【Linux Programming】Day17(2)

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Summary	Environment Variables

【Ch4】The Linux Environment

4.2 Environment Variables

We can use environment variables to configure the user's environment.

For example, each user has an environment variable, `HOME`, that defines his home directory, the default starting place for the user's session.

A C program may gain access to environment variables using the `putenv` and `getenv` functions.

```
#include <stdlib.h>

char *getenv(const char *name);
int putenv(const char *string);
```

The environment consists of strings of the form `name=value`. The `getenv` function searches the environment for a string with the given name and returns the value associated with that name.

It will return null if the requested variable does not exist.

The `putenv` function takes a string of the form `name=value` and adds it to the current environment. It will fail and return -1 if it cannot extend the environment due to lack of available memory. The error variable `errno` will be set to `ENOMEM`.

Note: Changes that we make within the program are not reflected outside it because variable values are not propagated from the child process to the parent.

4.2.1 The environ Variable

The program environment is made up of strings of the form name=value. This array of strings is made available to program directly via the environ variable, which is declared as

```
#include <stdlib.h>

extern char **environ;
```