<u>Dask</u> <u>Distributed</u> <u>Dask ML</u> <u>Examples</u> <u>Ecosystem</u> <u>Community</u>

Dask Installation

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Dask currently supports Linux, macOS, and Windows. See the Changelog for comprehensive release notes for each Dask version.

How to Install Dask

Dask installation can happen in a few different ways. You can install Dask with conda, with pip, or install from source.

Conda

If you use the <u>Anaconda distribution</u>, Dask installation will occur by default. You can also install or upgrade Dask using the <u>conda install</u> command:

conda install dask

This installs Dask and **all** common dependencies, including pandas and NumPy. Dask packages are maintained both on the default channel and on conda-forge. You can select the channel with the -c flag:

conda install dask -c conda-forge

Optionally, you can obtain a minimal Dask installation using the following command:

conda install dask-core

This will install a minimal set of dependencies required to run Dask similar to (but not exactly the same as) python -m pip install dask below.

Pip

You can use pip to install everything required for most common uses of Dask (e.g. Dask Array, Dask DataFrame, etc.). This installs both Dask and dependencies, like NumPy and pandas, that are necessary for different workloads. This is often the right choice for Dask users:

python -m pip install "dask[complete]" # Install everything

You can also install only the Dask library. Modules like dask.array, dask.dataframe, or dask.distributed won't work until you also install NumPy, pandas, or Tornado, respectively. This is common for downstream library maintainers:

python -m pip install dask # Install only core parts of dask

We also maintain other dependency sets for different subsets of functionality:





 $\verb|python -m pip install "dask[distributed]|" \# \textit{Install requirements for distributed dask}|$

We have these options so that users of the lightweight core Dask scheduler aren't required to download the more exotic dependencies of the collections (Numpy, pandas, Tornado, etc.).

Install from Source

To install Dask from source, clone the repository from github:

```
git clone https://github.com/dask/dask.git cd dask python -m pip install .
```

You can also install all dependencies as well:

```
python -m pip install ".[complete]"
```

You can view the list of all dependencies within the extras_require field of setup.py.

Or do a developer install by using the -e flag (see the Install section in the Development Guidelines):

```
python -m pip install -e .
```

Anaconda

Dask is included by default in the Anaconda distribution.

Optional dependencies

Specific functionality in Dask may require additional optional dependencies. For example, reading from Amazon S3 requires <u>s3fs</u>. These optional dependencies and their minimum supported versions are listed below.

| | | <u>Dask</u> | Distributed | Dask ML | <u>Examples</u> | Ecosystem | Community |
|--------------|---------|---|-------------------|-----------|-----------------|-----------|-----------|
| bokeh | >=2.4.2 | Visualizing dask diagnostics | | | | | |
| cityhash | | Faster hashing of arrays | | | | | |
| distributed | >=2.0 | Distributed computing in Python | | | | | |
| fastparquet | | Storing and reading data from parquet files | | | | | |
| gcsfs | >=0.4.0 | File-system interface to Google Cloud Storage | | | | | |
| graphviz | | Graph visualization using the graphviz engine | | | | | |
| ipycytoscape | | Graph visualization | using the cytosca | pe engine | | | |
| murmurhash | | Faster hashing of a | arrays | | | | |
| numpy | >=1.21 | Required for dask.array | | | | | |
| pandas | >=1.3 | Required for dask.dataframe | | | | | |
| psutil | | Enables a more ac | curate CPU count | | | | |
| pyarrow | >=7.0 | Python library for Apache Arrow | | | | | |
| s3fs | >=0.4.0 | Reading from Ama | zon S3 | | | | |
| scipy | | Required for dask. | array.stats | | | | |

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