Program to replace process image using execl( )

Leave a Comment / Programs / By Baljit Singh Saini

There is a family of function which can be used for replacing the current process with a new process. They differ in the number of arguments and the way they start a new process. The various functions are *execl, execlp, execle, execv* and *execvp.* In this post we will write a Program to replace process image using execl( )

We will discuss the use of *execl* and the others can be used on similar lines to replace process image. The syntax for execl is

*int execl(const char *path, const char *arg0, ..., (char *)0);*

The 1st argument is the PATH for the program *while the last argument will be NULL.*

Program: Program to replace process image using execl( ). Process *ps* will replace the image of current process

```
#include<stdio.h>
#include<unistd.h>
int main()
{
    printf("Before execl\n");
    execl("/bin/ps","ps","-a",NULL);//
    printf("After execlp\n");
}
```

Output

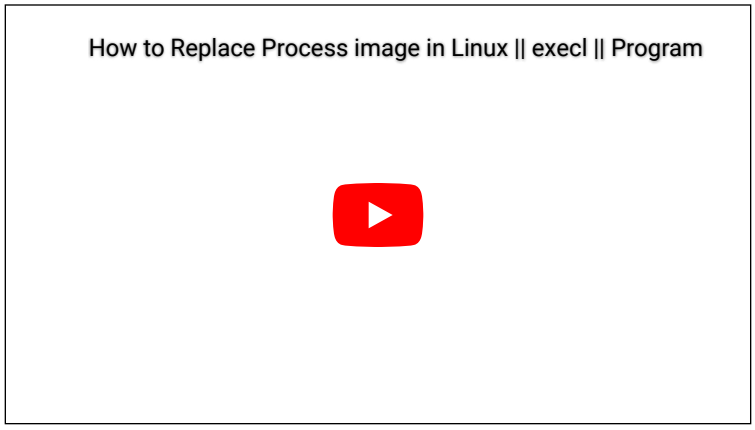
$gcc -o exec execl.c

$./exec

```
Before execl
  PID TTY          TIME CMD
  122 tty1     00:00:00 ps
```

How it Works?

The program prints the first message and then calls execl. execl searches for the program *ps* in the PATH variable and executes it replacing the original program. Hence the second message doesn't get printed. Also, It can be seen in the output that the name of the process running is *ps* and not the user process *exec.*



Viva Questions on Program to replace process image using execl( )

Q1. *exec()* function returns only if _____

Q2. The statements that appear after exec() function also executes – True/False.

Q3. How is excel() function different from system() function?

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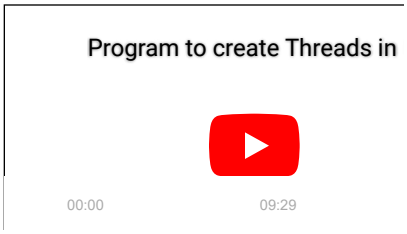

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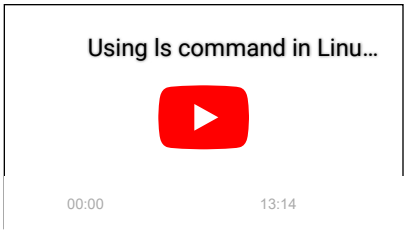

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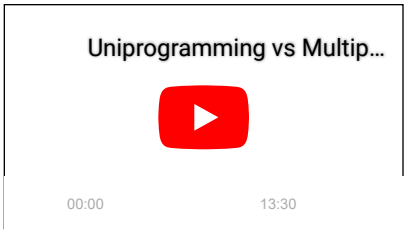

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