Experiment 1: C program running environment and method

1. Purpose of the experiment

(1) Understand the basic operation methods of the computer system used and learn to use the system independently.

(2) Learn how to edit, mutate, connect and run a C program on the system.

(3) By running a simple C program, we have a preliminary understanding of the characteristics of the C source program.

2. Experiment content and steps

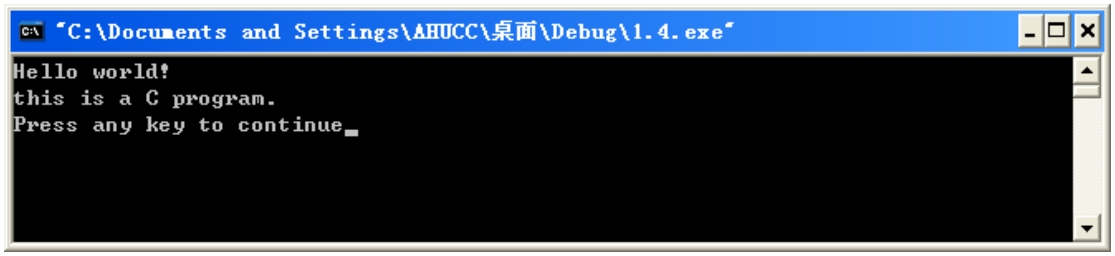
(1) Check whether the computer system used has installed the C compiler system and determine its subdirectory.

(2) Enter the C compilation integration environment used.

(3) Be familiar with the interface of the integrated environment and the use of relevant menus.

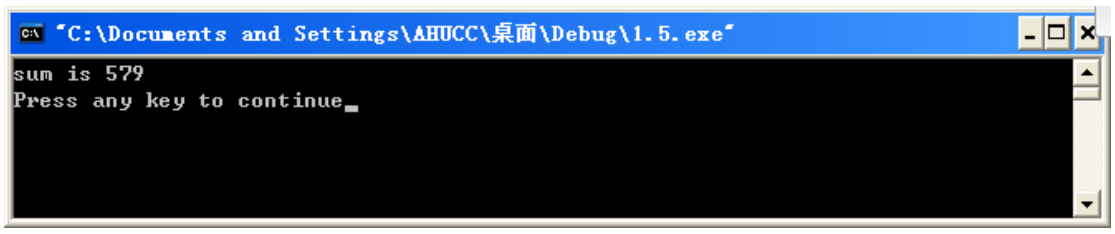
(4) Enter and run a simple and correct program

```
#include <stdio.h>
int main()
{
    printf("this is a C program.\n");
    printf("Hello world!\n");
    return 0;
}
```



(5) Enter and edit a C program with errors

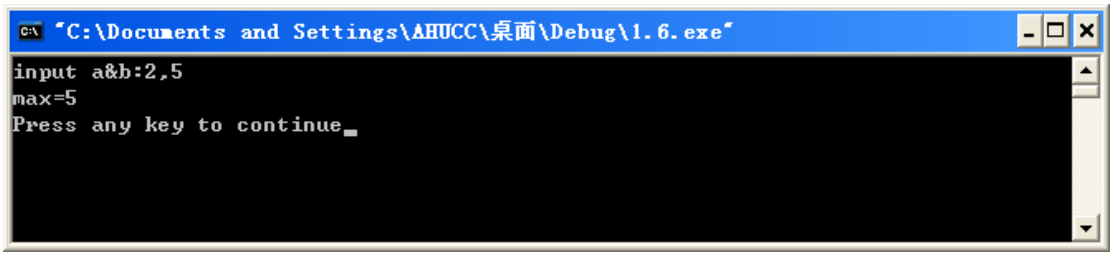
```
#include <stdio.h>
int main()
{
    int a,b,sum;
    a=123;b=456;
    sum=a+b;
    printf("sum is %d\n",sum);
    return 0;
}
```



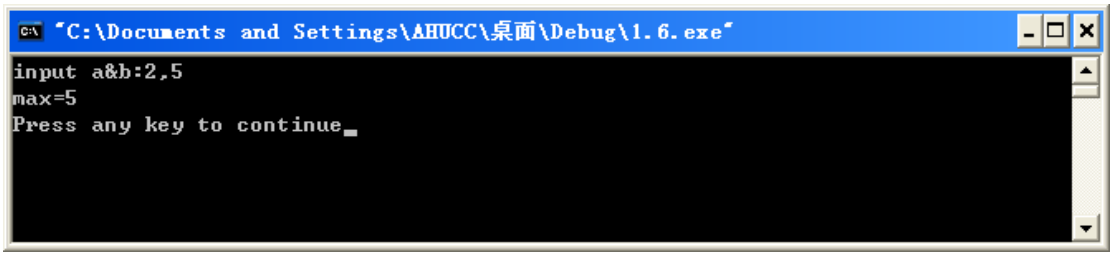
(6) Enter and run a program that needs to input data at runtime

```
#include <stdio.h>
int main()
{
    int max(int x,int y);
    int a,b,c;
    printf("input a&b:");
    scanf("%d,%d",&a,&b);
    c=max(a,b);
    printf("max=%d\n",c);
    return 0;
}

int max(int x,int y)
{
    int z;
    if (x>y) z=x;
    else z=y;
    return (z);
}
```



Merge the 3rd and 4th lines in the max function into one line



(7) Run a program written by yourself. The title is the sixth in the first chapter of the textbook. That is, input a, b and c, and output the largest one.

Method 1:

```
#include <stdio.h>
int main()
{
    int a,b,c,max;
    printf("please input a,b,c:\n");
    scanf("%d,%d,%d",&a,&b,&c);
```

```
    max=(a>b)?a:b;
    max=(max>c)?max:c;
    printf("the biggest number is %d\n",max);
    return 0;
}
```

Method 2:

```
#include <stdio.h>
int main()
{
    int a,b,c,max;
    printf("please input a,b,c:\n");
    scanf("%d,%d,%d",&a,&b,&c);
    if (a>b) max=a;
    else max=b;
    if (max<c) max=c;
    printf("The largest number number is %d\n",max);
    return 0;
}
```

Method 3:

```
#include <stdio.h>
int main()
{
    int a,b,c,max;
    printf("please input a,b,c:\n");
    scanf("%d,%d,%d",&a,&b,&c);
    max=a;
    if (max<b)
        max=b;
    if (max<c)
        max=c;
    printf("The largest number is %d\n",max);
    return 0;
}
```