

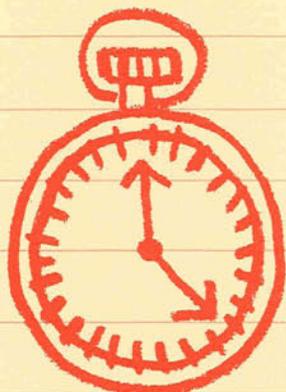
Now YOU can program a computer in

BASIC

A new dimension in data processing

GENERAL  ELECTRIC

General Electric BASIC* language brings the benefits of Computer Time-Sharing Service to everyone



You can't afford to wait for answers

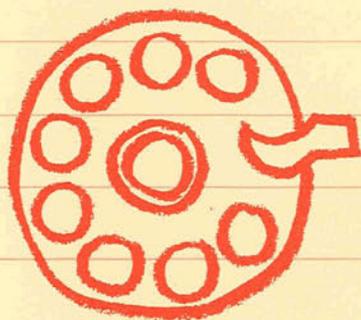
You have computational problems which need to be solved immediately. You can't afford to wait hours for answers.

Hundreds of people with problems just like yours have turned to General Electric Time-Sharing Service. This service gives them immediate access to a computer right from their own offices. They can solve their problems in seconds — even if they are not experienced programmers.

BASIC makes it possible

BASIC, standing for **B**eginner's **A**ll-purpose **S**ymbolic **I**nstruction **C**ode, is a language the computer can understand. Yet it resembles ordinary mathematical notation. It has a simple English vocabulary and few grammatical rules, but it permits complete and precise specification of your problems.

BASIC is a versatile language, practical for professional users in many fields. It is just as easy to apply to business and statistical problems as to engineering and scientific calculations.



You dial the computer right from your office

Computer Time-Sharing Service lets you use the BASIC language right from your office by simply dialing a G-E Information Processing Center. You operate a typewriter-like keyboard to access a modern electronic computer. After dialing, you respond to some simple inquiries, and in a few seconds the computer indicates it is ready to accept your problem.

Because you're sharing time with many other users, you also share the cost of the computer. Yet, you have the feeling you are the only user, because the high-speed computer can serve many users at the same time. While you are typing your instructions, or while your answers are being printed, the computer is solving other people's problems.

BASIC is for beginners

BASIC is popular with our customers because it is simple to learn and easy to use. You use just 18 BASIC statements to solve your computational problems. Many users were inexperienced in programming when they were introduced to BASIC. After a few hours of instruction, they composed and ran useful programs. As they perfected their techniques, they produced more advanced programs. Many customers have even taught themselves programming by studying the BASIC Reference Manual.

You can change programs easily, at any time. You can correct errors or revise logic whenever you need to. Many automatic checks are also made by the system. When it detects errors, it points them out to you in concise, self-explanatory messages.

$$3 \times 1 = 3$$

BASIC is for experienced programmers, too

But don't mistake BASIC's simplicity for limited capabilities. It is a powerful language which provides for logic comparisons, subscripting, lists, and arrays. It has extensive capabilities for matrix manipulation. Common trigonometric functions are available. There are functions for exponentials, logarithms, random numbers, and square roots. You can make provisions to use a particular part of a program many times in solving a problem. Such a program segment may be called for as a subroutine whenever you need to use it.

Many experienced programmers who have used more complex programming languages now use BASIC for a large percentage of their problems. The system responds so rapidly to your instructions that debugging at the keyboard is not only practical, but recommended. Because of its simplicity, your BASIC program can compile computer instructions in one pass, taking just fractions of seconds. This compiling speed means minimum computing cost to you.

$$T = 2\pi\sqrt{l/g}$$
$$R = \frac{Y}{2} \sqrt{v_0}$$
$$S = K \frac{Q}{v^2}$$

* "BASIC"—a language developed by Dartmouth College.

Additional Features:

Beside BASIC's simplicity and powerful functions, you can also have the following conveniences:

- **Conversational statements** simplify input/output, one of the most bothersome elements of programming.
- **Free-style input** gives you formatting flexibility. You are allowed a full line for one program statement. This gives you up to 72 characters per line, including the line number.
- **Five output columns** are automatically supplied. If you want to vary from this, you can specify other formats.
- **Segmenting** a complex statement is possible. Each segment can be identified as a variable.
- **Six significant digits** of accuracy are possible. BASIC allows for a number range from 10^{+76} to 10^{-76} .

- **You can modify** your programs easily and safely. When finished, you can request a new printout of your modified program.

- **Editing functions** are available which let you combine two or more programs into one, dispose of unwanted portions of a program, and renumber the statements.

- **You can save programs** in the computer system's storage. Or, infrequently used programs can be punched into paper tape.

- **A library of programs** stored within the system is available to you. These programs can perform valuable computations such as solving simultaneous equations, curve fitting, and statistical analysis. With this library, you do not have to spend your time programming commonly used complex routines.

Here's what our customers say about BASIC:

“

Very favorable results. Improved response and turnaround time between problem definition and solution. Accuracy has improved.”

... Investment Analyst, Bank

“Before Time-Sharing, our statistics were computed on a desk calculator. BASIC not only is much faster, but also has a greater degree of accuracy.”

... Data Analyst, Electronic Component Manufacturer

“I have had the opportunity to use Time-Sharing as it was designed to be used, as a desk-side computer. I do not program by profession, but use BASIC in the solution of everyday problems when necessary. In these cases, it has been a helpful tool.”

... Data Systems Planner, Telephone Company

“It has been extremely useful to me in fitting data to curves, and obtaining numbers from formulas to plot on curves.”

... Systems Analyst, Electronic Research

“Most of our quick-look analysis computations had been done with desk calculator and slide rule. Our reduction in time with the computer is about 20 to 1.”

... Field Test Engineer, Aerospace Company

“In the solution of multiple, reiterative differential equation, no other method is as practical.”

... Advance Engineer, Electronics Company

“Rapid development of algorithms plus quick turnaround on short production work yields savings of four hours per job.”

... Operation Research Analyst, Automobile Manufacturer

“Errors in programming can be corrected on the spot . . . computations having an error can be stopped before going too far.”

... Research Scientist, Aerospace Company

“Excellent; greatest thing since matches!

... Analytical Engineer, Electronic Component Manufacturer

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What can BASIC do for you?

It can help you stay ahead of your problems by solving them in a fraction of the time you're spending now. Why not learn more about BASIC and its benefits? There's no obligation. Just contact your local G-E Information Processing Center :

CHICAGO

110 North Wacker Drive
Chicago, Illinois 60606
Phone: 312 663-3847

CLEVELAND

1020 Lakeside Avenue
Cleveland, Ohio 44114
Phone: 216 523-6252

DALLAS

8100 Carpenter Freeway
Dallas, Texas 75247
Phone: 214 631-0910

DETROIT

22150 Greenfield Road
Detroit, Michigan 48237
Phone: 313 398-9000

LOS ANGELES

6151 West Century Blvd.
Los Angeles, California 90045
Phone: 213 670-8441, Ext. 201

LYNCHBURG

2010 Atherholt Road
Lynchburg, Virginia 24501
Phone: 703 846-7311 Ext. 711

NEW YORK

570 Lexington Avenue
New York, New York 10022
Phone: 212 751-1311

NORTH TEXAS

P. O. Box 540
Wichita Falls, Texas 76307
Phone: 817 322-2139

PHOENIX

2725 North Central Avenue
Phoenix, Arizona 85004
Phone: 602 941-4851

SAN FRANCISCO

Ninth and MacDonald Avenue
Richmond, California 94801
Phone: 415 233-1390

SCHENECTADY

60 Washington Avenue
Schenectady, New York 12305
Phone: 518 374-2211, Ext. 5-3049

WASHINGTON, D. C.

7800 Wisconsin Avenue
Bethesda, Maryland 20014
Phone: 301 654-9360

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GENERAL  ELECTRIC

INFORMATION SYSTEMS DIVISION