
Subject: How to read from and write to a table in a file (CSV)?

Posted by [\\$mike{is_here}](#) on Mon, 02 Jul 2007 07:50:11 GMT

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Hi,

I'm new to Ultimate (which I like very much) and look for a concept idea, i.e. which elements are most suited to use.

Suppose, I have a CSV table like this:

```
A,B,C
1,2,3
4,5,6
```

Reading it line-by-line is no problem. E.g. I can store each line as a String or (already decomposed) in a Vector<String> or Vector<Value>. Once I read the table from the file I'm interested in the columns. E.g. I'd like to get column C for further manipulation:

```
C, 3, 6
```

Suppose I changed it into something different, like:

```
D,100,200
```

I want to assemble a new table for storage, e.g.

```
D,B,C
100,2,3
200,5,6
```

I'm not aware that there is something ready-to-use for this purpose, besides ArrayCtrl, may be.

Thank you for your help.

Kind regards, Micha

Subject: Re: How to read from and write to a table in a file (CSV)?

Posted by [mirek](#) on Mon, 02 Jul 2007 07:58:12 GMT

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You need to handcode.

Some quick tips for parsing / storing:

Stream::GetLine

CParser

Split

Vector< Vector<String> >

Subject: Re: How to read from and write to a table in a file (CSV)?

Posted by [\\$mike{is_here}](#) on Tue, 03 Jul 2007 07:23:53 GMT

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Hi Mirek,

Thanks, I used most of your ideas.

Dear all,

Because this post seems to catch some interest please find attached my solution (XP's zip). The functions

```
String cleanup(String s);
Vector<String> getLines(String s);
String load(char* filename);
bool save(const char *filename, const String& data);
String ToString(const Vector<String>& vs);
Vector<String> transpose(const Vector<String>& vs);
```

help to convert input.txt

```
A, B , C ,D
1,10 , 100, 5
2,20 , 200,55
```

into output.txt

A,1,2
B,10,20
C,100,200
D,5,55

Any suggestion, feedback or comments are welcome. This code so far does just the required minimum. I.e. it will fail when the number of elements vary. I wonder how to take care of such issues, e.g. through throwing exceptions (try, catch) or else?

What would you do?

Kind regards,
Micha

File Attachments

1) [RW tables.zip](#), downloaded 347 times

Subject: Re: How to read from and write to a table in a file (CSV)?
Posted by [\\$mike{is_here}](#) on Tue, 10 Jul 2007 21:29:33 GMT
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Hi all,

FYI, as expected as my first trial my example has some shortcomings ...

Nevermind, every fail can turn out to be a great victory

Micha
