

PHAR LAP[®] SOFTWARE, INC. CATALOG OF PRODUCTS

DOS EXTENDERS

A DOS Extender is a software tool that enables developers to access extended memory beyond the 640K DOS limit. The DOS extender functions as a layer between DOS in real mode and an application in protected mode. It is embedded into the program and is invisible to the end-user. Phar Lap's DOS extenders support all the major industry standards—DPMI, XMS and VCPI—so that Extended-DOS applications can run under DESQview[™] and all modes of Windows[™], as well as DOS.

TNT DOS-Extender[™] SDK (Formerly 386|DOS-Extender)

TNT DOS-Extender is a 32-bit development tool that enables programmers to build multi-megabyte applications that take advantage of powerful NT features, including DLLs, threads, and multitasking under DOS. TNT also includes the WinPipe VxD which enables developers to write a Windows GUI front end for their 32-bit DOS applications. TNT DOS-Extender runs on any DOS-based 80386 or higher PC and supports a wide range of 32-bit tools, including Borland C++ 4.0 and the Microsoft Visual C++ 32-bit Edition compiler. The Software Development Kit (SDK) includes, in addition to TNT DOS-Extender, a 32-bit version of the Microsoft CodeView debugger, Phar Lap's 386|ASM macro assembler, 386|LINK linker, 386|LIB librarian, and 386|SRCBug debugger.

TNT DOS-Extender RTK

The TNT DOS-Extender Run-Time Kit is available for developers who want to embed TNT DOS-Extender into their applications for distribution to customers.

EMBEDDED DEVELOPMENT TOOLS

LinkLoc[™]

LinkLoc is a one-step linker/locator for real and protected mode embedded development of Intel 80x86 CPUs. The rich set of command switches within the suite gives the developer complete control over the link/located process and the ability to place data anywhere in ROM or RAM. LinkLoc is compatible with a wide range of IECs, PROM programmers and debuggers, enabling these tools to work together to speed up the development process.

386|ASM LinkLoc[™]

The 386|ASM/LinkLoc embedded development package includes the LinkLoc linker/locator, 386|ASM cross assembler, 386|LIB librarian, 386|SRCBug debugger, and a development version

of 386|DOS-Extender. 386|ASM/LinkLoc can be used to develop for the 8086, 286, 386, or i486, including prototyping with 386|DOS-Extender on a 386 or i486.

Cross Tools

386|ASM/Link/Loc is available for cross development of both embedded and MS-DOS applications for the 8086, 186, 286, 386 and i486. Versions are available for many hosts, including Apollo, Sun, SPARC, VAXstation, μ VAX, VAX and HP 9000-3XX.

Cross Compilers

For embedded development with 386|ASM/LinkLoc, Phar Lap offers the MetaWare High C-386 compiler for 80386 and i486 targets, and the High C-86 compiler for 8086, 8088, 186, 2986, 386, and i486 targets. The High C-386 compiler is used for 32-bit 386 or 486 protected-mode code development, while the High C-86 compiler is used for real or 16-bit protected-mode code development. Both compilers are fully ANSI standard and incorporate the same code generator as the PC-hosted High C compilers. Cross compilers are available for UNIX V 386/486, Sun 3, Sun 4, and HP 9000-3XX hosts.

About Phar Lap Software

Phar Lap Software, Inc. was founded in April of 1986 by Richard M. Smith, President; Robert Moore, Vice President; and John Benfatto, Vice President. Phar Lap specialized in software development tools for the Intel 80x86 family of microprocessors and introduced a 386|DOS-Extender, a 32-bit protected mode development tool, in November of 1986. Since then, Phar Lap's product line has expanded to include 386|VMM, a virtual memory add-in driver, LinkLoc, a linker-locator for embedded development; cross tools for embedded development; and 286|DOS-Extender, a 16-bit protected-mode development tool. In addition, Phar Lap and Quarterdeck Office Systems developed the Virtual Control Program Interface (VCPI) and Phar Lap was a member of the 12-firm committee that designed the DOS Protected Mode Interface (DPMI). VCPI and DPMI are industry standards allowing DOS extenders to co-exist with EMS emulators and multi-tasking environments. Phar Lap has received several major PC industry awards for VCPI, 386|DOS-Extender, and 286|DOS-Extender.