All About Your HD

Memory Map:

from	to	description
$0000	$0004	1541/71 Jobcodes
$0006	$000F	1541/71 Job Track/Sectors
$0002	$000A	1581 Jobcodes
$000B	$001C	1581 Job Track/Sectors
$0020	$003F	Native Mode Jobcodes
$0040	$00FF	Zeropage
$0100	$01FF	Stack
$0200	$02FF	Input buffer
$0300	$22FF	32 Buffers
$2300	$27FF	error message buffers
$2800	$283F	native mode job track/sector
$2840	$285F	???
$2860	$287F	???
$2880	$289F	???
$28A0	$28BF	???
$28C0	$28DF	job: scsi device
$28E0	$28FF	job: scsi LUN
$2900	$291F	job: scsi block adress (hi byte)
$2920	$293F	job: scsi block adress (mid byte)
$2940	$295F	job: scsi block adress (lo byte)
$2960	$297F	last job for buffer
$2980	$29FF	???
$2A00	$2AFF	scsi variables
$2B00	$2FFF	dos variables
$3000	$4FFF	free ram
$5000	$5FFF	diskbuffer
$6000	$7FFF	BAM buffer
$8000	$81FF	serial i/o (6522)
$8200	$82FF	partition type
$8300	$83FF	partition size (hi byte)
$8400	$85FF	SCSI i/o (6522)
$8600	$86FF	partition size (lo byte)

from	to	description
$8700	$87FF	partition start (hi byte)
$8800	$89FF	parallel i/o (8255)
$8A00	$8AFF	partition start (mid byte)
$8B00	$8BFF	partition start (lo byte)
$8C00	$8DFF	realtime clock
$8E00	$8EFF	???
$8F00	$8FFF	leds
$9000	$93FF	dos tables
$9400	$FFFF	dos

8000 – 81ff : VIA1 (6522)

	7	6	5	4	3	2	1	0
$00	Atn In				Clk Out	Clk In	Data Out	Data In
$01								
$02								
$03								
$04								
$05								
$06								
$07								
$08								
$09								
$0A								
$0B								
$0C								
$0D								
$0E								
$0F								

8400 – 85ff : VIA2 (6522)

	7	6	5	4	3	2	1	0
$00	Req	?	Busy	ATN	?	I/O	MSG	C/D
$01								

	7	6	5	4	3	2	1	0
$02								
$03								
$04								
$05								
$06								
$07								
$08								
$09								
$0A								
$0B								
$0C								
$0D								
$0E								
$0F								

8800 – 89ff : PIO (8255)

Default: Port A Out Mode 2 (11), Port B In Mode 1, Port C In

	7	6	5	4	3	2	1	0
$00	D7	D6	D5	D4	D3	D2	D1	D0
$01				Select In	Write Protect Switch	Swap 9 Switch	Swap 8 Switch	
$02								
$03								

8f00 – 8fff : LED

Only one byte is mapped to this area. So if you hate your packer you have 512 possibilities to access the led register.

All Led bits are low–active. E. g. if bit 1 is set the Activity Led is off.
If /*RamProtect* is 0 the ram from $9000–$FFFF is only readable.
The default value is $CF which means $9000–$FFFF is protected, the parity is clear and all Leds are off.

7	6	5	4	3	2	1	0
/WriteProtect	/GEOS	/RamProtect	/ScsiParity	/Swap9	/Swap8	/Error	/Activity

VIA 6522

reg	short	long description
$00	ORB	Port B

reg	short	long description							
$01	ORA	Port A with Handshake							
$02	DDRB	Data Direction Port B							
$03	DDRA	Data Direction Port A							
$04	T1L	Timer 1 Lo (Read Counter/Write Latch)							
$05	T1H	Timer 1 Hi (Read Counter/Write Latch)							
$06	T1L	Timer 1 Lo Latch							
$07	T1H	Timer 1 Hi Latch							
$08	T2L	Timer 2 Lo (Read Counter/Write Latch)							
$09	T2H	Timer 2 Hi (Read Counter/Write Latch)							
$0A	SR								
$0B	ACR				SR modes				
$0C	PCR	CB2 ctrl			CB1 ctrl	CA2 ctrl			CA1 ctrl
$0D	IFR	IRQ	Timer 1	Timer 2	CB 1	CB 2	SR	CA 1	CA 2
$0E	IER	Set / Clr	Timer 1	Timer 2	CB 1	CB 2	SR	CA 1	CA 2
$0F	ORA	Port A without handshake							

SR modes:

bits	Direction	Clk source	Clk Output
000	Disabled	–	–
001	In	Timer 2	C?1
010		system clk	–
011		external	–
100	Out	Timer 2	–
101		Timer 2	C?1
110		system clk	–
111		external	–

Cx1 Control:
0: Set by High–>Low, 1: Set by Low–>High

Cx2 Control:

bits	Direction	C?2 Control
000	In	Set by High–>Low, Clear by port A access
001		Set by High–>Low
010		Set by Low–>High, Clear by port A access
011		Set by Low–>High
100	Out	Port Handshake Mode, Reset to High by Flag on C?1
101		Port Handshake Mode, Reset to High after 1 cycle
110		Manual Low
111		Manual High

Dos Variablen:

$2BD6: partition number