

QS-HDOS – Road Map to Operation

The QS-HDOS systems are pretty easy to use once you have a clear concept of the system's operation. Categories are used to subdivide the HD space into groups of partitions by category. If you boot into a CAT4 system, it can only 'see' other CAT4 partitions and likewise for CAT5, CAT6 and CAT7. The following describes my setup on an H8 using 4 GB CF cards.

Due to the constraints of HDOS for addressing and displaying data pertaining to larger partitions, I decided that I would try 80 MB in each category (1/3 of HD0 = 40 MB and 1/3 of HD1 = 40 MB). The partition table I used is shown on the next page. Another approach is to use all four categories and use 60 MB in each category distributing the space into the 15 allowable partitions, e.g. (0-3 in CAT4, 0-3 in CAT5, 0-3 in CAT6 and 0-2 in CAT7).

The QuikStor system makes use of the Heath's H19 terminal attributes to display a boot menu that is basically the SASIX partition map and allows the user to select which partition to boot. This approach REQUIRES all (8) of the DIP switches on the Z67 SASI controller card to be set to ON.

This allows the user to be creative in naming the partitions for easy recognition. This is particularly handy when we have 45 separate HDOS systems and want to find a particular application. The SASIX menu can be run from the hard disk and the names changed. Just don't change anything else that would change the partitioning information used by the system. For instance, consider the following used for Selector Switch 15 setting on HD0:

H37 Boot				H17 Boot			
Drive -- Ser	Hard Disk 0		Origin	Size	Drive -- Ser		
SY0: -- 001	HDOS-H37-4	4 0	2	40	DY0: -- 001		
SY1: -- 002	HDOS1-CAT4	4 0	42	80	DY1: -- 002		
SY2: -- 003	HDOS2-CAT4	4 0	122	105	DY2: -- 003		
SY3: -- 004	HDOS3-CAT4	4 0	227	200	DY3: -- 004		
SY4: -- 005	HDOS4-CAT4	4 0	427	200	DY4: -- 005		
SY0: -- 001	HDOS-ASM-5	5 0	627	40	DY0: -- 001		
SY1: -- 002	ACM - CAT5	5 0	667	80	DY1: -- 002		
SY2: -- 003	ASM - CAT5	5 0	747	105	DY2: -- 003		
SY3: -- 004	HDOS3-CAT5	5 0	852	200	DY3: -- 004		
SY4: -- 005	LST - CAT5	5 0	1052	200	DY4: -- 005		
SY0: -- 001	HDOS-C80-6	6 0	1252	40	DY0: -- 001		
SY1: -- 002	C-SRC - CAT6	6 0	1292	80	DY1: -- 002		
SY2: -- 003	HDOS2-CAT6	6 0	1372	105	DY2: -- 003		
SY3: -- 004	HDOS3-CAT6	6 0	1477	200	DY3: -- 004		
SY4: -- 005	HDOS4-CAT6	6 0	1677	200	DY4: -- 005		

The partitions will be SYx: (Primary HD) designation on the booted hard disk. So, I chose to use DYx: (Alternate HD) for the other hard disk's driver.

Similarly, we can alter the disk label on the disk partitions using SSM2 LABn command. Use LABn *new label* for SYn, /LABn *new label* for DKn and \LABn *new label* for DYn

SASIX Partitioning Table

Max blocks 1875
 1/3 Max 625
 Block size 64k

H37 Boot							H17 Boot	
Drive -- Ser	Hard Disk 0			Origin	Size	Drive -- Ser		
SY0: -- 001	HDOS-H37-4	4	0	2	40	DY0: -- 001		
SY1: -- 002	HDOS1-CAT4	4	0	42	80	DY1: -- 002		
SY2: -- 003	HDOS2-CAT4	4	0	122	105	DY2: -- 003		
SY3: -- 004	HDOS3-CAT4	4	0	227	200	DY3: -- 004		
SY4: -- 005	HDOS4-CAT4	4	0	427	200	DY4: -- 005		
SY0: -- 001	HDOS-H37-5	5	0	627	40	DY0: -- 001		
SY1: -- 002	HDOS1-CAT5	5	0	667	80	DY1: -- 002		
SY2: -- 003	HDOS2-CAT5	5	0	747	105	DY2: -- 003		
SY3: -- 004	HDOS3-CAT5	5	0	852	200	DY3: -- 004		
SY4: -- 005	HDOS4-CAT5	5	0	1052	200	DY4: -- 005		
SY0: -- 001	HDOS-H37-6	6	0	1252	40	DY0: -- 001		
SY1: -- 002	HDOS1-CAT6	6	0	1292	80	DY1: -- 002		
SY2: -- 003	HDOS2-CAT6	6	0	1372	105	DY2: -- 003		
SY3: -- 004	HDOS3-CAT6	6	0	1477	200	DY3: -- 004		
SY4: -- 005	HDOS4-CAT6	6	0	1677	200	DY4: -- 005		
Totals:					1875	625	in Cat 4	
						625	in Cat 5	
						625	in Cat 6	

Hard Disk 1								
Drive -- Ser				Origin	Size	Drive -- Ser		
DY0: - 006	HDOS-H17-4	4	0	2	40	SY0: - 006		
DY1: - 007	HDOS5-CAT4	4	0	42	80	SY1: - 007		
DY2: - 008	HDOS6-CAT4	4	0	122	105	SY2: - 008		
DY3: - 009	HDOS7-CAT4	4	0	227	200	SY3: - 009		
DY4: - 010	HDOS8-CAT4	4	0	427	200	SY4: - 010		
DY0: - 006	HDOS-H17-5	5	0	627	40	SY0: - 006		
DY1: - 007	HDOS5-CAT5	5	0	667	80	SY1: - 007		
DY2: - 008	HDOS6-CAT5	5	0	747	105	SY2: - 008		
DY3: - 009	HDOS7-CAT5	5	0	852	200	SY3: - 009		
DY4: - 010	HDOS8-CAT5	5	0	1052	200	SY4: - 010		
DY0: - 006	HDOS-H17-6	6	0	1252	40	SY0: - 006		
DY1: - 007	HDOS5-CAT6	6	0	1292	80	SY1: - 007		
DY2: - 008	HDOS6-CAT6	6	0	1372	105	SY2: - 008		
DY3: - 009	HDOS7-CAT6	6	0	1477	200	SY3: - 009		
DY4: - 010	HDOS8-CAT6	6	0	1677	200	SY4: - 010		
Totals					1875	625	in Cat 4	
						625	in Cat 5	
						625	in Cat 6	

HDOS is somewhat limited when working with partitions greater than 2.5 MB (40 blocks). Since the maximum sector count in HDOS is 9999, the remaining space will not report correctly until you are below 10,000 free sectors. Also, the Minimum Allocation Unit (MAU) goes up with increased partition size. I have tried to keep the partitions for executable files small enough to give clear indication of remaining space and to minimize overhead. Use the larger partitions for larger files such as Source Code and Listing files. You can use them for saving any size file, but the overhead (unused space at end of file) will be larger.

Booting into the three systems is pretty simple. First, choose which floppy system you will use – HD0 for **H37** (**B**{oot} **S**{S}**0**<cr>) or HD1 for **H17** (**B**{oot} **S**{S}**1**<cr>). The boot menu will default to partition 0, the CAT4 boot partition, and the **BLUE** function key is **BOOT**. To boot into the second system, just type <space,5> for partition (and category) ‘05’ in the display and press the blue function key. For the third system, type <10> and press the blue function key.

SuperSysMod2 uses abbreviated commands for mounting the disks. Mn will mount SYn:, /Mn will mount the floppy drives and \Mn will mount the partitions on the other hard disk. Likewise, Cn will CAT SYn:, /Cn will CAT the floppy drives and \Cn/b/s will CAT the other HD’s partitions in brief format and include system files. To see a list of the abbreviated commands, TYPE:

.HELP<cr> ; period+HELP for paged display

If you are getting started with QS-HDOS by downloading the HD image file, the first thing you need to do is make a system floppy disk so you can repair the HD if the data is damaged. If you are using an H37, 80 track disk drive, you can format a floppy and then use SYSGEN *.* to copy the entire boot partition to floppy disk.

On the floppy disk, the hard disk driver is DK.DVD. Typing “**SET DK: HELP**<cr>” gives:

HELP: DKXBC v4221.1035/-C SET OPTIONS:

PORT nnnQ	=274Q/BCH	Port address
DRIVE n	=0	Drive number
CONTROLLER n	=0	Controller number
CATEGORY n	=4	Partition category

You will need to set these parameters according to the HDOS system you will be repairing or rebuilding.