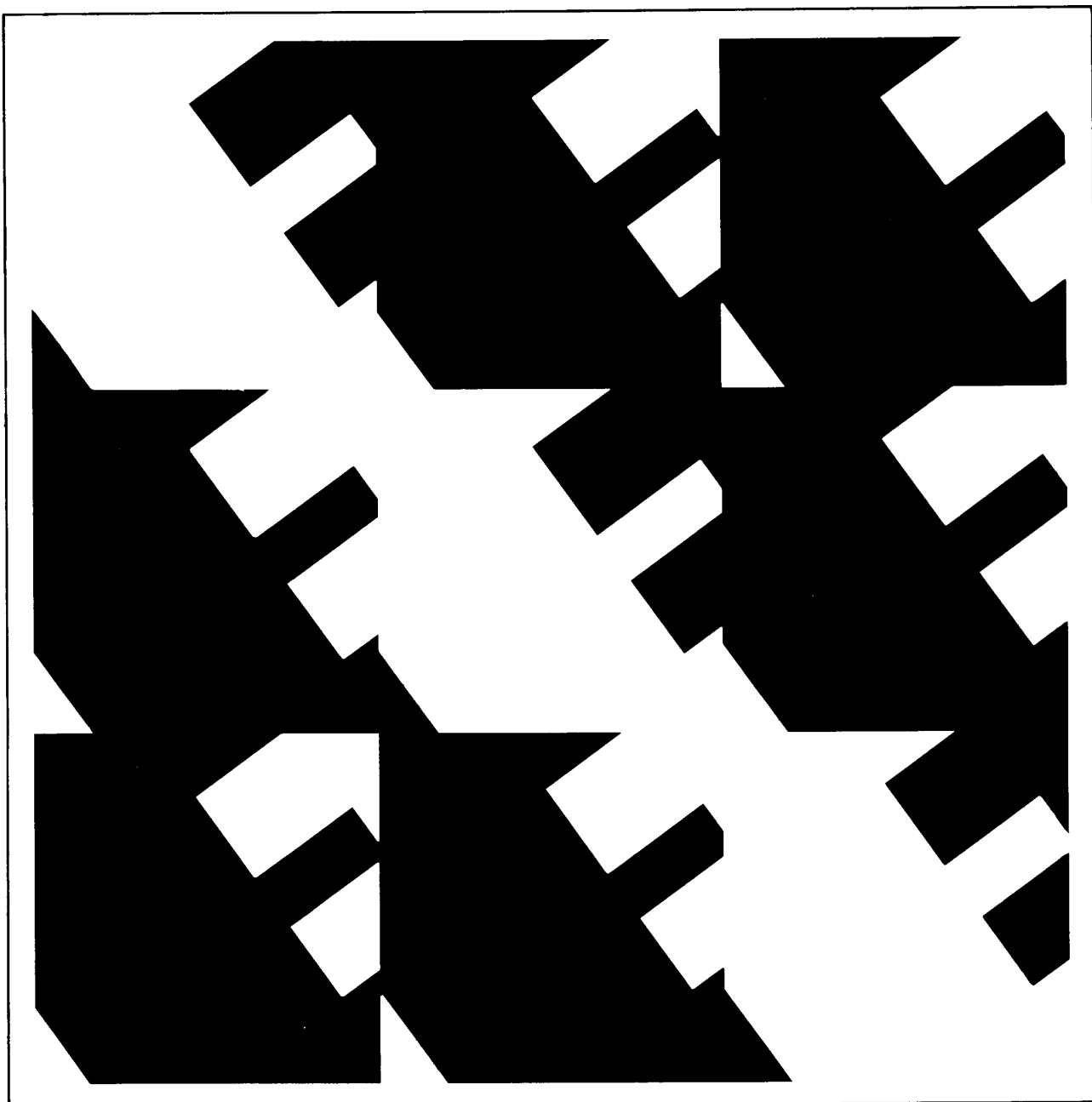


IEEE Standard Glossary of Computer Applications Terminology

ANSI/IEEE Std 610.2-1987



An American National Standard

**IEEE Standard Glossary of
Computer Applications Terminology**

Sponsor
**Standards Coordinating Committee of the
IEEE Computer Society**

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IEEE Standards Board

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Foreword

(This Foreword is not a part of ANSI/IEEE Std 610.2-1987, IEEE Standard Glossary of Computer Applications Terminology.)

The computer field is continuing to expand. New terms are being generated and new meanings are being adopted for existing terms. The IEEE Computer Dictionary project was undertaken to document this vocabulary. Its purpose is to identify terms currently in use in the computer field and to establish standard definitions for these terms. The dictionary is intended to serve as a useful reference for those in the computer field and for those who come into contact with computers either through their work or in their everyday lives.

The completed dictionary will contain terms from seven areas: Computer Hardware, Software Engineering, Mathematics of Computing, Theory of Computation, Computer Applications, Computing Environment, and Computing Methodologies, including Artificial Intelligence, Data Management, Image Processing, Modeling and Simulation, Computer Graphics, and Networking and Data Communications. This increment of the dictionary contains terms related to Computer Applications. The remaining areas will be covered in other increments of the dictionary. All areas will be covered in the overall Computer Dictionary.

Every effort has been made to use definitions from established standards in this dictionary. When existing standards were found to be incomplete, unclear, or inconsistent with other entries in the dictionary, however, new, revised, or composite definitions have been developed.

At the time this glossary was approved, the following people formed the steering committee of the Computer Dictionary working group:

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An American National Standard

IEEE Standard Glossary of Computer Applications Terminology

1. Scope

This glossary defines terms in the field of Computer Applications. Topics covered include automated language processing, automatic indexing, business data processing, character recognition, computer-aided design and manufacturing, computer-assisted instruction, control systems, critical path method, library automation, medical applications, micrographics, office automation, operations research, personal computing, scientific and engineering applications, telecommunication applications, and word processing.

The terms included in this glossary are intended for users of computer systems. Terms that apply to hardware or software implementation of the areas listed above are included in other glossaries.

Every effort has been made to include all terms that meet the criteria described above. Terms were excluded if they were considered to be parochial to one group or organization; company proprietary or trademarked; multi-word terms whose meaning could be inferred from the definitions of the component words; or terms whose meaning in the computer field could be directly inferred from their standard English meaning.

2. Dictionary Structure

Entries in the dictionary are arranged alphabetically. An entry may consist of a single word, such as "cursor," a phrase, such as "cursor control," or an abbreviation, such as "CAI." Phrases are given in their natural order (cursor control) rather than in reversed order (control, cursor).

Blanks are taken into account in alphabetizing. They precede all other characters. Hyphens

and slashes are treated as blanks. Alternative spellings are shown in parentheses; for example, dialog (dialogue).

A distinction is made in the glossary between acronyms, which are pronounced as words (for example, KWIC), and other abbreviations, which are pronounced as letters (for example, CAI).

If a term has more than one definition, the definitions are numbered. The order of the definitions does not imply preference or frequency of use. In most cases, noun definitions are given first, followed by verb and adjective definitions as applicable. Examples and notes have been added to clarify selected definitions.

The following cross-references are used to show a term's relationship to other terms in the dictionary:

(1) *Contrast with* refers to a term with an opposite or substantially different meaning.

(2) *Syn* refers to a synonymous term.

(3) *See also* refers to a related term.

(4) *See* refers to a preferred term or to a term whose definition serves to define the term that has been looked up.

The word "deprecated" indicates a term or definition whose use is discouraged because such use is obsolete, misleading, or ambiguous.

3. Sources

When a definition has been directly quoted from an existing dictionary or glossary, the source is designated in brackets following the definition. When such a definition was taken from a copyrighted source, permission for its use was obtained from the publisher. A list of all sources being used on the Computer Dictionary project at the time this glossary was completed is given at the conclusion of the glossary.

4. Definitions for Computer Applications Terms

active. Pertaining to a record or file that has been accessed by one or more transactions during a given processing cycle. *See also: inactive; logically deleted; purged.*

activity ratio. The ratio of active records to the total number of records in a file.

add transaction. A transaction that causes a new record to be added to a master file. *See also: change transaction; delete transaction; null transaction; update transaction.*

adjacency. In character recognition, a condition in which the character spacing reference lines of two consecutive characters printed on the same line are separated by less than a specified distance.

adjust line mode. In text formatting, an operating mode in which line endings are automatically adjusted to comply with the current margin setting. *See also: text end adjustment; word wrap.*

administrative data processing (ADP). The use of computers for administrative applications such as personnel, payroll, and accounting functions.

ADP. (1) Abbreviation for **automatic data processing; automated data processing.**
(2) Abbreviation for **administrative data processing.**

AKWIC. Acronym for **author and keyword in context.** *See: author and keyword in context index.*

ALP. Abbreviation for **automated language processing.**

annual cycle. One complete execution of a data processing function that must be performed once a year. *See also: daily cycle; monthly cycle; quarterly cycle; weekly cycle.* *Syn: yearly cycle.*

application. The use to which a computer system is put; for example, a payroll application,

an airline application, or a network application.

APT. Abbreviation for **automatically programmed tools.**

ascender. The portion of a graphic character that extends above the main part of the character; for example, the upper portion of the letters "b" and "h." *Contrast with: descender.*

assigned indexing. Automatic indexing in which appropriate keywords are assigned from a list of preselected keywords rather than from the text of the document or information being indexed. *Syn: assignment indexing.* *Contrast with: derivative indexing.*

assignment indexing. *See: assigned indexing.*

ATM. Abbreviation for **automated teller machine.**

audit trail. A manual or computerized record that can be used to trace the transactions affecting the contents of a record or a file.

author and keyword in context (AKWIC) index. A variation of a keyword in context (KWIC) index in which author and keyword entries are combined and presented in a KWIC format. *Contrast with: word and author index.*

authoring language. A high level programming language used to develop courseware for computer-assisted instruction. *See also: authoring system.*

authoring system. A programming system that incorporates an authoring language.

automated data processing (ADP). *See: automatic data processing.*

automated dictionary. In machine-aided translation, an automated lexicon in which entries are single words. *Contrast with: automated glossary.*

automated glossary. In machine-aided translation, an automated lexicon in which entries

may consist of multiple words. *Contrast with:* **automated dictionary**. *Syn:* **terminology bank**.

automated language processing (ALP). The application of data processing, word processing, and machine-aided translation to the processing or translation of natural languages.

automated lexicon. A computer-resident table of source language and target language equivalents that serves as the central component in a machine-aided translation system. *See also:* **automated dictionary; automated glossary**.

automated office. *See:* **electronic office**.

automated teller machine (ATM). An unattended terminal-type device that offers simple banking services such as cash withdrawals, transfer of funds between accounts, and account balance inquiry. *Syn:* **customer bank communications terminal**.

automated thesaurus. In machine-aided translation, a computer-resident thesaurus used in conjunction with an automated lexicon to handle words with multiple meanings.

automatic. Pertaining to a function, operation, process, or device that, under specified conditions, functions without intervention by a human operator.

automatic abstracting. In library automation, the automatic selection of words and phrases from a document to produce an abstract.

automatic calendar. A component of some office automation systems that allows users to store their appointments in a database and to set up meetings by requesting a search for an available meeting time in each of the participants' calendars.

automatic control. Describes a control system capable of operating without external or human intervention. *See also:* **numerical control; process control**.

automatic data processing (ADP). Data processing performed by a computer system. *Syn:*

automated data processing; electronic data processing.

automatic hyphenation. In text formatting, hyphenation in which all line-ending and word break decisions are made automatically. Word break decisions may be made using syllabication algorithms or a dictionary containing commonly used words and their syllables. *See also:* **manual hyphenation; semi-manual hyphenation**.

automatic index. An index produced by automatic indexing. *See also:* **keyword in context index; keyword out of context index; permutation index; selective listing in combination index; word index**.

automatic indexing. Automated production of an index by selecting keywords and organizing them according to the type of index being produced. *Note:* Methods include assigned indexing and derivative indexing. *See also:* **keyword in context index; keyword out of context index; permutation index; selective listing in combination index; word index**.

automatic pagination. In text formatting, the automatic arrangement or rearrangement of text according to preset page layout parameters such as margin width and lines per page. *Note:* May also include the assignment and placement of page numbers on the pages. *Syn:* **pagination; repagination**.

automatically programmed tools (APT). A programming system using English-like symbolic descriptions of part and tool geometry and tool motion for numerical control.

automation. (1) The implementation of a process by automatic means.

(2) The theory, art, or technique of making a process more automatic. [67]

(3) The investigation, design, development, and application of methods of rendering processes automatic, self-moving, or self-controlling. [67]

background. In micrographics, the portion of a document that does not contain lettering or other information.

bar code. An identification code consisting of a pattern of vertical bars whose width and spacing identifies the item marked. *Note:* The code is meant to be read by an optical input device, such as a bar code scanner. Applications include retail product pricing labels, identification of library documents, and railroad box car identification. *See also:* **universal product code**. *Syn:* **optical bar code**.

BDP. Abbreviation for **business data processing**.

bionics. A branch of technology relating the functions, characteristics, and phenomena of living systems to the development of mechanical systems. [67]

blip. *See:* **document mark**.

block. In text editing and text formatting, one or more contiguous characters or lines of text. *See also:* **block operation**.

block copy. In text editing, an operation that copies a block of text from one point to another within a file or between files, leaving the original block of text intact. *Contrast with:* **block move**.

block delete. In text editing, an operation that removes a block of text from a file.

block move. In text editing, an operation that moves a block of text from one point to another within a file or between files, deleting the block of text from its original location. *Syn:* **block movement**. *Contrast with:* **block copy**.

block movement. *See:* **block move**.

block operation. In text editing, an operation that affects a block of text. For example, block copy, block delete, block move.

blowback. In micrographics, an enlargement. [67]

boilerplate text. In word processing, standardized previously-stored textual material that may be used to create a new document. *Syn:* **stored paragraph**.

bulletin board. *See:* **electronic bulletin board**.

business data processing (BDP). The use of computers for processing information to support the operational, logistical, and functional activities performed by an organization.

business information system. *See:* **management information system**.

CAD. Acronym for **computer-aided design**.

CADE. Abbreviation for **computer-aided design and engineering**. *See:* **computer-aided design**; **computer-aided engineering**.

CADEM. Abbreviation for **computer-aided design, engineering, and manufacturing**. *See:* **computer-aided design**; **computer-aided engineering**; **computer-aided manufacturing**.

CADM. Abbreviation for **computer-aided design and manufacturing**. *See:* **computer-aided design**; **computer-aided manufacturing**.

CAE. (1) Abbreviation for **computer-aided engineering**.
(2) Abbreviation for **computer-aided education**. *See:* **computer-assisted instruction**.

CAI. (1) Abbreviation for **computer-assisted instruction**.
(2) Abbreviation for **computer-aided instruction**.
(3) Abbreviation for **computer-aided inspection**.

CAL. (1) Abbreviation for **computer-assisted learning**. *See:* **computer-assisted instruction**.
(2) Abbreviation for **computer-augmented learning**. *See:* **computer-assisted instruction**.

CAM. (1) Acronym for **computer-aided manufacturing**.
(2) Acronym for **computer-aided management**.

CAT. (1) Acronym for **computer-assisted tomography**. *See: computed tomography.*
 (2) Acronym for **computerized axial tomography**. *See: computed tomography.*
 (3) Acronym for **computer-aided testing**.

CBCT. Abbreviation for **customer-bank communication terminal**. *See: automated teller machine.*

CBE. Abbreviation for **computer-based education**. *See: computer-based instruction.*

CBI. Abbreviation for **computer-based instruction**.

CBL. Abbreviation for **computer-based learning**. *See: computer-based instruction.*

CDP. Abbreviation for **commercial data processing**.

center. In text formatting, to format one or more lines of text so that the left and right margins are equal in size.

change transaction. A transaction that causes information in a master file to be changed. *See also: add transaction; delete transaction; null transaction; update transaction.*

character boundary. In character recognition, the largest rectangle, with a side parallel to the document reference edge, whose sides are tangential to a given character outline. [67]

character font. A set of graphic characters that are of the same size and style. *See also: font disk; hand-printed character font; OCR-A; OCR-B; optical font. Syn: type font.*

character outline. In character recognition, the graphic pattern established by the stroke edges of a character.

character recognition. The use of pattern recognition techniques to identify characters by automatic means. *See also: magnetic ink character recognition; omni-font character recognition; optical character recognition; single-font character recognition.*

character spacing reference line. In character recognition, a vertical line that is used to

evaluate the horizontal spacing of characters. *Note:* It may be a line that equally divides the distance between the sides of a character boundary or that coincides with the center line of a vertical stroke.

character stroke. In optical character recognition, a line, point, arc, or other mark used as a portion of a graphic character. For example, the dot over the letter i or the cross of the letter t.

CIM. (1) Abbreviation for **computer input microfilm**.

(2) Abbreviation for **computer-integrated manufacturing**.

cine-oriented image. In micrographics, an image appearing on a roll of microfilm in such a manner that the top edge of the image is perpendicular to the long edge of the film. *Contrast with: comic-strip oriented image. Syn: motion-picture display; portrait image.* [67]

clear area. In character recognition, a specified area that is to be kept free of printing or other markings that are not related to machine readings.

closed-loop control. Pertaining to a control system in which the output is measured and compared with a standard representing the acceptable range, and any deviation from the standard is fed back into the system in a way that will reduce the deviation. *Syn: feedback control. Contrast with: open-loop control.*

clustered word processing. Word processing performed on a system composed of multiple work stations, each with its own memory but operating under the control of a master work station. *Contrast with: dedicated word processing; shared-logic word processing; shared-resource word processing; stand-alone word processing.*

CMC. Abbreviation for **code for magnetic characters**. *See: magnetic ink character recognition.*

CMI. Abbreviation for **computer-managed instruction**.

CNC. Abbreviation for **computer numerical control**.

code for magnetic characters (CMC). A set of rules used in magnetic ink character recognition.

COM. Acronym for **computer output microfilm**.

COM device. *See:* **computer output microfilmer**.

comic-strip oriented image. In micrographics, an image appearing on a roll of microfilm in such a manner that the top edge of the image is parallel to the long edge of the film. *Contrast with:* **cine-oriented image**. *Syn:* **landscape image**.

commercial data processing. Data processing performed to support a commercial organization or function.

computed tomography (CT). A medical diagnostic technique in which a computer is used to produce an image of cross-sections of the human body by using measured attenuation of X-rays through a cross-section of the body. *Syn:* **computer-assisted tomography**.

computer-aided design (CAD). The use of computers to aid in design layout and analysis. May include modeling, analysis, simulation, or optimization of designs for production. Often used in combinations such as CAD/CAM. *See also:* **computer-aided engineering; computer-aided manufacturing; design automation**.

computer-aided education (CAE). *See:* **computer-assisted instruction**.

computer-aided engineering (CAE). The use of computers to aid in engineering analysis and design. May include solution of mathematical problems, process control, numerical control, and execution of programs performing complex or repetitive calculations. *See also:* **computer-aided design; computer-aided manufacturing**.

computer-aided inspection (CAI). The use of computers to inspect manufactured parts. *Syn:* **mechanical inspection**.

computer-aided instruction (CAI). *See:* **computer-assisted instruction**.

computer-aided management (CAM). The application of computers to business management activities. For example, database management, control reporting, and information retrieval. *See also:* **decision support system; management information system**.

computer-aided manufacturing (CAM). The use of computers and numerical control equipment to aid in manufacturing processes. May include robotics, automation of testing, management functions, control, and product assembly. Often used in combinations such as CAD/CAM. *See also:* **computer-aided design; computer-aided engineering**.

computer-aided page makeup. The use of computers to automate the formation of text and graphics into discrete camera-ready pages. *See also:* **computer-aided typesetting; photocomposition**.

computer-aided testing (CAT). The use of computers to test manufactured parts.

computer-aided typesetting. The use of computers at any stage of the document composition process. This may involve text formatting, input from a word processing system, or computer-aided page makeup. *Syn:* **computer typesetting**.

computer-assisted instruction (CAI). The use of computers to present instructional material and to accept and evaluate student responses. *Syn:* **computer-aided education; computer-aided instruction; computer-assisted learning; computer-augmented learning**. *See also:* **computer-based instruction**.

computer-assisted learning (CAL). *See:* **computer-assisted instruction**.

computer-assisted tomography (CAT). *See:* **computed tomography**.

computer-augmented learning (CAL). *See:* **computer-assisted instruction**.

computer-based education (CBE). *See:* **computer-based instruction**.

- computer-based instruction (CBI).** The use of computers to support any process involving human learning. *Syn:* **computer-based education; computer-based learning.**
- computer-based learning (CBL).** *See:* **computer-based instruction.**
- computer conferencing.** A form of teleconferencing that allows one or more users to exchange messages on a computer network. *See also:* **video conferencing.**
- computer input microfilm (CIM).** The input to a process that converts data contained on microform into machine-readable data.
- computer-integrated manufacturing (CIM).** Use of an integrated system of computer-controlled manufacturing centers. The centers may use robotics, design automation, or CAD/CAM technologies. *See also:* **flexible manufacturing system.**
- computer literacy.** An understanding of the capabilities, operation, and applications of computers.
- computer-managed instruction (CMI).** The use of computers for management of student progress. Activities may include record keeping, progress evaluation, and lesson assignment. *See also:* **computer-based instruction.**
- computer numerical control (CNC).** Numerical control in which one or more machines that produce manufactured parts are linked together via a single computer.
- computer output microfilm (COM).** The end result of a process that converts and records data from a computer directly to a microform.
- computer output microfilmer.** A device for producing computer output microfilm. *Syn:* **COM device.**
- computer typesetting (CTS).** *See:* **computer-aided typesetting.**
- computerized axial tomography (CAT).** *See:* **computed tomography.**
- contents list.** In word processing, a list of stored information available for user selection.
- context editing.** A method of line editing in which the line to be viewed or altered is identified by specifying part or all of its contents.
- contour analysis.** In optical character recognition, a technique for locating the outline of a character by searching around its exterior edges with a spot of light.
- control system.** A system in which a desired effect is achieved by operating on inputs until the output, which is a measure of the desired effect, falls within an acceptable range of values. *See also:* **automatic control; closed-loop control; open-loop control.**
- convex programming.** In operations research, a particular type of nonlinear programming in which the function to be maximized or minimized and the constraints to be applied are appropriately convex or concave functions, respectively.
- copy.** (1) To read data from a source, leaving the source data unchanged, and to write the same data elsewhere in a physical form that may differ from that of the source. For example, to copy data from a magnetic disk onto a magnetic tape.
(2) The result of a copy process. For example, a copy of a data file. *See also:* **display; hard copy; soft copy.**
- courseware.** Instructional materials, such as software and student documentation, designed for use in computer-based instruction.
- CPM.** Abbreviation for **critical path method.**
- critical path.** In the critical path method, a path whose sum of activity times is greater than or equal to the sum of activity times for any other path through the network. *Note:* This sum of activity times is the shortest possible completion time of the overall project.
- critical path method (CPM).** A project management technique in which the activities that constitute a project are identified, dependencies among the activities are determined, a network of parallel and sequential

activities is produced, an estimated time is assigned to each activity, and a sequence of activities taking the longest time (a critical path) is identified, determining the shortest possible completion time for the overall project. *See also:* **project evaluation and review technique.**

cryogenics. A branch of technology concerned with devices that make use of the properties assumed by materials at temperatures near absolute zero.

CT. Abbreviation for **computed tomography.**

CTS. Abbreviation for **computer typesetting.**
See: **computer-aided typesetting.**

cursor. A moveable icon or spot of light on the screen of a display device that indicates the currently selected object or character.

cursor control. The ability to modify the position of a cursor by explicit commands.

customer-bank communication terminal (CBCT). *See:* **automated teller machine.**

cybernetics. A branch of technology concerned with the comparative study of communication and control in living organisms and in machines.

DA. Abbreviation for **design automation.**

daily cycle. One complete execution of a data processing function that must be performed once a day. *See also:* **annual cycle; monthly cycle; quarterly cycle; weekly cycle.**

data interchange format (DIF). A standardized data file format allowing data interchange between software packages on personal computers. For example, data interchange between an electronic spread sheet and a word processor could be accomplished by converting the spread sheet data to data interchange format, then to the format required for the word processor.

data processing (DP). The systematic performance of operations upon data, such as data manipulation, merging, sorting, and computing. *Syn:* **information processing.** *See also:*

administrative data processing; automatic data processing; business data processing; commercial data processing; distributed data processing; integrated data processing; mechanical data processing; office automation; remote-access data processing. [34]

data processing cycle. *See:* **processing cycle.**

data processing system. A system, including computer systems and associated personnel, that performs input, processing, storage, output, and control functions to accomplish a sequence of operations on data. [34]

DbNC. Abbreviation for **distributed numerical control.**

DDP. (1) Abbreviation for **distributed data processing.**

(2) Abbreviation for **dispersed data processing.** *See:* **distributed data processing.**

decimal alignment. In text formatting, the formatting of decimal numbers in a column so that their decimal points, whether explicit or implicit, form a vertical line. *See also:* **radix alignment.**

decision support services (DSS). (1) The services provided by a decision support system.
(2) The services provided by the staff of an information center.

decision support software. Interactive software used in a decision support system. For example, software components for model building, forecasting, statistical analysis, ad hoc model interrogation, report generation, and graphics.

decision support system (DSS). A computer system that supports decision making by performing such functions as modeling, forecasting, and statistical analysis. *See also:* **computer-aided management; management information system.**

decision support system generator. A package of decision support software that enables users to develop customized decision support systems for specific applications.

dedicated word processing. Word processing performed on a system used exclusively for that purpose. *Contrast with:* **clustered word processing; shared-logic word processing; shared-resource word processing; stand-alone word processing.**

delete transaction. A transaction that causes a record to be deleted from a master file. *See also:* **add transaction; change transaction; null transaction; update transaction.**

derivative indexing. Automatic indexing in which the keywords are extracted directly from the text of the document or information being indexed. For example, keyword in context index. *Syn:* **derived-term indexing; extraction indexing.** *Contrast with:* **assigned indexing.** *See also:* **uniterm indexing.**

derived-term indexing. *See:* **derivative indexing.**

descender. The portion of a graphic character that extends below the main part of the character; for example the lower portion of the letters "g" and "y." *Contrast with:* **ascender.**

descriptor. *See:* **keyword.**

design automation. The use of computers to automate the design process. *See also:* **computer-aided design.**

desktop computer. A computer designed for use on a desk or table.

destructive backspace. In word processing, an operation that moves the cursor back one character and deletes the character that was in the cursor's new location.

detail file. *See:* **transaction file.**

dialog (dialogue). Computer-human interaction in which the responses provided by the computer are highly responsive to the questions, answers, and directives given by the user. *See also:* **question-and-answer interaction.** *Syn:* **on-line dialog.**

DIF. Acronym for **data interchange format.**

direct numerical control (DNC). Numerical control in which a dedicated computer con-

trols the operation of the parts programs in a single numerical control machine.

discrete programming. *See:* **integer programming.**

discretionary hyphen. In word processing, a hyphen inserted into a word by the user to indicate the desired position for a break, if required by justification. *Note:* If the hyphen is not needed, it does not appear in the formatted text. *Syn:* **ghost hyphen; soft hyphen; syllable hyphen.** *Contrast with:* **required hyphen.**

diskette compatibility. The ability of a diskette to be accessed by one or more systems such that data exchange can take place.

dispersed data processing (DDP). *See:* **distributed data processing.**

display. (1) To present data visually.
(2) The result of a display process. *See also:* **copy.**

display formatting. A word processing capability that presents the formatted version of a document on a display device.

distance teaching. Instruction in which the teacher and student are not in face-to-face contact. Communication is made through correspondence, radio, television, or computer-assisted instruction.

distributed data processing (DDP). The use of computers for processing information within a distributed system. *Syn:* **dispersed data processing.**

distributed numerical control (DbNC). Numerical control in which a computer controls one or more remote numerical control machines.

distributed system. A computer system in which several interconnected computers share the computing tasks assigned to the system.

DNC. Abbreviation for **direct numerical control.**

document. A medium, and the information recorded on it, that generally has permanence and can be read by a person or a machine. *See also:* **document cycle.**

document assembly. In word processing, the assembly of new documents from previously recorded documents or boilerplate text in accordance with specified variables such as names and addresses in iterative documents, or sales figures embedded in the text of a document. *Syn:* **document merge.**

document cycle. The steps involved in the creation and handling of a document. *Note:* The cycle typically includes origination, production, reproduction, distribution, filing, and storage. *See also:* **information traffic.**

document editor. A text editor used to enter, alter, and view documents. *Syn:* **manuscript editor.** *Contrast with:* **program editor.**

document mark. In micrographics, a mark on microfilm, used for counting images or film frames automatically. *Syn:* **blip.**

document merge. *See:* **document assembly.**

document reference edge. In character recognition, a specified document edge with respect to which the alignment of characters is defined. [67]

document traffic. *See:* **information traffic.**

DP. Abbreviation for **data processing.**

drift. The latent tendency of control system output to digress from the desired effect.

drill and practice interaction. An instruction method employed by some computer-assisted instruction systems, in which the student is asked repeatedly to perform the same or similar tasks.

DSS. (1) Abbreviation for **decision support system.**

(2) Abbreviation for **decision support services.**

dynamic programming. In operations research, a procedure for optimizing a multi-

stage problem solution, in which a number of decisions are available at each stage of the process.

EBR. Abbreviation for **electron beam recording.**

ECR. Abbreviation for **electronic cash register.**

editing symbol. In micrographics, a symbol on microfilm that is human readable without magnification and that provides cutting, loading, or other preparation instructions.

editor. *See:* **text editor.**

EDP. Abbreviation for **electronic data processing.** *See:* **automatic data processing.**

EFTS. Abbreviation for **electronic funds transfer system.**

EIS. Abbreviation for **executive information system.** *See:* **management information system.**

electron beam recording (EBR). In micrographics, a specific method of producing computer output microfilm in which a beam of electrons is directed onto an energy-sensitive microfilm.

electronic bulletin board. In an electronic mail system, a storage area shared by several users, each having access to all messages left in that area.

electronic cash register (ECR). A device that functions as both a cash register and a point-of-sale terminal to a central computer performing inventory control, price updating, and other retail sales functions.

electronic data processing (EDP). *See:* **automatic data processing.**

electronic funds transfer system (EFTS). A data collection and telecommunication system that electronically transports information about the movement of funds between accounts managed by financial institutions.

electronic mail. (1) The generation, transmission, and display of correspondence and doc-

- uments by electronic means. *See also:* **electronic bulletin board; electronic mailbox.** *Syn:* **mailbox service.**
- (2) The concepts and technologies employed for the electronic communication of textual material.
- electronic mailbox.** A storage area used to hold all messages addressed to a particular user of an electronic mail system.
- electronic office.** An office that makes use of office automation. *Syn:* **automated office; office of the future.** *See also:* **paperless office.**
- electronic spread sheet.** (1) A computer program that enables the user to set up a display of rows and columns in which some entries are manually entered and others are calculated automatically using formulas supplied by the user. *Syn:* **spread sheet.**
- (2) The display of rows and columns produced by a computer program as in (1).
- embedded hyphen.** *See:* **required hyphen.**
- end user.** *See:* **user.**
- end user computing.** The performance of system development and data processing tasks by the user of a computer system. *Syn:* **user-driven computing.**
- exception reporting.** An information processing technique that screens large amounts of computerized data and produces a report containing only the data that require action. *See also:* **information overload.**
- executive information system (EIS).** *See:* **management information system.**
- extraction indexing.** *See:* **derivative indexing.**
- fac.** Acronym for **facsimile.**
- facsimile (fac or fax).** (1) An exact copy or likeness.
- (2) The process by which fixed graphic images are scanned, transmitted electronically, and reproduced either locally or remotely.
- (3) The result of the process in (2). *See also:* **microfacsimile.**
- facsimile telegraphy.** A facsimile transmission system designed specifically for the transmission of photographic images. The reproduction may be in two significant states only (for example, black and white), may contain intermediate shades, or may be colored. *Syn:* **telephotography.**
- facsimile terminal.** A terminal used in facsimile transmission.
- facsimile transmission.** The use of a telecommunication system to transmit fixed graphic images. *See also:* **facsimile, facsimile telegraphy.** *Syn:* **telefax.**
- fax.** Acronym for **facsimile.**
- feedback.** That portion of the output of a control system used as input for another phase of the system, particularly for self-correcting, self-regulating, or control purposes, as in closed-loop control.
- feedback control.** *See:* **closed-loop control.**
- fiche.** *See:* **microfiche.**
- file processing.** The periodic updating of one or more master files to reflect the effects of current data, often from a transaction file. For example, a monthly run updating the master inventory file.
- film frame.** In micrographics, a line on microfilm, perpendicular to the document reference edge, on which binary characters may be written or read.
- flash card.** In micrographics, a target printed with distinctive markings to be photographed to facilitate the indexing of microfilm. *See also:* **flash indexing.** *Syn:* **flash target.**
- flash indexing.** In micrographics, the process of dividing a roll of microfilm into batches of information using flash cards to identify each of the sections, thus providing a method of retrieval. *Syn:* **flash target coding.**
- flash target.** *See:* **flash card.**
- flash target coding.** *See:* **flash indexing.**

flexible manufacturing system (FMS). A computer-integrated manufacturing system that can be reprogrammed to make a variety of parts or products.

flush left. In text formatting, justification of text such that it is aligned on the left and has a ragged right margin. *See also:* **left justification.** *Contrast with:* **flush right.**

flush right. In text formatting, justification of text such that it is aligned on the right and has a ragged left margin. *See also:* **right justification.** *Contrast with:* **flush left.**

FMS. Abbreviation for **flexible manufacturing system.**

font disk. In phototypesetting, a glass disk, imprinted with a specific character font, used by a phototypesetter to generate characters in that character font.

footer. *See:* **running footer.**

form letter. *See:* **iterative document.**

format status line. A line displayed by many word processing systems that shows the current setting of text formatting parameters such as tabulation stops and margin positions.

formatted. (1) Pertaining to magnetic media, such as tapes or diskettes, that have been initialized and prepared to accept and store data.

(2) Pertaining to text that has been organized into a particular arrangement for output or display.

free-form typing. In word processing, the process of entering text that does not include text formatting commands.

full justification. In text formatting, justification resulting in even margins on both the left and right margins.

full-screen editing. A method of text editing that allows the user to view a full display screen of text at one time and to enter or alter text by using either commands or cursor control. Scrolling functions allow the user to

move up and down within the document. *Contrast with:* **line editing.**

full-screen editor. A text editor that allows the user to view a full display screen of data at one time and to enter or alter text by using either commands or cursor control. Scrolling functions allow the user to move up and down within the document. *Contrast with:* **line editor.** *Syn:* **screen editor.**

function. A mathematical entity whose value is uniquely determined by the value of one or more independent variables.

ghost hyphen. *See:* **discretionary hyphen.**

global replace. In text editing, an operation that substitutes a given textual pattern for all, or a given number of, occurrences of some other textual pattern found in the text. *See also:* **global search.**

global search. In text editing, an operation that identifies all, or a given number of, appearances of a given textual pattern in the text. *See also:* **global replace.**

go list. In automatic indexing, a list of terms, words, or roots of words that are considered significant for purposes of information retrieval, and are to be used as keywords in an index. *Contrast with:* **stop list.** *Syn:* **inclusion list.**

graphic. A symbol produced by a process such as handwriting, drawing, or printing. *Syn:* **graphic symbol.** [67]

graphic character. A character, other than a control character, that is normally represented by a graphic. *Syn:* **optical character.**

graphic symbol. *See:* **graphic.**

grid. In optical character recognition, two perpendicular sets of parallel lines used for specifying or measuring character images. [67]

guide edge. *See:* **document edge.**

hand-print recognition. Optical character recognition of hand-printed characters.

hand-printed character font. An international standard optical font for use on hand-generated documents. *See also:* **OCR-A; OCR-B.**

hard copy. A printed copy of computer output in a visually readable form; for example, a printed report, a listing. *Contrast with:* **soft copy.**

header. *See:* **running header.**

health information system (HIS). *See:* **hospital information system.**

help. *See:* **help information.**

help information. Information available for display to the user of a computer system, describing system features and use. *Syn:* **help.** *See also:* **help menu.**

help menu. A menu that gives the user a choice of topics for which help information is available on a given computer system.

HIS. (1) Abbreviation for **hospital information system.**
(2) Abbreviation for **health information system.** *See:* **hospital information system.**

home computer. A personal computer designed to be used in the home.

hospital information system (HIS). An automated system used in hospitals and other health care facilities to perform such tasks as communication between staff members, statistical analysis, inventory planning, and scheduling of medication, blood analysis, and patient testing. *Note:* Hospital information systems typically use interactive operations on a hierarchical file structure based on a patient-oriented record. *Syn:* **health information system; medical information system.**

hot zone. In text formatting, a predefined region at the right end of each line of text, having the characteristic that any word that begins in the region and extends beyond it is automatically moved to the next line, and any word that begins before the region and extends beyond it must be hyphenated. *Syn:*

line-end zone; line-ending zone; margin-adjust zone.

hot zone hyphenation. In text formatting, semi-manual hyphenation in which any word that extends beyond the hot zone must be either hyphenated or moved to the next line.

hyphen drop. In word processing, the automatic omission of a discretionary hyphen from formatted text when the hyphen is not needed to achieve justification.

hyphenation. In text formatting, a manual, semi-manual, or fully automatic process of selecting appropriate word breaks at the end of a line of text and inserting a hyphen at one of those breaks. *See also:* **automatic hyphenation; manual hyphenation; semi-manual hyphenation.** *Contrast with:* **hyphenless justification.**

hyphenless justification. In text formatting, justification in which any word that will not fit entirely on one line is moved to the next line, and intercharacter or interword spacing is used to justify the text. *Contrast with:* **hyphenation.**

IC. Abbreviation for **information center.**

IDP. Abbreviation for **integrated data processing.**

image area. In micrographics, that part of the film frame reserved for an image. [67]

image dissector. In optical character recognition, a mechanical or electronic device that sequentially detects the level of light intensity in different areas of a completely illuminated sample space. [67]

inactive. (1) Pertaining to a record or file that has not been accessed by an update transaction during a given processing cycle.

(2) Pertaining to a record that will not be processed by future transactions. *See also:* **active; purged; logically deleted.**

inclusion list. *See:* **go list.**

incremental justification. In text formatting, the use of extra intercharacter spacing to

form even margins. *Contrast with:* **line filling**.

informatics. *See:* **information science**.

information. The meaning that a human being assigns to data by means of the conventions applied to that data. *See also:* **information traffic**.

information center (IC). (1) A user-oriented computer system that provides non-technical users direct access to data and software for information processing tasks such as report generation, data modeling and manipulation, and word processing. *Syn:* **information resource center; information technology center**. *See also:* **decision support services**. (2) Support personnel for a computer system as in (1).

information efficiency. The efficiency with which information is handled by an organization. *See also:* **information traffic**.

information graphics. The use of a computer to produce low quality, low cost graphical output for peer group presentations. *Contrast with:* **presentation graphics**. *Syn:* **peer graphics**.

information overload. A condition resulting from presentation of too much data to be assimilated and acted upon without further organization. *See also:* **exception reporting**.

information processing. *See:* **data processing**.

information resource center (IRC). *See:* **information center**.

information science. A branch of technology concerned with the way in which data are processed and transmitted through digital equipment. *Syn:* **informatics**.

information technology center. *See:* **information center**.

information traffic. The flow of information through an organization. Typically included are origination; production, consolidation, and presentation; reproduction; recording

and storage; and distribution. *Syn:* **document traffic; paper traffic**. *See also:* **document cycle; information efficiency office automation**.

instructional game. An instruction method employed by some computer-assisted instruction systems, in which a game is used to instruct the student on some subject. *Contrast with:* **question-and-answer interaction; simulation**.

integer programming. In operations research, a class of procedures for locating the maximum or minimum of a function under given constraints, one of which is that some or all variables must have integer values. *Syn:* **discrete programming**.

integrated data processing (IDP). The use of computers to coordinate a number of processes and improve overall efficiency by reducing or eliminating redundant data entry or processing operations.

interactive. Pertaining to a system or mode of operation in which each user entry causes a response from the system.

interactive plotting. The use of a display device to view the output of a graphic or computational process. Applications include computer-assisted instruction, computer-aided design, and control operations.

intercharacter spacing. In text formatting, the amount of space left between characters on a line. *Contrast with:* **interword spacing**. *See also:* **incremental justification; kerning**. *Syn:* **letter spacing**.

interword spacing. In text formatting, the amount of space left between words on a line. *Contrast with:* **intercharacter spacing**. *See also:* **line filling**.

IRC. Abbreviation for **information resource center**. *See:* **information center**.

iterative document. A document that will be produced multiple times with relatively few changes in the text. For example, a letter meant to be prepared 100 times, each with a

different name and address in the salutation.
Syn: **form letter**.

journal. A chronological record of the changes made to a set of data. *Note:* This record may be used as an audit trail to reconstruct a previous version of the data. *Syn:* **log**.

justification. (1) In text formatting, the process of aligning text to form even margins or to achieve desired vertical spacing. *See also:* **full justification; hyphenless justification; incremental justification; left justification; right justification; vertical justification**.
(2) The result of the process in (1).

justification range. In text formatting, the permitted minimum and maximum space that can be inserted between words or characters by a justification routine.

justification routine. In text formatting, a routine that produces justified text by using interword or intercharacter spacing.

kerning. In text formatting, the use of intercharacter spacing to expand or compact a word or a line of text. *Syn:* **mortising; white space reduction; white space expansion**.

key letter in context (KLIC) index. A variation of a keyword in context (KWIC) index in which letters are used as the fundamental indexing units instead of keywords. *See also:* **key phrase in context index**.

key phrase in context (KPIC) index. A variation of a keyword in context (KWIC) index in which phrases are used as the fundamental indexing units instead of keywords. *See also:* **key letter in context index**.

keyword. In automatic indexing, a significant word in a title or document that characterizes the content of the document. *Syn:* **descriptor; lead term**.

keyword and context (KWAC) index. A type of keyword in context index in which items are presented in the form of a permutation index. *See also:* **permutation on subject headings index**.

keyword in context (KWIC) index. An automatic index in which keywords are placed in alphabetical order in a central column and the remainder of the information is given to the right and left, preserving the context. *See also:* **author and keyword in context index; key letter in context index; key-phrase in context index; keyword and context index**. *Contrast with:* **keyword out of context index**.

keyword out of context (KWOC) index. An automatic index in which the keywords are extracted from their normal context and are displayed in a left hand column with the full context following on the right in its normal order. *See also:* **keyword out of title index; word and author index**. *Contrast with:* **keyword in context index**.

keyword out of title (KWOT) index. A type of keyword out of context index in which the items being indexed are document titles.

KLIC. Acronym for **key letter in context**. *See:* **key letter in context index**.

KPIC. Acronym for **key phrase in context**. *See:* **key phrase in context index**.

KWAC. Acronym for **keyword and context**. *See:* **keyword and context index**.

KWIC. Acronym for **keyword in context**. *See:* **keyword in context index**.

KWOC. Acronym for **keyword out of context**. *See:* **keyword out of context index**.

KWOT. Acronym for **keyword out of title**. *See:* **keyword out of title index**.

landscape image. *See:* **comic-strip oriented image**.

laptop computer. A portable computer designed for use on one's lap.

LC-MARC (or LCMARC). Acronym for **Library of Congress Machine-Readable Cataloging**. *See:* **Machine Readable Cataloging**.

lead term. *See:* **keyword**.

leader. In text formatting, a character used to lead the reader's eye across the page and to indicate logical connection between two items on a line. For example, one of a series of periods used in a table of contents to associate a chapter title with its corresponding page number.

leading. In photocomposition, the use of white space between lines and paragraphs of a document. *See also:* **reverse leading**.

left justification. In text formatting, justification of text such that the left margin is aligned. *Contrast with:* **ragged left margin**.

letter spacing. *See:* **intercharacter spacing**.

library automation. The application of automated techniques to library operations such as processing of documents, interlibrary communication, and on-line catalog access. *See also:* **MAchine Readable Cataloging**.

line editing. A method of text editing that allows the user to change text, with cursor control, on only one line at a time. Multiple lines may be viewed or changed through editing commands. *Syn:* **line-oriented editing**. *Contrast with:* **full-screen editing**. *See also:* **con-text editing**.

line editor. A text editor that allows the user to change text, with cursor control, on only one line at a time. Multiple lines may be viewed or changed through editing commands. *Contrast with:* **full-screen editor**.

line-end zone. *See:* **hot zone**.

line-ending zone. *See:* **hot zone**.

line filling. In text formatting, the use of extra interword spacing to form even margins. *Contrast with:* **incremental justification**.

line-oriented editing. *See:* **line editing**.

linear optimization. *See:* **linear programming**.

linear programming (LP). In operations research, a procedure for locating the maximum

or minimum of a linear function of variables that are subject to linear constraints. *Contrast with:* **nonlinear programming**. [67]

log. *See:* **journal**.

logically deleted. Pertaining to a record that no longer appears available to the user but is physically present in the file. *See also:* **active; inactive; purged**.

LP. Abbreviation for **linear programming**.

machine-aided. Pertaining to a process or function performed with the assistance of one or more computers.

machine-aided translation (MAT). Translation from one natural language to another, with the assistance of computerbased aids such as automated lexicons and automated thesauri. *Syn:* **machine translation**. *See also:* **mechanical translation**.

MAchine-Readable Cataloging (MARC). In library automation, an internationally-accepted standard for systems used to create catalogs of machine-readable bibliographic records. *Syn:* **LC-MARC; LCMARC**.

machine translation (MT). *See:* **machine-aided translation**.

macro. In word processing, a predefined sequence of text and text formatting commands collected under a single user-defined name. Each time the name is entered, it is automatically replaced by the sequence of text and commands.

magnetic character. *See:* **magnetic ink character**.

magnetic ink. A special ink containing magnetic particles that can be detected and traced by input devices designed specifically for that purpose.

magnetic ink character. A character imprinted on a document using magnetic ink. *Syn:* **magnetic character**.

magnetic ink character recognition (MICR). The automatic recognition of magnetic ink

characters. *See also:* **code for magnetic characters**. *Contrast with:* **optical character recognition**.

mailbox service. *See:* **electronic mail**.

main file. *See:* **master file**.

management information system (MIS). An automated system designed to provide managers with the information required to make basic decisions. *Syn:* **business information system; executive information system**. *See also:* **computer-aided management; decision support system**.

manual hyphenation. In text formatting, hyphenation in which all line-ending and word break decisions are made by the user. *See also:* **automatic hyphenation; semi-manual hyphenation**.

manuscript editor. *See:* **document editor**.

MARC. Acronym for **MAchine Readable Cataloging**.

margin-adjust hyphenation. *See:* **hot zone hyphenation**.

margin-adjust zone. *See:* **hot zone**.

mark detection. *See:* **mark sensing**.

mark scanning. Optical sensing of marks recorded manually on a data medium. *Contrast with:* **mark sensing**.

mark sensing. Electrical sensing of conductive marks recorded manually on a nonconductive data medium. For example, graphite marks on paper. *Syn:* **mark detection**. *Contrast with:* **mark scanning**.

mark sensing column. A vertical line of positions on a data medium, capable of being detected by mark sensing.

mask document. In word processing, a form displayed on a display screen with blank areas for the user to complete.

master file. In data processing, an organized collection of records that is relatively per-

manent. For example, a file of employee names, addresses, and salary information. *Syn:* **main file**. *Contrast with:* **transaction file**.

MAT. Abbreviation for **machine-aided translation**.

matching interaction. An instruction method employed by some computer-assisted instruction systems, in which the student is asked to match answers to questions. *See also:* **question-and-answer interaction**.

mathematical programming. In operations research, a procedure for locating the maximum or minimum of a function subject to constraints. [67]

mechanical data processing. A method of data processing that involves the use of small, simple, mechanical machines.

mechanical inspection. *See:* **computer-aided inspection**.

mechanical translation. Translation from one natural language to another by a computer or through some other mechanical means. *See also:* **machine-aided translation**.

medical information system (MIS). *See:* **hospital information system**.

menu. A list of options available for selection by the user of a computer system. *See also:* **help menu; menu selection**.

menu selection. (1) The process of choosing an item from a menu.
(2) The item chosen from a menu.

MICR. Abbreviation for **magnetic ink character recognition**.

microcopy. A copy of an image or document so reduced in size from its original that it cannot be read by the unaided human eye. For example, microform, microfiche, microfilm, microimage.

microfacsimile. Transmission and reception of microimages via facsimile communication.

microfiche. A sheet of microfilm capable of containing microimages in a grid pattern. The sheet usually contains a title that can be read without magnification. *Syn:* **fiche.** [67]

microfilm. (1) A high resolution film for recording microimages.
(2) To record microimages on film. *See also:* **computer output microfilm.** [67]

microfilmer. *See:* **computer output microfilmer.**

microfont.* *See:* **optical character recognition-B.**

* Deprecated.

microform. A medium that contains microimages. For example, microfiche, microfilm. [67]

micrographics. That branch of science and technology concerned with methods and techniques for converting information to or from microform. *Syn:* **microphotographics.** *See also:* **office automation.**

microimage. An image that is too small to be read by the human eye without magnification.

microphotographics. *See:* **micrographics.**

microprint. A positive microcopy photographically printed onto paper. [166]

micropublishing. The production and distribution of information via microform. The information may be original or may have been previously published in another form.

MIS. (1) Abbreviation for **management information system.**

(2) Abbreviation for **medical information system.** *See:* **hospital information system.**

month-end processing. The operations required to complete a monthly cycle. For example, monthly ledger processing.

monthly cycle. One complete execution of a data processing function that must be performed once a month. *See also:* **annual cycle; daily cycle; quarterly cycle; weekly cycle.**

mortising. *See:* **kerning.**

motion picture display. *See:* **cine-oriented image.**

MT. Abbreviation for **machine translation.** *See:* **machine-aided translation.**

multiple choice interaction. An instruction method employed by some computer-assisted instruction systems, in which the student is asked to choose one of a set of multiple choice answers in response to a question. *See also:* **question-and-answer interaction.**

NC (N/C). Abbreviation for **numerical control.**

no-fill mode. In text formatting, an operating mode in which no justification is performed.

nonlinear optimization. *See:* **nonlinear programming.**

nonlinear programming. In operations research, a procedure for locating the maximum or minimum of a function of variables that are subject to constraints, when either the function or the constraints, or both, are nonlinear. *Syn:* **nonlinear optimization.** *Contrast with:* **linear programming.** *See also:* **convex programming; quadratic programming.** [67]

null transaction. A transaction that has no effect on the master file that is being updated. It is usually used for documentation purposes only. *See also:* **add transaction; change transaction; delete transaction; update transaction.**

number crunching. Computer processing that relies heavily on the arithmetic and logical capabilities of the central processing unit, as contrasted with processing that entails extensive input/output or data movement.

numerical control (NC or N/C). Computer control of machines that produce manufactured parts. *See also:* **computer numerical control; direct numerical control; distributed numerical control; process control.**

numerical control machine. A machine that

- produces manufactured parts under automatic control. *Syn:* **numerical control tool**.
- numerical control tool.** *See:* **numerical control machine**.
- OBC.** Abbreviation for **optical bar code**. *See:* **bar code**.
- OCR.** Abbreviation for **optical character recognition**.
- OCR-A.** Abbreviation for **optical character recognition-A**.
- OCR-B.** Abbreviation for **optical character recognition-B**.
- office automation.** The automation of information traffic through the use of any or all of the following: voice processing; word and data processing; reprographics; records processing and micrographics; telecommunications. *See also:* **automatic calendar**; **electronic mail**; **electronic office**; **paperless office**.
- office of the future.** *See:* **electronic office**.
- omni-font character recognition.** Character recognition of many or all character fonts. *Contrast with:* **single-font character recognition**.
- OMR.** Abbreviation for **optical mark reading**.
- on-line dialog.** *See:* **dialog**.
- on-line ordering.** *See:* **teleordering**.
- one-question/one-response interaction.** *See:* **question-and-answer interaction**.
- open-loop control.** Pertaining to a control system in which the output is permitted to vary in accordance with the inherent characteristics of the system, and no function of the output is used as feedback to the system. *Contrast with:* **closed-loop system**.
- operations analysis.** *See:* **operations research**.
- operations research (OR).** The design of models for complex problems concerning the optimal allocation of available resources, and the application of mathematical methods for the solution of these problems. *Syn:* **operations analysis**.
- optical bar code (OBC).** *See:* **bar code**.
- optical character.** *See:* **graphic character**.
- optical character recognition (OCR).** The automatic recognition of graphic characters using light-sensitive devices such as optical mark readers. *Contrast with:* **magnetic ink character recognition**.
- optical character recognition-A (OCR-A).** An international standard optical font used on documents intended to be read by optical character recognition. *Note:* This font is generally considered to present a less natural appearance to the eye than OCR-B.
- optical character recognition-B (OCR-B).** An international standard optical font used on documents intended to be read by optical character recognition. *Note:* This font is generally considered to present a more natural appearance to the eye than OCR-A.
- optical font.** A character font used in optical character recognition. For example, hand-printed character font, OCR-A, or OCR-B.
- optical mark reading (OMR).** The use of pattern recognition techniques to identify graphite marks by automatic means.
- orphan prevention.** The ability of a text formatter to avoid placing the final one or two lines of a paragraph at the top of a page. *See also:* **widow prevention**.
- overprint.** In text formatting, to print the same or different characters at the same position on an output page. Used to create bold-face type, underlining, and special characters.
- page makeup.** *See:* **photocomposition**; **computer-aided page makeup**.
- pagination.** *See:* **automatic pagination**.
- panning.** *See:* **scrolling**.

paper traffic. *See:* **information traffic.**

paperless office. An office that has been automated so that no paper documents are needed. *See also:* **electronic office; office automation.**

parts program. A set of computer instructions used to control the action of a numerical control machine in producing a particular manufactured part.

path. In the critical path method, any sequence of activities that goes from the beginning to the end of a project.

PCS. Abbreviation for **print contrast signal.**

peer graphics. *See:* **information graphics.**

permutation index. An automatic index in which each item appears repeatedly, each time with a different word of the item as the first word, followed by the subsequent words in the item, then by that part of the item that came before the word. *See also:* **keyword and context index; permutation on subject headings index.**

permutation on subject headings (POSH) index. A permutation index in which the item entries are subject headings.

personal computer. A single-user microcomputer designed for personally controllable applications. *See also:* **desktop computer; laptop computer; home computer.**

personal computing. (1) Computing performed using a personal computer.
(2) Computing performed in an environment in which the user has complete control over the data and access to software with which the data may be manipulated. *Syn:* **personal processing.**

personal processing. *See:* **personal computing.**

PERT. Acronym for **program evaluation and review technique.**

photocomposition. The formation of text and graphics into discrete camera-ready pages.

Syn: **page makeup.** *See also:* **computer-aided page makeup.**

phototypesetting. The preparation of textual material for printing using an optical system with a light source, a type store, a lens system, and a light-sensitive recording medium. *See also:* **computer-aided typesetting.**

point-of-sale terminal. A device for recording sales data in machine readable form at the time each sale is made.

portable computer. A personal computer that is designed and configured to permit transportation as a piece of handheld luggage. *Note:* Federal regulations limit use of the term "portable" to objects weighing no more than 21 pounds. *See also:* **laptop computer; transportable computer.**

portrait image. *See:* **cine-oriented image.**

POSH. Acronym for **permutation on subject headings.** *See:* **permutation on subject headings index.**

presentation graphics. The use of a computer to produce high quality, high resolution graphical output. *Contrast with:* **information graphics.**

print contrast ratio. In optical character recognition, the ratio obtained by subtracting the reflectance at an inspection area from the maximum reflectance found within a specified distance from that area, and dividing the result by that maximum reflectance. *Contrast with:* **print contrast signal.** [67]

print contrast signal (PCS). In optical character recognition, a measure of the contrast between a printed character and the paper on which the character is printed. *Contrast with:* **print contrast ratio.** [67]

print formatter. *See:* **text formatter.**

print formatting. *See:* **text formatting.**

process control. Automatic control in which a computer is used to regulate continuous operations such as chemical processes, military

operations, or manufacturing operations. *See also:* **numerical control**.

processing cycle. A single, complete execution of data processing that is periodically repeated. *Syn:* **data processing cycle**. *See also:* **annual cycle; daily cycle; monthly cycle; quarterly cycle; weekly cycle**.

product code. *See:* **bar code; universal product code**.

program editor. A text editor user to enter, alter, and view source code for computer programs. Such an editor may have features that make it sensitive to the syntax of the source language on which it operates. *Contrast with:* **document editor**.

program evaluation and review technique (PERT). A variation of the critical path method in which minimum, maximum, and most likely times are used to estimate the mean and standard deviation of each activity item; these values are used to compute estimated path times and to find the critical path; and the critical path values are used to find the standard deviation of the completion time for the whole project.

programmed instruction. A self-instructional method using materials that lead the student through a systematic sequence of steps to a predetermined learning objective.

project evaluation and review technique.*
See: **program evaluation and review technique**.

* Deprecated.

proportional spacing. Text formatting and output that takes into account the width of each character, rather than allocating the same amount of horizontal space to characters of all widths.

purged. Pertaining to a record that has been physically deleted from a file. *See also:* **active; inactive; logically deleted**.

quadratic programming. In operations research, a particular type of nonlinear programming in which the function to be

maximized or minimized is a quadratic function and the constraints are linear functions.

quarter-end processing. The operations required to complete a quarterly cycle.

quarterly cycle. One complete execution of a data processing function that must be performed once a quarter. *See also:* **annual cycle; daily cycle; monthly cycle; weekly cycle**.

question-and-answer interaction. An instruction method employed by some computer-assisted instruction systems, in which the student is asked to provide responses to questions asked by the system. Types of questions include short answer, multiple choice, matching, and drill-and-practice. *See also:* **dialog**. *Contrast with:* **instructional game; simulation**. *Syn:* **one-question/one-response interaction**.

radix alignment. In text formatting, the formatting of numbers in a column such that their radix points, whether explicit or implicit, form a vertical line. *See also:* **decimal alignment**.

ragged left margin. In text formatting, a left margin that is not aligned. *Contrast with:* **left justification**.

ragged right margin. In text formatting, a right margin that is not aligned. *Contrast with:* **right justification**.

recording area. In micrographics, the maximum useful area of a microfilm or other medium that can record information, including the image as well as the document marks.

records processing. The process of manipulating, storing, and retrieving records in electronic form. *See also:* **office automation**.

reference edge. *See:* **document reference edge**.

remote-access data processing. Data processing in which some or all of the input-output functions are performed at locations away from the primary computer, connected to the

primary computer by telecommunication facilities.

repagination. *See:* **automatic pagination.**

reprographics. Automated composition, production, and reproduction of printed material. Methods include photocomposition, computer-aided typesetting, and offset printing. *See also:* **office automation.**

required hyphen. In word processing, a hyphen that is to appear in a word or phrase regardless of whether the word or phrase is divided to achieve justification; for example, the hyphen in "computer-aided design." *Note:* A required hyphen is not subject to hyphen drop. *Syn:* **embedded hyphen.** *Contrast with:* **discretionary hyphen.**

resolution. In micrographics, the ability of a photographic system to record fine detail.

resolution test chart. In micrographics, a chart containing a number of increasingly smaller horizontal and vertical lines of specific size and spacing, used to measure resolution. *See also:* **target.**

retrieval code. In micrographics, a code used for manual or automatic retrieval of microimages. [67]

reverse leading. In photocomposition, the ability of some phototypesetting equipment to allow reverse movement of the photographic medium. *Note:* This technique permits the setting of side-by-side columns of text on the composed page. *See also:* **leading.**

reverse scrolling. In word processing, the process of moving the text across the display screen in the reverse direction from the normal reading direction. *See also:* **scrolling.**

right justification. In text formatting, justification of text such that the right margin is aligned. *Contrast with:* **ragged right margin.**

running footer. In text formatting, a line of text that is automatically placed at the bottom of each page of a document. *Contrast with:* **running header.** *Syn:* **footer.**

running header. In text formatting, a line of text that is automatically placed at the top of each page of a document. *Contrast with:* **running footer.** *Syn:* **header.**

screen editor. *See:* **full-screen editor.**

scrolling. In word processing, the process of moving text across a display screen to create the effect of a viewing window moving on a large page of a document. An operator may scroll left, right, up, or down in a document. *See also:* **reverse scrolling.**

selective listing in combination (SLIC) index. An automatic index in which the entries are combinations of terms taken from a set of preselected keywords.

semi-manual hyphenation. In text formatting, hyphenation in which most line-ending and word break decisions are made automatically, the user being asked to assist only when a determination cannot be made automatically. *See also:* **automatic hyphenation; hot-zone hyphenation; manual hyphenation.**

shared-logic word processing. Word processing performed on a system composed of multiple work stations that share the logic and storage sections of a single central processor. *Contrast with:* **clustered word processing; dedicated word processing; shared-resource word processing; stand-alone word processing.**

shared-resource word processing. Word processing performed on a system composed of multiple work stations, each with its own processor but sharing certain resources such as printers and disk drives. *Contrast with:* **clustered word processing; dedicated word processing; shared-logic word processing; stand-alone word processing.**

short answer interaction. An instruction method employed by some computer-assisted instruction systems, in which the student is asked to provide a word or phrase in response to a question. *See also:* **question-and-answer interaction.**

simulation. An instruction method employed by some computer-assisted instruction systems,

in which a situation is simulated and the student must respond appropriately. *Contrast with: instructional game; question-and-answer interaction.*

single-font character recognition. Character recognition of one character font. *Contrast with: omni-font character recognition.*

SLIC. Acronym for **selective listing in combination**. *See: selective listing in combination index.*

soft copy. A copy of computer output in a form other than a printed page. For example, data displayed on a video display device. *Contrast with: hard copy.*

soft hyphen. *See: discretionary hyphen.*

source document. A document containing information that is to be input to a computer. For example, an original invoice, a library charge-out card, or a machine-readable document.

source language. In automated language processing, the language in which the input to a machine-aided translation process is represented. *Contrast with: target language.*

spread sheet. *See: electronic spread sheet.*

stand-alone word processing. Word processing performed on a system that does not depend on the resources of other equipment to perform word processing activities. *Contrast with: dedicated word processing; shared-logic word processing; shared-resource word processing.*

stop character. A word processing control character that interrupts the sequence of output processing to provide the ability to make changes in the text formatting parameters, the text itself, the character font on the output device, or other items. *Syn: stop code.*

stop code. *See: stop character.*

stop list. In automatic indexing, a list of terms, words, or roots of words that are considered insignificant for purposes of information retrieval, and are excluded from being keywords

in an index. *Contrast with: go list. Syn: stop-word list.*

stopword list. *See: stop list.*

stored paragraph. *See: boilerplate text.*

stroke. In character recognition, a straight line or arc used as a segment of a graphic character. [67]

stroke centerline. In character recognition, a line midway between two stroke edges. [67]

stroke edge. In character recognition, the line of discontinuity between a side of a stroke and the background, obtained by averaging, over the length of the stroke, the irregularities resulting from the printing and detecting process. [67]

stroke width. In character recognition, the distance between two stroke edges, measured perpendicular to the stroke centerline.

syllable hyphen. *See: discretionary hyphen.*

target. In micrographics, any document or chart containing identification information or a resolution test chart. *See also: flash card.*

target language. In automated language processing, the language in which the output from a machine-aided translation process is represented. *Contrast with: source language.*

teleautograph. A telegraphic writing instrument, in which movement of a pen at the transmitting end causes corresponding movement of a pen at the remote receiving instrument. *Syn: telewriter.*

telecommunication. The transmission of signals over long distance, such as by telegraph, radio, or television. *See also: computer conferencing; office automation.* [67]

telecommuting. An employment alternative involving working at home using a computer and telecommunication system instead of commuting between home and workplace.

teleconferencing. A form of communication

that uses telephones, computer networks, and television to allow participants at different geographic locations to confer.

telecopier. A device used for facsimile transmission.

telefax. *See: facsimile transmission.*

teleinformatics. Data transfer via telecommunication systems. [90]

teleordering. Use of a telecommunication system to accept orders from customers at remote locations. *Syn: on-line ordering; teleshopping.*

telephotography. *See: facsimile telegraphy.*

teleprocessing. (1) *See: remote-access data processing.*
(2) *See: distributed data processing.**
*Deprecated.

telereference. The use of a telecommunication system to reference data at some remote location.

teleshopping. *See: teleordering.*

teletext. A form of videotex that allows users to receive textual or pictorial material via broadcast signals interpreted by a special decoder attached to a television set. *Contrast with: viewdata.*

teletype exchange (telex or TEX). A service that permits the transmission of data using commercial telecommunication facilities.

teletypesetting (TTS). Use of a telecommunication system to allow typesetting to be done at remote locations.

telewriter. *See: teleautograph.*

telex. Acronym for **teletype exchange**.

terminology bank. *See: automated glossary.*

TEX. (1) Acronym for **teletype exchange**.
(2) A public-domain word processing language.

text. In word processing, information that is intended for presentation for human comprehension in a two-dimensional form. Text may consist of symbols, phrases, sentences in natural or artificial language, pictures, diagrams, and tables.

text editing. The process of entering, altering, and viewing text.

text editor. A computer program, often part of a word processing system, that allows a user to enter, alter, and view text. *See also: document editor; full-screen editor; line editor; program editor. Syn: editor.*

text end adjustment. The ability of a text formatter to automatically reformat text to comply with specified line lengths and page sizes. *See also: adjust line mode.*

text formatter. A computer program, often part of a word processing system, that interprets formatting commands embedded in text and performs the indentation, pagination, tabulation, underscoring, and other formatting procedures indicated by the commands. *Syn: print formatter.*

text formatting. In word processing, the process of interpreting formatting commands embedded in text and performing the indentation, pagination, tabulation, underscoring, and other formatting procedures indicated by the formatting commands. *Syn: print formatter.*

text processing. *See: word processing.*

transaction. An event that requires data contained in a master file to be processed. *See also: add transaction; change transaction; delete transaction; null transaction; update transaction.*

transaction code. An identifier associated with a transaction and representing the operation to be carried out by that transaction. For example, "A" for an add transaction, "D" for a delete transaction.

transaction file. An organized collection of transaction records. *Syn: detail file. Contrast with: master file.*

transaction record. A record, representing one transaction, used to process data stored in a master file. *See also:* **add transaction; change transaction; delete transaction; null transaction; update transaction.**

transportable computer. A personal computer that weighs more than 21 pounds, yet is designed and configured to permit easy transportation. *See also:* **portable computer.**

TTS. Abbreviation for **teletypesetting.**

turning center. A numerical control machine capable of performing lathe-oriented operations, such as boring, facing, turning, and threading.

type font. *See:* **character font.**

ultrafiche. In micrographics, microfiche with images reduced more than ninety times. [67]

uniterm indexing. A variation of derivative indexing in which each keyword must be a single word.

universal product code (UPC). A bar code appearing on many retail products to uniquely identify the product. The code is designed to be read by an optical scanner attached to an electronic cash register.



Example of Universal Product Code

UPC. Abbreviation for **universal product code.**

update transaction. A transaction that modifies a master file by adding, deleting, or changing data to make it more current. *See also:* **add transaction; change transaction; delete transaction; null transaction.**

updateable microfilm. Microfilm that permits the addition or deletion of images.

user. One who uses the services of a computer system. *Syn:* **end user.**

user command. A command that may be issued by the user. For example, "sort" or "print."

user-definable key. A key on a computer keyboard that initiates operations or functions that have been defined by the user. *Syn:* **user-programmable key.**

user-driven computing. *Syn:* **end user computing.**

user friendly. Pertaining to a computer system, device, program, or document designed with ease of use as a primary objective. *Syn:* **user oriented.**

user group. An organization of users of a particular class of computer systems, designed to allow the users to share knowledge about and programs for those systems and to formulate feedback for the systems' manufacturers. *Syn:* **user's group.**

user hotline. Telephone access to a specialist who provides users with answers to questions concerning some product, system, or application.

user interaction. Communication between a computer system and a user in which each user entry causes a response from the system.

user oriented. *See:* **user friendly.**

user program. A computer program written specifically for or by a particular user.

user-programmable key. *See:* **user-definable key.**

user's group. *See:* **user group.**

vertical justification. In text formatting, justification of text by adding small increments of vertical space between paragraphs and lines to create a well-spaced output page or a series of pages with equal top and bottom margins.

video conferencing. A form of teleconferencing that uses television to allow participants to see one another. *See also:* **computer conferencing.**

videotex. A telecommunication system that allows users to interact with a computer by using a specially-equipped television set and a keyboard to access remote data banks and to obtain consumer services such as electronic mail, teleordering, and bank services. *See also:* **teletext; viewdata.**

viewdata. A form of videotex that allows users to access remote data banks via telephone and cable lines. *Contrast with:* **teletext.**

voice processing. Information processing in which the human voice is the data input. *See also:* **office automation.**

WADEX. Acronym for **word and author index.**

week-end processing. The operations required to complete a weekly cycle.

weekly cycle. One complete execution of a data processing function that must be performed once a week. For example, a weekly payroll system. *See also:* **annual cycle; daily cycle; monthly cycle; quarterly cycle.**

white space expansion. *See:* **kerning.**

white space reduction. *See:* **kerning.**

widow prevention. The ability of a text formatter to avoid placing a title or the first one or two lines of a paragraph at the end of a page. *See also:* **orphan prevention.**

word and author index (WADEX). A variation of a keyword out of context (KWOC) index in which author and keyword entries are combined and presented in a KWOC format. *Contrast with:* **author and keyword in context index.**

word index. An automatic index containing an alphabetical list of the words found in a given text and indicating the number of times each word occurs in the text and each word's position in the text.

word processing (WP). The use of computers to enter, view, edit, store, retrieve, manipulate, organize, transmit, and print textual material. A word processor system typically includes text editing and text formatting. *See also:* **clustered word processing; dedicated word processing; office automation; shared-logic word processing; shared-resource word processing; stand-alone word processing; word processor.** *Syn:* **text processing.**

word processing output microfilm (WPOM). Microimages produced by a word processor.

word processor (WP). (1) A computer capable of performing word processing functions. (2) A computer program capable of performing word processing functions. *See also:* **text editor; text formatter.**

word wrap. The ability of a word processing system to divide text into lines that fit into the horizontal space available on a display device without leaving broken words or requiring explicit carriage returns. *Syn:* **wrap-around.**

work station. A device used to perform tasks such as data processing and word processing.

WP. (1) Abbreviation for **word processing.** (2) Abbreviation for **word processor.**

WPOM. Abbreviation for **word processing output microfilm.**

wraparound. *See:* **word wrap.**

X-datum line. An imaginary line along the top edge of a punch card, used as a reference edge for mark sensing or scanning.

Y-datum line. An imaginary line along the right edge of a punch card, used as a reference edge for mark sensing or scanning.

year-end processing. The operations required to complete an annual cycle.

yearly cycle. *See:* **annual cycle.**

5. Dictionary Resources

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