

ZooKeeper 3.2.0 Release Notes

by

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These release notes include new developer and user facing incompatibilities, features, and major improvements.

Note that there is a user visible semantic change to an existing API in this release: [ZOOKEEPER-444](#) "perms definition for PERMS_ALL differ in C and java", a bug fix which required a change to the JAVA definition of ALL to include ADMIN.

See [3.0 release notes and migration instructions](#) if you are upgrading from version 2 of ZooKeeper (SourceForge) to version 3 or later.

1. Changes Since ZooKeeper 3.1

Issue	Notes
Incompatibilities	
ZOOKEEPER-444	perms definition for PERMS_ALL differ in C and java
New Feature	
ZOOKEEPER-29	Flexible quorums
ZOOKEEPER-36	REST access to ZooKeeper
ZOOKEEPER-78	added a high level protocol/feature - for easy Leader Election or exclusive Write Lock creation
ZOOKEEPER-237	Add a Chroot request
ZOOKEEPER-361	integrate cppunit testing as part of hudson patch process.
ZOOKEEPER-378	contribution of Net::ZooKeeper Perl module
ZOOKEEPER-383	Asynchronous version of createLedger()
ZOOKEEPER-395	Python bindings
Task	
ZOOKEEPER-440	update the performance documentation in forrest
Bug	
ZOOKEEPER-94	JMX tests are needed to verify that the JMX MBeans work properly
ZOOKEEPER-192	trailing whitespace in config file can cause

	number format exceptions
ZOOKEEPER-196	doxygen comment for state argument of watcher_fn typedef and implementation differ ("...one of the *_STATE constants, otherwise -1")
ZOOKEEPER-244	AsyncOpsTest fails when running consecutively
ZOOKEEPER-273	Zookeeper c client build should not depend on CPPUNIT
ZOOKEEPER-281	autoreconf fails for /zookeeper-3.0.1/src/c/
ZOOKEEPER-298	some executables (scripts typ.) are not marked as such in tar generated by "ant tar"
ZOOKEEPER-299	server startup scripts fail on a mac.
ZOOKEEPER-300	zk jmx code is calling printStackTrace when creating bean name (should not be)
ZOOKEEPER-303	Bin scripts don't work on Mac
ZOOKEEPER-309	core dump using zoo_get_acl()
ZOOKEEPER-318	remove locking in zk_hashtable.c or add locking in collect_keys()
ZOOKEEPER-319	add locking around auth info in zhandle_t
ZOOKEEPER-320	call auth completion in free_completions()
ZOOKEEPER-325	FLENewEpoch test fails.
ZOOKEEPER-326	standalone server ignores tickTime configuration
ZOOKEEPER-330	zookeeper standalone server does not startup with just a port and datadir.
ZOOKEEPER-332	c client issues (memory leaks) reported by valgrind
ZOOKEEPER-333	helgrind thread issues identified in mt c client code
ZOOKEEPER-334	bookkeeper benchmark (testclient.java) has compiling errors.
ZOOKEEPER-340	binaryinputarchive throws out runtimeexceptions for unreasonable length datastructures.

ZOOKEEPER-341	regression in QuorumPeerMain, tickTime from config is lost, cannot start quorum
ZOOKEEPER-344	doIO in NioServerCnxn: Exception causing close of session : cause is "read error"
ZOOKEEPER-346	remove the kill command from the client port.
ZOOKEEPER-347	zkfuse uses non-standard String
ZOOKEEPER-348	Creating node with path ending in "/" with sequence flag set
ZOOKEEPER-355	make validatePath non public in Zookeeper client api.
ZOOKEEPER-360	WeakHashMap in Bookie.java causes NPE
ZOOKEEPER-362	Issues with FLENewEpochTest
ZOOKEEPER-363	NPE when recovering ledger with no hint
ZOOKEEPER-365	javadoc is wrong for setLast in LedgerHandle
ZOOKEEPER-367	RecoveryTest failure - "unreasonable length" IOException
ZOOKEEPER-370	Fix critical problems reported by findbugs
ZOOKEEPER-374	Uninitialized struct variable in C causes warning which is treated as an error
ZOOKEEPER-375	zoo_add_auth only retains most recent auth on re-sync
ZOOKEEPER-376	ant test target re-compiles cppunit code every time
ZOOKEEPER-377	running ant cppunit tests, a failure still results in BUILD SUCCESSFUL
ZOOKEEPER-379	cppunit tests failed during hudson patch tests
ZOOKEEPER-382	zookeeper cpp tests fails on 64 bit machines with gcc 4.1.2
ZOOKEEPER-384	keeper exceptions missing path
ZOOKEEPER-385	crctest failed on hudson patch test
ZOOKEEPER-391	bookkeeper mainline code should not be calling

	printStackTrace
ZOOKEEPER-396	race condition in zookeeper client library between zookeeper_close and zoo_synchronous api
ZOOKEEPER-400	Issues with procedure to close ledger
ZOOKEEPER-402	zookeeper c library segfaults on data for a node in zookeeper being null.
ZOOKEEPER-404	nightly build failed on hudson.
ZOOKEEPER-405	nullpointer exception in zookeeper java shell.
ZOOKEEPER-411	Building zookeeper fails on RHEL 5 64 bit during test-cppunit
ZOOKEEPER-415	zookeeper c tests hang.
ZOOKEEPER-416	BookKeeper jar includes unnecessary files
ZOOKEEPER-417	stray message problem when changing servers
ZOOKEEPER-419	Reference counting bug in Python bindings causes abort errors
ZOOKEEPER-421	zkpython run_tests.sh is missing #!
ZOOKEEPER-427	ZooKeeper server unexpectedly high CPU utilisation
ZOOKEEPER-433	getacl on root znode (/) fails
ZOOKEEPER-435	allow "super" admin digest based auth to be configurable
ZOOKEEPER-438	addauth fails to register auth on new client that's not yet connected
ZOOKEEPER-446	some traces of the host auth scheme left
ZOOKEEPER-448	png files do nto work with forrest.
ZOOKEEPER-449	sesssionmoved in java code and ZCLOSING in C have the same value.
ZOOKEEPER-450	ephemeral cleanup not happening with session timeout
ZOOKEEPER-452	zookeeper performance graph should have

	percentage of reads rather than percentage of writes - zkperfRW-3.2.jpg
ZOOKEEPER-453	Worker is not removed in QuorumCnxManager upon crash
ZOOKEEPER-454	allow compilation with jdk1.5
Improvement	
ZOOKEEPER-60	Get cppunit tests running as part of Hudson CI
ZOOKEEPER-148	add jdiff support to zookeeper release process
ZOOKEEPER-264	docs should include a state transition diagram for client state
ZOOKEEPER-274	Document options to connect Jconsole remotely
ZOOKEEPER-279	Allow specialization of quorum config parsing (e.g. variable expansion in zoo.cfg)
ZOOKEEPER-288	Cleanup and fixes to BookKeeper
ZOOKEEPER-292	commit configure scripts (autotools) to svn for c projects and include in release
ZOOKEEPER-305	Replace timers with semaphores in FLENewEpochTest
ZOOKEEPER-306	Add BookKeeper documentation
ZOOKEEPER-307	Log exception stack traces
ZOOKEEPER-314	add wiki docs for bookkeeper.
ZOOKEEPER-315	add forrest docs for bookkeeper.
ZOOKEEPER-327	document effects (latency) of storing large amounts of data in znodes
ZOOKEEPER-329	document how to integrate 3rd party authentication into ZK server ACLs
ZOOKEEPER-336	single bad client can cause server to stop accepting connections
ZOOKEEPER-337	improve logging in leader election lookForLeader method when address resolution fails

ZOOKEEPER-342	improve configuration code - remove static config and use java properties
ZOOKEEPER-343	add tests that specifically verify the zkmain and qpmain classes
ZOOKEEPER-345	the CLIs should allow addAuth to be invoked
ZOOKEEPER-349	to automate patch testing
ZOOKEEPER-356	Masking bookie failure during writes to a ledger
ZOOKEEPER-358	Throw exception when ledger does not exist
ZOOKEEPER-371	to implement jdiff
ZOOKEEPER-373	One thread per bookie
ZOOKEEPER-380	bookkeeper should have a streaming api so that its easier to store checkpoints/snapshots in bookkeeper.
ZOOKEEPER-381	The ZooKeeper front page tells us nothing about what ZooKeeper does
ZOOKEEPER-386	improve java cli shell
ZOOKEEPER-389	add help/usage to the c shell cli.c
ZOOKEEPER-392	Change log4j properties
ZOOKEEPER-403	cleanup javac compiler warnings
ZOOKEEPER-406	address all findbugs warnings in mainline java code
ZOOKEEPER-422	Java CLI should support ephemeral and sequential node creation
ZOOKEEPER-428	logging should be makred as warn rather than error in NIOServerCnxn.
ZOOKEEPER-431	Expose methods to ease ZK integration
ZOOKEEPER-432	Various improvements to zkpython bindings
ZOOKEEPER-434	the java shell should indicate connection status on command prompt
ZOOKEEPER-437	Variety of Documentation Updates
ZOOKEEPER-443	trace logging in watch notification not wrapped

	with istraceneabled - inefficient
Subtask	
ZOOKEEPER-350	to run rats for releaseaudit
ZOOKEEPER-351	to run checkstyle
ZOOKEEPER-352	to add standard ant targets required by test-patch.sh script
ZOOKEEPER-353	javadoc warnings needs to be fixed
ZOOKEEPER-354	to fix javadoc warning in the source files
ZOOKEEPER-407	address all findbugs warnings in org.apache.zookeeper.server.quorum.** packages
ZOOKEEPER-408	address all findbugs warnings in persistence classes
ZOOKEEPER-409	address all findbugs warnings in jute related classes
ZOOKEEPER-410	address all findbugs warnings in client/server classes

Table 1: Changes Since ZooKeeper 3.1