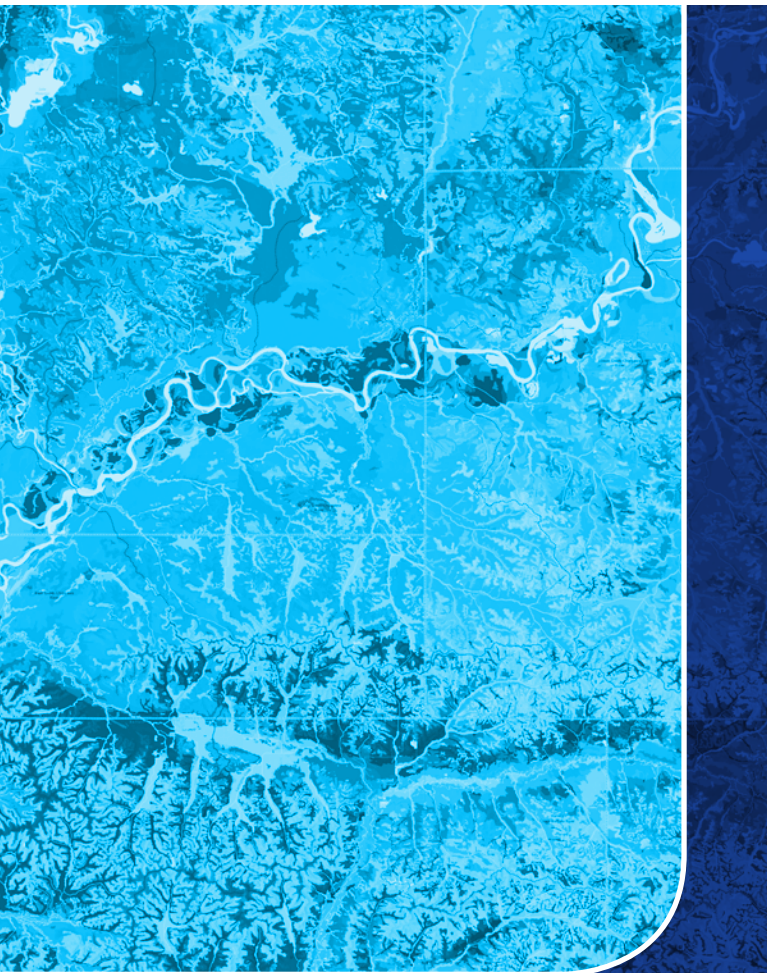




# 10.8



## **ArcGIS Notebook Server**

Python Libraries

ArcGIS Notebooks provide an integrated web interface in ArcGIS to create, share, and run data science, data management, and administrative scripts. As a notebook author working in ArcGIS Enterprise, you have access to ArcGIS Notebook Server and its analytical engines, ArcGIS geospatial analysis libraries, and open-source analytical, statistical, and machine learning libraries.

With notebooks, you can perform analysis, automate workflows, and immediately visualize data and analysis results in a geographic context. Notebooks are an efficient, modern environment that combine code, real-time visualizations and maps, and data tools.

ArcGIS Notebooks feature Esri's Python resources: the ArcGIS API for Python and ArcPy. In addition, notebooks include access to hundreds of open source Python libraries and packages.

Notebook runtimes make Python resources available in ArcGIS Notebooks. Each runtime packages a list of libraries and dependencies, including a specific version of each Python library.

The two ArcGIS Notebook Server runtimes, Standard (which includes ArcGIS API for Python and other Python modules) and Advanced (which also includes ArcPy), are available in ArcGIS Notebooks. Your organization's license of ArcGIS Notebooks will determine which runtimes will be accessible to notebook authors.

This publication provides a complete list of the Python libraries, including their versions, that are packaged in each runtime at ArcGIS Notebook Server 10.8.

The ArcGIS Notebook Server administrative help documentation describes how you can extend a notebook runtime to make additional libraries available in your notebooks as needed.

# ArcGIS Notebook Server Standard runtime v3.0

## ArcGIS Enterprise 10.8

Library name	Version
_libgcc_mutex	0.1
_tflow_select	2.3.0
absl-py	0.8.0
affine	2.3.0
ansiwrap	0.8.4
arcgis	1.7.0
asn1crypto	1.0.1
astor	0.8.0
attrs	19.2.0
backcall	0.1.0
backports	1
backports.tempfile	1
backports.weakref	1.0.post1
beautifulsoup4	4.7.1
binutils_impl_linux-64	2.31.1
binutils_linux-64	2.31.1
blas	1
bleach	3.1.0
blosc	1.16.3
bokeh	1.3.4
boto3	1.9.234
botocore	1.12.234
bottleneck	1.2.1
bzip2	1.0.8
c-ares	1.15.0
ca-certificates	2019.8.28
cairo	1.14.12
certifi	2019.9.11
cffl	1.12.3
chardet	3.0.4
click	7
click-plugins	1.1.1
cligj	0.5.0
cloudpickle	1.2.2
colorlover	0.2.1
conda	4.6.14

Library name	Version
cryptography	2.7
cryptography-vectors	2.7
cuda-toolkit	10.0.130
cufflinks-py	0.13.0
curl	7.65.3
cycler	0.10.0
cymem	2.0.2
cython	0.29.13
cython-blis	0.2.4
cytoolz	0.10.0
dask	2.2.0
dask-core	2.2.0
dask-glm	0.2.0
dask-ml	0.12.0
dask-searchcv	0.2.0
dataclasses	0.6
decorator	4.4.0
defusedxml	0.6.0
dill	0.3.0
distributed	2.5.2
docutils	0.15.2
entrypoints	0.3
expat	2.2.6
fastai	1.0.54
fastcache	1.1.0
fastprogress	0.1.21
ffmpeg	4
fiona	1.7.12
fontconfig	2.13.0
freeglut	3.0.0
freetype	2.9.1
freexl	1.0.5
fsspec	0.5.2
future	0.17.1
gast	0.3.2
gcc_impl_linux-64	7.3.0

Library name	Version
gcc_linux-64	7.3.0
gdal	2.2.4
geos	3.6.2
giflib	5.1.4
glib	2.56.2
gmp	6.1.2
gmpy2	2.0.8
graphite2	1.3.13
grpcio	1.16.1
gxx_impl_linux-64	7.3.0
gxx_linux-64	7.3.0
h5py	2.8.0
harfbuzz	1.8.8
hdf4	4.2.13
hdf5	1.10.2
heapdict	1.0.1
holoviews	1.10.4
html5lib	1.0.1
icu	58.2
idna	2.8
imageio	2.6.0
intel-openmp	2019.4
ipykernel	5.1.2
ipython	7.8.0
ipython_genutils	0.2.0
ipywidgets	7.3.1
jasper	2.0.14
jedi	0.15.1
jeepney	0.4.1
jinja2	2.10.3
jmespath	0.9.4
joblib	0.13.2
jpeg	9b
json-c	0.13.1
jsonschema	3.0.2
jupyter	1.0.0
jupyter_client	5.3.4
jupyter_console	6.0.0
jupyter_contrib_core	0.3.3

Library name	Version
jupyter_contrib_nbextensions	0.5.1
jupyter_core	4.6.0
jupyter_highlight_selected_word	0.2.0
jupyter_latex_envs	1.4.4
jupyter_nbextensions_configurator	0.4.1
kealib	1.4.7
keras	2.2.4
keras-applications	1.0.8
keras-base	2.2.4
keras-preprocessing	1.1.0
keyring	13.2.1
kiwisolver	1.1.0
krb5	1.16.1
libboost	1.67.0
libcurl	7.65.3
libdap4	3.19.1
libedit	3.1.20181209
libffi	3.2.1
libgcc-ng	9.1.0
libgdal	2.2.4
libgfortran-ng	7.3.0
libglu	9.0.0
libgpuarray	0.7.6
libkml	1.3.0
libnetcdf	4.6.1
libopencv	3.4.2
libopus	1.3
libpng	1.6.37
libpq	11.2
libprotobuf	3.8.0
libsodium	1.0.16
libspatialindex	1.8.5
libspatialite	4.3.0a
libssh2	1.8.2
libstdcxx-ng	9.1.0
libtiff	4.0.10
libuuid	1.0.3
libvpx	1.7.0

Library name	Version
libxcb	1.13
libxml2	2.9.9
libxslt	1.1.33
llvmlite	0.29.0
locket	0.2.0
lxml	4.2.3
lz4-c	1.8.1.2
mako	1.1.0
markdown	3.1.1
markupsafe	1.1.1
matplotlib	3.0.1
mistune	0.8.4
mkl	2019.4
mkl-service	1.1.2
mkl_fft	1.0.12
mkl_random	1.0.2
mock	3.0.5
mpc	1.1.0
mpfr	4.0.1
mpmath	1.1.0
msgpack-python	0.6.1
multipledispatch	0.6.0
munch	2.3.2
murmurhash	1.0.2
nbconvert	5.5.0
nbformat	4.4.0
ncurses	6.1
networkx	2.3
ninja	1.9.0
nodejs	10.13.0
notebook	6.0.1
numba	0.45.1
numexpr	2.6.9
numpy	1.16.4
numpy-base	1.16.4
nvidia-ml-py3	7.352.0
olefile	0.46
opencv	3.4.2
openjpeg	2.3.0
openssl	1.1.1d

Library name	Version
packaging	19.2
pandas	0.25.1
pandocfilters	1.4.2
papermill	1.2.0
param	1.9.2
parso	0.5.1
partd	1.0.0
patsy	0.5.1
pcre	8.43
pexpect	4.7.0
pickleshare	0.7.5
pillow	6.2.0
pip	19.2.3
pixman	0.38.0
plac	0.9.6
plotly	4.1.1
plotly_express	0.4.1
preshed	2.0.1
proj4	4.9.3
prometheus_client	0.7.1
prompt_toolkit	2.0.10
protobuf	3.8.0
psutil	5.6.3
ptyprocess	0.6.0
py-opencv	3.4.2
pycosat	0.6.3
pycparser	2.19
pycrypto	2.6.1
pygments	2.4.2
pygpu	0.7.6
pymc3	3.5
pyopenssl	19.0.0
pyparsing	2.4.2
pysistent	0.15.4
pyshp	1.2.12
pysocks	1.7.1
pytables	3.4.4
python	3.6.9
python-dateutil	2.8.0
pytorch	1.1.0

Library name	Version
pytz	2019.3
pywavelets	1.0.3
pyyaml	5.1.2
pyzmq	18.1.0
rasterio	0.36.0
rasterstats	0.13.0
readline	7
requests	2.22.0
retrying	1.3.3
rise	5.4.1
rtree	0.8.3
ruamel_yaml	0.15.46
s3transfer	0.2.1
scikit-image	0.15.0
scikit-learn	0.21.1
scipy	1.2.1
seaborn	0.9.0
secretstorage	3.1.0
send2trash	1.5.0
setuptools	41.4.0
shapely	1.6.4
simplejson	3.16.0
six	1.12.0
snappy	1.1.7
snuggs	1.4.7
sortedcontainers	2.1.0
soupsieve	1.9.3
spacy	2.1.8
sqlalchemy	1.3.9
sqlite	3.30.0
srsly	0.1.0
statsmodels	0.10.1
sympy	1.3
tblib	1.4.0
tenacity	5.1.1
tensorboard	1.13.1
tensorflow	1.13.1
tensorflow-base	1.13.1
tensorflow-estimator	1.13.0
termcolor	1.1.0

Library name	Version
terminado	0.8.2
testpath	0.4.2
textwrap3	0.9.2
theano	1.0.3
thinc	7.0.8
tini	0.18.0
tk	8.6.8
toolz	0.10.0
torchvision	0.3.0
tornado	6.0.3
tqdm	4.36.1
traitlets	4.3.3
typing	3.6.4
urllib3	1.24.2
vincent	0.4.4
wasabi	0.2.2
wcwidth	0.1.7
webencodings	0.5.1
werkzeug	0.16.0
wheel	0.33.6
widetsnbextension	3.3.1
xerces-c	3.2.2
xlrd	1.2.0
xz	5.2.4
yaml	0.1.7
zeromq	4.3.1
zict	1.0.0
zlib	1.2.11
zstd	1.3.7

# ArcGIS Notebook Server Advanced runtime v3.0

## ArcGIS Enterprise 10.8

Library name	Version
_libgcc_mutex	0.1
_tflow_select	2.3.0
absl-py	0.8.0
affine	2.3.0
answrap	0.8.4
arcgis	1.7.0
arcgis-server-py3	10.8.0
asn1crypto	1.0.1
astor	0.8.0
attrs	19.2.0
backcall	0.1.0
backports	1
backports.tempfile	1
backports.weakref	1.0.post1
beautifulsoup4	4.7.1
binutils_impl_linux-64	2.31.1
binutils_linux-64	2.31.1
blas	1
bleach	3.1.0
blosc	1.16.3
bokeh	1.3.4
boto3	1.9.234
botocore	1.12.234
bottleneck	1.2.1
bzip2	1.0.8
c-ares	1.15.0
ca-certificates	2019.8.28
cairo	1.14.12
certifi	2019.9.11
cff	1.12.3
cftime	1.0.0b1
chardet	3.0.4
click	7
click-plugins	1.1.1
cligj	0.5.0
cloudpickle	1.2.2

Library name	Version
colorlover	0.2.1
conda	4.6.14
cryptography	2.7
cryptography-vectors	2.7
cuda-toolkit	10.0.130
cufflinks-py	0.13.0
curl	7.65.3
cycler	0.10.0
cymem	2.0.2
cython	0.29.13
cython-blis	0.2.4
cytoolz	0.10.0
dask	2.2.0
dask-core	2.2.0
dask-glm	0.2.0
dask-ml	0.12.0
dask-searchcv	0.2.0
dataclasses	0.6
decorator	4.4.0
defusedxml	0.6.0
dill	0.3.0
distributed	2.5.2
docutils	0.15.2
entrypoints	0.3
et_xmlfile	1.0.1
expat	2.2.6
fastai	1.0.54
fastcache	1.1.0
fastprogress	0.1.21
ffmpeg	4
fiona	1.8.4
fontconfig	2.13.0
freeglut	3.0.0
freetype	2.9.1
freexl	1.0.5
fsspec	0.5.2

Library name	Version
future	0.17.1
gast	0.3.2
gcc_impl_linux-64	7.3.0
gcc_linux-64	7.3.0
gdal	2.3.3
geos	3.7.1
giflib	5.1.4
glib	2.56.2
gmp	6.1.2
gmpy2	2.0.8
graphite2	1.3.13
grpcio	1.16.1
gxx_impl_linux-64	7.3.0
gxx_linux-64	7.3.0
h5py	2.9.0
harfbuzz	1.8.8
hdf4	4.2.13
hdf5	1.10.4
heapdict	1.0.1
holoviews	1.10.4
html5lib	1.0.1
icu	58.2
idna	2.8
imageio	2.6.0
intel-openmp	2019.4
ipykernel	5.1.2
ipython	7.8.0
ipython_genutils	0.2.0
ipywidgets	7.3.1
jasper	2.0.14
jdcal	1.4.1
jedi	0.15.1
jeepney	0.4.1
jinja2	2.10.3
jmespath	0.9.4
joblib	0.13.2
jpeg	9b
json-c	0.13.1
jsonschema	3.0.2
jupyter	1.0.0

Library name	Version
jupyter_client	5.3.4
jupyter_console	6.0.0
jupyter_contrib_core	0.3.3
jupyter_contrib_nbextensions	0.5.1
jupyter_core	4.6.0
jupyter_highlight_selected_word	0.2.0
jupyter_latex_envs	1.4.4
jupyter_nbextensions_configurator	0.4.1
kealib	1.4.7
keras	2.2.4
keras-applications	1.0.8
keras-base	2.2.4
keras-preprocessing	1.1.0
keyring	13.2.1
kiwisolver	1.1.0
krb5	1.16.1
libboost	1.67.0
libcurl	7.65.3
libdap4	3.19.1
libedit	3.1.20181209
libffi	3.2.1
libgcc-ng	9.1.0
libgdal	2.3.3
libgfortran-ng	7.3.0
libglu	9.0.0
libgpuarray	0.7.6
libkml	1.3.0
libnetcdf	4.6.1
libopus	1.3
libpng	1.6.37
libpq	11.2
libprotobuf	3.8.0
libsodium	1.0.16
libspatialindex	1.8.5
libspatialite	4.3.0a
libssh2	1.8.2
libstdcxx-ng	9.1.0
libtiff	4.0.10



Library name	Version
libuuid	1.0.3
libvpx	1.7.0
libxcb	1.13
libxml2	2.9.9
libxslt	1.1.33
llvmlite	0.29.0
locket	0.2.0
lxml	4.2.3
lz4-c	1.8.1.2
lzo	2.1
mako	1.1.0
markdown	3.1.1
markupsafe	1.1.1
matplotlib	3.0.1
mistune	0.8.4
mkl	2019.4
mkl-service	1.1.2
mkl_fft	1.0.12
mkl_random	1.0.2
mock	3.0.5
mpc	1.1.0
mpfr	4.0.1
mpmath	1.1.0
msgpack-python	0.6.1
multipledispatch	0.6.0
munch	2.3.2
murmurhash	1.0.2
nbconvert	5.5.0
nbformat	4.4.0
ncurses	6.1
netcdf4	1.4.2
networkx	2.3
ninja	1.9.0
nodejs	10.13.0
nose	1.3.7
notebook	6.0.1
numba	0.45.1
numexpr	2.6.9
numpy	1.16.4
numpy-base	1.16.4

Library name	Version
nvidia-ml-py3	7.352.0
olefile	0.46
openjpeg	2.3.0
openpyxl	3.0.0
openssl	1.1.1d
packaging	19.2
pandas	0.25.1
pandocfilters	1.4.2
papermill	1.2.0
param	1.9.2
parso	0.5.1
partd	1.0.0
patsy	0.5.1
pcre	8.43
pexpect	4.7.0
pickleshare	0.7.5
pillow	6.2.0
pip	19.2.3
pixman	0.38.0
plac	0.9.6
plotly	4.1.1
plotly_express	0.4.1
poppler	0.65.0
poppler-data	0.4.9
preshed	2.0.1
proj4	5.2.0
prometheus_client	0.7.1
prompt_toolkit	2.0.10
protobuf	3.8.0
psutil	5.6.3
ptyprocess	0.6.0
py	1.8.0
pycosat	0.6.3
pycparser	2.19
pycrypto	2.6.1
pygments	2.4.2
pygpu	0.7.6
pymc3	3.5
pyopenssl	19.0.0
yparsing	2.4.2

Library name	Version
pypdf2	1.26.0
pyrsistent	0.15.4
pyshp	1.2.12
pysocks	1.7.1
pytables	3.4.4
python	3.6.9
python-dateutil	2.8.0
pytorch	1.1.0
pytz	2019.3
pywavelets	1.0.3
pyyaml	5.1.2
pyzmq	18.1.0
rasterio	1.0.21
rasterstats	0.13.0
readline	7
requests	2.22.0
retrying	1.3.3
rise	5.4.1
rtree	0.8.3
ruamel_yaml	0.15.46
s3transfer	0.2.1
scikit-image	0.15.0
scikit-learn	0.21.1
scipy	1.2.1
seaborn	0.9.0
secretstorage	3.1.0
send2trash	1.5.0
setuptools	41.4.0
shapely	1.6.4
simplejson	3.16.0
six	1.12.0
snappy	1.1.7
snuggs	1.4.7
sortedcontainers	2.1.0
soupsieve	1.9.3
spacy	2.1.8
sqlalchemy	1.3.9
sqlite	3.30.0
srsly	0.1.0
statsmodels	0.10.1

Library name	Version
sympy	1.3
tblib	1.4.0
tenacity	5.1.1
tensorboard	1.13.1
tensorflow	1.13.1
tensorflow-base	1.13.1
tensorflow-estimator	1.13.0
termcolor	1.1.0
terminado	0.8.2
testpath	0.4.2
textwrap3	0.9.2
theano	1.0.3
thinc	7.0.8
tini	0.18.0
tk	8.6.8
toolz	0.10.0
torchvision	0.3.0
tornado	6.0.3
tqdm	4.36.1
traitlets	4.3.3
typing	3.6.4
urllib3	1.24.2
vincent	0.4.4
wasabi	0.2.2
wcwidth	0.1.7
webencodings	0.5.1
werkzeug	0.16.0
wheel	0.33.6
widetsnbextension	3.3.1
xerces-c	3.2.2
xlrd	1.2.0
xlwt	1.3.0
xz	5.2.4
yaml	0.1.7
zeromq	4.3.1
zict	1.0.0
zlib	1.2.11
zstd	1.3.7