ROM-DOS™ Build

- Available only in SDK
- Utilizes SDTK for Compiler
- Allows for customizing ROM-DOS Kernel
- Provides valuable support information
Build Utility for ROM-DOS v7.10 (Revision 4.11.1305)
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Welcome to the ROM-DOS Build Program!

This program will take you step-by-step through the process of creating a ROM-DOS kernel tailored specifically to your needs.

Press <Enter> to continue.
Press Esc to exit.
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): ☟
You have chosen Custom-Build.

ROM-DOS has the ability to be compatible with DOS 6.22 or with DOS 7.1. It cannot 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? Yes
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
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
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
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
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
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 this option.

Include the Custom Memory Disk Driver? N
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 README and manual.

Do you want ROM-DOS boot diagnostics? Y
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.
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
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 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.
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 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.
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 supersede 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
The file ROM-DOS.IMG has been created.

ROM-DOS has now been built to boot from ROM. This version of ROM-DOS requires 51K (51472 bytes) of ROM and can reside at any address between C000:0 and F000:0. The ROM-DOS data will reside at 70:0.

ROM-DOS is 100% relocatable so the PROM can be moved to any address without burning another image.

However, ROM-DOS in ROM boots via BIOS extension so it MUST reside between the address C000:0 and F000:0 on a 2K boundary for the BIOS to recognize it. See the manual about BIOS extensions.

Press <Enter> to exit.
## ROM-DOS Build Summary

<table>
<thead>
<tr>
<th>Version</th>
<th>LFN Status</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1</td>
<td>With LFN</td>
<td>70K</td>
</tr>
<tr>
<td>7.1</td>
<td>No LFN</td>
<td>59K</td>
</tr>
<tr>
<td>6.22</td>
<td>With LFN</td>
<td>68K</td>
</tr>
<tr>
<td>6.22</td>
<td>No LFN</td>
<td>55K</td>
</tr>
</tbody>
</table>
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