

“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

