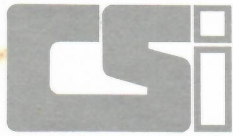




CBASIC

**The Key to
Business Software
Development**



**COMPILER
SYSTEMS, INC.**

CBASIC™

The Key to Business Software Development

With the availability of microcomputers for the business world, compatible software programs are essential. Developing programs to meet the myriad of requirements is a major task, but one made easier by efficient development tools.

Compiler Systems, Inc. answers that need with CBASIC, the most widely used Basic dialect in the business community. It speeds development of business applications. Its precision and easy-to-use format give programmers one of the most accurate tools for implementing business applications. CBASIC offers:

- 14-digit decimal arithmetic
- random and sequential disk accessing
- complete string processing facilities
- enhanced source code maintenance

Built-in Marketability

CBASIC is one of the most flexible software products on the market today. It is available on all microcomputers that provide the CP/M®, MP/M™, CP/NET™, UNIX™, TRSDOS, or CP/M-86™ operating systems. The support for UNIX can be expanded to accommodate other operating systems supporting the C language.

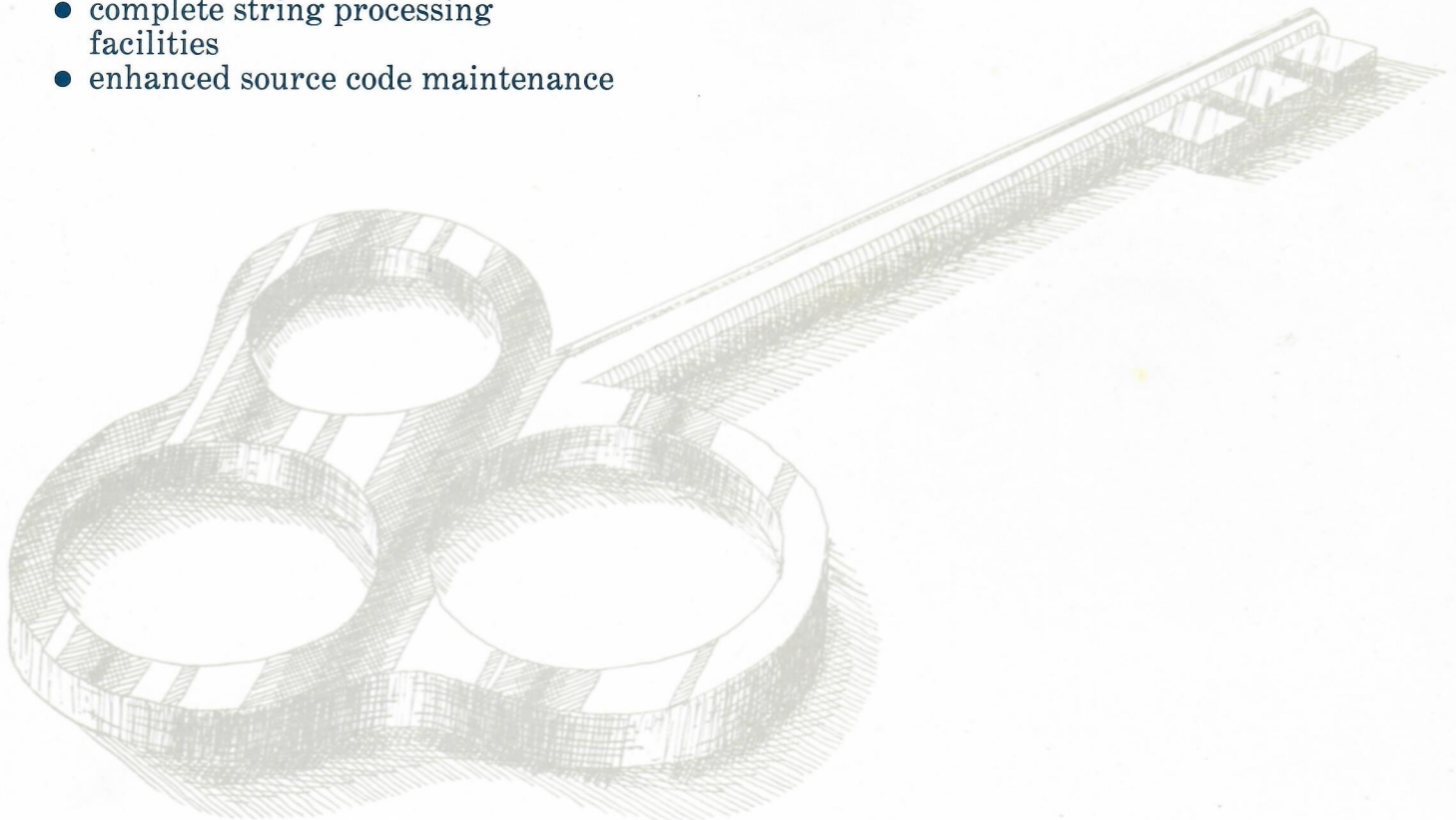
The transportability of CBASIC allows software and hardware OEMs to upgrade to more powerful hardware without losing their software investment. Marketability is further enhanced by the large numbers of business application packages written in CBASIC.

CBASIC, CBASIC/16, and CBASIC/86 are all trademarks of Compiler Systems, Inc.

UNIX is a trademark of Bell Laboratories

CP/M is a registered trademark of Digital Research

MP/M, CP/NET, CP/M-86 are all trademarks of Digital Research



Saves Programming Time

CBASIC minimizes time spent programming with features that make programs easy to read and maintain. Because CBASIC is implemented as a compiler, these features are a distinct advantage.



One such feature is a powerful **INCLUDE** directive which permits source code to be included from another file during compilation. This allows installation standards, such as file definitions, to be written once and then used by all programmers. It also permits custom support modules to be written for many different terminals and then included in a package as required.

CBASIC does not penalize a programmer who adds extensive comments to a program or indents source statements to show the structure of the program. It does not require line numbers on each line; when line numbers are used, they may be any real or integer number. By eliminating line numbers on each statement, program control flow is more evident and source code is more readable.

CBASIC also has the ability to extend statements over many lines to allow arbitrarily complex statements. This significantly improves the power of the **IF . . . THEN . . . ELSE** construct, and also makes the source code much more readable. In comparison, most Basics limit the length of a statement to an arbitrary number such as 255 characters.

The language also provides multiple line functions with multiple parameters.

This feature permits a program to be developed in a modular fashion, tested, and then combined with other functions.

All of these features reduce development costs and increase productivity from programmers, allowing them to concentrate on solving system problems.

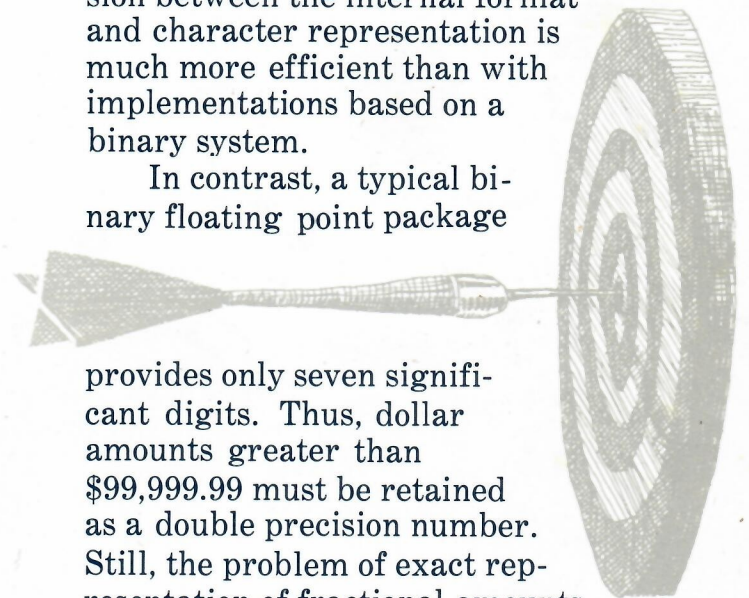
Superior Business Accuracy

CBASIC's 14-digit decimal arithmetic is mandatory for the accuracy demanded by business applications. In programming terms, CBASIC maintains real numbers in a binary-coded decimal (BCD) floating point format, retaining 14 significant digits. While BCD arithmetic has been the "standard" in the software industry for implementing business applications, CBASIC is the only Basic to use this format with CP/M-based microcomputer systems.

Why is this important? First, decimal arithmetic assures that fractional parts of dollar amounts will be exact and ledgers will balance to the penny. Second, conversion between the internal format and character representation is much more efficient than with implementations based on a binary system.

In contrast, a typical binary floating point package

provides only seven significant digits. Thus, dollar amounts greater than \$99,999.99 must be retained as a double precision number. Still, the problem of exact representation of fractional amounts is not completely eliminated. In addition, binary systems have less dynamic range than CBASIC's decimal representation.



Efficient Processing

CBASIC offers a full complement of string functions. All strings are dynamically allocated and unused space is returned to the system automatically. For example, the MATCH, RENAME, and SIZE functions are substantially more powerful than their equivalent in other languages. With CBASIC, string processing algorithms are specifically designed to minimize the use of memory space and to reduce unnecessary moving of strings in memory.

No other Basic language provides as powerful file accessing capabilities as CBASIC. For maximum flexibility, CBASIC provides two types of files: fixed record length files and stream input/output files. The fixed record length file may have records of any length selected by the programmer. They may be read sequentially or randomly, even allowing intermixing of the two methods of accessing. Up to twenty different files may be open at one time. As records are read from the file, the values are automatically assigned to variables. CBASIC also allows a file to be updated by adding records to the end of a file. This eliminates the need to make an additional copy of the file when adding records to the file, thus conserving disk space.

To minimize the impact on the available string space, buffers are dynamically allocated, and large records are automatically processed in 128-byte sectors to increase speed in accessing files. Considering the limited address space of 8-bit microprocessors, this feature adds significantly to the power of the language.

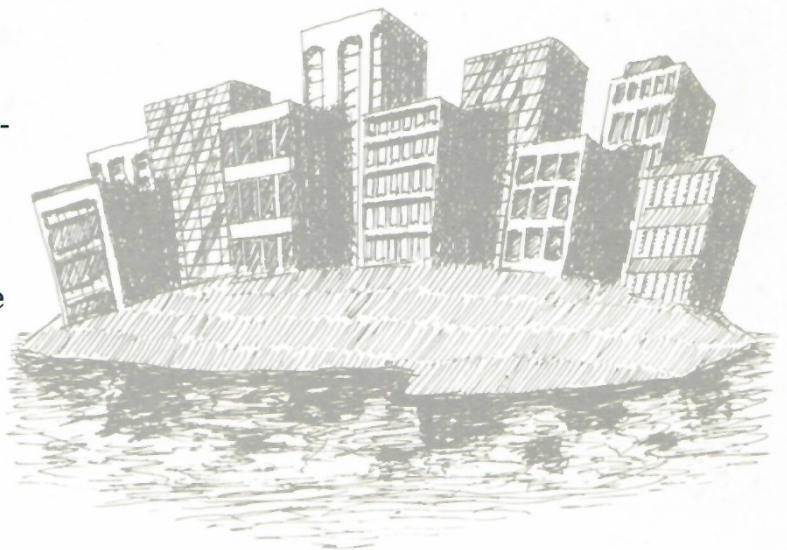
In contrast, most Basics limit the record length in files to 256 bytes and do not permit records to be added to a sequential file. Unlike CBASIC, the same file may not be read both sequentially and randomly. This means many applications that lend themselves to sequential processing must be handled with the additional overhead required by random access.

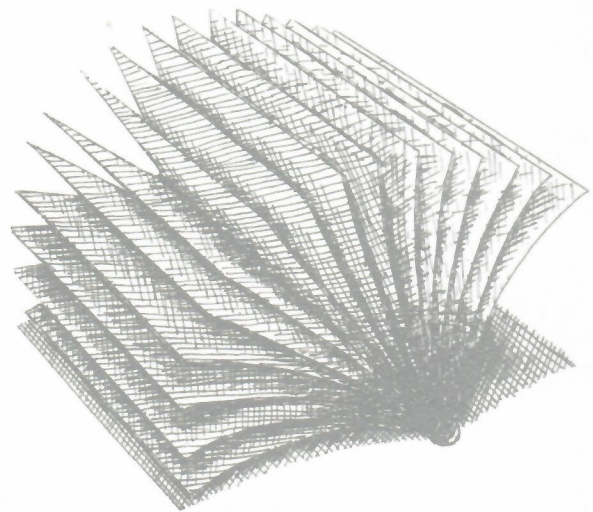
A Tool You Can Depend On

CBASIC has been serving worldwide software markets since 1977. It is the most widely used Basic dialect in the business community today. There are more software packages written in CBASIC for general accounting and vertical markets than in any other language available on microcomputers.

Compiler Systems, Inc. is committed to provide complete customer service and support for developers of business applications written in CBASIC. CSI's commitment of support currently includes a telephone hotline to assist registered end-users with technical questions, assistance on an individual basis to OEMs interested in offering CBASIC with their hardware, and publication of the CBASIC Software Directory that lists software vendors who market products written in CBASIC.

The entire family of CBASIC products — CBASIC, CBASIC/16, CBASIC/86 — reflect the company's dedication to serving the microcomputer industry. Compiler Systems, Inc. will continue to respond to hardware and systems software innovations as they emerge in the marketplace.





Software Directory

With the CBASIC Software Directory, systems integrators now have an up-to-date reference to quality accounting and vertical market application packages. All software developers can essentially expand their market by utilizing this software tool.

The directory contains a listing of companies marketing standard business application packages, followed by product name and description, and memory requirements. An appendix of word processing accessories and an alphabetical index are also included.



Compiler Systems, Inc.
37 North Auburn Avenue, P.O. Box 145
Sierra Madre, California 91024
(213) 355-1063

Compiler Systems, Inc. is an equal opportunity employer.