

PALM OS

MEMORY MANAGEMENT

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- Designed for proprietary handled devices
- Small, embedded Operating System
- Constraints on memory capacity and processor speed
- Very limited resources



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- Stored on “cards”
 - Either ROM or RAM
 - Dynamic RAM is working storage for running processes.
 - Storage RAM is for non-volatile data.
 - Storage RAM always has some power to it.



- Stores user data and user installed programs
- Made up of storage heaps
- Analogous to hard disk
- Controlled by the Data Manager



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- A single heap
 - Static amount of space – reserved for dynamic RAM.
 - Used for global variables, application stacks etc.
 - Analogous to RAM on a desktop computer
 - Controlled by Memory Manager



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- All data is stored in chunks
 - 1 byte -> 64 KB
 - Every chunk is stored within a heap on any type of storage.
 - Chunks can be non-movable or movable
 - Non-movable accessed by pointers
 - Movable accessed using master chunk pointers (must be locked)



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- Is efficient due to performance and space constraints
 - Maintains the size and location of every chunk.
 - Provides an API to allow manipulation of memory
 - Move chunks
 - Lock chunks and get pointers



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- Stores a record of each chunk that is in storage RAM
 - This record can be accessed by applications to find a pointer to the data
 - Utilises the memory manager to move and manipulate its record chunks.
 - Record chunks can be stored in any storage heap



Palm OS – Questions

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THE END