

## Re: Handling of shell builtins in make(1)

**Source:** <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/arch/2005-05/0089.html>

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**Date:** 05/24/05

Date: Tue, 24 May 2005 12:46:33 +0200 (CEST)  
To: Peter Jeremy <[PeterJeremy@optushome.com.au](mailto:PeterJeremy@optushome.com.au)>

On Tue, 24 May 2005, Peter Jeremy wrote:

PJ>On Mon, 2005-May-23 20:50:40 -0600, Scott Long wrote:

PJ>>Harti Brandt wrote:

PJ>>>The result of this is that for one and the same command you can get

PJ>>>different behaviour whether you execute it via make(1) or via sh -c '!...'

PJ>

PJ>Not to mention the effect of IFS. Does POSIX provide any helpful

PJ>suggestions on how to efficiently implement the behaviour they specify?

POSIX has no .SHELL target - that's pmake's invention. IFS is no problem because in order to specify a different IFS you need to have at least a '=' on the command line. This is a meta character so the command will be executed by the shell.

Generally POSIX says that make should execute command lines as if given to system(). System() in turn says that it should behave as if it fork()ed and execl()ed "sh -c ...". The as-if here seems to allow for our optimisation.

PJ>

PJ>>4. Separate /bin/sh into a front end and back end (libsh) and include

PJ>>libsh into make.

PJ>

PJ>And this still won't help people who use .SHELL (or similar) to pick

PJ>a different shell.

PJ>

PJ>5) Add a "POSIX\_ME\_HARDER" option that just invokes the shell on every

PJ> command. In the absence of this option, make(1) is free to directly

PJ> exec the command if it's simple enough.

PJ>

PJ>6) Add two new magic line markers (to supplement '@', '+' and '-') to

PJ> require the line be executed using the shell or exec'd directly,

PJ> superceding the builtin rules.

You can always make to execute the shell by putting a meta-character on the command line or by specifying an empty builtin list or an empty meta

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character list to .SHELL. But what should we do as default?

harti

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