Configuring Java heap space for Cassandra, TWCloud and WebApp

On this page:

This page provides instructions for changing the Java heap space (Xmx) for both Cassandra and Teamwork Cloud on Linux and Windows, respectively.

Configuring Java heap space for Cassandra

On Linux

To configure Java heap space for Cassandra on Linux, you must set the variables **MAX_HEAP_SIZE** and **HEAP_NEWSIZE** which are commented by default in the file **cassandra-env.sh**. The location of the file **cassandra-env.sh** depends on the type of Cassandra installation.

- Package installation: */etc/cassandra/conf/cassandra-env.sh*
- Tarball installation: *<Cassandra install folder>/conf/cassandra-env.sh*

Uncomment **MAX_HEAP_SIZE**, **HEAP_NEWSIZE** variables and adjust **MAX_HEAP_SIZE** manually. Otherwise, Cassandra will calculate the heap size based on the system's memory using the following formula:

Calculating Java heap size
`max(min (1/2 ram), 1024MB), min(1/4 ram, 8GB))`

The formula details are outlined below:

- For the system memory 0-2 GB: use half of it.
- For the system memory 2-4 GB: use 1 GB.
- For the system memory 4-32 GB: use a quarter of it.
- For the system memory more than 32 GB: use 8 GB.

On Windows (only for Cassandra 3.x)

We recommend setting the **min (-Xms)** and **max (-Xmx)** heap to the same value in the Cassandra document to avoid pausing the GC during resizing.

To change the value using the Registry Editor

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1. Run regedit from the command line
2. Browse for the key *HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Apache Software Foundation\Procrun 2.0\cassandra\Parameters\Java*.
3. Right-click **Options** and select **Modify...**. You can then change the min and max heap size from **-Xms** and **-Xmx**.

Configuring Java heap space for Teamwork Cloud

On Linux

- If you start Teamwork Cloud from the executable file **twcloud**, you can configure the **-Xmx** parameter from the file **jvm.options** (located in the same folder).

On Windows

- If you start Teamwork Cloud from the executable file **twcloud.exe**, you can configure the **-Xmx** parameter from the file **jvm.options** (located in the same folder).
- If you start Teamwork Cloud from a Windows service, you must use the Registry Editor to update the value.

To change the value using the Registry Editor

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1. Run regedit from the command line.
2. Browse for the key *HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Apache Software Foundation\Procrun 2.0\Teamwork Cloud\Parameters\Java*.
3. Right-click **JvmMx** and select **Modify...**.
4. Select **Base to Decimal** and change the value. The value is in megabytes (mb).

Configuring Java heap space for WebApp

Heap space for WebApp is handled by Tomcat.

On Linux

- Heap settings are located in */opt/local/TeamworkCloud/WebAppPlatform/bin/setenv.sh*
  JVM_OPTS="-server -XX:+UseParallelGC -Xms4096M -Xmx8192M"

On Windows

- The heap setting for WebApp is located in the registry

To change the value using the Registry Editor

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1. Run regedit from the command line.
2. Browse for the key *HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Apache Software Foundation\Procrun 2.0\WebApp\Parameters\Java*.
3. Right-click **JvmMx** and select **Modify...**.
4. Select **Base to Decimal** and change the value. The value is in megabytes (mb).