This lecture gives an example how to use A R G C and A R G Vee to control a program's behavior.

The program checks whether A R G C is at least two. The reason is that this program needs to use A R G Vee one later. A program's A R G C is at least one because A R G Vee zero is always the program's name. If the program has no additional argument, then A R G C is one and A R G Vee with index one does not exist. Please always remember that the first argument has index zero, not one.

This program needs one additional argument. In other words, it needs A R G Vee one. If no argument is given, this program cannot do its job. Thus, the program prints a message and then returns EXIT FAILURE.

This is the first example using EXIT FAILURE. By returning EXIT FAILURE, this program indicates that it is unable to do its job.

In a C program, the M A I N function is the starting point. If this function returns, the program stops.

If A R G C is at least two, the program continues.

S T R T O L is a function that converts a string to a long integer. S T R T O L needs three arguments. The first is a string. The second is an address to store the location where conversion stops. In this example, I give N U L L to indicate that I do not care about the location.

The third argument is the base. In this example, I use ten to convert the string to a decimal number. Therefore, it is ten.

It is necessary to convert A R G Vee with index one to an integer because A R G Vee one is a string, not an integer.

The next line adds 10 to Vee A Ell.

The next two lines print the string A R G Vee one and the integer Vee A Ell.

The program has successfully converted A R G Vee one to an integer, stores the value in Vee A Ell, adds 10 to Vee A Ell, and prints the result. Thus, the program returns EXIT SUCCESS to indicate that it has done the job successfully.

Let us review what this program teaches us: We can use A R G C and A R G Vee to control a program's behavior. Before using an element in A R G Vee, we must check A R G C to ensure that the element exists. We can use the value of A R G C as a condition. If a program cannot do its job, the program should return EXIT FAILURE.

Let’s run the program.

First, use G C C to convert the program to an executable file. By default, the name of the executable file is A. dot out.

If we run the program without any additional argument, the program prints a message saying that it needs a number.

If we run the program with argument two six four, the program prints A R G Vee one as a string of two six four. The string is converted to an integer and stored in Vee A Ell. The value increments by 10 and it becomes 274.

If we give the two zero two zero, the program prints the string A R G Vee one as a string of two zero two zero. Vee A Ell is 2030.

We can give more arguments. The program takes only A R G Vee one and ignores the additional arguments.