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The Complete Illustrated Dictionary

NINTH EDITION

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CIM

(1) (Computer-Integrated Manufacturing) Integrating office/accounting functions with automated factory systems. Point of sale, billing, machine tool scheduling and supply ordering are part of CIM.

(2) (CompuServe Information Manager) The client program from CompuServe for accessing its services.

cine-oriented

A film-image orientation like that of movie film, which runs parallel to the outer edge of the medium. Contrast with *comic-strip oriented*.

Cinepak

A video compression/decompression algorithm from SuperMac Technologies, Sunnyvale, CA, that is used to compress movie files. It is widely used on the Macintosh and is included in Windows 95/98.

CIO

(Chief Information Officer) The executive officer in charge of all information processing in an organization.

ciphertext

Data that has been coded (enciphered, encrypted, encoded) for security purposes.

CIR

(Committed Information Rate) In a frame relay network, the minimum speed maintained between nodes.

circuit

(1) A set of electronic components that perform a particular function in an electronic system.

(2) Same as *communications channel*.

circuit analyzer

(1) A device that tests the validity of an electronic circuit.

(2) In communications, same as *data line monitor*.

circuit board

Same as *printed circuit board*.

circuit breaker

A protective device that opens a circuit upon sensing a current overload. Unlike a fuse, it can be reset.

circuit card

Same as *printed circuit board*.

circuit cellular

The transmission of data over the cellular network using a voice channel and modem similar to using land-based modems. Contrast with *packet cellular*. See *wireless*.

circuit switching

The temporary connection of two or more communications channels. Users have full use of the circuit until the connection is terminated. Contrast with "message switching," which stores messages and forwards them later, and contrast with "packet switching," which breaks up a message into packets and routes each packet through the most expedient path at that moment.

Circuit switching is used by the telephone company for its voice networks in order to guarantee steady, consistent service for two people engaged in a telephone conversation.

CIS

(1) (CompuServe Information Service) See *CompuServe*.

(2) (Card Information Structure) A data structure on a PCMCIA card that contains information about the card's contents. It allows the card to describe its configuration requirements to its host computer.

CISC

(Complex Instruction Set Computer) A computer architecture in which instructions are of varying lengths and use different addressing modes.

Cisco

(Cisco Systems) A company that manufactures computer networking equipment, including routers, switches, and modems.

Citrix

(Citrix Systems) A company that develops and markets software for remote computing, including the WinFrame and MultiWin products.

CKO

(Chief Knowledge Officer) A position responsible for managing the organization's knowledge resources.

claddi

(Cladding) A process of covering a material with a protective layer.

clamp

A device used to hold two or more objects together.

Clarifis

(Clarifis) A company that develops software for image recognition.

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The

comment out

To disable lines of code in a program by surrounding them with comment-start and comment-stop characters.

commercial software

Software that is designed and developed for sale to the general public.

Commodore

One of the first personal computer companies. In 1977, Commodore Business Machines of West Chester, Pennsylvania, introduced the PET computer and launched the personal computer industry along with Apple and Radio Shack. Later on, it introduced the Commodore 64 and Commodore 128. These were popular home computers, and over 10 million were sold. In 1985, the Amiga series was introduced, which offered advanced multimedia capabilities that match today's computers. See *Amiga*.

common carrier

A government-regulated organization that provides telecommunications services for public use, such as AT&T, the telephone companies, ITT, MCI and Western Union.

comm port

May refer to any serial communications port or specifically to the serial ports on a PC. See *COM1*.

communications

The electronic transfer of information from one location to another. "Data communications" refers to digital transmission, and "telecommunications" can embrace analog and digital telephony and video as well as data communications. See *communications protocol* and *OSI*.

communications channel

Also called a "circuit" or "line," it is a pathway over which data is transferred between remote devices. It may refer to the entire physical medium, such as a telephone line, optical fiber, coaxial cable or twisted wire pair, or, it may refer to one of several carrier frequencies transmitted simultaneously within the line.

communications controller

A peripheral control unit that connects several communications lines to a computer and performs the actual transmitting and receiving as well as various message coding and decoding activities.

Communications controllers are typically nonprogrammable units designed for specific protocols and communications tasks. Contrast with *front end processor*, which can be programmed for a variety of protocols and network conditions.

communications network

The transmission channels interconnecting all client and server stations as well as all supporting hardware and software.

communications parameters

The basic settings for modem transmission, which include bit rate (14400 bps, 28800 bps, etc.), parity (none, even, odd), number of data bits (7 or 8) and number of stop bits (typically 1).

communications program

Software that manages the transmission of data between computers. In personal computers, it manages transmission to and from the computer's serial port which is typically connected to a modem. Such programs include several file transfer protocols and can also emulate dumb terminals for hookup to minis and mainframes. In a server that shares data with users on the network, the communications programs are the *network operating system* (NOS) and *communications protocols*. In a mini or mainframe, they are the *network control program* and *access methods*.

communications protocol

Hardware and software standards that govern transmission between two stations. On personal computers, communications programs offer a variety of protocols (Zmodem, Ymodem, Kermit, etc.) to transfer files via modem.

On LANs, data link protocols such as Ethernet, Token Ring and FDDI provide the access method (OSI layers 1 and 2) that moves packets from station to station, and higher level protocols, such as NetBIOS, IPX and TCP/IP (OSI layers 3, 4 and 5) control and route the transmission.