

FAIRCHILD

Integrator® II Host Computer System For Semiconductor Testing

Fairchild's Integrator II is a powerful host computer system designed specifically for semiconductor test facilities. It features a new general purpose, disk-based computer with floating point hardware and high performance main memory. It is an excellent solution for a variety of LSI testing problems. It offers interactive, real time, multi-terminal, multi-testing capability, which makes its communication, computational and data management resources available for a wide range of testing applications. Integrator II software is compatible with Fairchild's Sentry® test systems, which minimizes training costs and greatly expands the capabilities of a test facility.

APPLICATIONS

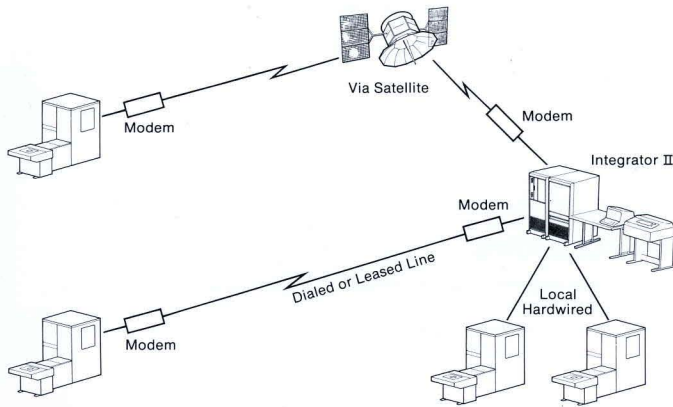
- Integrate results from all testers at the central host site for analysis and correlation
- Control, management, and communication of device programs for all testers in the distributed network
- Write, edit, and store device programs
- Master device program library storage
- Produce technical and management reports and displays of both current and historical test results
- Perform high reliability or end-of-life calculations after environmental conditioning and generate appropriate reports and statistics
- Tester peripheral sharing

FEATURES/BENEFITS

- Special purpose software designed for semiconductor testing environment
- Inexpensive data storage and rapid recall methods for data bases
- Fairchild tester compatibility
- Local and remote data links for transfer/exchange of test data and device programs
- New RTE IV operating system, auto boot-up for easier use, and on-line generation of operating system
- Multilingual programming: FORTRAN IV, Assembly Language, and Real-Time BASIC (optional)
- Floating point hardware processor and high performance (420 ns) main memory provides powerful number crunching capability
- Real-time graphics
- Worldwide service, training, and software support from a single, reliable source



Tester Communications



HARDWARE

The Integrator is a modular system that can be configured to match each specific user application. Options increase its flexibility and utility – up to 400 megabytes of disk storage for extended library, archival storage, and for access to reliability data; up to two additional magnetic tape drives for long-term test result data storage, for system backup or for truth-table input from logic simulators.

BASIC SYSTEM

CPU & Memory

128K byte high performance memory
Dynamic mapping system
Disc ROM loader
Fast FORTRAN processor
Floating point hardware processor
Dual channel port controller (DMA)
Time base generator
Power fail recovery
Memory protect
Cabinet and power supply

Disc Subsystem

19.6 megabytes: Cartridge + fixed platter

System Console and Table

Alphanumeric VKT
Additional 4K memory
Display enhancements
Mini cartridge system (5) mini cartridges
Graphics

Line Printer

300 LPM

Magnetic Tape Unit

9 track, 45 ips, 800 BPI

OPTIONS

Memory Expansion

To 512K words
Increase response to tester data loads

Tester Communication Interfaces

9600 baud hardwired
1200 baud data set connection
Up to 8 tester interfaces
RS232C compatible
IEEE – 488 Interface

I/O Extender

Required for Full Complement of Options

Interactive Terminals

Graphics Terminals

High Speed Line Printer

600 LPM printer

Dot Matrix Line Printer

180 CPS

Disk Storage

Up to 7 additional drives
Either 19.6 MBytes or 50 MByte drives
System disk replaceable with 50 MByte drive
400 MByte maximum storage capacity

Magnetic Tape Drives

Additional magnetic tape drives

Punched Card Readers

SOFTWARE/FIRMWARE

Integrator software and firmware is divided into two functional elements – Executive (systems) software and Applications (decision-making) software. Executive software manages over-all system operation and housekeeping, calling in test data, commanding peripherals, labelling and filing data. Applications software consists of discrete program 'packages' that can be called in by 'Work Plan' to manipulate working test data from Fairchild test systems. These packages, available from Fairchild, answer specific management needs for action information.

EXECUTIVE SOFTWARE

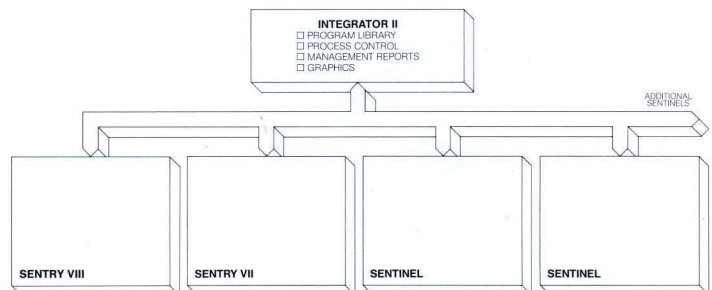
Fundamental elements of Executive software include the following:

- Real-time Executive handles input/output communications and standard executive functions
- FORTRAN IV and Assembler – provides high-level language processing capabilities within the CPU
- Editor – for creation and maintenance of programs for both Testers and Integrator II
- Class I/O, to control priorities from all system peripherals to maintain efficient system operation
- Diagnostics: to evaluate and report on the status of the CPU, main memory and peripherals
- Tester interface monitor
- Real-time BASIC is optional
- Spooling
- Memory expansion
- File Management – Maintains libraries of test programs and test data which can be accessed from testers or interactive terminals

APPLICATIONS SOFTWARE/FIRMWARE

Applications software available for management to use in evaluating test data has been prepared specifically for semiconductor manufacturers and users. It includes all the basic tools necessary for effective decision-making. As new program 'packages' are available, they will be announced by Fairchild. Existing features, fully debugged and ready to go to work, include:

- File directory management
- Tester data conversion
- Screens and alarms
- Summaries and composites
- Calculations
- Parameter processors are the heart of test-data analysis, and include Histogram, Detail Report, Trend Report, Scatter Plot, Wafer Map and Schmoop Plot



For further information or technical assistance, contact your nearest Fairchild Test Systems Group sales office.

FAIRCHILD

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