Appendix B: Glossary

Active Server Pages (ASP): A Microsoft technology for connecting a Web site to a database, allowing use of a Web browser to examine and in some cases update the database without need for any specialized database interface tool.

AVI: An audio/video format popular on Windows computers. AVI stands for Audio/Video Interleaved.

card: Common term for an interface device you plug into a computer. Examples include a sound card such as a SoundBlaster, which adds audio capability to a personal computer, or a SCSI disk controller card.

client-server computing: A model for division of labor between a user s desktop workstation and a server. The client software resides in the user s workstation and handles display of information, including text, graphics, and forms; the server software handles backend storage and updating of data. The Web follows the client-server model; the Web browser is an example of client software, and the Web server hardware incorporates various server software elements.

direct connection: A permanent connection to the Internet one that is available all the time without any need for dialing a modem.

DNS: The Domain Name System. The DNS is a critical component of the Internet; it is the worldwide, cooperative network of servers that allows a user to try to connect to a host such as www.smallville.org and have the connection succeed. The DNS is a distributed database; one set of servers knows all the domains that belong to .org; within a domain, such as smallville.org, a local DNS server lists all the host computers that reside in that subdomain.

firewall: A specialized device that inspects traffic coming into a local or campus network, filtering out transactions or types of traffic that are not desired. Many organizations install firewalls as a basic security measure.

FTP: File Transfer Protocol. One of the older, basic Internet protocols, FTP is still commonly used for moving HTML documents from an author's workstation to a server, where they will be served to Web users by Web server software. FTP is also commonly used to download large programs from software archives. FTP client software can execute in line mode or in graphical fashion (e.g. WSFTP). Web browsers also are capable of using the FTP protocol to download from anonymous FTP sites.

HTML: The Hypertext Markup Language; the basic language used to create documents for delivery over the World Wide Web. HTML is primarily concerned with presentation marking paragraph boundaries, or text to be shown in boldface or italics, or numbered lists, or elements of forms, or other elements of documents to be shown on a computer screen.

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HTTP: The Hypertext Transfer Protocol; the set of rules that defines how a Web server and a Web browser exchange information.

Interdev: Microsoft s graphical development tool for building Active Server Pages applications.

Internet Service Provider (ISP): an organization that provides connectivity, and in some cases Web publishing services, to others on a contractual or fee-for-service basis.

intranet: A local area network or campus network serving the local needs of an organization.

Java: a programming language developed by Sun Microsystems. Web browsers such as Netscape Navigator and Internet Explorer are able to interpret Java applets, programs that are downloaded via the Web and executed on the user's workstation. Java is also sometimes used for server-side applications.

JavaScript: a programming language that allows a Web page to incorporate simple kinds of interactivity, from mouse rollovers to simple animations to checking of fields in a form. JavaScript code is interleaved among HTML statements within a Web page and interpreted by the browser.

JPEG: A popular format for still images, JPEG is understood by Web browsers. It is especially well suited to photographs and other complex images. JPEG stands for Joint Photographic Experts Group for the group that devised the format. The typical file extension for JPEG is . jpg.

LAN: Local Area Network. This is a network used within an office or an entire building. It usually is based on Ethernet technology operating at 10 or 100 megabits per second. Each computer on the LAN has a network interface card that allows it to participate. A LAN may feature workgroup features such as file and printer sharing. A LAN may also share a high-speed, direct connection to the Internet.

MPEG: Motion Picture Experts Group. A family of open standards for the encoding of video and/or audio.

pixel: an individual dot on a computer monitor. Monitors are able to display standard resolutions subject to the limitations of the video cards and video drivers that support them. These standard sizes are expressed in terms of length X width in pixels; for instance, 640 pixels wide by 480 pixels vertically.

protocol: The set of rules by which two or more computers exchange data. For example, the Hypertext Transfer Protocol, or HTTP, defines how files are moved between a Web server and a Web browser.

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QuickTime: Apple Computers format for digital video. QuickTime was a pioneering application for digital video when introduced. With QuickTime 4, Apple has moved the format into the streaming realm.

Router: a device that sits between a local or campus network and a link to another network. Routers examine packets of information (such as IP packets) and determine which packets are destined for the local network, and which need to be forwarded (or routed) over a communications link to a remote network.

RTSP: Real Time Streaming Protocol. An industry standard for streaming real-time content such as audio or video to be played or displayed to the end user during the download process. Used by RealMedia and other streaming formats.

scripting language: a computer language useful for writing programs to run on a Web server or on a user (client) workstation. Popular server-side scripting languages include C, Perl, Visual Basic, Vbscript, and Java. Popular client-side scripting languages include Java and JavaScript.

SCSI: A standard for connecting peripheral devices such as disk drives to computes. SCSI stands for Small Computer Systems Interface. The current generation of SCSI interface devices is sometimes called ultra-fast, ultra-wide and provides the highest performance means of communicating with disk drives and other devices.

server: a computer that is connected to a network awaiting requests from user (or client) workstations. Examples include Web servers, which deliver Web pages on demand, or FTP servers, which deliver files on demand.

streaming media: server and player (or plugin) tools that allow audio or audio/video files to begin playback during the download of content. Streaming media allows users to listen to or watch live events or archival records of historical events in a way that would not be possible with conventional means of downloading.

SQL: An acronym for Structured Query Language, a language used to process queries for relational databases. Commonly, SQL is used as an abbreviation for SQL Server, a database management system. Microsoft's SQL Server is a high-performance database management system.

TCP/IP: the Transmission Control Protocol and Internet Protocol. These two protocols govern most of the flow of information over the Internet. IP defines at a basic level how packets of information are exchanged within local networks and across the long-haul links. TCP uses IP as it provides end-to-end sessions among cooperating applications. Other protocols, such as HTTP and FTP, sit atop TCP/IP.

Web browser: A software program used to view Web pages and navigate the Web. The most popular browsers are Netscape Navigator and Microsoft Internet Explorer, but there are many other browsers, such as Opera, the WebTV browser, and browsers built-into various handheld devices such as cellular phones and personal digital assistants.

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Wintel PC: A slang term used to describe a personal computer whose processor is from the Intel family (80486, Pentium, Pentium II, etc.) which is shipped with Microsoft Windows (Windows 98, Windows NT, etc.) This term has replaced the older term IBM compatible. A Wintel PC can run other operating systems such as Linux.

XML: The Extensible Markup Language. XML is an attempt to allow individuals or communities of interest to define their own sets of tags for particular applications. A set of XML tags could be created by historians or veterinarians or civil war buffs, each for its own peculiar purposes. XML embraces HTML as an example of a set of tags with a particular purpose controlling presentation of a page on screen.