Microsoft

OVER 10,000 ENTRIES

Microsoft

Computer Dictionary

Fifth Edition

- *Fully updated with the latest technologies, terms, and acronyms*
- *Easy to read, expertly illustrated*
- *Definitive coverage of hardware, software, the Internet, and more!*

Netskope Exhibit 1022

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

Copyright © 2002 by Microsoft Corporation

All rights reserved. No part of the contents of this book may be reproduced or transmitted in any form or by any means without the written permission of the publisher.

Library of Congress Cataloging-in-Publication Data
Microsoft Computer Dictionary.--5th ed.
p. cm.
ISBN 0-7356-1495-4
1. Computers--Dictionaries. 2. Microcomputers--Dictionaries.

AQ76.5. M52267 2002
004'.03--dc21 200219714

Printed and bound in the United States of America.

2 3 4 5 6 7 8 9 QWT 7 6 5 4 3 2

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

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

Microsoft Press books are available through booksellers and distributors worldwide. For further information about international editions, contact your local Microsoft Corporation office or contact Microsoft Press International directly at fax (425) 936-7329. Visit our Web site at www.microsoft.com/mspress. Send comments to *mspinput@microsoft.com*.

Active Desktop, Active Directory, ActiveMovie, ActiveStore, ActiveSync, ActiveX, Authenticode, BackOffice, BizTalk, ClearType, Direct3D, DirectAnimation, DirectDraw, DirectInput, DirectMusic, DirectPlay, DirectShow, DirectSound, DirectX, Entourage, FoxPro, FrontPage, Hotmail, IntelliEye, IntelliMouse, IntelliSense, JScript, MapPoint, Microsoft, Microsoft Press, Mobile Explorer, MS-DOS, MSN, Music Central, NetMeeting, Outlook, PhotoDraw, PowerPoint, SharePoint, UltimateTV, Visio, Visual Basic, Visual C++, Visual FoxPro, Visual InterDev, Visual J++, Visual SourceSafe, Visual Studio, Win32, Win32s, Windows, Windows Media, Windows NT, Xbox are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. Other product and company names mentioned herein may be the trademarks of their respective owners.

The example companies, organizations, products, domain names, e-mail addresses, logos, people, places, and events depicted herein are fictitious. No association with any real company, organization, product, domain name, e-mail address, logo, person, place, or event is intended or should be inferred.

Acquisitions Editor: Alex Blanton
Project Editor: Sandra Haynes

Body Part No. X08-41929

indicate how Web browsers should display these elements to the user and should respond to user actions such as activation of a link by means of a key press or mouse click. HTML 2, defined by the Internet Engineering Task Force (IETF), included features of HTML common to all Web browsers as of 1994 and was the first version of HTML widely used on the World Wide Web. HTML+ was proposed for extending HTML 2 in 1994, but it was never implemented. HTML 3, which also was never standardized or fully implemented by a major browser developer, introduced tables. HTML 3.2 incorporated features widely implemented as of early 1996, including tables, applets, and the ability to flow text around images. HTML 4, the latest specification, supports style sheets and scripting languages and includes internationalization and accessibility features. Future HTML development will be carried out by the World Wide Web Consortium (W3C). Most Web browsers, notably Netscape Navigator and Internet Explorer, recognize HTML tags beyond those included in the present standard. *See also* .htm, .html, SGML, tag (definition 3), Web browser.

HTML attribute *n.* A value within an HTML tag that assigns additional properties to the object being defined. Some HTML editing software assigns some attributes automatically when you create an object such as a paragraph or table.

HTML code fragment *n.* HTML code that you add to a Web page to create features such as a script, a counter, or a scrolling marquee. Often used in the context of webrings to add a link and standard graphics or automation to an individual page to indicate membership.

HTML document *n.* A hypertext document that has been coded with HTML. *See* Web page.

HTML editor *n.* A software program used to create and modify HTML documents (Web pages). Most HTML editors include a method for inserting HTML tags without actually having to type out each tag. A number of HTML editors will also automatically reformat a document with HTML tags, based on formatting codes used by the word processing program in which the document was created. *See also* tag (definition 3), Web page.

HTML extensions *n.* A feature or setting that is an extension to the formal HTML specification. Extensions may not be supported by all Web browsers, but they may be used widely by Web authors. An example of an extension is marquee scrolling text.

HTML page *n.* *See* Web page.

HTML server control *n.* An ASP.NET server control that belongs to the System.Web.UI.HtmlControls namespace. An HTML server control maps directly to an HTML element and is declared on an ASP.NET page as an HTML element marked by a runat=server attribute. In contrast to Web server controls, HTML server controls do not have an <asp:ControlName> tag prefix. *See also* Web server control.

HTML source *n.* *See* source (definition 2).

HTML source file *n.* *See* source (definition 2).

HTML tag *n.* *See* tag (definition 3).

HTML validation service *n.* A service used to confirm that a Web page uses valid HTML according to the latest standard and/or that its hyperlinks are valid. An HTML validation service can catch small syntactical errors in HTML coding as well as deviations from the HTML standards. *See also* HTML.

HTTP *n.* Acronym for **H**ypertext **T**ransfer **P**rotocol. The protocol used to carry requests from a browser to a Web server and to transport pages from Web servers back to the requesting browser. Although HTTP is almost universally used on the Web, it is not an especially secure protocol.

HTTPd *n.* Acronym for **H**ypertext **T**ransfer **P**rotocol **D**aemon. A small, fast HTTP server that was available free from NCSA. HTTPd was the predecessor for Apache. *Also called:* HTTP Daemon. *See also* Apache, HTTP server, NCSA (definition 1).

HTTP Daemon *n.* *See* HTTPd.

HTTP Next Generation *n.* *See* HTTP-NG.

HTTP-NG *n.* Acronym for **H**ypertext **T**ransfer **P**rotocol **N**ext **G**eneration. A standard under development by the World Wide Web Consortium (W3C) for improving performance and enabling the addition of features such as security. Whereas the current version of HTTP establishes a connection each time a request is made, HTTP-NG will set up one connection (which consists of separate channels for control information and data) for an entire session between a particular client and a particular server.

HTTPS *n.* **1.** Acronym for **H**ypertext **T**ransfer **P**rotocol **S**ecure. A variation of HTTP that provides for encryption and transmission through a secure port. HTTPS was devised by Netscape and allows HTTP to run over a security mechanism known as SSL (Secure Sockets Layer). *See also* HTTP, SSL. **2.** Web server software for Windows NT. Developed by the European Microsoft Windows NT Academic Centre (EMWAC) at the University of Edinburgh,

N

n *prefix* *See* nano-.

NACN *n.* *See* North American Cellular Network.

nagware *n.* Slang for computer shareware that, on starting or before closing, displays a prominent reminder to pay for the program. *See also* shareware.

NAK *n.* Acronym for negative acknowledgement. A control code, ASCII character 21 (hexadecimal 15), transmitted to a sending station or computer by the receiving unit as a signal that transmitted information has arrived incorrectly. *Compare* ACK.

NAK attack *n.* Acronym for negative acknowledgement attack. A hacker attack that uses the negative acknowledgement control code character to enter a seemingly secure system. A NAK attack uses weaknesses in the system handling NAK replies that may leave it temporarily unprotected. *See also* NAK.

naked PC *n.* A personal computer sold without an operating system (OS) installed. The purchaser of a naked PC must then choose and install an OS before the computer can be used. Naked PCs are chiefly purchased by users with some degree of expertise with computer equipment who may want to install a version of Linux or an offshoot OS. Computer and software manufacturers have expressed concern over the possibility of software piracy with the sale of naked PCs.

.name *n.* One of seven new top-level domain names approved in 2000 by the Internet Corporation for Assigned Names and Numbers (ICANN), .name is meant for registration by individuals for personal Web sites. The seven new domain names became available for use in the spring of 2001.

Name Binding Protocol *n.* *See* NBP.

named anchor *n.* In HTML, a tag within a document that can act as a destination for a hyperlink. Named anchors are useful because they allow a link to a specific location within a document. *Also called:* named target. *See also* anchor (definition 2), HTML, hyperlink.

named entity *n.* *See* character entity.

named pipes *n.* In programming, one-way (simplex) or two-way (duplex) connections used to transfer data between processes. Named pipes are portions of memory set aside for temporary data storage. They are created by server processes and can be used simultaneously by more than one client process, each accessing a separate instance with its own buffers and handles. Named pipes can be used to transfer data either locally or on a network.

named target *n.* *See* named anchor.

name server *n.* *See* CSO name server, DNS server.

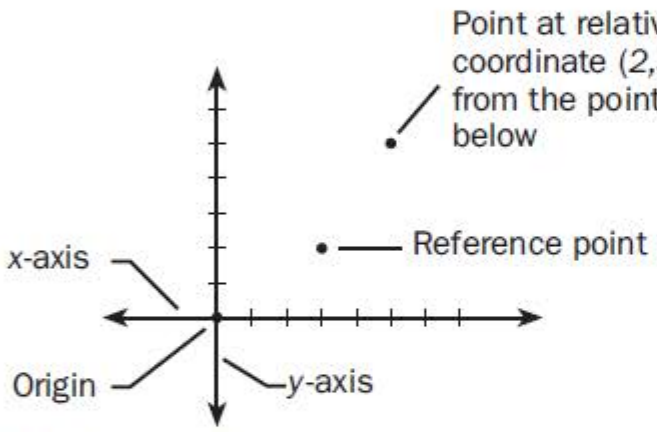
namespace *n.* **1.** A grouping of one or more names that represent individual objects within the group in a shared computing environment, such as a network. The names within a namespace are unique, are created according to the same rules, and can be resolved into a particular identifying item of information, such as an IP address or a network device. A namespace can be either flat—a single collection of unique names—or hierarchical, as is the Internet's DNS (Domain Name System), which is based on a treelike structure that is refined through successive levels beginning with the root server and the Internet's top-level domains (.com, .net, .org, and so on). In everyday terms, a namespace is comparable to a telephone book, in which each name is unique and resolves to the phone number and address of a particular individual, business, or other entity. **2.** A means of identifying elements and attributes in an XML document by assigning them a two-part name with the first part being the namespace and the second part being the functional name. A namespace identifies a set of names to prevent confusion when multiple objects with identical functional names are taken from different sources and brought together in the same XML document. Namespaces typically reference a Uniform Resource Identifier (URI) because each URI will be unique.

name-value pair *n.* **1.** In the Perl programming language, a data set in which the data is associated with a name. *See also* Perl. **2.** In CGI programming, one of the data items collected from an HTML form by the browser and passed

Netskope Exhibit 1022

address is typically computed by adding an offset to the base. In everyday terms, this is similar to creating the address 2001 Main Street, in which the base is the 2000 block of Main Street and the offset is 1, which specifies the first house from the beginning of the block. *Also called:* indirect address.

relative coordinates *n.* Coordinates that are defined in terms of their distance from a given starting point, rather than from the origin (intersection of two axes). For example, from a starting point on the screen, a square defined by relative coordinates can be drawn as a series of lines, each representing a displacement in distance and direction from the end of the preceding point. The entire square can be redrawn at another location simply by changing the coordinates of the starting point rather than by recalculating the coordinates of each corner with reference to the origin. See the illustration. *Compare* absolute coordinates.



Relative coordinates.

relative movement *n.* **1.** Motion whose distance and direction are relative to a starting point. For example, when a mouse pointer is moved on the screen, the coordinates of its new position are relative to the previous location of the pointer. *See also* relative coordinates, relative pointing device. **2.** In computer graphics and cinematography, the movement of one object in relation to another, such as the movement of horse A from the perspective of horse B on a racetrack.

relative path *n.* A path that is implied by the current working directory. When a user enters a command that refers to a file, if the full pathname is not entered the current working directory becomes the relative path of the file referred to. *Compare* full path.

relative pointing device *n.* A cursor-control device, such as a mouse or a trackball, in which the movement of an on-screen cursor is linked to the movement of the device but not to the position of the device. For example, if a user picks up a mouse and puts it down in a different location on a desk, the position of the on-screen cursor does not change because no movement (rolling) is detected. When the user rolls the mouse again, the cursor moves to reflect the mouse movement against the surface of the desk. Relative pointing devices differ from absolute pointing devices, such as graphics tablets, in which the device's location within a defined area is always associated with a predefined on-screen position. *See also* relative coordinates, relative movement (definition 1). *Compare* absolute pointing device.

relative URL *n.* Short for **relative u**niform **r**esource **l**ocator. A form of URL in which the domain and some or all directory names are omitted, leaving only the document name and extension (and perhaps a partial list of directory names). The indicated file is found in a location relative to the pathname of the current document. *Acronym:* RELURL. *See also* file extension, URL.

RELAX NG *n.* An XML schema language based on Tree Regular Expressions for XML (TREX) and Regular Language Description for XML (RELAX). RELAX NG supports XML namespaces, uses XML syntax, maintains the information set of the XML document, and provides unrestricted support for mixed or unordered content.

relay *n.* A switch activated by an electrical signal. A relay allows another signal to be controlled without the need for human action to route the other signal to the control point, and it also allows a relatively low-power signal to control a high-power signal.

release[1] *n.* **1.** A particular version of a piece of software, most commonly associated with the most recent version (as in "the latest release"). Some companies use the term *release* as an integral part of the product name (as in Lotus 1-2-3 Release 2.2). **2.** A version of a product that is available in general distribution. *Compare* alpha[2], beta[2].

release[2] *vb.* **1.** To relinquish control of a block of memory, a device, or another system resource to the operating system. **2.** To formally make a product available to the marketplace.

reliability *n.* The likelihood of a computer system or device continuing to function over a given period of time and under specified conditions. Reliability is measured by different performance indexes. For example, the reliability of a hard disk is often given as mean time between failures (MTBF): the average length of time the disk can be expected to function without failing. *See also* MTBF, MTTR.

R

permits complex data structures to be transmitted, processed, and returned between different operating systems running in different environments.

XML Schema *n.* A specification providing a common base for data description and validation in XML environments. XML schema replaces Document Type Definition (DTD) by defining a greater set of data types with more explicit data descriptions. XML schema has been developed as an open, vendor-neutral format to enhance information exchange and e-commerce over the Internet. It is also a standard for the description and encoding of data.

XML Schema Description Language *n. See* XSDL.

XML stylesheet *n.* Contains formatting rules that are applied to an XML file referencing the stylesheet. The standard set of rules for XML stylesheets is the Extensible Stylesheet Language (XSL). *See also* XSL.

XML Web services *n.* Units of application logic providing data and services to other applications. Applications access XML Web services via standard Web protocols and data formats such as HTTP, XML, and SOAP, independent of how each XML Web service is implemented. XML Web services combine the best aspects of component-based development and the Web and are a cornerstone of the Microsoft .NET programming model.

Xmodem *n.* A file transfer protocol used in asynchronous communications that transfers information in blocks of 128 bytes.

Xmodem 1K *n.* A version of the Xmodem file transfer protocol designed for larger, longer-distance file transfers. Xmodem 1K transmits information in 1-kilobyte (1024-byte) blocks and uses a more reliable form of error checking. *See also* Xmodem.

Xmodem-CRC *n.* An enhanced version of the Xmodem file transfer protocol that incorporates a 2-byte cyclical redundancy check (CRC) to detect transmission errors. *See also* CRC.

XMS *n. See* extended memory specification.

XMT *n.* Short for **t**rans**m**i**t**. A signal used in serial communications.

XNS *n.* Acronym for **X**erox **N**etwork **S**ystem. A set of protocols assigned to five numbered layers (0 through 4) that form a suite designed to handle packaging and delivery of network transmissions.

XON/XOFF *n.* An asynchronous communications protocol in which the receiving device or computer uses special characters to control the flow of data from the transmitting device or computer. When the receiving computer cannot continue to receive data, it transmits an XOFF control character that tells the sender to stop transmitting; when transmission can resume, the computer signals the sender with an XON character. *Also called:* software handshake. *See also* handshake.

XOR *n. See* exclusive OR.

XOR encryption *n.* Short for Exclusive-**OR encryption**. A simple encryption scheme using the "exclusive-or" concept, in which a decision is based on only one of two conditions being met. Using a provided key, XOR encryption performs an exclusive-or process on each byte of data to be encrypted. Because XOR encryption is not a strong security tool used alone, it is typically used as an additional level of security for Internet transmission of sensitive information.

XPath *n.* An XML language for addressing items in an XML document by specifying a path through the document structure. XPath is used by XPointer and XSLT to locate and identify XML document data. XPath is also considered a query language complement to XQuery. XPath is more supported than XQuery even though there is no approved standard yet for either. *See also* XPointer.

XPointer *n.* An XML language used to locate data within an XML document based on data property descriptions, such as attributes, location, and content. XPointer references the internal structure of a document, allowing links to be made to occurrences of a word, character set, content attribute, or other element, rather than to a specific point within the document. *See also* XPath.

XQuery *n.* Short for e**X**tensible **Query** Language. Designed to be a functional query language that is broadly applicable to a variety of XML data types derived from Quilt, XPath, and XQL. Both Ipedo and Software AG implement their own versions of the W3C's proposed specification for the XQuery language. *Also called:* XML Query, XQL.

XSD *n.* Acronym for e**X**tensible **S**chema **D**efinition. A prefix used by convention to indicate a W3C schema namespace.

XSDL *n.* Acronym for **X**ML **S**chema **D**escription **L**anguage. A World Wide Web Consortium (W3C) recommendation for representing XML structure. XSDL is capable of describing complex XML-based data structures, and provides options not available with Document Type Definitions (DTDs), including namespace support, XML datatypes, and improved extensibility and data type support.

X series *n.* A set of recommendations adopted by the International Telecommunication Union Telecommunication Standardization Sector (ITU-T), formerly the CCITT, and International Organization for Standardization (ISO) for standardizing equipment and protocols used in both public access and private computer networks. See the table.

Table X.1 Recommendations in X Series for Network Communications.

Recommendation Number	*What It Covers*
X.25	Interface required to connect a computer to a packet-switched network such as the Internet
X.75	Protocols for connecting two public data networks
X.200	Seven-layer set of protocols known as the ISO/OSI reference model for standardizing computer-to-computer connections
X.400	Format at the ISO/OSI application layer for e-mail messages over various network transports, including Ethernet, X.25, and TCP/IP. Gateways must be used to translate e-mail messages between the X.400 and Internet formats
X.445	Asynchronous Protocol Specification, which governs the transmission of X.400 messages over dial-up telephone lines
X.500	Protocols for client/server systems that maintain and access directories of users and resources in X.400 form
X.509	Digital certificates

XSL *n.* Acronym for Extensible **S**tylesheet **L**anguage. A World Wide Web Consortium (W3C) standard stylesheet language for XML documents. XSL determines how data in an XML document is displayed on the Web. XSL controls what data will be displayed, in what format, and in what type size and style. XSL contains two major extensions: XSL Transformations (XSLT), a language used to convert XML documents to HTML or other document types, and XSL Formatting Objects (XSL-FO), a language for specifying formatting semantics. *See also* XSL-FO, XSLT.

XSL-FO *n.* Acronym for Extensible **S**tylesheet **L**anguage **F**ormatting **O**bjects. An XML-based markup language for specifying formatting semantics. XSL-FO allows format and style information to be applied to an XML document and can be used with XSLT to produce source documents. *See also* XSL.

XSLT *n.* Acronym for Extensible **S**tylesheet **L**anguage **T**ransformations. A language used in transforming an existing XML document into a restructured XML document. Formalized as a W3C Recommendation in 1999, XSLT is primarily intended for use as part of XSL. XSL describes the styling of a document in terms of XSLT transformations into an XML document. *See also* XML, XSL.

X terminal *n.* An intelligent display device, connected to an Ethernet network, that performs operations on request from client applications in an X Window System. *See also* Ethernet (definition 1), X Window System.

XT keyboard *n. See* PC/XT keyboard.

XUL *n.* A standards-based interface description language that provides a standard way to exchange data describing a program's user interface. XUL balances simplicity, flexibility, and ease of use with precise layout control. XUL was developed by Netscape and Mozilla and is used with XML, CSS, DOM, and HTML.

X Windows *n. See* X Window System.

X Window System *n.* A nonproprietary standardized set of display-handling routines, developed at MIT. Most often encountered on UNIX workstations, the X Window System is independent of hardware and operating system. An X Window System client calls on the server, which is located on the user's workstation, to provide a window in which the client can generate a display of text or graphics. *Also called:* X Windows. *See also* X Consortium.