

Partial List of Debugging Console Commands

Heap Utilities

HL <cardNo>	List all the heaps on a memory card.
HI <hex heapID>	Initialize a memory heap.
HD <hex heapID>	Do a Heap Dump.
HT <hex heapID>	Do a Heap Total.
HC <hex heapID>	Compact a memory heap.
HChk <hex heapID>	Do a Heap Check.
HTorture <hex heapID>	Do a Heap Torture.
HS <hex heapID>	Do a Heap Scramble.
HF <hex heapID>[freeBytes]	Allocate all free bytes, except number specified.

Chunk Utilities

Lock <hex chunk ptr/ID> [options..]	Lock a chunk.
Unlock <hex chunk ptr/ID> [options..]	Unlock a chunk.
Info <hex chunk ptr/ID> [options..]	Get info on a chunk
Resize <hex chunk ptr/ID> <hex newSize> [options..]	Resize an existing Chunk.

Database Utilities

Import [-r] <cardNo> <filename>	Import a database.
Export [-m] <cardNo> <filename>	Export a database.
Create <cardNo> <name> [options...]	Create a database.
Del <cardNo> <databaseName>	Delete a Database.
Dir <cardNo>[<searchOptions>] [displayOptions]	List the database directory.
Open <cardNo> <name> [options...]	Open a Database.
Close <access ptr>	Close a Database.
SetInfo <cardNo> <dbName> [options...]	Set info on a database
Opened	List all open databases.

Record Utilities

AddRecord <access ptr> <index> <record text>	Add a record to a database.
DelRecord <access ptr> <index>	Delete a record from a database.
ChangeRecord <access ptr> <index> <record text>	Replace a record in a database.
ListRecords <access ptr>	List all records in a database.
SetRecordInfo <access ptr> index [options...]	Set info on a Database record.
MoveRecord <access ptr> <from> <to>	Move record from one index to another
FindRecord <access ptr> <id>	Find a record by unique ID

Resource Utilities

GetResource -t <type> -id <id>	Get a Resource.
ListResources <access ptr>	List all resources in a database.
SetResourceInfo <access ptr> <index> [options...]	Set Resource Info.
ChangeResource <access ptr> <index> <resource text>	Change a resource in a database.

Card Info Utilities

CardFormat <cardNo> <cardName> <manufName> <ramStoreName>	Format a memory card.
CardInfo <cardNo>	Get info on a memory card.
StoreInfo <cardNo>	Get info on a memory store.

System Utilities

Reset	Reset the Memory system.
Sleep	Shuts down all peripherals, CPU, and clock.
Switch <cardNo> <name> [<cmd> <cmdStr>]	Switch the current UI Application.
Feature [options...]	Show, Get, Register or Unregister feature(s)
KInfo [options...]	Get Kernel Info

Debugging Utilities

DM <addr> [<count>]	Display Memory.
SB <addr> <value>	Set Byte.
MDebug [options..]	Set the Memory Manager debug mode.
Gremlin [num] [until]	Activate a particular gremlin until a certain event.
GremlinOff	Deactivate the current gremlin.

Partial List of PalmDebugger Commands

Flow Control Commands

att	Attach to Remote
g [<addr>]	Go [at addr]
gt <addr>	Go Till
s	Step Into
t	Step Over
br <addr>	Set Breakpoint
brc [<addr>]	Clear Breakpoint(s)
brd	Display Breakpoints
ss [<addr>]	Go until long word at <addr> changes
atb [<"funcName"> <A-trap #>]	Set A-Trap break
atc [<"funcName"> <A-trap #>]	Clear A-Trap break
atd	Display A-Trap breakpoints
dx	Turn DbgBreaks on/off

Memory Commands

il [<addr> [<lineCount>]]	Instruction List
dm <addr> [<count>] [<template>]	Display Memory
db <addr> <value>	Display Byte
dw <addr> <value>	Display Word
dl <addr> <value>	Display Long
sb <addr> <value>	Set Byte
sw <addr> <value>	Set Word
sl <addr> <value>	Set Long
fill <addr> <nbytes> <value>	Fill Memory
fb <value> <addr> <nbytes> <\flags>	Find Byte
fw <value> <addr> <nbytes> <\flags>	Find Word
fl <value> <addr> <nbytes> <\flags>	Find Long
ft <text> <addr> <nbytes> <\flags>	Find Text
sc6 [<addr> [<frames>]]	Stack Crawl A6
sc	Alias for sc6
sc7 [<addr> [<frames>]]	Stack Crawl A7
wh [<"funcName"> <A-trap #>]	Where is routine
atr <"funcName"> <A-trap #>	Register routine name with an A-trap number

Register Commands

reg	Display all Registers
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Utility Commands

load <"filename"> <addr>	Load File Data Fork from Host into RAM
run <"filename">	Execute a Pilot Debugger script
alias <"name"> [<"text">]	Define/list an alias
aliases	List all alias names
templates	List all template names
variables	List all variable names
keywords	List all keywords

Common Heap IDs

- 0 Dynamic heap
- 1 Static heap (aka Storage heap)
- 2 ROM heap

Debugging Shortcuts

- .1 Break into debugger
- .2 Launch background debugging console
- .3 Disable auto-off

Reset-Key combinations

Power	(& up arrow at confirmation screen) Erase all data except NVRAM
Power	(& up & all 4 app buttons) Same as above, but don't create default databases
UpArrow	Do not send 'reset' notify to apps, or install patches

Check for Memory Leaks

```
PilotMain()
{
#if ERROR_CHECK_LEVEL == ERROR_CHECK_FULL
    DWord startFreeDynamicMemory;
    DWord endFreeDynamicMemory;
    DWord junk;

    MemHeapFreeBytes(0,&startFreeDynamicMemory, &junk);
#endif

    DoApp();

#if ERROR_CHECK_LEVEL == ERROR_CHECK_FULL
    MemHeapFreeBytes(0,&endFreeDynamicMemory, &junk);
    ErrNonFatalDisplayIf(startFreeDynamicMemory != endFreeDynamicMemory,
        "Memory Leak Occurred");
#endif
}
```

Don't Write To Null

```
PilotMain()
{
#if ERROR_CHECK_LEVEL == ERROR_CHECK_FULL
    Word crc = Crc16CalcBlock(NULL,256,0);
#endif

    DoApp();

#if ERROR_CHECK_LEVEL == ERROR_CHECK_FULL
    ErrNonFatalDisplayIf(crc != Crc16CalcBlock(NULL,256,0),
        "Low Memory Trashed");
#endif
}
```