Reference for package extras

Here's the list of all the [extra dependencies](#).

Most of the the extras result in installing additional provider packages.

The entries with `*` in the `Providers` column indicate that one or more provider packages will be installed automatically when those extras are used.

For `provider` extras - they usually install single provider package.

For `bundle` extras - they usually install a group of extras (for example `all` or `devel_all` or `all_dbs`), and thus it will include two or more provider extras.

The entries with `*` in the `Preinstalled` column indicate that those extras (with providers) are always pre-installed when Airflow is installed.

> ⓘ **Note**
>
> You can disable automated installation of the providers with extras when installing Airflow. You need to have `INSTALL_PROVIDERS_FROM_SOURCES` environment variable to `true` before running `pip install` command. Contributors need to set it, if they are installing Airflow locally, and want to develop providers directly via Airflow sources. This variable is automatically set in `Breeze` development environment. Setting this variable is not needed in editable mode (`pip install -e`).

Apache Software extras:

Those are extras that add dependencies needed for integration with other Apache projects.

extra	install command	enables	Providers
apache.atlas	`pip install 'apache-airflow[apache.atlas]'`	Apache Atlas to use Data Lineage feature	
apache.beam	`pip install 'apache-airflow[apache.beam]'`	Apache Beam operators & hooks	
apache.cassandra	`pip install 'apache-airflow[apache.cassandra]'`	Cassandra related operators & hooks	•
apache.druid	`pip install 'apache-airflow[apache.druid]'`	Druid related operators & hooks	•
apache.hdfs	`pip install 'apache-airflow[apache.hdfs]'`	HDFS hooks and operators	•
apache.hive	`pip install 'apache-airflow[apache.hive]'`	All Hive related operators	•
apache.kylin	`pip install 'apache-airflow[apache.kylin]'`	All Kylin related operators & hooks	•
apache.livy	`pip install 'apache-airflow[apache.livy]'`	All Livy related operators, hooks & sensors	•
apache.pig	`pip install 'apache-airflow[apache.pig]'`	All Pig related operators & hooks	•
apache.pinot	`pip install 'apache-airflow[apache.pinot]'`	All Pinot related hooks	•
apache.spark	`pip install 'apache-airflow[apache.spark]'`	All Spark related operators & hooks	•

extra	install command	enables	Providers
apache.sqoop	`pip install 'apache-airflow[apache.sqoop]'`	All Sqoop related operators & hooks	●
apache.webhdfs	`pip install 'apache-airflow[apache.webhdfs]'`	HDFS hooks and operators	

Services extras:

Those are extras that add dependencies needed for integration with external services - either cloud based or on-premises.

extra	install command	enables	Providers
amazon	`pip install 'apache-airflow[amazon]'`	Amazon Web Services	●
azure	`pip install 'apache-airflow[microsoft.azure]'`	Microsoft Azure	●
cloudant	`pip install 'apache-airflow[cloudant]'`	Cloudant hook	●
databricks	`pip install 'apache-airflow[databricks]'`	Databricks hooks and operators	●
datadog	`pip install 'apache-airflow[datadog]'`	Datadog hooks and sensors	●
dask	`pip install 'apache-airflow[dask]'`	DaskExecutor	
dingding	`pip install 'apache-airflow[dingding]'`	Dingding hooks and sensors	●
discord	`pip install 'apache-airflow[discord]'`	Discord hooks and sensors	●
facebook	`pip install 'apache-airflow[facebook]'`	Facebook Social	●
google	`pip install 'apache-airflow[google]'`	Google Cloud	●
github_enterprise	`pip install 'apache-airflow[github_enterprise]'`	GitHub Enterprise auth backend	
google_auth	`pip install 'apache-airflow[google_auth]'`	Google auth backend	
hashicorp	`pip install 'apache-airflow[hashicorp]'`	Hashicorp Services (Vault)	●
jira	`pip install 'apache-airflow[jira]'`	Jira hooks and operators	●
opsgenie	`pip install 'apache-airflow[opsgenie]'`	OpsGenie hooks and operators	●
pagerduty	`pip install 'apache-airflow[pagerduty]'`	Pagerduty hook	●
plexus	`pip install 'apache-airflow[plexus]'`	Plexus service of CoreScientific.com AI platform	●

extra	install command	enables	Providers
qubole	`pip install 'apache-airflow[qubole]'`	Enable QDS (Qubole Data Service) support	•
salesforce	`pip install 'apache-airflow[salesforce]'`	Salesforce hook	•
sendgrid	`pip install 'apache-airflow[sendgrid]'`	Send email using sendgrid	•
segment	`pip install 'apache-airflow[segment]'`	Segment hooks and sensors	•
sentry	`pip install 'apache-airflow[sentry]'`	Sentry service for application logging and monitoring	
slack	`pip install 'apache-airflow[slack]'`	Slack hooks and operators	•
snowflake	`pip install 'apache-airflow[snowflake]'`	Snowflake hooks and operators	•
telegram	`pip install 'apache-airflow[telegram]'`	Telegram hooks and operators	•
vertica	`pip install 'apache-airflow[vertica]'`	Vertica hook support as an Airflow backend	•
yandex	`pip install 'apache-airflow[yandex]'`	Yandex.cloud hooks and operators	•
zendesk	`pip install 'apache-airflow[zendesk]'`	Zendesk hooks	•

Software extras:

Those are extras that add dependencies needed for integration with other software packages installed usually as part of the deployment of Airflow.

extra	install command	enables	Providers
async	`pip install 'apache-airflow[async]'`	Async worker classes for Gunicorn	
celery	`pip install 'apache-airflow[celery]'`	CeleryExecutor	•
cncf.kubernetes	`pip install 'apache-airflow[cncf.kubernetes]'`	Kubernetes Executor and operator	•
docker	`pip install 'apache-airflow[docker]'`	Docker hooks and operators	•
elasticsearch	`pip install 'apache-airflow[elasticsearch]'`	Elasticsearch hooks and Log Handler	•
exasol	`pip install 'apache-airflow[exasol]'`	Exasol hooks and operators	•
jenkins	`pip install 'apache-airflow[jenkins]'`	Jenkins hooks and operators	•
ldap	`pip install 'apache-airflow[ldap]'`	LDAP authentication for users	

extra	install command	enables	Providers
mongo	`pip install 'apache-airflow[mongo]'`	Mongo hooks and operators	•
microsoft.mssql	`pip install 'apache-airflow[microsoft.mssql]'`	Microsoft SQL Server operators and hook.	•
mysql	`pip install 'apache-airflow[mysql]'`	MySQL operators and hook	•
odbc	`pip install 'apache-airflow[odbc]'`	ODBC data sources including MS SQL Server	•
openfaas	`pip install 'apache-airflow[openfaas]'`	OpenFaaS hooks	•
oracle	`pip install 'apache-airflow[oracle]'`	Oracle hooks and operators	•
postgres	`pip install 'apache-airflow[postgres]'`	PostgreSQL operators and hook	•
password	`pip install 'apache-airflow[password]'`	Password authentication for users	
presto	`pip install 'apache-airflow[presto]'`	All Presto related operators & hooks	•
rabbitmq	`pip install 'apache-airflow[rabbitmq]'`	RabbitMQ support as a Celery backend	
redis	`pip install 'apache-airflow[redis]'`	Redis hooks and sensors	•
samba	`pip install 'apache-airflow[samba]'`	Samba hooks and operators	•
singularity	`pip install 'apache-airflow[singularity]'`	Singularity container operator	•
statsd	`pip install 'apache-airflow[statsd]'`	Needed by StatsD metrics	
tableau	`pip install 'apache-airflow[tableau]'`	Tableau visualization integration	
virtualenv	`pip install 'apache-airflow[virtualenv]'`	Running python tasks in local virtualenv	

Other extras:

Those are extras that provide support for integration with external systems via some - usually - standard protocols.

extra	install command	enables	Providers	Preinstalled
cgroups	`pip install 'apache-airflow[cgroups]'`	Needed To use CgroupTaskRunner		
ftp	`pip install 'apache-airflow[ftp]'`	FTP hooks and operators	•	•
grpc	`pip install 'apache-airflow[grpc]'`	Grpc hooks and operators	•	

extra	install command	enables	Providers	Preinstalled
http	`pip install 'apache-airflow[http]'`	HTTP hooks, operators and sensors	●	●
imap	`pip install 'apache-airflow[imap]'`	IMAP hooks and sensors	●	●
jdbc	`pip install 'apache-airflow[jdbc]'`	JDBC hooks and operators	●	
kerberos	`pip install 'apache-airflow[kerberos]'`	Kerberos integration for Kerberized services (Hadoop, Presto)		
papermill	`pip install 'apache-airflow[papermill]'`	Papermill hooks and operators	●	
sftp	`pip install 'apache-airflow[sftp]'`	SFTP hooks, operators and sensors	●	
sqlite	`pip install 'apache-airflow[sqlite]'`	SQLite hooks and operators	●	●
ssh	`pip install 'apache-airflow[ssh]'`	SSH hooks and operators	●	
microsoft.winrm	`pip install 'apache-airflow[microsoft.winrm]'`	WinRM hooks and operators	●	

Bundle extras:

Those are extras that install one ore more extras.

extra	install command	enables	Providers
all	`pip install 'apache-airflow[all]'`	All Airflow user facing features (no devel and doc requirements)	●
all_dbs	`pip install 'apache-airflow[all_dbs]'`	All databases integrations	●
devel	`pip install 'apache-airflow[devel]'`	Minimum dev tools requirements (without providers)	
devel_hadoop	`pip install 'apache-airflow[devel_hadoop]'`	Same as `devel` + dependencies for developing the Hadoop stack	●
devel_all	`pip install 'apache-airflow[devel_all]'`	Everything needed for development (`devel_hadoop` + providers)	●
devel_ci	`pip install 'apache-airflow[devel_ci]'`	All dependencies required for CI build.	●

Doc extras:

This is the extra that is needed to generated documentation for Airflow. This is used for development time only

doc	`pip install 'apache-airflow[doc]'`	Packages needed to build docs (included in `devel`)	

Deprecated 1.10 extras:

Those are the extras that have been deprecated in 2.0 and will be removed in Airflow 3.0.0. They were all replaced by new extras, which have naming consistent with the names of provider packages.

The `crypto` extra is not needed any more, because all crypto dependencies are part of airflow package, so there is no replacement for `crypto` extra.

Deprecated extra	Extra to be used instead
atlas	apache.atlas
aws	amazon
azure	microsoft.azure
cassandra	apache.cassandra
crypto	
druid	apache.druid
gcp	google
gcp_api	google
hdfs	apache.hdfs
hive	apache.hive
kubernetes	cncf.kubernetes
mssql	microsoft.mssql
pinot	apache.pinot
qds	qubole
s3	amazon
spark	apache.spark
webhdfs	apache.webhdfs
winrm	microsoft.winrm

Previous   Next

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