
Subject: New Tiny C Compiler Package
Posted by [koldo](#) on Wed, 24 Jun 2009 06:21:05 GMT
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Hello all

New Tcc package is available in Bazaar svn.

This package lets Upp users to use C as a scripting language.

It is also included a Tcc Demo Gui package to test it. Here I inclose a screenshot:

It has been tested in Linux (Gcc) and Windows (MinGW and Msc).

Documentation is included with introduction, methods reference, a documented sample and implementation details.

Best regards
Koldo

File Attachments

1) [screenshot.PNG](#), downloaded 2134 times

Subject: Re: New Tiny C Compiler Package
Posted by [Mindtraveller](#) on Fri, 26 Jun 2009 17:09:35 GMT
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Could you please tell if there is simple way to call "embedded" binary's functions from this c-style script? Is it what you mean by "external" function in the example above?

Subject: Re: New Tiny C Compiler Package
Posted by [koldo](#) on Sun, 28 Jun 2009 14:28:51 GMT
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Hello Pavel

From the scripting file you just have to declare and call the function in simple C.

For example lets consider function plus() that is defined in the main program.

In the scripting program it would be:

```
double plus(double a, double b); // External function has to be declared
```

...

```
for (i = 0; i < 10000000; ++i)
    ret += 0.000000001*pow2(sqrt(plus(a, 10))); // plus() is called here
```

...

And in the main program it would be:

```
// Function to be called from the scripting program is defined here
double plus(double a, double b)
{
    return a + b;
}
```

...

```
tcc.AddSymbol("plus", (void *)&plus); // And here we link the library function to the scripting
program
```

...

Best regards
Koldo

Subject: Re: New Tiny C Compiler Package
Posted by [ptDev](#) on Fri, 03 Jul 2009 14:50:04 GMT
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I tried the Tcc Gui Demo (didn't even change the source code) and the "Compile and Run" button didn't respond.

I just built the Tcc package before trying the demo, What else do I need to do? Am I doing anything wrong?

Subject: Re: New Tiny C Compiler Package
Posted by [koldo](#) on Fri, 03 Jul 2009 16:02:47 GMT
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Hello ptDev

Copy the file libtcc.dll to "C:\WINDOWS\System" or change in main.cpp

Tcc tcc;

for

```
Tcc tcc("libtcc.dll location with full path");
```

It was my fault: I did not documented that clearly and I left Tcc tcc; outside the try {} block in main.cpp so that the exception caused for not finding the libtcc.dll was not caught.

Best regards
Koldo

Subject: Re: New Tiny C Compiler Package
Posted by [ptDev](#) on Sat, 04 Jul 2009 06:58:55 GMT
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Hi,

I tried again, with libtcc compiled from source with MinGW. Despite building a DLL from there and copying this DLL to the windows path, it still wouldn't work. (It's not recognized as a valid win32 DLL).

How can I make this work with MinGW?

Subject: Re: New Tiny C Compiler Package
Posted by [Didier](#) on Sat, 04 Jul 2009 09:06:05 GMT
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Hi,

'Tcc Gui Demo' works fine in linux
except for one small thing ...The project name: 'Tcc Gui Demo' contains spaces and Upp tries to launch 'Tcc' instead of 'Tcc Gui Demo' which of course does not existe.

This may work on windows but i think avoiding spaces in names is a good precaution

This Tcc wrapper will become very handy, thanks.

Didier

Subject: Re: New Tiny C Compiler Package
Posted by [koldo](#) on Mon, 13 Jul 2009 07:25:45 GMT
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Hello Didier

Thank you for your feedback.

I am surprised as I have put in Bazaar more packages with spaces like:

- OfficeAutomation demo console
- PainterSvg demo
- SysInfo demo console

Perhaps simply nobody has used them in Linux
I use Ubuntu without problems.

If nobody answer I will change all package names to avoid spaces.

Best regards
Koldo

Subject: Re: New Tiny C Compiler Package
Posted by [Didier](#) on Mon, 13 Jul 2009 08:06:54 GMT
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Hello Koldo,

I confirm, 'PaiterSvg Demo' & 'SysInfo demo console' have the same problem.
I never tried them before.

As for 'OfficeAutomation demo console': it doesn't compile on linux

Subject: Re: New Tiny C Compiler Package
Posted by [koldo](#) on Mon, 13 Jul 2009 08:44:46 GMT
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Didier wrote on Mon, 13 July 2009 10:06Hello Koldo,

I confirm, 'PaiterSvg Demo' & 'SysInfo demo console' have the same problem.
I never tried them before.

As for 'OfficeAutomation demo console': it doesn't compile on linux

Ok Didier

I will change package names aujourd'hui.

Best regards
Koldo

Subject: Re: New Tiny C Compiler Package
Posted by [koldo](#) on Wed, 15 Jul 2009 21:28:23 GMT
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ptDev wrote on Sat, 04 July 2009 08:58Hi,

I tried again, with libtcc compiled from source with MinGW. Despite building a DLL from there and copying this DLL to the windows path, it still wouldn't work. (It's not recognized as a valid win32 DLL).

How can I make this work with MinGW?

Hello ptDev

The fastest way for you is just copying the libtcc.dll file in \bazaar\Tcc into \windows\system or indicate the libtcc.dll location in the Tcc constructor, so instead of doing:

```
Tcc tcc;
```

you would do:

```
Tcc tcc("c:\\myFolder\\libtcc.dll");
```

If you prefer to compile it by yourself please give the compiling details to see what happen.

Best regards
Koldo

Subject: Re: New Tiny C Compiler Package
Posted by [kasome](#) on Sat, 08 Aug 2009 15:28:20 GMT
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The Tiny C Compiler Package is nice....

Could I save the compiled result as an executable file ?

for example,
String program = tcc.GetProgram();
StoreToFile(program, "program.exe");

Subject: Re: New Tiny C Compiler Package
Posted by [koldo](#) on Sun, 09 Aug 2009 15:30:34 GMT
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kasome wrote on Sat, 08 August 2009 17:28The Tiny C Compiler Package is nice....

Could I save the compiled result as an executable file ?

for example,
String program = tcc.GetProgram();
StoreToFile(program, "program.exe");

Hello Kasome

Yes, no problem.
Let me some days to add it.

Best regards
Koldo

Subject: Re: New Tiny C Compiler Package
Posted by [koldo](#) on Wed, 12 Aug 2009 21:46:02 GMT
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Hello Kasome

It is ready, tested in WinXP and Ubuntu, documented and submitted to Bazaar.

The demo program has been adapted to include this option.

It can output native executable files in Linux and Windows, I mean, when compiling the main program under Linux the executable obtained will be Linux native (ELF format), and when compiling it in Windows the executable will be Windows native (PE-COFF format).

This way the output program can be simply called and run for example from a terminal.

The main visible changes are in:

```
void SetOutputExe();  
void SetOutputMemory();  
  
void Link(const char *fileName = 0);
```

This fileName is the executable file.

Please read the instructions before using it.

Best regards
Koldo

Subject: Re: New Tiny C Compiler Package
Posted by [koldo](#) on Thu, 13 Aug 2009 06:34:12 GMT
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Hello

Two additional things:

- In Linux

To get the executable file you will need to install tcc in the system. It is just from a terminal in Tcc/lib folder running make & make install

- In Windows

Supplied .dll has been updated, so to get the .exe files you would have to use it

If you want to recompile it by yourself it is easier than before. Now you do not need MSYS. With MinGW in the PATH it is enough using the GetDLL.bat file.

The .dll is bigger than before. Just because it is compiled now using -O3 with MinGW 4.4.0.

- Now error messages are in different languages, so if you want them in yours please send me the translations

Best regards
Koldo

Subject: Re: New Tiny C Compiler Package
Posted by [kasome](#) on Fri, 14 Aug 2009 12:34:14 GMT
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Sorry for the delay replying.

Wow! It's perfect. Thanks, koldo.

Subject: Re: New Tiny C Compiler Package
Posted by [Didier](#) on Sat, 01 May 2010 10:59:51 GMT
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Hi Koldo,

I've been using Tcc package lately and you introduced a linux regression in SVN 1500 (8 month ago):

In Tcc/libtcc.c you changed:

```
#ifdef __unix__  
#include "lib/Tcc.c"  
#endif
```

Instead of:

```
#ifdef __unix__  
#include "lib/tcc.c"  
#endif
```

Since unix like systems are case aware, and that the filename is "tcc.c" ==> this doesn't compile any more.

I also have a very small correction for you:

In Tcc/Tcc.cpp L201:

instead of:

```
unsigned long val;
```

Put:

```
unsigned long val = 0;
```

This will allow testing if the symbol was found or not.

QUESTION:

Is there a reason for having a separated makefile for the Tcc lib. What I'm thinking about is allowing STATIC linking of this lib just like any other Upp package ?

This would keep from having to install the tcc lib before using the Tcc package

Subject: Re: New Tiny C Compiler Package

Posted by [koldo](#) on Sun, 02 May 2010 17:53:57 GMT

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Hello Didier

Thank you for your comments. They are now added. For any reason I did not know the x11 emulator I use does not care about file name case.

About the question, I did not understand it well. However I have activated not to include stdlib lib so that now it is not necessary to have tcc package installed. However please test it in your environment if it is ok.

Please any other tcc users confirm me if this change affects you.

Subject: Re: New Tiny C Compiler Package
Posted by [Didier](#) on Sun, 02 May 2010 21:15:30 GMT
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Hi Koldo,

Thanks for the quick reply. I gonna try you're modifications right away....

OK, works Fine

All compiles OK and the TCC lib isn't needed any more , I can now use my small app on several computers !

Thanks

Subject: Re: New Tiny C Compiler Package
Posted by [koldo](#) on Mon, 03 May 2010 06:22:12 GMT
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Excellent Didier

Anyway I will investigate why stdlib is included in a separate .a lib instead of being statically compiled with rest of tcc.

Subject: Re: New Tiny C Compiler Package
Posted by [koldo](#) on Mon, 03 May 2010 19:27:37 GMT
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Hello all

I have added the possibility of choosing stdlib folder in constructor and NoStdlib() to refuse to use it.

A tcc stdlib file is in In Tcc/lib/lib/libtcc1.a

Please try it and tell me if it is ok.

Demo is also adapted.

File Attachments

1) [dib.png](#), downloaded 1412 times

Subject: Re: New Tiny C Compiler Package
Posted by [Didier](#) on Mon, 03 May 2010 20:28:29 GMT
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Hi Koldo,

why stdlib is included in a separate .a lib instead of being statically compiled with rest of tcc.

Before sending the previous post I made some tests myself, and the problem is not really dependent on the stdlib.

In the tccelf.c file L1031, the stdlib is requested ... but not only: An explicit link to /usr/local/lib/tcc/libtcc1.a is made.

==> If this file is not present on the system then an exception is thrown

==> So although everything needed was compiled and linked, the program refuse to execute. if you comment L1031 & L1032 everything works fine.

I don't know why this has been done, but for our particular usage it's not good.

Subject: Re: New Tiny C Compiler Package
Posted by [koldo](#) on Tue, 04 May 2010 07:24:20 GMT
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Didier wrote on Mon, 03 May 2010 22:28Hi Koldo,

why stdlib is included in a separate .a lib instead of being statically compiled with rest of tcc.

Before sending the previous post I made some tests myself, and the problem is not really dependent on the stdlib.

In the tccelf.c file L1031, the stdlib is requested ... but not only: An explicit link to /usr/local/lib/tcc/libtcc1.a is made.

==> If this file is not present on the system then an exception is thrown

==> So although everything needed was compiled and linked, the program refuse to execute. if you comment L1031 & L1032 everything works fine.

I don't know why this has been done, but for our particular usage it's not good.

Hello Didier

In last change sent yesterday I have added two patches:

- NoStdlib() function

```
void NoStdlib(TCCState *s) {  
    s->nostdlib = 1;  
}
```

This effectively avoids to try to load libtcc1.a, as in tccelf.c you can see this:

```
if (!s1->nostdlib) {
    tcc_add_library(s1, "c");

    snprintf(buf, sizeof(buf), "%s/%s", tcc_lib_path, "libtcc1.a");
    tcc_add_file(s1, buf);
}
```

- For linux, constructor is now Tcc::Tcc(const char *libPath).

libPath is assigned to tcc_lib_path. This way you can put libtcc1.a wherever you want, instead of in "/usr/local/lib/tcc".

For convenience it is included in Tcc/lib/lib a copy of libtcc1.a file.

You can try both options, or using NoStdlib(), or using libtcc1.a file indicating in constructor in what folder it is (you do not need to install tcc, you just need to indicate where libtcc1.a is)

Subject: TCC package broken

Posted by [Didier](#) on Wed, 12 Oct 2011 20:57:22 GMT

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Hi Koldo,

The TCC package is broken since the tcc plugin was introduced.
The following corrections make it compile again (at least under linux):

- * the plugin/tcc/tcc.upp file is missing
- * in tcc/libtcc.c the path must be /plugin/tcc/tcc.c
- * a dependency on plugin/tcc must be added to package tcc

Subject: Re: TCC package broken

Posted by [koldo](#) on Thu, 13 Oct 2011 07:09:17 GMT

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Hello Didier

Thank you. I probably lost some changes. Last months I have changed PCs and I have had problems losing things .

About plugin/tcc package... in fact it did not existed before .

However it is better this way. I did Tcc package when I had less knowledge of U++ .
plugin/tcc/tcc.upp is now created and added to Tcc. Of course old libtcc.c file has been removed.

It will be updated this afternoon.

Subject: Re: TCC package broken
Posted by [Didier](#) on Thu, 13 Oct 2011 18:02:56 GMT
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Thank's Koldo

Subject: Re: TCC package broken
Posted by [koldo](#) on Thu, 13 Oct 2011 19:43:52 GMT
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Thank you. It is updated yet. Please check it.

Subject: Re: TCC package broken
Posted by [Didier](#) on Tue, 18 Oct 2011 20:55:47 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hi Koldo,

I tried you're modifications and all works fine under linux.

Thank's for the corrections

Subject: Re: TCC package broken
Posted by [koldo](#) on Wed, 19 Oct 2011 11:44:36 GMT
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Great!