apr 2006 11:55:53 GMT  
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fudadmin wrote on Sun, 23 April 2006 13:35forlano wrote on Sun, 23 April 2006 12:31fudadmin wrote on Sun, 23 April 2006 11:50Why there is no String::GetLine()? or I can't find?

There is. After typing  
FileIn in(filename);  
if I add a '!' - FileIn in(filename).; - appear a list in which I can see GetLine().

```
String s;  
s.GetLine(); ???
```

```
FileIn in;  
String s;  
...  
s = in.GetLine();
```

I'm using it to get a record from a file. Maybe you mean from stdin?

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Subject: Re: Is there a token function?

Posted by [fudadmin](#) on Sun, 23 Apr 2006 11:57:47 GMT

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forlano wrote on Sun, 23 April 2006 12:55fudadmin wrote on Sun, 23 April 2006 13:35forlano wrote on Sun, 23 April 2006 12:31fudadmin wrote on Sun, 23 April 2006 11:50Why there is no String::GetLine()? or I can't find?

There is. After typing

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FileIn in(filename);
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```
String s;
```

```
s.GetLine(); ???
```

```
FileIn in;
```

```
String s;
```

```
...
```

```
s = in.GetLine();
```

I'm using it to get a record from a file. Maybe you mean from stdin?

What if I don't have any files?

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Subject: Re: Is there a token function?

Posted by [fudadmin](#) on Sun, 23 Apr 2006 11:59:43 GMT

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I want to create lines, then to check and then to write to file...

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Subject: Re: Is there a token function?

Posted by [forlano](#) on Sun, 23 Apr 2006 12:19:20 GMT

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fudadmin wrote on Sun, 23 April 2006 13:59I want to create lines, then to check and then to write

to file...

I was not able to find what you need. Perhaps it is absent Maybe you can use the standard method that work with usual "string" class:

```
getline(cin, my_string, '\n');
```

But I suspect should be an equivalent getline for U++.

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Subject: Re: Is there a token function?

Posted by [mirek](#) on Sun, 23 Apr 2006 12:50:54 GMT

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fudadmin wrote on Sun, 23 April 2006 07:57forlano wrote on Sun, 23 April 2006 12:55fudadmin wrote on Sun, 23 April 2006 13:35forlano wrote on Sun, 23 April 2006 12:31fudadmin wrote on Sun, 23 April 2006 11:50Why there is no String::GetLine()? or I can't find?

There is. After typing

```
FileIn in(filename);
```

if I add a '.' - FileIn in(filename).; - appear a list in which I can see GetLine().

```
String s;  
s.GetLine(); ???
```

```
FileIn in;  
String s;  
...  
s = in.GetLine();
```

I'm using it to get a record from a file. Maybe you mean from stdin?

What if I don't have any files?

Quite unclear what is the question, however, a good opportunity to introduce fact that you can turn any sort of character data into stream using

StringStream

or

MemStream

or

MemReadStream

Mirek

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Subject: Re: Is there a token function?  
Posted by [fudadmin](#) on Sun, 23 Apr 2006 13:33:51 GMT  
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Yes, I had seen that in streams. I just wanted to know why GetLine is absent in String?

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Subject: Re: Is there a token function?  
Posted by [fudadmin](#) on Sun, 23 Apr 2006 13:36:47 GMT  
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P.S. It doesn't mean I'm asking for it!

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Subject: Re: Is there a token function?  
Posted by [mirek](#) on Sun, 23 Apr 2006 13:44:37 GMT  
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fudadmin wrote on Sun, 23 April 2006 09:33 Yes, I had seen that in streams. I just wanted to know why GetLine is absent in String?

What should it do? I can't imagine anything reasonable...

Mirek

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Subject: Re: Is there a token function?  
Posted by [fudadmin](#) on Sun, 23 Apr 2006 23:01:12 GMT  
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luzr wrote on Sun, 23 April 2006 14:44 fudadmin wrote on Sun, 23 April 2006 09:33 Yes, I had seen that in streams. I just wanted to know why GetLine is absent in String?

What should it do? I can't imagine anything reasonable...

Mirek

In fact, I want something like in FOX:

```
/// Return num partition(s) beginning at start from a string separated by delimiters delim.  
FXString section(FXchar delim,FXint start,FXint num=1) const;
```

```
/// Return num partition(s) beginning at start from a string separated by set of delimiters from  
delim of size n  
FXString section(const FXchar* delim,FXint n,FXint start,FXint num) const;
```

```
FXString section(const FXchar* delim,FXint start,FXint num=1) const;
```

```
FXString section(const FXString& delim,FXint start,FXint num=1) const;
```

I think, it's much more convenient than to have separate `Vector<String>` and `Split` for each delimiter if you work with text manipulations...

And, as I understand you have coded something similar in `Uvs2 (textdiff)` but that's not in the library...

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Subject: Re: Is there a token function?  
Posted by [mirek](#) on Sun, 23 Apr 2006 23:14:30 GMT  
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`Split` is not limited to single character delimiter - that is just a special common case.

However, it is true that whole `Split` idea is performance-wise suboptimal. OTOH, what you present here from `Fox` seems to be even less optimal....

Mirek