

Flex实验1

1、 Windows环境下安装Flex

- <http://sourceforge.net/projects/gnuwin32/files/flex/2.5.4a-1/>

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GnuWin

GnuWin

Provides native Win32 open source ports and utilities

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Looking for the latest version? [Download sed-4.2.1-setup.exe \(2.0 MB\)](#)

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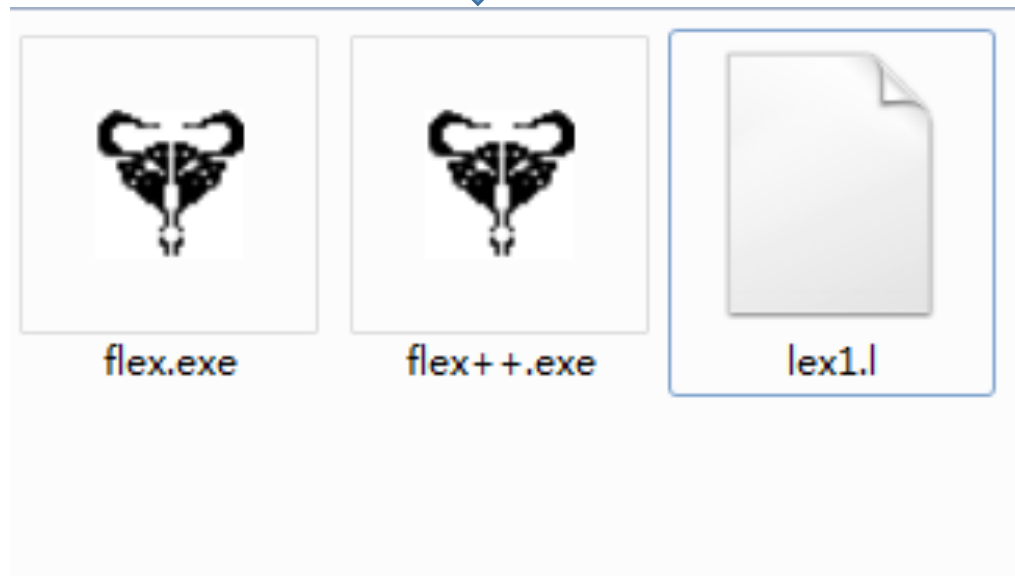
Name	Modified	Size	Downloads / Week
↑ Parent folder			
<u>flex-2.5.4a-1.exe</u>	2004-04-11	1.2 MB	451 <input type="checkbox"/>
flex-2.5.4a-1-src.zip	2004-04-11	464.7 kB	28 <input type="checkbox"/>
flex-2.5.4a-1-lib.zip	2004-04-11	3.8 kB	13 <input type="checkbox"/>
flex-2.5.4a-1-doc.zip	2004-04-11	974.6 kB	6 <input type="checkbox"/>
flex-2.5.4a-1-bin.zip	2004-04-11	202.8 kB	66 <input type="checkbox"/>

2、源程序 lex1.l

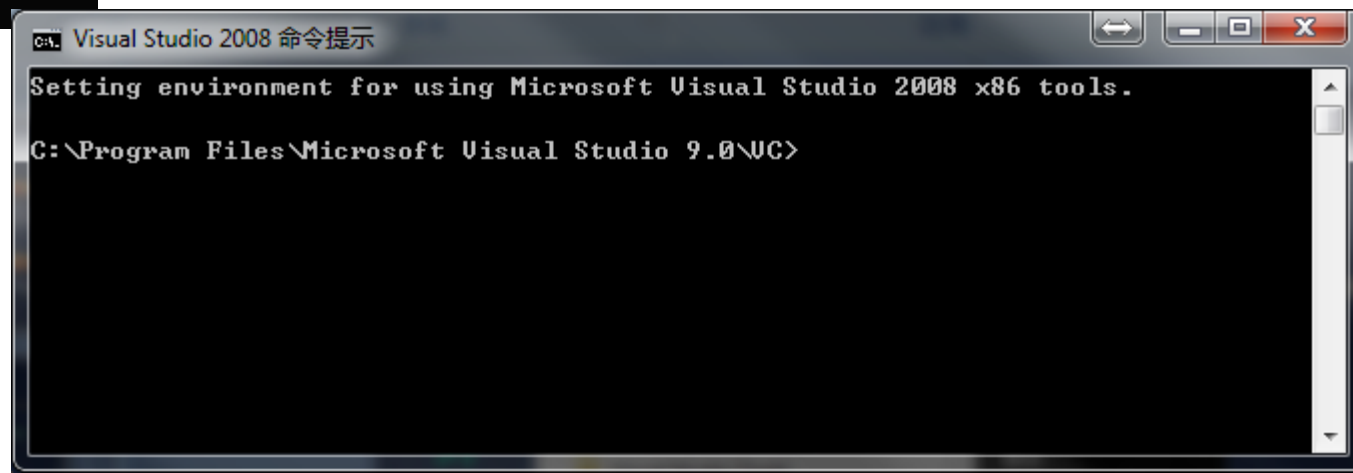
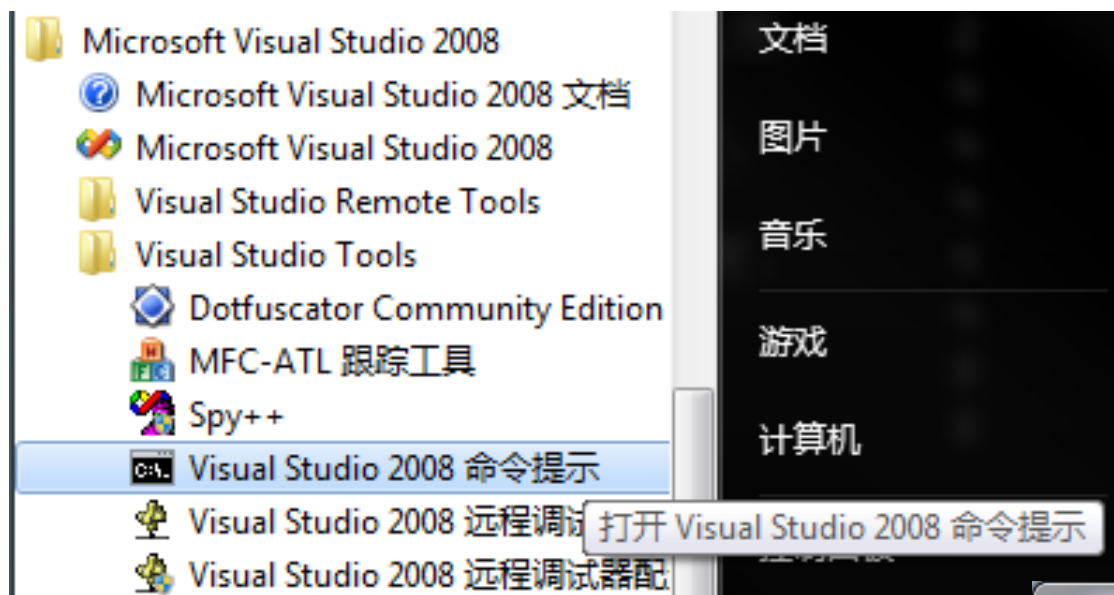
- %{
- int nchar, nword, nline;
- %}
- %%
- \n { nline++; nchar++; }
- [^ \t\n]+ { nword++, nchar += yyleng; }
- . { nchar++; }
- %%
- void main()
- {
- yylex();
- printf("%d\t%d\t%d\n", nchar, nword, nline);
- }
- int yywrap()
- {
- return 1;
- }



保存到flex安装目录



3、打开Visual Studio 2008 命令行



4、生成 lex1.yy.c

- 1、进入flex安装目录
- > cd C:\GnuWin32\bin
- 2、调用flex.exe
- > flex.exe -o"lex1.yy.c" lex1.l



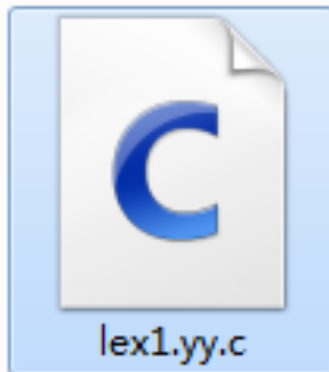
flex.exe



flex++.exe



lex1.l



lex1.yy.c

5、调用VS2008编译器cl.exe

```
C:\GnuWin32\bin>cl lex1.yy.c
```

用于 80x86 的 Microsoft (R) 32 位 C/C++ 优化编译器 15.00.30729.01 版
版权所有(C) Microsoft Corporation。保留所有权利。

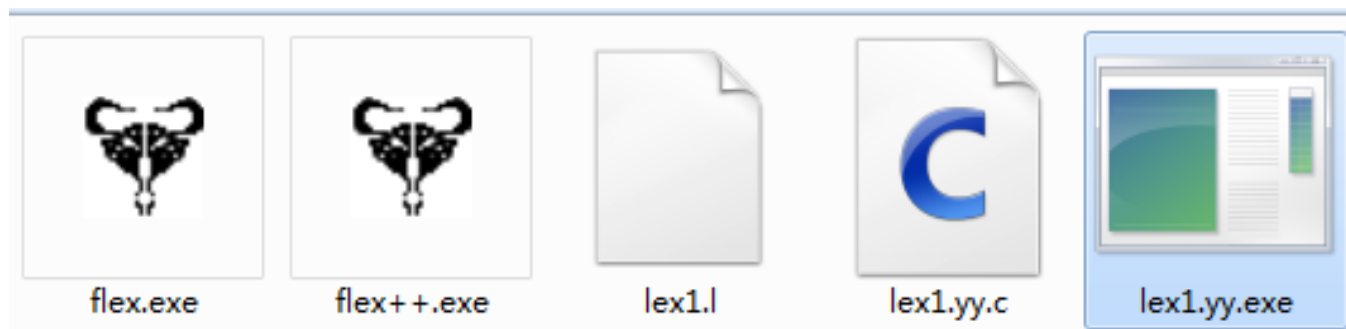
```
lex1.yy.c
```

```
Microsoft (R) Incremental Linker Version 9.00.30729.01
```

```
Copyright (C) Microsoft Corporation. All rights reserved.
```

```
/out:lex1.yy.exe
```

```
lex1.yy.obj
```



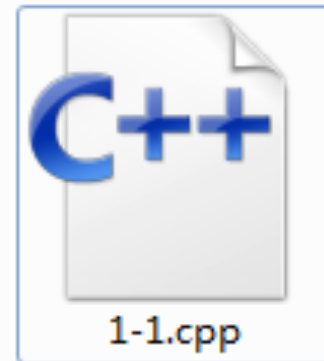
6、调用lex1.yy.exe

```
C:\GnuWin32\bin>lex1.yy.exe < 1-1.cpp  
104      17      6
```



lex1.yy.exe

```
#include iostream  
using namespace std  
int main  
cout <<"Hello! "<<endl  
cout <<"Welcome to c++! " endl  
return
```



7、源程序 lex2.l（第一部分）

- %{
- int wordCount = 0;
- %}
- chars [A-Za-z_\'\".\\"]
- numbers ([0-9])+
- delim [" \"\n\t]
- whitespace {delim}+
- words {chars}+
- %%
- {words} { wordCount++; /*increase the word count by one*/ }
- {whitespace} { /* donothing*/ }
- {numbers} { /* one may want to add some processing here*/ }



7、源程序 lex2.l（第二部分）

- void main()
- {
- yylex(); /* start the analysis */
- printf(" No of words:%d\n", wordCount);
- }
- int yywrap()
- {
- return 1;
- }



7. 提交报告

- 内容:
- 1、分别生成lex1.yy.exe、lex2.yy.exe，运行的相关截图;
- 2、上传flex代码（lex1.l、lex2.l）
- 3、上传lex1.yy.c、lex2.yy.c
- 4、实验报告
 - 4.1 windows, linux（课后补充）两种环境下的配置和使用;
 - 4.2 分析flex代码，
 - 包括编程步骤、程序组成、Lex 的模式匹配规则、Lex 变量、Lex 函数
 - 4.3 分析程序输出结果。