Subject: GetCsvLine
Posted by Upp_User on Tue, 12 Jun 2018 11:20:29 GMT
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Hi,
Can someone give a small example of implementing GetCsvLine , i have to phrase a csv file. I believe GetCsvLine is the suggested option and i am not sure how to implement it.

Appreciate your timely help.

The csv file can be
Number_of_Lines,3
Line1,L1data1,L1data2,L1data3
Line2,L2data1,L2data2,L2data3
Line3,L3data1,L3data2,L3data3

Thanks
Upp_User.

Subject: Re: GetCsvLine
Posted by Oblivion on Tue, 12 Jun 2018 12:21:26 GMT
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Hello Upp User,

```
#include <Core/Core.h>

using namespace Upp;

CONSOLE_APP_MAIN
{
 const String csvstr = "data1,data2,data3;data4,data5,data6;data7,data8,data9";

 StringStream ss(csvstr); // Any Stream derivative will also do (e.g. FileIn)
 auto v = GetCsvLine(ss, ';', CHARSET_DEFAULT);
 for(auto e : v)
  Cout() << e << '\n';

}
```

Best regards,
Oblivion

Subject: Re: GetCsvLine
Posted by Upp_User on Thu, 14 Jun 2018 08:41:39 GMT
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Thanks a lot Oblivion, I am yet to try, i will keep posted on the outcome.

Best Regards
Upp User.

Subject: Re: GetCsvLine
Posted by bozero on Tue, 18 Dec 2018 11:20:04 GMT
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How to parse empty string or data between ',' and '\n'.

Example:

```
StringStream ss;
Vector<String> vs;

String csvstr = "data1,data2,data3\ndata4,data5,data6\ndata7,data8,data9";
DUMP(csvstr);

ss.Open(csvstr);
while(!ss.IsEof()){
  vs=GetCsvLine0(ss,',',CHARSET_DEFAULT);
  DUMP(vs);
  DUMP(vs.GetCount());
};

csvstr.Replace("data3","");
csvstr.Replace("data6","\"\"");
csvstr.Replace("data9","\"\",");  // insert a extra comma

DUMP(csvstr);

ss.Open(csvstr);
while(!ss.IsEof()){
  vs=GetCsvLine0(ss,',',CHARSET_DEFAULT);
  DUMP(vs);
  DUMP(vs.GetCount());
};
```

Outcome:

csvstr = data1,data2,data3

data4,data5,data6
data7,data8,data9

vs = [data1, data2, data3]
vs.GetCount() = 3

vs = [data4, data5, data6]
vs.GetCount() = 3

vs = [data7, data8, data9]
vs.GetCount() = 3

csvstr = data1,data2,
data4,data5,""
data7,data8,"",

vs = [data1, data2]
vs.GetCount() = 2

vs = [data4, data5]
vs.GetCount() = 2

vs = [data7, data8,]
vs.GetCount() = 3

Subject: Re: GetCsvLine
Posted by Oblivion on Tue, 18 Dec 2018 12:00:29 GMT
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Hello bozero,

There are many ways to achive this, but given your example, the below code would hopefully give you the basic idea:

```
#include <Core/Core.h>

using namespace Upp;

CONSOLE_APP_MAIN
{
 const String csvstr =  "data1,data2,data3\ndata4,data5,data6\ndata7,data8,data9";

 auto lines = Split(csvstr, '\n');

 for(int i = 0; i < lines.GetCount(); i++) {
```

```
  String line = lines[i];
  Cout() << "Line: " << i + 1 << ": \n";
  StringStream ss(line);
  auto v = GetCsvLine(ss, ',', CHARSET_DEFAULT);
  for(auto e : v)
   Cout() << e << '\n';
 }
}
```

Another simple way:

```
#include <Core/Core.h>

using namespace Upp;

CONSOLE_APP_MAIN
{
 const String csvstr =  "data1,data2,data3\ndata4,data5,data6\ndata7,data8,data9";

 StringStream ss(csvstr);

 int ln = 0;
 while(!ss.IsEof()) {
  auto s = ss.GetLine();
  StringStream line(s);
  auto v = GetCsvLine(line, ',', CHARSET_DEFAULT);
  Cout() << "Line: " << ++ln << "\n";
  for(auto e : v)
   Cout() << e << '\n';
 }
}
```

These output:

```
Line: 1:
data1
data2
data3
Line: 2:
data4
data5
data6
Line: 3:
data7
```

data8
data9

Best regards,
Oblivion

Subject: Re: GetCsvLine
Posted by bozero on Wed, 19 Dec 2018 08:31:27 GMT
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Thank you for your reply and nice example, Oblivion. But my focus on a string with zero length ("") before new line, GetCsvLine() seems just ignore it. Even though a pair double double quotation ("") is put as space holder between (,) and (\n). Shall I need to put extra (,) to end of the each line of CSV before call GetCsvLine ?

```
void getcsvline_vs_split()
{
 StdLogSetup(LOG_COUT|LOG_FILE);
 const String csvstr =  "data1,data2,\"data3\"\ndata4,data5,\"\"\ndata7,data8,\"\ ",";
 DUMP(csvstr);

 Cout()<<"*** Get data via GetCSVLine ***\n";
 StringStream ss(csvstr);
 int ln = 0;
 int total=0;
 while(!ss.IsEof()) {
  auto s = ss.GetLine();
  StringStream line(s);
  auto v = GetCsvLine(line, ',', CHARSET_DEFAULT);
  Cout() << "Line: " << ++ln << "\n";
  for(auto e : v)
   Cout() << "Item " << ++total << " : " << e << '\n';
 }
 Cout()<< "Total line: " << ln << "\nTotal item: " << total << "\n";

 Cout()<<"*** Get data via Split ***\n";
 ln = 0;
 total=0;
 ss.Open(csvstr);
 while(!ss.IsEof()) {
  auto s=Split(ss.GetLine(),',');
  Cout() << "Line: " << ++ln << "\n";
  for(auto e : s)
   Cout() << "Item " << ++total << " : " << e << '\n';
 }
 Cout()<< "Total line: " << ln << "\nTotal item: " << total << "\n";
```

```
}
```

output:

```
csvstr = data1,data2,"data3"  // string with ""
data4,data5,""                // empty string
data7,data8,"",               // extra comma at the end of line

*** Get data via GetCSVLine ***
Line: 1
Item 1 : data1
Item 2 : data2
Item 3 : data3    // string with "" is stripped
Line: 2
Item 4 : data4
Item 5 : data5    // expected empty string item "" is miss
Line: 3
Item 6 : data7
Item 7 : data8
Item 8 :          // extra comma append for empty string item ""
Total line: 3
Total item: 8
*** Get data via Split *** // just compare with split
Line: 1
Item 1 : data1
Item 2 : data2
Item 3 : "data3"  // string with ""
Line: 2
Item 4 : data4
Item 5 : data5
Item 6 : ""       // string with ""
Line: 3
Item 7 : data7
Item 8 : data8
Item 9 : ""       // string with ""
Total line: 3
Total item: 9
```