

IMAGEN CORPORATION

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Description of IMAGEN products

INTELLIGENT PRINTER SYSTEM

IMPRINT-10 : A xerographic intelligent printer system developed and introduced by the IMAGEN Corporation, with initial deliveries in May 1981. **IMPRINT-10** uses software-definable fonts to print justified text in a variety of styles and sizes at high resolution. Interfaces for the **IMPRINT-10** exist which allow it to be easily mated to most host systems. *This page was printed on the system.* **IMPRINT-10** is based on the Canon LBP-10 table-top printer which evolved from office copier technology. It prints on plain paper, using a solid state laser and rotating mirror to synthesize images at a rate of about 10 pages per minute for 11 inch high paper, with a resolution of 240 dots per inch.

PRINTER INTELLIGENT CONTROLLER SYSTEM

IMAGEN-C : A general purpose display controller developed and introduced by IMAGEN Corporation, with initial deliveries in May 1981. **IMAGEN-C** accepts page layout information from a host computer and synthesizes the video needed to control the raster-scanning printer or other display device. It can be interfaced to one or more host computers using a variety of serial and parallel interfaces. **IMAGEN-C** contains diagnostic procedures for itself and accessible portions of its environment. It is available only to OEM buyers with nationwide maintenance organizations.

FEATURES AND FUNCTIONS PROVIDED BY SYSTEM INTELLIGENCE

Type Font Flexibility. Suitably formatted files may be printed as justified text containing an assortment of type styles, sizes and pitches including proportional. The systems can handle extended character sets such as those encountered in ideographic languages (e.g. Kanji symbols: 嫩 仔 紙). This permits large symbol sets to be used as well ($\sum_{i=1}^n \alpha \psi_i + \frac{1}{\pi} \frac{1}{\rho}$). The commands necessary to invoke font changes are simple character sequences which can be generated by any host system without major software effort. The systems are, however, also capable of printing the output from Troff, TeX, Scribe and similar typesetting systems. Fonts are software-defined and can be local in firmware or downloaded from the host computer to the controller.

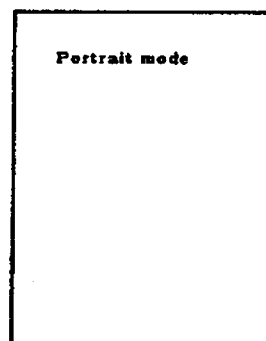
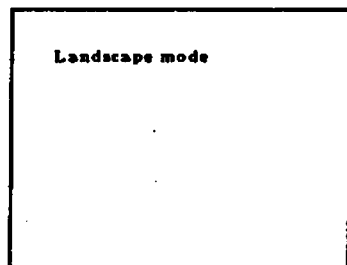
Page Orientation Flexibility.

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Forms overlay. Forms can be overlaid with whatever data is sent from the host computer to the printer. A forms definition package allows for forms to be easily described in a high level language.

Logo and Signature Printing. IMAGEN has the capability to scan and digitize hard copy originals in advance and store them in the host or locally in the system for printing upon user command. In this manner logos, signatures, as well as other graphic images can be integrated into text output.

Sorter/Collator. With this feature, reports may be transmitted from the host computer to the controller with the pages in any order. The controller will then print as many copies of the report as specified keeping all pages in the proper order for each copy set, without the need for further communication.

Business Graphics. This feature allows the system to print curves of different shapes and widths as well as backgrounds, intermixed with the text. Business graphics features can be used to produce typical graphs, charts, engineering diagrams, and, in general, drawings of medium complexity.

Full Graphics Capability. This feature permits the system to generate an arbitrary pattern of dots, so that any figure may be reproduced on the page. In this way the system can be used as a facsimile receiver, general plotting device, and to do CRT screen dumping for computer graphics systems.

Text Setting Capability for Word Processors. In typesetting applications the host computer usually generates the appropriate set of instructions to the controller to obtain the desired layout. Text Setting capability allows for justification and other basic typesetting operations to be performed by the system. This feature can be used to extend the capabilities of existing word processors, most of which operate only in a "typewriter" style.

Communication Protocols. The systems have the capability to communicate using network protocols. This feature allows the easy integration of IMPRINT-10 as a node within a distributed environment.

File Management Capability. An optional local disk and file management capability allow for font storage and printing job queueing. This results in a **self-contained printing system** in the sense that the host computer does not have to undertake font management and spooling tasks.

BASIC SYSTEM.

- Four fonts
- Sorter/collator
- Page orientation flexibility
- RS-232C interface

By selecting a suitable combination of features and an interfacing arrangement, this versatile printing system can be adapted to a wide range of tasks for word processing, business data processing, communications, in-plant printing, and graphics.