

Conda Cheatsheet

Forgotten the conda command parameters?

PAGE CONTENT
Installing and Updating Conda
Managing Environments
Managing Packages
Working with Channels
Exporting and Importing Environments
Additional Commands
Mamba (Optional)
Tips
Useful links

Here's a Conda Cheatsheet I've compiled some time ago... This **Conda Cheatsheet** is covering the most essential commands and tips for managing environments, packages, and channels **I've found useful**.



Installing and Updating Conda

- **Verify Conda Installation and Version:**

```
conda info
```

- **Update Conda:**

```
conda update conda
```

- **Update Anaconda Meta Package:**

```
conda update anaconda
```

Managing Environments

- **Create a New Environment:**

```
conda create --name my_env
conda create -n my_env python=3.8 # Specify Python version
conda create -n bioinfo fastqc trimmomatic bwa # Create with specific packages
```

- **Activate an Environment:**

```
conda activate my_env # On Windows, Linux, macOS
source activate my_env # On Linux, OS X (older syntax)
```

- **Deactivate an Environment:**

```
conda deactivate
```

- **List All Environments:**

```
conda env list
conda info --envs
```

- **Clone an Environment:**

```
conda create --clone old_env --name new_env
```

- **Rename an Environment:**

```
conda env rename -n old_env -d new_env
```

- **Delete an Environment:**

```
conda env remove -n my_env
conda remove --name my_env --all
```

- **List Revisions of an Environment:**

```
conda list --revisions
```

- **Restore Environment to a Revision:**

```
conda install --rev 3 # Roll back to revision 3
```

Managing Packages

- **List Installed Packages:**

```
conda list
conda list -n my_env # List packages in a specific environment
```

- **Install a Package:**

```
conda install package_name
conda install -c conda-forge package_name # Install from a specific channel
conda install package_name=1.2.3 # Install a specific version
```

- **Update All Packages in an Environment:**

```
conda update --all
```

- **Uninstall a Package:**

```
conda remove package_name
conda remove --name my_env package_name # Uninstall from a specific environment
```

- **Search for Packages:**

```
conda search package_name
conda search -c conda-forge package_name # Search in a specific channel
```

Working with Channels

- **List Channels:**

```
conda config --show channels
```

- **Add a Channel:**

```
conda config --add channels conda-forge
conda config --prepend channels conda-forge # Add with highest priority
conda config --append channels bioconda # Add with lowest priority
```

- **Set Channel Priority:**

```
conda config --set channel_priority strict
```

Exporting and Importing Environments

- **Export Environment to YAML:**

```
conda env export > environment.yml
conda env export --from-history > environment.yml # Export only explicit dependencies
```

- **Import Environment from YAML:**

```
conda env create --name my_env --file environment.yml
```

- **Export Environment to TEXT File:**

```
conda list --export > requirements.txt
```

- **Import Environment from TEXT File:**

```
conda create --name my_env --file requirements.txt
```

Additional Commands

- **Get Help for a Command:**

```
conda -h
conda install -h
```

- **Clean Up Unused Files:**

```
conda clean --all
```

- **Examine Conda Configuration:**

```
conda config --get
conda config --get channels
```

Mamba (Optional)

Mamba is a faster alternative to Conda, but it has some limitations, especially regarding environment revisions.

- **Install Mamba:**

```
conda install -c conda-forge mamba
```

- **Use Mamba Interchangeably with Conda:** Most commands are the same, but Mamba does not support rolling back environment revisions[2][4].

Tips

- **Create Descriptive Environment Names:** Helps in managing multiple environments.
- **Activate Environment Before Installing Packages:** Ensures packages are installed in the correct environment.
- **Use Specific Channels for Packages:** Ensures you get the packages from the desired sources.
- **Avoid Dependency Conflicts:** Install all programs in the environment at the same time[5].