

CFM Recording Format

Presented below is a definition of the exact format in which data is stored in the Compact Flash Memory.

Address	What	OCEx
0000	RD/WR Data -	CFDRS
0001		
0002	Sector Ctr -	CFADD
0003	AD0-7	
0004	AD9-15	
0005	AD16-23	
0006	AD24-27	
0007	Status Reg/Commands	

Compact Flash
 CFRDS EQU 0CE7H Read Status

 CFWDEL EQU 0050 Wait for WAIT
 CFQDEL EQU 0060 Wait for DRQ

Procedure
 1. Check for ready - CFRDY
 2. Set address pointer - CFADD
 3. Wait for DRQ - WDRQ
 4. Wrt/Rd 512 Bytes -CFWR, CFRD
 CFRM RD Mem Bf (100 bytes)
 CFWM WR Mem Bf (512 bytes)

CDST = 00 00 10 00
 CDST = Nxt Add Ptrs
 RPCFG = 00 00 01 00
 RPCFGOS = 00 01 00 00
 PCHOFS = 01
 DATA STR = 00 00 10 01
 LAST 1MAD = 00 00 50 00
 LAST 2MAD = 00 00 90 00
 LAST 3MAD = 00 00 D0 00
 LAST 4MAD = 00 00 FF FF
 LAST 5MAD = 00 01 50 00
 LAST 6MAD = 00 01 90 00
 LAST 7MAD = 00 01 D0 00
 LAST 8MAD = 00 01 FF FF
 00 00 01 00/01 CARTIN
 00 00 01 00/03 FORMATTED CODE
 00 00 01 00/05 NEXT ADDRESS

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00 00 01 00/07 " "
00 00 01 00/09 CS
00 00 01 00/0B NEXT ADDRESS
00 00 01 00/0D " "
00 00 01 00/0F CS
00 00 01 00/11 LAST ADDRESS
00 00 01 00/13 " "
00 00 01 00/15 CS
00 00 01 16-26 STATION NAME
00 00 01 27-29 STATION ID
00 00 01 2A-30 SPACE, MMDDYY HHMMSS
00 00 01 31/32 CS

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Store Header

Hhmdyhms_XXXXXXXXXXXXXXXXXXXXXXXXIII_C

Where:

S...S = 21 bytes station name - ASCII
 III = station ID - ASCII

Store Data

PpmdyhmsA#CsXS₁S₂ED₁D₂S₁S₂ED₁D₂ . . . T₁T₂T₃W₁W₂W₃C

Where;

Time & date in BCD
 Pp, Ii, Ff = prelim, interim, final
 A = Averaging interval in binary
 # = Number of channels - binary
 Cs = Channel start, 01 = ch 01-10, 02 = ch 01-20, 21 = ch 21-40 binary
 X = bytes that follow up to checksum - binary
 S₁S₂ = data status
 E = sign exponent
 D₁D₂ = data point in hex
 T₁T₂T₃ = chan # of sigma theta's
 W₁W₂W₃ = chan # of sigma W's
 T's & W's not stored with 10 channels
 C = checksum

Store Calibrations

Ccmdyhms_#_ZS__XNNNNNN_mdyhmsmdyhms_ED₁D₂TED₁D₂C

Where:

= channel # in binary
 Underscore = space
 Z = 1 = zero, 2-7 = span #1 - 6
 S = # of global spans enabled
 X = bytes that follow, up to checksum = 27
 N's = Ch Name
 1st mdyhms = start time - BCD
 2nd mdyhms = stop time - BCD

1st ED₁D₂ = cal value
2nd ED₁D₂ = expected value
T = type, A = auto, M = manual, I = internal
E = external, B = aborted
C = checksum
Two spaces before X

Store I/O - Events

Oomdyhms_____X_0000000000_IIIIIIIIII_C

Where:

X = number of bytes that follow = 3+(4*NGOE)
0 = digital output (01-40)
I = digital input (01-40)
Oo = Ee for events
Seven spaces before X

Store Alarms

Aamdyhms_#_____XNNNNNNN_ED₁D₂_A₁A₂A₃A₄_ED₁D₂_C

Where:

= Channel #
X = bytes that follow = 21
N's = Ch Name
ED₁D₂ = data value
A₁ = S, P, I, F
A₂ = H = High, L = Low
A₃ = A = Alarm, W = warning
A₄ = E = Entering, L = leaving
ED₁D₂ = set point
Five spaces before X

Store Power Fails/Time Changes

Ttmdyhms_____XT_mdyhms_mdyhms_C

Where:

X = bytes that follow = 16
T = Type, F = pwr fail, T = time chng
O = off line, B = brownout
1st mdyhms = from time - BCD
2nd mdyhms = to time - BCD
Seven spaces before X

Store Max/Min Values

Mmmdyhms_____C1_ED1D2_S1__ED1D2_S2_C

Where:

C1 = CPP channel #

ED₁D₂ = Max value

S₁ = seconds for max value

ED₁D₂ = Min value

S₂ = seconds for min value

C = checksum