# “Unexpected” Allocations

## VRAM Memory Pool

- [Applicable for platforms Traveo, Traveo II, RH850]
- Why in the VRAM 4 buffers are allocated for render buffers of a single Render Target?
- What happens:
  - During a transition first scene is unloaded, next scene is loaded
  - In case of startup, the first scene is the only one existing
  - Default Behavior of Courier:
    - when the last View on a Render Target is unloaded, the Render Target is also unloaded
  - The VramAllocator does never immediately free the memory, because the GPU might still write to it (Note: GPU runs
  - asynchronously to the CPU)
  - -> New 2 buffers are allocated when the second scene is loaded
- How to fix it?
- Send on startup a ViewPlaceholderReqMsg
  - increases the reference counter on Render target.
  - The message has two parameters
  - ViewId: this is a "reference" view which is used to determine the render target object
  - Load: true means to increase the reference count, false would decrease it (removes this placeholder from the internal list)
- Alternatively, you can also use a dummy scene with just a camera
  - This view would be always active and never unloaded.

## Asset Cache

- From the Memory Pool Analysis Sheet:

**16384**
C:\CGI-Studio_3.10\cgi_studio_candera\src\CanderaAssetLoader\AssetLoaderBase\AssetCache.cpp(38)

- -> This is the cache used by the Asset Loader when copying images from flash to RAM
- Most or all images are directly rendered from flash
- The cache size is best practice for many platforms, but not when flash is directly accessible!
- -> Proposal: If flash is directly accessible, reduce the cache
  - E.g., to 1 kB (you win 15 kB!)
- CMake flag CANDERA_ASSET_CACHE_SIZE

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Revision #1
Created 2023-03-08 05:50:36 UTC by Tsuyoshi.Kato
Updated 2025-04-15 10:18:34 UTC by Tsuyoshi.Kato