

zplugin.zsh(1)

NAME

zplugin.zsh - a shell script

SYNOPSIS

Documentation automatically generated with `zshelldoc`

FUNCTIONS

```
--zplg-reload-and-run
--zplg-shadow-alias
--zplg-shadow-autoload
--zplg-shadow-bindkey
--zplg-shadow-compdef
--zplg-shadow-zle
--zplg-shadow-zstyle
-zplg-add-report
-zplg-any-to-user-plugin
-zplg-clear-debug-report
-zplg-compdef-clear
-zplg-compdef-replay
-zplg-debug-start
-zplg-debug-stop
-zplg-debug-unload
-zplg-diff-env
-zplg-diff-functions
-zplg-diff-options
-zplg-diff-parameter
-zplg-find-other-matches
-zplg-ice
-zplg-load
-zplg-load-plugin
-zplg-load-snippet
-zplg-pack-ice
-zplg-prepare-home
-zplg-register-plugin
-zplg-run-task
-zplg-service
-zplg-shadow-off
-zplg-shadow-on
-zplg-submit-turbo
-zplg-unregister-plugin
-zplugin_scheduler_add_sh
pmodload
zpcdreplay
zpcmpdef
zpcmpinit
zplugin
AUTOLOAD add-zsh-hook
AUTOLOAD compinit
AUTOLOAD is-at-least
PRECMD-HOOK -zplg-scheduler
```

DETAILS

Script Body

Has 137 line(s). Calls functions:

```
Script-Body
|-- -zplg-prepare-home
|-- add-zsh-hook
`-- is-at-least
```

Uses feature(s): *alias*, *autoload*, *export*, *zmodload*, *zstyle*

Exports (environment): ZPFX

--zplg-reload-and-run

Marks given function (\$3) for autoloading, and executes it triggering the load. \$1 is the fpath dedicated to the function, \$2 are autoload options. This function replaces "autoload -X", because using that on older Zsh versions causes problems with traps.

So basically one creates function stub that calls --zplg-reload-and-run() instead of "autoload -X".

\$1 - FPATH dedicated to function
\$2 - autoload options
\$3 - function name (one that needs autoloading)

Author: Bart Schaefer

Has 8 line(s). Doesn't call other functions.

Uses feature(s): *autoload*, *unfunction*

Not called by script or any function (may be e.g. a hook, a Zle widget, etc.).

--zplg-shadow-alias

Function defined to hijack plugin's calls to 'alias' builtin.

The hijacking is to gather report data (which is used in unload).

Has 39 line(s). Calls functions:

```
--zplg-shadow-alias  
'-- -zplg-add-report
```

Uses feature(s): *alias, unfunction, zparseopts*

Not called by script or any function (may be e.g. a hook, a Zle widget, etc.).

--zplg-shadow-autoload

Function defined to hijack plugin's calls to 'autoload' builtin.

The hijacking is not only to gather report data, but also to run custom 'autoload' function, that doesn't need FPATH.

Has 44 line(s). Calls functions:

```
--zplg-shadow-autoload  
'-- -zplg-add-report
```

Uses feature(s): *autoload, eval, zparseopts*

Not called by script or any function (may be e.g. a hook, a Zle widget, etc.).

--zplg-shadow-bindkey

Function defined to hijack plugin's calls to 'bindkey' builtin.

The hijacking is to gather report data (which is used in unload).

Has 108 line(s). Calls functions:

```
--zplg-shadow-bindkey  
'-- -zplg-add-report
```

Uses feature(s): *bindkey, unfunction, zparseopts*

Not called by script or any function (may be e.g. a hook, a Zle widget, etc.).

--zplg-shadow-compdef

Function defined to hijack plugin's calls to 'compdef' function.
The hijacking is not only for reporting, but also to save compdef calls so that 'compinit' can be called after loading plugins.

Has 4 line(s). Calls functions:

```
--zplg-shadow-compdef  
'-- -zplg-add-report
```

Not called by script or any function (may be e.g. a hook, a Zle widget, etc.).

--zplg-shadow-zle

Function defined to hijack plugin's calls to 'zle' builtin.

The hijacking is to gather report data (which is used in unload).

Has 40 line(s). Calls functions:

```
--zplg-shadow-zle  
'-- -zplg-add-report
```

Uses feature(s): *unfunction*, *zle*

Not called by script or any function (may be e.g. a hook, a Zle widget, etc.).

--zplg-shadow-zstyle

Function defined to hijack plugin's calls to 'zstyle' builtin.

The hijacking is to gather report data (which is used in unload).

Has 26 line(s). Calls functions:

```
--zplg-shadow-zstyle  
'-- -zplg-add-report
```

Uses feature(s): *unfunction*, *zparseopts*, *zstyle*

Not called by script or any function (may be e.g. a hook, a Zle widget, etc.).

-zplg-add-report

Adds a report line for given plugin.

\$1 - uspl2, i.e. user/plugin
\$2, ... - the text

Has 2 line(s). Doesn't call other functions.

Called by:

```
--zplg-shadow-alias  
--zplg-shadow-autoload  
--zplg-shadow-bindkey  
--zplg-shadow-compdef  
--zplg-shadow-zle  
--zplg-shadow-zstyle  
-zplg-load-plugin
```

-zplg-any-to-user-plugin

Allows elastic plugin-spec across the code.

\$1 - plugin spec (4 formats: user---plugin, user/plugin, user, plugin)
\$2 - plugin (only when \$1 - i.e. user - given)

Returns user and plugin in \$reply

Has 23 line(s). Doesn't call other functions.

Called by:

```
-zplg-load
-zplg-unregister-plugin
zplugin-autoload.zsh/-zplg-any-to-uspl2
zplugin-autoload.zsh/-zplg-changes
zplugin-autoload.zsh/-zplg-compile-uncompile-all
zplugin-autoload.zsh/-zplg-compiled
zplugin-autoload.zsh/-zplg-create
zplugin-autoload.zsh/-zplg-delete
zplugin-autoload.zsh/-zplg-edit
zplugin-autoload.zsh/-zplg-find-completions-of-plugin
zplugin-autoload.zsh/-zplg-get-path
zplugin-autoload.zsh/-zplg-glance
zplugin-autoload.zsh/-zplg-show-report
zplugin-autoload.zsh/-zplg-stress
zplugin-autoload.zsh/-zplg-uncompile-plugin
zplugin-autoload.zsh/-zplg-unload
zplugin-autoload.zsh/-zplg-update-or-status-all
zplugin-autoload.zsh/-zplg-update-or-status
zplugin-install.zsh/-zplg-compile-plugin
zplugin-install.zsh/-zplg-get-latest-gh-r-version
zplugin-install.zsh/-zplg-install-completions
zplugin-side.zsh/-zplg-any-colorify-as-uspl2
zplugin-side.zsh/-zplg-exists-physically
zplugin-side.zsh/-zplg-first
```

-zplg-clear-debug-report

Forgets dtrace report gathered up to this moment.

Has 1 line(s). Calls functions:

```
-zplg-clear-debug-report
`-- zplugin-autoload.zsh/-zplg-clear-report-for
```

Called by:

```
zplugin
zplugin-autoload.zsh/-zplg-unload
```

-zplg-compdef-clear

Implements user-exposed functionality to clear gathered compdefs.

Has 3 line(s). Doesn't call other functions.

Called by:

```
zplugin
```

-zplg-compdef-replay

Runs gathered compdef calls. This allows to run 'compinit' after loading plugins.

Has 16 line(s). Doesn't call other functions.

Called by:

```
zpcdreplay  
zplugin
```

-zplg-debug-start

Starts Dtrace, i.e. session tracking for changes in Zsh state.

Has 12 line(s). Calls functions:

```
-zplg-debug-start  
|-- -zplg-diff-env  
|-- -zplg-diff-functions  
|-- -zplg-diff-options  
|-- -zplg-diff-parameter  
'-- -zplg-shadow-on
```

Called by:

```
zplugin
```

-zplg-debug-stop

Stops Dtrace, i.e. session tracking for changes in Zsh state.

Has 6 line(s). Calls functions:


```
-zplg-debug-stop  
|-- -zplg-diff-env  
|-- -zplg-diff-functions  
|-- -zplg-diff-options  
|-- -zplg-diff-parameter  
'-- -zplg-shadow-off
```

Called by:

zplugin

-zplg-debug-unload

Reverts changes detected by dtrace run.

Has 5 line(s). Calls functions:

```
-zplg-debug-unload  
'-- zplugin-autoload.zsh/-zplg-unload
```

Called by:

zplugin

-zplg-diff-env

Implements detection of change in PATH and FPATH.

\$1 - user/plugin (i.e. uspl2 format)
\$2 - command, can be "begin" or "end"

Has 17 line(s). Doesn't call other functions.

Called by:

```
-zplg-debug-start  
-zplg-debug-stop  
-zplg-load-plugin
```

-zplg-diff-functions

Implements detection of newly created functions. Performs data gathering, computation is done in *-compute().

\$1 - user/plugin (i.e. uspl2 format)
\$2 - command, can be "begin" or "end"

Has 5 line(s). Doesn't call other functions.

Called by:

-zplg-debug-start
-zplg-debug-stop
-zplg-load-plugin

-zplg-diff-options

Implements detection of change in option state. Performs data gathering, computation is done in *-compute().

\$1 - user/plugin (i.e. uspl2 format)
\$2 - command, can be "begin" or "end"

Has 5 line(s). Doesn't call other functions.

Called by:

-zplg-debug-start
-zplg-debug-stop
-zplg-load-plugin

-zplg-diff-parameter

Implements detection of change in any parameter's existence and type.
Performs data gathering, computation is done in *-compute().

\$1 - user/plugin (i.e. uspl2 format)
\$2 - command, can be "begin" or "end"

Has 10 line(s). Doesn't call other functions.

Called by:

```
-zplg-debug-start  
-zplg-debug-stop  
-zplg-load-plugin
```

-zplg-find-other-matches

Plugin's main source file is in general 'name.plugin.zsh'. However, there can be different conventions, if that file is not found, then this functions examines other conventions in order of most expected sanity.

Has 14 line(s). Doesn't call other functions.

Called by:

```
-zplg-load-plugin  
zplugin-side.zsh/-zplg-first
```

-zplg-ice

Parses ICE specification ('zplg ice' subcommand), puts the result into ZPLG_ICE global hash. The ice-spec is valid for next command only (i.e. it "melts"), but it can then stick to plugin and activate e.g. at update.

Has 7 line(s). Doesn't call other functions.

Called by:

```
zplugin
```

-zplg-load

Implements the exposed-to-user action of loading a plugin.

\$1 - plugin spec (4 formats: user---plugin, user/plugin, user, plugin)
\$2 - plugin name, if the third format is used

Has 26 line(s). Calls functions:

```
-zplg-load
|-- -zplg-any-to-user-plugin
|-- -zplg-load-plugin
|   |-- -zplg-add-report
|   |-- -zplg-diff-env
|   |-- -zplg-diff-functions
|   |-- -zplg-diff-options
|   |-- -zplg-diff-parameter
|   |-- -zplg-find-other-matches
|   |-- -zplg-shadow-off
|   `-- -zplg-shadow-on
|-- -zplg-pack-ice
|-- -zplg-register-plugin
|-- -zplg-unregister-plugin
|   `-- -zplg-any-to-user-plugin
`-- zplugin-install.zsh/-zplg-setup-plugin-dir
```

Uses feature(s): *eval*, *source*, *zle*

Called by:

```
-zplg-run-task
-zplg-service
zplugin
```

-zplg-load-plugin

Lower-level function for loading a plugin.

\$1 - user
\$2 - plugin
\$3 - mode (light or load)

Has 73 line(s). Calls functions:

```
-zplg-load-plugin  
|-- -zplg-add-report  
|-- -zplg-diff-env  
|-- -zplg-diff-functions  
|-- -zplg-diff-options  
|-- -zplg-diff-parameter  
|-- -zplg-find-other-matches  
|-- -zplg-shadow-off  
'-- -zplg-shadow-on
```

Uses feature(s): *eval, source, zle*

Called by:

```
-zplg-load
```

-zplg-load-snippet

Implements the exposed-to-user action of loading a snippet.

\$1 - url (can be local, absolute path)

Has 119 line(s). Calls functions:

```
-zplg-load-snippet  
|-- -zplg-pack-ice  
'-- zplugin-install.zsh/-zplg-download-snippet
```

Uses feature(s): *autoload, eval, source, unfunction, zparseopts, zstyle*

Called by:

```
-zplg-run-task  
-zplg-service  
pmodload  
zplugin  
zplugin-autoload.zsh/-zplg-update-or-status-snippet
```

-zplg-pack-ice

Remembers long-live ICE specs, assigns them to concrete plugin.
Ice spec is in general forgotten for second-next command (that's why it's called "ice" - it melts), however some ice modifiers can glue to plugin mentioned in the next command.

Has 3 line(s). Doesn't call other functions.

Called by:

```
-zplg-load-snippet  
-zplg-load  
zplugin-autoload.zsh/-zplg-compute-ice
```

-zplg-prepare-home

Creates all directories needed by Zplugin, first checks if they already exist.

Has 27 line(s). Doesn't call other functions.

Called by:

```
Script-Body
```

Environment variables used: ZPFX

-zplg-register-plugin

Has 18 line(s). Doesn't call other functions.

Called by:

```
-zplg-load
```

-zplg-run-task

Has 32 line(s). Calls functions:

```
-zplg-run-task
|-- -zplg-load
|   |-- -zplg-any-to-user-plugin
|   |-- -zplg-load-plugin
|   |   |-- -zplg-add-report
|   |   |-- -zplg-diff-env
|   |   |-- -zplg-diff-functions
|   |   |-- -zplg-diff-options
|   |   |-- -zplg-diff-parameter
|   |   |-- -zplg-find-other-matches
|   |   |-- -zplg-shadow-off
|   |   `-- -zplg-shadow-on
|   |-- -zplg-pack-ice
|   |-- -zplg-register-plugin
|   |-- -zplg-unregister-plugin
|   |   `-- -zplg-any-to-user-plugin
|   `-- zplugin-install.zsh/-zplg-setup-plugin-dir
|-- -zplg-load-snippet
|   |-- -zplg-pack-ice
|   `-- zplugin-install.zsh/-zplg-download-snippet
`-- zplugin-autoload.zsh/-zplg-unload
```

Uses feature(s): *eval*, *source*, *zle*, *zpty*

Called by:

```
-zplg-scheduler
```

-zplg-scheduler

Searches for timeout tasks, executes them. There's an array of tasks waiting for execution, this scheduler manages them, detects which ones should be run at current moment, decides to remove (or not) them from the array after execution.

\$1 - if "following", then it is non-first (second and more) invocation of the scheduler; this results in chain of 'sched' invocations that results in repetitive -zplg-scheduler activity;

if "burst", then all tasks are marked timeout and executed one by one; this is handy if e.g. a docker image starts up and needs to install all turbo-mode plugins without any hesitation (delay), i.e. "burst" allows to run package installations from script, not from prompt

Has 41 line(s). **Is a precmd hook.** Calls functions:

```
-zplg-scheduler
|-- -zplg-run-task
|   |-- -zplg-load
|       |-- -zplg-any-to-user-plugin
|       |-- -zplg-load-plugin
|       |-- -zplg-add-report
|       |-- -zplg-diff-env
|       |-- -zplg-diff-functions
|       |-- -zplg-diff-options
|       |-- -zplg-diff-parameter
|       |-- -zplg-find-other-matches
|       |-- -zplg-shadow-off
|       |-- -zplg-shadow-on
|       |-- -zplg-pack-ice
|       |-- -zplg-register-plugin
|       |-- -zplg-unregister-plugin
|       |-- -zplg-any-to-user-plugin
|       |-- zplugin-install.zsh/-zplg-setup-plugin-dir
|   |-- -zplg-load-snippet
|       |-- -zplg-pack-ice
|       |-- zplugin-install.zsh/-zplg-download-snippet
|   |-- zplugin-autoload.zsh/-zplg-unload
|-- add-zsh-hook
```

Uses feature(s): *sched*, *zle*

Not called by script or any function (may be e.g. a hook, a Zle widget, etc.).

-zplg-service

Handles given service, i.e. obtains lock, runs it, or waits if no lock

\$1 - type "p" or "s" (plugin or snippet)
\$2 - mode - for plugin (light or load)
\$3 - id - URL or plugin ID

Has 30 line(s). Calls functions:

```
-zplg-service
|-- -zplg-load
|   |-- -zplg-any-to-user-plugin
|   |-- -zplg-load-plugin
|   |   |-- -zplg-add-report
|   |   |-- -zplg-diff-env
|   |   |-- -zplg-diff-functions
|   |   |-- -zplg-diff-options
|   |   |-- -zplg-diff-parameter
|   |   |-- -zplg-find-other-matches
|   |   |-- -zplg-shadow-off
|   |   `-- -zplg-shadow-on
|   |-- -zplg-pack-ice
|   |-- -zplg-register-plugin
|   |-- -zplg-unregister-plugin
|   |   `-- -zplg-any-to-user-plugin
|   `-- zplugin-install.zsh/-zplg-setup-plugin-dir
`-- -zplg-load-snippet
    |-- -zplg-pack-ice
    `-- zplugin-install.zsh/-zplg-download-snippet
```

Uses feature(s): *kill*, *read*

Not called by script or any function (may be e.g. a hook, a Zle widget, etc.).

-zplg-shadow-off

Turn off shadowing completely for a given mode ("load", "light" or "compdef").

Has 18 line(s). Doesn't call other functions.

Uses feature(s): *unfunction*

Called by:

```
-zplg-debug-stop  
-zplg-load-plugin
```

-zplg-shadow-on

Turn on shadowing of builtins and functions according to passed mode ("load", "light" or "compdef"). The shadowing is to gather report data, and to hijack 'autoload' and 'compdef' calls.

Has 25 line(s). Doesn't call other functions.

Called by:

```
-zplg-debug-start  
-zplg-load-plugin
```

-zplg-submit-turbo

If 'zplugin load', 'zplugin light' or 'zplugin snippet' will be preceded with 'wait', 'load' or 'unload' ice-mods then the plugin or snippet is to be loaded in turbo-mode, and this function adds it to internal data structures, so that -zplg-scheduler can run (load, unload) this as a task.

Has 13 line(s). Doesn't call other functions.

Called by:

```
zplugin
```

-zplg-unregister-plugin

Has 4 line(s). Calls functions:

```
-zplg-unregister-plugin  
'-- -zplg-any-to-user-plugin
```

Called by:

```
-zplg-load  
zplugin-autoload.zsh/-zplg-unload
```

-zplugin_scheduler_add_sh

Copies task into ZPLG_RUN array, called when a task timeouts.
A small function ran from pattern in /-substitution.

Has 2 line(s). Doesn't call other functions.

Not called by script or any function (may be e.g. a hook, a Zle widget, etc.).

pmodload

Has 9 line(s). Calls functions:

```
pmodload  
'-- -zplg-load-snippet  
  |-- -zplg-pack-ice  
  '-- zplugin-install.zsh/-zplg-download-snippet
```

Uses feature(s): *zstyle*

Not called by script or any function (may be e.g. a hook, a Zle widget, etc.).

zpcdreplay

A function that can be invoked from within 'atinit', 'atload', etc. ice-mod.
It works like 'zplugin cdreplay', which cannot be invoked from hook ices.

Has 1 line(s). Calls functions:

```
zpcdreplay  
'-- -zplg-compdef-replay
```

Not called by script or any function (may be e.g. a hook, a Zle widget, etc.).

zpcmpdef

Stores compdef for a replay with 'zpcdreplay' (turbo mode) or with 'zplugin cdreplay' (normal mode)

Has 1 line(s). Doesn't call other functions.

Not called by script or any function (may be e.g. a hook, a Zle widget, etc.).

zpcompinit

A function that can be invoked from within 'atinit', 'atload', etc. ice-mod. It runs 'autoload compinit; compinit' and respects ZPLGM[ZCOMPDUMP_PATH].

Has 1 line(s). Calls functions:

```
zpcompinit
'-- compinit
```

Uses feature(s): *autoload*

Not called by script or any function (may be e.g. a hook, a Zle widget, etc.).

zplugin

Main function directly exposed to user, obtains subcommand and its arguments, has completion.

Has 270 line(s). Calls functions:

```
zplugin
|-- -zplg-clear-debug-report
|   '-- zplugin-autoload.zsh/-zplg-clear-report-for
|-- -zplg-compdef-clear
|-- -zplg-compdef-replay
|-- -zplg-debug-start
|   |-- -zplg-diff-env
|   |-- -zplg-diff-functions
|   |-- -zplg-diff-options
|   |-- -zplg-diff-parameter
|   '-- -zplg-shadow-on
|-- -zplg-debug-stop
|   |-- -zplg-diff-env
|   |-- -zplg-diff-functions
|   |-- -zplg-diff-options
|   |-- -zplg-diff-parameter
```

```

|  \-- -zplg-shadow-off
|-- -zplg-debug-unload
|  \-- zplugin-autoload.zsh/-zplg-unload
|-- -zplg-ice
|-- -zplg-load
|  |-- -zplg-any-to-user-plugin
|  |-- -zplg-load-plugin
|  |  |-- -zplg-add-report
|  |  |-- -zplg-diff-env
|  |  |-- -zplg-diff-functions
|  |  |-- -zplg-diff-options
|  |  |-- -zplg-diff-parameter
|  |  |-- -zplg-find-other-matches
|  |  |-- -zplg-shadow-off
|  |  \-- -zplg-shadow-on
|  |-- -zplg-pack-ice
|  |-- -zplg-register-plugin
|  |-- -zplg-unregister-plugin
|  |  \-- -zplg-any-to-user-plugin
|  \-- zplugin-install.zsh/-zplg-setup-plugin-dir
|-- -zplg-load-snippet
|  |-- -zplg-pack-ice
|  \-- zplugin-install.zsh/-zplg-download-snippet
|-- -zplg-submit-turbo
|-- compinit
|-- zplugin-autoload.zsh/-zplg-cd
|-- zplugin-autoload.zsh/-zplg-cdisable
|-- zplugin-autoload.zsh/-zplg-cenable
|-- zplugin-autoload.zsh/-zplg-changes
|-- zplugin-autoload.zsh/-zplg-clear-completions
|-- zplugin-autoload.zsh/-zplg-compile-uncompile-all
|-- zplugin-autoload.zsh/-zplg-compiled
|-- zplugin-autoload.zsh/-zplg-compinit
|-- zplugin-autoload.zsh/-zplg-create
|-- zplugin-autoload.zsh/-zplg-delete
|-- zplugin-autoload.zsh/-zplg-edit
|-- zplugin-autoload.zsh/-zplg-glance
|-- zplugin-autoload.zsh/-zplg-help
|-- zplugin-autoload.zsh/-zplg-list-bindkeys
|-- zplugin-autoload.zsh/-zplg-list-compdef-replay
|-- zplugin-autoload.zsh/-zplg-ls
|-- zplugin-autoload.zsh/-zplg-module
|-- zplugin-autoload.zsh/-zplg-recall
|-- zplugin-autoload.zsh/-zplg-recently
|-- zplugin-autoload.zsh/-zplg-search-completions
|-- zplugin-autoload.zsh/-zplg-self-update
|-- zplugin-autoload.zsh/-zplg-show-all-reports
|-- zplugin-autoload.zsh/-zplg-show-completions
|-- zplugin-autoload.zsh/-zplg-show-debug-report
|-- zplugin-autoload.zsh/-zplg-show-registered-plugins
|-- zplugin-autoload.zsh/-zplg-show-report

```

```
|-- zplugin-autoload.zsh/-zplg-show-times  
|-- zplugin-autoload.zsh/-zplg-show-zstatus  
|-- zplugin-autoload.zsh/-zplg-stress  
|-- zplugin-autoload.zsh/-zplg-uncompile-plugin  
|-- zplugin-autoload.zsh/-zplg-uninstall-completions  
|-- zplugin-autoload.zsh/-zplg-unload  
|-- zplugin-autoload.zsh/-zplg-update-or-status  
|-- zplugin-autoload.zsh/-zplg-update-or-status-all  
|-- zplugin-install.zsh/-zplg-compile-plugin  
|-- zplugin-install.zsh/-zplg-forget-completion  
`-- zplugin-install.zsh/-zplg-install-completions
```

Uses feature(s): *autoload, eval, source*

Not called by script or any function (may be e.g. a hook, a Zle widget, etc.).

add-zsh-hook

Has 93 line(s). Doesn't call other functions.

Uses feature(s): *autoload, getopts*

Called by:

```
-zplg-scheduler  
Script-Body
```

compinit

Has 549 line(s). Doesn't call other functions.

Uses feature(s): *autoload, bindkey, eval, read, unfunction, zle, zstyle*

Called by:

```
zpcompinit  
zplugin
```

is-at-least

Has 56 line(s). Doesn't call other functions.

Called by:

```
Script-Body
```