

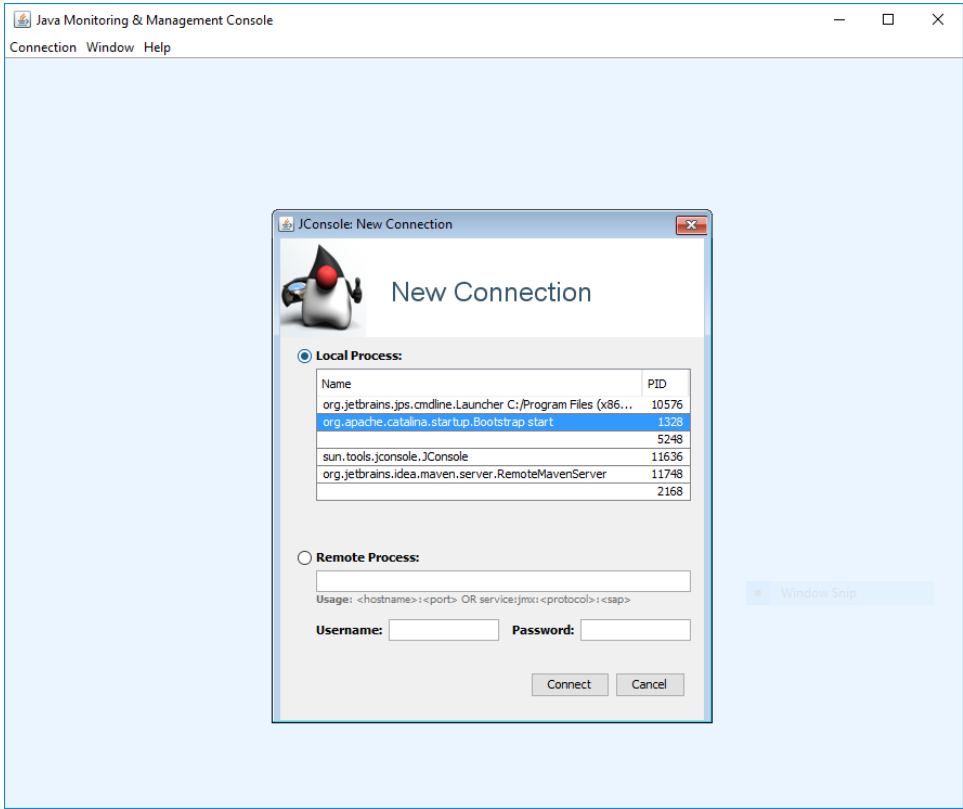
Monitoring c3p0 state HOWTO

If you need to monitor the state of c3p0 connection pool, you can do it e.g. via JMX. Here's how.

1. If your server runs locally, you don't need to do anything special. Local JMX connections should work without problems. (There might be some issues when trying to connect to a tomcat running as a Windows service, though. In such cases maybe the remote approach would work.)
2. If your server runs remotely, you can allow JMX connections exactly in the same way as if [configuring a cluster](#) (by setting `com.sun.management.jmxremote.port`, `com.sun.management.jmxremote.ssl`, `com.sun.management.jmxremote.password.file` and `com.sun.management.jmxremote.access.file`).

After setting up JMX and starting the server you can run a JMX tool such as JConsole to connect to it and view c3p0 statistics:

1. Run `jconsole` (a part of JDK). Select either local process to manage, or enter connection information needed to reach a remote one:



- After confirming insecure connection (that should not be a problem in a local environment), click on **MBeans** tab and select appropriate PooledDataSource and its attributes. It should look like this:

The screenshot shows the Java Monitoring & Management Console window. The left pane displays a tree view of the system's MBean hierarchy. The right pane shows the 'Attribute values' for the selected MBean, which is a PooledDataSource. The table lists various attributes and their current values.

Name	Value
acquireIncrement	3
acquireRetryAttempts	30
acquireRetryDelay	1000
allUsers	[sa]
autoCommitOnClose	false
automaticTestTable	
breakAfterAcquireFailure	false
checkoutTimeout	0
connectionCustomizerClassName	com.evolveum.midpoint.repo.sql.util.MidPointConnectionC...
connectionTesterClassName	com.evolveum.midpoint.repo.sql.util.MidPointConnectionT...
dataSourceName	1hge.1k59jnakyf5lq2r13j2c.1a0850
debugUnreturnedConnectionStackTraces	false
description	
driverClass	org.h2.Driver
effectivePropertyCycleDefaultUser	0.0
factoryClassLocation	
forceIgnoreUnresolvedTransactions	false
identityToken	1hge.1k59jnakyf5lq2r13j2c.1a0850
idleConnectionTestPeriod	1800
initialPoolSize	3
jdbcUrl	jdbc:h2:tcp://127.0.0.1:5437/midpoint;DB_CLOSE_ON_EX...
loginTimeout	0
maxAdministrativeTaskTime	0
maxConnectionAge	0
maxIdleTime	0
maxIdleTimeExcessConnections	0
maxPoolSize	20
maxStatements	0
maxStatementsPerConnection	0
minPoolSize	8
numBusyConnections	1
numBusyConnectionsAllUsers	1
numBusyConnectionsDefaultUser	1
numConnections	8
numConnectionsAllUsers	8
numConnectionsDefaultUser	8
numFailedCheckoutsDefaultUser	0
numFailedCheckoutsDefaultUser	0
numFailedIdleTestsDefaultUser	0
numHelperThreads	3
numIdleConnections	7
numIdleConnectionsAllUsers	7
numIdleConnectionsDefaultUser	7
numThreadsAwaitingCheckoutDefaultUser	0
numUnclosedOrphanedConnections	0
numUnclosedOrphanedConnectionsAllUsers	0
numUnclosedOrphanedConnectionsDefaultUser	0
numUserPools	1
overrideDefaultPassword	
overrideDefaultUser	
preferredTestQuery	
propertyChangeListener	Unavailable
propertyCycle	0
startTimeMillisDefaultUser	1474582279252
statementCacheNumCheckedOutDefaultUser	0
statementCacheNumCheckedOutStatementsAllUsers	0
statementCacheNumConnectionsWithCachedStatem...	0
statementCacheNumConnectionsWithCachedStatem...	0
statementCacheNumDeferredCloseThreads	0
statementCacheNumStatementsAllUsers	0
statementCacheNumStatementsDefaultUser	0
statementDestroyerNumActiveThreads	-1
statementDestroyerNumConnectionsInUseAllUsers	-1
statementDestroyerNumConnectionsInUseDefaultUser	-1
statementDestroyerNumConnectionsWithDeferredDe...	-1
statementDestroyerNumConnectionsWithDeferredDe...	-1
statementDestroyerNumDeferredDestroyStatements...	-1
statementDestroyerNumDeferredDestroyStatements...	-1
statementDestroyerNumIdleThreads	-1
statementDestroyerNumTasksPending	-1
statementDestroyerNumThreads	-1
testConnectionOnCheckin	false
testConnectionOnCheckout	false
threadPoolNumActiveThreads	0
threadPoolNumIdleThreads	3
threadPoolNumTasksPending	0
threadPoolSize	3

Refresh