visual studio c++的一些问题排查

1、VS2017C++ 引用pthread.h头文件提示无法打开头文件

打开VisualStudio2017面板中的项目（Project）-管理NuGet程序包（Manager Nuget Package ）-打开浏览(Browse)一栏,在搜索栏搜索pthread，安装（install）。

Attempting to gather dependency information for package 'pthreads.2.9.1.4' with respect to project 'vehdamage\_project', targeting 'native,Version=v0.0'

Attempting to resolve dependencies for package 'pthreads.2.9.1.4' with DependencyBehavior 'Lowest'

Resolving actions to install package 'pthreads.2.9.1.4'

Resolved actions to install package 'pthreads.2.9.1.4'

GET https://api.nuget.org/v3-flatcontainer/pthreads.redist/2.9.1.4/pthreads.redist.2.9.1.4.nupkg

OK https://api.nuget.org/v3-flatcontainer/pthreads.redist/2.9.1.4/pthreads.redist.2.9.1.4.nupkg 108ms

Installing pthreads.redist 2.9.1.4.

Adding package 'pthreads.redist.2.9.1.4' to folder 'E:\submodule\A0209\_vehdamage\vehdamage\_project\packages'

Added package 'pthreads.redist.2.9.1.4' to folder 'E:\submodule\A0209\_vehdamage\vehdamage\_project\packages'

Added package 'pthreads.redist.2.9.1.4' to 'packages.config'

Successfully installed 'pthreads.redist 2.9.1.4' to vehdamage\_project

GET https://api.nuget.org/v3-flatcontainer/pthreads/2.9.1.4/pthreads.2.9.1.4.nupkg

OK https://api.nuget.org/v3-flatcontainer/pthreads/2.9.1.4/pthreads.2.9.1.4.nupkg 104ms

Installing pthreads 2.9.1.4.

Adding package 'pthreads.2.9.1.4' to folder 'E:\submodule\A0209\_vehdamage\vehdamage\_project\packages'

Added package 'pthreads.2.9.1.4' to folder 'E:\submodule\A0209\_vehdamage\vehdamage\_project\packages'

Added package 'pthreads.2.9.1.4' to 'packages.config'

Successfully installed 'pthreads 2.9.1.4' to vehdamage\_project

========== Finished ==========

2、

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Severity | Code | Description | Project | File | Line | Suppression State |
| Error | C1083 | Cannot open include file: 'unistd.h': No such file or directory | vehdamage\_project | e:\submodule\a0209\_vehdamage\vehdamage\_project\vehdamage\_project\vehdamage\_v100\test\vehdam\_test.cpp | 8 |  |

The "uni" in unistd stands for "UNIX" - you won't find it on a Windows system.

Most widely used, portable libraries should offer alternative builds or detect the platform and only try to use headers/functions that will be provided, so it's worth checking documentation to see if you've missed some build step - e.g. perhaps running "make" instead of loading a ".sln" Visual C++ solution file.

If you need to fix it yourself, remove the include and see which functions are actually needed, then try to find a Windows equivalent.

<https://sourceforge.net/p/gnuwin32/bugs/138/>

3、[SSD: Single Shot MultiBox Detector](https://arxiv.org/abs/1512.02325)

SSD目标检测方法，在速度上，比之前最快的YOLO还要快，在检测精度上，可以和Faster RCNN相媲美

4、Visual C++ 设置适合自己的解决方案目录结构

Visual C++ 使用解决方案来管理项目，项目之间还可能有依赖关系，设置适合自己的解决方案目录结构，便于代码的管理、程序的发布。

下面开始一个虚拟解决方案设计：

? ? ? ? 假设此解决方案有应用程序项目A，动态链接库项目B，静态链接库项目C，其中项目A依赖项目B和项目C，则构建解决方案项目结构如下图所示：

而目录结构则如下图所示：

Bin:存放所有动态链接库和可执行程序，分Debug和Release两个版本

A:应用程序项目文件夹

B:动态链接库项目文件夹

C:静态链接库项目文件夹

Doc:存放项目文档

Include:存放引用库的头文件

Lib:存放动态链接库的导入库、静态链接库

Temp:存放临时生成文件，其中Compile存放编译时的中间文件，Link存放链接时的输出文件

除了Doc需要自己建立外，其他文件夹无需手动建立。

5、include双引号与尖括号的区别。

使用尖括号的话，编译时会先在系统include目录里搜索，如果找不到才会在源代码所在目录搜索。使用双引号则相反，会先在源代码目录里搜索，如果未找到则去系统默认目录查找，通常用于包含程序作者编写的头文件。

6、　[虚函数](https://www.baidu.com/s?wd=%E8%99%9A%E5%87%BD%E6%95%B0&tn=SE_PcZhidaonwhc_ngpagmjz&rsv_dl=gh_pc_zhidao)是以virtual关键字声明的基类函数。如果在基类中将某个函数指定为virtual，并且[派生类](https://www.baidu.com/s?wd=%E6%B4%BE%E7%94%9F%E7%B1%BB&tn=SE_PcZhidaonwhc_ngpagmjz&rsv_dl=gh_pc_zhidao)中有另外一个该函数的定义，则编译器将知道我们不想静态连接该函数。我们真正需要的是基于调用该函数的对象种类，在程序的特定位置选择调用哪一个函数。