PUBLISHED BY Microsoft Press A Division of Microsoft Corporation One Microsoft Way Redmond, Washington 98052-6399

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Library of Congress Cataloging-in-Publication Data Microsoft Computer Dictionary.--5th ed. p. cm.

p. cm. ISBN 0-7356-1495-4

Computers--Dictionaries.
 Microcomputers--Dictionaries.

AQ76.5. M52267 2002 004'.03--dc21

200219714

Printed and bound in the United States of America.

23456789 QWT 765432

Distributed in Canada by H.B. Fenn and Company Ltd.

A CIP catalogue record for this book is available from the British Library.

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Acquisitions Editor: Alex Blanton Project Editor: Sandra Haynes

Body Part No. X08-41929



instruction set

Insider attack n. An attack on a network or system carried out by an individual associated with the hacked system. Insider attacks are typically the work of current or former employees of a company or organization who have knowledge of passwords and network vulnerabilities.

Compare intruder attack.

Ins key n. See Insert key.

Install vb. To set in place and prepare for operation. Operating systems and application programs commonly include a disk-based installation, or setup, program that does most of the work of preparing the program to work with the computer, printer, and other devices. Often such a program can check for devices attached to the system, request the user to choose from sets of options, create a place for the program on the hard disk, and modify system startup files as necessary.

Installable device driver *n*. A device driver that can be embedded within an operating system, usually in order to override an existing, less-functional service.

Installable File System Manager *n*. In Windows 9x and Windows 2000, the part of the file system architecture responsible for arbitrating access to the different file system components. *Acronym:* IFS.

Installation program *n*. A program whose function is to install another program, either on a storage medium or in memory. An installation program, also called a setup program, might be used to guide a user through the often complex process of setting up an application for a particular combination of machine, printer, and monitor.

Installer n. A program, provided with the Apple Macintosh operating system, that allows the user to install system upgrades and make bootable (system) disks.

Instance *n*. An object, in object-oriented programming, in relation to the class to which it belongs. For example, an object *myList* that belongs to a class *List* is an instance of the class *List*. *See also* class, instance variable, instantiate, object (definition 2).

Instance variable *n*. A variable associated with an instance of a class (an object). If a class defines a certain variable, each instance of the class has its own copy of that variable. See also class, instance, object (definition 2), object-oriented programming.

Instantlate *vb.* To create an instance of a class. *See also* class, instance, object (definition 2).

Instant messaging n. A service that alerts users when friends or colleagues are on line and allows them to communicate with each other in real time through private online chat areas. With instant messaging, a user creates a list of other users with whom he or she wishes to communicate; when a user from his or her list is on line, the service alerts the user and enables immediate contact with the other user. While instant messaging has primarily been a proprietary service offered by Internet service providers such as AOL and MSN, businesses are starting to employ instant messaging to increase employee efficiency and make expertise more readily available to employees.

Institute of Electrical and Electronics Engineers n. See IEEE.

Instruction *n*. An action statement in any computer language, most often in machine or assembly language. Most programs consist of two types of statements: declarations and instructions. *See also* declaration, statement.

Instruction code n. See operation code.

Instruction counter n. See instruction register.

Instruction cycle *n*. The cycle in which a processor retrieves an instruction from memory, decodes it, and carries it out. The time required for an instruction cycle is the sum of the instruction (fetch) time and the execution (translate and execute) time and is measured by the number of clock ticks (pulses of a processor's internal timer) consumed.

Instruction mix *n*. The assortment of types of instructions contained in a program, such as assignment instructions, mathematical instructions (floating-point or integer), control instructions, and indexing instructions. Knowledge of instruction mixes is important to designers of CPUs because it tells them which instructions should be shortened to yield the greatest speed, and to designers of benchmarks because it enables them to make the benchmarks relevant to real tasks.

Instruction pointer n. See program counter.

Instruction register n. A register in a central processing unit that holds the address of the next instruction to be executed.

Instruction set *n*. The set of machine instructions that a processor recognizes and can execute. *See also* assembler, microcode.



