Subject: atof trucates real number with a dot but not comma on Linux
Posted by cocob on Sun, 13 Jan 2008 10:21:49 GMT

Hello all,

I'm a new user of ultimate++ on Linux
I have a really blocking problem with stdlib ascii/float conversion

double val = atof(real.c_str());

when real contains "54.67" for example, the val is truncated to 54.

This source was working with an other IDE
What's the problem ?

Thanks for your help

Edit: Topic name changed by fudadmin

Subject: Re: problem with stdlib
Posted by cocob on Sun, 13 Jan 2008 10:33:20 GMT

other information

with a console application (without any package dependency)
this work perfectly

Subject: Re: problem with stdlib
Posted by mirek on Sun, 13 Jan 2008 13:37:15 GMT

cocob wrote on Sun, 13 January 2008 05:33other information

with a console application (without any package dependency)
this work perfectly

Hard to say. Are you sure about the content of "real"?

Perhaps there is problem with NLS. Is not it e.g. "54,67"? (',' instead of '.').

Mirek

Subject: Re: problem with stdlib
Posted by cocob on Sun, 13 Jan 2008 14:48:10 GMT
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thanks for your answer

what is NLS exactly.

I'm sure of the content of the string

i tried :

char test[256];
sprintf(test, "54.67");
double reel = atof(test);

and i get the same results

Subject: Re: problem with stdlib
Posted by cocob on Mon, 14 Jan 2008 14:40:36 GMT
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this is a very strange problem.

I occurs only on Linux, with an application using U++ core.

If you open one of the tutorial examples (for example grid01)
andd add this

char test[256];
sprintf(test, "54.67");
double reel = atof(test);

before App.run();

go to debugger ans you will see the problem !

Subject: Re: problem with stdlib
Posted by mr_ped on Mon, 14 Jan 2008 15:54:08 GMT
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Did you try comma instead of dot?
NLS exactly = don't know, but something about locales setting of application.

Subject: Re: problem with stdlib
Posted by fudadmin on Mon, 14 Jan 2008 17:07:44 GMT
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mr_ped wrote on Mon, 14 January 2008 15:54Did you try comma instead of dot?
NLS exactly = don't know, but something about locales setting of application.

NLS - Native Language Support?

Subject: Re: problem with stdlib
Posted by cocob on Mon, 14 Jan 2008 18:07:14 GMT
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it works perfectly with comma !
So how can i fix it to work with dot ?

thanks

Subject: Re: problem with stdlib
Posted by fudadmin on Mon, 14 Jan 2008 19:12:54 GMT
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cocob wrote on Mon, 14 January 2008 18:07
it works perfectly with comma !
So how can i fix it to work with dot ?

thanks

I strongly suspect in your main macro body (at the top) add something like that:

//or console main
GUI_APP_MAIN
{
 SetLanguage(LNG_ENGLISH);
 SetDefaultCharset(CHARSET_UTF8);
...
...

Subject: Re: problem with stdlib
Posted by cocob on Mon, 14 Jan 2008 19:25:49 GMT
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thanks for your help

but this don't change anything

...

Subject: Re: problem with stdlib
Posted by fudadmin on Mon, 14 Jan 2008 22:43:28 GMT
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I said "something like that"... Have you tried to change the language accordingly to
in Germany, Poland and some ohter countries 'decimal character' is comma, not a dot.

with
SetLanguage(LNG_?????); //language which supports dot
SetDefaultCharset(CHARSET_????); //charset which you get with
a right click in the ide

Which country are you in? Or what language settings have you got in rc.conf (or similar)? (and/or
What distro?)

Edit: Actually, yes, LNG_ENGLISH should support dot...
I don't have my Linux hdd at the moment, so can't test.

Subject: Re: problem with stdlib
Posted by fudadmin on Mon, 14 Jan 2008 23:09:41 GMT
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from http://en.wikipedia.org/wiki/Decimal_separator
dot countries:
Quote:Countries where a dot is used to mark the radix point include:

Australia, Brunei, Botswana, Canada (English-speaking), Hong Kong, India, Ireland, Israel, Japan,
Korea (both North and South), Malaysia, Mexico, New Zealand, Nigeria, Pakistan, People's
Republic of China, Peru, Philippines, Singapore, Sri Lanka, Switzerland, Taiwan, Thailand, United
Kingdom, United States (including insular areas), Zimbabwe.

Subject: Re: atof trucates real number with a dot but not comma on Linux
Posted by cocob on Tue, 15 Jan 2008 08:45:53 GMT
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tanks for your help

I'm french from france.
I know we are using comma instead of dot here.
But it the first time i see atof searching for comma.

I'm already in English Language and i want i to works with dot.

Subject: Re: atof trucates real number with a dot but not comma on Linux
Posted by cocob on Sat, 19 Jan 2008 08:59:55 GMT
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I never managed to solve the problem.

It means that this toolkit is unusable for me (and for many people because i don't knoaw why somebody wants atof to work with comma....)

for informations my locales configuration

LANG=fr_FR.UTF-8
LC_CTYPE="fr_FR.UTF-8"
LC_NUMERIC="fr_FR.UTF-8"
LC_TIME="fr_FR.UTF-8"
LC_COLLATE="fr_FR.UTF-8"
LC_MONETARY="fr_FR.UTF-8"
LC_MESSAGES="fr_FR.UTF-8"
LC_PAPER="fr_FR.UTF-8"
LC_NAME="fr_FR.UTF-8"
LC_ADDRESS="fr_FR.UTF-8"
LC_TELEPHONE="fr_FR.UTF-8"
LC_MEASUREMENT="fr_FR.UTF-8"
LC_IDENTIFICATION="fr_FR.UTF-8"
LC_ALL=

Subject: Re: atof trucates real number with a dot but not comma on Linux
Posted by cbpporter on Sat, 19 Jan 2008 10:26:04 GMT
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Quote:It means that this toolkit is unusable for me (and for many people because i don't knoaw why somebody wants atof to work with comma....)

Did you try to use atof in a normal gcc "Hello World" program, outside of U++, to see if it behaves the same way? And did you try to use ftoa to see if it generates a string with a ','?

And the only reason I would like to use ',' is because I was though like this in school (a long time

ago).

Subject: Re: atof trucates real number with a dot but not comma on Linux
Posted by cocob on Sat, 19 Jan 2008 10:44:14 GMT
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Yes it works (with ',') with a gcc program without U++ and it works with U++ without core package dependency

---

Subject: Re: atof trucates real number with a dot but not comma on Linux
Posted by cbpporter on Sat, 19 Jan 2008 13:23:35 GMT
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cocob wrote on Sat, 19 January 2008 11:44
Yes it works (with ',') with a gcc program without U++ and it works with U++ without core package dependency

If it works with ',' with a normal gcc program, it means that for sure is sour system default fractional part separator. IMO, if this is such a problem and you don't want to research/mess around with system locales, why not just write your own atof function?

Subject: Re: atof trucates real number with a dot but not comma on Linux
Posted by mr_ped on Sat, 19 Jan 2008 14:09:01 GMT
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Basically you may hack it by changing dots to commas before atof:
```
#include <Core/Core.h>
using namespace UPP;
CONSOLE_APP_MAIN
{
 String real = "254.6";
 int dotindex;
 while ( (dotindex = real.Find('.')) != -1 ) real.Set(dotindex, ',');
 Cout().Put(real); Cout().PutEol();
}
```

Still why there's no one competent to resolve locales here is a little mystery to me.
Try to PM luzr about this thread, he should know where to look in U++ to either change locale to english, or to at least give you the decimal separator, so the upper piece of code will work in all languages. (wishful thinking)

I basically have all computers around me set to English and I hate any localized software, just because of these little problems which arise over time, so I'm not familiar with proper solution to those things.

Subject: Re: atof trucates real number with a dot but not comma on Linux
Posted by mr_ped on Sat, 19 Jan 2008 14:11:35 GMT
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Allright, I found a shortcut.
Just forget about atof.

double number = UPP::ScanDouble("12.34");

The ScanDouble is hardcoded to search for dot, so it will ignore system locales.

Quote:it means that this toolkit is unusable for me (and for many people because i don't knoaw why somebody wants atof to work with comma....)

It's actually the toolkit's function you should have looked for, and it would fix your troubles.

Subject: Re: atof trucates real number with a dot but not comma on Linux
Posted by zsolt on Sat, 19 Jan 2008 14:17:38 GMT
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try this:

 SetLanguage(LNGFromText("enUS"));