第9章 指针和数组
——指针数组的应用：命令行参数

命令行参数

- 什么是命令行参数（Command Line Arguments）？
- GUI界面之前，计算机的操作界面都是字符式的命令行界面（DOS、UNIX、Linux）
- 例如，在DOS下拷贝文件用
  * copy file1.c   file2.c
- 不仅是操作系统命令，所有程序也都有命令行信息

命令行参数

- **命令行参数有什么用？**
  - * **使用户可以根据需要来决定程序干什么、怎么干**

- **如何访问命令行参数？**

- `int main(`**`int`**` argc, `**`char*`**` argv[])`
  - * **`argc`：命令行参数的数量（包括程序名本身）**
  - * **`argv`：指向命令行参数的指针数组**
  - * `argv[0]`**为指向程序名的字符指针**
  - * `argv[1]~argv[argc-1]`**为指向余下的命令行参数的字符指针**

演示命令行参数与main函数形参间的关系

```c
int main(int argc, char *argv[])
{
    int  i;
    printf("The number of command line arguments is:%d\n", argc);
    printf("The program name is:%s\n", argv[0]);
    if (argc > 1)
    {
        printf("The other arguments are following:\n");
        for (i = 1; i<argc; i++)
        {
            printf("%s\n", argv[i]);
        }
    }
    return 0;
}
```

在不同的操作系统上程序名可能会包含路径或其他信息

C:\Users\sse\Desktop\demo\bin\Debug\demo.exe program...

```
The number of command line arguments is:4
The program name is:C:\Users\sse\Desktop\demo\bin\Debug\demo.exe
The other arguments are following:
programming
is
fun
```

C语言程序设计

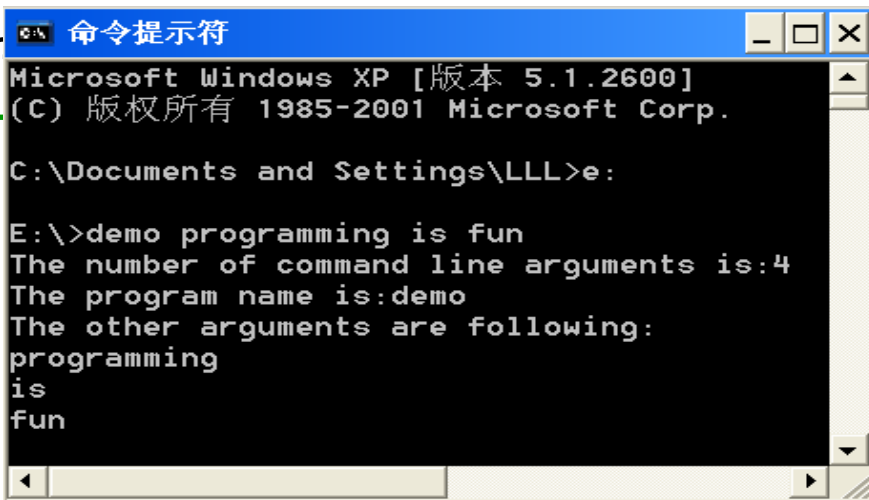| 指针数组		字符串
argv[0]	→	程序名
argv[1]	→	programming
argv[2]	→	is
argv[3]	→	fun

演示命令行参数与main函数形参间的关系

```c
int main(int argc, char *argv[])
{
    int  i;
    printf("The number of command line arguments is:%d\n", argc);
    printf("The program name is:%s\n", argv[0]);
    if (argc > 1)
    {
        printf("The other arguments are following:\n");
        for (i = 1; i<argc; i++)
        {
            printf("%s\n", argv[i]);
        }
    }
    return
}
```

如何输入命令行参数？
demo.exe programming is fun

命令提示符

```
Microsoft Windows XP [版本 5.1.2600]
(C) 版权所有 1985-2001 Microsoft Corp.

C:\Documents and Settings\LLL>e:

E:\>demo programming is fun
The number of command line arguments is:4
The program name is:demo
The other arguments are following:
programming
is
fun
```

Project Build Debug wxSmith
Add files...
Add files recursively...
Remove files...
Project tree ▶
Set programs' arguments...
Notes...
Build options...
Properties...

Select target

Debug
Release

☐ This target provides the project's main executable

Program arguments:
programming is fun

Host application:

OK   Cancel