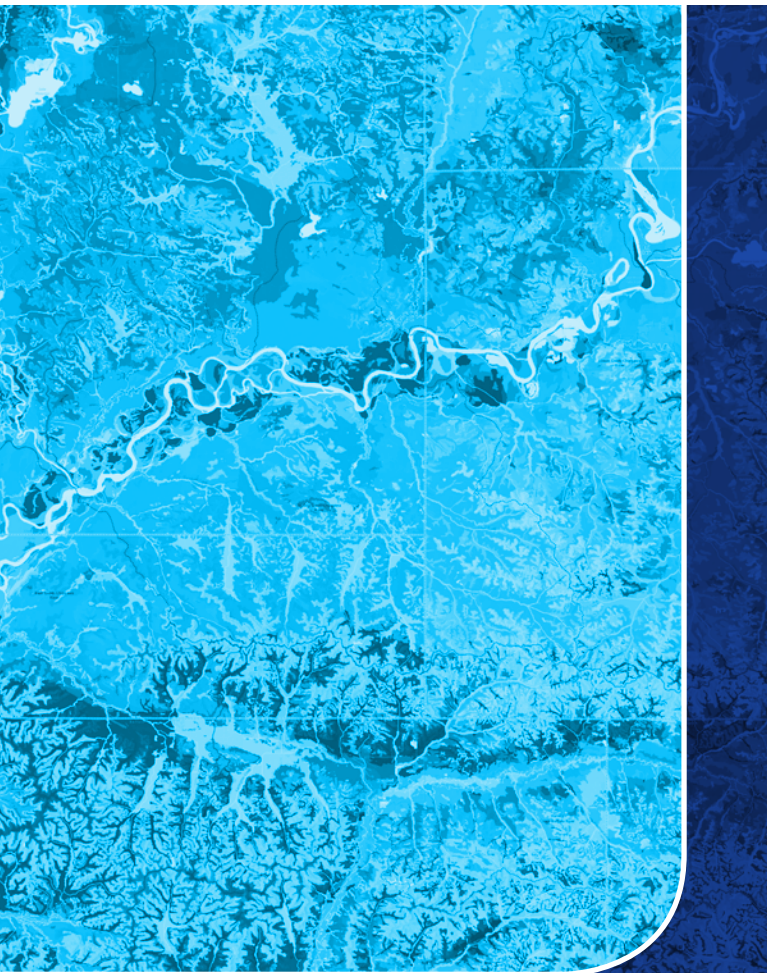




# 10.7



# 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 10.7.

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 10.7 Standard runtime

Library name	Version
_tflow_select	2.3.0
absl-py	0.7.0
affine	2.2.2
alembic	1.0.6
arcgis	1.6.0
asn1crypto	0.24.0
astor	0.7.1
async_generator	1.1
attrs	18.2.0
backcall	0.1.0
beautifulsoup4	4.6.3
blas	1
bleach	3.1.0
blosc	1.15.0
bokeh	0.13.0
boto3	1.9.82
botocore	1.12.82
bottleneck	1.2.1
bzip2	1.0.6
c-ares	1.15.0
ca-certificates	2019.1.23
cairo	1.14.12
certifi	2018.11.29
cff	1.11.5
chardet	3.0.4
click	7
click-plugins	1.0.4
cligj	0.5.0
cloudpickle	0.5.6
colorlover	0.2.1
conda	4.6.2
conda-env	2.6.0
configurable-http-proxy	1.3.0
cryptography	2.4.2
cufflinks-py	0.13.0
curl	7.63.0
cycler	0.10.0
cymem	2.0.2
cython	0.28.5

Library name	Version
cytoolz	0.9.0.1
dask	0.19.4
dask-core	0.19.4
dask-glm	0.1.0
dask-ml	0.10.0
dask-searchcv	0.2.0
dataclasses	0.6
decorator	4.3.0
defusedxml	0.5.0
dill	0.2.8.2
distributed	1.25.3
docutils	0.14
entrypoints	0.3
expat	2.2.6
fastai	1.0.39
fastcache	1.0.2
fastprogress	0.1.19
ffmpeg	4
fiona	1.7.12
fontconfig	2.13.0
freeglut	3.0.0
freetype	2.9.1
freexl	1.0.5
gast	0.2.2
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
h5py	2.8.0
harfbuzz	1.8.8
hdf4	4.2.13
hdf5	1.10.2
heapdict	1.0.0
holoviews	1.10.7
html5lib	1.0.1
icu	58.2

## Standard runtime (page 2 of 4)

Library name	Version
idna	2.8
imageio	2.4.1
intel-openmp	2019.1
ipykernel	5.1.0
ipython	7.2.0
ipython_genutils	0.2.0
ipywidgets	7.3.1
jasper	2.0.14
jedi	0.13.2
jeepney	0.4
jinja2	2.1
jmespath	0.9.3
joblib	0.13.1
jpeg	9b
json-c	0.13.1
jsonschema	2.6.0
jupyter	1.0.0
jupyter_client	5.2.4
jupyter_console	6.0.0
jupyter_core	4.4.0
jupyterhub	0.9.4
jupyterlab	0.35.3
jupyterlab_server	0.2.0
kealib	1.4.7
keras	2.2.4
keras-applications	1.0.6
keras-base	2.2.4
keras-preprocessing	1.0.5
keyring	13.2.1
kiwisolver	1.0.1
krb5	1.16.1
libboost	1.67.0
libcurl	7.63.0
libdap4	3.19.1
libedit	3.1.20181209
libffi	3.2.1
libgcc-ng	8.2.0
libgdal	2.2.4
libgfortran-ng	7.3.0
libglu	9.0.0

Library name	Version
libgpuarray	0.7.6
libkml	1.3.0
libnetcdf	4.6.1
libopencv	3.4.2
libopus	1.3
libpng	1.6.36
libpq	11.1
libprotobuf	3.6.1
libsodium	1.0.16
libspatialite	4.3.0a
libssh2	1.8.0
libstdcxx-ng	8.2.0
libtiff	4.0.10
libuuid	1.0.3
libvpx	1.7.0
libxcb	1.13
libxml2	2.9.9
libxslt	1.1.33
llvmlite	0.23.2
locket	0.2.0
lxml	4.2.3
mako	1.0.7
markdown	3.0.1
markupsafe	1.1.0
matplotlib	3.0.1
mistune	0.8.4
mkl	2019.1
mkl-service	1.1.2
mkl_fft	1.0.10
mkl_random	1.0.2
mpc	1.1.0
mpfr	4.0.1
mpmath	1.1.0
msgpack-numpy	0.4.3.2
msgpack-python	0.6.1
multipledispatch	0.6.0
munch	2.3.2
murmurhash	1.0.1
nb_conda	2.2.1
nb_conda_kernels	2.2.0



## Standard runtime (page 3 of 4)

Library name	Version
nbconvert	5.4.0
nbformat	4.4.0
ncurses	6.1
networkx	2.2
ninja	1.8.2
nodejs	10.13.0
notebook	5.7.4
numba	0.38.1
numexpr	2.6.9
numpy	1.15.4
numpy-base	1.15.4
nvidia-ml-py3	7.352.0
olefile	0.46
opencv	3.4.2
openjpeg	2.3.0
openssl	1.1.1a
packaging	18
pamela	0.3.0
pandas	0.23.4
pandocfilters	1.4.2
param	1.8.2
parso	0.3.1
partd	0.3.9
patsy	0.5.1
pcre	8.42
pexpect	4.6.0
pickleshare	0.7.5
pillow	5.4.1
pip	18.1
pixman	0.36.0
plac	0.9.6
plotly	3.2.1
prshed	2.0.1
proj4	4.9.3
prometheus_client	0.5.0
prompt_toolkit	2.0.7
protobuf	3.6.1
psutil	5.5.0
ptyprocess	0.6.0
py-opencv	3.4.2

Library name	Version
pycosat	0.6.3
pycparser	2.19
pycurl	7.43.0.2
pygments	2.3.1
pygpu	0.7.6
pymc3	3.5
pyopenssl	18.0.0
pyparsing	2.3.1
pyshp	1.2.12
pysocks	1.6.8
pytables	3.4.4
python	3.6.8
python-dateutil	2.7.5
python-editor	1.0.3
python-oauth2	1.1.0
pytorch	1.0.0
pytz	2018.9
pyviz_comms	0.7.0
pywavelets	1.0.1
pyyaml	3.13
pyzmq	17.1.2
rasterio	0.36.0
rasterstats	0.13.0
readline	7
regex	2018.01.10
requests	2.21.0
retrying	1.3.3
rise	5.4.1
ruamel_yaml	0.15.46
s3transfer	0.1.13
scikit-image	0.14.1
scikit-learn	0.20.2
scipy	1.1.0
seaborn	0.9.0
secretstorage	3.1.0
send2trash	1.5.0
setuptools	40.6.3
shapely	1.6.4
simplejson	3.16.0
six	1.12.0

## Standard runtime (page 4 of 4)

Library name	Version
snappy	1.1.7
snuggs	1.4.2
sortedcontainers	2.1.0
spacy	2.0.18
sqlalchemy	1.2.16
sqlite	3.26.0
statsmodels	0.9.0
sympy	1.2
tblib	1.3.2
tensorboard	1.12.2
tensorflow	1.12.0
tensorflow-base	1.12.0
termcolor	1.1.0
terminado	0.8.1
testpath	0.4.2
theano	1.0.3
thinc	6.12.1
tini	0.18.0
tk	8.6.8
toolz	0.9.0
torchvision	0.2.1

Library name	Version
tornado	5.1.1
tqdm	4.29.1
traitlets	4.3.2
typing	3.6.4
ujson	1.35
urllib3	1.24.1
vincent	0.4.4
wcwidth	0.1.7
webencodings	0.5.1
werkzeug	0.14.1
wheel	0.32.3
widgetsnbextension	3.3.1
wrapt	1.10.11
xerces-c	3.2.2
xlrd	1.2.0
xz	5.2.4
yaml	0.1.7
zeromq	4.2.5
zict	0.1.3
zlib	1.2.11
zstd	1.3.7



# ArcGIS Notebook Server 10.7 Advanced runtime

Library name	Version
_tflow_select	2.3.0
absl-py	0.7.0
affine	2.2.2
alembic	1.0.6
arcgis	1.6.0
arcgis-server-py3	10.7.0
asn1crypto	0.24.0
astor	0.7.1
async_generator	1.1
attrs	18.2.0
backcall	0.1.0
beautifulsoup4	4.6.3
blas	1
blosc	1.15.0
bokeh	0.13.0
boto3	1.9.82
botocore	1.12.82
bottleneck	1.2.1
bzip2	1.0.6
c-ares	1.15.0
ca-certificates	2019.1.23
cairo	1.14.12
certifi	2018.11.29
cff	1.11.5
cftime	1.0.3.4
chardet	3.0.4
click	7
click-plugins	1.0.4
cligj	0.5.0
cloudpickle	0.5.6
colorlover	0.2.1
conda	4.6.2
conda-env	2.6.0
configurable-http-proxy	1.3.0
cryptography	2.4.2
cufflinks-py	0.13.0
curl	7.63.0
cycler	0.10.0
cymem	2.0.2

Library name	Version
cython	0.28.5
cytoolz	0.9.0.1
dask	0.19.4
dask-core	0.19.4
dask-glm	0.1.0
dask-ml	0.10.0
dask-searchcv	0.2.0
dataclasses	0.6
decorator	4.3.0
defusedxml	0.5.0
dill	0.2.8.2
distributed	1.25.3
docutils	0.14
entrypoints	0.3
et_xmlfile	1.0.1
expat	2.2.6
fastai	1.0.39
fastcache	1.0.2
fastprogress	0.1.19
ffmpeg	4
fiona	1.7.12
fontconfig	2.13.0
freeglut	3.0.0
freetype	2.9.1
freexl	1.0.5
future	0.17.1
gast	0.2.2
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
h5py	2.8.0
harfbuzz	1.8.8
hdf4	4.2.13
hdf5	1.10.2
heapdict	1.0.0

## Advanced runtime (page 2 of 4)

Library name	Version
holoviews	1.10.7
html5lib	1.0.1
icu	58.2
idna	2.8
imageio	2.4.1
intel-openmp	2019.1
ipykernel	5.1.0
ipython	7.2.0
ipython_genutils	0.2.0
ipywidgets	7.3.1
jasper	2.0.14
jdcal	1.4
jedi	0.13.2
jeepney	0.4
jinja2	2.1
jmespath	0.9.3
joblib	0.13.1
jpeg	9b
json-c	0.13.1
jsonschema	2.6.0
jupyter	1.0.0
jupyter_client	5.2.4
jupyter_console	6.0.0
jupyter_core	4.4.0
jupyterhub	0.9.4
jupyterlab	0.35.3
jupyterlab_server	0.2.0
kealib	1.4.7
keras	2.2.4
keras-applications	1.0.6
keras-base	2.2.4
keras-preprocessing	1.0.5
keyring	13.2.1
kiwisolver	1.0.1
krb5	1.16.1
libboost	1.67.0
libcurl	7.63.0
libdap4	3.19.1
libedit	3.1.20181209
libffi	3.2.1

Library name	Version
libgcc-ng	8.2.0
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	1.6.36
libpq	11.1
libprotobuf	3.6.1
libsodium	1.0.16
libspatialite	4.3.0a
libssh2	1.8.0
libstdcxx-ng	8.2.0
libtiff	4.0.10
libuuid	1.0.3
libvpx	1.7.0
libxcb	1.13
libxml2	2.9.9
libxslt	1.1.33
llvmlite	0.23.2
locket	0.2.0
lxml	4.2.3
mako	1.0.7
markdown	3.0.1
markupsafe	1.1.0
matplotlib	3.0.1
mistune	0.8.4
mkl	2019.1
mkl-service	1.1.2
mkl_fft	1.0.10
mkl_random	1.0.2
mpc	1.1.0
mpfr	4.0.1
mpmath	1.1.0
msgpack-numpy	0.4.3.2
msgpack-python	0.6.1
multipledispatch	0.6.0



## Advanced runtime (page 3 of 4)

Library name	Version
munch	2.3.2
murmurhash	1.0.1
nb_conda	2.2.1
nb_conda_kernels	2.2.0
nbconvert	5.4.0
nbformat	4.4.0
ncurses	6.1
netcdf4	1.4.2
networkx	2.2
ninja	1.8.2
nodejs	10.13.0
nose	1.3.7
notebook	5.7.4
numba	0.38.1
numexpr	2.6.9
numpy	1.15.4
numpy-base	1.15.4
nvidia-ml-py3	7.352.0
olefile	0.46
opencv	3.4.2
openjpeg	2.3.0
openpyxl	2.5.14
openssl	1.1.1a
packaging	18
pamela	0.3.0
pandas	0.23.4
pandocfilters	1.4.2
param	1.8.2
parso	0.3.1
partd	0.3.9
patsy	0.5.1
pcre	8.42
pexpect	4.6.0
pickleshare	0.7.5
pillow	5.4.1
pip	18.1
pixman	0.36.0
plac	0.9.6
plotly	3.2.1
prshed	2.0.1

Library name	Version
proj4	4.9.3
prometheus_client	0.5.0
prompt_toolkit	2.0.7
protobuf	3.6.1
psutil	5.5.0
ptyprocess	0.6.0
py	1.7.0
py-opencv	3.4.2
pycosat	0.6.3
pycparser	2.19
pycurl	7.43.0.2
pygments	2.3.1
pygpu	0.7.6
pymc3	3.5
pyopenssl	18.0.0
pyparsing	2.3.1
pypdf2	1.26.0
pyshp	1.2.12
pysocks	1.6.8
pytables	3.4.4
python	3.6.8
python-dateutil	2.7.5
python-editor	1.0.3
python-oauth2	1.1.0
pytorch	1.0.0
pytz	2018.9
pyviz_comms	0.7.0
pywavelets	1.0.1
pyyaml	3.13
pyzmq	17.1.2
rasterio	0.36.0
rasterstats	0.13.0
readline	7
regex	2018.01.10
requests	2.21.0
retrying	1.3.3
rise	5.4.1
ruamel_yaml	0.15.46
s3transfer	0.1.13
scikit-image	0.14.1

## Advanced runtime (page 4 of 4)

Library name	Version
scikit-learn	0.20.2
scipy	1.1.0
seaborn	0.9.0
secretstorage	3.1.0
send2trash	1.5.0
setuptools	40.6.3
shapely	1.6.4
simplejson	3.16.0
six	1.12.0
snappy	1.1.7
snuggs	1.4.2
sortedcontainers	2.1.0
spacy	2.0.18
sqlalchemy	1.2.16
sqlite	3.26.0
statsmodels	0.9.0
sympy	1.2
tblib	1.3.2
tensorboard	1.12.2
tensorflow	1.12.0
tensorflow-base	1.12.0
termcolor	1.1.0
terminado	0.8.1
testpath	0.4.2
theano	1.0.3
thinc	6.12.1

Library name	Version
tini	0.18.0
tk	8.6.8
toolz	0.9.0
torchvision	0.2.1
tornado	5.1.1
tqdm	4.29.1
traitlets	4.3.2
typing	3.6.4
ujson	1.35
urllib3	1.24.1
vincent	0.4.4
wcwidth	0.1.7
webencodings	0.5.1
werkzeug	0.14.1
wheel	0.32.3
widetsnbextension	3.3.1
wrapt	1.10.11
xerces-c	3.2.2
xlrd	1.2.0
xlwt	1.3.0
xz	5.2.4
yaml	0.1.7
zeromq	4.2.5
zict	0.1.3
zlib	1.2.11
zstd	1.3.7



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