

A large, bold, white number '3' is centered on a black background. A thin white diagonal line runs from the top left towards the bottom left, passing behind the number.

3

**Announcing:
IBM System /3
Model 6**

System/3 Model 6



Technology

Specifications

Speed and reliability of System /3

Storage

Instructions:

I/O Controls

System/3 Model 6

The System /3 Model 6 is a disk oriented, direct entry system for commercial problem solving applications using accounting documents and procedures familiar to the customer. It will also be used as a personalized stand alone system or a remote terminal for solving calculations by engineers, financial analysts, scientists, professionals and technicians.

Simple operational support in the form of the Desk Calculator mode (BASIC program) allows any user who understands desk calculator operation to begin system usage immediately.

System Components

IBM 5406 Processing Unit
w/ Console Keyboard
IBM 5213 Wire Matrix Printer
IBM 5444 Disk Storage Drive
(First)

Optional Machine Types

IBM 5444 Disk Storage Drive
(Second)
IBM 2222 Wire Matrix Printer
and Ledger Card Device
IBM 2265-2 Display Unit
IBM 5496 Data Recorder
w/ On-line Feature

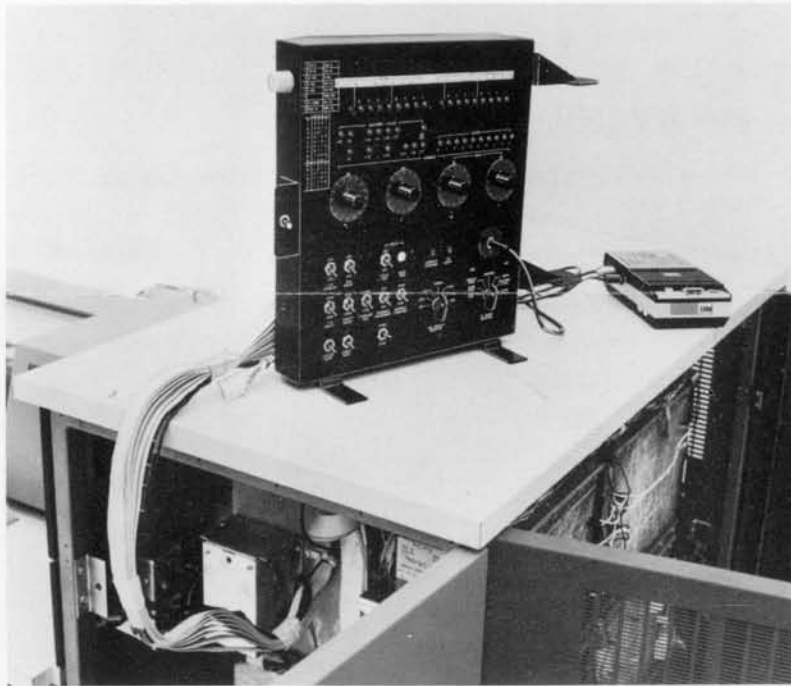
Optional Features

Binary Synchronous Commu-
nications Adapter
Serial I/O Channel

CE Career Path

The System /3 Model 6 will be serviced by Customer Engineers assigned to the Data Systems Product Group.

Diagnostic Features



The controls on the CE panel serve as a diagnostic aid in localizing hardware and software problems. These controls display and alter information in storage and can regulate the 5406 modes of operation (Normal, Instruction Step, Clock Cycle, or Clock Step). The CE panel can be removed from its regular mounting position and placed atop the CPU providing unobstructed access for the

Maintenance Strategy

The maintenance strategy is an integrated maintenance plan which locates a majority of system problems without the use of an oscilloscope. The primary service approach is maintenance analysis procedure charts (MAPS) used in conjunction with diagnostic programs and a CE probe.

servicing Customer Engineer. An audio tape recorder utilizing cassette cartridges will be used as an Alternate Program Load Device. The APLD will provide an alternate method of loading disk diagnostics into the system. It will also furnish an inexpensive means of updating the CE disk pack.

Programming

The System /3 Model 6 can utilize two programming systems. These systems are:

1. The commercial programs for the System /3 Model 6.
Note: This is not a name for a program, there is no name for the series of separate program products and the SCP that are used. Each separate unit does have an individual name.
2. System /3 BASIC.

These programming systems can be ordered and used independently or both can reside on the same system disk pack.

... Description of the commercial programs.

This group of programs is similar to those used on the System /3 Model 10 with the following exceptions:

1. RPG II includes additional coding to function in a interactive environment.
2. Disk Sort has been modified to function on an 8K CPU.
3. Card system utilities are not included.
4. Keyboard Entry Utilities are included to provide for the creation of source and data files.
5. Data Interchange Utility is provided so that data can be interchanged between the commercial and BASIC systems.
6. OCL can function in an interactive environment with the keyboard as well as in batch process mode with the optional Data Recorder.

... Description of the System /3 BASIC program.

This system is new to System /3 and is only used on the Model 6. This system is used to provide a method to solve mathematical problems. The system provides two methods of operation.

1. BASIC, a conversational language that is simple and easy to learn and yet will meet the needs of a person requiring a high level programming language. The system provides for the creation of program and data files in an interactive environment. The system is then controlled by system commands entered via the keyboard or the optional Data Recorder. A virtual memory concept is utilized for actual program execution.
2. Desk Calculator mode is the other method of system operation. This method allows operations such as add, subtract, multiply, divide, roots, reciprocals and many mathematical functions without the use of a programming language.

Additional features of System /3 BASIC are:

1. Utility functions within the program to allow for maintenance of the system both from a user and CE viewpoint.
2. Diagnostic facilities are provided within the system to aid both the user and the CE in the process of pinpointing a particular problem.

Technology

Speed and reliability of System /3 are enhanced by the use of micro-miniaturized circuit modules of the Monolithic System Technology (MST-1) family. MST-1 circuits can be switched at an average speed of ten nanoseconds. An advanced form of Solid Logic Technology called Solid Logic Dense (SLD) is used in much of the I/O.

Specifications

Storage:

Memory sizes are available in 8K, 12K and 16K.

Timing:

Basic Machine cycle time (Read/Compute/Write) is 1.52 microseconds.

Data Format:

Decimal data is represented by single bytes. Maximum length of a source decimal field is 16 digits (or bytes). The destination or result field can be 31 digits (or bytes). Binary data can have fixed length of one or two bytes or variable length up to a maximum of 256 bytes.

Instructions:

These instruction formats can be 3, 4, 5, or 6 bytes in length according to instruction type and addressing.

Major machine instructions are program compatible with the System /3 Model 10. The only exceptions are advance program level, halt codes and distinctive I/O instructions.

I/O Control:

The 5406 CPU controls all I/O operations through an I/O channel and the I/O attachment interfaces.

System Controls:

The system controls include operator controls, display console and a CE panel.

IBM

International Business Machines World Trade Corporation
Data Processing Customer Engineering
821 United Nations Plaza, New York, N.Y. 10017, U.S.A.