



WinSystems Application Note ROMDISK Creation

When using the USSD utilities to create a ROMDISK image, a perceived limitation exists due to floppy disk sizes of 360K, 720K, and 1.44M which cause ROM space to be wasted. Below is an example of how the command line options may be used to allow maximum use of your ROM space.

REMINDER: This approach is only valid if the floppy diskette is freshly formatted and FULLY optimized with the data to be ROMmed. Example: `FORMAT A:/s/u`

Example #1

A 1.44 Mbyte floppy has: 2 heads, 18 sectors/track, 512 bytes/sector
This totals 18,432 bytes/cylinder.

If your ROM is 512K bytes, you have 54,288 bytes of space available. The BIOS image of 96K bytes is subtracted which leaves 425,984 bytes for your ROMDISK image. This calculates to be 23.11 per cylinder (425,984/18,432).

Using the command line option of the MKDISK utility, a subset of the overall disk can be selected for the creation of the ROMDISK image. A sample is shown below which dictated that only 23 cylinders of the overall 1.44Mbyte floppy be used.

WARNING: This approach requires that the floppy was newly formatted and fully optimized.

```
MKDISK /M:5 /D:A/ O:B /T:23 /S:18 /H:2 /R:512
where:  M:5    = SX386 on board ROMDISK
D:A     = Drive A: as source
O:B     = binary output format
T:23    = Track count
S:18    = Sector count
H:2     = Head count
R:512   = ROM size in Kbytes
```

Example #2

A 1.2 Mbyte floppy has: 2 heads, 15 sectors/track, 512 bytes/sector
This totals 15360 bytes/cylinder.

If your ROM is 512K bytes, you have 54,288 bytes of space available. The BIOS image of 64K bytes is subtracted which leaves 458,752 bytes for your ROMDISK image. This calculates to be 29.87 per cylinder (458,752/15,360).

Using the command line option of the MKDISK utility, a subset of the overall disk can be selected for the creation of the ROMDISK image. A sample is shown below which dictated that only 29 cylinders of the overall 1.2 Mbyte floppy be used.

WARNING: This approach requires that the floppy was newly formatted and fully optimized.

```
MKDISK /M:6 /D:A/ O:B /T:29 /S:15 /H:2 /R:512
where:  M:6    = SBC53 on board ROMDISK
D:A    = Drive A: as source
O:B    = binary output format
T:29   = Track count
S:15   = Sector count
H:2    = Head count
R:512  = ROM size in Kbytes
```

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