zinit.zsh(1)

NAME

zinit.zsh - a shell script

SYNOPSIS

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FUNCTIONS

```
+zi::deploy-message
+zi::message
+zi::prehelp-usage-message
-zinit_scheduler_add_sh
:zi::reload-and-run
:zi::tmp-subst-alias
:zi::tmp-subst-autoload
:zi::tmp-subst-bindkey
:zi::tmp-subst-compdef
:zi::tmp-subst-zle
:zi::tmp-subst-zstyle
@autoload
@zi::register-annex
@zi::register-hook
@zi::substitute
@zsh-plugin-run-on-unload
@zsh-plugin-run-on-update
pmodload
zi::add-fpath
zi::add-report
zi::any-to-pid
zi::any-to-user-plugin
zi::compdef-clear
zi::compdef-replay
zi::diff
zi::diff-env
zi::diff-functions
zi::diff-options
zi::diff-parameter
zi::find-other-matches
zi::formatter-auto
zi::formatter-bar
zi::formatter-bar-util
zi::formatter-dbg
```

```
zi::formatter-pid
 zi::formatter-th-bar
 zi::formatter-url
 zi::get-mtime-into
 zi::get-object-path
 zi::ice
 zi::load
 zi::load-ices
 zi::load-object
 zi::load-plugin
 zi::load-snippet
 zi::main-message-formatter
 zi::pack-ice
 zi::parse-opts
 zi::prepare-home
 zi::register-plugin
 zi::run
 zi::run-task
 zi::set-m-func
 zi::setup-params
 zi::submit-turbo
 zi::tmp-subst-off
 zi::tmp-subst-on
 zi::util-shands-path
 zicdclear
 zicdreplay
 zicompdef
 zicompinit
 zinit
 zpcdclear
 zpcdreplay
 zpcompdef
 zpcompinit
 zplugin
AUTOLOAD add-zsh-hook
AUTOLOAD compinit
AUTOLOAD is-at-least
PRECMD-HOOK @zi::scheduler
```

DETAILS

Script Body

Has 245 line(s). Calls functions:

```
Script-Body
|-- +zi::message
|-- @zi::register-hook
```

```
-- add-zsh-hook
|-- is-at-least
|-- zi::get-mtime-into
-- zi::prepare-home
   |-- zinit-autoload.zsh/zi::clear-completions
   `-- zinit-install.zsh/zi::compinit
l-- zinit
   |-- +zi::message
    |-- +zi::prehelp-usage-message
       `-- +zi::message
    |-- compinit
    -- zi::add-fpath
       `-- zi::any-to-user-plugin
    -- zi::compdef-clear
       `-- +zi::message
    -- zi::compdef-replay
       `-- +zi::message
    |-- zi::get-object-path
       `-- zi::any-to-user-plugin
    |-- zi::ice
    |-- zi::load-ices
        `-- zi::get-object-path
            `-- zi::any-to-user-plugin
    |-- zi::load-object
        |-- zi::load
            |-- +zi::deploy-message
            |-- zi::any-to-user-plugin
            |-- zi::load-plugin
                |-- :zi::tmp-subst-autoload
                    |-- +zi::message
                    |-- is-at-least
                    |-- zi::add-report
                    `-- zi::any-to-user-plugin
                |-- zi::add-report
                |-- zi::diff
                    |-- zi::diff-env
                    |-- zi::diff-functions
                    |-- zi::diff-options
                    `-- zi::diff-parameter
                |-- zi::diff-env
                |-- zi::find-other-matches
                |-- zi::tmp-subst-off
                `-- zi::tmp-subst-on
            -- zi::load-snippet
                |-- +zi::deploy-message
                |-- +zi::message
                |-- zi::add-report
                |-- zi::find-other-matches
                |-- zi::get-object-path
                    `-- zi::any-to-user-plugin
                |-- zi::pack-ice
```

```
-- zi::set-m-func
                `-- +zi::message
            |-- zi::setup-params
            `-- zinit-install.zsh/zi::download-snippet
        -- zi::pack-ice
        |-- zi::register-plugin
            `-- +zi::message
        -- zi::set-m-func
            `-- +zi::message
        |-- zi::setup-params
        |-- zinit-install.zsh/zi::get-package
        `-- zinit-install.zsh/zi::setup-plugin-dir
     -- zi::load-snippet
        |-- +zi::deploy-message
        |-- +zi::message
        |-- zi::add-report
        |-- zi::find-other-matches
        |-- zi::get-object-path
            `-- zi::any-to-user-plugin
        |-- zi::pack-ice
        -- zi::set-m-func
            `-- +zi::message
        |-- zi::setup-params
        `-- zinit-install.zsh/zi::download-snippet
-- zi::parse-opts
|-- zi::run
   |-- +zi::message
    |-- zi::any-to-user-plugin
    `-- zi::get-object-path
        `-- zi::any-to-user-plugin
|-- zi::submit-turbo
-- zinit-additional.zsh/zi::clear-debug-report
|-- zinit-additional.zsh/zi::debug-start
|-- zinit-additional.zsh/zi::debug-stop
|-- zinit-additional.zsh/zi::debug-unload
|-- zinit-autoload.zsh/zi::cdisable
|-- zinit-autoload.zsh/zi::cenable
|-- zinit-autoload.zsh/zi::clear-completions
|-- zinit-autoload.zsh/zi::compile-uncompile-all
|-- zinit-autoload.zsh/zi::compiled
|-- zinit-autoload.zsh/zi::help
|-- zinit-autoload.zsh/zi::list-bindkeys
|-- zinit-autoload.zsh/zi::list-compdef-replay
|-- zinit-autoload.zsh/zi::ls
|-- zinit-autoload.zsh/zi::module
|-- zinit-autoload.zsh/zi::recently
|-- zinit-autoload.zsh/zi::search-completions
|-- zinit-autoload.zsh/zi::self-update
|-- zinit-autoload.zsh/zi::show-all-reports
|-- zinit-autoload.zsh/zi::show-completions
|-- zinit-autoload.zsh/zi::show-debug-report
```

```
| -- zinit-autoload.zsh/zi::show-registered-plugins
| -- zinit-autoload.zsh/zi::show-report
| -- zinit-autoload.zsh/zi::show-zstatus
| -- zinit-autoload.zsh/zi::uncompile-plugin
| -- zinit-autoload.zsh/zi::uninstall-completions
| -- zinit-autoload.zsh/zi::unload
| -- zinit-autoload.zsh/zi::update-or-status
| -- zinit-autoload.zsh/zi::update-or-status-all
| -- zinit-install.zsh/zi::compile-plugin
| -- zinit-install.zsh/zi::compinit
| -- zinit-install.zsh/zi::forget-completion
| -- zinit-install.zsh/zi::install-completions
| -- zinit-autoload.zsh/zi::module
```

Uses feature(s): add-zsh-hook, alias, autoload, bindkey, export, is-at-least, setopt, source, zle, zmodload, zstyle

Exports (environment): PMSPEC // ZPFX // ZSH_CACHE_DIR

+zi::deploy-message

```
Deploys a sub-prompt message to be displayed OR a 'zle .reset-prompt' call to be invoked
```

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

Uses feature(s): read, zle

Called by:

```
zi::load-snippet
zi::load
zinit-autoload.zsh/zi::recall
```

+zi::message

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

```
+zi::prehelp-usage-message
:zi::tmp-subst-autoload
Script-Body
zi::compdef-clear
zi::compdef-replay
```

```
zi::load-snippet
zi::register-plugin
zi::run
zi::set-m-func
zinit
zinit-additional.zsh/:zi::tmp-subst-source
zinit-additional.zsh/zi::debug-start
zinit-additional.zsh/zi::debug-unload
zinit-autoload.zsh/zi::build-module
zinit-autoload.zsh/zi::cd
zinit-autoload.zsh/zi::self-update
zinit-autoload.zsh/zi::show-zstatus
zinit-autoload.zsh/zi::uninstall-completions
zinit-autoload.zsh/zi::update-all-parallel
zinit-autoload.zsh/zi::update-or-status-all
zinit-autoload.zsh/zi::update-or-status
zinit-autoload.zsh/zi::wait-for-update-jobs
zinit-install.zsh/\~zi::mv-hook
zinit-install.zsh/\~zi::ps-on-update-hook
zinit-install.zsh/\~zi::reset-hook
zinit-install.zsh/zi::compile-plugin
zinit-install.zsh/zi::compinit
zinit-install.zsh/zi::download-file-stdout
zinit-install.zsh/zi::download-snippet
zinit-install.zsh/zi::extract
zinit-install.zsh/zi::get-cygwin-package
zinit-install.zsh/zi::get-latest-gh-r-url-part
zinit-install.zsh/zi::get-package
zinit-install.zsh/zi::install-completions
zinit-install.zsh/zi::jq-check
zinit-install.zsh/zi::setup-plugin-dir
zinit-install.zsh/zi::update-snippet
zinit-install.zsh/ziextract
zinit-side.zsh/zi::countdown
zinit-side.zsh/zi::exists-physically-message
```

+zi::prehelp-usage-message

Has 38 line(s). Calls functions:

```
+zi::prehelp-usage-message
`-- +zi::message
```

```
zinit-autoload.zsh/zi::delete
```

-zinit_scheduler_add_sh

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

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

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

:zi::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 :zi::reload-and-run() instead of "autoload -X".

Author: Bart Schaefer

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

Has 11 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.).

:zi::tmp-subst-alias

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

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

Has 36 line(s). Calls functions:

```
:zi::tmp-subst-alias
`-- zi::add-report
```

Uses feature(s): alias, setopt, zparseopts

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

:zi::tmp-subst-autoload

```
Hijack plugin's calls to the 'autoload' builtin.
```

The hijacking gathers report data and runs custom 'autoload' function, that doesn't need FPATH.

Has 111 line(s). Calls functions:

```
:zi::tmp-subst-autoload
|-- +zi::message
|-- is-at-least
|-- zi::add-report
'-- zi::any-to-user-plugin
```

Uses feature(s): autoload, eval, is-at-least, setopt, zparseopts

Called by:

```
@autoload
zi::load-plugin
```

:zi::tmp-subst-bindkey

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

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

Has 120 line(s). Calls functions:

```
:zi::tmp-subst-bindkey
|-- is-at-least
```

```
`-- zi::add-report
```

Uses feature(s): bindkey, is-at-least, setopt, zparseopts

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

:zi::tmp-subst-compdef

Function defined to hijack plugin's calls to the '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 6 line(s). Calls functions:

```
:zi::tmp-subst-compdef
`-- zi::add-report
```

Uses feature(s): setopt

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

:zi::tmp-subst-zle

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

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

Has 36 line(s). Calls functions:

```
:zi::tmp-subst-zle
`-- zi::add-report
```

Uses feature(s): setopt, zle

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

:zi::tmp-subst-zstyle

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

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

Has 23 line(s). Calls functions:

```
:zi::tmp-subst-zstyle
'-- zi::add-report
```

Uses feature(s): setopt, zparseopts, zstyle

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

@autoload

Has 4 line(s). Calls functions:

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

@zi::register-annex

```
]]]
Registers the z-annex inside Zinit \square i.e. an Zinit extension
```

Has 11 line(s). Doesn't call other functions.

Uses feature(s): setopt

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

@zi::register-hook

```
Registers the z-annex inside Zinit (i.e., an Zinit extension)
```

Has 6 line(s). Doesn't call other functions.

Uses feature(s): setopt

Called by:

```
Script-Body
```

@zi::scheduler

Searches for timeout tasks, executes them. Theres 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 @zi::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 75 line(s). **Is a precmd hook**. Calls functions:

```
@zi::scheduler
|-- add-zsh-hook
`-- zi::run-task
    -- zi::load
        |-- +zi::deploy-message
        |-- zi::any-to-user-plugin
        |-- zi::load-plugin
            |-- :zi::tmp-subst-autoload
                |-- +zi::message
                |-- is-at-least
                |-- zi::add-report
                `-- zi::any-to-user-plugin
            |-- zi::add-report
             -- zi::diff
                |-- zi::diff-env
                |-- zi::diff-functions
                 |-- zi::diff-options
                `-- zi::diff-parameter
            |-- zi::diff-env
            |-- zi::find-other-matches
            |-- zi::tmp-subst-off
```

```
`-- zi::tmp-subst-on
    -- zi::load-snippet
        |-- +zi::deploy-message
        |-- +zi::message
        |-- zi::add-report
       l-- zi::find-other-matches
        |-- zi::get-object-path
           `-- zi::any-to-user-plugin
       |-- zi::pack-ice
       |-- zi::set-m-func
        '-- +zi::message
        |-- zi::setup-params
       `-- zinit-install.zsh/zi::download-snippet
    -- zi::pack-ice
    |-- zi::register-plugin
       `-- +zi::message
   |-- zi::set-m-func
       `-- +zi::message
    |-- zi::setup-params
   |-- zinit-install.zsh/zi::get-package
   `-- zinit-install.zsh/zi::setup-plugin-dir
-- zi::load-snippet
   |-- +zi::deploy-message
   |-- +zi::message
   |-- zi::add-report
   |-- zi::find-other-matches
    |-- zi::get-object-path
       `-- zi::any-to-user-plugin
   |-- zi::pack-ice
   |-- zi::set-m-func
      `-- +zi::message
   |-- zi::setup-params
   `-- zinit-install.zsh/zi::download-snippet
`-- zinit-autoload.zsh/zi::unload
```

Uses feature(s): add-zsh-hook, sched, setopt, zle

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

@zi::substitute

Has 40 line(s). Doesn't call other functions.

Uses feature(s): setopt

```
zinit-autoload.zsh/zi::at-eval
zinit-install.zsh/\~zi::atclone-hook
zinit-install.zsh/\~zi::configure-base-hook
```

```
zinit-install.zsh/\~zi::cp-hook
zinit-install.zsh/\~zi::extract-hook
zinit-install.zsh/\~zi::make-base-hook
zinit-install.zsh/\~zi::mv-hook
zinit-install.zsh/zi::at-eval
zinit-install.zsh/zi::get-package
```

Environment variables used: ZPFX

@zsh-plugin-run-on-unload

```
The Plugin Standard required mechanism, see: https://zdharma-continuum.github.io/Zsh-100-Commits-Club/Zsh-Plugin-Standard.html
```

Has 2 line(s). Calls functions:

```
@zsh-plugin-run-on-unload
`-- zi::pack-ice
```

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

@zsh-plugin-run-on-update

```
The Plugin Standard required mechanism
```

Has 2 line(s). Calls functions:

```
@zsh-plugin-run-on-update
`-- zi::pack-ice
```

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

pmodload

Has 15 line(s). Calls functions:

```
|-- zi::get-object-path
| `-- zi::any-to-user-plugin
|-- zi::pack-ice
|-- zi::set-m-func
| `-- +zi::message
|-- zi::setup-params
`-- zinit-install.zsh/zi::download-snippet
```

Uses feature(s): zstyle

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

zi::add-fpath

Has 10 line(s). Calls functions:

```
zi::add-fpath
`-- zi::any-to-user-plugin
```

Called by:

```
zinit
```

zi::add-report

```
Adds a report line for given plugin.

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

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

```
:zi::tmp-subst-alias
:zi::tmp-subst-autoload
:zi::tmp-subst-bindkey
:zi::tmp-subst-compdef
:zi::tmp-subst-zle
:zi::tmp-subst-zstyle
zi::load-plugin
zi::load-snippet
```

zi::any-to-pid

Has 22 line(s). Calls functions:

```
zi::any-to-pid
`-- zi::util-shands-path
```

Uses feature(s): setopt

Called by:

```
zinit-side.zsh/zi::any-colorify-as-uspl2
zinit-side.zsh/zi::exists-physically-message
zinit-side.zsh/zi::first
```

zi::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)
```

```
$REPLY - user and plugin
```

Has 29 line(s). Doesn't call other functions.

Uses feature(s): setopt

```
:zi::tmp-subst-autoload
zi::add-fpath
zi::get-object-path
zi::load
zi::run
zinit-autoload.zsh/zi::any-to-uspl2
zinit-autoload.zsh/zi::changes
zinit-autoload.zsh/zi::compile-uncompile-all
zinit-autoload.zsh/zi::compiled
zinit-autoload.zsh/zi::create
zinit-autoload.zsh/zi::delete
zinit-autoload.zsh/zi::find-completions-of-plugin
zinit-autoload.zsh/zi::glance
```

```
zinit-autoload.zsh/zi::show-report
zinit-autoload.zsh/zi::uncompile-plugin
zinit-autoload.zsh/zi::unload
zinit-autoload.zsh/zi::unregister-plugin
zinit-autoload.zsh/zi::update-all-parallel
zinit-autoload.zsh/zi::update-or-status-all
zinit-autoload.zsh/zi::update-or-status
zinit-install.zsh/zi::install-completions
zinit-install.zsh/zi::any-colorify-as-uspl2
zinit-side.zsh/zi::compute-ice
zinit-side.zsh/zi::exists-physically-message
zinit-side.zsh/zi::exists-physically
zinit-side.zsh/zi::first
```

Environment variables used: ZPFX

zi::compdef-clear

Implements user-exposed functionality to clear gathered compdefs.

Has 3 line(s). Calls functions:

```
zi::compdef-clear
`-- +zi::message
```

Called by:

```
zicdclear
zinit
zpcdclear
```

zi::compdef-replay

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

Has 17 line(s). Calls functions:

```
zi::compdef-replay
`-- +zi::message
```

Uses feature(s): *compdef*

Called by:

```
zicdreplay
zinit
zpcdreplay
```

zi::diff

```
Performs diff actions of all types
```

Has 4 line(s). Calls functions:

```
zi::diff
|-- zi::diff-env
|-- zi::diff-functions
|-- zi::diff-options
`-- zi::diff-parameter
```

Called by:

```
zi::load-plugin
zinit-additional.zsh/zi::debug-start
zinit-additional.zsh/zi::debug-stop
```

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

```
zi::diff
zi::load-plugin
```

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

Called by:

zi::diff

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

Called by:

zi::diff

zi::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 9 line(s). Doesn't call other functions.

Called by:

```
zi::diff
```

zi::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 the most sane order.

Has 22 line(s). Doesn't call other functions.

Called by:

```
zi::load-plugin
zi::load-snippet
zinit-side.zsh/zi::first
```

zi::formatter-auto

Has 50 line(s). Calls functions:

```
zi::formatter-auto
|-- zi::formatter-pid
| `-- zinit-side.zsh/zi::any-colorify-as-uspl2
`-- zi::formatter-url
```

Uses feature(s): type

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

zi::formatter-bar

Has 1 line(s). Calls functions:

```
zi::formatter-bar
`-- zi::formatter-bar-util
```

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

zi::formatter-bar-util

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

Called by:

```
zi::formatter-bar
zi::formatter-th-bar
```

zi::formatter-dbg

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

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

zi::formatter-pid

Has 11 line(s). Calls functions:

```
zi::formatter-pid
`-- zinit-side.zsh/zi::any-colorify-as-uspl2
```

Uses feature(s): source

Called by:

```
zi::formatter-auto
```

zi::formatter-th-bar

Has 1 line(s). Calls functions:

```
zi::formatter-th-bar
`-- zi::formatter-bar-util
```

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

zi::formatter-url

Has 19 line(s). Doesn't call other functions.

```
zi::formatter-auto
```

zi::get-mtime-into

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

Called by:

```
Script-Body
zinit-autoload.zsh/zi::self-update
zinit-autoload.zsh/zi::update-or-status-all
```

zi::get-object-path

Has 28 line(s). Calls functions:

```
zi::get-object-path
`-- zi::any-to-user-plugin
```

Called by:

```
zi::load-ices
zi::load-snippet
zi::run
zinit
zinit-autoload.zsh/zi::get-path
zinit-install.zsh/zi::setup-plugin-dir
zinit-install.zsh/zi::update-snippet
zinit-side.zsh/zi::first
zinit-side.zsh/zi::two-paths
```

zi::ice

Parses ICE specification, puts the result into 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 13 line(s). Doesn't call other functions.

Uses feature(s): setopt

zinit

Environment variables used: ZPFX

zi::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 95 line(s). Calls functions:

```
zi::load
|-- +zi::deploy-message
|-- zi::any-to-user-plugin
|-- zi::load-plugin
    |-- :zi::tmp-subst-autoload
       |-- +zi::message
        |-- is-at-least
        |-- zi::add-report
        `-- zi::any-to-user-plugin
    |-- zi::add-report
    |-- zi::diff
       l-- zi::diff-env
        |-- zi::diff-functions
        |-- zi::diff-options
        `-- zi::diff-parameter
    |-- zi::diff-env
    |-- zi::find-other-matches
    |-- zi::tmp-subst-off
    `-- zi::tmp-subst-on
-- zi::load-snippet
    |-- +zi::deploy-message
    |-- +zi::message
    |-- zi::add-report
    |-- zi::find-other-matches
    |-- zi::get-object-path
       `-- zi::any-to-user-plugin
    |-- zi::pack-ice
    |-- zi::set-m-func
     `-- +zi::message
    |-- zi::setup-params
    `-- zinit-install.zsh/zi::download-snippet
-- zi::pack-ice
```

```
|-- zi::register-plugin
| `-- +zi::message
|-- zi::set-m-func
| `-- +zi::message
|-- zi::setup-params
|-- zinit-install.zsh/zi::get-package
`-- zinit-install.zsh/zi::setup-plugin-dir
```

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

Called by:

```
zi::load-object
zi::run-task
zinit-additional.zsh/zi::service
```

zi::load-ices

Has 22 line(s). Calls functions:

```
zi::load-ices
`-- zi::get-object-path
`-- zi::any-to-user-plugin
```

Called by:

```
zinit
```

Environment variables used: ZPFX

zi::load-object

Has 12 line(s). Calls functions:

```
zi::load-object
|-- zi::load
| |-- +zi::deploy-message
| |-- zi::any-to-user-plugin
| |-- zi::load-plugin
| | |-- :zi::tmp-subst-autoload
| | | |-- +zi::message
| | | | |-- is-at-least
| | | |-- zi::add-report
| | | `-- zi::any-to-user-plugin
| | |-- zi::add-report
```

```
-- zi::diff
           |-- zi::diff-env
           |-- zi::diff-functions
           |-- zi::diff-options
           `-- zi::diff-parameter
        -- zi::diff-env
       |-- zi::find-other-matches
       |-- zi::tmp-subst-off
       `-- zi::tmp-subst-on
    -- zi::load-snippet
       |-- +zi::deploy-message
       |-- +zi::message
       |-- zi::add-report
       |-- zi::find-other-matches
       |-- zi::get-object-path
           `-- zi::any-to-user-plugin
       |-- zi::pack-ice
       l-- zi::set-m-func
           `-- +zi::message
       |-- zi::setup-params
       `-- zinit-install.zsh/zi::download-snippet
   -- zi::pack-ice
   |-- zi::register-plugin
       `-- +zi::message
   -- zi::set-m-func
       `-- +zi::message
   |-- zi::setup-params
   |-- zinit-install.zsh/zi::get-package
   `-- zinit-install.zsh/zi::setup-plugin-dir
-- zi::load-snippet
   |-- +zi::deploy-message
   |-- +zi::message
   |-- zi::add-report
   |-- zi::find-other-matches
   |-- zi::get-object-path
       `-- zi::any-to-user-plugin
   |-- zi::pack-ice
   -- zi::set-m-func
       `-- +zi::message
   |-- zi::setup-params
   `-- zinit-install.zsh/zi::download-snippet
```

```
zinit
```

zi::load-plugin

```
Lower-level function for loading a plugin.

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

Has 128 line(s). Calls functions:

```
zi::load-plugin
|-- :zi::tmp-subst-autoload
    |-- +zi::message
   |-- is-at-least
    |-- zi::add-report
   `-- zi::any-to-user-plugin
|-- zi::add-report
-- zi::diff
  |-- zi::diff-env
   |-- zi::diff-functions
    |-- zi::diff-options
    `-- zi::diff-parameter
-- zi::diff-env
|-- zi::find-other-matches
|-- zi::tmp-subst-off
`-- zi::tmp-subst-on
```

Uses feature(s): eval, setopt, source, unfunction, zle

Called by:

```
zi::load
```

zi::load-snippet

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

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

Has 203 line(s). Calls functions:

```
zi::load-snippet
|-- +zi::deploy-message
|-- +zi::message
|-- zi::add-report
|-- zi::find-other-matches
|-- zi::get-object-path
| `-- zi::any-to-user-plugin
|-- zi::pack-ice
|-- zi::set-m-func
| `-- +zi::message
|-- zi::setup-params
`-- zinit-install.zsh/zi::download-snippet
```

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

Called by:

```
pmodload
zi::load-object
zi::load
zi::run-task
zinit-additional.zsh/zi::service
```

zi::main-message-formatter

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

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

zi::pack-ice

```
Remembers all ice-mods, assigns them to concrete plugin. Ice spec is in general forgotten for second-next command (i.e., ice melts quickly), however they glue to the object (plugin or snippet) mentioned in the next command for later use with (e.g. 'zinit update ...').
```

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

```
@zsh-plugin-run-on-unload
@zsh-plugin-run-on-update
zi::load-snippet
zi::load
```

```
zinit-install.zsh/zi::update-snippet
zinit-side.zsh/zi::compute-ice
```

zi::parse-opts

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

Called by:

```
zinit
zinit-autoload.zsh/zi::delete
```

zi::prepare-home

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

Has 45 line(s). Calls functions:

```
zi::prepare-home
|-- zinit-autoload.zsh/zi::clear-completions
`-- zinit-install.zsh/zi::compinit
```

Uses feature(s): source

Called by:

```
Script-Body
```

Environment variables used: ZPFX

zi::register-plugin

Adds the plugin to ZINIT_REGISTERED_PLUGINS array and to the zsh_loaded_plugins array (managed according to the plugin standard: https://zdharma-continuum.github.io/Zsh-100-Commits-Club/Zsh-Plugin-Standard.html).

Has 23 line(s). Calls functions:

```
zi::register-plugin
```

```
`-- +zi::message
```

Called by:

```
zi::load
```

zi::run

```
Run code inside plugins folder
It uses the 'correct' parameter from uppers scope zinit().
```

Has 24 line(s). Calls functions:

```
zi::run
|-- +zi::message
|-- zi::any-to-user-plugin
`-- zi::get-object-path
`-- zi::any-to-user-plugin
```

Uses feature(s): eval, setopt

Called by:

zinit

zi::run-task

A backend, worker function of zi::scheduler. It obtains the tasks index and a few of its properties (like the type: plugin, snippet, service plugin, service snippet) and executes it first checking for additional conditions (like non-numeric wait' ice).

```
$1 - current pass: 1 or 2
$2 - time assigned to the task
$3 - type: plugin, service plugin, service snippet, snippet
$4 - tasks index in the ZINIT[WAIT_ICE_...] fields
$5 - mode: load, light
$6 - details: alias name (derived from id-as''), plugin-spec, or snippet URL
```

Has 47 line(s). Calls functions:

```
zi::run-task
|-- zi::load
    |-- +zi::deploy-message
    |-- zi::any-to-user-plugin
    |-- zi::load-plugin
        |-- :zi::tmp-subst-autoload
            |-- +zi::message
            |-- is-at-least
            |-- zi::add-report
            `-- zi::any-to-user-plugin
        |-- zi::add-report
        |-- zi::diff
            |-- zi::diff-env
            |-- zi::diff-functions
            |-- zi::diff-options
            `-- zi::diff-parameter
        l-- zi::diff-env
        |-- zi::find-other-matches
        |-- zi::tmp-subst-off
        `-- zi::tmp-subst-on
    -- zi::load-snippet
        |-- +zi::deploy-message
        |-- +zi::message
        |-- zi::add-report
        |-- zi::find-other-matches
        |-- zi::get-object-path
            `-- zi::any-to-user-plugin
        |-- zi::pack-ice
        |-- zi::set-m-func
            `-- +zi::message
        |-- zi::setup-params
        `-- zinit-install.zsh/zi::download-snippet
    |-- zi::pack-ice
    -- zi::register-plugin
        `-- +zi::message
    |-- zi::set-m-func
        `-- +zi::message
    |-- zi::setup-params
    |-- zinit-install.zsh/zi::get-package
    `-- zinit-install.zsh/zi::setup-plugin-dir
 -- zi::load-snippet
    |-- +zi::deploy-message
    |-- +zi::message
    |-- zi::add-report
    |-- zi::find-other-matches
    |-- zi::get-object-path
        `-- zi::any-to-user-plugin
    -- zi::pack-ice
    |-- zi::set-m-func
        `-- +zi::message
```

```
| |-- zi::setup-params
| `-- zinit-install.zsh/zi::download-snippet
`-- zinit-autoload.zsh/zi::unload
```

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

Called by:

```
@zi::scheduler
```

zi::set-m-func

```
]]]
Sets and withdraws the temporary, atclone/atpull time function `m`.
```

Has 17 line(s). Calls functions:

```
zi::set-m-func
`-- +zi::message
```

Uses feature(s): setopt

Called by:

```
zi::load-snippet
zi::load
zinit-autoload.zsh/zi::update-or-status
```

zi::setup-params

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

Called by:

```
zi::load-snippet
zi::load
```

zi::submit-turbo

```
If `zinit load`, `zinit light` or `zinit snippet` will be
preceded with 'wait', 'load', 'unload' or 'on-update-of'/'subscribe'
```

ice-mods then the plugin or snipped is to be loaded in turbo-mode, and this function adds it to internal data structures. @zi::scheduler uses the data to create load or unload tasks.

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

Called by:

zinit

zi::tmp-subst-off

```
Turn off temporary substituting of functions completely for a given mode ("load", "light", "light-b" (i.e. the `trackbinds' mode) or "compdef").
```

Has 21 line(s). Doesn't call other functions.

Uses feature(s): setopt, unfunction

Called by:

```
zi::load-plugin
zinit-additional.zsh/zi::debug-stop
```

zi::tmp-subst-on

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

Has 32 line(s). Doesn't call other functions.

Uses feature(s): source

```
zi::load-plugin
zinit-additional.zsh/zi::debug-start
```

zi::util-shands-path

```
Replaces parts of path with %HOME, etc.
```

Has 9 line(s). Doesn't call other functions.

Uses feature(s): setopt

Called by:

```
zi::any-to-pid
```

Environment variables used: ZPFX

zicdclear

```
A wrapper for "zinit cdclear -q" which can be called from hook ices like the atinit"", atload"", etc. ices.
```

Has 1 line(s). Calls functions:

```
zicdclear
`-- zi::compdef-clear
`-- +zi::message
```

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

zicdreplay

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

Has 1 line(s). Calls functions:

```
zicdreplay
`-- zi::compdef-replay
`-- +zi::message
```

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

zicompdef

```
Stores compdef for a replay with "zicdreplay" (turbo mode) or with "zinit cdreplay" (normal mode). An utility function of an undefined use case.
```

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.).

zicompinit

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

Has 2 line(s). Calls functions:

```
zicompinit
'-- compinit
```

Uses feature(s): autoload, compinit

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

zinit

```
Entrypoint function directly exposed to user, consumes subcommands with respective arguments, and completion.
```

Has 560 line(s). Calls functions:

```
zinit
|-- +zi::message
|-- +zi::prehelp-usage-message
| `-- +zi::message
|-- compinit
|-- zi::add-fpath
| `-- zi::any-to-user-plugin
|-- zi::compdef-clear
| `-- +zi::message
|-- zi::compdef-replay
```

```
`-- +zi::message
-- zi::get-object-path
   `-- zi::any-to-user-plugin
-- zi::ice
-- zi::load-ices
   `-- zi::get-object-path
       `-- zi::any-to-user-plugin
-- zi::load-object
   |-- zi::load
       |-- +zi::deploy-message
       |-- zi::any-to-user-plugin
       |-- zi::load-plugin
           |-- :zi::tmp-subst-autoload
               |-- +zi::message
               |-- is-at-least
               |-- zi::add-report
               `-- zi::any-to-user-plugin
           |-- zi::add-report
           |-- zi::diff
               |-- zi::diff-env
               |-- zi::diff-functions
               |-- zi::diff-options
               `-- zi::diff-parameter
            -- zi::diff-env
           |-- zi::find-other-matches
           |-- zi::tmp-subst-off
           `-- zi::tmp-subst-on
        -- zi::load-snippet
           |-- +zi::deploy-message
           |-- +zi::message
           |-- zi::add-report
           |-- zi::find-other-matches
           |-- zi::get-object-path
               `-- zi::any-to-user-plugin
           |-- zi::pack-ice
           |-- zi::set-m-func
               `-- +zi::message
           -- zi::setup-params
           `-- zinit-install.zsh/zi::download-snippet
       -- zi::pack-ice
       |-- zi::register-plugin
           `-- +zi::message
        -- zi::set-m-func
           `-- +zi::message
       |-- zi::setup-params
       |-- zinit-install.zsh/zi::get-package
       `-- zinit-install.zsh/zi::setup-plugin-dir
   `-- zi::load-snippet
       |-- +zi::deploy-message
       |-- +zi::message
       |-- zi::add-report
```

```
|-- zi::find-other-matches
        |-- zi::get-object-path
            `-- zi::any-to-user-plugin
        -- zi::pack-ice
        |-- zi::set-m-func
            `-- +zi::message
        |-- zi::setup-params
        `-- zinit-install.zsh/zi::download-snippet
-- zi::parse-opts
|-- zi::run
   |-- +zi::message
   |-- zi::any-to-user-plugin
    `-- zi::get-object-path
       `-- zi::any-to-user-plugin
l-- zi::submit-turbo
|-- zinit-additional.zsh/zi::clear-debug-report
|-- zinit-additional.zsh/zi::debug-start
|-- zinit-additional.zsh/zi::debug-stop
|-- zinit-additional.zsh/zi::debug-unload
|-- zinit-autoload.zsh/zi::cdisable
|-- zinit-autoload.zsh/zi::cenable
|-- zinit-autoload.zsh/zi::clear-completions
|-- zinit-autoload.zsh/zi::compile-uncompile-all
|-- zinit-autoload.zsh/zi::compiled
|-- zinit-autoload.zsh/zi::help
|-- zinit-autoload.zsh/zi::list-bindkeys
|-- zinit-autoload.zsh/zi::list-compdef-replay
|-- zinit-autoload.zsh/zi::ls
|-- zinit-autoload.zsh/zi::module
|-- zinit-autoload.zsh/zi::recently
|-- zinit-autoload.zsh/zi::search-completions
|-- zinit-autoload.zsh/zi::self-update
|-- zinit-autoload.zsh/zi::show-all-reports
|-- zinit-autoload.zsh/zi::show-completions
|-- zinit-autoload.zsh/zi::show-debug-report
|-- zinit-autoload.zsh/zi::show-registered-plugins
|-- zinit-autoload.zsh/zi::show-report
|-- zinit-autoload.zsh/zi::show-times
|-- zinit-autoload.zsh/zi::show-zstatus
|-- zinit-autoload.zsh/zi::uncompile-plugin
|-- zinit-autoload.zsh/zi::uninstall-completions
|-- zinit-autoload.zsh/zi::unload
|-- zinit-autoload.zsh/zi::update-or-status
|-- zinit-autoload.zsh/zi::update-or-status-all
|-- zinit-install.zsh/zi::compile-plugin
|-- zinit-install.zsh/zi::compinit
|-- zinit-install.zsh/zi::forget-completion
`-- zinit-install.zsh/zi::install-completions
```

Uses feature(s): autoload, compinit, eval, setopt, source

Called by:

```
Script-Body
zplugin
```

zpcdclear

Has 1 line(s). Calls functions:

```
zpcdclear
`-- zi::compdef-clear
   `-- +zi::message
```

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

zpcdreplay

Has 1 line(s). Calls functions:

```
zpcdreplay
`-- zi::compdef-replay
   `-- +zi::message
```

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

zpcompdef

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

Has 2 line(s). Calls functions:

```
zpcompinit
`-- compinit
```

Uses feature(s): autoload, compinit

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

zplugin

Has 1 line(s). Calls functions:

```
zplugin
`-- zinit
    |-- +zi::message
    |-- +zi::prehelp-usage-message
        `-- +zi::message
    |-- compinit
    |-- zi::add-fpath
        `-- zi::any-to-user-plugin
    |-- zi::compdef-clear
        `-- +zi::message
    -- zi::compdef-replay
        `-- +zi::message
    |-- zi::get-object-path
        `-- zi::any-to-user-plugin
    l-- zi::ice
    -- zi::load-ices
        `-- zi::get-object-path
            `-- zi::any-to-user-plugin
    -- zi::load-object
        |-- zi::load
            |-- +zi::deploy-message
            |-- zi::any-to-user-plugin
            |-- zi::load-plugin
                |-- :zi::tmp-subst-autoload
                     |-- +zi::message
                    |-- is-at-least
                    |-- zi::add-report
                    `-- zi::any-to-user-plugin
                |-- zi::add-report
                 l-- zi::diff
                    |-- zi::diff-env
                    l-- zi::diff-functions
                    |-- zi::diff-options
                    `-- zi::diff-parameter
                 l-- zi::diff-env
                |-- zi::find-other-matches
                |-- zi::tmp-subst-off
                `-- zi::tmp-subst-on
            |-- zi::load-snippet
                |-- +zi::deploy-message
                |-- +zi::message
                |-- zi::add-report
                |-- zi::find-other-matches
                |-- zi::get-object-path
                    `-- zi::any-to-user-plugin
                |-- zi::pack-ice
```

```
-- zi::set-m-func
                `-- +zi::message
            |-- zi::setup-params
            `-- zinit-install.zsh/zi::download-snippet
        -- zi::pack-ice
        |-- zi::register-plugin
            `-- +zi::message
        -- zi::set-m-func
            `-- +zi::message
        |-- zi::setup-params
        |-- zinit-install.zsh/zi::get-package
        `-- zinit-install.zsh/zi::setup-plugin-dir
     -- zi::load-snippet
        |-- +zi::deploy-message
        |-- +zi::message
        |-- zi::add-report
        |-- zi::find-other-matches
        |-- zi::get-object-path
            `-- zi::any-to-user-plugin
        |-- zi::pack-ice
        |-- zi::set-m-func
            `-- +zi::message
        |-- zi::setup-params
        `-- zinit-install.zsh/zi::download-snippet
-- zi::parse-opts
|-- zi::run
   |-- +zi::message
    |-- zi::any-to-user-plugin
    `-- zi::get-object-path
        `-- zi::any-to-user-plugin
|-- zi::submit-turbo
|-- zinit-additional.zsh/zi::clear-debug-report
|-- zinit-additional.zsh/zi::debug-start
|-- zinit-additional.zsh/zi::debug-stop
|-- zinit-additional.zsh/zi::debug-unload
|-- zinit-autoload.zsh/zi::cdisable
|-- zinit-autoload.zsh/zi::cenable
|-- zinit-autoload.zsh/zi::clear-completions
|-- zinit-autoload.zsh/zi::compile-uncompile-all
|-- zinit-autoload.zsh/zi::compiled
|-- zinit-autoload.zsh/zi::help
|-- zinit-autoload.zsh/zi::list-bindkeys
|-- zinit-autoload.zsh/zi::list-compdef-replay
|-- zinit-autoload.zsh/zi::ls
|-- zinit-autoload.zsh/zi::module
|-- zinit-autoload.zsh/zi::recently
|-- zinit-autoload.zsh/zi::search-completions
|-- zinit-autoload.zsh/zi::self-update
|-- zinit-autoload.zsh/zi::show-all-reports
|-- zinit-autoload.zsh/zi::show-completions
|-- zinit-autoload.zsh/zi::show-debug-report
```

```
|-- zinit-autoload.zsh/zi::show-registered-plugins
|-- zinit-autoload.zsh/zi::show-report
|-- zinit-autoload.zsh/zi::show-times
|-- zinit-autoload.zsh/zi::uncompile-plugin
|-- zinit-autoload.zsh/zi::uninstall-completions
|-- zinit-autoload.zsh/zi::unload
|-- zinit-autoload.zsh/zi::update-or-status
|-- zinit-autoload.zsh/zi::update-or-status-all
|-- zinit-install.zsh/zi::compile-plugin
|-- zinit-install.zsh/zi::forget-completion
|-- zinit-install.zsh/zi::forget-completion
|-- zinit-install.zsh/zi::install-completions
```

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

add-zsh-hook

```
Add to HOOK the given FUNCTION.
HOOK is one of chpwd, precmd, preexec, periodic, zshaddhistory,
zshexit, zsh_directory_name (the _functions subscript is not required).
```

With -d, remove the function from the hook instead; delete the hook variable if it is empty.

-D behaves like -d, but pattern characters are active in the function name, so any matching function will be deleted from the hook.

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

Uses feature(s): autoload, getopts

Called by:

```
@zi::scheduler
Script-Body
```

compinit

Initialisation for new style completion. This mainly contains some helper functions and setup. Everything else is split into different files that will automatically be made autoloaded (see the end of this file). The names of the files that will be considered for autoloading are those that

begin with an underscores (like `_condition).

The first line of each of these files is read and must indicate what should be done with its contents:

```
`#compdef <names ...>'
```

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

Uses feature(s): autoload, bindkey, compdef, compdump, eval, read, setopt, unfunction, zle, zstyle

Called by:

```
zicompinit
zinit
zpcompinit
```

is-at-least

Test whether \$ZSH_VERSION (or some value of your choice, if a second argument is provided) is greater than or equal to x.y.z-r (in argument one). In fact, it'll accept any dot/dash-separated string of numbers as its second argument and compare it to the dot/dash-separated first argument. Leading non-number parts of a segment (such as the "zefram" in 3.1.2-zefram4) are not considered when the comparison is done; only the numbers matter. Any left-out segments in the first argument that are present in the version string compared are considered as zeroes, eg 3 == 3.0 == 3.0.0 == 3.0.0.0 and so on.

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

```
:zi::tmp-subst-autoload
:zi::tmp-subst-bindkey
Script-Body
zinit-install.zsh/zi::download-snippet
```