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Subject: how to Internationalize my app?

Posted by [forlano](#) on Sat, 20 May 2006 15:37:17 GMT

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Hello,

the application is almost ready. Now I would like to make it international. I've read the document "Internationalization and translation files" but I need some other hint. For the moment I've marked with `t_("...")` the string of the application where I want should appear some other language. I would like to provide several translation files that the user can modify as he likes. Once he set one language each time the application run with the same language. For the moment let's talk only about Italian translation. I guess I must use UTF8 code (I want to support even Russian alphabet).

If I've understood I have to produce a translation file for each language. Unfortunately I've not been able to export a .tr file with `t_(...)` string of my application. I've tried

```
myapp --export-tr itit-
```

but the file obtained didn't contain my `t_(...)` but only those of the U++ library. Where I do mistake?

Luigi

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Subject: Re: how to Internationalize my app?

Posted by [mirek](#) on Sat, 20 May 2006 18:54:10 GMT

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forlano wrote on Sat, 20 May 2006 11:37Hello,

the application is almost ready. Now I would like to make it international. I've read the document "Internationalization and translation files" but I need some other hint. For the moment I've marked with `t_("...")` the string of the application where I want should appear some other language. I would like to provide several translation files that the user can modify as he likes. Once he set one language each time the application run with the same language. For the moment let's talk only about Italian translation. I guess I must use UTF8 code (I want to support even Russian alphabet).

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```
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Luigi

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You must add ".t" file to your package and invoke "Project/Synchronize translation files".

You do not need to make commandline export - that is good for translating U++ or app you do not have sources for, but not necessary for translating your app. Instead it is easier to use TheIDE to add languages in "Synchronize" and then edit .t directly.

Mirek

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Subject: Re: how to Internationalize my app?

Posted by [forlano](#) on Sat, 20 May 2006 21:17:16 GMT

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luzr wrote on Sat, 20 May 2006 20:54

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Mirek

I'm very ... here is my achievement:

```
// Vega.lay
```

```
T_("Edit Player")
deDE("")
itIT("")
ruRU("")
```

```
T_("Name")
deDE("")
itIT("Nome")
```

```
T_("Fed")
deDE("")
itIT("")
ruRU("")
```

```
...
```

It is very easy (knowing what to do ). Now the last thing please. By default the menu is an English but which command I have to run to make active, say, "itIT" translation at runtime when the user choose the Italian language?

By Navigate I have found

SetLanguage(int lang);

I hoped that 'lang' was some index in the .t file but I was unlucky.

Luigi

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Subject: Re: how to Internationalize my app?

Posted by [mirek](#) on Sat, 20 May 2006 21:23:14 GMT

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forlano wrote on Sat, 20 May 2006 17:17luzr wrote on Sat, 20 May 2006 20:54

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T_("Fed")
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It is very easy (knowing what to do ). Now the last thing please. By default the menu is an English but which command I have to run to make active, say, "itIT" translation at runtime when the user choose the Italian language?

By Navigate I have found

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Luigi

Well, you was near:

```
SetLanguage(LNG_('D','E','D','E'));
```

Mirek

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Subject: Re: how to Internationalize my app?

Posted by [forlano](#) on Sat, 20 May 2006 22:19:53 GMT

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luzr wrote on Sat, 20 May 2006 23:23

Well, you was near:

```
SetLanguage(LNG_('D','E','D','E'));
```

Mirek

I'm sorry to bother you again with this topic, but perhaps I'm missing something else... the message file, message.t, is in the same folder of the executable and I've added some Italian words. When I run

```
void VegaMain::SelectLanguage()
{
    SetLanguage( LNG_('I','T','I','T') );
}
```

The message continue to be in English even if it present the Italian one. Maybe I must force in some way the reading of the message.t file or indicate to the app that it exists.

Luigi

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Subject: Re: how to Internationalize my app?

Posted by [mirek](#) on Sun, 21 May 2006 05:53:38 GMT

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forlano wrote on Sat, 20 May 2006 18:19luzr wrote on Sat, 20 May 2006 23:23

Well, you was near:

```
SetLanguage(LNG_('D','E','D','E'));
```

Mirek

I'm sorry to bother you again with this topic, but perhaps I'm missing something else... the message file, message.t, is in the same folder of the executable and I've added some Italian words. When I run

```
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```

The message continue to be in English even if it present the Italian one. Maybe I must force in some way the reading of the message.t file or indicate to the app that it exists.

Luigi

Sorry, my fault....

First, .t should be in your package dir like all other source files. It gets compiled into the .exe.

Second, I forgot to mention that you have to include .t file somewhere in sources (not headers) like

```
#define TFILE <CtrlLib/CtrlLib.t>
#include <Core/t.h>
```

If you have any non-main package, place this into .icpp file so that it is forced to be linked always. Anyway, if you are doing so for the main package, it is enough to place it to the .cpp with GUI\_APP\_MAIN (that one gets linked always).

Mirek

---

Subject: Re: how to Internationalize my app?  
Posted by [forlano](#) on Sun, 21 May 2006 07:13:14 GMT  
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luzr wrote on Sun, 21 May 2006 07:53  
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First, .t should be in your package dir like all other source files. It gets compiled into the .exe.

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Mirek

It continues to not work . Here is the HelloWorld example modified in view of the use of the file message.t. This example, once it works, could be an example about the topic we are discussing.

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

```
#define TFILE <HelloWorld/message.t> //<mypackage directory/my_t_file_with_translation
#include <Core/t.h>
```

```
class HelloWorld : public TopWindow {
    MenuBar menu;
    StatusBar status;
```

```
    void FileMenu(Bar& bar);
    void MainMenu(Bar& bar);
    void About();
        void CloseCB();
```

```
public:
    typedef HelloWorld CLASSNAME;
```

```
    HelloWorld();
};
```

```
void HelloWorld::About()
{
    PromptOK(t_("{1 @5 [@9= This is the]:@2 [A5@0 Ultimate`+`+ Hello world sample}"));
}
```

```
void HelloWorld::CloseCB()
{
    if(PromptYesNo(t_("Are you sure?"))) Close();
}
```

```
void HelloWorld::FileMenu(Bar& bar)
{
    bar.Add(t_("About.."), THISBACK(About));
```

```

bar.Separator();
bar.Add(t_("Exit"), THISBACK(CloseCB));
}

void HelloWorld::MainMenu(Bar& bar)
{
    menu.Add(t_("File"), THISBACK(FileMenu));
}

HelloWorld::HelloWorld()
{
    AddFrame(menu);
    AddFrame(status);
    menu.Set(THISBACK(MainMenu));
    status = t_("Welcome to the Ultimate++ !");
}

GUI_APP_MAIN
{
    // SetLanguage(LNG_ENGLISH);
    SetLanguage(LNG_('I','T','I','T') );
    HelloWorld().Run();
}

```

So I've marked the string with `t_(...)`, I've included what you signaled the last time, then I set the Italian language. Moreover I've generated the file `message.t` by using `Sincronize...` This is the file:

```

// hello.cpp

T_("{1@5 [@9= This is the]:@2 [A5@0 Ultimate`+`+ Hello world sample}}")
itlT("{1@5 [@9= Questa e' l'esempio]:@2 [A5@0 di Ultimate`+`+ Hello world}}")

T_("Are you sure?")
itlT("Sei sicuro?")

T_("About..")
itlT("A proposito...")

T_("Exit")
itlT("Esci")

T_("File")
itlT("FILE")

T_("Welcome to the Ultimate++ !")
itlT("Benvenuto in Ultimate++ !")

```

It stays in the package directory. However no sign of Italian strings in the application. BTW, I've

even tried some other combination of includes without success. What am I missing?

Luigi

edit: this file has been updated with the correction of the next reply from Mirek. Now it works

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Subject: Re: how to Internationalize my app?  
Posted by [mirek](#) on Sun, 21 May 2006 08:00:08 GMT  
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forlano wrote on Sun, 21 May 2006 03:13  
`#define TFILE <CtrlLib/CtrlLib.t>  
#include <Core/t.h>  
[/code]`

Sorry for confusing you, TFILE here is just an example (copied straight from CtrlLib package), it should point to your .t (inside your package).

Mirek

---

Subject: Re: how to Internationalize my app?  
Posted by [forlano](#) on Sun, 21 May 2006 09:35:19 GMT  
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luzr wrote on Sun, 21 May 2006 10:00forlano wrote on Sun, 21 May 2006 03:13  
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#include <Core/t.h>  
[/code]`

Sorry for confusing you, TFILE here is just an example (copied straight from CtrlLib package), it should point to your .t (inside your package).

Mirek

OK, now it works , but there is still a new problem that I didn't expect. The following translation works:

```
T_("{1@5 [@9= This is the]:@2 [A5@0 Ultimate`+`+ Hello world sample}}")  
itlT("{1@5 [@9= Questa e' l'esempio]:@2 [A5@0 di Ultimate`+`+ Hello world}}")
```



in one character). But this produces the following message:  
"ERROR: invalid UTF-8 sequence..."  
Is this normal?

In order to change all the interface message at the start of the application I guess I need to save the selected language change in a configuration file.

Last consideration. In this way the message.t file is compiled and the user has not the possibility to change the translation if it has not the source code of the application. I wonder if in U++ there is a smart way to distribute the application with some message file that the user can modify as it likes. For example he can fill all the ruRU translation without to bother me asking a new compilation. This file should be loaded by the application when it starts. I've done it for my old app, but with t\_(...) his maintenance should be greatly simplified.

Luigi

---

Subject: Re: how to Internationalize my app?  
Posted by [mirek](#) on Sun, 21 May 2006 10:22:44 GMT  
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forlano wrote on Sun, 21 May 2006 05:35luzr wrote on Sun, 21 May 2006 10:00forlano wrote on Sun, 21 May 2006 03:13  
#define TFILE <CtrlLib/CtrlLib.t>  
#include <Core/t.h>  
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Luigi

Is your .t file in UTF-8? It MUST be!

To change encoding of file, go to "Project/File properties". Alternatively, you can do that in package organizer, even for the whole package.

As for modifying message files, yes - that is that commandline thing described in Internationalization topic. Plus, you can import it back to TheIDE and place strings to .t files using "Project/Import runtime translation files".

Mirek

---

Subject: Re: how to Internationalize my app?  
Posted by [forlano](#) on Sun, 21 May 2006 11:48:24 GMT  
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---

luzr wrote on Sun, 21 May 2006 12:22  
Is your .t file in UTF-8? It MUST be!

To change encoding of file, go to "Project/File properties". Alternatively, you can do that in package organizer, even for the whole package.

It was set to "default". I set it to "UTF-8" and run the synchronization. Now it works!

Quote:

As for modifying message files, yes - that is that commandline thing described in Internationalization topic. Plus, you can import it back to TheIDE and place strings to .t files using "Project/Import runtime translation files".

Mirek

I've generated the file itit-t.tr by the command line

HelloWorld.exe --export-tr itit-

Now I believed that modifying the itit-t.tr file I could update the internal message.t file I used at compile time. Instead nothing!

After some time and test I've discovered that the .tr file is used only if the .t file has empty translation for some item. In other words, where .t has already its own translation the correspondent item in .tr is ignored.

This means that if one would give free hand to the user should prepare a .t file all with empty translation, and support it via .tr file. Am I right?

Luigi

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Subject: Re: how to Internationalize my app?

Posted by [mirek](#) on Sun, 21 May 2006 12:17:42 GMT

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forlano wrote on Sun, 21 May 2006 07:48luzr wrote on Sun, 21 May 2006 12:22  
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Now I believed that modifying the itit-t.tr file I could update the internal message.t file I used at compile time. Instead nothing!

After some time and test I've discovered that the .tr file is used only if the .t file has empty translation for some item. In other words, where .t has already its own translation the correspondent item in .tr is ignored.

This means that if one would give free hand to the user should prepare a .t file all with empty translation, and support it via .tr file. Am I right?

Luigi

Yes, that is correct. You can however add those empty translations easily in Synchronize....

BTW, you can do so even later, all translations ever used are stored in special file. That means, if you are adding new language and translation is already in that database, it is inserted

automatically.

Mirek

---

Subject: Re: how to Internationalize my app?  
Posted by [tvanriper](#) on Mon, 15 Oct 2007 18:22:57 GMT  
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---

Thankfully, this topic existed, and I was able to get an application I created to work correctly in Spanish (I think), but I wonder if we couldn't modify the following web page a little bit, to help improve (just a touch) the documentation:

[http://www.ultimatepp.org/srcdoc\\$Core\\$i18n\\$en-us.html](http://www.ultimatepp.org/srcdoc$Core$i18n$en-us.html)

Here, it would be useful to know:

1. You need the following in one of the .cpp or .icpp files:

```
#define <YourProject/YourTranslations.t>  
#include <Core/t.h>
```

2. You should set your application's default language using the following:

```
::SetLanguage( ::GetSystemLNG() );
```

(or am I wrong about this?)

3. Your various valid language codes (e.g. "esES" is Spanish) are available in Core as 'lcid.txt' within the Language area.

4. You can set your .t file's encoding by right-clicking on the file in TheIDE and selecting "Convert to encoding...", to ensure that it's set for UTF-8. I think you have to strip out the BOM that Windows might include for UTF-8 if you use Notepad to save your file in UTF-8 encoding, as I think you'll have problems compiling, otherwise.

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Subject: Re: how to Internationalize my app?  
Posted by [mirek](#) on Wed, 17 Oct 2007 17:27:52 GMT  
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---

tvanriper wrote on Mon, 15 October 2007 14:22 Thankfully, this topic existed, and I was able to get

an application I created to work correctly in Spanish (I think), but I wonder if we couldn't modify the following web page a little bit, to help improve (just a touch) the documentation:

Well, you have got the article in Core/srcdoc.tpp/i18n - perhaps you can fix it and post here...

Mirek

---

Subject: Re: how to Internationalize my app?  
Posted by [tvanriper](#) on Fri, 19 Oct 2007 13:13:52 GMT  
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Okay, hopefully I got this right (I'm not terribly familiar with Topic++ yet).

I've included a zipped file with the .tdx (for upp/cfg) and .tpp (for upp/uppsrc/Core/srcdoc.tpp).

Hopefully, if I didn't err in the files I'm providing, this should add some detail for the four items I mentioned earlier.

Please let me know of any problems.

#### File Attachments

1) [i18n\\$en-us.zip](#), downloaded 548 times

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Subject: Re: how to Internationalize my app?  
Posted by [mirek](#) on Fri, 19 Oct 2007 16:09:10 GMT  
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Thank you, you did OK

Note: No need to post .tdx file.... This is only cached indexing info..

Mirek