

---

## NAME

`parset` - set shell variables in parallel

## SYNOPSIS

`parset` *variablename* [options for GNU Parallel]

`env_parset` *variablename* [options for GNU Parallel]

## DESCRIPTION

`parset` is a shell function that puts the output from GNU `parallel` into shell variables.

`env_parset` is a shell function that puts the output from `env_parallel` into shell variables.

The `parset` and `env_parset` functions are defined as part of `env_parallel`.

If *variablename* is a single variable name, this will be treated as the destination variable. If the variable is defined as an associative array (using `typeset -A myassoc`), this will be used. Otherwise the variable will be made into a normal array.

If *variablename* contains multiple names separated by ',' or space, the names will be the destination variables. The number of names must be at least the number of jobs.

## OPTIONS

Same as GNU `parallel`, but they are put *after* the destination variable.

## SUPPORTED SHELLS

### Bash/Zsh/Ksh/Mksh

#### Examples

Put output into `myarray`:

```
parset myarray seq 3 ::: 4 5 6
echo "${myarray[1]}"
```

Put output into vars `$seq`, `$pwd`, `$ls`:

```
parset "seq pwd ls" ::: "seq 10" pwd ls
echo "$ls"
```

Put output into vars `$seq`, `$pwd`, `$ls`:

```
into_vars=(seq pwd ls)
parset "${into_vars[*]}" ::: "seq 10" pwd ls
echo "$ls"
```

Put output into associative array `myassoc` (not supported for mksh):

```
typeset -A myassoc
parset myassoc seq ::: 4 5 ::: 6 7
echo "${myassoc[4 7]}"
```

The commands to run can be an array:

```
cmd=("echo first" "echo '<<joe \ "double space\"  cartoon>>' "pwd")
parset data ::: "${cmd[@]}"
echo "${data[1]}"
echo "${data[2]}"
```

`parset` can read from stdin (standard input) if it is a file:

---

```
parset res echo < parallel_input_file
```

but **parset** can *not* be part of a pipe. In particular this means it cannot read from a pipe or write to a pipe:

```
seq 10 | parset res echo Does not work
```

but must instead use a tempfile:

```
seq 10 > parallel_input
parset res echo ::: parallel_input
echo "${res[1]}"
echo "${res[9]}"
```

or a FIFO:

```
mkfifo input_fifo
seq 30 > input_fifo &
parset res echo ::: input_fifo
echo "${res[1]}"
echo "${res[29]}"
```

or Bash/Zsh/Ksh process substitution:

```
parset res echo ::: <(seq 100)
echo "${res[1]}"
echo "${res[99]}"
```

## Installation

Put this in the relevant **\$HOME/.bashrc** or **\$HOME/.zshenv** or **\$HOME/.kshrc**:

```
. `which env_parallel.bash`
. `which env_parallel.zsh`
source `which env_parallel.ksh`
```

E.g. by doing:

```
echo '. `which env_parallel.bash`' >> $HOME/.bashrc
echo '. `which env_parallel.zsh`' >> $HOME/.zshenv
echo 'source `which env_parallel.ksh`' >> $HOME/.kshrc
```

or by doing:

```
env_parallel --install
```

## ash/dash (FreeBSD's /bin/sh)

### Examples

ash does not support arrays.

Put output into vars **\$seq**, **\$pwd**, **\$ls**:

```
parset "seq pwd ls" ::: "seq 10" pwd ls
echo "$ls"
```

**parset** can read from stdin (standard input) if it is a file:

---

```
parset res1,res2,res3 echo < parallel_input_file
```

but **parset** can not be part of a pipe. In particular this means it cannot read from a pipe or write to a pipe:

```
seq 3 | parset res1,res2,res3 echo Does not work
```

but must instead use a tempfile:

```
seq 3 > parallel_input
parset res1,res2,res3 echo :::: parallel_input
echo "$res1"
echo "$res2"
echo "$res3"
```

or a FIFO:

```
mkfifo input_fifo
seq 3 > input_fifo &
parset res1,res2,res3 echo :::: input_fifo
echo "$res1"
echo "$res2"
echo "$res3"
```

## Installation

Put the relevant one of these into **\$HOME/.profile**:

```
. `which env_parallel.sh`
. `which env_parallel.ash`
. `which env_parallel.dash`
```

E.g. by doing:

```
echo '. `which env_parallel.ash`' >> $HOME/.bashrc
```

or by doing:

```
env_parallel --install
```

## EXIT STATUS

Same as GNU **parallel**.

## AUTHOR

When using GNU **parallel** for a publication please cite:

O. Tange (2011): GNU Parallel - The Command-Line Power Tool, ;login: The USENIX Magazine, February 2011:42-47.

This helps funding further development; and it won't cost you a cent. If you pay 10000 EUR you should feel free to use GNU Parallel without citing.

Copyright (C) 2007-10-18 Ole Tange, <http://ole.tange.dk>

Copyright (C) 2008-2010 Ole Tange, <http://ole.tange.dk>

Copyright (C) 2010-2025 Ole Tange, <http://ole.tange.dk> and Free Software Foundation, Inc.

---

## LICENSE

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 3 of the License, or at your option any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program. If not, see <http://www.gnu.org/licenses/>.

### Documentation license I

Permission is granted to copy, distribute and/or modify this documentation under the terms of the GNU Free Documentation License, Version 1.3 or any later version published by the Free Software Foundation; with no Invariant Sections, with no Front-Cover Texts, and with no Back-Cover Texts. A copy of the license is included in the file LICENSES/GFDL-1.3-or-later.txt.

### Documentation license II

You are free:

#### to Share

to copy, distribute and transmit the work

#### to Remix

to adapt the work

Under the following conditions:

#### Attribution

You must attribute the work in the manner specified by the author or licensor (but not in any way that suggests that they endorse you or your use of the work).

#### Share Alike

If you alter, transform, or build upon this work, you may distribute the resulting work only under the same, similar or a compatible license.

With the understanding that:

#### Waiver

Any of the above conditions can be waived if you get permission from the copyright holder.

#### Public Domain

Where the work or any of its elements is in the public domain under applicable law, that status is in no way affected by the license.

#### Other Rights

In no way are any of the following rights affected by the license:

- Your fair dealing or fair use rights, or other applicable copyright exceptions and limitations;
- The author's moral rights;
- Rights other persons may have either in the work itself or in how the work is used, such as publicity or privacy rights.

#### Notice

For any reuse or distribution, you must make clear to others the license terms of this work.

A copy of the full license is included in the file as LICENCES/CC-BY-SA-4.0.txt

## **DEPENDENCIES**

**parset** uses GNU **parallel**.

## **SEE ALSO**

**parallel(1)**, **env\_parallel(1)**, **bash(1)**.