ROM-DOS™ Build
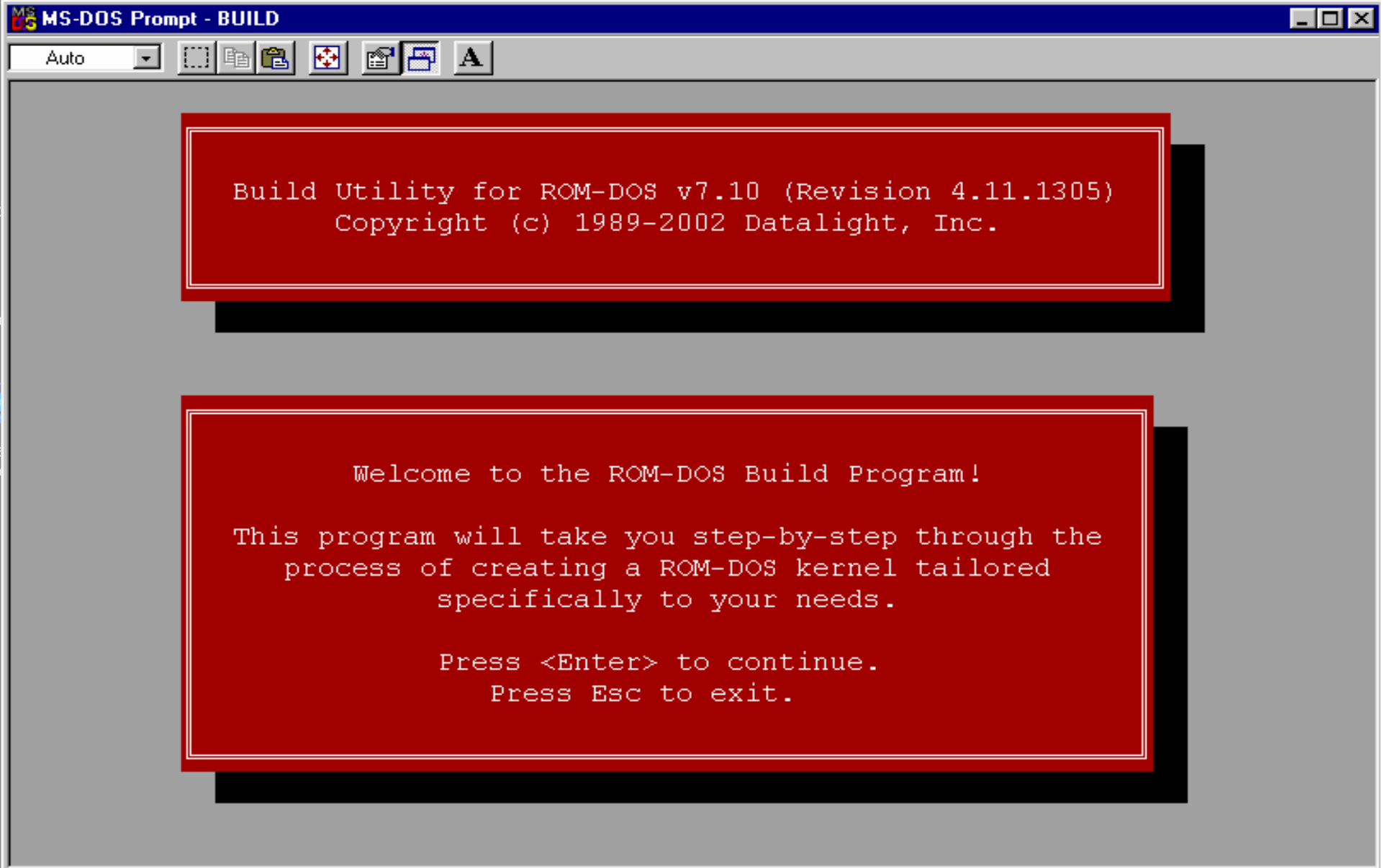
- Available only in SDK
- Utilizes SDTK for Compiler
- Allows for customizing ROM-DOS Kernel
- Provides valuable support information

ROM-DOS Build Walkthrough

ROM-DOS Build Walkthrough

MS-DOS Prompt - BUILD

Auto

Quick-Build picks the most common choices, asking very few
questions. This is the fastest way to build a bootable
ROM-DOS for your system.

Custom-Build offers the most flexibility, but requires a
more thorough understanding of the ROM-DOS product.

Do you wish to Quick-Build or Custom-Build ROM-DOS (Q/C): Q

ROM-DOS Build Walkthrough

Auto

```
              You have chosen Custom-Build.

ROM-DOS has the ability to be compatible with DOS 6.22 or with
DOS 7.1.  It can not be compatible with both at the same time.
You will need to run build again if decide you want to change
                   the DOS compatibility.

     Answer 'Yes' if you want DOS 7.1 compatibility.
     Answer 'No' if you want DOS 6.22 compatibility.
```

```
    Would you like DOS 7.1 compatibility? Y
```

ROM-DOS Build Walkthrough

Auto

```
You have chosen Custom-Build.

You can have support for LFNs(long file names) with either a
DOS 6.22 or a DOS 7.1 compatible kernel.  Adding long file name
                support will make ROM-DOS a bit larger.

Answer 'Yes' if you want ROM-DOS to support LFNs(long file names).
```

```
Would you like to enable LFN support? N
```

ROM-DOS Build Walkthrough

Auto

```
                You have chosen Custom-Build.

   Answer 'Yes' if you want ROM-DOS to boot from floppy, hard
   disk or any other disk that FORMAT and SYS understand.  Also
   answer 'Yes' if ROM-DOS will be loaded into RAM by the paged
                 loader, or directly by other means.

   Answer 'No' if ROM-DOS will boot and run from ROM, Flash
            or other memory, as a BIOS extension.
```

```
   Will ROM-DOS boot from Floppy/Hard disk? Y
```

ROM-DOS Build Walkthrough

Auto

```
You have chosen Custom-Build.

SuperBoot is a feature which allows you to see and/or boot
from a hidden DOS partition.  Adding SuperBoot support will
make ROM-DOS a bit larger and is not required for normal
operation.

Answer 'Yes' if you want ROM-DOS to support SuperBoot.
```

```
Would you like to enable SuperBoot support? N
```

ROM-DOS Build Walkthrough

Auto

A fully compatible floppy/hard-disk driver insists all BIOS drives have two FATs. But some devices, such as memory card drives, may really have only one FAT. ROM-DOS can support such special devices by sacrificing compatibility, always believing the drive information in the Bios Parameter Block (BPB) found on the disk.

Always believe the BPB information? N

ROM-DOS Build Walkthrough

Auto

A floppy/hard disk bootable ROM-DOS can boot slightly faster and be made slightly smaller by excluding the ROM-DISK driver that is built into ROM-DOS. ROM-DOS will then no longer recognize ROM-DISKs, unless of course a ROM-DISK device driver is installed via CONFIG.SYS.

Include the built-in ROM-DISK driver in ROM-DOS? N

ROM-DOS Build Walkthrough

Auto

A customized memory disk may be built into ROM-DOS using the Custom Disk Driver MEMDISK. If you have placed MEMDISK.OBJ and MEMPAGED.OBJ or some other implementation of the Generic Disk Driver into USER.LIB, you may select select this option.

Include the Custom Memory Disk Driver? N

ROM-DOS Build Walkthrough

Auto

```
   Boot diagnostics tell ROM-DOS to print various letters and
  numbers to the BIOS as ROM-DOS boots, indicating the current
  stage of the boot process.  These diagnostics are extremely
           useful in tracking down boot failures.

   A complete description of boot diagnostics can be found in
                  the READ.ME and manual.
```

```
        Do you want ROM-DOS boot diagnostics? Y
```

ROM-DOS Build Walkthrough

Auto

On systems with a keyboard capable of indicating the Alt key status, a boot menu is available. As ROM-DOS gains control, it checks to see if the Alt key is pressed, and if so, presents a menu with various boot options. These options include the ability to boot DOS from floppy or hard disk, or read CONFIG.SYS from ROM, hard or floppy disk.

Include the Boot Menu? N

ROM-DOS Build Walkthrough

ROM-DOS, like a desktop DOS, gets the TIME and DATE from the BIOS tick count. This has the disadvantage of being out of synch with the Real Time Clock due to lost ticks.

It is possible to use the Real Time Clock instead of the BIOS ticks. The only disadvantage here is that hundredths of seconds are always 0. For Real Time systems, we recommend the RTC.

Use Real Time Clock Exclusively? N

ROM-DOS Build Walkthrough

Auto

```
Would you like DOS 7.1 compatibility?                    Y
Would you like to enable LFN support?                    Y
Will ROM-DOS boot from Floppy/Hard disk?                 Y
Would you like to enable SuperBoot support?              N
Always believe the BPB information?                      N
Include the built-in ROM-DISK driver in ROM-DOS?         N
Include the Custom Memory Disk Driver?                   N
Do you want ROM-DOS boot diagnostics?                    Y
Include the Boot Menu?                                   N
Use Real Time Clock Exclusively?                         N

     Do you wish to change any of these options? Y
```

ROM-DOS Build Walkthrough

Auto

```
ROM-DOS has now been built for a Floppy/Hard disk system.
        It takes 72K (73280 bytes) of disk space.

 The files ROM-DOS.SYS and COMMAND.COM (ROM-DOS.SYS was
created by this build, COMMAND.COM should be found in the
current directory) are used by Datalight's SYS and FORMAT
      utilities to create bootable Floppy/Hard disks.

Type "SYS A:" or "FORMAT A:/S" to make a bootable floppy.

               Press <Enter> to exit.
```

ROM-DOS Walkthrough 7.1 No LFN
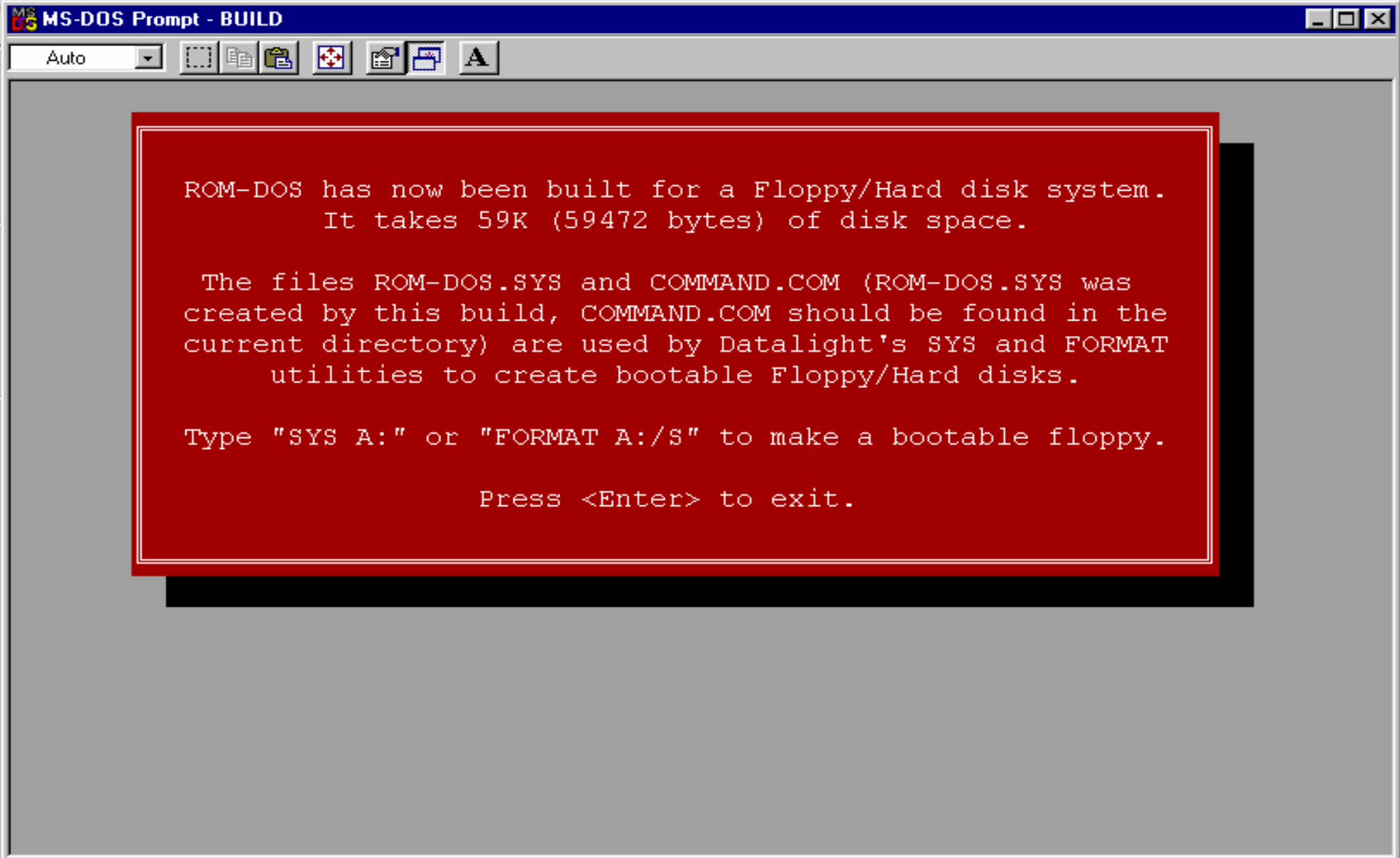
Auto

```
Would you like DOS 7.1 compatibility?                        Y
Would you like to enable LFN support?                        N
Will ROM-DOS boot from Floppy/Hard disk?                     Y
Would you like to enable SuperBoot support?                  N
Always believe the BPB information?                          N
Include the built-in ROM-DISK driver in ROM-DOS?            N
Include the Custom Memory Disk Driver?                       N
What level of CONFIG.SYS processing (None, 3, 5, 6, 7)?      7
Do you want ROM-DOS boot diagnostics?                        Y
Include the Boot Menu?                                        N
Use Real Time Clock Exclusively?                             N

          Do you wish to change any of these options? Y
```

ROM-DOS Walkthrough 7.1 No LFN

MS-DOS Prompt - BUILD

Auto

```
ROM-DOS has now been built for a Floppy/Hard disk system.
        It takes 59K (59472 bytes) of disk space.

 The files ROM-DOS.SYS and COMMAND.COM (ROM-DOS.SYS was
created by this build, COMMAND.COM should be found in the
current directory) are used by Datalight's SYS and FORMAT
      utilities to create bootable Floppy/Hard disks.

Type "SYS A:" or "FORMAT A:/S" to make a bootable floppy.

                  Press <Enter> to exit.
```
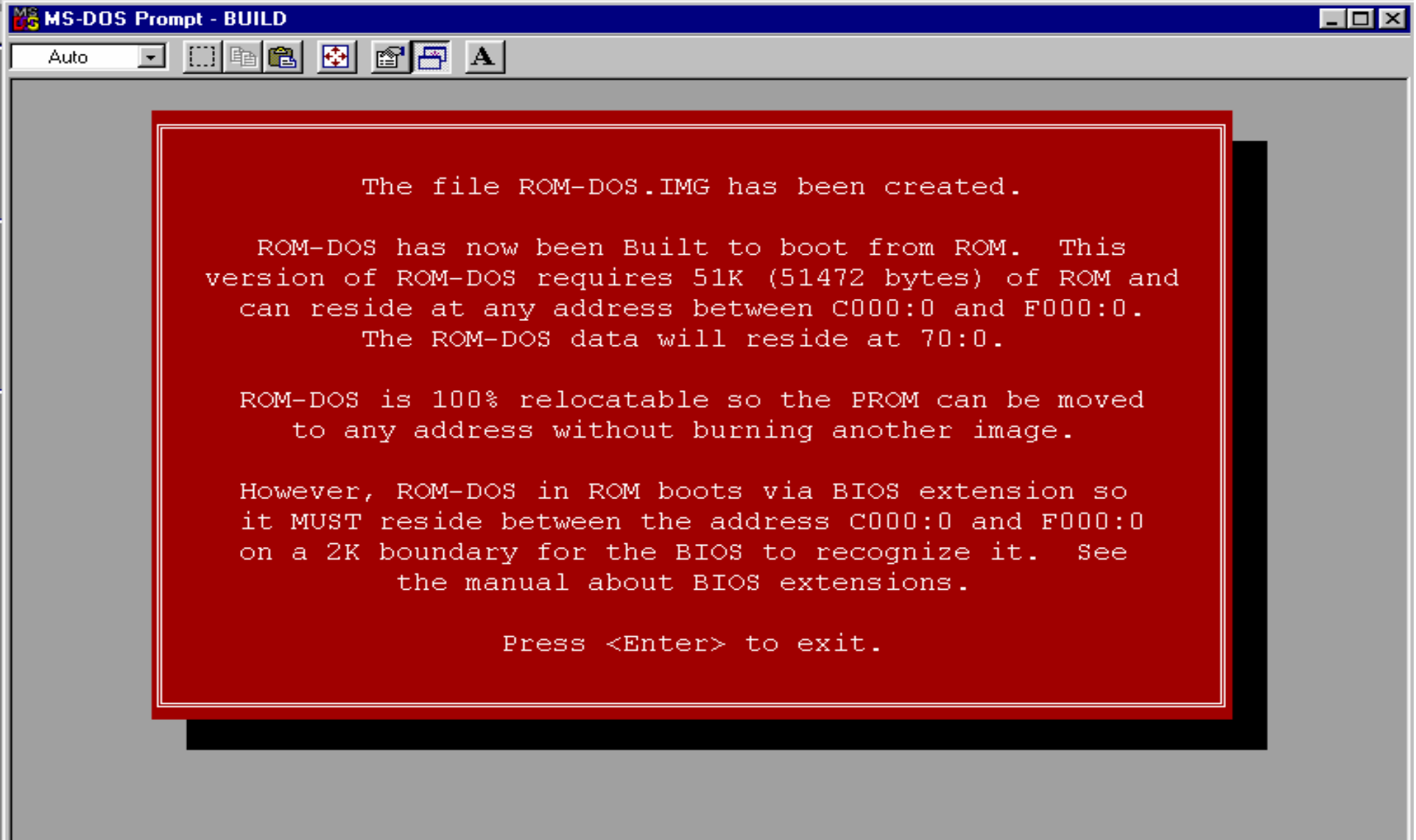
ROM-DOS Build Walkthrough ROM Image


```
MS-DOS Prompt - BUILD

Auto    ▾    □ 🗐 🗎 ⊞ 🗗 🗗 A

Would you like DOS 7.1 compatibility?                          N
Would you like to enable LFN support?                          N
Will ROM-DOS boot from Floppy/Hard disk?                       N
Copy ROM-DOS to RAM?                                           N
Where shall ROM-DOS data reside                                70
Can a floppy disk superscede ROM-DOS in ROM?                   Y
Do you want to include the Floppy/Hard disk driver?            Y
Always believe the BPB information?                            N
Include the Custom Memory Disk Driver?                         N
Include the built-in ROM-DISK driver in ROM-DOS?              N
Read CONFIG.SYS from a specific drive letter?                  N
Read CONFIG.SYS from which device (ROM, Floppy, Hard)?         R
What level of CONFIG.SYS processing (None, 3, 5, 6)?           3
Do you want ROM-DOS boot diagnostics?                          Y
Include the Boot Menu?                                         N
Use Real Time Clock Exclusively?                               N
Create Binary or Intel HEX file(s) as output (B/H):           B
Split the output into Odd byte and Even byte files?           N

        Do you wish to change any of these options? Y
```

ROM-DOS Build Walkthrough ROM Image

ROM-DOS Build Summary

7.1	With LFN	70K
7.1	No LFN	59K
6.22	With LFN	68K
6.22	No LFN	55K

ROM-DOS Build Summary

- Build results contained within Build.TXT
- Changing LFN resulted in 11K smaller code
- Build 6.22 or 7.1 kernel
- Build for ROM or Hard Drive Execution