Skip to main content
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")

* [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 Environment Package Custom Locations for and 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-quide/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)
 - * [` conda install`](../deep-dives/install.html)

* [Deep dives](../deep-dives/index.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](index.html)
 * [Auth Handlers](auth_handlers.html)
 * [Health Checks](health_checks.html)
 * [Request Headers](request_headers.html)
 * [Post-commands](post_commands.html)
 * [Pre-commands](pre_commands.html)
 * Reporter Backends
 * [Settings](settings.html)
 * [Solvers](solvers.html)
 * [Subcommands](subcommands.html)
 * [Virtual Packages](virtual_packages.html)
* [Specifications](../specs/index.html) ___
 * [Technical specification: solver state](../specs/solver-state.html)
* [API](../api.html) ___
 * [` conda`](../api/conda/index.html) ___
  * [` __main___`](../api/conda/__main__/index.html)
  * [`_vendor`](../api/conda/_vendor/index.html) ___
   * [`frozendict`](../api/conda/ vendor/frozendict/index.html)
  * [`_version`](../api/conda/_version/index.html)
```

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

* [`main config`](../api/conda/cli/main config/index.html)

- * [`main_env`](../api/conda/cli/main_env/index.html)
- * [`main_env_config`](../api/conda/cli/main_env_config/index.html)
- * [`main_env_create`](../api/conda/cli/main_env_create/index.html)
- * [`main_env_export`](../api/conda/cli/main_env_export/index.html)
- * [`main_env_list`](../api/conda/cli/main_env_list/index.html)
- * [`main_env_remove`](../api/conda/cli/main_env_remove/index.html)
- * [`main_env_update`](../api/conda/cli/main_env_update/index.html)
- * [`main_env_vars`](../api/conda/cli/main_env_vars/index.html)
- * [`main export`](../api/conda/cli/main export/index.html)
- * [`main_info`](../api/conda/cli/main_info/index.html)
- * [`main_init`](../api/conda/cli/main_init/index.html)
- * [`main_install`](../api/conda/cli/main_install/index.html)
- * [`main_list`](../api/conda/cli/main_list/index.html)
- * [`main_mock_activate`](../api/conda/cli/main_mock_activate/index.html)
- * [`main_mock_deactivate`](../api/conda/cli/main_mock_deactivate/index.html)
- * [`main_notices`](../api/conda/cli/main_notices/index.html)
- * [`main_package`](../api/conda/cli/main_package/index.html)
- * [`main_pip`](../api/conda/cli/main_pip/index.html)
- * [`main remove`](../api/conda/cli/main remove/index.html)
- * [`main rename`](../api/conda/cli/main rename/index.html)
- * [`main_run`](../api/conda/cli/main_run/index.html)
- * [`main_search`](../api/conda/cli/main_search/index.html)
- * [`main_update`](../api/conda/cli/main_update/index.html)
- * [`python_api`](../api/conda/cli/python_api/index.html)
- * [`common`](../api/conda/common/index.html) ___
 - * [`_logic`](../api/conda/common/_logic/index.html)
 - * [`_os`](../api/conda/common/_os/index.html) ___

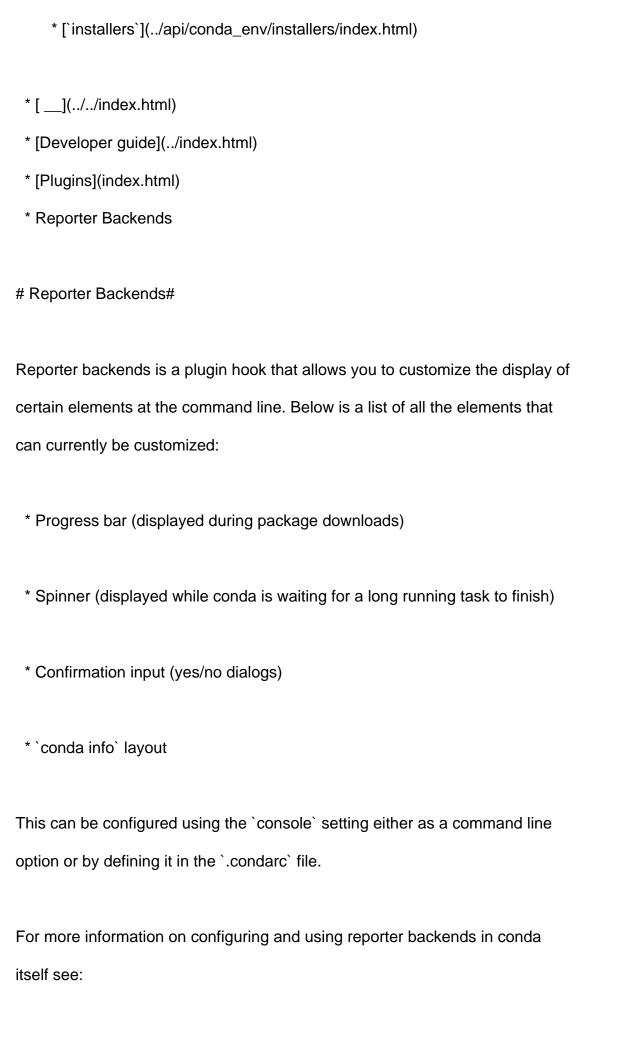
- * [` linux`](../api/conda/common/_os/linux/index.html) * [`osx`](../api/conda/common/_os/osx/index.html) * [`unix`](../api/conda/common/_os/unix/index.html) * [`windows`](../api/conda/common/_os/windows/index.html) * [`compat`](../api/conda/common/compat/index.html) * [`configuration`](../api/conda/common/configuration/index.html)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

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

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

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

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



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* [Settings: console](../../user-guide/configuration/settings.html#console)
## Example plugin#
The following example defines a simple plugin which uses the
[`pformat()`](https://docs.python.org/3/library/pprint.html#pprint.pformat
"\(in Python v3.13\)") function for rendering parts of conda's output:
Hint
This is just a partial example. To see a fully functioning example of a
reporter backend, checkout the
[`console`](../api/conda/plugins/reporter_backends/console/index.html#module-
conda.plugins.reporter_backends.console
"conda.plugins.reporter_backends.console") module.
  from pprint import pformat
  from conda import plugins
  from conda.plugins.types import (
     CondaReporterBackend,
     ReporterRendererBase,
     ProgressBarBase,
  )
```

```
class PprintReporterRenderer(ReporterRendererBase):
  Implementation of the ReporterRendererBase abstract base class
  def detail_view(self, data):
     return pformat(data)
  def envs_list(self, data):
    formatted_data = pformat(data)
     return f"Environments: {formatted_data}"
  def progress_bar(self, description, io_context_manager) -> ProgressBarBase:
     """Returns our custom progress bar implementation"""
     return PprintProgressBar(description, io_context_manager)
class PprintProgressBar(ProgressBarBase):
  ....
  Blank implementation of ProgressBarBase which does nothing.
  def update_to(self, fraction) -> None:
     pass
  def refresh(self) -> None:
```

```
pass
    def close(self) -> None:
       pass
  @plugins.hookimpl
  def conda_reporter_backends():
    yield CondaReporterBackend(
       name="pprint",
       description="Reporter backend based on the pprint module",
       renderer=PprintReporterRenderer,
    )
Below is a summary of everything we've defined:
### Defining `ReporterRendererBase`#
The first class we define, `PprintReporterRenderer`, is a subclass of
[`ReporterRendererBase`](../api/conda/plugins/types/index.html#conda.plugins.types.ReporterRend
ererBase
"conda.plugins.types.ReporterRendererBase"). The base class is an abstract
base class which requires us to define our own implementations of its abstract
methods. These abstract methods are used by conda when rendering output and
are where all the customization we want to do occurs.
```

The second class we define is `PprintProgressBar`. For this example, it is just an empty implementation of the

[`ProgressBarBase`](../api/conda/plugins/types/index.html#conda.plugins.types.ProgressBarBase "conda.plugins.types.ProgressBarBase"). Defining this effectively hides the progress bar when this reporter backend is configured. We do this in this tutorial because a full implementation would take too long to explain. Please check out

[`TQDMProgressBar`](../api/conda/plugins/reporter_backends/console/index.html#conda.plugins.reporter_backends.console.TQDMProgressBar

"conda.plugins.reporter_backends.console.TQDMProgressBar") for a more realistic example using the [tqdm](https://tqdm.github.io/) library.

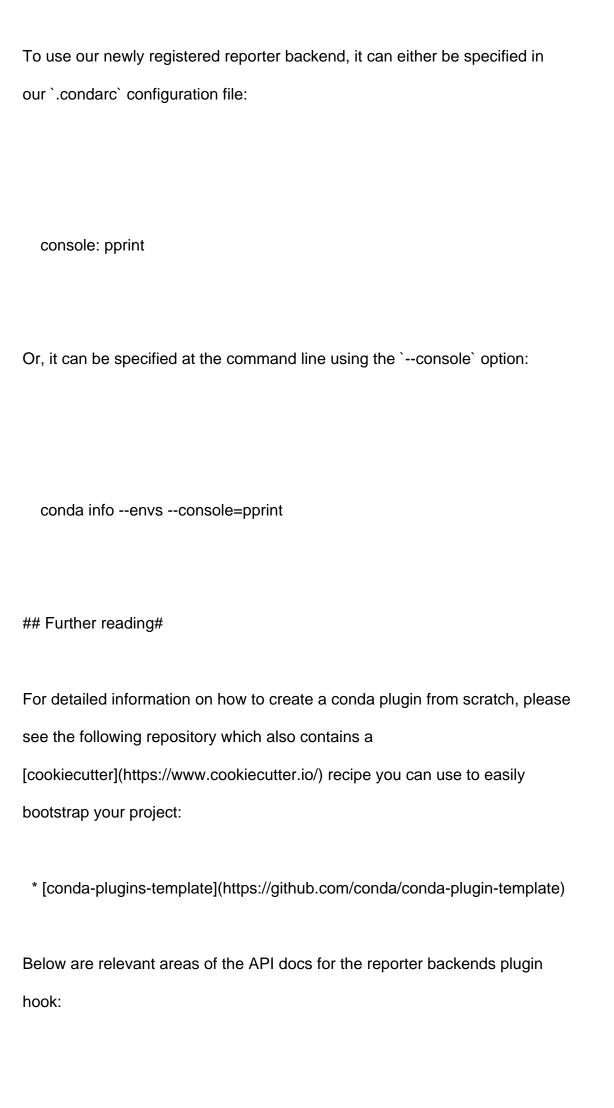
Registering the plugin hook#

Finally, we define the `conda_reporter_backends` function with the `plugins.hookimpl` decorator to register our plugin which returns the `PprintReporterRenderer` class wrapped in a

[`CondaReporterBackend`](../api/conda/plugins/types/index.html#conda.plugins.types.CondaReport erBackend

"conda.plugins.types.CondaReporterBackend") object. By registering it with `name` set to `pprint`, we will be able to reference this plugin as a new backend for the `console` setting.

Using the reporter backend#



*

[`CondaReporterBackend`](../api/conda/plugins/types/index.html#conda.plugins.types.CondaReport erBackend "conda.plugins.types.CondaReporterBackend") metadata object that must be returned from the reporter backends hook definition.

*

[`conda_reporter_backends()`](../api/conda/plugins/hookspec/index.html#conda.plugins.hookspec.C ondaSpecs.conda_reporter_backends

"conda.plugins.hookspec.CondaSpecs.conda_reporter_backends") hookspec definition for reporter backends which contains an example of its usage.

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[`console`](../api/conda/plugins/reporter_backends/console/index.html#module-conda.plugins.report er_backends.console "conda.plugins.reporter_backends.console") our default implementation for the `console` reporter backend.

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['json'](../api/conda/plugins/reporter_backends/json/index.html#module-conda.plugins.reporter_backends.json "conda.plugins.reporter_backends.json") our default implementation for the 'json' reporter backend.

__On this page

- * Example plugin
 - * Defining `ReporterRendererBase`
 - * Defining `ProgressBarBase`
 - * Registering the plugin hook

* Using the reporter backend
* Further reading
[Edit on GitHub](https://github.com/conda/conda/edit/main/docs/source/dev
guide/plugins/reporter_backends.rst)
[Show Source](//_sources/dev-guide/plugins/reporter_backends.rst.txt)
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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.