Main Header for Matrix Data Files

Byte	Variable Name	Type	Comment
0	MAGIC_NUMBER	Character*14	UNIX file type identification number (NOT PART OF THE MATRIX HEADER DATA)
14	ORIGINAL_FILE_NAME	Character*32	Scan file's creation name
46	SW_VERSION	Integer*2	Software version number
48	SYSTEM TYPE	Integer*2	Scanner model (i.e., 951, 951R, 953, 953B, 921, 922, 925, 961, 962, 966)
50	FILE_TYPE	Integer*2	Enumerated type (00=unknown, 01=Sinogram, 02=Image-16, 03=Attenuation Correction, 04=Normalization, 05=Polar Map, 06=Volume 8, 07=Volume 16, 08=Projection 8, 09=Projection 16, 10=Image 8, 11=3D Sinogram 16, 12=3D Sinogram 8, 13=3D Normalization, 14=3D Sinogram Fit)
52	SERIAL_NUMBER	Character*10	The serial number of the gantry
62	SCAN_START_TIME	Integer*4	Date and time that acquisition was started (in secs from base time)
66	ISOTOPE_NAME	Character*8	Isotope
74	ISOTOPE_HALFLIFE	Real*4	Half-life of isotope specified (in sec.)
78	RADIOPHARMACEUTICAL	Character*32	Free format ASCII
110	GANTRY_TILT	Real*4	Angle (in degrees)
114	GANTRY_ROTATION	Real*4	Angle (in degrees)
118	BED_ELEVATION	Real*4	Bed height (in cm.) from lowest point
122	INTRINSIC_TILT	Real*4	Angle that the first detector of Bucket 0 is offset from top center (in degrees)
126	WOBBLE_SPEED	Integer*2	Revolutions/minute (0 if not wobbled)
128	TRANSM_SOURCE_TYPE	Integer*2	Enumerated type (SRC_NONE, _RRING, _RING, _ROD, _RROD)
130	DISTANCE_SCANNED	Real*4	Total distance scanned (in cm)
134	TRANSAXIAL_FOV	Real*4	Diameter (in cm.) of transaxial view
138	ANGULAR_COMPRESSION	Integer*2	Enumerated Type (0=no mash,1=mash of 2, 2=mash of 4)
140	COIN_SAMP_MODE	Integer*2	Enumerated type (0=Net Trues, 1=Prompts and Delayed, 3= Prompts, Delayed, and Multiples)
142	AXIAL_SAMP_MODE	Integer*2	Enumerated type (0=Normal, 1=2X, 2=3X)
144	ECAT_CALIBRATION_FACTOR	Real*4	Quantification scale factor (to convert from ECAT counts to activity counts)
148	CALIBRATION_UNITS	Integer*2	Enumerated type (0=Uncalibrated, 1=Calibrated,)
150	CALIBRATION_UNITS_LABEL	Integer*2	Enumerated type (BLOOD_FLOW, LMRGLU)
152	COMPRESSION_CODE	Integer*2	Enumerated type (COMP_NONE, (This is the only value))
154	STUDY_TYPE	Character*12	Study descriptor
166	PATIENT_ID	Character*16	Patient identification descriptor
182	PATIENT_NAME	Character*32	Patient name (free format ASCII)

214	PATIENT_SEX	Character*1	Enumerated type (SEX_MALE, _FEMALE, _UNKNOWN)
215	PATIENT_DEXTERITY	Character*1	Enumerated type (DEXT_RT, _LF, _UNKNOWN)
216	PATIENT_AGE	Real*4	Patient age (years)
220	PATIENT_HEIGHT	Real*4	Patient height (cm)
224	PATIENT_WEIGHT	Real*4	Patient weight (kg)
228	PATIENT_BIRTH_DATE	Integer*4	Format is YYYYMMDD
232	PHYSICIAN_NAME	Character*32	Attending Physician name (free format)
264	OPERATOR_NAME	Character*32	Operator name (free format)
296	STUDY_DESCRIPTION	Character*32	Free format ASCII
328	ACQUISITION_TYPE	Integer*2	Enumerated type (0=Undefined, 1=Blank, 2=Transmission, 3=Static emission, 4=Dynamic emission, 5=Gated emission, 6=Transmission rectilinear, 7=Emission rectilinear)
330	PATIENT_ORIENTATION	Integer*2	Enumerated Type (Bit 0 clear - Feet first, Bit 0 set - Head first, Bit 1-2 00 - Prone, Bit 1-2 01 - Supine, Bit 1-2 10 - Decubitus Right, Bit 1-2 11 - Decubitus Left)
332	FACILITY_NAME	Character*20	Free format ASCII
352	NUM_PLANES	Integer*2	Number of planes of data collected
354	NUM_FRAMES	Integer*2	Number of frames of data collected OR Highest frame number (in partially reconstructed files)
356	NUM_GATES	Integer*2	Number of gates of data collected
358	NUM_BED_POS	Integer*2	Number of bed positions of data collected
360	INIT_BED_POSITION	Real*4	Absolute location of initial bed position (in cm.)
364	BED_POSITION(15)	Real*4	Absolute bed location (in cm.)
424	PLANE_SEPARATION	Real*4	Physical distance between adjacent planes (in cm.)
428	LWR_SCTR_THRES	Integer*2	Lowest threshold setting for scatter (in KeV)
430	LWR_TRUE_THRES	Integer*2	Lower threshold setting for trues in (in KeV)
432	UPR_TRUE_THRES	Integer*2	Upper threshold setting for trues (in KeV)
434	USER_PROCESS_CODE	Character*10	Data processing code (defined by user)
444	ACQUISITION_MODE	Integer*2	Enumerated Type (0=Normal, 1=Windowed, 2=Windowed & Nonwindowed, 3=Dual energy, 4=Upper energy, 5=Emission and Transmission)
446	BIN_SIZE	Real*4	Width of view sample (in cm)
450	BRANCHING_FRACTION	Real*4	Fraction of decay by positron emission
454	DOSE_START_TIME	Integer*4	Actual time radiopharmaceutical was injected or flow was started (in sec since base time)
458	DOSAGE	Real*4	Radiopharmaceutical dosage (in bequerels/cc) at time of injection
462	WELL_COUNTER_CORR_FACTOR	Real*4	TBD
466	DATA_UNITS	Character*32	
498	SEPTA_STATE	Integer*2	Septa position during scan (0=septa extended, 1=septa retracted)
500	FILL(6)	Integer*2	CTI Reserved space (12 bytes)

Subheader for Matrix Attenuation Files

Byte	Variable Name	Type	Comment
0	DATA_TYPE	Integer*2	Enumerated type (DTYPE_BYTES, _I2, _I4, _VAXR4, _SUNFL, _SUNIN)
2	NUM_DIMENSIONS	Integer*2	Number of dimensions
4	ATTENUATION_TYPE	Integer*2	E. type (ATTEN_NONE, _MEAS, _CALC)
6	NUM_R_ELEMENTS	Integer*2	Total elements collected (x dimension)
8	NUM_ANGLES	Integer*2	Total views collected (y dimensions)
10	NUM_Z_ELEMENTS	Integer*2	Total elements collected (z dimension)
12	RING_DIFFERENCE	Integer*2	Maximum acceptance angle.
14	X_RESOLUTION	Real*4	Resolution in the x dimension (in cm)
18	Y_RESOLUTION	Real*4	Resolution in the y dimension (in cm)
22	Z_RESOLUTION	Real*4	Resolution in the z dimension (in cm)
26	W_RESOLUTION	Real*4	TBD
30	SCALE_FACTOR	Real*4	Attenuation Scale Factor
34	X_OFFSET	Real*4	Ellipse offset in x axis from center (in cm.)
38	Y_OFFSET	Real*4	Ellipse offset in y axis from center (in cm.)
42	X_RADIUS	Real*4	Ellipse radius in x axis (in cm.)
46	Y_RADIUS	Real*4	Ellipse radius in y axis (in cm.)
50	TILT_ANGLE	Real*4	Tilt angle of the ellipse (in degrees)
54	ATTENUATION_COEFF	Real*4	Mu-absorption coefficient (in cm^{-1})
58	ATTENUATION_MIN	Real*4	Minimum value in the attenuation data
62	ATTENUATION_MAX	Real*4	Maximum value in the attenuation data
66	SKULL_THICKNESS	Real*4	Skull thickness in cm
70	NUM_ADDITIONAL_ATTEN_COEFF	Integer*2	Number of attenuation coefficients other than the Mu absorption coefficient above (max 8)
72	ADDITIONAL_ATTEN_COEFF(8)	Real*4	The additional attenuation coefficient values
104	EDGE_FINDING_THRESHOLD	Real*4	The threshold value used by the automatic edge-detection routine (fraction of maximum)
108	STORAGE_ORDER	Integer*2	Data storage order (RThetaZD, RZThetaD)
110	SPAN	Integer*2	Axial compression specifier (number of ring differences spanned by a segment)
112	Z_ELEMENTS(64)	Integer*2	Number of “planes” in z direction for each ring difference segment
240	FILL(86)	Integer*2	Unused (172 bytes)
412	FILL(50)	Integer*2	User Reserved space (100 bytes) Note: Use highest bytes first

Subheader for Matrix Image Files

Byte	Variable Name	Type	Comment
0	DATA_TYPE	Integer*2	Enumerated type (0=Unkonwn Matrix Data Type, 1=Byte Data, 2=VAX_Ix2, 3=VAX_Ix4, 4=VAX_Rx4, 5=IEEE Float, 6=Sun short, 7=Sun long)
2	NUM_DIMENSIONS	Integer*2	Number of dimensions
4	X_DIMENSION	Integer*2	Dimension along x axis
6	Y_DIMENSION	Integer*2	Dimension along y axis
8	Z_DIMENSION	Integer*2	Dimension along z axis
10	X_OFFSET	Real*4	Offset in x axis for recon target (in cm)
14	Y_OFFSET	Real*4	Offset in y axis for recon target (in cm.)
18	Z_OFFSET	Real*4	Offset in z axis for recon target (in cm.)
22	RECON_ZOOM	Real*4	Reconstruction magnification factor (zoom)
26	SCALE_FACTOR	Real*4	Quantification scale factor (in Quant_units)
30	IMAGE_MIN	Integer*2	Image minimum pixel value
32	IMAGE_MAX	Integer*2	Image maximum pixel value
34	X_PIXEL_SIZE	Real*4	X dimension pixel size (in cm)
38	Y_PIXEL_SIZE	Real*4	Y dimension pixel size (in cm.)
42	Z_PIXEL_SIZE	Real*4	Z dimension pixel size (in cm.)
46	FRAME_DURATION	Integer*4	Total duration of current frame (in msec.)
50	FRAME_START_TIME	Integer*4	Frame start time (offset from first frame, in msec)
54	FILTER_CODE	Integer*2	Enumerated type (0=all pass, 1=ramp, 2=Butterworth, 3=Hanning, 4=Hamming,5=Parzen, 6=Shepp, 7=Butterworth-order 2, 8=Gaussian, 9=Median,10=Boxcar)
56	X_RESOLUTION	Real*4	Resolution in the x dimension (in cm)
60	Y_RESOLUTION	Real*4	Resolution in the y dimension (in cm)
64	Z_RESOLUTION	Real*4	Resolution in the z dimension (in cm)
68	NUM_R_ELEMENTS	Real*4	Number R elements from sinogram
72	NUM_ANGLES	Real*4	Number of angles from sinogram
76	Z_ROTATION_ANGLE	Real*4	Rotation in the xy plane (in degrees). Use right-hand coordinate system for rotation angle sign.
80	DECAY_CORR_FCTR	Real*4	Isotope decay compensation applied to data
84	PROCESSING_CODE	Integer*4	Bit mask (0=Not Processed, 1=Normalized, 2=Measured Attenuation Correction, 4=Calculated Attenuation Correction, 8=X smoothing, 16=Y smoothing, 32=Z smoothing, 64=2D scatter correction, 128=3D scatter correction, 256=Arc correction, 512=Decay correction, 1024=Online compression)
88	GATE_DURATION	Integer*4	Gate duration (in msec)

92	R_WAVE_OFFSET	Integer*4	R wave offset (For phase sliced studies, average, in msec)
96	NUM_ACCEPTED_BEATS	Integer*4	Number of accepted beats for this gate
100	FILTER_CUTOFF_FREQUENCY	Real*4	Cutoff frequency
104	FILTER_RESOLUTION	Real*4	Do not use
108	FILTER_RAMP_SLOPE	Real*4	Do not use
112	FILTER_ORDER	Integer*2	Do not use
114	FILTER_SCATTER_FRACTION	Real*4	Do not use
118	FILTER_SCATTER_SLOPE	Real*4	Do not use
122	ANNOTATION	Character*40	Free format ASCII
162	MT_1_1	Real*4	Matrix transformation element (1,1).
166	MT_!_2	Real*4	Matrix transformation element (1,2).
170	MT_1_3	Real*4	Matrix transformation element (1,3).
174	MT_2_1	Real*4	Matrix transformation element (2,1).
178	MT_2_2	Real*4	Matrix transformation element (2,2).
182	MT_2_3	Real*4	Matrix transformation element (2,3).
186	MT_3_1	Real*4	Matrix transformation element (3,1).
190	MT_3_2	Real*4	Matrix transformation element (3,2).
194	MT_3_3	Real*4	Matrix transformation element (3,3).
198	RFILTER_CUTOFF	Real*4	
202	RFILTER_RESOLUTION	Real*4	
206	RFILTER_CODE	Integer*2	
208	RFILTER_ORDER	Integer*2	
210	ZFILTER_CUTOFF	Real*4	
214	ZFILTER_RESOLUTION	Real*4	
218	ZFILTER_CODE	Integer*2	
220	ZFILTER_ORDER	Integer*2	
222	MT_1_4	Real*4	Matrix transformation element (1,4)
226	MT_2_4	Real*4	Matrix transformation element (2,4)
230	MT_3_4	Real*4	Matrix transformation element (3,4)
234	SCATTER_TYPE	Integer*2	Enumerated type (0=None, 1=Deconvolution, 2=Simulated, 3=Dual Energy)
236	RECON_TYPE	Integer*2	Enumerated type (0=Filtered backprojection, 1=Forward projection 3D (PROMIS), 2=Ramp 3D, 3=FAVOR 3D, 4=SSRB, 5=Multi-slice rebinning, 6=FORE)
238	RECON_VIEWS	Integer*2	Number of views used to reconstruct the data
240	FILL(87)	Integer*2	CTI Reserved space (174 bytes)
414	FILL(48)	Integer*2	User Reserved space (100 bytes) Note: Use highest bytes first

Subheader for Matrix Polar Map Files

Byte	Variable Name	Type	Comment
0	DATA_TYPE	Integer*2	Enumerated type (DTYPE_BYTES, _I2,_I4)
2	POLAR_MAP_TYPE	Integer*2	Enumerated Type (Always 0 for now; denotes the version of the PM structure)
4	NUM_RINGS.	Integer*2	Number of rings in this polar map
6	SECTORS_PER_RING(32).	Integer*2	Number of sectors in each ring for up to 32 rings (1, 9, 18, or 32 sectors normally)
70	RING_POSITION(32).	Real*4	Fractional distance along the long axis from base to apex
198	RING_ANGLE(32)	Integer*2	Ring angle relative to long axis(90 degrees along cylinder, decreasing to 0 at the apex)
262	START_ANGLE	Integer*2	Start angle for rings (Always 258 degrees, defines Polar Map's 0)
264	LONG_AXIS_LEFT(3)	Integer*2	x, y, z location of long axis base end (in pixels)
270	LONG_AXIS_RIGHT(3)	Integer*2	x, y, z location of long axis apex end (in pixels)
276	POSITION_DATA	Integer*2	Enumerated type (0 - Not available, 1 - Present)
278	IMAGE_MIN	Integer*2	Minimum pixel value in this polar map
280	IMAGE_MAX	Integer*2	Maximum pixel value in this polar map
282	SCALE_FACTOR	Real*4	Scale factor to restore integer values to float values
286	PIXEL_SIZE	Real*4	Pixel size (in cubic cm, represents voxels)
290	FRAME_DURATION	Integer*4	Total duration of current frame (in msec)
294	FRAME_START_TIME	Integer*4	Frame start time (offset from first frame, in msec)
298	PROCESSING_CODE	Integer*2	Bit Encoded (1- Map type (0 = Sector Analysis, 1 = Volumetric), 2 - Threshold Applied, 3 - Summed Map, 4 - Subtracted Map, 5 - Product of two maps, 6 - Ratio of two maps, 7 - Bias, 8 - Multiplier, 9 - Transform, 10 - Polar Map calculational protocol used)
300	QUANT_UNITS	Integer*2	Enumerated Type (0 - Default (see main header), 1 - Normalized, 2 - Mean, 3 - Std. Deviation from Mean)
302	ANNOTATION	Character*40	Label for polar map display
342	GATE_DURATION	Integer*4	Gate duration (in msec)
346	R_WAVE_OFFSET.	Integer*4	R wave offset (Average, in msec)
350	NUM_ACCEPTED_BEATS	Integer*4	Number of accepted beats for this gate
354	POLAR_MAP_PROTOCOL	Character*20	Polar Map protocol used to generate this polar map
374	DATABASE_NAME	Character*30	Database name used for polar map comparison
404	FILL(27).	Integer*2	Reserved for future CTI use (54 bytes)
464	FILL(27).	Integer*2	User reserved space (54 bytes) Note: Use highest bytes first

Subheader for 3D Matrix Scan Files

Byte	Variable Name	Type	Comment
0	DATA_TYPE	Integer*2	Enumerated type (ByteData, SunShortt)
2	NUM_DIMENSIONS	Integer*2	Number of Dimensions
4	NUM_R_ELEMENTS	Integer*2	Total elements collected (r dimension)
6	NUM_ANGLES	Integer*2	Total views collected (θ dimension)
8	CORRECTIONS_APPLIED	Integer*2	Designates processing applied to scan data (Bit encoded, Bit 0 - Norm, Bit 1 - Atten, Bit 2 - Smooth)
10	NUM_Z_ELEMENTS(64)	Integer*2	Number of elements in z dimension for each ring difference segment in 3D scans
138	RING_DIFFERENCE	Integer*2	Max ring difference (d dimension) in this frame
140	STORAGE_ORDER	Integer*2	Data storage order (rθzd or rzθd)
142	AXIAL_COMPRESSION	Integer*2	Axial compression code or factor, generally referred to as SPAN
144	X_RESOLUTION	Real*4	Resolution in the r dimension (in cm)
148	V_RESOLUTION	Real*4	Resolution in the θ dimension (in radians)
152	Z_RESOLUTION	Real*4	Resolution in the z dimension (in cm)
156	W_RESOLUTION	Real*4	Not Used
160	FILL(6)	Integer*2	RESERVED for gating
172	GATE_DURATION	Integer*4	Gating segment length (msec, Average time if phased gates are used)
176	R_WAVE_OFFSET	Integer*4	Time from start of first gate (Average, in msec.)
180	NUM_ACCEPTED_BEATS	Integer*4	Number of accepted beats for this gate
184	SCALE_FACTOR	Real*4	If data type is integer, this factor is used to convert to float values
188	SCAN_MIN	Integer*2	Minimum value in sinogram if data is in integer form (not currently filled in)
190	SCAN_MAX	Integer*2	Maximum value in sinogram if data is in integer form (not currently filled in)
192	PROMPTS	Integer*4	Total prompts collected in this frame/gate
196	DELAYED	Integer*4	Total delays collected in this frame/gate
200	MULTIPLES	Integer*4	Total multiples collected in this frame/gate (not used)
204	NET_TRUES	Integer*4	Total net trues (prompts–randoms)
208	TOT_AVG_COR	Real*4	Mean value of loss-corrected singles
212	TOT_AVG_UNCOR	Real*4	Mean value of singles (not loss corrected)
216	TOTAL_COIN_RATE	Integer*4	Measured coincidence rate (from IPCP)
220	FRAME_START_TIME	Integer*4	Time offset from first frame time (in msec.)
224	FRAME_DURATION	Integer*4	Total duration of current frame (in msec.)
228	DEADTIME_CORRECTION_FACTOR	Real*4	Dead-time correction factor applied to the sinogram
232	FILL(90)	Integer*2	CTI Reserved space (180 bytes)
412	FILL(50)	Integer*2	User Reserved space (100 bytes) Note: Use highest bytes first
512	UNCOR_SINGLES(128)	Real*4	Total uncorrected singles from each bucket

Subheader for 3D Normalization Files

Byte	Variable Name	Type	Comment
0	DATA_TYPE	Integer*2	Enumerated type (IeeeFloat)
2	NUM_R_ELEMENTS	Integer*2	Total elements collected (y dimension)
4	NUM_TRANSAXIAL_CRYSTALS	Integer*2	Number of transaxial crystals per block
6	NUM_CRYSTAL_RINGS	Integer*2	Number of crystal rings
8	CRYSTALS_PER_RING	Integer*2	Number of crystals per ring
10	NUM_GEO_CORR_PLANES.	Integer*2	Number of rows in the Plane Geometric Correction array
12	ULD.	Integer*2	Upper energy limit
14	LLD	Integer*2	Lower energy limit
16	SCATTER_ENERGY	Integer*2	Scatter energy threshold
18	NORM_QUALITY_FACTOR	Real*4	Used by Daily Check to determine the quality of the scanner
22	NORM_QUALITY_FACTOR_CODE	Integer*2	Enumerated Type (TBD)
24	RING_DTCOR1(32)	Real*4	First “per ring” dead time correction coefficient
152	RING_DTCOR2(32)	Real*4	Second “per ring” dead time correction coefficient
280	CRYSTAL_DTCOR(8)	Real*4	Dead time correction factors for transaxial crystals
312	SPAN.	Integer*2	Axial compression specifier (number of ring differences included in each segment)
314	MAX_RING_DIFF	Integer*2	Maximum ring difference acquired
316	FILL(48).	Integer*2	CTI Reserved space (96 bytes)
412	FILL(50).	Integer*2	User Reserved space (100 bytes) Note: Use highest bytes first

Subheader for Imported 6.5 Matrix Scan Files

Version 6.5 scan files that are imported into Version 7.X cannot be reconstructed. The subheader is only 512 bytes, rather than 1024.

Byte	Variable Name	Type	Comment
0	DATA_TYPE	Integer*2	Enumerated type (DTYPE_BYTES, _I2, _I4, _VAXR4, _SUNFL, _SUNIN)
2	NUM_DIMENSIONS	Integer*2	Number of Dimensions
4	NUM_R_ELEMENTS	Integer*2	Total elements collected (x dimension)
6	NUM_ANGLES	Integer*2	Total views collected (y dimension)
8	CORRECTIONS_APPLIED	Integer*2	Designates processing applied to scan data (Bit encoded, Bit 0 - Norm, Bit 1 - Atten, Bit 2 - Smooth)
10	NUM_Z_ELEMENTS	Integer*2	Total elements collected (z dimension) For 3D scans
12	RING_DIFFERENCE	Integer*2	Maximum acceptance angle
14	X_RESOLUTION	Real*4	Resolution in the x dimension (in cm)
18	Y_RESOLUTION	Real*4	Resolution in the y dimension (in cm)
22	Z_RESOLUTION	Real*4	Resolution in the z dimension (in cm)
26	W_RESOLUTION	Real*4	TBD
30	FILL(6)	Integer*2	RESERVED for gating
42	GATE_DURATION	Integer*4	Gating segment length (msec, Average time if phased gates are used)
46	R_WAVE_OFFSET	Integer*4	Time from start of first gate (Average, in msec.)
50	NUM_ACCEPTED_BEATS	Integer*4	Number of accepted beats for this gate
54	SCALE_FACTOR	Real*4	If data type=integer, use this factor, convert to float values
58	SCAN_MIN	Integer*2	Minimum value in sinogram if data is in integer form
60	SCAN_MAX	Integer*2	Maximum value in sinogram if data is in integer form
62	PROMPTS	Integer*4	Total prompts collected in this frame/gate
66	DELAYED	Integer*4	Total delays collected in this frame/gate
70	MULTIPLES	Integer*4	Total multiples collected in this frame/gate
74	NET_TRUES	Integer*4	Total net trues (prompts–randoms)
78	COR_SINGLES(16)	Real*4	Total singles with loss correction factoring
142	UNCOR_SINGLES(16)	Real*4	Total singles without loss correction factoring
206	TOT_AVG_COR	Real*4	Mean value of loss-corrected singles
210	TOT_AVG_UNCOR	Real*4	Mean value of singles (not loss corrected)
214	TOTAL_COIN_RATE	Integer*4	Measured coincidence rate (from IPCP)
218	FRAME_START_TIME	Integer*4	Time offset from first frame time (in msec.)
222	FRAME_DURATION	Integer*4	Total duration of current frame (in msec.)
226	DEADTIME_CORRECTION_FACTOR	Real*4	Dead-time correction factor applied to the sinogram
230	PHYSICAL_PLANES(8)	Integer*2	Physical planes that make up this logical plane
246	FILL(83)	Integer*2	CTI Reserved space (166 bytes)
412	FILL(50)	Integer*2	User Reserved space (100 bytes) Note: Use highest bytes first