

WHICH(1) WHICH(1)

## NAME

which - shows the full path of (shell) commands.

## SYNOPSIS

which [options] [--] programname [...]

## DESCRIPTION

Which takes one or more arguments. For each of its arguments it prints to stdout the full path of the executables that would have been executed when this argument had been entered at the shell prompt. It does this by searching for an executable or script in the directories listed in the environment variable PATH using the same algorithm as bash(1).

This man page is generated from the file which.texinfo.

## OPTIONS

--all, -a

Print all matching executables in PATH, not just the first.

--read-alias, -i

Read aliases from stdin, reporting matching ones on stdout. This is useful in combination with using an alias for which itself. For

example

```
alias which='alias | which -i'
```

--skip-alias

Ignore option `--read-alias', if any. This is useful to explicitly search for normal binaries, while using the `--read-alias' option in an alias or function for which.

--read-functions

Read shell function definitions from stdin, reporting matching ones on stdout. This is useful in combination with using a shell function for which itself. For example:

```
which() { declare -f | which --read-functions $@ }  
export -f which
```

--skip-functions

Ignore option `--read-functions', if any. This is useful to explicitly search for normal binaries, while using the `--read-functions' option in an alias or function for which.

--skip-dot

Skip directories in PATH that start with a dot.

--skip-tilde

Skip directories in PATH that start with a tilde and executables which reside in the HOME directory.

--show-dot

If a directory in PATH starts with a dot and a matching executable was found for that path, then print "./programname" rather than the full path.

--show-tilde

Output a tilde when a directory matches the HOME directory. This option is ignored when which is invoked as root.

--tty-only

Stop processing options on the right if not on tty.

**--version,-v,-V**

Print version information on standard output then exit successfully.

**--help**

Print usage information on standard output then exit successfully.

#### RETURN VALUE

Which returns the number of failed arguments, or -1 when no `program-name` was given.

#### EXAMPLE

The recommended way to use this utility is by adding an alias (C shell) or shell function (Bourne shell) for which like the following:

[ba]sh:

```
which ()
```

```
{  
  (alias; declare -f) | /usr/bin/which --tty-only --read-alias --read-functions --show-tilde --show-dot $@  
}
```

```
export -f which
```

[t]csh:

```
alias which `alias | /usr/bin/which --tty-only --read-alias --show-dot --show-tilde`
```

This will print the readable ~/ and ./ when starting which from your prompt, while still printing the full path when used from a script:

```
> which q2  
~/bin/q2  
> echo `which q2`  
/home/carlo/bin/q2
```

#### BUGS

The HOME directory is determined by looking for the HOME environment variable, which aborts when this variable doesn't exist. Which will consider two equivalent directories to be different when one of them contains a path with a symbolic link.

#### AUTHOR

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#### SEE ALSO

bash(1)

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