Python migration from 2 to 3

Unused projects	Used projects
ProdCommon CRAB2 WMCore-legacy DBSAPI DLSAPI ContinuousIntegration Cmssh FileMover DQIS Sandbox sitedb - can be counted as obsolete	analytics DAS DMWMAnalytics WMArchive AsyncStageout DASMaps DMWMMON WMCore DBS StageManager DDM LifeCycle T0 CRABClient deployment overview t0wmadatasvc CRABServer PHEDEX tutorials

Legend:
- promises support soon
- can delete module
- not sure what to do
- should migrate before DMWM

Raw modules with projects: modulesOnly.deps
Raw dependencies: allDependencies

Module name	Projects using it	Comments	Possible replacements
cjson	das, sitedb, DMWMAnalytics, CRABServer, WMCore-legacy, DBS, overview, CRAB2, LifeCycle	WMCore unified everything to the standard JSON. Other projects should do the same.	Use build-in json(py2;py3)
yajl	das, DMWMAnalytics, LifeCycle	yajl-py expects bytes and not strings	Either use py-yajl (py2;py3) or original yajl-py(py2;py3)
MySQLdb	ProdCommon, DMWMMON, DLSAPI	More info about libraries	Fork of the original MySQLdb: mysqlclient(py2;py3) or SQLAlchemy(py2;py3)
Cheetah	das, WMCore	Made script that helps porting from cheetah to jinja	jinja2(py2;py3)
mechanize	deployment, WMCore		robobrowser(py2;py3) MechanicalSoup(py2;py3)
couchapp	WMCore	Should be supported soon. Might work now. (Can import it)	Maybe: kanso -- documentation page is down at the moment
hotshot	WMCore, DBSAPI	Module disappeared in Python3.x. Can remove? Only used in: WMCore/setup_test.py:442: hotshot.Profile WMCore/setup_test.py:442: hotshot.stats	
pydoop	WMArchive	Tutorial/possible libraries	mrjob(py2;py3)
PhysicsTools	CRABServer	Can remove? Only used in: CRABServer/test/templates/config/psets/pset_use_parent2.py:81	

FWCore	ContinuousIntegration, ProdCommon, WMCore, CRABServer, CRAB2	One of cern projects	
glite_wmsui_LbWrapper	ProdCommon, WMCore	Only used in: WMCore/src/python/WMCore/BossAir/Plugins/GLiteStatusQuery.py:33: glite_wmsui_LbWrapper	
IOMC	ProdCommon, WMCore, CRAB2	One of cern projects	
dbs3Client	WMCore	One of cern projects. Only used in: WMCore/src/python/WMCore/ReqMgr/Tools/WorkflowTools.py:21	
dcap	WMCore	Used in: WMCore/src/python/WMCore/Storage/Backends/PYDCCPImpl.py:44	
ROOT	DBS	One of cern projects	
AdderPluginBase	AsyncStageout	(Empty) base class for ATLAS, CMS and other plugins. If can't be imported will create dummy class: AsyncStageout/src/python/AsyncStageOut/ExternalPlugins/PandaPlugin/AdderCmsPlugin.py	
CRABAPI	CRABClient	CRABClient uses read-only mirror of the CRABAPI	
Controllers	WMCore	Only used in: WMCore/src/python/WMCore/WebTools/Masthead.py	
gfal	PHEDEX	Part of dmc?	

		Only used in: PHEDEX/Custom/Template/gfalrequest.py	
graphtool	PHEDEX	Can remove? Only used in: PHEDEX/Documentation/WebSite/PlotConfig/tools/phedex-cgi.py PHEDEX/Documentation/WebSite/PlotConfig/src/phedexgraphs/graphs/phedex_graph.py	
sets	FileMover, ProdCommon, PHEDEX, DMWMMON	Deprecated since version 2.6: The built-in set/frozenset types replace this module.	set/frozenset(py2;py3)
cPickle	DDM, das, ProdCommon, deployment, WMCore, CRABServer, WMCore-legacy, DBS, CRABClient	Pickle module in python 3 has an transparent optimizer using C	pickle(py2;py3)
cStringIO	DDM, das, sitedb, ProdCommon, deployment, WMCore, PHEDEX, CRABServer, T0, WMCore-legacy, DBS, overview, analytics, DBSAPI, cmssh, AsyncStageout	cStringIO was removed from python 3	io.StringIO(py3) or io.BytesIO(py3)
antlr3	das	Python3 target for ANTLR3 is still in beta	antlr3(py2;py3)
StringIO	das, ProdCommon, DMWMAnalytics, WMCore, PHEDEX, CRABServer, WMCore-legacy, DBS, CRAB2, DBSAPI, cmssh, AsyncStageout	StringIO was removed from python 3	io.StringIO(py3
commands	ProdCommon, WMCore, CRABServer, DQIS, CRAB2, DLSAPI	Module has been removed in Python 3. Use the subprocess module instead.	subprocess(py2;py3)

popen2	ProdCommon, WMCore	Use the subprocess module. Check especially the Replacing Older Functions with the subprocess Module section	subprocess(py2;py3)
mox	WMCore		mox3(py2;py3)
adns	overview, analytics		adns(py3)
avro	WMArchive		Unofficial - avro-py3(py3) or avro-python3(py3)
pyspark		Should work. But was not tested on python 3	pyspark
Will convert using 2to3			
httplib	FileMover, DDM, StageManager, das, deployment, DMWMAnalytics, WMCore, PHEDEX, CRABServer, WMCore-legacy, DBS, CRABClient, CRAB2, LifeCycle, WMArchive, DBSAPI, cmssh	Has been renamed to http.client in Python 3	
urllib2	FileMover, DDM, das, sitedb, deployment, DMWMAnalytics, WMCore, PHEDEX, CRABServer, WMCore-legacy, DBS, overview, CRABClient, CRAB2, LifeCycle, WMArchive, analytics, DBSAPI, cmssh, DLSAPI	Has been split across several modules in Python 3 named urllib.request and urllib.error	
SocketServer	DDM	Has been renamed to socketserver in Python 3	
cookielib	das, DMWMAnalytics, LifeCycle, WMArchive, cmssh	Has been renamed to http.cookiejar in Python 3	

HTMLParser	das, deployment, DMWMAnalytics	Has been renamed to html.parser in Python 3	
Queue	das, deployment, WMCore, CRABServer, WMArchive, analytics, DLSAPI	Has been renamed to queue in Python 3	
thread	das, deployment, WMCore, cmssh	Has been renamed to _thread in Python 3.	
urlparse	das, ProdCommon, deployment, WMCore, CRABServer, WMCore-legacy, DBS, overview, CRABClient, CRAB2, DBSAPI, DLSAPI	Has been renamed to urllib.parse in Python 3	
xmlrpclib	das, DBS	Has been renamed to xmlrpc.client in Python 3	
Unused			
ProdAgentDB	ProdCommon		
ProdAgentCore	ProdCommon		
RunRes	ProdCommon		
RS	DBSAPI	Used in: DBSAPI/Clients/Python/DBSAPI/dbsApi.py:143: RS.Wrapper.RegService	
restkit	ContinuousIntegration	(Prosmised support in 2011) http://restkit.readthedocs.io/en/latest/	
sgmllib	DLSAPI	Could use built-in HTMLParser module: http://docs.python.org/py3k/library/html.parser.html	html.parser

__builtin__	ContinuousIntegration, ProdCommon	Renamed to builtins in Python3	
ZSI	DLSAPI	Discontinued Python 2 project	pysimplesoap
lfc	DLSAPI	http://linux.die.net/man/3/lfc_python	
clarens_util	ProdCommon	http://www.puenterswis.ch/webcam/psp/image.py	
dbsCgiApi	ProdCommon, DLSAPI	Was part of DBSAPIOLD	
pysqlite2	ProdCommon	Renamed	sqlite3
sha	ProdCommon, CRAB2		hashlib
ldap	sitedb, ProdCommon		ldap3 or pyldap
new	Sandbox	Use the types module's classes instead	