MODERN DICTIONARY of ELECTRONICS

SEVENTH EDITION

REVISED AND UPDATED

Rudolf F. Graf

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broken out of the wafer. Electrical contact is made to the chip bonding pads so that defective circuits can be marked to eliminate them from further processing. Only low-current dc tests can be carried out by probing. 3. A testing technique that uses finely tipped probes to make electrical connections to a sample chip.

problem check — A test or tests used to aid in obtaining the correct machine solution to a problem.

problem description — In information processing, a statement of a problem. The statement may include a description of the method of solution.

problem language — The language a computer programmer uses in stating the definition of a problem.

problem-oriented language — In a computer, a source language suited to the description of a specific class of problems.

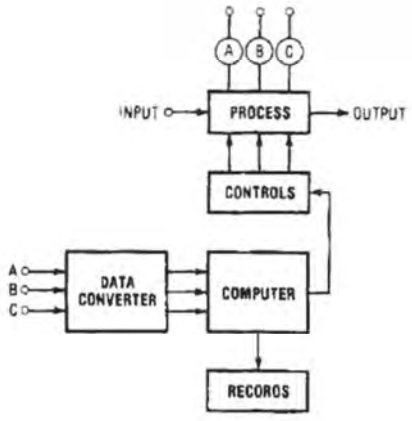
problem-solving language — A language that can be used to specify a complete solution to a problem.

procedure — Also called an algorithm. 1. In a computer, the course of action taken in solving a problem. 2. A precise step-by-step method for effecting a solution to a problem.

procedure-oriented language — 1. A programming language in which the operations to be performed are all executable and their sequence is specified by the user. This term applies to most familiar programming languages. 2. A programming language designed for the convenient expression of procedures used in the solution of a wide class of problems, e.g., FORTRAN, COBOL, APL, and C.

process — 1. Any operation or sequence of operations involving a change of energy state, composition, dimension, or other property that may be defined with respect to a datum. The term *process* is used in this standard to apply to all variables other than instrument signals. 2. The basic unit of computation within an operating system. Also termed a software process to distinguish it from an abstract process, which is the task the software process implements.

process control — 1. Automatic control of continuous operations, contrasted with numerical control, which provides automatic control of discrete operations. 2. The regulation or manipulation of variables influencing the conduct of a process in such a way as to obtain a product of desired quality and quantity in an efficient manner.



Process-control system.

process-control block — The data structure that defines a software process and its status.

processing — Additional handling, manipulation, consolidation, compositing, etc., of information to change it from one format to another or to convert it to a manageable and/or intelligible form.

processing section — The portion of a computer that does the actual changing of input into output. This includes the arithmetic and logic sections.

processor — 1. In hardware, a data processor. 2. In software, a computer program that includes the compiling, assembling, translating, and related functions for a particular programming language, including logic, memory, arithmetic, and control. 3. A unit in the programmable controller that scans all the inputs and outputs in a predetermined order. The processor monitors the status of the inputs and outputs in response to the user-programmed instructions in memory, and it energizes or deenergizes outputs as a result of the logical comparisons made through these instructions. 4. A computer or part of a computer capable of receiving data, manipulating it, and supplying results.

processor status word — Abbreviated PSW. A special-purpose CPU register that contains the status of the most recent instruction execution result, trap bit, and interrupt priority.

producer's reliability risk — The risk faced by the producer (usually set at 10 percent) that a product will be rejected by a reliability-acceptance test even though the product is actually equal to or better than a specified value of reliability.

product detector — A demodulator whose output is the product of the input signal voltage and the signal voltage of a local oscillator operating at the input frequency.

production lot — A group of (electronic) parts manufactured during the same period from the same basic raw materials, processed under the same specifications and procedures, produced with the same equipment, and identified by the documentation defined in the manufacturer's reliability assurance program through all significant manufacturing operations, including final assembly operations. Final assembly operation is considered the last major assembly operation, such as casing, hermetic sealing, or lead attachment, rather than painting or marking.

production sampling tests — Those tests normally made by either the vendor or the purchaser on a portion of a production lot for the purpose of determining the general performance level.

production tests — Those tests normally made on 100 percent of the items in a production lot by the vendor and normally on a sampling basis by the purchaser.

product modulator — A modulator whose output is substantially equal to the carrier times the modulating wave.

professional channel — Subcarrier channel in FM broadcasting. Professional channels are usually 6.5 times the frequency of the pilot carrier, or they may be interspersed between the stereo position and 102 kHz, if there is no SAP (second audio program) conflict.

professional engineer — An engineer whose education and experience qualify him or her to be responsible for important engineering work, and who is registered as a professional engineer by a state authority.

profile chart — A vertical cross-sectional drawing of the microwave path between two stations. Terrain, obstructions, antenna-height requirements, etc., are indicated on the drawing.

program — 1. A sequence of instructions that tells a computer how to receive, store, process, and deliver information. 2. A plan for solving a problem, including instructions that cause the computer to perform the desired operations and such necessary information as data description and tables. 3. A prepared list of instructions,