

# Cloudera Data Science Workbench Engine Versions and Packaging

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# Cloudera Data Science Workbench Engine Versions and Packaging

This topic lists the packages included in the Python and R kernels of the base engine images that ship with each release of Cloudera Data Science Workbench.

Because the software and versions in these lists is installed in the images, you should not upgrade these versions because this will cause dependency conflicts. If any software in this list needs to be at a higher version, you should use a more recent version of the legacy engine or ML Runtime.

## Base Engine 16

This section lists the Python and R libraries that ship with engine 16.

### Python Libraries in Base Engine 16

Engine 16 ships with both Python versions Python 2.7.18 and 3.6.13. This section lists the libraries that ship with the Python kernels in engine 16.

Items in bold indicate a new version since the last release.

#### Python3

Library	Version
ipython	5.1.0
requests	2.22.0
simplejson	3.16.0
numpy	1.19.5
pandas	1.1.5
pandas-datareader	0.9.0
py4j	0.10.8.1
matplotlib	3.1.2
seaborn	0.9.0
cython	0.29.13
six	1.16.0

#### Python2

Library	Version
ipython	5.1.0
requests	2.22.0
simplejson	3.16.0
numpy	1.16.5
pandas	0.24.2
pandas-datareader	0.8.0
py4j	0.10.8.1
futures	3.3.0

Library	Version
matplotlib	2.2.4
seaborn	0.9.0
cython	0.29.13
six	1.16.0

## R Libraries in Base Engine 16

Engine 16 ships R version 3.6.3. This section lists the libraries that ship with the R kernel in engine 16.

Items in bold indicate a new version since the last release.

Package	Version
RCurl	1.98.1.3
caTools	1.18.2
svTools	0.9.5
png	0.1-7
RJSONIO	1.3-1.4
ggplot2	3.3.5
cluster	2.1.2
codetools	0.2-18
foreign	0.8-69
dplyr	1.0.7
httr	1.4.2
httpuv	1.6.1
jsonlite	1.7.2
magrittr	2.0.1
knitr	1.33
purrr	0.3.4
tm	0.7-8
proxy	0.4-26
stringr	1.4.0
Rook	1.1-1
rJava	1.0-4
devtools	2.4.2

## Base Engine 15

This section lists the Python and R libraries that ship with engine 15.

### Python Libraries in Base Engine 15

Engine 15 ships with both Python versions Python 2.7.18 and 3.6.10. This section lists the libraries that ship with the Python kernels in engine 15.

Items in bold indicate a new version since the last release.

## Python3

Library	Version
ipython	5.1.0
requests	2.22.0
simplejson	3.16.10
numpy	1.19.5
pandas	1.1.5
pandas-datareader	0.9.0
py4j	0.10.8.1
matplotlib	3.1.2
seaborn	0.9.0
cython	0.29.13
six	1.16.0

## Python2

Library	Version
ipython	5.1.0
requests	2.22.0
simplejson	3.16.10
numpy	1.16.5
pandas	0.24.2
pandas-datareader	0.8.0
py4j	0.10.8.1
futures	3.3.0
matplotlib	2.2.4
seaborn	0.9.0
cython	0.29.13
six	1.16.0

## R Libraries in Base Engine 15

Engine 15 ships R version 3.6.3. This section lists the libraries that ship with the R kernel in engine 16.

Items in bold indicate a new version since the last release.

Package	Version
RCurl	1.98.1.3
caTools	1.18.2
svTools	0.9.5
png	0.1.7
RJSONIO	1.3-1.4
ggplot2	3.3.5
cluster	2.1.2
codetools	0.2-18

Package	Version
foreign	0.8.69
dplyr	1.0.7
httr	1.4.2
httpuv	1.6.1
jsonlite	1.7.2
magrittr	2.0.1
knitr	1.33
purrr	0.3.4
tm	0.7-8
proxy	0.4.26
stringr	1.4.0
Rook	1.1.1
rJava	1.0-4
devtools	2.4.2

## Base Engine 13

This section lists the Python and R libraries that ship with engine 13.

### Python Libraries in Base Engine 13

Engine 13 ships with both Python versions Python 2.7.18 and 3.6.10. This section lists the libraries that ship with the Python kernels in engine 13.

Items in bold indicate a new version since the last release.

#### Python3

Library	Version
ipython	5.1.0
requests	2.22.0
simplejson	3.16.10
numpy	1.17.2
pandas	0.25.1
pandas-datareader	0.8.1
py4j	0.10.8.1
matplotlib	3.1.2
seaborn	0.9.0
cython	0.29.13
six	1.15.0

#### Python2

Library	Version
ipython	5.1.0

Library	Version
requests	2.22.0
simplejson	3.16.10
numpy	1.16.5
pandas	0.24.2
pandas-datareader	0.8.0
py4j	0.10.8.1
futures	3.3.0
matplotlib	2.2.4
seaborn	0.9.0
cython	0.29.13
six	1.15.0

## R Libraries in Base Engine 13

Engine 13 ships R version 3.6.3. This section lists the libraries that ship with the R kernel in engine 13.

Items in bold indicate a new version since the last release.

Package	Version
RCurl	1.98.1.2
caTools	1.18.0
svTools	0.9.5
png	0.1.7
RJSONIO	1.3.1.4
ggplot2	3.3.1
cluster	2.1.0
codetools	0.2.16
foreign	0.8.69
dplyr	1.0.0
httr	1.4.1
httpuv	1.5.4
jsonlite	1.6.1
magrittr	1.5
knitr	1.28
purrr	0.3.4
tm	0.7.7
proxy	0.4.24
data.table	1.12.8
stringr	1.4.0
Rook	1.1.1
rJava	0.9.12
devtools	2.3.0



## Base Engine 10

This section lists the Python, R, and Scala libraries that ship with engine 10.

### Python Libraries in Base Engine 10

Engine 10 ships Python 2.7.17 and 3.6.9. This section lists the libraries that ship with the Python kernels in engine 10.

Items in bold indicate a new version since the last release.

#### Python3

Library	Version
ipython	5.1.0
requests	2.22.0
Flask	0.12.0
simplejson	3.16.0
numpy	1.17.2
pandas	0.25.1
pandas-datareader	0.8.1
py4j	0.10.8.1
futures	2.1.4
matplotlib	2.0.0
seaborn	0.9.0
Cython	0.29.13
kudu-python	1.2.0

#### Python2

Library	Version
ipython	5.1.0
requests	2.22.0
Flask	0.12.0
simplejson	3.16.0
numpy	1.16.5
pandas	0.24.2
pandas-datareader	0.8.0
py4j	0.10.8.1
futures	3.3.0
matplotlib	2.0.0
seaborn	0.9.0
Cython	0.29.13
kudu-python	1.2.0

### R Libraries in Base Engine 10

Engine 10 ships R version 3.5.1. This section lists the libraries that ship with the R kernel in engine 8.

Items in bold indicate a new version since the last release.

Package	Version
RCurl	1.95.4.12
caTools	1.17.1.3
svTools	0.9.5
png	0.1.7
RJSONIO	1.3.1.3
ggplot2	3.2.1
cluster	2.1.0
codetools	0.2.16
foreign	0.8.73
dplyr	0.8.3
httr	1.4.1
httpuv	1.5.2
jsonlite	1.6
magrittr	1.5
knitr	1.26
purrr	0.3.3
tm	0.7.7
proxy	0.4.23
data.table	1.12.8
stringr	1.4.0
Rook	1.1.1
rJava	0.9.11
devtools	2.2.1

## Scala in Base Engine 10

The Scala kernel is based on the [Apache Toree 0.1.x kernel](https://docs.cloudera.com/cds/1.10.5/spark-configuration/topics/cds-spark-and-scala.html). For details on how to add more dependencies to the kernel, see <https://docs.cloudera.com/cds/1.10.5/spark-configuration/topics/cds-spark-and-scala.html>.

## Base Engine 8

This section lists the Python, R, and Scala libraries that ship with engine 8.

### Python Libraries in Base Engine 8

Engine 8 ships Python 2.7.11 and 3.6.8. This section lists the libraries that ship with the Python kernels in engine 8.

Items in bold indicate a new version since the last release.

Library	Version
ipython	5.1.0
requests	2.13.0
Flask	0.12.0

Library	Version
simplejson	3.10.0
numpy	1.13.3
pandas	0.20.1
pandas-datareader	0.2.1
py4j	0.10.7
futures	2.1.4
matplotlib	2.0.0
seaborn	0.8.0
Cython	0.25.2
kudu-python	1.2.0

## R Libraries in Base Engine 8

Engine 8 ships R version 3.5.1. This section lists the libraries that ship with the R kernel in engine 8.

Items in bold indicate a new version since the last release.

Package	Version
RCurl	1.95.4.12
caTools	1.17.1.2
svTools	0.9.5
png	0.1.7
RJSONIO	1.3.1.2
ggplot2	3.1.1
cluster	2.0.9
codetools	0.2.16
foreign	0.8.71
dplyr	0.8.1
httr	1.4.0
httpuv	1.5.1
jsonlite	1.6
magrittr	1.5
knitr	1.23
purrr	0.3.2
tm	0.7.6
proxy	0.4.23
data.table	1.12.2
stringr	1.4.0
Rook	1.1.1
rJava	0.9.11
devtools	2.0.2

## Scala in Base Engine 8

The Scala kernel is based on the [Apache Toree 0.1.x kernel](#). For details on how to add more dependencies to the kernel, see [AWS Account Requirements](#).

## Base Engine 7

This section lists the Python, R, and Scala libraries that ship with engine 7.

### Python Libraries in Base Engine 7

Engine 7 ships Python 2.7.11 and 3.6.1. This section lists the libraries that ship with the Python kernels in engine 7.

Items in bold indicate a new version since the last release.

Library	Version
ipython	5.1.0
requests	2.13.0
Flask	0.12.0
simplejson	3.10.0
numpy	1.12.1
pandas	0.20.1
pandas-datareader	0.2.1
py4j	0.10.7
futures	2.1.4
matplotlib	2.0.0
seaborn	0.8.0
Cython	0.25.2
kudu-python	1.2.0

### R Libraries in Base Engine 7

Engine 7 ships R version 3.5.1. This section lists the libraries that ship with the R kernel in engine 7.

Items in bold indicate a new version since the last release.

Package	Version
RCurl	1.95.4.11
caTools	1.17.1.1
svTools	0.9.5
png	0.1.7
RJSONIO	1.3.1.1
ggplot2	3.1.0
cluster	2.0.7.1
codetools	0.2.16
foreign	0.8.71
dpplr	0.7.8
httr	1.4.0

Package	Version
httpuv	1.4.5.1
jsonlite	1.6
magrittr	1.5
knitr	1.21
purrr	0.2.5
tm	0.7.6
proxy	0.4.22
data.table	1.12.0
stringr	1.3.1
Rook	1.1.1
rJava	0.9.10
devtools	2.0.1

## Scala in Base Engine 7

The Scala kernel is based on the [Apache Toree 0.1.x kernel](https://docs.cloudera.com/cds/1.10.5/spark-configuration/topics/cds-spark-and-scala.html). For details on how to add more dependencies to the kernel, see <https://docs.cloudera.com/cds/1.10.5/spark-configuration/topics/cds-spark-and-scala.html>.

## Base Engine 6

This section lists the Python, R, and Scala libraries that ship with engine 6.

### Python Libraries in Base Engine 6

Engine 6 ships Python 2.7.11 and 3.6.1. This section lists the libraries that ship with the Python kernels in engine 6.

Items in bold indicate a new version since the last release.

Library	Version
ipython	5.1.0
requests	2.13.0
Flask	0.12.0
simplejson	3.10.0
numpy	1.12.1
pandas	0.20.1
pandas-datareader	0.2.1
py4j	0.10.7
futures	2.1.4
matplotlib	2.0.0
seaborn	0.8.0
Cython	0.25.2
kudu-python	1.2.0

### R Libraries in Base Engine 6

Engine 6 ships R version 3.4.1. This section lists the libraries that ship with the R kernel in engine 6.

Items in bold indicate a new version since the last release.

Package	Version
RCurl	1.95.4.10
caTools	1.17.1
svTools	0.9.5
png	0.1.7
RJSONIO	1.3.0
ggplot2	3.0.0
cluster	2.0.7.1
codetools	0.2.15
foreign	0.8.70
dplyr	0.7.6
httr	1.3.1
httpuv	1.4.4.2
jsonlite	1.5
magrittr	1.5
knitr	1.20
purrr	0.2.5
tm	0.7.4
proxy	0.4.22
data.table	1.11.4
stringr	1.3.1
Rook	1.1.1
rJava	0.9.10
devtools	1.13.6

## Scala in Base Engine 6

The Scala kernel is based on the [Apache Toree 0.1.x kernel](https://docs.cloudera.com/cds/1.10.5/spark-configuration/topics/cds-spark-and-scala.html). For details on how to add more dependencies to the kernel, see <https://docs.cloudera.com/cds/1.10.5/spark-configuration/topics/cds-spark-and-scala.html>.

## Base Engine 5

This section lists the Python, R, and Scala libraries that ship with engine 5.

### Python Libraries in Base Engine 5

Engine 5 ships Python 2.7.11 and 3.6.1. This section lists the libraries that ship with the Python kernels in engine 5.

Items in bold indicate a new version since the last release.

Library	Version
ipython	5.1.0
requests	2.13.0
Flask	0.12.0

Library	Version
simplejson	3.10.0
numpy	1.12.1
pandas	0.20.1
pandas-datareader	0.2.1
py4j	0.10.7
futures	2.1.4
matplotlib	2.0.0
seaborn	0.8.0
Cython	0.25.2
kudu-python	1.2.0

## R Libraries in Base Engine 5

Engine 5 ships R version 3.4.1. This section lists the libraries that ship with the R kernel in engine 5.

Items in bold indicate a new version since the last release.

Package	Version
RCurl	1.95.4.10
caTools	1.17.1
svTools	0.9.4
png	0.1.7
RJSONIO	1.3.0
ggplot2	2.2.1
cluster	2.0.7.1
codetools	0.2.15
foreign	0.8.70
dplyr	0.7.5
httr	1.3.1
httpuv	1.4.3
jsonlite	1.5
magrittr	1.5
knitr	1.20
purrr	0.2.5
tm	0.7.3
proxy	0.4.22
data.table	1.11.4
stringr	1.3.1
Rook	1.1.1
rJava	0.9.10
devtools	1.13.5

## Scala in Base Engine 5

The Scala kernel is based on the [Apache Toree 0.1.x kernel](https://docs.cloudera.com/cdsw/1.10.5/spark-configuration/topics/cdsw-spark-and-scala.html). For details on how to add more dependencies to the kernel, see <https://docs.cloudera.com/cdsw/1.10.5/spark-configuration/topics/cdsw-spark-and-scala.html>.

## Base Engine 4

This section lists the Python, R, and Scala libraries that ship with engine 4.

### Python Libraries in Base Engine 4

Engine 4 ships Python 2.7.11 and 3.6.1. This section lists the libraries that ship with the Python kernels in engine 4.

Library	Version
ipython	5.1.0
requests	2.13.0
Flask	0.12.0
simplejson	3.10.0
numpy	1.12.1
pandas	0.20.1
pandas-datareader	0.2.1
py4j	0.10.4
futures	2.1.4
matplotlib	2.0.0
seaborn	0.8.0
Cython	0.25.2
kudu-python	1.2.0

### R Libraries in Base Engine 4

Engine 4 ships R version 3.4.1. This section lists the libraries that ship with the R kernel in engine 4.

Package	Version
RCurl	1.95.4.10
caTools	1.17.1
svTools	0.9.4
png	0.1.7
RJSONIO	1.3.0
ggplot2	2.2.1
cluster	2.0.6
codetools	0.2.15
foreign	0.8.69
dplyr	0.7.4
httr	1.3.1
httpuv	1.3.5
jsonlite	1.5



Package	Version
magrittr	1.5
knitr	1.18
purrr	0.2.4
tm	0.7.3
proxy	0.4.21
data.table	1.10.4.3
stringr	1.2.0
Rook	1.1.1
rJava	0.9.9
devtools	1.13.4

## Scala in Base Engine 4

The Scala kernel is based on the [Apache Toree 0.1.x kernel](https://docs.cloudera.com/cds/0.1.x/kernel). For details on how to add more dependencies to the kernel, see <https://docs.cloudera.com/cds/1.10.5/spark-configuration/topics/cds-spark-and-scala.html>.

## Base Engine 3

This section lists the Python, R, and Scala libraries that ship with engine 3.

### Python Libraries in Base Engine 3

Engine 3 ships Python 2.7.11 and 3.6.1. This section lists the libraries that ship with the Python kernels in engine 3.

Library	Version
ipython	5.1.0
requests	2.13.0
Flask	0.12.0
simplejson	3.10.0
numpy	1.12.1
pandas	0.20.1
pandas-datareader	0.2.1
py4j	0.10.4
futures	2.1.4
matplotlib	2.0.0
seaborn	0.8.0
Cython	0.25.2
kudu-python	1.2.0

### R Libraries in Base Engine 3

Engine 3 ships R version 3.4.1. This section lists the libraries that ship with the R kernel in engine 3.

Package	Version
RCurl	1.95.4.8
caTools	1.17.1

Package	Version
svTools	0.9.4
png	0.1.7
RJSONIO	1.3.0
ggplot2	2.2.1
cluster	2.0.6
codetools	0.2.15
foreign	0.8.69
dplyr	0.7.4
httr	1.3.1
httpuv	1.3.5
jsonlite	1.5
magrittr	1.5
knitr	1.17
purrr	0.2.4
tm	0.7.3
proxy	0.4.20
data.table	1.10.4.3
stringr	1.2.0
Rook	1.1.1
rJava	0.9.9
devtools	1.13.4

## Scala in Base Engine 3

The Scala kernel is based on the [Apache Toree 0.1.x kernel](https://docs.cloudera.com/cdsw/1.10.5/spark-configuration/topics/cdsw-spark-and-scala.html). For details on how to add more dependencies to the kernel, see <https://docs.cloudera.com/cdsw/1.10.5/spark-configuration/topics/cdsw-spark-and-scala.html>.

## Base Engine 2

This section lists the Python, R, and Scala libraries that ship with engine 2.

### Python 2 Libraries in Base Engine 2

Engine 2 ships Python 2.7.11 and 3.6.1. This section lists the libraries that ship with the Python kernels in engine 2.

Library	Version
ipython	5.1.0
requests	2.13.0
Flask	0.12.0
simplejson	3.10.0
numpy	1.12.1
pandas	0.20.1
pandas-datareader	0.2.1
py4j	0.10.4

Library	Version
futures	2.1.4
matplotlib	2.0.0
seaborn	0.7.1
Cython	0.23.4

## R Libraries in Base Engine 2

Engine 2 ships R version 3.3.0. This section lists the libraries that ship with the R kernel in engine 2.

Package	Version
RCurl	1.95.4.8
caTools	1.17.1
svTools	0.9.4
png	0.1.7
RJSONIO	1.3.0
ggplot2	2.2.1
cluster	2.0.6
codetools	0.2.15
foreign	0.8.69
dplyr	0.7.2
httr	1.2.1
httpuv	1.3.5
jsonlite	1.5
magrittr	1.5
knitr	1.16
purrr	0.2.3
data.table	1.10.4
stringr	1.2.0
Rook	1.1.1
rJava	0.9.8
devtools	1.13.3

## Scala in Base Engine 2

The Scala kernel is based on the [Apache Toree 0.1.x kernel](#). For details on how to add more dependencies to the kernel, see <https://docs.cloudera.com/cdsw/1.10.5/spark-configuration/topics/cdsw-spark-and-scala.html>.