

# Re: Process Understanding

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- *From:* Les <hlhowell@xxxxxxxxxxxx>
  - *Date:* Mon, 05 Feb 2007 03:49:06 -0800
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On Mon, 2007-02-05 at 10:28 +0000, Dan Track wrote:

Hi

I'm trying to get my head round how processes start and how they get their environment, especially env variables.

Let's say you have two scenarios, one where a user e.g www has the following entry in /etc/passwd

```
www:x:500:500::/home/www:/bin/bash
```

and the other where the user has the following entry:

```
apache:x:48:48:Apache:/var/www:/sbin/nologin
```

The main difference between the two that I would like to focus on is the that one user has a bash shell (www) while the other has no shell (apache).

If both users are used to start an httpd process, then where and how do the processes get their environment variables, i.e what files are read in both cases e.g /etc/profile, /etc/bashrc etc.?

Thank in advance  
Dan

Processes that are started explicitly receive the starting users profile. The environment variables are read by software commands. The processes started by cron will utilize a default profile, or a shell script can be executed that will set the environment appropriately. Other processes can use both the inherited profile, and then add their own required variables by software. In short, like everything else UNIX, Linux offers multiple ways and means to accomplish a given goal. Environment variables are "shortcuts" or "global" items accessible by the programs, scripts and shells to simplify the programming task and make code custom on a per user or per invocation basis.

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As an example:

Just create a text file "showpath" that contains only the following:

```
echo $PATH
```

Now depending on your security settings you may have to make this executable, so do the following:

```
% chmod +x showpath
```

This adds the executable capability to the file.

Then from a command shell window (terminal):

```
% source ./showpath
```

And you will see the path that will be searched for any commands you issue. Typically it will contain /bin and /usr/bin among others.

This can also be used to add a path to search. For instance if you write a lot of script files, you might have a ~/scripts directory, and you could add that path as the first place to look (so it could replace system commands if you desire) doing the following in your bash shell in the terminal (the default FC6 terminal shell).

```
PATH=~/.scripts:$PATH
```

Now when you execute the source command again, the path will reflect the new condition. Don't worry, this will disappear when you log out and back in again.

Regards,

Les H

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—

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