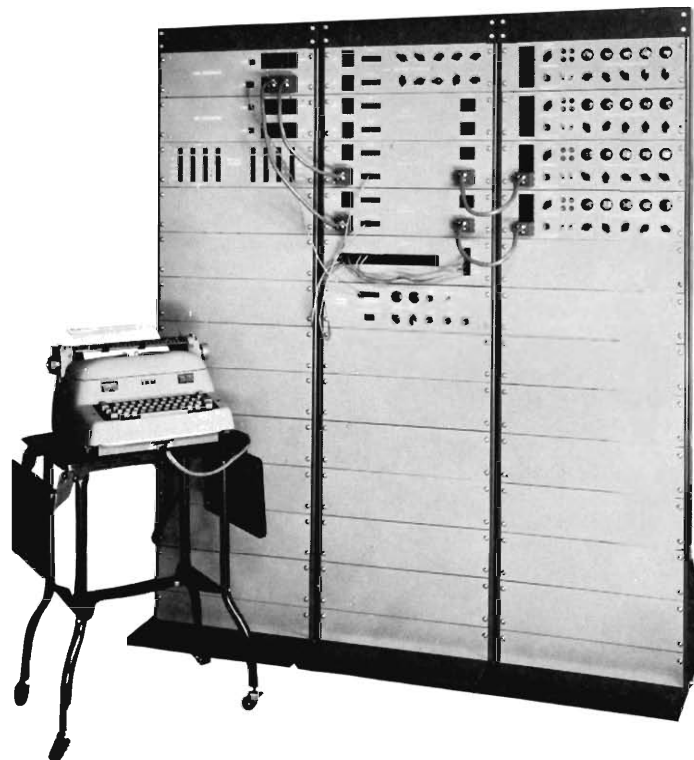


Wang Laboratories

Announces Another Major
Computer Development . . .

A Digital-Analog Differential Computer
The
Digilog Computer



Featuring . . .

DIGITAL REPRESENTATION — HIGH ACCURACY
ANALOG FUNCTIONING — NUMERICAL SIMULATION
PATCH-UP PROGRAMMING — PARALLEL OPERATION

Digilog

is a completely new, moderately priced, parallel operation digital computer, unique in principle and simple to operate. Designed to solve most of the problems encountered in the physical sciences and engineering, it will solve linear and non-linear ordinary and partial differential equations, integral equations, and simultaneous differential and algebraic equations.

Digilog

is not just another computer. It combines the simplicity of problem setup of the D.C. Analog Computer with the accuracy and resolution of a full scale Digital Computer. *Digilog* requires no tedious programming. All units of the machine are "patched". Since multiplication is one of the basic operations of the computer, non-linear equations can be solved as easily as linear equations. The available precision is five decimal digits.

Digilog

is built around a Central Control Unit. This unit controls the operation of six general types of computation units.

1 Integrator Unit

2 Adder Unit

3 Distributor Unit

4 Multiplier Unit

5 Constant Multiplier Unit

6 Multiple Factor Unit

These computation units are all that are needed to solve a problem. The problem determines the number and type of each of the computation units required. Unitized computation units enable you to expand a basic computer as more comprehensive problems arise.

No precision power supplies are necessary. There is nothing in the computer to leak or drift. No precise measurements are required in the set up. Initial conditions are set in by rotary switches. The computer may be stopped at any time and hold its value indefinitely. Changes in the independent variable can proceed synchronously from the internal clock of the Central Control Unit or changed asynchronously by manual control at any speed the operator desires.

The variables are available to be recorded by any one or all of the following devices.

- 1 Automatically tabulated by electric typewriter.
- 2 Automatically tabulated on punch cards.
- 3 Recorded as the computer operates on a plotting board or pen recorder.
- 4 Manually recorded from indicator lights of the computer.

To solve a problem all that is required is to "patch up" the necessary computation units. Set the initial conditions with the rotary switches. Press the start button. *Digilog* does the rest. If you are using an electric typewriter to record you will have a five decimal digit tabulated solution to your problem in several minutes.

SPECIAL FEATURES

- ▶ Decimal operation in five digits, true number with sign
- ▶ All variables operating within ± 1.00000 including unity
- ▶ Finger tip control of computational speed
- ▶ Indefinite holding
- ▶ Time reversal of the independent variable allowing detailed examination of critical regions
- ▶ Alarm system and automatic stop of computation indicating overflow of any integrator
- ▶ Typewriter tabulated records during computation run
- ▶ Three speeds of operation permitting up to one hundred times speed-up in computation for rough estimate or set up checking
- ▶ Functional relationships maintained at all times during computation permitting direct recording of all variables
- ▶ Powerful parallel operation permitting solution of partial differential equations
- ▶ Neon lights indicating all variables at all times
- ▶ Digital operation allowing unlimited expansion of facility without loading problems

BASIC *Digilog* COMPUTER INCLUDES

MODEL DLS-63

- | | | | |
|---|------------------------|---|--------------------------------|
| 1 | CENTRAL CONTROL UNIT | 6 | DUAL MULTIPLIER UNITS |
| 2 | 18 CHANNEL ADDER UNITS | 2 | DUAL CONSTANT MULTIPLIER UNITS |
| 6 | INTEGRATOR UNITS | 2 | MULTIPLE FACTOR UNITS |
| 3 | DUAL DISTRIBUTOR UNITS | | POWER SUPPLIES |
| | | | PATCH CORDS |

OPTIONAL ACCESSORIES AVAILABLE

ARBITRARY FUNCTION GENERATORS

PATCH CORD CONTROLLED TYPEWRITER

MULTIPLE CHANNEL RECORDER

X-Y RECORDER

SPECIALIZED *Digilog* SYSTEMS

The principles of *Digilog* are readily adaptable to process control, digital servos, and specialized computers. We invite your inquiries.

OTHER WANG LABORATORIES PRODUCTS

- STATIC MAGNETIC MEMORIES • PERMA-MEMORY MULTIPLE SCALERS
- CHARACTER DISPLAY SIGNAL GENERATORS • CONFLUXER PULSE GENERATORS
- ANGULAR POSITION DATA RECORDERS • OTHER MAGNETIC CORE DEVICES

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