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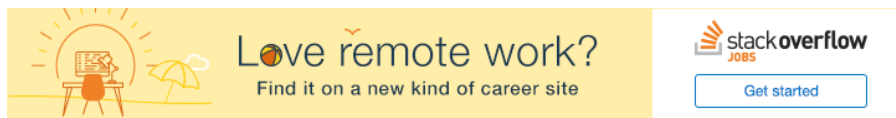
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When sh is a symlink to bash or dash, bash limits itself to POSIX-compliance, so it should be 100% compatible with sh?



From [Difference between bash and sh](#):

ABck to the question: If you have `/bin/sh` as a link to bash, then bash will not behave the same when called as `/bin/sh` as it does when called as `/bin/bash`. When called as `sh`, it will limit itself to mostly POSIX-compliance plus a limited set of extensions.

Does it mean that whenever I come across a shell script in Linux with a shebang to sh: `#!/bin/sh`, even if on that distro, `bin/sh` is a symlink to another shell, like dash or bash, it should be 100% compatible with the bourne shell, since it limit itself to a limited set of extension? So I could execute them in FreeBSD? Is there are exception to that? Or I should be safe to assume that it will work?

So if on a distro, `bin/sh` is a symlink to `bin/bash`, and a script use `#!/bin/sh` and the script contain bashism, it will not run, since bash will like be in sh mode?

`/bash` `/shell` `/shell-script` `/dash`

edited Aug 6 '12 at 23:30



Gilles
424k

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1275

asked Aug 6 '12 at 1:42



user1115057
335 8 15

2 Answers

No, if `/bin/sh` is a symlink to bash bash enters just posix mode - from [man bash](#):

When invoked as sh, bash enters posix mode after the startup files are read.

If you now search for posix mode at the [bash manpage](#) you'll see that some shell builtins like `time` or `source` behave differently. That is all. bashisms like writing `function` before declaring a function or using `source` instead of `.` still will work but the commands may behave differently.

So if `/bin/sh` is a symlink to `/bin/bash` all typical bashisms still work.

For a pretty extensive list of differences in the Posix mode have a look at the [bash reference manual](#).

edited Aug 6 '12 at 2:40

answered Aug 6 '12 at 2:27



Ulrich Dangel
17.9k

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So I guess the best thing to do is to test all script in the [checkbashism](#) tool. I heard that some distro, like Debian and Ubuntu (need confirmation for this one) had their `bin/sh` now symlink to dash. Does dash is compatible with the bourne shell? If yes, then at least all Debian and Ubuntu shell script should be fine under FreeBSD. — [user1115057](#) Aug 6 '12 at 2:39

@user1115057 only shell scripts with `/bin/sh` as shebang. A shell script still can explicitly use `/bin/bash`. Anyway most shell scripts probably will run fine under `/bin/sh` but the problem will be the user tools, e.g. most shell script expect GNU userland which will probably be more of a problem than just some syntax error. I also added a link to the bash reference which lists the different behavior in posix mode — [Ulrich Dangel](#) Aug 6 '12 at 2:43

Ok from what I read, BSD use ash as their `bin/sh`, while Debian & Ubuntu use dash. If those shell are compatible, it