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Computer Dictionary & Handbook

Third Edition
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i/o concurrent

ing is suspended until the completion of the i/o event; asynchronous i/o—an i/o event is started, processing continues until a user-defined point is reached, and processing is then suspended until the i/o event is completed; event-driven i/o—an i/o event is started, processing continues until the i/o event completes, and processing is then interrupted to service the completed i/o event.

i/o concurrent — Pertaining to terminals that are capable of performing i/o tasks such as communications to the host computer, printing, and file management without halting ongoing data entry operation.

i/o control sequence, single chip systems — On some systems the input-output control sequence can be summed as follows: bus request from the microprocessor; request granted or denied—if denied, bus request remains active until bus request is granted; address and address-valid strobe from the microprocessor; data valid and inputted or outputted, as required.

iocs — An abbreviation for input/output control system.

i/o equipment — Equipment of the peripheral nature which has a primary purpose of feeding input to the computer and taking output from the computer.

i/o hardware, single chip system — On some low-cost systems i/o hardware has the following characteristics: separate serial-data input and output ports, two sense inputs, direct interfacing to standard memory parts, direct interfacing to CMOS logic and memory, as examples.

i/o instruction — Generally an instruction that results in information being inputted or outputted to or from a CPU.

i/o interface — Types of circuit modules that adapt the signal requirements of external equipment to those of a computer and vice versa.

i/o interface control module — These microcircuit modules handle all computer inputs and outputs, with the number and type determined by system applications and the peripheral equipment used. There is also provision to directly connect an i/o interface with a memory module, under program control, to allow an efficient method of resolving conflicts in memory access.

i/o interrupt (programmed i/o bus) — Some systems provide such interrupts

IPL (Initial Program Load) PROM

for real time clock, TTY ready, operator interrupt, and external i/o (unlimited number).

i/o line, dedicated — Processors with dedicated i/o lines usually have special instructions for manipulating bits, setting mask codes and even performing operations directly on the bits in the port. General-purpose processors usually don't have any i/o port lines, but there are many specially designed support circuits available to provide both serial and parallel i/o ports.

i/o modules, serial and parallel — Serial and parallel i/o modules are generally available for interfacing various processor buses with external devices. These modules simplify connection to peripherals when and if required, and also facilitate assembly of prototype systems without penalizing later development of customized interfaces.

iop (input/output processor) — A unit that handles normal data input/output control and sequencing.

i/o port — Refers to a connection to a CPU that is designed and configured for provision of data paths between the CPU and the external devices, such as keyboards, displays, readers, etc. An i/o port of a microprocessor may be an input port or an output port, or it may be bidirectional.

ior — Abbreviation for input/output register.

i/o routines, random-access — Direct, serial, and random processing of drum and disk files are provided by these routines. Macroinstructions are available to direct the input/output functions.

IPC — Abbreviation for industrial process control.

IPL — 1. Abbreviation for Information Processing Language. 2. Abbreviation for Initial Program Loader or Initialize Program Load. This is the initialization routine used in various intelligent controllers and some computers.

IPL (Initial Program Load) PROM — On some systems several optional autoload PROMs are offered. Some are a combined 256-word PROM for TTY/PTR/CR/floppy disk/moving head disk/head per track disk. This IPL PROM mounts on the system console interface module which contains a small switch to select the desired autoload routine.

IPL PROM routines

IPL PROM routines — Initial Program Load PROM routines are bootstrap loaders so the first block of data which the user puts on his or her autoload media is the standard loader, which the IPL PROM loads into RAM on one manufacturer's system console interface module. The loader then proceeds to load the full program.

IR — Refers to the instruction register that holds the current instruction being decoded and executed by the central processor control section.

IRL — Abbreviation for information retrieval language.

irregularity stroke-edge — A term used in optical character recognition referring to the deviation of any point on the edge of a character from its stroke edge.

ISAM — Abbreviation for Indexed Sequential Access Method. In sequentially retrieving indexed records, the order of record processing depends on the collating sequence of key values within the index (primary or alternate) being used for access. One system simply reads one record via the first key in the index, turns the corresponding data over to the application program, then reads the next record via the next key in the index, and so on. Thus, sequential access is provided, even though the system is accessing the data in a physically random order. This method of retrieval is commonly called the indexed sequential access method (ISAM).

isochronous — Having a regular periodicity.

isochronous modulation (or restitution) — Modulation (or restitution) in which the time interval separating any two significant instants is theoretically equal to the unit interval or to a multiple of the unit interval.

ISO (International Standards Organization) code — Codes authorized by the ISO to represent alphabetic, numeric, and special characters.

item — 1. A field or set of fields holding related data or information that concerns an individual object, event, transaction, or operation. 2. The word is used in a similar sense to the word file and means each of the unit organizations of information of which the file is comprised. 3. Consecutive fields can be combined to form a larger unit of information called an item. Grouping fields