Back to top
`Ctrl`+`K`
[![conda 25.1.2.dev29 documentation -
Home](///_static/conda_logo_full.svg)](///index.html)
* [Conda](https://docs.conda.io/projects/conda/)
* [Conda-build](https://docs.conda.io/projects/conda-build)
* [Miniconda](https://docs.anaconda.com/free/miniconda/)
* conda.org
* [GitHub](https://github.com/conda/conda "GitHub")
* [![Element](///_static/element_logo.svg)](http://bit.ly/conda-chat-room "Element")
* [Discourse](https://conda.discourse.group/ "Discourse")
* [Conda](https://docs.conda.io/projects/conda/)
* [Conda-build](https://docs.conda.io/projects/conda-build)
* [Miniconda](https://docs.anaconda.com/free/miniconda/)
* conda.org
* [GitHub](https://github.com/conda/conda "GitHub")
* [![Element](///_static/element_logo.svg)](http://bit.ly/conda-chat-room "Element")
* [Discourse](https://conda.discourse.group/ "Discourse")

Skip to main content

* [User guide](///user-guide/index.html)
* [Getting started with conda](///user-guide/getting-started.html)
* [Installing conda](///user-guide/install/index.html)
* [Installing on Windows](///user-guide/install/windows.html)
* [Installing on macOS](///user-guide/install/macos.html)
* [Installing on Linux](///user-guide/install/linux.html)
* [RPM and Debian Repositories for Miniconda](///user-guide/install/rpm-debian.html)
* [Tasks](///user-guide/tasks/index.html)
* [Managing conda](///user-guide/tasks/manage-conda.html)
* [Managing environments](///user-guide/tasks/manage-environments.html)
* [Managing channels](///user-guide/tasks/manage-channels.html)
* [Managing packages](///user-guide/tasks/manage-pkgs.html)
* [Managing Python](///user-guide/tasks/manage-python.html)
* [Managing virtual packages](///user-guide/tasks/manage-virtual.html)
* [Creating custom channels](///user-guide/tasks/create-custom-channels.html)
* [Creating projects](///user-guide/tasks/creating-projects.html)
* [Viewing command-line help](///user-guide/tasks/view-command-line-help.html)
* [Configuration](///user-guide/configuration/index.html)
* [Using the .condarc conda configuration
file](///user-guide/configuration/use-condarc.html)
* [Settings](///user-guide/configuration/settings.html)
* [Administering a multi-user conda
installation](///user-guide/configuration/admin-multi-user-install.html)
* [Mirroring channels](///user-guide/configuration/mirroring.html)

* [Disabling SSL verification](../../../user-guide/configuration/disable-ssl-verification.html)

* [Using non-standard certificates](../../../user-guide/configuration/non-standard-certs.html) [Using Custom Locations for Environment and Package Cache](../../../user-guide/configuration/custom-env-and-pkg-locations.html) * [Improving interoperability with pip](../../../user-guide/configuration/pip-interoperability.html) * [Using the free channel](../../../user-guide/configuration/free-channel.html) * [Concepts](../../../user-guide/concepts/index.html) ___ * [Commands](../../../user-guide/concepts/conda-commands.html) * [Packages](../../../user-guide/concepts/packages.html) * [Package specification](../../../user-guide/concepts/pkg-specs.html) * [Package search and install specifications](../../../user-guide/concepts/pkg-search.html) * [Channels](../../../user-guide/concepts/channels.html) * [Environments](../../../user-guide/concepts/environments.html) * [Installing with conda](../../../user-guide/concepts/installing-with-conda.html) * [Performance](../../../user-guide/concepts/conda-performance.html) * [Conda for data scientists](../../../user-guide/concepts/data-science.html) * [Plugins](../../../user-guide/concepts/conda-plugins.html) * [Troubleshooting](../../../user-guide/troubleshooting.html) * [Cheatsheet](../../user-guide/cheatsheet.html) * [Configuration](../../../configuration.html) * [Commands](../../../commands/index.html) * [`conda clean`](../../../commands/clean.html) * [`conda compare`](../../../commands/compare.html) * [`conda config`](../../../commands/config.html) * [`conda create`](../../../commands/create.html) * [`conda doctor`](../../../commands/doctor.html) * [`conda env`](../../../commands/env/index.html) * [`conda env config`](../../../commands/env/config/index.html) ___

```
* [`conda env config vars`](../../../commands/env/config/vars/index.html)
    * [` conda env config vars list`](../../../commands/env/config/vars/list.html)
    * [`conda env config vars set`](../../../commands/env/config/vars/set.html)
    * [`conda env config vars unset`](../../../commands/env/config/vars/unset.html)
  * [`conda env create`](../../../commands/env/create.html)
  * [`conda env export`](../../../commands/env/export.html)
  * [`conda env list`](../../../commands/env/list.html)
  * [`conda env remove`](../../../commands/env/remove.html)
  * [`conda env update`](../../../commands/env/update.html)
* [`conda info`](../../../commands/info.html)
* [`conda init`](../../../commands/init.html)
* [`conda install`](../../../commands/install.html)
 * [`conda list`](../../../commands/list.html)
* [`conda notices`](../../../commands/notices.html)
 * [`conda package`](../../../commands/package.html)
 * [`conda remove`](../../../commands/remove.html)
 * [`conda rename`](../../../commands/rename.html)
* [`conda run`](../../../commands/run.html)
* [`conda search`](../../../commands/search.html)
 * [`conda update`](../../../commands/update.html)
* [Release notes](../../../release-notes.html)
* [Glossary](../../../glossary.html)
* [Developer guide](../../index.html) ___
 * [Architecture](../../architecture.html)
 * [Contributing to conda](../../contributing.html)
 * [Development Environment](../../development-environment.html)
 * [Deep dives](../../deep-dives/index.html) ___
```

```
* [` conda install`](../../deep-dives/install.html)
 * [`conda init` and `conda activate`](../../deep-dives/activation.html)
 * [`conda config` and context](../../deep-dives/context.html)
 * [Solvers](../../deep-dives/solvers.html)
 * [Logging](../../../deep-dives/logging.html)
* [Writing Tests](../../writing-tests/index.html) ___
 * [Integration Tests](../../writing-tests/integration-tests.html)
* [Deprecations](../../deprecations.html)
* [Releasing](../../releasing.html)
* [Plugins](../../plugins/index.html)
 * [Auth Handlers](../../plugins/auth_handlers.html)
 * [Health Checks](../../plugins/health_checks.html)
 * [Request Headers](../../plugins/request_headers.html)
 * [Post-commands](../../plugins/post commands.html)
 * [Pre-commands](../../plugins/pre commands.html)
 * [Reporter Backends](../../plugins/reporter_backends.html)
 * [Settings](../../plugins/settings.html)
 * [Solvers](../../plugins/solvers.html)
 * [Subcommands](../../plugins/subcommands.html)
 * [Virtual Packages](../../plugins/virtual packages.html)
* [Specifications](../../specs/index.html) ___
 * [Technical specification: solver state](../../specs/solver-state.html)
* [API](../../api.html)
 * [` conda`](../index.html) ___
  * [` __main___`](../__main___/index.html)
  * [` vendor`](../ vendor/index.html)
   * [`frozendict`](../_vendor/frozendict/index.html)
```

```
* [`_version`](../_version/index.html)
* [`activate`](../activate/index.html)
* [`api`](../api/index.html)
* [`auxlib`](../auxlib/index.html) ___
 * [` collection`](../auxlib/collection/index.html)
 * [`compat`](../auxlib/compat/index.html)
 * [`decorators`](../auxlib/decorators/index.html)
 * [`entity`](../auxlib/entity/index.html)
 * [`exceptions`](../auxlib/exceptions/index.html)
 * [`ish`](../auxlib/ish/index.html)
 * [`logz`](../auxlib/logz/index.html)
 * [`type_coercion`](../auxlib/type_coercion/index.html)
* [`base`](../base/index.html) ___
 * [`constants`](../base/constants/index.html)
 * [`context`](../base/context/index.html)
* [`cli`](../cli/index.html) ___
 * [`actions`](../cli/actions/index.html)
 * [`common`](../cli/common/index.html)
 * [`conda_argparse`](../cli/conda_argparse/index.html)
 * [`find_commands`](../cli/find_commands/index.html)
 * [`helpers`](../cli/helpers/index.html)
 * [`install`](../cli/install/index.html)
 * [`main`](../cli/main/index.html)
 * [`main_clean`](../cli/main_clean/index.html)
 * [`main_commands`](../cli/main_commands/index.html)
 * [`main_compare`](../cli/main_compare/index.html)
```

* [`main_config`](../cli/main_config/index.html)

- * [`main_create`](../cli/main_create/index.html)
- * [`main_env`](../cli/main_env/index.html)
- * [`main_env_config`](../cli/main_env_config/index.html)
- * [`main_env_create`](../cli/main_env_create/index.html)
- * [`main_env_export`](../cli/main_env_export/index.html)
- * [`main_env_list`](../cli/main_env_list/index.html)
- * [`main_env_remove`](../cli/main_env_remove/index.html)
- * [`main_env_update`](../cli/main_env_update/index.html)
- * [`main env vars`](../cli/main env vars/index.html)
- * [`main export`](../cli/main export/index.html)
- * [`main_info`](../cli/main_info/index.html)
- * [`main_init`](../cli/main_init/index.html)
- * [`main_install`](../cli/main_install/index.html)
- * [`main list`](../cli/main list/index.html)
- * [`main_mock_activate`](../cli/main_mock_activate/index.html)
- * [`main_mock_deactivate`](../cli/main_mock_deactivate/index.html)
- * [`main_notices`](../cli/main_notices/index.html)
- * [`main_package`](../cli/main_package/index.html)
- * [`main pip`](../cli/main pip/index.html)
- * [`main_remove`](../cli/main_remove/index.html)
- * [`main_rename`](../cli/main_rename/index.html)
- * [`main_run`](../cli/main_run/index.html)
- * [`main_search`](../cli/main_search/index.html)
- * [`main_update`](../cli/main_update/index.html)
- * [`python_api`](../cli/python_api/index.html)
- * [`common`](../common/index.html)
 - * [` _logic`](../common/_logic/index.html)

```
* [`_os`](../common/_os/index.html) ___
  * [` linux`](../common/_os/linux/index.html)
  * [`osx`](../common/_os/osx/index.html)
  * [`unix`](../common/_os/unix/index.html)
  * [`windows`](../common/_os/windows/index.html)
 * [`compat`](../common/compat/index.html)
 * [`configuration`](../common/configuration/index.html)
 * [`constants`](../common/constants/index.html)
 * [`disk`](../common/disk/index.html)
 * [`io`](../common/io/index.html)
 * [`iterators`](../common/iterators/index.html)
 * [`logic`](../common/logic/index.html)
 * [`path`](../common/path/index.html) ___
  * [`_cygpath`](../common/path/_cygpath/index.html)
  * [`directories`](../common/path/directories/index.html)
  * [`python`](../common/path/python/index.html)
  * [`windows`](../common/path/windows/index.html)
 * [`pkg_formats`](../common/pkg_formats/index.html) ___
  * [` python`](../common/pkg_formats/python/index.html)
 * [`serialize`](../common/serialize/index.html)
 * [`signals`](../common/signals/index.html)
 * [`toposort`](../common/toposort/index.html)
 * [`url`](../common/url/index.html)
* `core` ___
 * [`envs_manager`](envs_manager/index.html)
 * [`index`](index/index.html)
 * [`initialize`](initialize/index.html)
```

```
* [`link`](link/index.html)
 * [`package_cache_data`](package_cache_data/index.html)
 * [`path_actions`](path_actions/index.html)
 * [`portability`](portability/index.html)
 * [`prefix_data`](prefix_data/index.html)
 * [`solve`](solve/index.html)
 * [`subdir_data`](subdir_data/index.html)
* [`deprecations`](../deprecations/index.html)
* [`env`](../env/index.html) ___
 * [` env`](../env/env/index.html)
 * [`installers`](../env/installers/index.html) ___
  * [`base`](../env/installers/base/index.html)
  * [`conda`](../env/installers/conda/index.html)
  * [`pip`](../env/installers/pip/index.html)
 * [`pip_util`](../env/pip_util/index.html)
 * [`specs`](../env/specs/index.html) ___
  * [` binstar`](../env/specs/binstar/index.html)
  * [`requirements`](../env/specs/requirements/index.html)
  * ['yaml_file'](../env/specs/yaml_file/index.html)
* [`exception_handler`](../exception_handler/index.html)
* [`exceptions`](../exceptions/index.html)
* [`exports`](../exports/index.html)
* [`gateways`](../gateways/index.html) ___
 * [` anaconda_client`](../gateways/anaconda_client/index.html)
 * [`connection`](../gateways/connection/index.html) ___
  * [` adapters`](../gateways/connection/adapters/index.html) ___
   * [`ftp`](../gateways/connection/adapters/ftp/index.html)
```

```
* [`http`](../gateways/connection/adapters/http/index.html)
    * [`localfs`](../gateways/connection/adapters/localfs/index.html)
    * [`s3`](../gateways/connection/adapters/s3/index.html)
  * [`download`](../gateways/connection/download/index.html)
  * [`session`](../gateways/connection/session/index.html)
 * [`disk`](../gateways/disk/index.html) ___
  * [` create`](../gateways/disk/create/index.html)
  * [`delete`](../gateways/disk/delete/index.html)
  * [`link`](../gateways/disk/link/index.html)
  * [`lock`](../gateways/disk/lock/index.html)
  * [`permissions`](../gateways/disk/permissions/index.html)
  * [`read`](../gateways/disk/read/index.html)
  * [`test`](../gateways/disk/test/index.html)
  * [`update`](../gateways/disk/update/index.html)
 * [`logging`](../gateways/logging/index.html)
 * [`repodata`](../gateways/repodata/index.html) ___
  * [` jlap`](../gateways/repodata/jlap/index.html) ___
   * [`core`](../gateways/repodata/jlap/core/index.html)
   * [`fetch`](../gateways/repodata/jlap/fetch/index.html)
   * [`interface`](../gateways/repodata/jlap/interface/index.html)
  * [`lock`](../gateways/repodata/lock/index.html)
 * [`subprocess`](../gateways/subprocess/index.html)
* [`history`](../history/index.html)
* [`instructions`](../instructions/index.html)
* [`misc`](../misc/index.html)
* [`models`](../models/index.html) ___
 * [` channel`](../models/channel/index.html)
```

```
* [`dist`](../models/dist/index.html)
 * [`enums`](../models/enums/index.html)
 * [`leased_path_entry`](../models/leased_path_entry/index.html)
 * [`match_spec`](../models/match_spec/index.html)
 * [`package_info`](../models/package_info/index.html)
 * [`prefix_graph`](../models/prefix_graph/index.html)
 * [`records`](../models/records/index.html)
 * [`version`](../models/version/index.html)
* [`notices`](../notices/index.html) ___
 * [` cache`](../notices/cache/index.html)
 * [`core`](../notices/core/index.html)
 * [`fetch`](../notices/fetch/index.html)
 * [`types`](../notices/types/index.html)
 * [`views`](../notices/views/index.html)
* [`plan`](../plan/index.html)
* [`plugins`](../plugins/index.html) ___
 * [` hookspec'](../plugins/hookspec/index.html)
 * [`manager`](../plugins/manager/index.html)
 * [`post_solves`](../plugins/post_solves/index.html) ___
  * [` signature_verification`](../plugins/post_solves/signature_verification/index.html)
 * [`reporter_backends`](../plugins/reporter_backends/index.html) ___
  * [` console`](../plugins/reporter_backends/console/index.html)
  * [`json`](../plugins/reporter_backends/json/index.html)
 * [`solvers`](../plugins/solvers/index.html)
 * [`subcommands`](../plugins/subcommands/index.html) ___
  * [` doctor`](../plugins/subcommands/doctor/index.html) ___
   * [` health_checks`](../plugins/subcommands/doctor/health_checks/index.html)
```

```
* [`types`](../plugins/types/index.html)
  * [`virtual_packages`](../plugins/virtual_packages/index.html) ___
   * [`archspec`](../plugins/virtual_packages/archspec/index.html)
   * [`conda`](../plugins/virtual_packages/conda/index.html)
   * [`cuda`](../plugins/virtual_packages/cuda/index.html)
   * [`freebsd`](../plugins/virtual_packages/freebsd/index.html)
   * [`linux`](../plugins/virtual_packages/linux/index.html)
   * [`osx`](../plugins/virtual_packages/osx/index.html)
   * [`windows`](../plugins/virtual_packages/windows/index.html)
 * [`reporters`](../reporters/index.html)
 * [`resolve`](../resolve/index.html)
 * [`testing`](../testing/index.html) ___
  * [` cases`](../testing/cases/index.html)
  * [`fixtures`](../testing/fixtures/index.html)
  * [`gateways`](../testing/gateways/index.html) ___
   * [` fixtures`](../testing/gateways/fixtures/index.html)
  * [`helpers`](../testing/helpers/index.html)
  * [`integration`](../testing/integration/index.html)
  * [`notices`](../testing/notices/index.html) ___
   * [` fixtures`](../testing/notices/fixtures/index.html)
   * [`helpers`](../testing/notices/helpers/index.html)
  * [`solver_helpers`](../testing/solver_helpers/index.html)
 * [`trust`](../trust/index.html) ___
  * [` constants`](../trust/constants/index.html)
  * [`signature_verification`](../trust/signature_verification/index.html)
 * [`utils`](../utils/index.html)
* [`conda_env`](../../conda_env/index.html) ___
```

```
* [`cli`](../../conda_env/cli/index.html)
     * [`installers`](../../conda_env/installers/index.html)
 * [ ___](../../../index.html)
 * [Developer guide](../../index.html)
 * [` conda`](../index.html)
# `core`#
Code in `conda.core` is the core logic. It is strictly forbidden from having
side effects. No printing to stdout or stderr, no disk manipulation, no http
requests. All side effects should be implemented through `conda.gateways`.
Objects defined in `conda.models` should be heavily preferred for `conda.core`
function/method arguments and return values.
Conda modules importable from `conda.core` are
 * `conda. vendor`
 * `conda.common`
 * `conda.core`
 * `conda.models`
```

* `conda.gateways`
Conda modules strictly off limits for import within `conda.core` are
* `conda.api`
* `conda.cli`
* `conda.client`
[Edit on GitHub](https://github.com/conda/conda/edit/main/docs/source/dev-guide/api/conda/core/index.rst)
[Show Source](///_sources/dev-guide/api/conda/core/index.rst.txt)
© Copyright 2017, Anaconda, Inc.
Created using [Sphinx](https://www.sphinx-doc.org/) 7.4.7.
[Analytics Dashboard](https://docs-conda-io.goatcounter.com "Analytics Dashboard")
Built with the [PyData Sphinx Theme](https://pydata-sphinx-theme.readthedocs.io/en/stable/index.html) 0.15.4.