

MySQL高级教程--手把手教你写UDF

一、MySQL UDF是什么

UDF是Mysql提供给用户实现自己功能的一个接口，为了使UDF机制起作用，函数必须用C或C++编写，并且操作系统必须支持动态加载。这篇文章主要介绍UDF开发和利用的方法。

二、UDF开发

操作系统:Windows 7

测试环境：mysql-5.7.25-winx64

编译器：VS2015

MySQL Community Server 5.7.28

Select Version: 5.7.28

Select Operating System: Microsoft Windows

Select OS Version: Windows (x86, 64-bit)

Looking for the latest GA version?

Recommended Download:

MySQL Installer for Windows

All MySQL Products. For All Windows Platforms. In One Package.

Starting with MySQL 5.6 the MySQL Installer package replaces the standalone MSI packages.

Windows (x86, 32 & 64-bit), MySQL Installer MSI

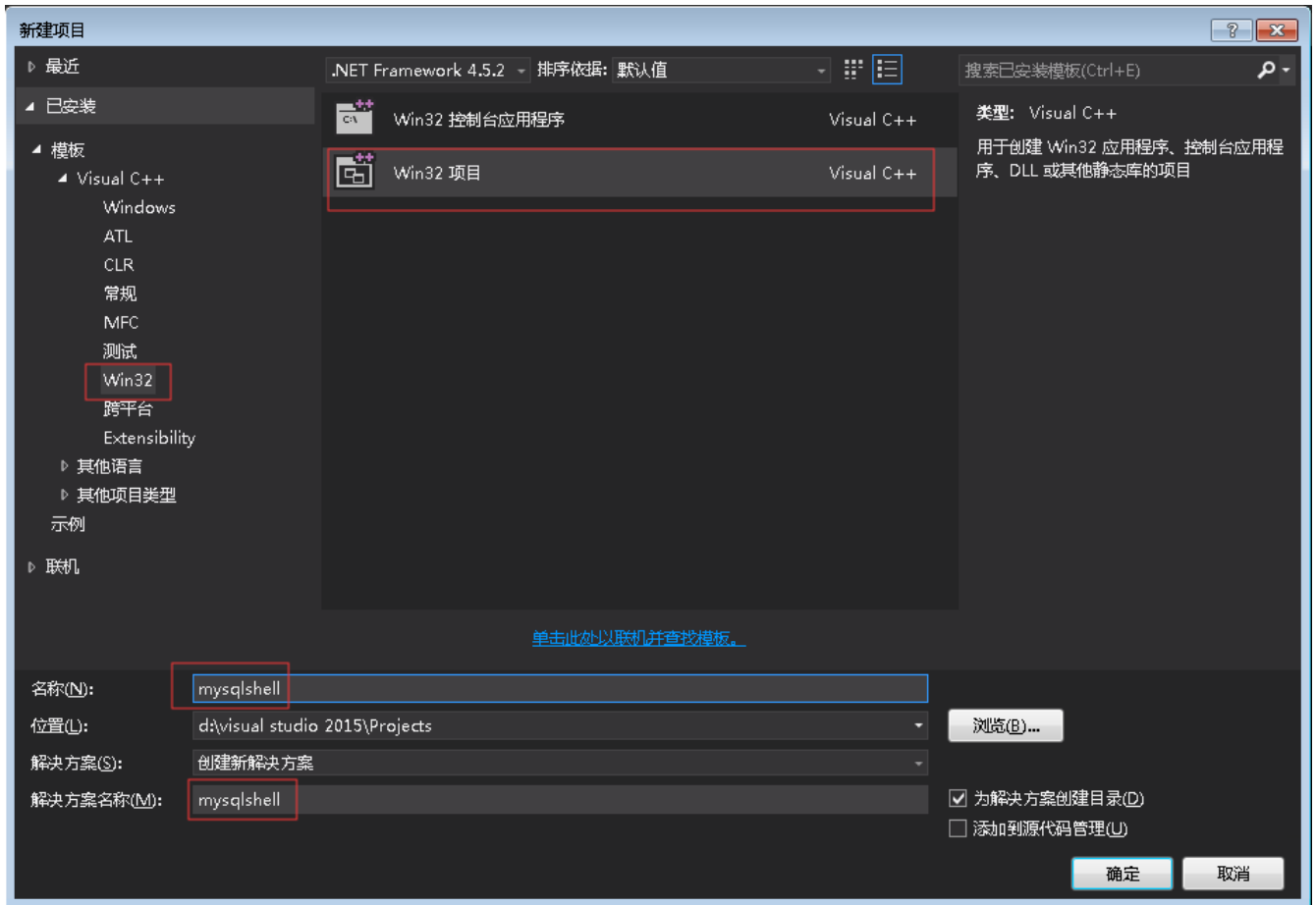
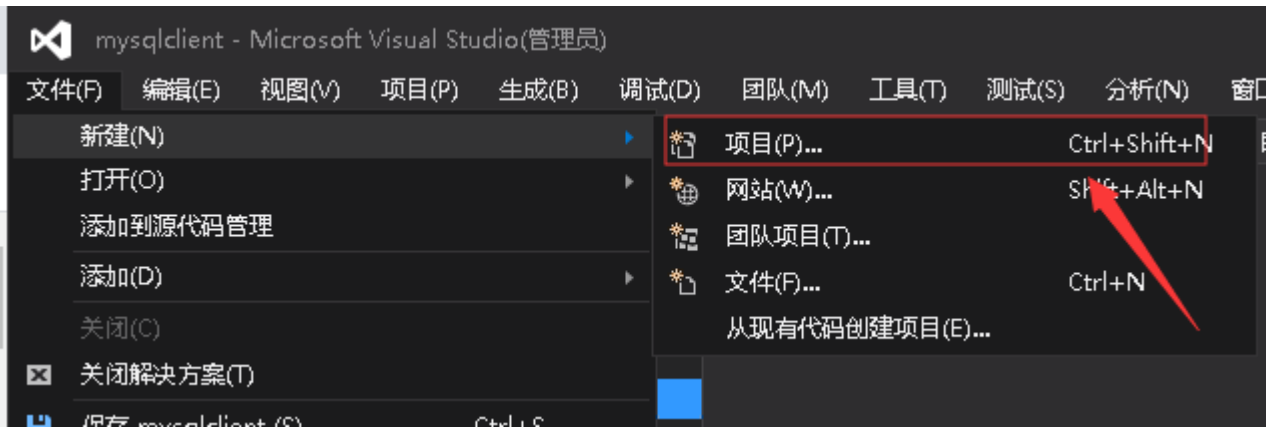
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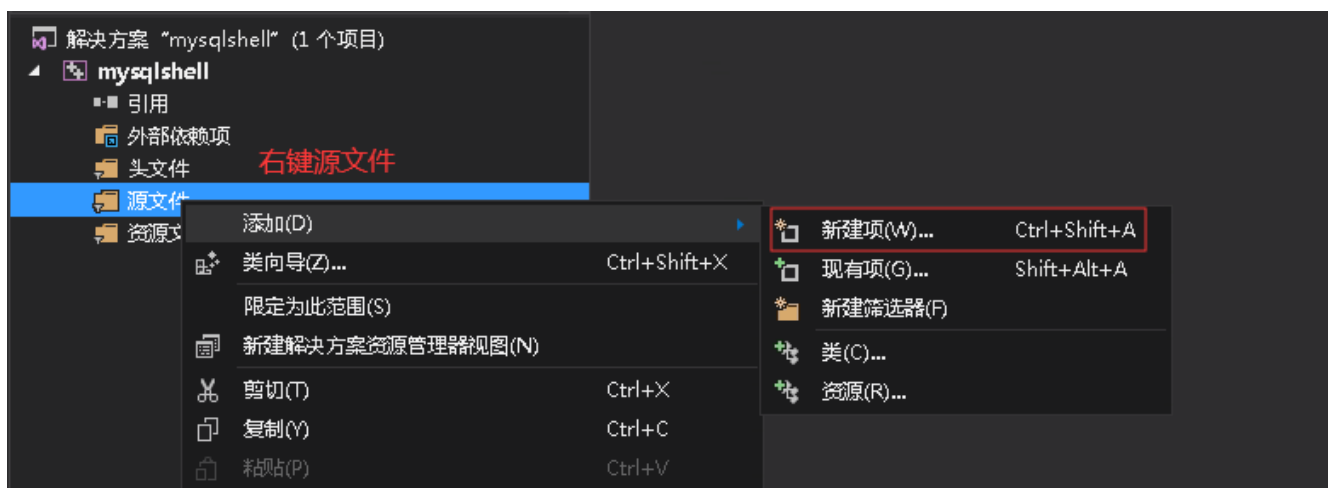
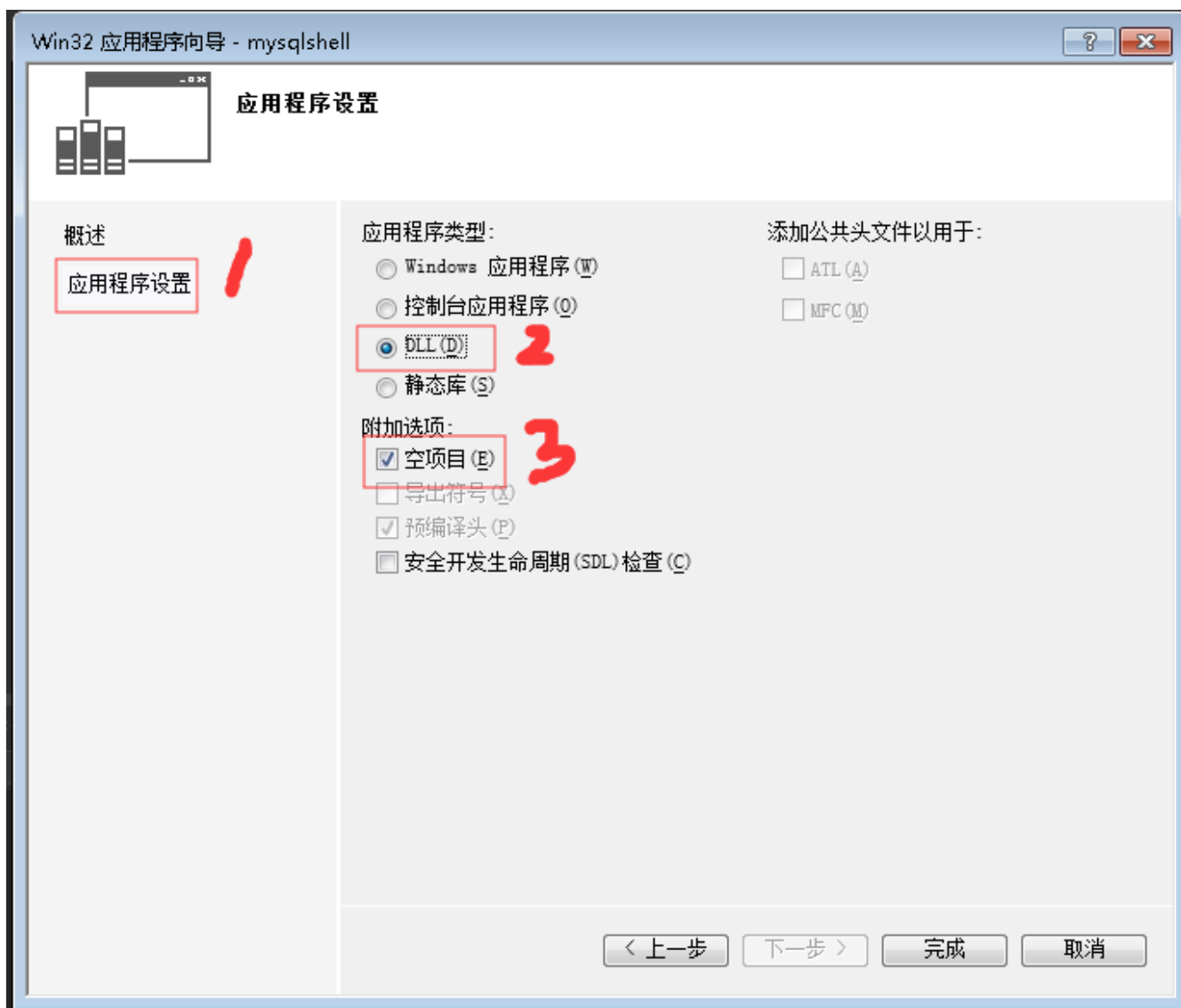
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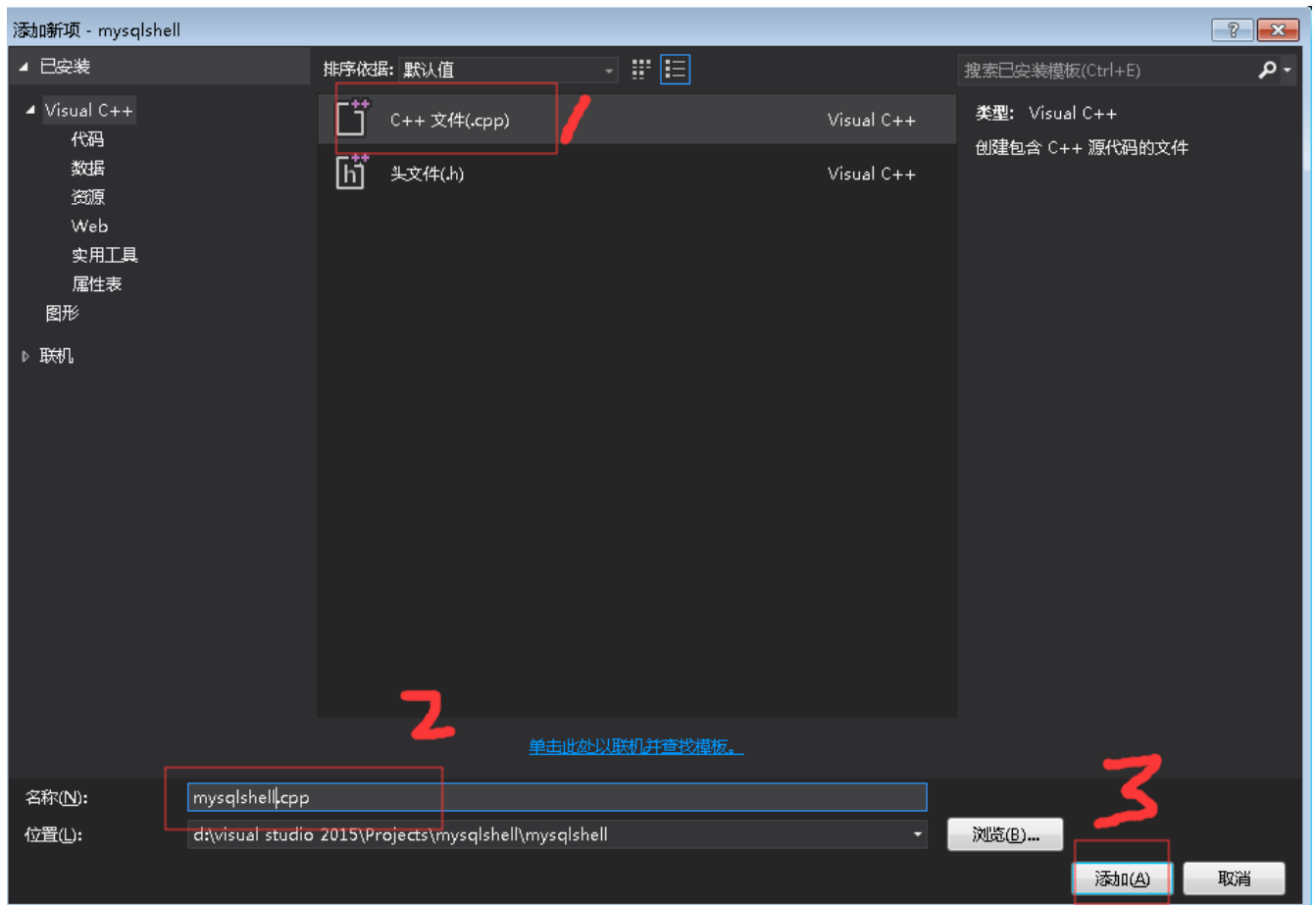
Download	Version	Size	Action
ZIP Archive (mysql-5.7.28-winx64.zip)	5.7.28	368.1M	Download
MD5: 7a786218e2d9b95f9647867175766e42 Signature			
ZIP Archive, Debug Binaries & Test Suite (mysql-5.7.28-winx64-debug-test.zip)	5.7.28	452.2M	Download
MD5: 4a509f8ba4449ee66cd2a2d8349c5d81 Signature			

! We suggest that you use the [MD5 checksums](#) and [GnuPG signatures](#) to verify the integrity of the packages you download.

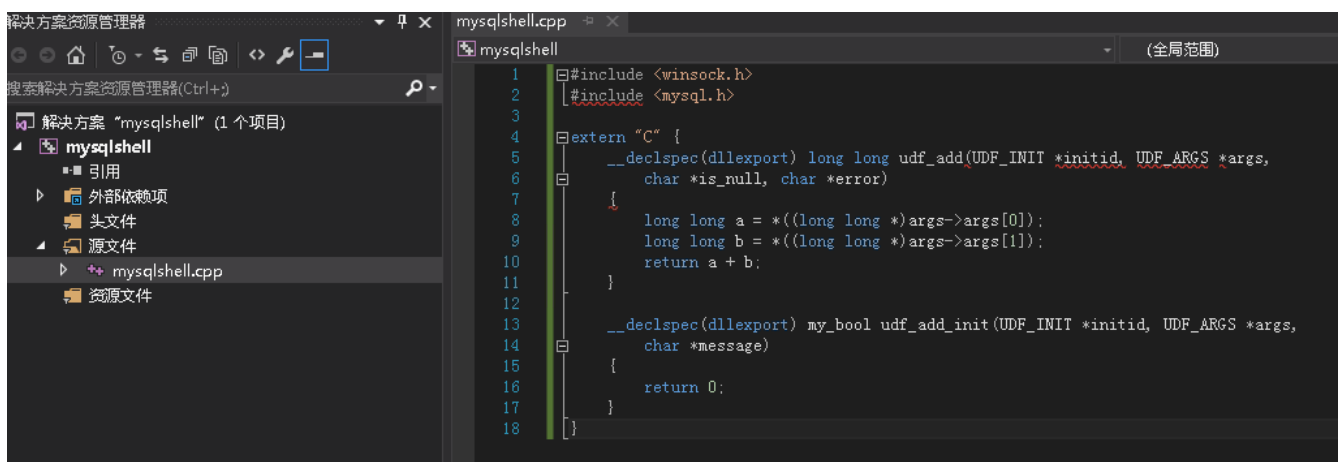
2.1 新建mysqlshell项目







2.2 编写代码



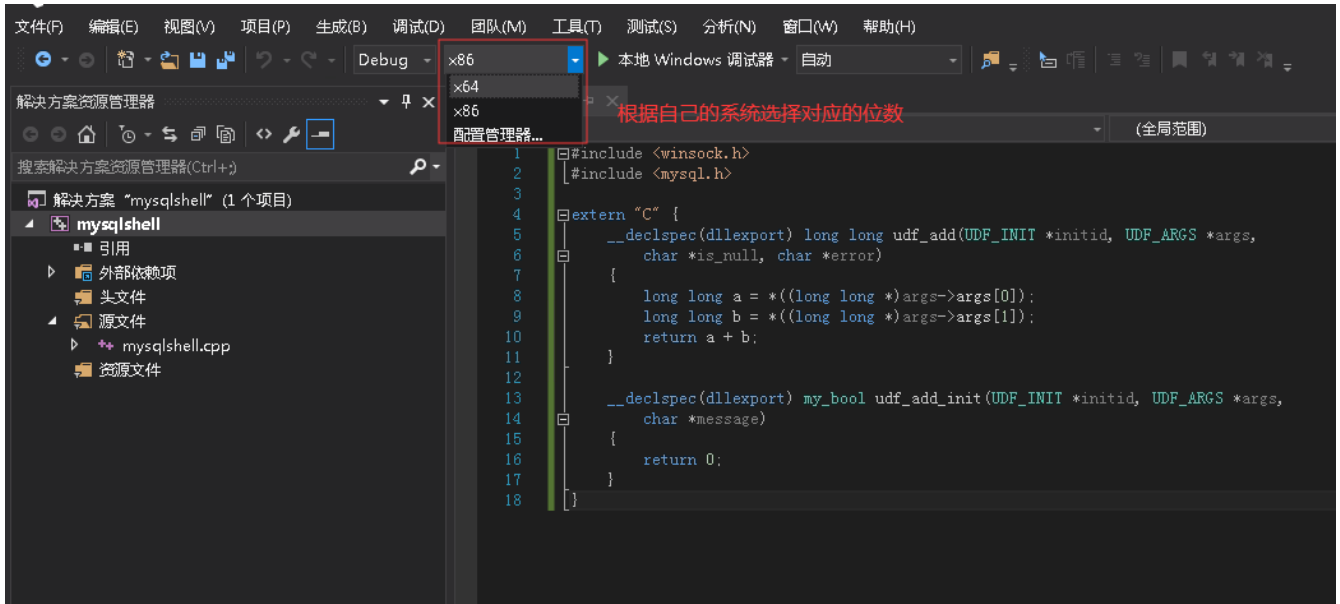
```
#include <winsock.h>
#include <mysql.h>

extern "C" {
    __declspec(dllexport) long long udf_add(UDF_INIT *initid, UDF_ARGS *args,
        char *is_null, char *error)
    {
        long long a = *((long long *)args->args[0]);
        long long b = *((long long *)args->args[1]);
        return a + b;
    }
}
```

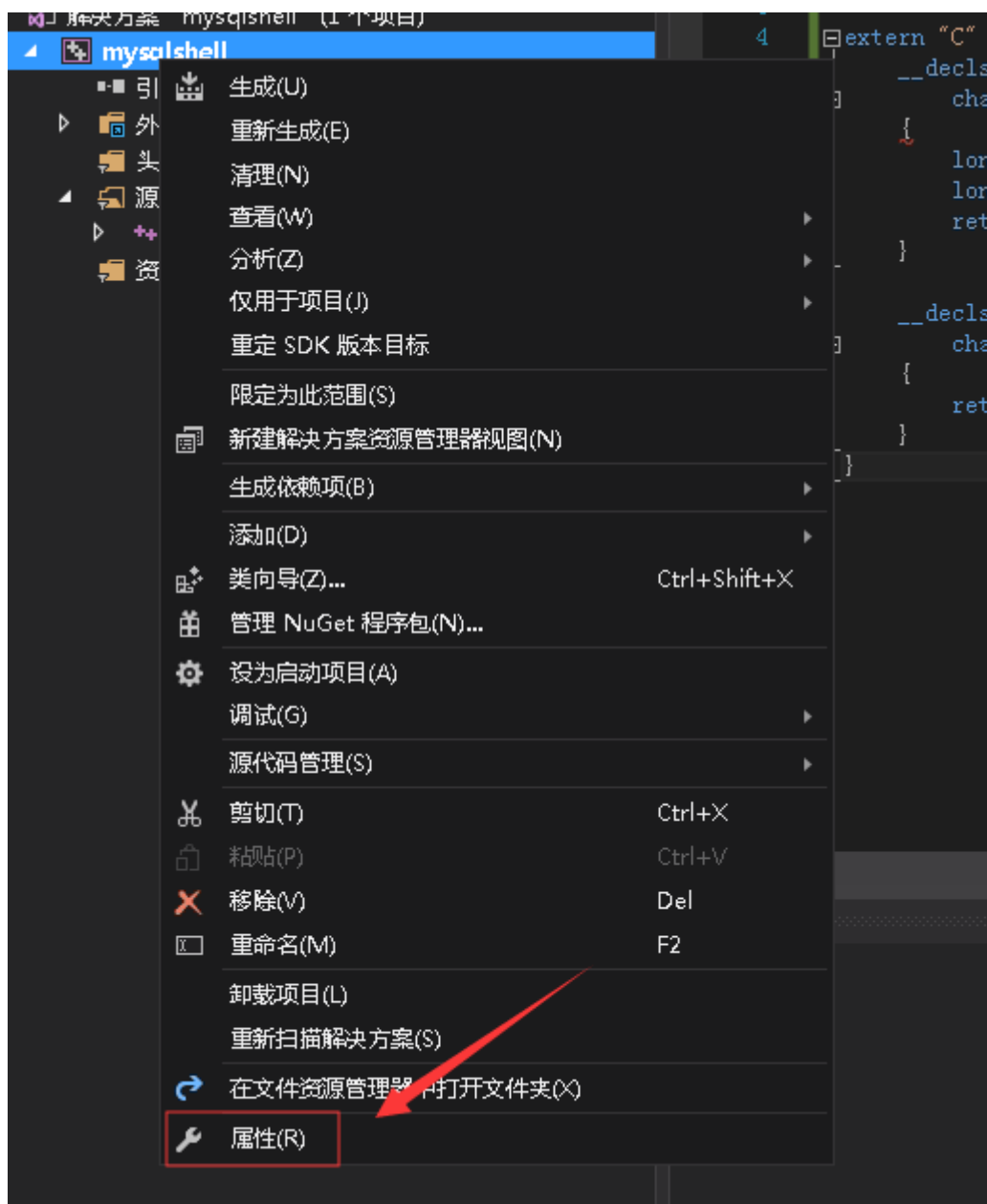
```
__declspec(dllexport) my_bool udf_add_init(UDF_INIT *initid, UDF_ARGS *args,
char *message)
{
    return 0;
}
```

2.3配置环境

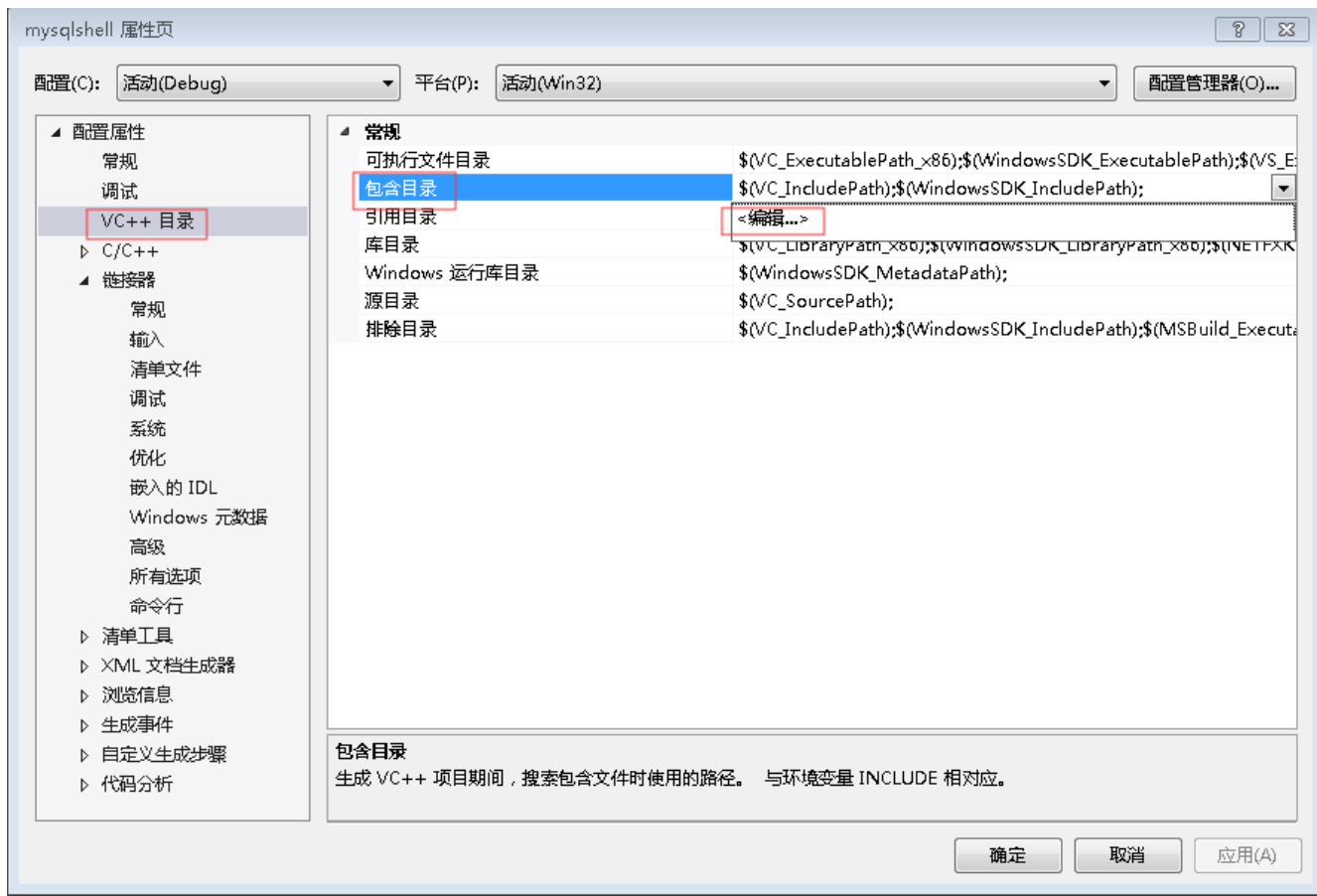
1、选择位数

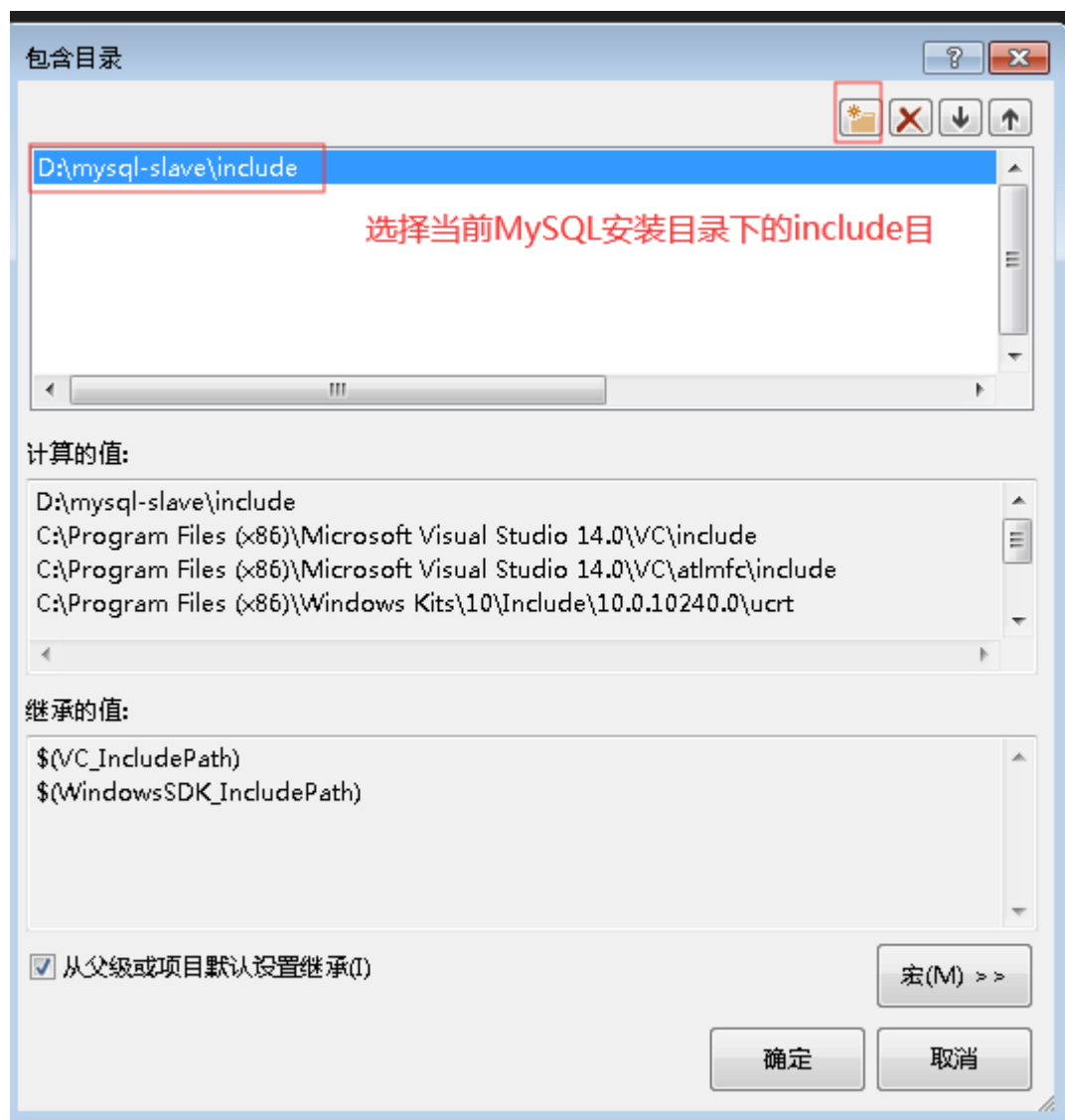


2、配置项目属性

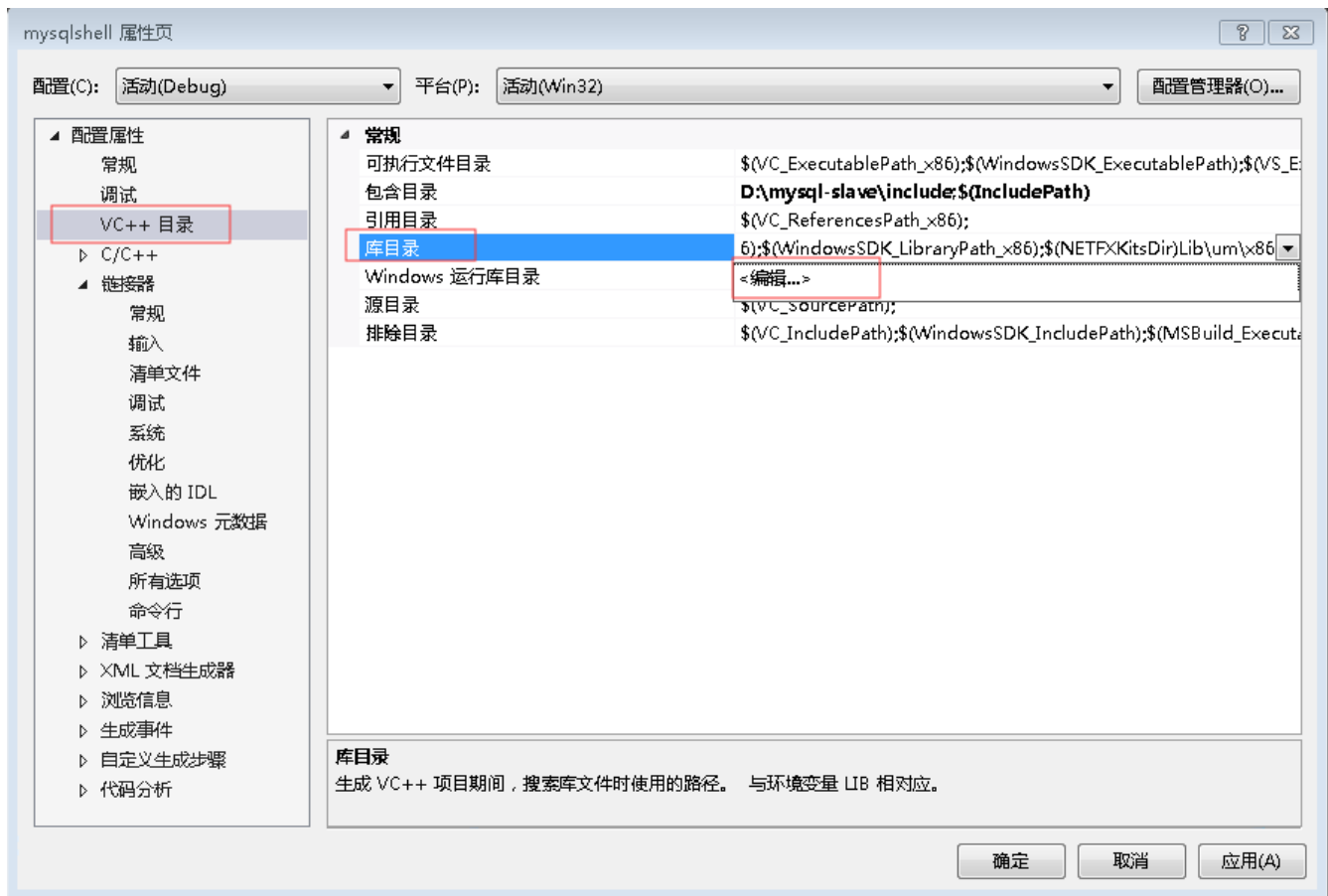


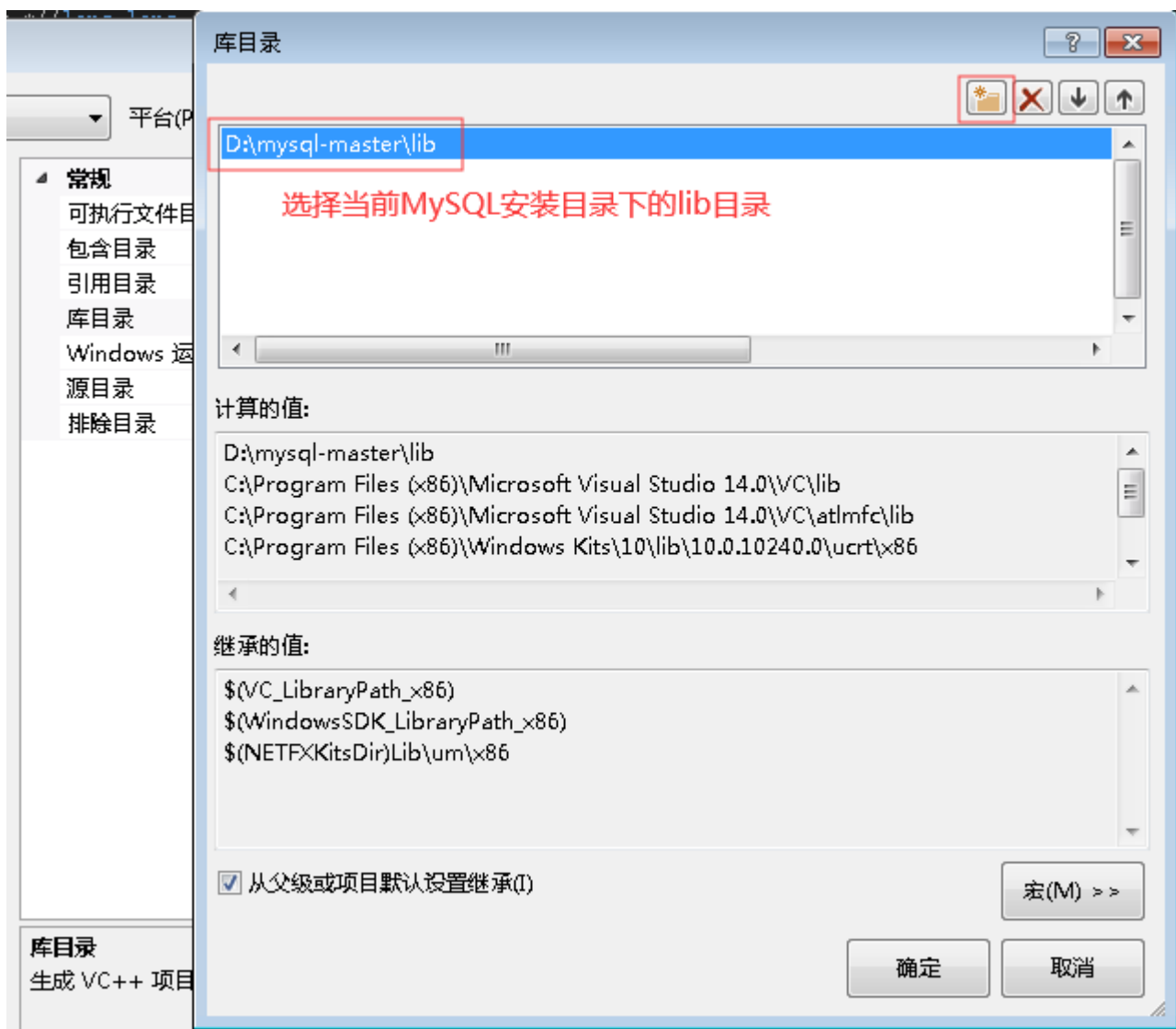
3、包含目录

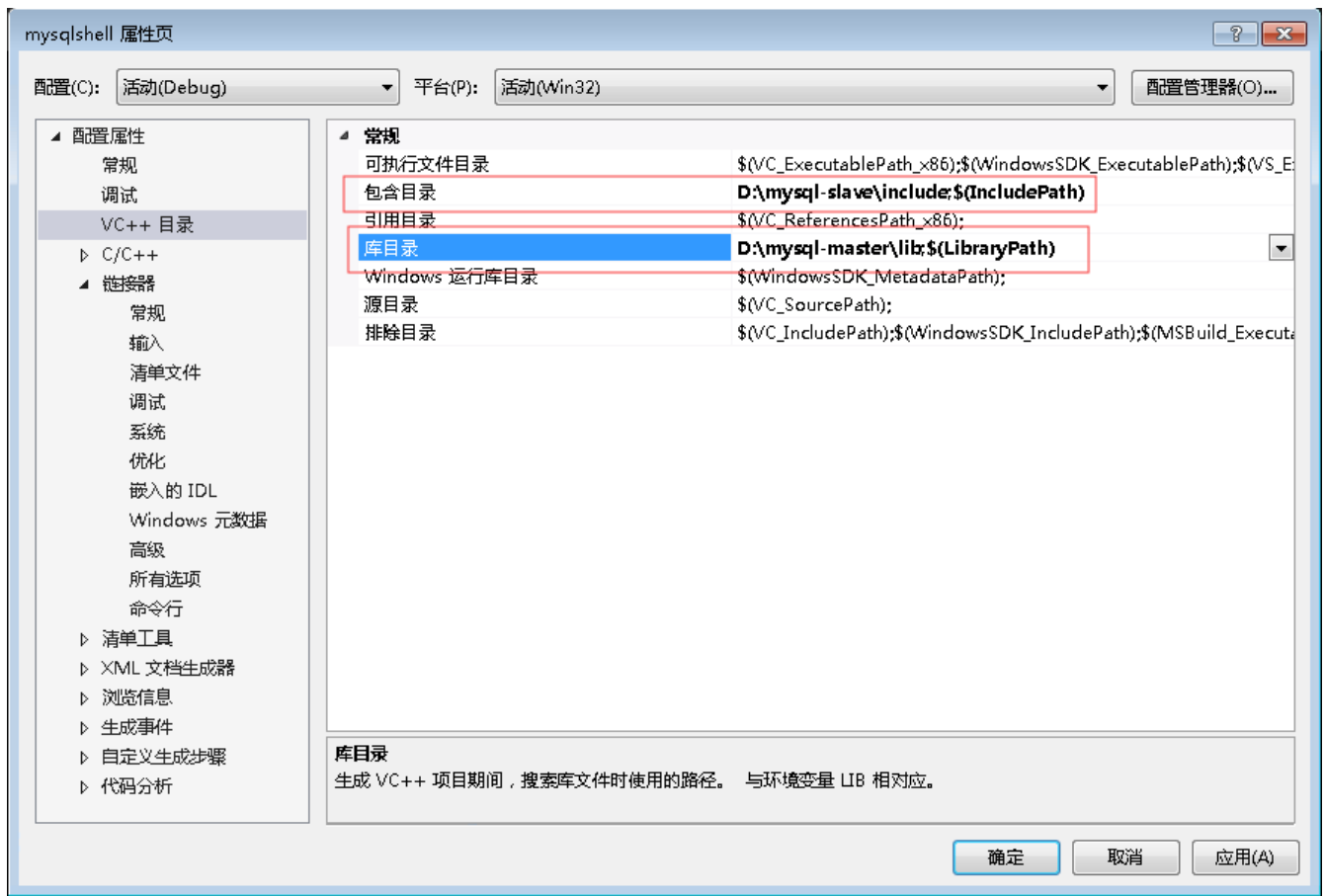




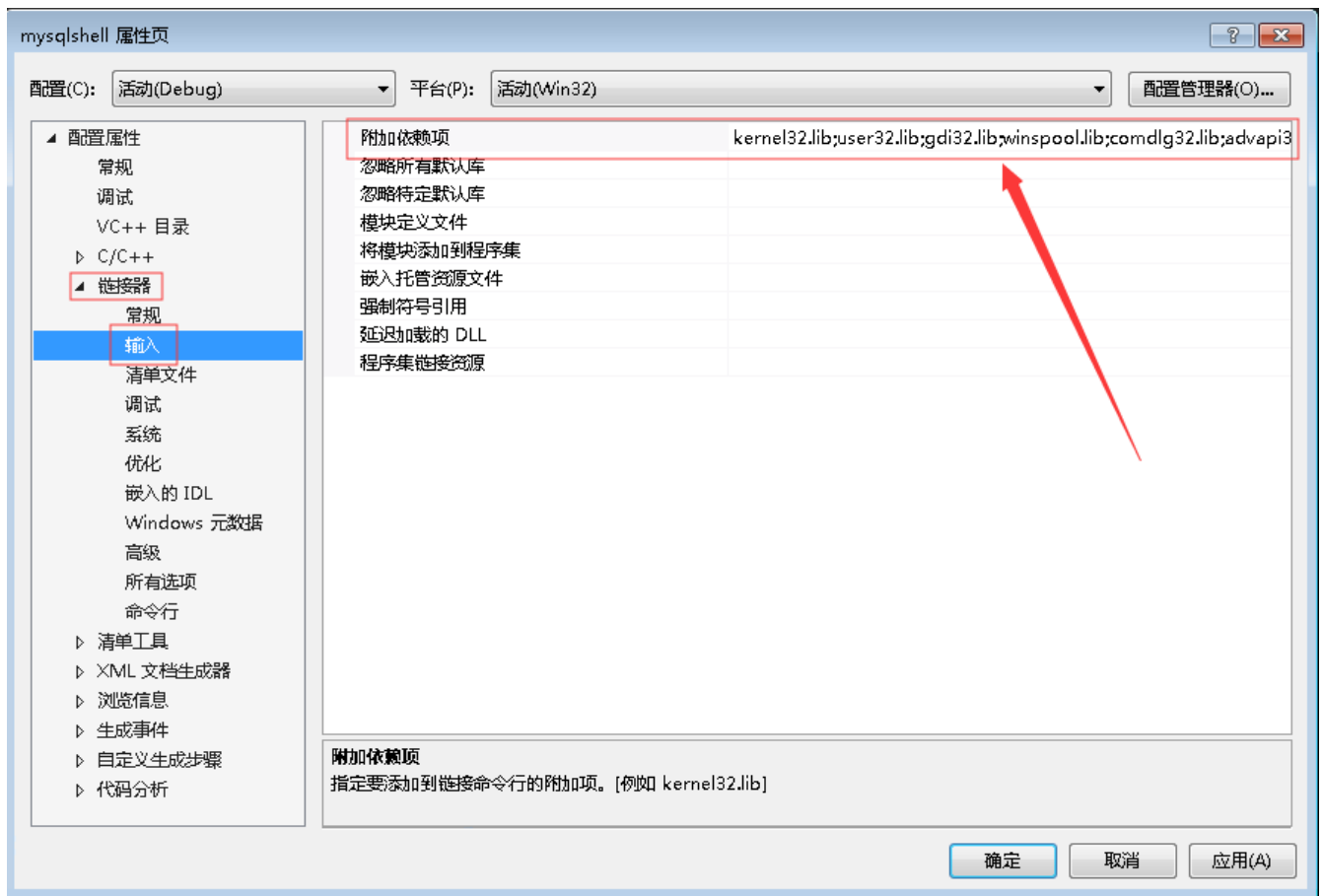
4、库函数目录

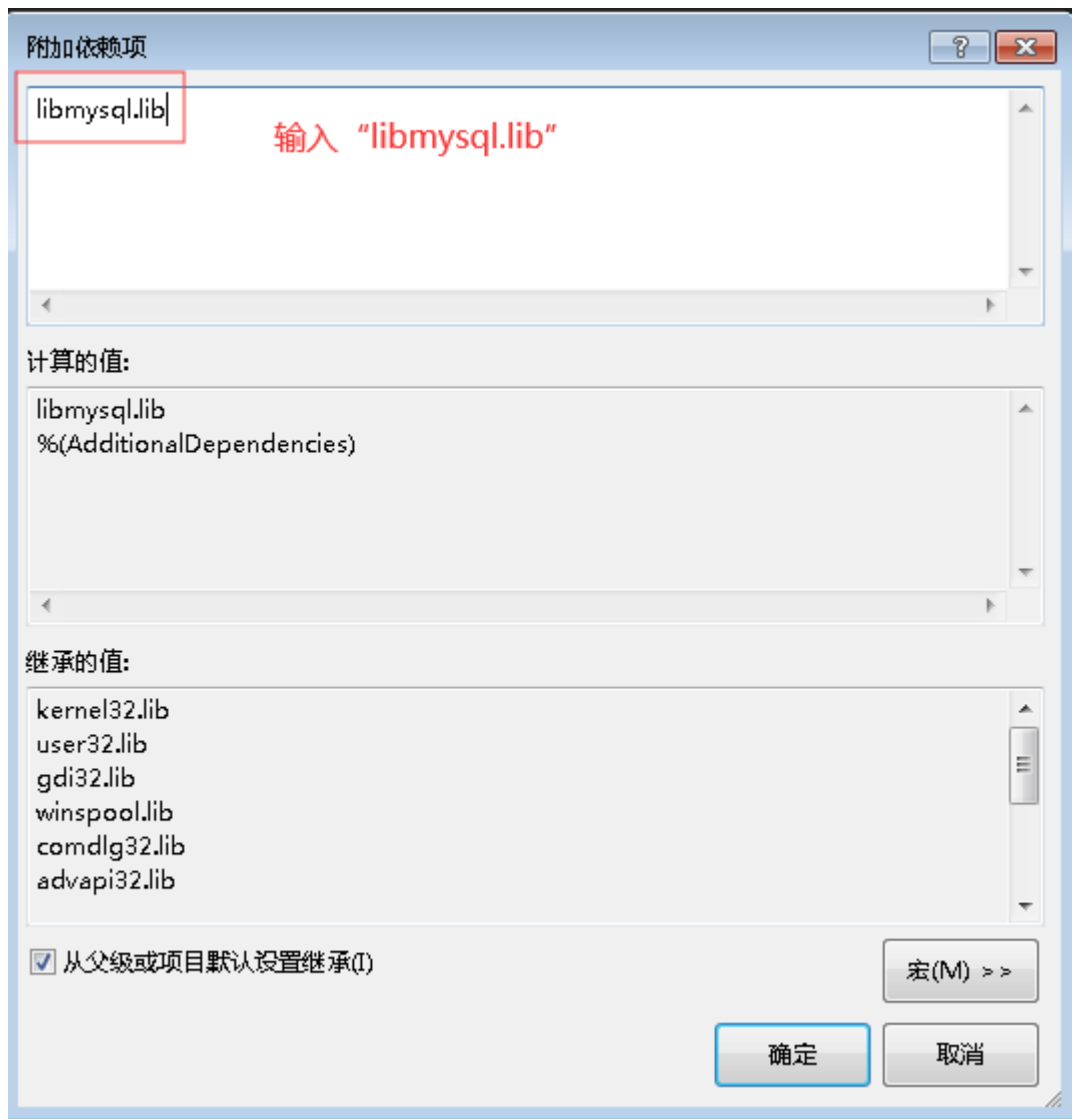




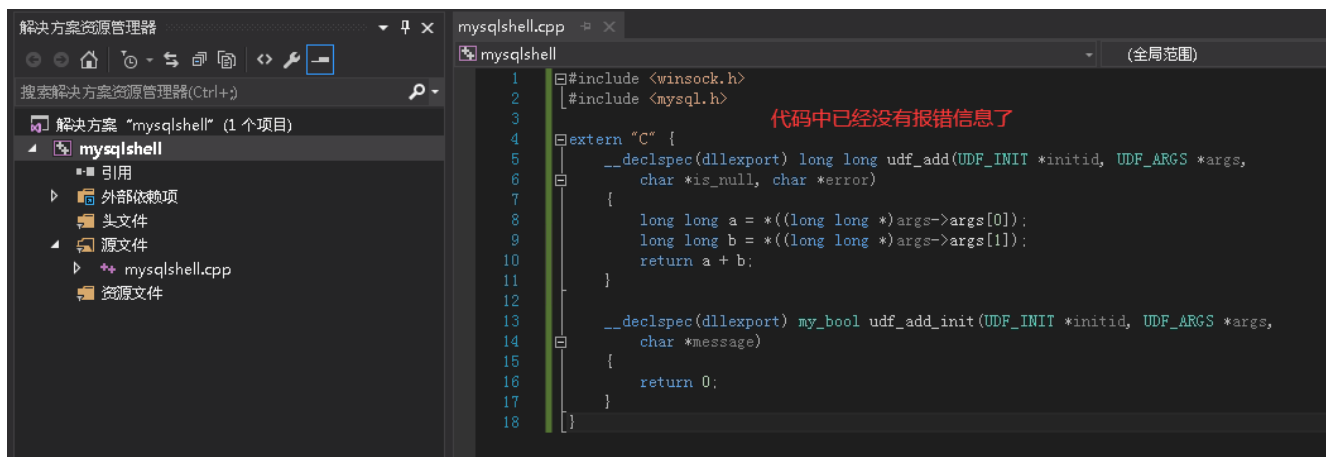
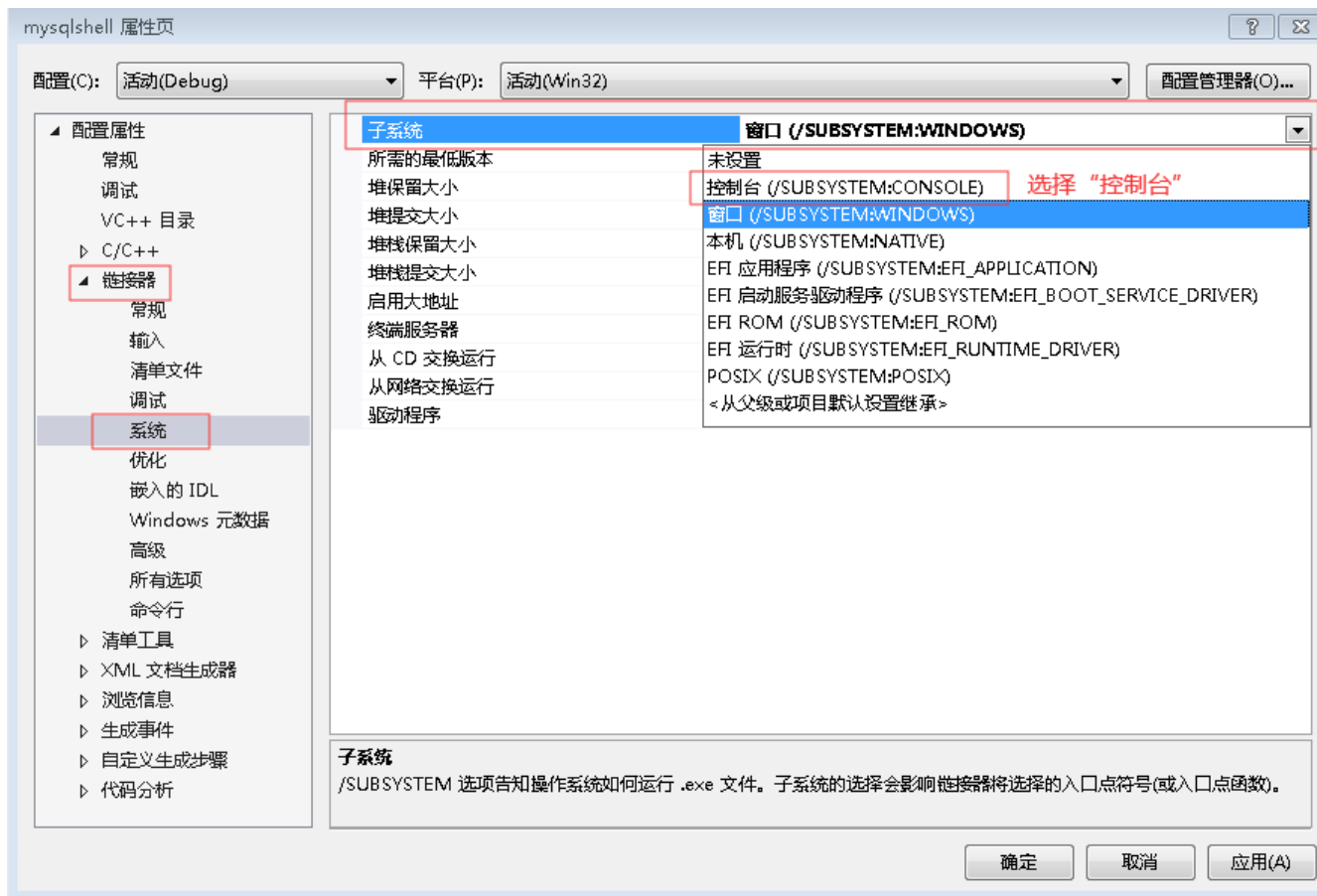


5、附加依赖项

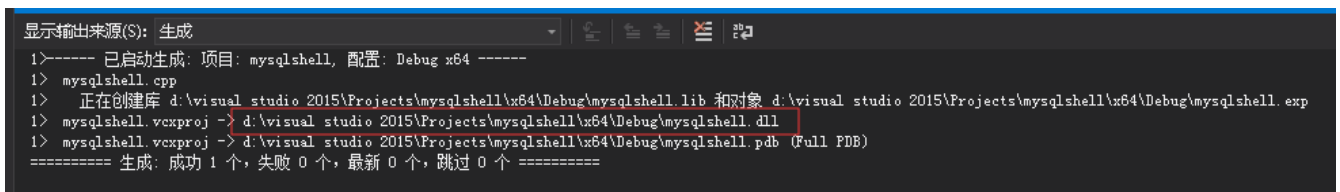
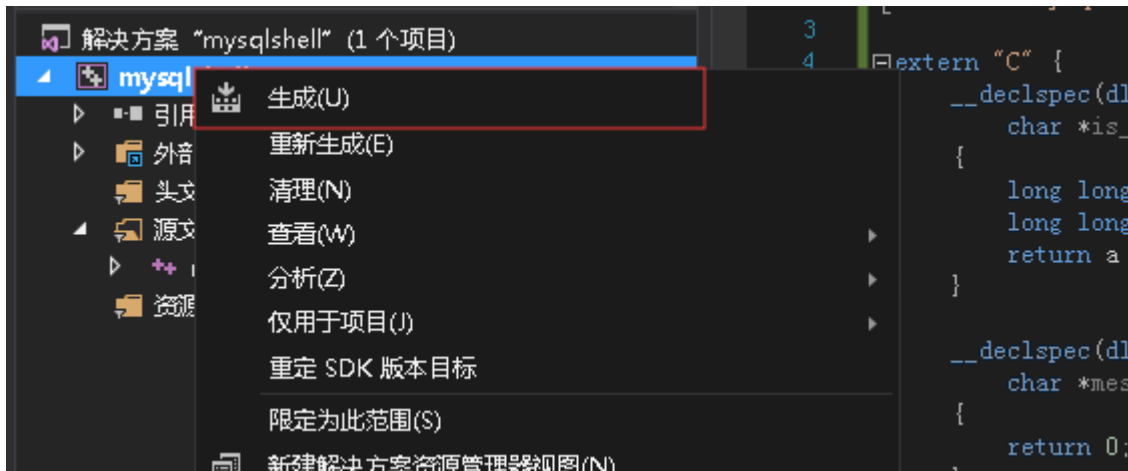




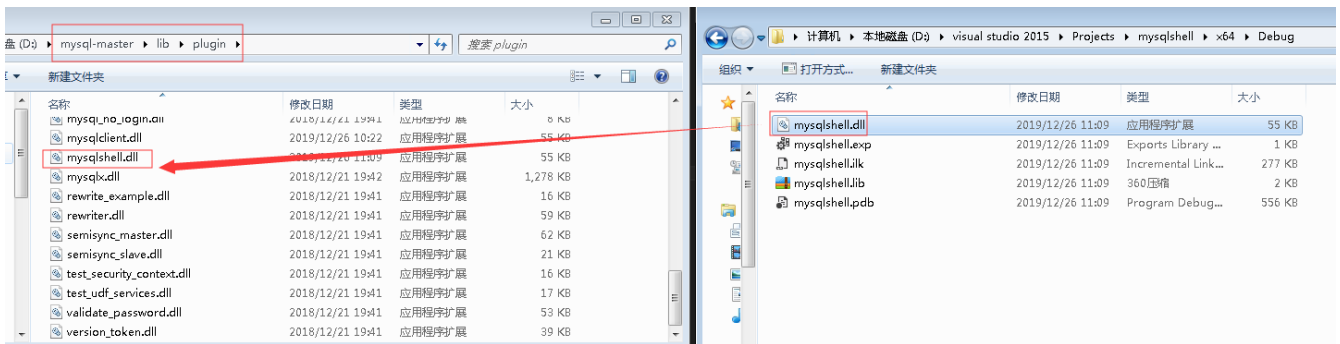
6、目标文件的系统活动平台，没有配对会报“不是有效的 Win32 应用程序”的错误



三、运行项目，生成目标mysqlshell.dll文件

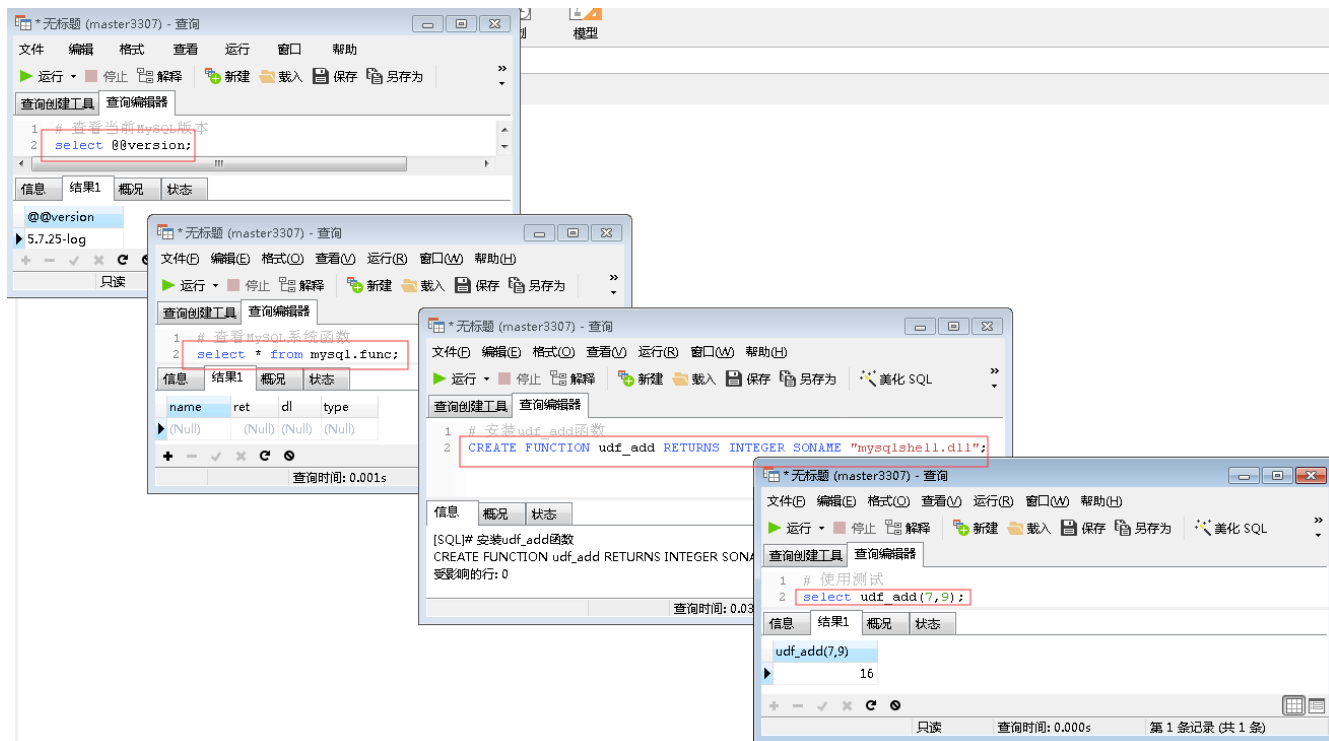


1、将生成的dll文件拷贝到MySQL的插件目录下



四、使用UDF扩展

```
# 查看当前MySQL版本
select @@version;
# 查看MySQL系统函数
select * from mysql.func;
# 安装udf_add函数
CREATE FUNCTION udf_add RETURNS INTEGER SONAME "mysqlshell.dll";
# 使用测试
select udf_add(7,9);
# 卸载函数
DROP function udf_add;
```



五、致谢