

Debugging Native Memory Use

Malloc debug

See [Malloc Debug](https://android.googlesource.com/platform/bionic/+master/libc/malloc_debug/README.md) (https://android.googlesource.com/platform/bionic/+master/libc/malloc_debug/README.md) and [Native Memory Tracking using libc Callbacks](https://android.googlesource.com/platform/bionic/+master/libc/malloc_debug/README_api.md) (https://android.googlesource.com/platform/bionic/+master/libc/malloc_debug/README_api.md) for a thorough description of the debugging options available for native memory issues.

Malloc statistics

Android supports the [`mallinfo\(3\)`](http://man7.org/linux/man-pages/man3/mallinfo.3.html) (<http://man7.org/linux/man-pages/man3/mallinfo.3.html>) and [`malloc_info\(3\)`](http://man7.org/linux/man-pages/man3/malloc_info.3.html) (http://man7.org/linux/man-pages/man3/malloc_info.3.html) extensions to `<malloc.h>`. The `malloc_info` function is available in Android 6.0 and later and its XML schema is documented in Bionic's [`<malloc.h>`](https://android.googlesource.com/platform/bionic/+master/libc/include/malloc.h) (<https://android.googlesource.com/platform/bionic/+master/libc/include/malloc.h>).

Dalvik Debug Monitor Server

You can also use the [Dalvik Debug Monitor Server](https://developer.android.com/studio/profile/ddms.html) (<https://developer.android.com/studio/profile/ddms.html>) (DDMS) to obtain a graphical view of Malloc Debug output.

To use DDMS, first turn on its native memory UI:

1. Open `~/.android/ddms.cfg`
2. Add the line: `native=true`

Upon relaunching DDMS and selecting a process, you can switch to the new native allocation tab and populate it with a list of allocations. This is especially useful for debugging memory leaks.

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