

HEWLETT-PACKARD

HP-71 Data Acquisition Pac

Summary

The HP-71 Data Acquisition Pac binds the HP-71 computer and the HP 3421A Data Acquisition/Control Unit together to provide a powerful, low-cost data acquisition system. These devices may be used in the laboratory, the field, or on the production line to gather data, control devices, or report on equipment status.

When combined with devices such as the ThinkJet Printer or an 80-column video interface, the data acquisition system provides system capabilities equivalent to larger, more expensive systems at a fraction of the cost. More importantly, in space-critical environments, the HP-71 occupies less space than the keyboard of a standard desktop computer, leaving room for important production or test equipment.

With nine built-in, ready-to-run BASIC programs, the Data Acquisition Pac offers a complete solution for many common data acquisition and control applications. More advanced applications, such as using the HP-71 as a test node in a factory computer network, can be created using new keywords that extend the BASIC language.

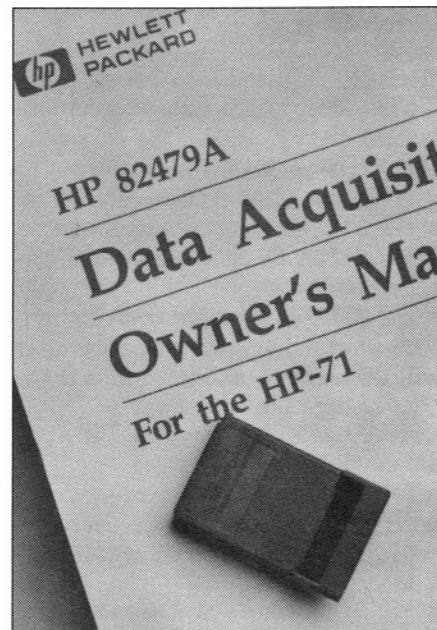
Product Description

The HP-71 Data Acquisition Pac includes a 64K-byte plug-in ROM module and a programmed 3½" disc.

The ROM module contains:

- Over 40 new keywords for BASIC language control of the HP 3421A, time conversions, and string functions.

- Nine built-in BASIC programs:
 - Front Panel. Allows interactive control of the HP 3421A, including system prototyping and debugging.
 - Strip Chart. Generates strip charts, which are useful for storing a graphic history of a system's performance.
 - System Monitor. Allows low-cost visual monitoring of a series of probes, such as might be found in a wave soldering machine or a furnace. Also contains control features, which allow the computer to perform limit tests on input channels and take actions such as regulating temperature or activating alarms.
 - Setup. Specifies the data to be collected in long-term, unattended logging.
 - Data Logger. Collects the data in long-term, unattended data logging. Like the System Monitor program, the Data Logger program can perform limit tests and actions.
 - Data Analysis. Analyzes collected data. The report program prints data and strip charts and generates summary statistics from data collected by the Strip Chart, System Monitor and Data Logger programs.
 - Transmit. Transfers collected data to the HP 3852S system software which allows the data to be analyzed and provides archival facilities.
 - Status. Prints out the configuration and status of the HP 3421A. This is useful for checking out an instrument prior to specifying the measurements to be taken, especially if the instrument is rack-mounted and rear panel access is difficult.



- Verification Report. Verifies the operation of the option cards in the HP 3421A. It reassures the user of the proper operation of the HP 3421A, either as part of regular maintenance in a production environment or prior to long-term data collection experiments.

The 3½" disc contains:

- An MS™ DOS Data Transfer program for the HP-71. It writes data files generated in the ROM Data Logger, System Monitor or Strip Chart programs in a format that can be loaded into a Lotus™ 1-2-3™ spreadsheet.

These files are then written to a separate disc or sent directly to a computer.

If sent to a disc, a 3½" MS-DOS formatted disc and an HP 9114A Portable Disc Drive are used. If sent to the Touchscreen, PORTABLE, PORTABLE PLUS, or IBM® PC/XT/AT, the appropriate HP-IL interface and accompanying Portable Desktop Link software are used.

Operation

Products required for operation of the low-cost HP-71 data acquisition system are:

- HP-71 Handheld Computer
- HP 82401A HP-IL Interface
- HP 82479A Data Acquisition Pac
- HP 3421A Data Acquisition/Control Unit
- HP 82167A, B or D HP-IL Cable

The following optional equipment will allow the user to take full advantage of the "big computer" capabilities of the low-cost HP-71 data acquisition system:

- HP 2225B ThinkJet Printer
- HP 92198A HP-IL 80-Column Mountain Computer Video Interface
- HP 9114A Portable Disc Drive
- HP 82402A Dual HP-IL Adapter
- HP 3852S System Software

To connect the products, the HP 82479A Data Acquisition Pac is plugged into one of the four plug-in ports on the HP-71. The HP 82401A HP-IL Interface is plugged into the HP-IL port and the HP-IL cable is used to create a loop connecting the HP 3421A Data Acquisition/Control Unit to the HP-71.

What's In The Box?

The HP 82479A Data Acquisition Pac comes with a 64K-byte ROM module, programmed 3½" disc, owner's manual and keyboard overlay.

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