

Пробная реализация dll-обёртки wine для использования библиотеки libc из ББ

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Опробовано на Ubuntu 10.04 x64.

1. Зависимости

Пакеты:

gcc-multilib
wine-dev

2. Создание и "установка" DLL

2.1 Сишный модуль библиотеки

```
! "ert0devCmds.RewriteThis('test', 'test.c', 'utf8')"  
#include <errno.h>  
#include <unistd.h>  
#include <math.h>  
#include <windef.h>
```

<http://www.opengroup.org/onlinepubs/009695399/functions/getcwd.html>*

```
void WINAPI GetCwd (char *buf, size_t bufLen, int *res)
```

```
{  
    char *x;  
    x = getcwd(buf, bufLen);  
    if (x == NULL) *res = errno;  
    else *res = 0;  
}
```

```
double WINAPI Sin (double x)
```

```
{  
    return sin(x);  
}
```



2.2 wine-описание интерфейса dll

Синтаксис см. [2]

```
! "ert0devCmds.RewriteThis('test', 'test.dll.spec', 'utf8')"# wine-описание интерфейса test.dll  
@ stdcall GetCwd (str long ptr) GetCwd  
@ stdcall Sin (double) Sin
```



2.3 Генерация Makefile

Целевая папка. Имя DLL = имя папки.

```
.$ winemaker --wine32 --nosource-fix --dll --nomfc test
```

```
! "omcCmdline.Exec('lin')" winemaker --wine32 --nosource-fix --dll --nomfc test ; echo ГОТОВО ; read  
⇒
```

Winemaker 0.7.4

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Copyright 2009 André Hentschel

Scanning the source directories...

Generating project files...

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2.4 Сборка

```
./test$ make
```

```
! "omcCmdline.Exec('lin') cd test ; make ; echo ГОТОВО ; read
```

⇨

```
winegcc -c -mno-cygwin -m32 -o test.o test.c
```

```
test.c: In function 'GetCwd':
```

```
test.c:11: warning: assignment makes pointer from integer without a cast
```

```
winegcc -shared test.dll.spec -mno-cygwin -m32 -o test.dll.so test.o
```

```
lodbcc32 -lole32 -loleaut32 -lwinspool -lodbccp32 -luuid
```

⇨

2.5 Установка

```
./test$ sudo ln -s $PWD/test.dll.so /usr/lib32/wine
```

```
! "omcCmdline.Exec('lin') cd test ; sudo ln -s $PWD/test.dll.so /usr/lib32/wine ; echo ГОТОВО ; read
```

3. Тестирование из ББ

3.1 Интерфейсный модуль

```
! "ert0devCommanders.SelectAndDo('DevCompiler.CompileSelection')
```

```
MODULE Testdll ['test.dll'];
```

```
IMPORT SYSTEM;
```

```
TYPE
```

```
Str* = POINTER TO ARRAY [untagged] OF SHORTCHAR;
```

```
PROCEDURE GetCwd* (buf: Str; bufLen: INTEGER; VAR res: INTEGER);
```

```
PROCEDURE Sin* (x: REAL): REAL;
```

```
END Testdll.
```

▲

3.2 Тестовый модуль

```
! "ert0devCommanders.SelectAndDo('DevCompiler.CompileSelection')
```

```
MODULE Test;
```

```
IMPORT
```

```
In := i21sysIn, Log := StdLog, X := Testdll;
```

```
PROCEDURE GetCwd*;
```

```
VAR buf: ARRAY 512 OF SHORTCHAR; res: INTEGER;
```

```
BEGIN
```

```
X.GetCwd(buf, LEN(buf), res);
```

```
IF res # 0 THEN
```

```
Log.Int(res)
```

```
ELSE
```

```
Log.String(buf$)
```

```
END;
```

```
Log.Ln
```

```
END GetCwd;
```

```
PROCEDURE Sin*;
```

```
VAR x: REAL;
```

```
BEGIN
```

```
In.Open; In.Real(x);
```

```
WHILE In.done DO
  Log.Real(X.Sin(x)); Log.Ln;
  In.Real(x)
END
END Sin;
```

END Test.



! Test.GetCwd

! Test.Sin -1.57 -1 0 1 1.57 ▲

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compiling "Testdll"

new symbol file 0 0

compiling "Test"

new symbol file 240 0

/home/.../xxx

-0.9999996829318346

-0.8414709848078965

0.0

0.8414709848078965

0.9999996829318346

⇐

4. Ссылки

1) [WineLib User's Guide: Chapter 5. Building WineLib DLLs](#)

2) [Wine Dev-Man: winebuild](#)