CP/M 2.2.04 QUIKSTOR SYSTEM BUILD FOR H17/Z67-IDE

If you are reading this, you have the files on a disk.   That's good for a start.

Please read these instructions all the way through before starting the installation. Print and make notes on the instructions. This will help with some of the details when you are performing the procedure.

If the QuikStor files are not on a Heath disk, format a new floppy and copy the files to this new disk.

If the files are on your PC, use your modem program to copy the files to the newly formatted disk. If you do not have a modem program, you can download ZMP (Z-System Modem Program) in H8D format. Then, use Les Bird's H8D transfer program to send the files to an H-17 disk. This disk will be bootable, is configured for a single H-17 drive system and can write to H-37 soft-sectored disks.

There are four versions of ZMP available to use on either the standard modem port "A" (330Q) or the serial printer port "B" (340Q). Each disk is configured for port "B" at its maximum baud to allow using ZMP after using Les's program to send the files without having to re-cable to another port.

ZMP2MP2.H8D -- H8/89/90, Z80 CPU, 2 MHz Clock, Max Z-modem rate = 2400 baud, port "A" (330Q) or port "B" (340Q).
ZMP2MIP2.H8D -- H8/89/90, Z80 CPU, 2 MHz Clock, Interrupt driven I/O requiring Int-5 set on serial card for the modem port, max Z-modem rate = 4800 baud, port "A" (330Q), or port "B" (340Q).
ZMP4MP2.H8D -- H8/89/90, Z80 CPU, 4 MHz Clock, max Z-modem rate = 4800 baud, port "A" (330Q), or port "B" (340Q).
ZMP4MIP2.H8D -- H8/89/90, Z80 CPU, 4 MHz Clock, Interrupt driven I/O requiring Int-5 set on serial card for the modem port, max Z-modem rate = 9600 baud, port "A" (330Q), or port "B" (340Q).

Download the appropriate version of ZMP for your hardware. All of the disk images will boot CP/M 2.2.04 for H-17 and H-37 drives. The disk images are configured for a single H-17 drive system.

Due to the limited size of the H-17 single sided disk, the documentation and other non-vital files for the ZMP application were omitted from the disks. After you have the Z67-IDE system running, download the full ZMP package to obtain a complete application.

The QuikStor files are grouped into folders. The contents of a folder will fit on an H-17 40 track, single sided disk.

There are two sets of files to create the H17/Z67-IDE QuikStor system disk.
        -- QS-Disk1   -- QS-Disk2

There is a third folder for those who want to run ZCPR 3.4 (-- NZCOM). This version is using ZDDOS instead of ZSDOS as the BDOS replacement to support date-stamping.

All of the files in each group should fit on an H-17 single sided disk. Make a list of the files on each disk to aid in keeping up with which disk you need when a file is called for in the procedure.

Before proceeding, format and label your floppy disks to receive the files. Single-sided H-17 drive users will need two disks for the QuikStor System. If you have higher capacity drives, multiple folders can be copied to the disk. If you will also set up NZCOM, you may need another formatted disk.

In the following steps:

          <cr>   means press the Carriage Return key.
        <text>   means type the text between the < and >.
           d: means the drive containing the disk that holds the program.
          ^C   means while holding the CTRL key, type the C key.
          {   }   encloses instructions for double-sided H-17 disk users.
          [   ]   encloses instructions for one single-side H-17 drive users.

=========== **COPY FILES TO HEATH FLOPPY DISKS** ===========

Connect your H8/89/90 DTE modem port (330Q) or DCE serial printer port (340Q) to your PC's com port. Start a modem program on your PC (HyperTerm will work). **Boot your ZMP Communications program disk in the first H-17 drive.**

 IDE:Boot BB-0<cr>   ; The MMS ROM auto completes just like the Heath ROM.

 {**NOTE:** Due to the configuration on the boot disk not matching your computer, the process will probably pause after the sign-on message. If it does, it is looking for the H37 controller that is not present, so press the BREAK key once. It should proceed and may ask you to "Put disk A in drive A: and press return." Just press the return key.}

Your screen should look like this:

```
|
| IDE: Boot BB-0
|
| 64K HEATH/ZENITH/LLL/SCS BIOS-80(C) CP/M 2.2.04  07/05/84
| FOR H17 H37 DISKS WITH OPTION(S) TIBE3, PAR. DVR, 2/4 mHz
| <break key pressed>
|
| 64K HEATH/ZENITH/LLL/SCS BIOS-80(C) CP/M 2.2.04  07/05/84
| FOR H17 H37 DISKS WITH OPTION(S) TIBE3, PAR. DVR, 2/4 mHz
|
| PUT DISK A IN DRIVE A: AND PRESS RETURN        <cr>
| A> ZMP<cr>
|
```

On the Heath, start ZMPxxxxx.COM. (Name depends on your hardware and the file you downloaded.)

A. If you will be using the Modem Port (330Q) to transfer files, press keys **Esc, L** and then select option **< O >** to toggle to port "A".   Exit with the **< Z >** option. Now, press **ESC, C** to open the configuration menu. Select option **< B >** for baud rate and then option **< Z >** to exit back to the configuration menu with NO changes. Select option **< Z >** to exit and respond **< Y >** when asked if you wish to make the configuration change permanent.

B. Press keys **ESC, F, L** and set the default drive to the target disk, probably B:. If you only have one drive, set it to B: and swap disks when directed.
   ==>> NOTE: Only swap disks when directed by the computer! <<==

C. Connect your H8/89/90 DTE port (330Q) or Serial Printer DCE port (340Q) to your PC's com port. Start a modem program on your PC (HyperTerm will work). Set the PC modem program for 8 bits, no parity, one stop bit (**8N1**) and set the baud rate to the same rate as stated on the Heath screen.

D. Verify communication between the PC and the Heath computer by typing on each keyboard and verifying that the text appears on the other computer's screen. You may need to synchronize the line settings on the PC to match the Heath's: baud, x-on, x-off, etc. When you have communication continue with the step below.

E. Send the files for **QS-Disk1** from your PC using ZMODEM protocol to the Heath inserting the floppy labeled **QS-DISK1** when the computer asks for disk B:.

   Repeat the step above for **QS-Disk2** (and **NZCOM**, if desired) inserting the appropriately labeled disk when asked for disk B:.

F. When all files have been sent to the Heath, exit ZMP with **Esc, Q, Y**.

=============== **ALL FILES ON HEATH DISKS** ================
Boot your system with a Heath CP/M 2.2.04 boot disk. (The ZMP disk will work.)
If you only have a CP/M 2.2.03 boot disk, use the second procedure.
   ==>> NOTE: Remember the \<Break> and \<cr>. <<==

If you have multiple drives, you can reconfigure the boot disk to use them and use
drive B: for QS-DISK1.

[Single drive users will also use B: drive for QS-Disk1 and swap disks as directed.]

Type: **B:MOVCPM80 * B:\<cr>**   ; maximize the Memory for system on B:

When prompted, enter **< B: >** for the destination.
   Destination on B, then type return: **\<cr>**

Reset the computer (**Shift RESET**).

When prompted, enter < A: > for the destination.
   Destination on A, then type return: **\<cr>**

==
Procedure 2: For people who only have a CP/M 2.2.03 boot disk.

Type: DDT B:CPM32.COM\<cr>

[Single drive users will also use B: drive for QS-Disk1 and swap disks as directed.]

When DDT finished loading the file, **IMEDIATELY** exit DDT with G0 (G-zero) or ^C
(CTRL-C). The system image is still in memory.

Type: **SYSGEN**

When prompted for the source disk, just press return to skip reading a source disk.

When prompted for the Destination, enter < **B:\<cr>** >. The system will be
written to the QS-Disk1 floppy.

Boot QS-DISK1. It should sign on as a 32k system.

Type: **MOVCPM80 *\<cr>**

When prompted for the Destination, enter < **A:\<cr>** >.

Reboot your QS-System Disk and verify that it now reports your total memory.
================= end procedure 2 =====================

Boot QS-Disk1.   (This will be referred to as the "QS System Disk" Below.)

Your screen should look like this:

```
|
| IDE: Boot BB-0
|
| 64K LLL/HEATH/ZENITH QUIKSTOR (C) CP/M 2.2.04  01/04/11
| FOR H17 SASI DISKS WITH OPTION(S) TIB
|
| A>
|
```

Type: **QSCONFIG<cr>**
   Standard System (Y or N): **< N >**
   Configure your system disk drive step rates and track densities (option B).
   Make any other changes to options A, B and C you desire.
   Exit QSCONFIG with option **< Y >** -- exit updating memory and disk.

Type: **CONFIG80<cr>**
   Set your drive step rates, sides and track density for your H-17 drives.
   Exit CONFIG80 with option **< Y >** -- exit updating memory and disk.

Now we are ready to set up the Z67-IDE drive.

For the H89/Z90, the Z67 card can run on port 78h (left side) or 7Ch (right side). Since the H-17 controller MUST be on port 7Ch (P506) the Z67 will be on 78h (P504).

Similarly, on the H8, the Z67 card can run on ports 170Q (78h), 174Q (7Ch), 270Q (0B8h), or 274Q (0BCh) . Since the H17 uses port 174Q (7Ch), the Z67 will normally reside at address 170Q (78h).

Refer to your Z67 Card Configuration document to ensure your jumpers are properly set.

Please read the Z67-IDE manual on the use of SASIX and creating partitions. Have it handy as you perform the following.

Power off your system.

Connect the Z67-IDE communications cable to the 3-pin plug on the Z67-IDE card. Connect to the serial port on your PC.   Start your PC modem program and set it for 9600 baud, 8N1.

Power up your Heath. The Z67-IDE card should send startup diagnostics to your PC. It should report both the master and slave device parameters that you have

installed. If correct, **record the data** for the detected master and slave devices.

Boot the QS System Disk

Type: **SASIX<cr>**

Set: Function = **< 0 >**, Port = **< 78 >**, Drive = **< 0 >**
Press the **BLUE** function key to read the partition table. (NOTE: If this is a
    new device, the default table should be presented.)

Set the following:
    Error Len = **< 2 >**,
    Heads = **< (from your recorded data) >**,
    Cylinders = **< (from your recorded data) >**,
    Seek Type = 4 (default)
    W Comp = **< same as cylinders >**
    W reduc = **< same as cylinders >**

Define your partitions:
    #   Name   Cat WP Orig   Size
    1 <part1 name>   2   0   2   125
    2 <part2 name>   2   0 127   125
     ...
    15 <pt15 name> 2   0 1752   125

The Orig of the next partition will be the Orig of the previous partition plus 125
blocks. (125 blocks will yield the maximum -- 8 MB partition.)

When all partitions are defined, press **f1** (Write Track). If there is a problem with
the partition definition, SASIX will print an error message and not exit.

If SASIX was satisfied with the entry, it will exit to the CP/M prompt.

Type **AS 00:<cr>**   (**AS 01:<cr>** if it is a slave device)

The partitions for the Master Drive [00] or the Slave Drive [01] should be listed. If
not, repeat the SASIX setup to find your error.

    Available Partitions for Unit 00:
      Name   Size
     ----
       0 1   8000K
       0 2   8000K
       0 3   8000K
     ...   .
       0 15   8000K

Type: **AS 00:<part1 name> to D:** {I don't know what you will name it!}
    AS should report <part1 name> on D:.

Type: **QSFORMAT<cr>**
    Enter Command: Format **< D: >**
    Place the disk to be formatted on D:
    Hit RETURN when ready, or CTL-C to Abort. **<cr>**

    The device will format in approximately 5 seconds!

    Media check: **< Y >** (This will take a few minutes, but will report and
                                  lock out any bad sectors.)

    Do you have another diskette to format? **< N >**

Type: **DIR D:<cr>**

    It should report 'NO FILE'

Type: **STAT D:<cr>**

    It should report 7960 k-bytes (assuming an 8 MB partition).

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If you will be installing NZCOM with date-stamping, perform the following:
The NZCOM disk will be on B:

Type: **B:PUTDS<cr>**
    [Single drive users: Verify QS System Disk on drive A:, type the
      command line above, swap disks when prompted and press <cr>.]

    Which drive **< D: >**

    Do you want the "!!!TIME&.DAT" file to be a SYStem file, one that will
      not be displayed by the DIRectory command (y/n) ==> **< YES >**
    Prepare another disk? **< NO >**
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Type: **B:QSPUTSYS A:BIOS.SYS<cr>**   ;   Load from system on A:

    {Double-sided disk users type **QSPUTSYS A:BIOS.SYS<cr>**}
    [Single drive users: Verify QS System Disk on drive A:, type the
      command line above, swap disks when prompted and press **<cr>**.]

    Place BIOS.SYS SOURCE disk in Drive A:, Type RETURN when Ready: **<cr>**

Destination Drive Name or RETURN to quit: **< D >** ; target for system
Place Destination on D: and press return: **<cr>**
Destination Drive Name or RETURN to quit: **<cr>**
Type: **B:PIP D:=A:*.*[V]<cr>**   ; This will copy all files on the QS System
                                        ; Disk to D:.

{Double-sided disk users type PIP D:=A:*.*[V]<cr>}
[Single drive users: Verify QS System Disk on drive A:, type the
   command line above, swap disks when prompted and press <cr>.]

Type: **B:PIP D:=B:*.*[V]<cr>**   ; This will copy all files on QS-Disk2 to D:.
   {Double-sided disk users have already copied these files above.}
   [Single drive users: Verify QS System Disk on drive A:, type the
      command line above, swap disks when prompted and press <cr>.]

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If you will be running NZCOM, continue with the steps below.

Type: **D:PIP D:=B:*.*[V]<cr>**   ; copies NZCOM files to D:
   Insert the NZCOM disk when asked for disk B.
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Reset the computer.

Type: **Boot SS-0<cr>** (**Boot SS-1<cr>**   if you are booting the slave.)

The computer should boot from your Z67-IDE device.

Type: **AS<cr>**
   AS should respond:

   Current Partition Assignments

   Drive   Unit/Name   Size

    A: 00:0 1   8000K
    B: Unassigned
    C: Unassigned
    D: Unassigned
 =========== **Prepare Remaining Partitions for Use** ============

Now, you are ready to prepare the remaining partitions for use.

First, mount the partition:

Type: **AS 00:<part_name> to B:<cr>**

AS should respond:
    Current Partition Assignments

    Drive   Unit/Name   Size

    A: 00:0 1   8000K
    B: 00:0 2   8000K
    C: Unassigned
    D: Unassigned

Type: **QSFORMAT B:<cr>**   <<==== Exercise caution that you do not format
                                                the boot partition.

    Media Check? **< Y >**

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If you will be running NZCOM with date-stamping, perform the following:

    Type: **PUTDS<cr>**

    Which drive **< B: >**

    Do you want the "!!!TIME&.DAT" file to be a SYStem file,
    one that will not be displayed by the DIRectory command (y/n) ==> **< YES >**
-- ------------------------------

When you are finished with the partition,

Type: **AS B:<cr>**   ; to dismount the partition.

Repeat this procedure for the remaining new partitions.

=============== **All Partitions Formatted** =================

If you will be running NZCOM, continue with the steps below.

Boot your Z67-IDE system: **IDE: Boot SS-0<cr>**

Type: **MKZCM<cr>**
    Type: **< U >** for user space allocation.
    Enter **< 6<cr> >** number of records.   ; date-stamping will reside here
    Make no other change and select option **< S >** for Save
        and enter **< NZCOM<cr> >** for Name.

Type: **NZCOM<cr>**   ; The system should boot ZCPR 3.4.

The system should load NZCOM, the Date-Stamper and prompt you for the date and time.

Type: **NZCPM<cr>**   ; This should return you to the original boot system

Again, type: **NZCOM<cr>**

The system should return to NZCOM with Date-Stamper active.

Type: **NZCPM<cr>**   ; returns to the boot CP/M system

Type: **QSCONFIG<cr>**
    Select option **< D >** -- Automatic Command line.
    Select option **< C >** and enter **NZCOM<cr>**
    Select option **< A >** and verify that it toggles to TRUE.
    Exit QSCONFIG with option **< Y >** -- Exit saving to memory and disk.

Reset the computer and re-boot the Z67-IDE system.
    It should boot, load ZCPR 3.4 and prompt for the DATE and TIME.

Type: **NZBLITZ ZCPR.COM<cr>** ; The system image will be saved as
                                    ZCPR.COM.

Type: **NZCPM<cr>**   ; returns to the original system of CP/M with ZCPR2.

Type: **ZCPR<cr>**   ; returns to ZCPR 3.4 with date-stamping active.

NOTE: On cold boot, the system will boot, load ZCPR 3.4, load the date- stamping
        routine and prompt you for the date and time. You can now exit back to
        CP/M to maximize TPA for some application and later return to ZCPR 3.4
        with date-stamping by typing ZCPR. While in CP/M, if your application
        overwrote the NZCOM User Space, you will have to run **LDTIM** and **TD S**
        to reset the time.
        In CP/M, typing NZCOM will reload the system just like on cold boot.

Well, boys and girls, you now have a really nifty new toy! Its time to read
some more in the manuals to see what you can do with it. There's lots of ZCPR
stuff on Norberto's site and documentation for NZCOM and ZSDOS (ZDDOS).
                    Have FUN!