



# IT 词汇

## 英汉详解手册

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# 最新 IT 词汇英汉详解手册

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北京航空航天大学出版社

## 内 容 简 介

本手册精心收录了 500 余条最新的、出现频率较高的信息技术(IT)词汇,范围覆盖了计算机的软件、硬件、通讯、网络等领域。手册中词汇按英文字母进行排序,对于每个词汇都有权威的英文解释和中文译文。附录中又将词汇按照所属领域和出现的时间进行分类,以便进行多角度的查询。

本手册适合于广大 IT 爱好者和专业人士使用,是一本方便、快捷,同时又极具学习价值的手册。

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# 前言

21 世纪被人们称为是信息时代,现代社会经济的高速增长离不开信息快速、便捷地交流。其实作为信息时代最明显标志的计算机、通信技术的快速发展几年前已经开始展露头脚了,与之相伴的是各种信息技术(IT)术语词汇的出现。


各种 IT 词汇的出现是新技术不断发展的标志。最新的信息技术层出不穷,不单是广大的计算机爱好者,就是计算机专家也不能够完全掌握所有的 IT 术语。其实理由很简单,信息技术的分类变得越来越细,而且信息技术的更替也是越来越快,专门从事某个领域的计算机人员很难跟踪另一个领域内的最新技术。但是由于这些词汇都是属于信息技术,所以很有必要将最新出现的 IT 词汇进行收集整理,从而可以了解到有关的最新技术的发展趋势。


本手册收集了最近几年出现的大部分 IT 词汇 500 余个,内容涉及到通信、计算机硬件、软件、图形、多媒体、网络等等各个层面。手册中词汇的英文原文来源于权威的计算机词汇解释,采用中英文对照的方式,一方面满足了广大计算机爱好者和专业 IT 人士的需求,同时也为对英文感兴趣的读者提供了原文解释。


本手册以词汇的字母进行排序,以方便快速查询。同时附录中分别将词汇按照分类和出现的时间进行了排列。本手册中的词汇按照类别分为如下几类:通信、计算机公司、计算机科学、图形、硬件、软件、在线服务、移动服务、多媒体、网络、操作系统、计算机标准、计算机类型和 WWW。手册中的时间排

序是以词汇英文解释出现的时间为准的,所以仅作为一种参考。在各个词汇的解释中都标明了此词汇的类别和出现的时间以及相关的词汇信息。

本手册使用的符号约定如下:

术语类别: 

首次出现日期:  1

相关术语: 

本手册适用于各个层次的读者,无论是一般的计算机爱好者还是专业 IT 人士都可以从本手册中得到足够的信息,获益匪浅。无论是作为平时的学习之用,还是作为一种查询检索的工具,本手册都将是非常实用的。

本手册由光 军编写,在编写过程中,李长武、王 军、杨丽敏、于小岚、施 岚、张 峰、裴小钢等同志参与了书稿的部分编写、翻译和整理工作。

由于本手册的编写时间仓促和限于编者水平,手册中错误与不妥之处在所难免,恳请读者批评指正。

光 军

2001 年 5 月

## 3G

3G is an ITU specification for the third generation (analog cellular was the first generation, digital PCS the second) of mobile communications technology. 3G promises increased bandwidth, up to 384 kb/s when a device is stationary or moving at pedestrian speed, 128 kb/s in a car, and 2 Mb/s in fixed applications. 3G will work over wireless air interfaces such as GSM, TDMA, and CDMA. The new EDGE (Enhanced Data rates for Global Evolution) air interface has been developed specifically to meet the bandwidth needs of 3G.

3G 是一个为第三代(模拟蜂窝是第一代,数字 PCS 是第二代)移动通信技术制定的规范。3G 保证当一个设备处于静止或者以步行的速度移动的时候,带宽达到 384 kb/s,在车上达到 128 kb/s,在固定应用上达到 2 Mb/s。3G 将在无线接口如 GSM、TDMA 和 CDMA 上进行工作。新的 EDGE(增强型全球发展数据速率)接口已经为满足 3G 带宽的需要而进行了开发。

: Mobile Computing

: 2000. 5. 5

: CDMA GSM PCS

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## 802.11

802.11 refers to a family of specifications developed by the IEEE for wireless LAN technology. 802.11 specifies an over-the-air interface between a wireless client and a base station or between two wireless clients. The IEEE accepted the specification in 1997.

There are three specifications in the 802.11 family:

802.11 -- applies to wireless LANs and provides 1 or 2 Mbps transmission in the 2.4 GHz band using either frequency hopping spread spectrum (FHSS) or direct sequence spread spectrum (DSSS).

802.11a -- an extension to 802.11 that applies to wireless LANs and provides up to 54 Mbps in the 5GHz band. 802.11a uses an orthogonal frequency division multiplexing encoding scheme rather than FHSS or DSSS.

802.11b (also referred to as 802.11 High Rate or Wi-Fi) -- an extension to 802.11 that applies to wireless LANs and provides 11 Mbps transmission (with a fallback to 5.5, 2 and 1 Mbps) in the 2.4 GHz band. 802.11b uses only DSSS. 802.11b was a 1999 ratification to the original 802.11 standard, allowing wireless functionality comparable to Ethernet.

802.11 指由 IEEE 为无线局域网技术开发的规范族。802.11 规范了一个位于无线客户端和一个基站或这两个无线客户端之间的空中接口。IEEE 在 1997 年接受了这个规范。


在 802.11 中有三个规范：

802.11——应用于无线局域网并且使用跳频扩频 (FHSS) 或者直接序列扩频 (DSSS) 技术提供了在 2.4 GHz 带宽上的 1 或者 2 Mb/s 的传输速度。

802.11a——802.11 的扩展，应用于无线局域网并且提供在 5 GHz 带宽上的高于 54Mb/s 的传输速度。802.11a 使用一个正交频分多路 (OFDM) 的调制策略而不是

FHSS 或者 DSSS。

802.11b(也称为 802.11 高速或者 Wi-Fi)——802.11 的一个扩展,应用于无线局域网并且提供 2.4 GHz 带宽上的 11Mb/s 的传输速度(也有 5.5Mb/s,2 和 1Mb/s 的传输速度)。802.11b 只使用 DSSS。802.11b 是一个对原来的 802.11 标准的批准协议,它允许无线在功能上与以太网具有可比性。

:communication

:2001.5.3

:HiperLAN Wi-Fi WLAN

**.Net**

A Microsoft operating system platform that incorporates applications, a suite of tools and services and a change in the infrastructure of the company's Web strategy. The objective of .NET is to bring users into the second generation of the Internet by conquering the deficiencies of the first generation and giving users a more enriched experience in using the Web for both personal and business applications. This is Microsoft's most ambitious undertaking since the release of Windows 3.0.

There are four main principles of .NET from the perspective of the user:

It erases the boundaries between applications and the Internet. Instead of interacting with an application or a single Web site, .NET will connect the user to an array of computers and services that will exchange and combine objects and data.

Software will be rented as a hosted service over the Internet instead of purchased on a store shelf. Essentially, the Internet will be housing all your applications and data.

Users will have access to their information on the Internet from any device, anytime, anywhere.

There will be new ways to interact with application data, such as speech and handwriting recognition.

.NET depends on four Internet standards:

HTTP

XML

SOAP

UDDI

The first Windows .NET operating system is expected to be released in 2001. Microsoft views this new technology as revolutionary, enabling Internet users to do things that were never before possible, such as integrate fax, e-mail

and phone services, centralize data storage and synchronize all of a users computing devices to be automatically updated.

微软公司的一个操作系统平台,它将应用、一套工具和服务包以及公司网络策略架构的变化整合在一起。.NET 的目的是通过克服第一代因特网的缺陷而将用户引入到第二代因特网,并且在个人或者公司业务上使用户使用网络给予更多的灵活性。这是自 Windows 3.0 发布后微软公司最大的雄心。

对于各种用户来说.NET 主要有如下四条优势:

它消除了应用和因特网之间的边界。.NET 不是与一个应用或者一个单一的网站进行交互,而是可以将用户与一组可以交换和组合对象和数据的计算机和服务进行连接。

在因特网上软件可以作为一个通过 Internet 的主机服务而不用在商店里购买。在本质上,因特网将可以安装所有的应用和数据。

用户将可以从任何设备、在任何时间、任何地方访问因特网上的信息。

将会产生新的访问应用数据的方法,例如对话和手写识别。

.NET 依靠四种因特网标准:


HTTP

XML

SOAP

UDDI

第一个 Windows .NET 操作系统在 2001 年发布。微软公司将这项新的技术视为一场革命,它可以使因特网用户做一些以前从未做过的事情,如集成传真、e-mail 和电话设备,集中数据存储和同步一个用户自动更新的计算设备。

:operating system

:2001.3.16


:

Kernel multiprocessing multitasking multithread-  
ing MVS Windows CE XML

## AAF 高级创作格式

Short for Advanced Authoring Format, a multimedia file format introduced by Microsoft in 1998. The goal of AAF is to provide a common file format that multimedia authoring applications can use so that it's possible to develop a multimedia presentation in one application and then edit it in a second application. This will allow designers to use a variety of tools when creating multimedia content without worry about converting files from one format to another. Whether AAF ultimately achieves this goal will depend on whether the software companies that develop authoring tools adopt AAF.

高级创作格式的缩写,是一种微软在 1998 年引入的多媒体文件格式。AAF 的目的是提供一种通用的文件格式,这样多媒体创作应用就可以使用,就有可能由一个多媒体应用开发的作品被另一个应用编辑。这样允许设计者使用各种不同的工具而不必担心格式转换的问题。AAF 最终是否会取得这个目标将依靠开发创作工具的软件公司是否会采用 AAF。

:Multimedia

:1998. 4. 5


## Abandonware 被弃软件

Software that is no longer being sold or supported by its publisher. Most abandonware is still considered illegal unless the publisher has re-released the software as free ware.

U. S. copyright laws state that copyrights owned by corporations are valid for 75 years from the date the software was first published. So the current availability of a product is irrelevant to its copyrighted status. Unlike trademarks, copyrights are not considered abandoned if they are no longer enforced. Copyrights do not enter the public domain just because they are no longer commercially exploited or widely available.

不再被它的发行者所出售或者支持的软件。盗版使用大多数被弃软件仍然被认为是非法的,除非发行者将这个软件作为免费软件重新发布。

美国版权法中阐述了被公司所拥有的版权的有效期从软件第一次发布开始为 75 年。所以一个产品现在可以提供的东西与它的版权状态无关。与商标不同,如果版权不被强迫实施的情况下并不认为被放弃。版权没有进入公众领域仅因为它们不再进行商业开发或者广泛地提供。

:software

:2001. 3. 27

:Shareware    warez

**absolute cell reference 绝对单元格引用**

In spreadsheet applications, a reference to a particular cell or group of cells that does not change, even if you change the shape or size of the spreadsheet, or copy the reference to another cell. For example, in Lotus 1-2-3 and other spreadsheet programs, the cell reference "\$ A \$ 3" is an absolute cell reference that always points to the cell in the first column and third row. In contrast, the reference "A3" is a relative cell reference that initially points to the cell in the first column and third row, but may change if you copy the reference to another cell or change the shape and size of the spreadsheet in some other way. Absolute cell references are particularly useful for referencing constant values (i. e. , values that never change).

在电子表单应用程序中,指一个特定的单元格或者单元格群的引用。即使改变了表格的形状或者大小,或者将引用复制到另一个单元格,这些单元格或者单元格群都不会改变。例如,在 Lotus 1-2-3 和其他电子表格程序中,单元格引用"\$ A \$ 3"是一个绝对的总是指向第一栏、第三行的单元格引用。相反,引用"A3"是一个开始指向第一栏、第三行单元格的相对引用,但是如果复制引用到另一个单元格或者以某种方式改变了表格的形状和大小,它就会变化。绝对单元格引用对于引用常量(也就是不会改变的值得)是非常有用的。


:Software

:2001.1.8

## abstraction 抽象

The process of picking out (abstracting) common features of objects and procedures. A programmer would use abstraction, for example, to note that two functions perform almost the same task and can be combined into a single function. Abstraction is one of the most important techniques in software engineering and is closely related to two other important techniques – encapsulation and information hiding. All three techniques are used to reduce complexity.

提取出(抽出)对象和过程中的共同特性的过程。例如,程序员可以使用抽象方法来表明两个函数完成几乎相同的任务因此可以合并为一个函数。抽象在软件工程中是最重要的技术之一,而且与其他两个重要的技术——封装和信息隐藏,有着非常紧密的关系。所有这三项技术都是用来减少复杂性的。

:Programming

:1998.4.14


**accelerator board** 图形加速卡/加速扩展板

(1) Short for graphics accelerator.

(2) A type of expansion board that makes a computer faster by adding a faster CPU or FPU. Most modern computers are designed to accept simpler upgrades. It is usually possible simply to remove the CPU and replace it with a faster model. This is particularly easy if the socket is a zero insertion force (ZIF) socket.

图形加速卡的缩写。

一种通过增加一个更快的 CPU 或者 FPU 使计算机运行更快的扩展板。大多数现在的计算机都被设计为可以接受升级。通常可以简单的移去 CPU 然后换上一个更快的型号来升级计算机。如果插槽是零插入力(ZIF)插槽,则这就特别简单。

: Hardware

: 1998. 5. 12

## ACPI 高级配置和电源接口

Short for Advanced Configuration and Power Interface, a power management specification developed by Intel, Microsoft, and Toshiba. ACPI, which will be part of the next version of Windows, enables the operating system to control the amount of power given to each device attached to the computer. With ACPI, the operating system can turn off peripheral devices, such as a CD-ROM players, when they're not in use. As another example, ACPI will enable manufacturers to produce computers that automatically power up as soon as you touch the keyboard.

高级配置和电源界面的缩写,这是一个由 Intel、微软和东芝开发的电源管理规范。将是下一代 Windows 操作系统一部分的 ACPI 将能够使操作系统控制与计算机相连的每一个设备的电源。有了 ACPI,操作系统就可以在某个外围设备不使用的时候关闭这个外围设备,如 CD-ROM。另一个例子,ACPI 将可以使制造商制造出只要用户按动键盘就可以自动开机的计算机。

: Mobile Computing

: APM

## ActiveMovie

A new multimedia streaming technology developed by Microsoft. ActiveMovie is already built into the Internet Explorer browser will be part of future versions of the Windows operating system. Supporting most multimedia formats, including MPEG, ActiveMovie enables users to view multimedia content distributed over the Internet, an intranet, or CD-ROM.

ActiveMovie's main competition is the QuickTime standard developed by Apple Computer.

一个由微软开发的多媒体流技术。ActiveMovie 早已经嵌入到 IE 浏览器中,而且将是 Windows 操作系统下一个版本的一部分。ActiveMovie 支持大多数多媒体格式,包括 MPEG,它可以使用户观看因特网、内部网或者 CD-ROM 上发布的多媒体内容。

ActiveMovie 的主要竞争对手是由 Apple 公司开发的 QuickTime 标准。

:Online Service

:1997.9.1

## ActiveX

A loosely defined set of technologies developed by Microsoft. ActiveX is an outgrowth of two other Microsoft technologies called OLE (Object Linking and Embedding) and COM (Component Object Model). As a moniker, ActiveX can be very confusing because it applies to a whole set of COM-based technologies. Most people, however, think only of ActiveX controls, which represent a specific way of implementing ActiveX technologies.

由微软开发的一种预定义的技术套件。ActiveX 技术超越了其他两个微软技术 OLE(对象链接和嵌入)和 COM(组件对象模型)。作为一个绰号,ActiveX 可能会被混淆,因为它应用了一套基于 COM 技术的套件。然而大多数人只想到 ActiveX 控件,这代表了一个实施 Active 技术的特定方法。

:Software

:1997.9.1

**add-in 附加部件/附加功能**

(1) A component you can add to a computer or other device to increase its capabilities. Add-ins can increase memory or add graphics or communications capabilities to a computer. They can come in the form of expansion boards, cartridges, or chips. The term add-in is often used instead of add-on for chips you add to a board that is already installed in a computer. In contrast, add-on almost always refers to an entire circuit board.

(2) A software program that extends the capabilities of larger programs. For example, there are many Excel add-ins designed to complement the basic functionality offered by Excel. In the Windows environment, add-ins are becoming increasingly common thanks to OLE 2.0.

一个可以加入到计算机或者其他设备来增加性能的部件。附加部件可以增加内存或者增加图形或者通信性能。他们可以使用扩展主板、磁盘盒或者芯片的形式来实现。对于加入到一个早已经存在于计算机中的芯片来说术语 add-in 是经常使用的。相反, add-on 几乎是指一整个电路板。

一个用来扩展较大程序性能的软件程序。例如, 有许多 Excel add-in 用来完成基本的由 Excel 提供的功能。在 Windows 环境下, 由于 OLE2.0 add-in 正逐步被普遍使用。

 :Software

 :1997.9.1

**add-on**

Refers to a product designed to complement another product. For example, there are numerous add-on boards available that you can plug into a personal computer to give it additional capabilities. Another term for add-on board is expansion board.

Add-on products are also available for software applications. For example, there are add-on report generation programs that attach to popular database products such as dBASE, giving them additional report-generation and graphics capabilities.

The terms add-on and add-in are often, but not always, used synonymously. The term add-in can refer to individual chips you can insert into boards that are already installed in your computer. Add-on, on the other hand, almost always refers to an entire circuit board, cartridge, or program.

指一个设计用来完善另一个产品的产品。例如,有大量的可以插入到个人计算机来提高性能的 add-on 主板。add-on 主板的另一个术语是扩展主板。

Add-on 产品也可以用于为软件应用。例如,有可以附加到通用数据库产品例如 dBASE 的 add-on 报告生成程序,它提供给数据库额外的报表生成和图形性能。

术语 add-on 和 add-in 经常但不总是被同义地使用。术语 add-in 指可以插入到早已安装到计算机上的主板上的单个芯片。另一方面,add-on 总是指一整个电路板、磁带盒或程序。

:Software

:1997.11.25


## ADO ActiveX 数据对象


Short for ActiveX Data Objects, Microsoft's newest high-level interface for data objects. ADO is designed to eventually replace Data Access Objects (DAO) and Remote Data Objects (RDO). Unlike RDO and DAO, which are designed only for accessing relational databases, ADO is more general and can be used to access all sorts of different types of data, including web pages, spreadsheets, and other types of documents.

Together with OLE DB and ODBC, ADO is one of the main components of Microsoft's Universal Data Access (UDA) specification, which is designed to provide a consistent way of accessing data regardless of how the data is structured.

ActiveX 数据对象的缩写,这是微软最新的数据对象高级接口。ADO 最终将取代数据存储对象(DAO)和远程数据对象(RDO)。与设计用来存取关系数据库的 RDO 和 DAO 不同,ADO 更加通用而且可以用来访问所有不同类型的数据,包括网页、表格和其他类型的文档。

与 OLE DB 和 ODBC 一起,ADO 是微软通用数据存取(UDA)规范的重要部分之一,这个规范在不管数据如何构成的情况下设计用来提供一个存取数据的统一方法。


:Programming

:1998.3.6

## ADPCM 自适应差分脉冲编码调制

Short for Adaptive Differential Pulse Code Modulation, a form of pulse code modulation (PCM) that produces a digital signal with a lower bit rate than standard PCM. ADPCM produces a lower bit rate by recording only the difference between samples and adjusting the coding scale dynamically to accommodate large and small differences. Some applications use ADPCM to digitize a voice signal so voice and data can be transmitted simultaneously over a digital facility normally used only for one or the other.

自适应差分脉冲编码调制(Adaptive Differential Pulse Code Modulation)的缩写,一种脉冲编码调制(PCM)的形式,它产生一个比标准 PCM 比特率低的数字信号。ADPCM 通过记录样本之间的差别和动态调节编码比例来适应大小差别的方法来产生一个较低的比特率。一些应用使用 ADPCM 来将一个语音信号数字化,这样声音和数据便可以通过一个数字设备同时传输,而通常这个设备只能用于语音或是数据的传输。

:Communication

1:1998.5.12

## AGP 加速图形端口

Short for Accelerated Graphics Port, a new interface specification developed by Intel Corporation. AGP is based on, but is designed especially for the throughput demands of 3-D. graphics. Rather than using the PCI bus for graphics data, AGP introduces a dedicated point-to-point to point channel so that the graphics controller can directly access main memory. The AGP channel is 32 bits wide and runs at 66 MHz. This translates into a total bandwidth of 266 Mb/s, as opposed to the PCI bandwidth of 133 Mb/s. AGP also supports two optional faster modes, with throughputs of 533 Mb/s and 1.07 Gb/s. In addition, AGP allows 3-D textures to be stored in main memory rather than video memory.

AGP has a couple important system requirements:

The chipset must support AGP.

The motherboard must be equipped with an AGP bus slot or must have an integrated AGP graphics system.

The operating system must be the OSR 2.1 version of Windows 95, Windows 98 or Windows NT 4.0. And currently, many professional Macintoshes support AGP.

AGP-enabled computers and graphics accelerators hit the market in August, 1997. However, there are several different levels of AGP compliance. The following features are considered optional:

**Texturing:** Also called Direct Memory Execute mode, allows textures to be stored in main memory.

**Throughput:** Various levels of throughput are offered: 1X is 266 Mb/s, 2X is 533 Mb/s; and 4X provides 1.07 Gb/s.

**Sideband Addressing:** Speeds up data transfers by sending command instructions in a separate, parallel channel.

**Pipelining:** Enables the graphics card to send several instructions together instead of sending one at a time.

加速图形端口的缩写,是由 Intel 开发的一种新的接口规范。AGP 是基于 PCI 的,但是是为了 3-D 图形命令的吞吐量而特别设计的。AGP 不是使用 PCI 总线来传送图形数据,而是引入了一个专门的点对点通道,这样图形控制器可以直接存取主内存。AGP 通道是 32 位宽并且以 66 MHz 的工作频率运行。这样就总共有一个 266 Mb/s 的带宽,而 PCI 的带宽是 133 Mb/s。AGP 也支持两个可选的较快的模式,流量分别是 533 Mb/s 和 1.07 Gb/s。除此之外,AGP 允许 3-D 材质存储在主内存中而不是视频内存中。

AGP 有一些系统必须的条件:

芯片必须支持 AGP。

主板必须有一个 AGP 总线插槽或者必须有一个集成 AGP 图形系统。

操作系统必须是 Windows 95 的 OSR 2.1 版、Windows 98 或者 Windows NT 4.0。并且现在许多专业的 Macintosh 支持 AGP。


支持 AGP 的计算机和图形加速器在 1997 年 8 月出现在市场上。然而,有几种不同级别的 AGP 特性。如下的特性被认为是可选的:

**材质:**也称为系统内存直接操作模式,它允许材质存储在主内存中。

**吞吐量:**提供各种不同的吞吐量。1X 是 266 Mb/s,2X 是 533 Mb/s,4X 提供 1.07 Gb/s。

**边带寻址:**通过在一个分离的、平行的通道内发送命令指令而加速数据的传输。

**流水线:**可以使图形卡同时发送几条指令而不是在某一时间发送一条。

: Hardware

: 1996.11.18

: PCI

## AIFF 音频交换文件格式

Short for Audio Interchange File Format, a common format for storing and transmitting sampled sound. The format was developed by Apple Computer and is the standard audio format for Macintosh computers. It is also used by Silicon Graphics Incorporated (SGI).

The format encodes audio data in 8-bit mono or stereo waveforms. AIFF files generally end with a .AIF or .IEF extension.

The AIFF format does not support data compression so AIFF files tend to be large. However, there is another format called AIFF-Compressed (AIFF-C or AIFC) that supports compression ratios as high as 6 : 1.

音频交换文件格式的缩写,一个用来存储并传输样本声音的通用格式。这个格式是由苹果计算机公司开发的并且是 Macintosh 计算机的标准音频格式。此格式也被 SGI 公司所使用。

此格式将音频数据编码为 8 位的单音或者立体声波形。AIFF 文件通常扩展名为 .AIF 或者 .IEF。

AIFF 格式不支持数据压缩所以 AIFF 文件一般比较大。然而有另一种称为压缩 AIFF 的格式 (AIFF-C 或是 AIFC),它支持压缩率高达 6 : 1。

 :Multimedia

 :2001.2.2

**Alan Turing 艾伦·图灵**

1912(b)-1954(d). English mathematician, logician and philosopher who made important advancements in the field of computer theory and who contributed important logical analyses of computer processes. During WWII, Turing served in the cryptanalytic headquarters at the Government Code and Cypher School at Bletchley Park, Buckinghamshire, where he was largely responsible for breaking the German Enigma military codes. In 1936, he introduced the Universal Turing Machine, a hypothetical machine used for computability theory proofs. The Universal Turing Machine is regarded as the first digital computer.

In 1950, Turing introduced the Turing Test to prove his theory that computers eventually would be constructed that would be capable of human thought. His papers on the subject provide a foundation for modern research in artificial intelligence.


In his later years, Turing worked on the application of mathematical theory to biological forms. In 1952 he published the first part of his theoretical study of morphogenesis, the development of pattern and form in living organisms.

是一个英国数学家、逻辑家和哲学家(1912-1954),在计算机理论领域做出了重要的成就并且对于计算机过程提出了重要的逻辑分析。在第二次世界大战期间,图灵服务于政府编码和译码学校的密码分析总部,在那里,他主要负责破译德国的军事密码。在1936年,他引入了通用图灵机,这是一个用于可计算性理论证据的一种假设性的机器。通用图灵机被认为是第一个数字计算机。

在1950年,图灵引入图灵测试来证明他的理论:计算机最终构建人的思想所能够想到的。关于这个主题的论文提出了一个现代人工智能的基础。

在其后的几年里,图灵工作于数学理论在生物形态上

的应用。在 1952 年他出版了他的形态学理论研究的第一部分——《生物体的模式和形态的发展》。

:Computer Science

:2000.12.18

## Aliasing 混叠现象/伪信号

(1) In computer graphics, the process by which smooth curves and other lines become jagged because the resolution of the graphics device or file is not high enough to represent a smooth curve. Smoothing and antialiasing techniques can reduce the effect of aliasing.

(2) In digital sound, aliasing is a static distortion resulting from a low sampling rate-below 40 kilohertz (kHz).

在计算机图形学中,光滑的曲线和其他直线变成锯齿状的过程,这是由于图形设备或者文件的分辨率不够高所导致的。平滑和抗混叠现象技术可以减小混叠现象。

在数字声音中,伪信号是由于低于 40 kHz 的采样频率而导致的一个静态的偏差。

:Graphics

:1998.5.19

## Aloha

1. A protocol for satellite and terrestrial radio transmissions. In pure Aloha, a user can transmit at any time but risks collisions with other users' messages. "Slotted Aloha" reduces the chance of collisions by dividing the channel into time slots and requiring that the user send only at the beginning of a time slot. Aloha was the basis for Ethernet, a local area network protocol.

2. Aloha Networks, Inc. — A San Francisco-based company specializing in providing satellite-based Internet access to large Internet Service Providers. Founded by the inventor of the Aloha system, Norman Abramson.

3. @loha @home — software from Media Synergy ([www.mediasyn.com](http://www.mediasyn.com)) that allows a user to add graphics, animation, and sound to e-mail messages.

1. 一个用于卫星和陆地无线电传输的协议。在一个纯 Aloha 中,用户能够在任何时间进行传输但是要冒着与其他用户的信息冲突的危险。“有槽的 Aloha”通过将通道分成时间槽以及确保用户只在一个槽的开始发送信息来减小发生冲突机会。Aloha 是以太网的基础。

2. Aloha 网络有限公司——一家位于旧金山专门从事为大型因特网业务提供商提供基于卫星因特网访问的公司。这家公司是由 Aloha 系统的发明者 Norman Abramson 成立的。

3. @loha @home——Media Synergy ([www.mediasyn.com](http://www.mediasyn.com)), 的软件,它允许用户向 e-mail 中添加图像、动画和声音。

:Software

:1998.9.10

### alpha version $\alpha$ 版本

A very early version of a software product that may not contain all of the features that are planned for the final version. Typically, software goes through two stages of testing before it is considered finished. The first stage, called alpha testing, is often performed only by users within the organization developing the software. The second stage, called beta testing, generally involves a limited number of external users.

一个软件产品非常早的版本,它可能不包括最终版本中所有的特性。一般来说,软件在完成之前要经过两个阶段。第一阶段称为 alpha 测试,它通常由开发组内部的使用者来完成的。第二阶段称为 beta 测试,通常包含一定数量的外部用户。

:Programming

:2001.1.31

:Beta test

## Amiga

A family of personal computers originally produced by Commodore Business Machines. Amigas are powerful personal computers that have extra microprocessors to handle graphics and sound generation. The Amiga operating system has had preemptive multitasking since its inception in 1985, 10 years before this feature found its way into Microsoft Windows.


Like older Apple Macintosh computers, the Amiga line of computers is built around the Motorola 680x0 line of microprocessors. Although the Amiga operating system is not compatible with other PC operating systems, such as DOS and Windows, there are emulation programs that enable an Amiga to run PC, Macintosh, and even UNIX programs.


Faced with financial hardships, Commodore sold the Amiga to a German company called Escom AG. Escom, in turn, also went bankrupt. In March, 1997, Gateway 2000 purchased the Amiga design.

最初由 Commodore 商业机器公司制造的一个个人计算机家族。Amiga 是一群强大的个人计算机,具有额外的微处理器来处理图形和声音的产生。Amiga 操作系统早在 1985 年开始就具有优先多任务处理功能,而十年后在微软公司的 Windows 中才有这一特性。

如同老的 Apple Macintosh 计算机一样,Amiga 计算机是由 Motorola 680x0 系列微处理器构建的。虽然 Amiga 操作系统与其他的 PC 操作系统如 DOS 和 Windows 不兼容,但是有许多模拟程序可以使 Amiga 运行 PC、Macintosh 甚至 UNIX 的程序。

由于财政方面的困难,Commodore 将 Amiga 买给一家德国公司 Escom AG Escom,然而最后仍然倒闭了。1997 年 3 月,Gateway 2000 购买了 Amiga 设计。

: Type of Computer

: 1998. 5. 12

## AMR 音频调制解调器提升器

Audio Modem Riser is an Intel specification that defines a new architecture for the design of motherboards.

AMR lets manufacturers create motherboards without analog I/O functions. Instead, these functions are placed on a separate card—with the codec chip—which plugs in perpendicular to the motherboard so that the motherboard and “riser” card form a right angle.

Separating the analog I/O functions from the motherboard means higher audio quality and reduced production delays. Prior to the AMR specification, motherboard analog I/O functions went through a lengthy FCC and international telecom certification process.

音频调制解调器提升器是一个用来为主板设计定义新框架的 Intel 公司的规范。

AMR 使制造商在没有模拟 I/O 功能的情况下制造主板。相反,这些功能被一个带有多媒体数字信号编解码器的单独的卡所取代,这个卡垂直于主板,这样主板和“提升器”卡组成了一个直角。

将模拟 I/O 功能从主板上分离意味着更高的音频质量和更小的功能延迟。在 AMR 规范出现之前,主板的模拟 I/O 功能需要经过一个长时间的 FCC 和国际电信的验证过程。


:Standard


:1999.10.15

## ANI 自动号码标识

(automatic number identification) A service that provides the telephone number of an incoming call. ANI is used for a variety of functions—by receiving the incoming telephone number, telephone companies can direct a call to the proper long distance carrier's equipment; it can help identify the caller's address to speed response time to 911 calls; and it can route an 800 call to the nearest vendor. ISDN, the standards for transmissions on telephone lines, supports ANI.

(自动号码标识) 一种提供来电号码的服务。ANI 被用于各种功能——通过接收打入的电话号码,电话公司可以将呼叫引导到合适距离的运营商的设备上,它可以帮助识别呼叫者的地址来加速 911 电话的反应速度,并且可以将 800 电话路由到最近的供应商。ISDN、电话线传输标准都支持 ANI。


: Hardware

: 1998.10.15

## animated GIF 动画 GIF

A type of GIF image that can be animated by combining several images into a single GIF file. Applications that support the animated GIF standard, GIF89A, cycle through each image. GIF animation doesn't give the same level of control and flexibility as other animation formats but it has become extremely popular because it is supported by nearly all Web browsers. In addition, animated GIF files tend to be quite a bit smaller than other animation files, such as Java applets.

一种通过将几幅图片组成一个单一的 GIF 文件从而可以运动的 GIF 图像。支持动画 GIF 标准 GIF89A 的应用循环每一个图片。GIF 动画虽然没有其他动画格式那样同样的控制和灵活性但是它却非常流行,因为几乎所有的网络浏览器都支持它。除此之外,动画 GIF 文件比其他动画文件如 Java applet 要小。


:WWW


:1998.5.12


## ANNA 注释 Ada

Acronym for annotated Ada. ANNA is a high-level programming language that extends Ada with various kinds of specification constructs. The language includes special annotating constructs, or semantic assertions, that lay down axioms about the procedures and other facilities of the Ada program. ANNA is based on first-order logic and includes generalized type constraints, virtual checking functions and behavior specification constructs, from simple assertions to complex algebraic specifications.

注释 Ada 的首字母缩写。ANNA 是一种使用各种不同的规范结构扩展 Ada 的高级编程语言。这个语言包含特别的注释结构或语义声明,用来安装 Ada 程序的程序原理和其他使用工具。ANNA 基于一阶逻辑并包含无显著特点的类型结构、虚拟检查函数和行为规范结构,从简单的声明到复杂的代数规范。

:Programming

:2000.12.28

:modular architecture

## Antialiasing 抗混叠

In computer graphics, antialiasing is a software technique for diminishing jaggies-stairstep-like lines that should be smooth. Jaggies occur because the output device, the monitor or printer, doesn't have a high enough resolution to represent a smooth line. Antialiasing reduces the prominence of jaggies by surrounding the stairsteps with intermediate shades of gray (for gray-scaling devices) or color (for color devices). Although this reduces the jagged appearance of the lines, it also makes them fuzzier.

Another method for reducing jaggies is called smoothing, in which the printer changes the size and horizontal alignment of dots to make curves smoother.

Antialiasing is sometimes called oversampling.

在计算机图形学中,抗混叠是一个用来减小锯齿状效果的软件技术。锯齿状的产生是由于输出设备如监视器或者打印机没有足够的分辨率来表现一个曲线所导致的。抗混叠通过灰色的色素值(灰色缩放设备)或者颜色(颜色设备)来平滑阶梯形状以减小锯齿状的突现。虽然这样减小了锯齿状的出现,但是它也使得它们模糊了。

另一个减小锯齿状的方法称为平滑,其中打印机通过改变了圆点的尺寸和水平对齐来使得曲线更平滑。

抗混叠有时称为重复取样。

:Graphics

:1998.5.12

**antistatic mat 防静电坐垫**

A mat on which you can stand while repairing a computer or adding expansion cards. The mat absorbs static electricity which might otherwise damage electronic components. Another way to eliminate damage caused by static electricity is to wear an antistatic wristband.

当修理一个计算机或者增加扩展板时垫的一个垫子。这个垫子吸收可能损害计算机电子部件的静电。另一个减小由静电导致的危险的方法是带一个抗静电的腕套。

: Hardware

 **1**: 2001.1.10

## APM 高级电源管理

Short for Advanced Power Management, an API developed by Intel and Microsoft that allows developers to include power management in BIOSes. APM defines a layer between the hardware and the operating system that effectively shields the programmer from hardware details.

APM is expected to be gradually replaced by ACPI.

高级电源管理的缩写,是一个由 Interl、微软开发的一个允许用户利用 BIOS 上的电源管理的 API。APM 在硬件和操作系统之间定义了一个层,它可以有效得避免程序员接触硬件细节。

APM 将有可能逐渐被 ACPI 代替。

: Mobile Computing

: 1997. 9. 1

: ACPI

**Apple Computer 苹果计算机公司**

A personal computer company founded in 1976 by Steven Jobs and Steve Wozniak. Throughout the history of personal computing, Apple has been one of the most innovative influences. In fact, some analysts say that the entire evolution of the PC can be viewed as an effort to catch up with the Apple Macintosh.

In addition to inventing new technologies, Apple also has often been the first to bring sophisticated technologies to the personal computer. Apple's innovations include:

Graphical user interface (GUI). First introduced in 1983 on its Lisa computer. Many components of the Macintosh GUI have become de facto standards and can be found in other operating systems, such as Microsoft Windows.

Color. The Apple II, introduced in 1977, was the first personal computer to offer color monitors.

Built-in networking . In 1985, Apple released a new version of the Macintosh with built-in support for networking (LocalTalk).

Plug & play expansion. In 1987, the Mac II introduced a new expansion bus called NuBus that made it possible to add devices and configure them entirely with software.

QuickTime. In 1991, Apple introduced QuickTime, a multi-platform standard for video, sound, and other multimedia applications.

Integrated television. In 1993, Apple released the Macintosh TV, the first personal computer with built-in television and stereo CD.

RISC. In 1994, Apple introduced the Power Mac, based on the PowerPC RISC microprocessor.

由 Steven Jobs 和 Steve Wozniak 创建于 1976 年的一

家个人计算机公司。在整个个人计算机的历史中, Apple 已经成为最具创新影响力的公司之一。实际上一些分析家称整个 PC 机的革命可以看做是 Apple Macintosh 的一个贡献。

除了发明新的技术, Apple 也经常是第一个为个人计算机带来最复杂的技术。Apple 的革新包括:

图形化用户界面(GUI): 1983 年在它的 Lisa 计算机上首次引入。许多 Macintosh GUI 的部件已经变成事实标准并且可以建立在其他操作系统上, 如 Microsoft Windows。

颜色: 在 1977 年引入的 Apple II 是第一个提供颜色的监视器。


内嵌网络: 1985 年 Apple 发布了一个带有内嵌网络 (LocalTalk) Macintosh 的新版本。

即插即用扩展: 在 1987 年, Mac II 引入一个新的扩展总线称为 NuBus, 它使得完全使用软件给计算机添加设备并配置成为可能。

QuickTime: 在 1991 年, Apple 公司引入了 QuickTime, 这是一个用于视频, 声音和其他多媒体应用的多平台标准。

与电视集成: 在 1993 年, Apple 发布了 Macintosh TV, 这是第一个带有内嵌电视和立体声 CD 的个人计算机。

RISC: 1994 年 Apple 引入基于 Power PC RISC 微处理器的 Power Mac。

: Type of Computer

: 1997. 9. 1

### Application Service Provider 应用服务提供商

Application Service Providers are third-party entities that manage and distribute software-based services and solutions to customers across a wide area network from a central data center.

In essence, ASPs are a way for companies to outsource some or almost all aspects of their information technology needs.

According to ASPnews.com, ASPs are broken down into five subcategories:

- Enterprise ASPs -- deliver high-end business applications.
- Local/Regional ASPs -- supply wide variety of application services for smaller businesses in a local area.
- Specialist ASPs -- provide applications for a specific need, such as Web site services or human resources.
- Vertical Market ASPs -- provide support to a specific industry such as healthcare
- Volume Business ASPs -- supply general small/medium-sized businesses with prepackaged application services in volume.

ASPs may be commercial ventures that cater to customers, or not-for-profit or government organizations, providing service and support to end users.

应用服务提供商是用来管理和发布在一个广域网上从一个数据中心给客户提供基于软件的服务和解决方案的第三方实体。

在本质上,ASP 对于公司来说是一个外购一些或者全部信息技术需求各个方面的方法。

根据 ASPnews.com,ASP 已经分成五个子类:

- 企业 ASP——传送高级端交易应用。
- 本地/区域 ASP——给一个地区范围内的小企业提供各种应用服务。

- 专家 ASP——为特定的需求提供应用服务,如网站服务或者人力资源管理。

- 垂直市场 ASP——为一个特定的工业比如保健提供支持。

- 大量业务 ASP——提供带有大量打包应用服务的通用小中型业务。

ASP 对于为最终用户提供服务的客户、或者非盈利组织、政府组织来说可能有一些商业冒险。

:Network

:1999.10.4


## Architecture 体系结构

A design. The term architecture can refer to either hardware or software, or to a combination of hardware and software. The architecture of a system always defines its broad outlines, and may define precise mechanisms as well.

An open architecture allows the system to be connected easily to devices and programs made by other manufacturers. Open architectures use off-the-shelf components and conform to approved standards. A system with a closed architecture, on the other hand, is one whose design is proprietary, making it difficult to connect the system to other systems.

一个设计。术语体系结构可以指硬件或者软件,或者硬件和软件的结合。一个系统的体系结构经常定义它的主要轮廓,并且可能定义精确的机制。

一个开放的体系结构允许系统轻易地与设备和其他制造商制造的程序连接。开放体系结构使用开放的部件并且符合标准。另一方面,一个封闭体系结构的系统的设计是私有的,这样使得它与其他系统连接比较困难。

: Hardware

: 1997. 9. 1

## ASF 高级流格式

Short for Advanced Streaming Format, a streaming multimedia file format developed by Microsoft. ASF has been submitted to ISO and IETF for standardization. It is expected to be an integral part of Windows 98 and eventually replace the older AVI format.

高级流格式的缩写,是一种微软公司开发的流多媒体文件格式。ASF 已经提交给 ISO 和 IETF 进行标准化。它被希望成为 Windows 98 的一部分并最终取代 AVI 格式。

:Multimedia


:1998.4.5

### Attenuation 衰减

Reduction of signal strength during transmission. Attenuation is the opposite of amplification, and is normal when a signal is sent from one point to another. If the signal attenuates too much, it becomes unintelligible, which is why most networks require repeaters at regular intervals. Attenuation is measured in decibels.

在传输期间信号强度的减弱。衰减是放大的对立面，当一个信号从一点发送到另一点时这是正常的现象。如果信号衰减的太厉害，信号就不能够使用了，这就是为什么绝大多数的网络在一定间隔内需要中继器。衰减是以分贝为单位来测量的。

:Network

1:1998.5.4

**attenuation crosstalk ratio 衰减串音比**

Also known as headroom, attenuation crosstalk ratio (ACR) is the difference between attenuation and crosstalk at a given frequency along a cable. Measured in decibels, ACR is a calculation used in networking transmission to assure that a signal transmitted across a twisted-pair cable is stronger at the receiving end than any interference signals imposed on that same pair by crosstalk from adjacent pairs.

衰减串音比(ACR),也称为净空高度,不同于在一条电缆给定的频率上的衰减和串音。用分贝测量的 ACR 是用于网络传输的计算方法以此保证双绞线上传送的信号在接收端要比来自临近双绞线通过串音而强加在同一双绞线上的干扰信号要强。

 :network

 :2001. 3. 29

 :Attenuationlocal-area network

**attribute 特性/属性**

(1) A characteristic. In a word processing application, an underlined word would be said to have the underline attribute. In database systems, a field can have various attributes. For example, if it contains numeric data, it has the numeric attribute.

(2) In database management systems, the term attribute is sometimes used as a synonym for field.

(3) In DOS systems, every file has file attributes that indicate several properties of the file. For example, they indicate whether the file is read-only, whether it needs to be backed up, and whether it is visible or hidden.

一个特性。在一个文字处理应用中,一个被下划线的单词被称为具有下划线的属性。在数据库系统中,一个字段可以具有各种不同的属性。例如,如果它包含数字数据,则它就具有数字属性。

在数据库管理中,数据属性有时被用作一个字段的同义词。

在 DOS 系统中,每一个文件都有表示文件的几个性质的属性。例如,它们表示文件是否只读、它是否需要备份以及它是否可见或者隐藏。

:Data

:1998.5.12

## AUP 可接受的用户政策

Acceptable Use Policy. Also known as TOS (Terms of Service). A contract specifying what a subscriber can and cannot do while using an ISP's service. Contains things like liability disclaimers, lists of actions or behavior that will result in the termination of a customers account, definition of terms such as "unlimited use", etc.

可接受的用户政策。也称为 TOS(服务术语)。一个用来规定订购者在使用一个 ISP 的服务期间可以以及不可以做什么的合同。它包括诸如责任否认、将导致一个用户账号中断的行为、术语如“未限制用途”的定义等内容。

:Online Service

:1999.5.19

## authoring tool 创作工具

Also known as authorware, a program that helps you write hypertext or multimedia applications. Authoring tools usually enable you to create a final application merely by linking together objects, such as a paragraph of text, an illustration, or a song. By defining the objects' relationships to each other, and by sequencing them in an appropriate order, authors (those who use authoring tools) can produce attractive and useful graphics applications.

The distinction between authoring tools and programming tools is not clear-cut. Typically, though, authoring tools require less technical knowledge to master and are used exclusively for applications that present a mixture of textual, graphical, and audio data.

也称为 authorware,是一个帮助用户编写超文本或者多媒体应用的程序。创作工具通常可以使用户仅仅通过将对象如一段文本、一个插图或者一首歌连接在一起来创建一个最终的应用。通过定义对象的关系并将它们以合适的顺序连接起来,用户就可以制作出吸引人并且有用的图形应用。

创作工具和程序工具的不同不是很清晰。一般的,创作工具需要较少的技术并且专门用于表现一个文本、图形和音频数据混合体的应用。

:Graphics

:1997.9.1

## Baby AT

The form factor used by most PC motherboards prior to 1998. The original motherboard for the PC-AT measured 12"x13". Baby AT motherboards are a little smaller, 8.5"x13" usually. The Baby AT is being replaced by the new ATX form factor.

在 1998 年以前大多数 PC 机的主板使用的架构规范。最初 PC-AT 的主板的尺寸为 12 英寸×13 英寸。Baby AT 主板小一点,通常为 8.5 英寸×13 英寸。Baby AT 现在已经被最新的 ATX 架构规范所取代。


:Standard

:2000.9.29

## Backdoor 后门

Also called a trapdoor. An undocumented way of gaining access to a program, online service or an entire computer system. The backdoor is written by the programmer who creates the code for the program. It is often only known by the programmer. A backdoor is a potential security risk.

也称为陷门。一个获得访问一个程序、在线服务或者整个计算机系统的非标准或规定的方法。后门是由编写程序代码的程序员编写的。这只有这个程序员知道。后门是一个潜在的安全隐患。

:computer science

:2001.4.30

## Backplane 底板

A circuit board containing sockets into which other circuit boards can be plugged in. In the context of PCs, the term backplane refers to the large circuit board that contains sockets for expansion cards.


Backplanes are often described as being either active or passive. Active backplanes contain, in addition to the sockets, logical circuitry that performs computing functions. In contrast, passive backplanes contain almost no computing circuitry.

Traditionally, most PCs have used active backplanes. Indeed, the terms motherboard and backplane have been synonymous. Recently, though, there has been a move toward passive backplanes, with the active components such as the CPU inserted on an additional card. Passive backplanes make it easier to repair faulty components and to upgrade to new components.

一个包含其他电路板可以插入插槽的电路板。在 PC 中,术语底板指包含扩展卡插槽的大的电路板。

底板经常被描述为主动或者被动。主动底板除了插槽外包含完成计算功能的逻辑电路。相反,被动底板几乎不包含计算电路。

传统上,大多数 PC 使用了主动底板。实际上,术语主板和底板是同义的。最近有使用被动底板的趋势,带有一个主动的部件如插入一个额外卡上的 CPU。被动底板使得修复出问题的部件和升级新部件变得容易。

: Hardware

: 1998. 5. 14

: CNR

## background 后台/背景

(1) Multitasking computers are capable of executing several tasks, or programs, at the same time. In some multitasking systems, one of the processes is called the foreground process, and the others are called background processes.

The foreground process is the one that accepts input from the keyboard, mouse, or other input device. Background processes cannot accept interactive input from a user, but they can access data stored on a disk and write data to the video display. For example, some word processors print files in the background, enabling you to continue editing while files are being printed. This is called print spooling. In addition, many communications programs are designed to run in the background. Background processes generally have a lower priority than foreground processes so that they do not interfere with interactive applications.

Even though DOS is not a multitasking operating system, it can perform some specialized tasks, such as printing, in the background. Operating environments, such as Microsoft Windows and the Macintosh operating system, provide a more general multitasking environment.

(2) The area of a display screen not covered by characters and graphics. The background is like a canvas on top of which characters and graphics are placed. Some monitors allow you to control the color or shading of the background.


多任务计算机能够同时处理几个任务或者程序。在一些多任务系统中,进程中的一个称为前台进程,其余的进程称为后台进程。


前台进程是接受键盘、鼠标或者其他输入设备输入的进程。后台进程不能接受用户的交互式输入,但是可以将数据存储到磁盘上并将数据显示在显示器上。例如,一些


文字处理器在后台打印文件,这样用户就可以在文件打印的时候继续编辑。这就称为假脱机打印。除此之外,许多的通信程序设计在后台运行。后台程序通常比前台程序有较低的优先权这样它们不会与交互式应用程序发生冲突。

虽然 DOS 不是一个多任务操作系统,但是它可以在后台完成如打印的特殊的任务。如微软公司的 Windows 和 Macintosh 操作系统提供一个更加通用的多任务环境。

(2) 一个没有被字符和图形覆盖的显示屏幕区域。背景像一块放置字符和图形的帆布。一些监视器允许用户控制背景的颜色或者明暗。

:Operation System

:1998.5.14

:multitasking    spooling

**backward compatible 向后兼容**

Compatible with earlier models or versions of the same product. A new version of a program is said to be backward compatible if it can use files and data created with an older version of the same program. A computer is said to be backward compatible if it can run the same software as the previous model of the computer.

Backward compatibility is important because it eliminates the need to start over when you upgrade to a newer product. A backward-compatible word processor, for instance, allows you to edit documents created with a previous version of the program. In general, manufacturers try to keep all their products backward compatible. Sometimes, however, it is necessary to sacrifice backward compatibility to take advantage of a new technology.

The flip side of backward compatibility is upward compatibility. Upward compatible is the same as backward compatible, except that it is from the point of view of the older model.

Another term for backward compatible is downward compatible.

与以前相同产品的型号或者版本相兼容。一个程序的新版本如果可以使用相同程序的老版本创建的文件和数据则说程序是向后兼容。一个计算机如果可以运行以前型号的计算机能够运行的相同软件则说计算机是向后兼容的。


向后兼容是非常重要的,因为当升级一个新的产品时它减小了重新开始的需要。例如,一个向后兼容的文字处理器可以编辑这个程序以前版本创建的文档。通常,制造商尽量保持他们的产品向后兼容。然而有时为了使用一项新的技术牺牲向后兼容性是必要的。

向后兼容的反面是向前兼容。向前兼容与向后兼容相同,除了它是从老型号的角度来看。

向后兼容的另一个术语是向下兼容。

:Software

:2001.1.12

:upward compatible


**bandwidth 带宽**

The amount of data that can be transmitted in a fixed amount of time. For digital devices, the bandwidth is usually expressed in bits per second(bps) or bytes per second. For analog devices, the bandwidth is expressed in cycles per second, or Hertz (Hz).

The bandwidth is particularly important for I/O devices. For example, a fast disk drive can be hampered by a bus with a low bandwidth. This is the main reason that new buses, such as AGP, have been developed for the PC.

在一个固定的时间内能够传送的数据量。对于数字设备,带宽通常是由比特每秒(bps)或者字节每秒来表示。对于模拟设备,带宽是由周期每秒或者赫兹(Hz)表示。

带宽对于 I/O 设备来说是非常重要的。例如,一个快速磁盘驱动器会由于一个具有较小的带宽的总线而受到妨碍。这就是新的总线技术如 AGP 能够在计算上得到发展的原因。

:Communication


:19985.14

:Bottleneck

**base address 基地址**

An address that serves as a reference point for other addresses. For example, a base address could indicate the beginning of a program. The address of every instruction in the program could then be specified by adding an offset to the base address. For example, the address of the fifth instruction would be the base address plus 5.

一个用来作为其他地址的参考点的地址。例如,一个基地址可能表示一个程序的开始。程序中的每一条指令的地址可以通过基地址加一个偏移量来被指定。例如,第 5 条指令的地址应该为基地址加 5。

:Programming

:1997.9.1

## bastion host 堡垒主机

A bastion host is a gateway between an inside network and an outside network. Used as a security measure, the bastion host is designed to defend against attacks aimed at the inside network.

Depending on a network's complexity and configuration, a single bastion host may stand guard by itself, or be part of a larger security system with different layers of protection.

是一个在一个内部网和外部网之间的网关。作为一个安全的措施,堡垒主机是为了防止以内部网为目标的攻击而设计的。

依靠网络的复杂性和配置,一个单一的堡垒主机自己就可以进行防卫,或者作为一个带有不同防护层的较大的安全系统的一部分。

:Netwrok

:1999.11.22

## battery pack 电池组

A rechargeable battery used in portable computer devices, such as notebook computers. The most common substances used in computer battery packs are nickel cadmium (Niacad), nickel metal hydride (NiMH), and Lithium Ion.

A new type of battery, called a smart battery, provides the computer with information about its power status so that the computer can conserve power intelligently. With a normal battery, the computer makes estimates about the battery's condition that are not always correct.

一个使用于便携电脑设备如笔记本计算机的可充电电池。在计算机电池组中最长使用的原料是镍镉(Niacad)、镍金属氢化物(NiMH)和锂离子。

一种称为智能电池的新型电池提供给计算机电源状态的信息,这样计算机就可以灵活的存储电源。而使用通常的电池,计算机需要估计电池的使用情况,这通常是不准确的。


: Mobile Computing

: 19986.24

**BEDO DRAM 突发 EDO DRAM 的缩写**

Short for Burst EDO DRAM, a new type of EDO DRAM that can process four memory addresses in one burst. Unlike SDRAM, however, BEDO DRAM can only stay synchronized with the CPU clock for short periods (bursts). Also, it can't keep up with processors whose buses run faster than 66 MHz.

突发 EDO DRAM 的缩写,是一个新型的可以在一个突发模式中处理四个内存地址的 EDO DRAM。然而不像 SDRAM, BEDO DRAM 只能在短期内(突发)与 CPU 时钟保持同步。它也不能与总线快于 66 MHz 的处理器保持同步。

: Hardware


: 2000. 9. 22

: burst mode

## Benchmark 基准测试

A test used to compare performance of hardware and/or software. Many trade magazines have developed their own benchmark tests, which they use when reviewing a class of products. When comparing benchmark results, it is important to know exactly what the benchmarks are designed to test. A benchmark that tests graphics speed, for example, may be irrelevant to you if the type of graphical applications you use are different from those used in the test.

一种用来比较软件或者硬件性能的测试。许多商业杂志已经开发了他们自己的基准测试,当审查一类产品是需要使用到这个基准测试。当比较基准结果时,知道为测试指定一个什么基准是非常重要的。例如,如果使用的图形应用的类型与在测试中使用的类型不同,则一个用来测试图形速度的基准就会是不合适宜的。


:Programming

:1997.9.1

## BeOS

An operating system developed by Be, Inc. that runs on the PowerPC platform and Intel x86 processors. Despite being smaller than other modern operating systems, such as the Mac OS and Windows, BeOS nevertheless supports a modern graphical user interface (GUI), preemptive multi-tasking, multithreading, and built-in support for symmetric multiprocessing (SMP).

一个由 Be 公司开发的运行在 PowerPC 平台和 Intel x86 处理器上的操作系统。尽管比诸如 Mac OS 和 Windows 现代的操作系统要小,然而 BeOS 支持现代的图形用户界面(GUI)、优先多任务、多线程并且内嵌支持对称多处理器(SMP)。

:Operation System


:1998.4.26

:SMP

## beta test β 测试

A test for a computer product prior to commercial release. Beta testing is the last stage of testing, and normally involves sending the product to beta test sites outside the company for real-world exposure. Beta testing is often preceded by a round of testing called alpha testing.

一个计算机产品在商业发行之前举行的测试。Beta 测试是测试的最后阶段,通常包含将产品的 beta 套件发送到公司外部进行真实的测试。Beta 测试一般在 alpha 测试循环后进行。

:Programming

1:2001.1.31

:alpha version

**big-endian**

Refers to which bytes are most significant in multi-byte data types. In big-endian architectures, the leftmost bytes (those with a lower address) are most significant. In little-endian architectures, the rightmost bytes are most significant. For example, consider the number 1025 (2 to the tenth power plus one) stored in a 4-byte integer

00000000	00000000	00000100	00000001
	Big-Endian		Little-Endian
Address	representation		representation
	of 1025		of 1025
00	00000000		00000001
01	00000000		00000100
02	00000100		00000000
03	00000001		00000000

Many mainframe computers, particularly IBM mainframes, use a big-endian architecture. Most modern computers, including PCs, use the little-endian system. The PowerPC system is big-endian because it can understand both systems.

Converting data between the two systems is sometimes referred to as the NUXI problem. Imagine the word UNIX stored in two 2-byte words. In a Big-Endian systems, it would be stored as UNIX. In a little-endian system, it would be stored as NUXI.

Note that the example above shows only big- and little-endian byte orders. The bit ordering within each byte can also be big- or little-endian, and some architectures actually use big-endian ordering for bits and little-endian ordering for bytes, or vice versa.

The terms big-endian and little-endian are derived from the Lilliputians of Gulliver’s Travels, whose major political issue was whether soft-boiled eggs should be opened on the

big side or the little side. Likewise, the big-/little-endian computer debate has much more to do with political issues than technological merits.

指在多字节数据类型中最重要的字节。在 big-endian 结构中,最左边的字节(较低位地址的字节)是最重要的。在 little-endian 结构中,最右边的字节是最重要的。例如,将数字 1025(2 的十次幂加 1)存储在一个 4 字节整数里:


	00000000	00000000	00000100	00000001
	Big-Endian		Little-Endian	
地址	1025 的表示		1025 的表示	
00	00000000		00000001	
01	00000000		00000100	
02	00000100		00000000	
03	00000001		00000000	

大多数大型计算机,特别是 IBM 大型机使用 big-endian 结构。大多数现代的计算机,包括 PC 机使用 little-endian 系统。PowerPC 系统是 big-endian 因为它可以支持这两种系统。

在这两种系统间转换数据有时是 NUXI 的问题。想象单词 UNIX 存储在两个字节的字里。在一个 big-endian 系统中,它将存储为 UNIX。而在一个 little-endian,它将存储为 NUXI。

注意以上所举的例子只显示 big 和 little-endian 字节顺序。在每一个字节的位顺序也可以是 big-和 little-endian,而且有些结构实际上对于位使用 big-endian 而对于字节则使用 little-endian 或是相反。

术语 big-endian 和 little-endian 源于《格利佛游记》中小人国居民,他们主要的政治争论是煮熟的鸡蛋应该是在大头处敲开还是在小头处敲开。同样的, big/little-endian 计算机与技术利益相比更接近政治争论。

: Programming

: 1998.5.7

## BinHex

An encoding scheme that converts binary data into ASCII characters. Any file, whether it be a graphics file, a text file, or a binary executable file, can be converted to BinHex. This format is particularly valuable for transferring files from one platform to another because nearly all computers can handle ASCII files. In fact, many e-mail programs include a BinHex encoder and decoder for sending and receiving attachments. BinHex is an especially common format for Macintosh files. Encoded files usually have a .HQX extension.

An alternative algorithm for converting binary files to ASCII is Uuencode.

一种编码模式, 它将二进制的数转化成 ASCII 字符。任何文件, 不管是图形文件或者文本文件或者二进制可执行文件都可以转换成 BinHex。这种格式对于将文件从一个平台转换到另一个平台很有用, 因为几乎所有的计算机都可以处理 ASCII 文件。事实上, 许多 e-mail 程序都包含一个 BinHex 编码器和解码器用来发送和接收附件。BinHex 对于 Macintosh 文件来说尤其是一种普遍的形式。编码文件通常有一个 .HQX 的后缀。

另一种将二进制文件转换为 ASCII 文件的算法是 Unencode。

 :Data

 :2001.1.19

 :MIME Uuencode


## Bioinformatics 生物信息

The application of computer technology to the management of biological information. Specifically, it is the science of developing computer databases and algorithms to facilitate and expedite biological research. Bioinformatics is being used largely in the field of human genome research by the Human Genome Project that has been determining the sequence of the entire human genome (about 3 billion base pairs) and is essential in using genomic information to understand diseases. It is also used largely for the identification of new molecular targets for drug discovery.

Many universities have recognized the importance of this endeavor and have instituted academic and training programs in bioinformatics that combine backgrounds in molecular biology with a strong foundation in computer science. Specialists in the field are referred to as computational biologists or bioinformatics computer scientists.

是计算机技术在生物信息管理方面的应用。特别是门开发计算机数据库和算法来简化生物研究的科学。生物信息现在主要用于已经决定了整个人类基因序列(大约 30 亿基本队)的人类基因计划的人类基因研究领域,并且在使用基因信息来理解疾病上是非常必须的。它也主要用于识别药物发明中的新的分子。

许多大学已经认识到这项行为的重要性并且已经有生物信息的研究单位和培训计划,它将分子生物学的背景和计算机的强大基础结合起来。这个领域的专家被称为计算生物学家或者生物信息计算机科学家。

:Computer Science

:2001.1.11

## BIOS 基本输入/输出系统

Pronounced "bye-ose", an acronym for basic input/output system. The BIOS is built-in software that determines what a computer can do without accessing programs from a disk. On PCs, the BIOS contains all the code required to control the keyboard, display screen, disk drives, serial communications, and a number of miscellaneous functions.

The BIOS is typically placed in a ROM chip that comes with the computer (it is often called a ROM BIOS). This ensures that the BIOS will always be available and will not be damaged by disk failures. It also makes it possible for a computer to boot itself. Because RAM is faster than ROM, though, many computer manufacturers design systems so that the BIOS is copied from ROM to RAM each time the computer is booted. This is known as shadowing.

Many modern PCs have a flash BIOS, which means that the BIOS has been recorded on a flash memory chip, which can be updated if necessary.

The PC BIOS is fairly standardized, so all PCs are similar at this level (although there are different BIOS versions). Additional DOS functions are usually added through software modules. This means you can upgrade to a newer version of DOS without changing the BIOS.

PC BIOSes that can handle Plug-and-Play (PnP) devices are known as PnP BIOSes, or PnP-aware BIOSes. These BIOSes are always implemented with flash memory rather than ROM.

**基本输入/输出系统的缩写。**BIOS 是一个决定在不访问磁盘的程序的下一个计算机可以做什么的嵌入式软件。在 PC 机上, BIOS 包含所有的需要控制键盘、显示屏幕、硬盘驱动器、串口通信和大量其他功能的代码。


BIOS 一般置于计算机的 ROM 芯片(通常称为 ROM

BIOS)中。这样就保证可以总是得到 BIOS 而且不会因磁盘的崩溃而受到破坏。它也使得一个计算机启动自身成为可能。因为 RAM 比 ROM 要快,许多计算机制造商设计这样系统,BIOS 每当计算机启动的时候从 ROM 拷贝到 RAM。这称为映射。

许多现在的 PC 机有一个内存 BIOS,这就意味着 BIOS 存储在一个闪存芯片上,在必要的情况下可以升级。

PC 机的 BIOS 是相当标准化的,这样所有的 PC 机在这一层面(虽然有不同 BIOS 版本)上是相同的。多余的 DOS 功能通常通过软件模块来加入。这就意味着可以在不用改变 BIOS 的情况下升级到一个新的 DOS 版本。

能够处理即插即用(PnP)设备的 PCBIOS 称为 PnP BIOS 或者 PnP-ware BIOS。这些 BIOS 通常由闪存而不是 ROM 来实现。

:Operation System


:1998.5.18

:CMOS CNR Phoenix BIOS PnP POST

**Bisync**

Short for binary synchronous, a type of synchronous communications used primarily in mainframe networks. The de facto bisync standard is Binary Synchronous Communications (BSC) developed by IBM. The binary part of the name signifies that the data is binary-coded. The synchronous part means that both the sender and receiver must be synchronized before the data transfer can begin.

二进制同步的缩写,是一种主要用于大型网络的同步通信类型。实际上二进制同步标准是由 IBM 开发的二进制同步通信(BSC)。名字的二进制部分表明数据是二进制编码的。同步部分意味着发送者和接收者都必须在数据传输开始之前保持同步。

:Communication

1:2000.11.9

:synchronous

## bit block transfer 位块转换

A transformation of a rectangular block of pixels. Typical transformations include changing the color or shade of all pixels or rotating the entire rectangle. Many modern video adapters include hardwired bit block transformations, which execute much faster than they do when executed by software routines.

一个矩形像素块的转换。一般的转换包括改变所有像素的色彩或者阴影或者旋转整个矩形。许多现在的视频适配器包含电路位块转换,这种转换比它们通过软件程序进行的转换要快。

:Graphics

:1997. 11. 25

:pixel

## bit stuffing 位填充

The practice of adding bits to a stream of data. Bit stuffing is required by many network and communications protocols for the following reasons:

To prevent data being interpreted as control information. For example, many frame-based protocols, such as X.25, signal the beginning and end of a frame with six consecutive 1 bits. Therefore, if the actual data being transmitted has six 1 bits in a row, a zero is inserted after the first 5 so that the data is not interpreted as a frame delimiter. Of course, on the receiving end, the stuffed bits must be discarded.

For protocols that require a fixed-size frame, bits are sometimes inserted to make the frame size equal to this set size.


For protocols that required a continuous stream of data, zero bits are sometimes inserted to ensure that the stream is not broken.


给一个数据流加入位的说法。由于如下的原因许多的网络和通信协议需要位填充：

为了防止数据被理解为控制信息。例如，许多基于帧的协议 X 如.25 用 6 个连续的 1 位表示起始和结束的信号。因此，如果在一个列中实际被传送的数据有 6 个 1 位，在开头的 5 个之后一个零被插入，这样数据就不会被解释为一个帧分隔符。当然，在接收端，被添入的位必须被丢弃。

对于需要一个固定大小帧的协议，位有时用来插入以使帧的大小符合设定的大小。

对于需要一个连续数据流的协议，零位有时用来插入以保证数据流不会断开。


:Communication

:1998.6.25

## BLOB 二进制大对象

Short for binary large object, a collection of binary data stored as a single entity in a database management systems (DBMS). BLOBs are used primarily to hold multimedia objects such as images, videos, and sound, though they can also be used to store programs or even fragments of code. Not all DBMSs support BLOBs.

二进制大对象的缩写, 在一个数据库管理系统 (DBMS) 中是一个存储为单一实体的二进制数据集合。其主要用途还是容纳多媒体对象如图像、视频和声音, 虽然 BLOB 也可以用来存储程序或者代码片断。并不是所有的 DBMS 都支持 BLOB。

: Multimedia

: 1997. 9. 1

**blue screen of death 蓝屏死机**

An error that can appear on computers running in a Windows' environment. This includes even the earliest versions of Windows such as Windows 3.0 and 3.1, and still occurs in later versions such as Microsoft Windows 95, Windows 98, Windows NT, and Windows 2000 . Jokingly called the blue screen of death because when the error occurs, the screen turns blue, and the computer almost always freezes and requires rebooting.

出现在运行 Windows 环境的计算机上的一种错误。这包括早期 Windows 版本如 Windows 3.0 和 3.1, 并且在其后的版本如 Windows 95、Windows 98、Windows NT 和 Windows 2000 仍然发生。称为蓝屏死机是因为当错误发生时屏幕变成蓝色并且计算机几乎总是死机从而需要重新启动。

: Operation System

: 1998. 8. 6

: Bug

## BluetoothMobile 蓝牙

Bluetooth refers to a short-range radio technology aimed at simplifying communications among Net devices and between devices and the Internet. It also aims to simplify data synchronization between Net devices and other computers.

Products with Bluetooth technology must be qualified and pass interoperability testing by the Bluetooth Special Interest Group prior to release.

The Bluetooth 1.0 specification consists of two documents: the Foundation Core, which provides design specifications, and the Foundation Profile, which provides interoperability guidelines.

Bluetooth's founding members include Ericsson, IBM, Intel, Nokia and Toshiba.

蓝牙指一种短距离内的无线电技术,它的目的在于简化网络设备中和设备与因特网之间的通信。同时也可以简化网络设备和其他计算机之间的数据同步问题。

具有蓝牙技术的产品在发布前必须由蓝牙特殊兴趣组进行资格和互用性测试。

蓝牙 1.0 规范包括两个文档:提供设计规范的基本内核和提供互用性指导的基本描述。

蓝牙的发起成员包括 Ericsson、IBM、Intel、Nokia 和 Toshiba。

: Mobile Computing

: 1999. 8. 3

: hand-held computer HPNA WAP WTLS

## Boot 启动

(v) To load the first piece of software that starts a computer. Because the operating system is essential for running all other programs, it is usually the first piece of software loaded during the boot process.


Boot is short for bootstrap, which in olden days was a strap attached to the top of your boot that you could pull to help get your boot on. Hence, the expression “pull oneself up by the bootstraps.” Similarly, bootstrap utilities help the computer get started.


(n) Short for bootstrap, the starting-up of a computer, which involves loading the operating system and other basic software. A cold boot is when you turn the computer on from an off position. A warm boot is when you reset a computer that is already on.

(动词) 载入启动一个计算机的第一个软件片。因为操作系统对于运行其他所有的程序都是必须的,所以在启动过程中通常是装入软件的第一片。

启动是解靴带的缩写,在旧时解靴带是附在靴子上的一条绳,可以帮助将靴子穿上。因此有“靠自己的努力改善境遇”的说法。同样的,解靴带实用程序帮助计算机启动。

(名词)解靴带的缩写,计算机的启动,其中包括载入操作系统和其他基本的软件。冷启动是将一个计算机从关闭状态打开。热启动是将已经运行的计算机重新启动。

:Operation System

:1997.9.1


## bootable diskette 启动盘

A diskette from which you can boot your computer. Normally, your computer boots from a hard disk, but if the hard disk is damaged (for example, by a virus), you can boot the computer from a bootable diskette. For this reason, it's a good idea to make sure you always have a bootable diskette on hand. In Windows 95, you can create a bootable diskette by following these steps:

1. Insert a blank, formatted diskette in the floppy drive
2. Select Start->Settings->Control Panel
3. Open Add/Remove Programs
4. Select the Startup Disk tab and press the Create Disk...button.

可以启动计算机的磁盘。正常情况下,计算机从硬盘启动,但是如果硬盘损坏(例如由病毒引起)则可以通过一张启动盘来启动计算机。由此,确保常备一张启动盘是个很好的主意。在 Windows 95 中,通过以下步骤可以制作一张启动盘:

1. 在软驱中插入一张空白、格式化的软盘。
2. 选择“开始”->“设置”->“控制面板”。
3. 打开“添加/删除程序”。
4. 选择“启动盘”标签并按“创建磁盘”按钮。

:Operation System

:1998.3.19

## Bottleneck 瓶颈

A bottleneck refers to the delay in transmission of data through the circuits of a computer's microprocessor or over a TCP/IP network. The delay typically occurs when a system's bandwidth cannot support the amount of information being relayed at the speed it is being processed. There are, however, many factors that can create a bottleneck in a system.

Bottlenecks affect microprocessor performance by slowing down the flow of information back and forth from the CPU and the memory. If all of the components of a system are not able to feed the same amount of data at the same speed, a delay is created. For example, a 2 GB processor will be severely bottlenecked by an 800 MB memory bandwidth.


Bottlenecks affect network performance by slowing down the flow of information transmitted across networks. TCP/IP connections were originally designed to transmit only text files, and the proliferation of bandwidth-intensive transmissions such as high-resolution graphics has caused bottlenecks in the process; therefore, the data moves more slowly across networks.

瓶颈是指通过计算机的微处理器的线路或者在一个 TCP/IP 网络上传输数据时的延迟。当一个系统的带宽不能够支持以一定的处理速度传送的信息量时延迟就会出现。然而,在一个系统中有很多因素会产生瓶颈现象。

瓶颈由于减慢了来回于 CPU 和内存之间信息的流动而影响了微处理器的性能。如果系统中的所有部分在一定的速度上不能够供给足够的数据量,则延迟就发生了。比如,一个 2 GB 的处理器会由于一个 800 MB 的内存带宽产生严重的延迟。

瓶颈由于减慢了网络的信息传送而影响了网络的性能。TCP/IP 连接起初只是为文本文件的传输而设计的,

而如高精度图片的高带宽传输的增加已经导致瓶颈；因此，网上数据的传输速度就慢了。

:Communication

:2001.12.5

:bandwidth data migration DWDM


## BPDU 网桥协议数据单位

Acronym for bridge protocol data unit. BPDUs are data messages that are exchanged across the switches within an extended LAN that uses a spanning tree protocol topology. BPDU packets contain information on ports, addresses, priorities and costs and ensure that the data ends up where it was intended to go. BPDU messages are exchanged across bridges to detect loops in a network topology. The loops are then removed by shutting down selected bridge interfaces and placing redundant switch ports in a backup, or blocked, state.

网桥协议数据单位的缩写。BPDU 是在一个使用生成树协议的拓扑局域网内跨越交换机进行交换的数据信息。BPDU 包包含端口、地址、优先权和成本的信息并且保证数据在要发送的地方结束。BPDU 信息在网桥上进行交换来探测一个网络拓扑上的回路。然后通过断开选择的网桥接口并且放置一个备份或者阻塞状态的多余交换机端口将回路去除。

: Porgramming

: 2000. 12. 11


: branch STP switch


**broadcast storm 广播风暴**

A state in which a message that has been broadcast across a network results in even more responses, and each response results in still more responses in a snowball effect. A severe broadcast storm can block all other network traffic, resulting in a network meltdown. Broadcast storms can usually be prevented by carefully configuring a network to block illegal broadcast messages.

一种现象,就是一个在网络上广播的消息导致很多的响应并且每一个响应以一种雪崩式的效果导致更多的响应。一个严重的广播风暴可以阻塞所有其他网络的传输,导致网络的崩溃。广播风暴通常可以通过仔细地配置一个网络以阻止非法广播消息来避免。

:Network

:1998.7.7

:network meltdown

**brute force 力迫法**


Refers to a programming style that does not include any shortcuts to improve performance, but instead relies on sheer computing power to try all possibilities until the solution to a problem is found. A classic example is the traveling salesman problem (TSP). Suppose a salesman needs to visit 10 cities across the country. How does one determine the order in which cities should be visited such that the total distance traveled is minimized? The brute force solution is simply to calculate the total distance for every possible route and then select the shortest one. This is not particularly efficient because it is possible to eliminate many possible routes through clever algorithms.

Although brute force programming is not particularly elegant, it does have a legitimate place in software engineering. Since brute force methods always return the correct result — albeit slowly — they are useful for testing the accuracy of faster algorithms. In addition, sometimes a particular problem can be solved so quickly with a brute force method that it doesn't make sense to waste time devising a more elegant solution.

指一种不包含任何快捷方式来提高性能而是依靠完全的计算能力来实现全部可能一直到得到一种解决方案为止的编程风格。经典的例子是货郎担问题(TSP)。假设一个售货员需要访问一个国家的 10 个城市。如何决定访问每个城市的顺序而且使得总的距离是最小呢？力迫法解决方案是对每一个可能的路径进行计算然后选择最短的一条。这不是特别地有效因为它可以通过灵活的算法来删除许多可能的路径。

虽然力迫法编程不是特别地得体,但是它在软件工程中有一个合法的位置。由于力迫法经常返回正确的结果——虽然慢——但是它们对于测试快速算法的精确度是有用的。除此之外,有时一个特定的问题使用力迫法来解

决是很快,因为它不需要花时间来设计一个较适当的解决方法。


:Programming

:1998.3.20

**bubble sort 气泡法排序**

A simple but popular sorting algorithm. Bubble sorting is used frequently as a programming exercise because it is relatively easy to understand. It is not, however, particularly efficient. Other sorting algorithms, such as heap sorts, merge sorts and quicksorts, are used more often in real applications.

一个简单但是流行的排序算法。气泡法排序经常用作一个编程练习这是因为这个算法比较容易理解。然而它也并不是特别的有效。其他排序算法,如堆栈法、合并排序法和快速分类在实际程序中更为经常地被使用。


:Programming

:1997.9.1

**bug**

An error or defect in software or hardware that causes a program to malfunction. According to folklore, the first computer bug was an actual bug. Discovered by Lieutenant Grace Hopper in 1945 at Harvard, a moth trapped between two electrical relays of the Mark II Aiken Relay Calculator caused the whole machine to shut down.

在软件和硬件中导致一个程序出现故障的一个错误或者缺陷。根据民间传说,第一个计算机 bug 实际上是一个真实的臭虫。Grace Hopper 中尉于 1945 年在哈佛发现一只蛾陷入到 Mark II Aiken 继电计算器两个电子继电器之间从而导致了整个机器关闭。

:Programming

1:2000.2.18

**bulletin board system 电子公告牌**

An electronic message center. Most bulletin boards serve specific interest groups. They allow you to dial in with a modem, review messages left by others, and leave your own message if you want. Bulletin boards are a particularly good place to find free or inexpensive software products. In the United States alone, there are tens of thousands of BBSs.

一个电子消息中心。大多数电子公告牌服务于特定兴趣的人群。它们允许用户通过一个调制解调器拨号, 查阅他人发表的消息并如果愿意, 发表自己的看法。电子公告牌对于要找免费或者便宜的软件产品的人来说是个好地方。仅仅在美国就有上万个 BBS。

:Online Service

:1997.9.1

## **bundled software** 捆绑软件

Software that is sold with a computer or other hardware component as part of a package. As competition between computer manufacturers has intensified, bundling software has become a key strategy for attracting consumers. In some cases, the bundled software is even more valuable than the hardware.

Bundled software can also be part of a software package. For example, Microsoft Windows comes with many bundled software tools.

与一个计算机或者其他硬件部件作为一部分一起出售的软件。随着计算机制造商之间竞争的加剧,捆绑软件已经成为吸引消费者的一个关键的战略。在某些场合,捆绑软件甚至比硬件更有价值。

捆绑软件也可以是一个软件包的一部分。例如,微软公司的 Windows 带有许多捆绑的软件工具。


:Software

:1997. 9. 1

**burn in 烧机**

To run a system or device for a period of time to ensure that all components are working properly. Most computer equipment undergoes a burn-in test at the factory before being released for sale.

将一个系统或者设备运行一定的时间以保证所有的部件工作正常。大多数计算机设备在工厂待售之前要进行一个烧机的测试。

: Hardware

: 1998. 5. 21

## burst mode 突发模式

A data transmission mode in which data is sent faster than normal. There are a number of techniques for implementing burst modes. In a data bus, for example, a burst mode is usually implemented by allowing a device to seize control of the bus and not permitting other devices to interrupt. In RAM, burst modes are implemented by automatically fetching the next memory contents before they are requested. This is essentially the same technique used by disk caches.

The one characteristic that all burst modes have in common is that they are temporary and unsustainable. They allow faster data transfer rates than normal, but only for a limited period of time and only under special conditions.

一种数据发送速度比正常的要快的数据传输模式。实施突发模式需要大量的技术。例如在一个数据总线上,一个突发模式通常通过允许设备获得总线的控制并且不允许其他设备介入的方法来实现。在 RAM 中突发模式通常通过在数据被请求之前自动取得下一个内存内容的方法来实现。这与使用于磁盘缓冲存储器的技术本质上是相同的。

所有突发模式所共有一个特点是它们都是临时的,非持续的。它们允许比正常的要快的数据传输模式,但是这仅仅是在一个有限的时间内和特定的条件下。


:Communication


:2000.10.24

## Bytecode 字节码

The compiled format for Java programs. Once a Java program has been converted to bytecode, it can be transferred across a network and executed by Java Virtual Machine (VM). Bytecode files generally have a .class extension.

Java 程序的编译格式。一旦一个 Java 程序已经被转换为字节码,它就可以通过一个网络来传递并被 Java 虚拟机(VM)执行。字节码文件通常有一个.class 的扩展名。

:Programming

 **1**:1997.11.25

**cache coherence 高速缓冲存储器一致性**

A protocol for managing the caches of a multiprocessor system so that no data is lost or overwritten before the data is transferred from a cache to the target memory. When two or more computer processors work together on a single program, known as multiprocessing, each processor may have its own memory cache that is separate from the larger RAM that the individual processors will access. A memory cache, sometimes called a cache store or RAM cache, is a portion of memory made of high-speed static RAM (SRAM) instead of the slower and cheaper dynamic RAM (DRAM) used for main memory. Memory caching is effective because most programs access the same data or instructions over and over. By keeping as much of this information as possible in SRAM, the computer avoids accessing the slower DRAM.

When multiple processors with separate caches share a common memory, it is necessary to keep the caches in a state of coherence by ensuring that any shared operand that is changed in any cache is changed throughout the entire system. This is done in either of two ways: through a directory-based or a snooping system. In a directory-based system, the data being shared is placed in a common directory that maintains the coherence between caches. The directory acts as a filter through which the processor must ask permission to load an entry from the primary memory to its cache. When an entry is changed the directory either updates or invalidates the other caches with that entry. In a snooping system, all caches on the bus monitor (or snoop) the bus to determine if they have a copy of the block of data that is requested on the bus. Every cache has a copy of the sharing status of every block of physical memory it has.

Cache misses and memory traffic due to shared data


blocks limit the performance of parallel computing in multi-processor computers or systems. Cache coherence aims to solve the problems associated with sharing data.

用来管理一个多处理器系统的高速缓冲存储器的协议,这样数据在从一个缓冲存储器传送到目标内存之前就不会丢失或者被覆盖。当在一个单独的程序上有两个或者多个计算机处理器一起工作,即多重处理时,每一个处理器可能会有自己的与更大的随机存取存储器 RAM 相分离的内存高速缓冲存储器。一个内存高速缓冲存储器,有时被称为高速缓冲存储器或者 RAM 高速缓冲存储器,是由高速静态 RAM(SRAM)组成的内存的一部分,而不是用于主内存的更慢而且更便宜的动态 RAM(DRAM)所组成内存的一部分。内存高速缓冲存储是十分有效的,因为大多数程序总是反复地存取同样的数据或指令。通过在 SRAM 中尽可能多的保持这样的信息,计算机避免了存取较慢的 DRAM。

当带有各自高速缓冲存储器的多个处理器共享一块内存时,保证高速缓冲存储器处于一致的状态是必要的,这样可以保证在任何高速缓冲存储器被改变的任何共享的操作数在整个系统中被改变。有两种方法可以实现:通过一个基于目录或者监视的系统。在一个基于目录的系统中,用于共享的数据被置于一个用于保持高速缓冲存储器之间一致性的公共目录中。这个目录作为一个过滤器,通过它处理器必须请求从主内存取得一个入口装入其高速缓冲存储器的许可。当改变一个入口时,则这个目录或者更新或者使其他有同样入口的高速缓冲存储器无效。在一个系统中,在总线上的所有高速缓冲存储器监视(snoop)总线来判断在总线上是否有一个所请求的数据块的拷贝。每一个高速缓冲存储器都有一个它所拥有的每一块物理内存的共享状态的拷贝。

在多处理器计算机或系统中,由于共享数据限制了并行计算的完成而会导致高速缓冲存储器的丢失以及内存的交换。而高速缓冲存储器一致性就是要解决与共享数据有

关的一些问题。

:hardware

:2001.1.24

:CNR Ethernet topology USB


## CAN 校园网络

Acronym for campus-area network. An interconnection of local-area networks within a limited geographical space, such as a school campus or a military base.

校园网络的缩写。这是在一个有限的空间,如一个校园或者军事基地的内部连接的局域网。

:network

:2001.4.3

:Ethernet HPNA local-area network network operating system network-attached storageserver farm SNMPtopology

## CAPI 计算机辅助个人面试/通用 ISDN 应用程序界面


(1) (computer assisted personal interviewing) Surveying using a computer-based questionnaire. As an alternative to paper questionnaires, CAPI allows the interviewer to customize the survey, so that respondents answer questions only about subjects they're familiar with and receive questions in a random order to avoid biases. CAPI also seeks to improve accessibility to data and to make the interviewing process more entertaining. Although traditionally used on individual PCs, CAPI is now also being administered on the Web.

(2) (common ISDN application programming interface) An application programming interface (API) standard used to access ISDN equipment (equipment that use the integrated services digital network [ISDN] standard for the transfer of data over telephone lines). When an application wants to communicate with an ISDN card it sends a standard series of commands to the card. These commands form the CAPI standard and give developers and users a chance to use a well-defined mechanism for communications over ISDN lines without being forced to adjust to hardware idiosyncrasies.

**计算机辅助个人面试**(Computer Assisted Personal Interviewing)是指使用一个基于计算机的问卷调查来进行测试。作为一个纸面调查的另一个选择,CAPI 允许面试者来适应测试,这样被问卷者只回答他们熟悉的主题并且为了避免偏斜接收以随机顺序出现的问题。CAPI 也力图提高对数据的可接近性并使得面试过程尽量有趣。虽然原来这是使用在个人计算机上,但是 CAPI 现在也在网上被使用。

**通用 ISDN 应用程序界面**(Common ISDN Application Programming Interface) 是指一个用来存取 ISDN 设备的应用程序界面(API)标准(使用综合业务数字网 ISDN 的电

话线上的数据传输标准的设备)。当一个应用想使用一个 ISDN 卡进行通讯时他就向卡发送一个标准的命令序列。这些命令形成了 CAPI 标准,并且给开发者和用户一个使用定义明确的通信机制的机会,该通信机制通过 ISDN 线而不必调节硬件特性。

:Communication

:1998. 9. 28

## capture 抓取

To save a particular state of a program. The term capture often refers to saving the information currently displayed on a display screen. You can capture the screen to a printer or to a file. The act of saving a display screen is called a screen capture. Video capture refers to storing video images in a computer.

The term capture is also used to describe the recording of keystrokes during the definition of a macro.

用于保存一个程序特定的状态。术语抓取经常指保存当前显示在显示屏上的信息。可以抓取屏幕的内容到打印机或者文件。保存屏幕上显示的内容的行为称为屏幕抓取。视频抓取指将视频图像保存在计算机中。

术语抓取也用来描述在定义一个宏时纪录键盘的操作。

:Graphics

:1998.5.14

## CardBus

The 32-bit version of the PCMCIA PC Card standard. In addition to supporting a wider bus (32 bits instead of 16 bits), CardBus also supports bus mastering and operation speeds up to 33 MHz.

32 位版本的 PCMCIA 卡标准。除了支持一个更宽的总线(32 位而不是 16 位), CardBus 也支持速度达到 33 MHz 的总线控制和操作。

 : Mobile Computing

 : 1997. 7. 21

 : PCMCIA

**castanet**

Software from Marimba, Inc. of Mountain View, CA ([www.marimba.com](http://www.marimba.com)) that helps administrators install and update applications and information across a network. For example, if a number of users on a network use a version of Microsoft Word that's been recently updated, the administrator can use Castanet to update the users' versions without physically installing each new package. Castanet will examine the old and the new versions, identify differences (a process called differencing), and send the changes to each user. Castanet uses channels, usually containing one kind of application, to send information to users, who receive them with a desktop application called a tuner.

美国加州 Mountain View 的 Marimba 有限公司 ([www.marimba.com](http://www.marimba.com)) 的软件, 它可以帮助管理员在网络上安装和升级应用程序和信息。例如, 如果网络上一定数量的用户使用一个最近升级了的微软公司的 Word 版本, 管理员可以使用 Castanet 来升级用户的版本而不需要手动安装每一个包。Castanet 将检查旧的和新的版本, 识别之间的差异(一个称为差分的过程)然后将变化发送到每一个用户。Castanet 使用通常包含一种应用程序的通道来向用户发送信息, 用户使用称为调谐器的桌面程序来接收信息。

: Software

: 1998. 10. 30

## CBT 基于计算机的训练

Acronym for computer-based training, a type of education in which the student learns by executing special training programs on a computer. CBT is especially effective for training people to use computer applications because the CBT program can be integrated with the applications so that students can practice using the application as they learn.

Historically, CBTs growth has been hampered by the enormous resources required: human resources to create a CBT program, and hardware resources needed to run it. However, the increase in PC computing power, and especially the growing prevalence of computers equipped with CD-ROMs, is making CBT a more viable option for corporations and individuals alike. Many PC applications now come with some modest form of CBT, often called a tutorial.


CBT is also called computer-assisted instruction (CAI).

基于计算机的训练的缩写,这是一种学生通过在计算机上执行特殊训练程序而学习的教育方式。CBT 对于训练人们使用计算机应用特别有效,因为 CBT 程序可以与应用相结合这样学生在学习的时候就可以练习使用应用程序。

历史上, CBT 的成长曾经被大量需要创建一个 CBT 程序的人力资源和运行程序的硬件资源所阻碍。然而,随着 PC 计算能力的增强,特别是计算机装备 CD-ROM 的普及,已经使得制作 CBT 成为一个公司或者个人更加可行的选择。许多 PC 应用程序都带有最现代的 CBT,有时也称为一个教程。

CBT 也称为计算机辅助教学(CAI)。

:Online Service

:1998.5.12


## CDF 通道定义格式

Short for channel definition format, a specification developed by Microsoft that allows Web publishers to push content at users. Once a user subscribes to a CDF channel, any software that supports the CDF format will automatically receive new content posted on the channel's Web server.


Announced in March, 1997, CDF has received wide backing from the Internet community, with the notable exception of Netscape Communications. Microsoft has announced that Version 4.0 of its Internet Explorer browser will support CDF, and PointCast has also announced that it will support the CDF format. Microsoft has sent the specification to the World Wide Web Consortium (W3C) for standardization.

通道定义格式的缩写,是一个微软公司开发的允许网络发布者将内容提交给用户的规范。一旦用户订购了一个 CDF 通道,任何支持 CDF 格式的软件将自动接收贴在通道上网络浏览器的新内容。

CDF 公布于 1997 年 3 月,已经得到因特网团体的广泛支持,但是 Netscape 公司除外。微软公司已经宣布它的因特网浏览器 IE 4.0 将支持 CDF 格式。PointCast 公司也宣布它将支持 CDF 格式。微软已经向因特网联盟(W3C)提交了标准的规范。

: WWW

: 1997. 4. 12

: PointCast

## CDMA 码分多址访问

Short for Code-Division Multiple Access, a digital cellular technology that uses spread-spectrum techniques. Unlike competing systems, such as GSM, that use time-division multiplexing (TDM), CDMA does not assign a specific frequency to each user. Instead, every channel uses the full available spectrum. Individual conversations are encoded with a pseudo-random digital sequence.

CDMA is a military technology first used during World War II by the English allies to foil German attempts at jamming transmissions. The allies decided to transmit over several frequencies, instead of one, making it difficult for the Germans to pick up the complete signal.

码分多址访问,是一项使用扩频技术的数字蜂窝技术。不同于 GSM 使用时分多址(TDM)技术,CDMA 对于每一个用户不会指定一个特定的频率。相反,每一个信道使用整个可以提供的频率。个人通话使用一个伪随机数字序列进行编码。

CDMA 是一项首先由盟军在二战期间使用的军事技术,目的是阻止德国人试图对通信的干扰。盟军决定在几个频段上进行通信,而不是一个,这就使得德国人很难得到完整的信号。

: Mobile Computing

: 1997. 12. 3

: 3G demultiplex GSM multiplex TDM TDMA

## Cells in Frames 帧信元

A specification that enables ATM cells to be carried in Ethernet packets. This makes it possible to implement the ATM protocol while using existing Ethernet equipment, especially network interface cards (NICs). CIF provides the advantages of ATM, such as Quality of Service (QoS), without the usual hardware expense.

能够使 ATM 信元以以太网数据包的形式进行传输的规范。这可以使得利用现存的以太网设备,特别是网络接口卡(NIC),实现 ATM 协议。CIF 在没有通常昂贵硬件的前提下提供了 ATM 的优势,例如服务质量(QoS)。


:Network

:1998. 1. 9


## CERN 欧洲离子物理实验室

Pronounced sern, and short for European Laboratory for Particle Physics (Conseil Européen pour la Recherche Nucléaire in French), a research laboratory headquartered in Geneva, Switzerland, and funded by many different countries. While most work deals with nuclear physics, the CERN is known for pioneering work in developing the World Wide Web portion of the Internet. The laboratory completed this work to improve the way scientists share information.

欧洲离子物理实验室的缩写,是一个位于瑞士日内瓦由许多不同国家资助的实验室。当许多工作还是处理核物理的时候,CERN 已经因为在开发因特网中 WWW 一部分的领先工作而出名。实验室的这项工作改进了科学家共享信息的方法。

: WWW

: 1997. 5. 22

: Web server World Wide Web


## CERT/CC 计算机紧急反映组协调中心

Short for the Computer Emergency Response Team Coordination Center. CERT was started in December 1988 by the Defense Advanced Research Projects Agency, which was part of the U. S. Department of Defense, after the Morris Worm disabled about 10% of all computers connected to the Internet. CERT/CC is located at the Software Engineering Institute, a federally funded research center operated by Carnegie Mellon University.


Cert/CC studies Internet security vulnerabilities, provides services to Web sites that have been attacked and publishes security alerts. CERT/CC's research activities include the area of WAN computing and developing improved Internet security. The organization also provides training to incident response professionals.

计算机紧急反映组协调中心的缩写。CERT 是在 1988 年由国防高级研究项目机构发起的,这个机构是美国国防部的一个部门,它的成立是在 Morris 虫导致连接因特网的所有 10% 的计算机瘫痪后。CERT/CC 位于软件工程研究所,这是一个联邦资助的由卡耐基·梅隆大学管理的研究中心。

CERT/CC 研究因特网的安全易受攻击性,并且向已经被攻击的网站提供服务 and 发布安全警告。CERT/CC 的研究行为包括改善因特网安全的 WAN 计算和开发。这个组织也提供培训应付突发事件的专业人员。

:network

1:2001.2.14

:bootable diskette hacker

**character set 字符集**

A defined list of characters recognized by the computer hardware and software. Each character is represented by a number. The ASCII character set, for example, uses the numbers 0 through 127 to represent all English characters as well as special control characters. European ISO character sets are similar to ASCII, but they contain additional characters for European languages.

被计算机硬件和软件识别的一组定义的字符列。每一个字符由一个数字代表。例如, ASCII 字符集使用数字 0 到 127 来代表所有的英文字符和特殊的控制字符。欧洲 ISO 字符集与 ASCII 相似, 但是它们包含额外的欧洲语言特有的字符。

:Software

:1996.9.1

:Unicode


## chassis 底盘

Also called case, a metal frame that serves as the structural support for electronic components. Every computer system requires at least one chassis to house the circuit boards and wiring. The chassis also contains slots for expansion boards. If you want to insert more boards than there are slots, you will need an expansion chassis, which provides additional slots.


There are two basic flavors of chassis designs—desktop models and tower models—but there are many variations on these two basic types.

也称为容器,是一个作为电子设备机构支持的金属框架。每一个计算机系统需要至少一个底盘来安装电路板和线路。这个底盘也包含扩展板的插槽。如果想插入更多的板,则需要一个扩展底盘,它将提供额外的插槽。

现在有两种基本的底盘设计:桌面型和塔型——但是在这两种基本底盘基础上有许多的变形。

: Hardware

: 1998. 5. 14

: desktop model computer expansion board slot  
tower model


## CICS 客户信息控制系统

Short for Customer Information Control System, a TP monitor from IBM that was originally developed to provide transaction processing for IBM mainframes. It controls the interaction between applications and users and lets programmers develop screen displays without detailed knowledge of the terminals being used.


CICS is also available on non-mainframe platforms including the RS/6000, AS/400 and OS/2 -based PCs.

客户信息控制系统的缩写,是一个最初开发用来为 IBM 主流平台提供事务处理的 TP 监视器。它控制应用程序和用户的交互并且让程序员在不需要详细了解和使用的终端情况下开发屏幕显示。

在非主流平台上,包括 RS/6000、AS/400 和基于 PC 机的 OS/2,CICS 也是可用的。

:Programming

:1998.1.11

:transaction processing

## CIFS 通用因特网文件系统

Common Internet File System protocol defines a standard for remote file access using millions of computers at a time. With CIFS, users with different platforms and computers can share files without having to install new software.

CIFS runs over TCP/IP, but uses the SMB (Server Message Block) protocol found in Microsoft Windows for file and printer access; therefore, CIFS will allow all applications, not just Web browsers, to open and share files across the Internet.

With CIFS, changes made to a file are simultaneously saved on both the client and server side.

通用因特网文件系统协议为同时使用大量计算机来访问远程文件定义了一个标准。有了 CIFS,不同平台和计算机上的用户就可以在不安装新的软件的情况下共享文件。

CIFS 在 TCP/IP 上运行,但是使用微软公司的 Windows 用于文件和打印存取的 SMB(服务消息块)协议。因此,CIFS 将允许所有的应用,不仅仅是网络浏览器,打开并且共享因特网的文件。

有了 CIFS,对于一个文件的改动就会在客户端和服务器的同时保存。

:Standard

:1999. 8. 9

:Content Vectoring Protocol


## clean boot 清洁启动

Starting (booting) a computer as minimalistically as possible. Typically when you start your computer, it loads many files and programs to customize your environment. A clean boot eliminates these optional features and loads only those files and programs that are absolutely required by the operating system.

A clean boot is a troubleshooting technique that allows you to get the computer up and running so that you can perform diagnostic tests to determine which elements of the normal boot process are causing problems.

尽可能最小化启动一个计算机。一般情况下当启动计算机时,会将许多文件和程序载入来定制环境。一个清洁的启动可以删除可选的特性而只载入操作系统必需的文件和程序。

一个清洁的启动是一项解决故障的技术,它允许用户将计算机启动并运行这样就可以完成故障诊断测试从而判断正常启动过程中哪个部分导致了故障。

 :Operation System

 :1997.10.22

 :Boot


## Clickstream 点击流

A virtual trail that a user leaves behind while surfing the Internet. A clickstream is a record of a user's activity on the Internet, including every Web site and every page of every Web site that the user visits, how long the user was on a page or site, in what order the pages were visited, any newsgroups that the user participates in and even the e-mail addresses of mail that the user sends and receives. Both ISPs and individual Web sites are capable of tracking a user's clickstream.

Clickstream data is becoming increasingly valuable to Internet marketers and advertisers.

当用户在因特网上冲浪时留在后面的一条虚拟的痕迹。一个点击流是一个用户在因特网上的记录,包含每一个用户访问的网站和每一个网站的页面,以及用户在一个页面或者网站上停留的时间,网页访问的次序,用户访问的任何新闻组甚至用户发送和接收的 e-mail 的地址。ISP 和个人网站都可以跟踪一个用户的点击流。

点击流数据对于因特网市场人员和广告商变得越来越有价值。

 :communication

 :2001.4.10

 :Surf World Wide Web

**client/server architecture 客户机/服务器框架**

A network architecture in which each computer or process on the network is either a client or a server. Servers are powerful computers or processes dedicated to managing disk drives (file servers), printers (print servers), or network traffic (network servers). Clients are PCs or workstations on which users run applications. Clients rely on servers for resources, such as files, devices, and even processing power.

Another type of network architecture is known as a peer-to-peer architecture because each node has equivalent responsibilities. Both client/server and peer-to-peer architectures are widely used, and each has unique advantages and disadvantages.

Client-server architectures are sometimes called two-tier architectures.

一种网络结构,其中每一个计算机或者网络上的处理进程或者是一个客户端或者是服务器。服务器是专门用来管理磁盘驱动器(文件服务器)、打印机(打印机服务器)或者网络流量(网络服务器)的强有力的计算机或者处理进程。客户端是用户使用运行应用程序的 PC 机或者工作站。客户端依靠服务器来获取资源,如文件、设备甚至处理能力。

另一种网络结构类型是点对点结构,因为每一个节点具有相同的性能。客户端/服务器结构和点对点结构都被广泛的应用,而且每一个具有独特的优缺点。

客户端/服务器结构有时称为两层结构。

: Computer Science

: 2000. 10. 26

: local-area network

## Cloud 云

Also referred to as a network cloud. In telecommunications, a cloud refers to a public or semi-public space on transmission lines (such as T1 or T3) that exists between the end points of a transmission. Data that is transmitted across a WAN enters the network from one end point using a standard protocol suite such as Frame Relay and then enters the network cloud where it shares space with other data transmissions. The data emerges from the cloud—where it may be encapsulated, translated and transported in myriad ways—in the same format as when it entered the cloud. A network cloud exists because when data is transmitted across a packet-switched network in a packet, no two packets will necessarily follow the same physical path. The unpredictable area that the data enters before it is received is the cloud.

也称为云图。在通讯中，一个云图指一个传输中的端点之间存在的传输线(如 T1 或者 T3)上的公共或者半公共空间。在 WAN 上的数据使用一个标准协议如帧中继从一个端点进入网络，然后进入与其他数据传输共享空间的网络云图。数据从云图中出现——可能使用各种方法将数据压缩、转换和传输——与数据进入云图时的格式一样。因为数据在一个包中经过一个包交换网络进行传输，两个包是不可能走同一条物理路径的，所以云图是有必要存在的。数据在被接收之前所进入的未测区域就是云图。

:network

1:2001.5.4

:packet switching

**clustering 群集**

Connecting two or more computers together in such a way that they behave like a single computer. Clustering is used for parallel processing, for load balancing and for fault tolerance.

Clustering is a popular strategy for implementing parallel processing applications because it enables companies to leverage the investment already made in PCs and workstations. In addition, it's relatively easy to add new CPUs simply by adding a new PC to the network.

Microsoft's clustering solution for Windows NT systems is called MSCS.


连接两个或者更多个计算机在一起以使其看起来像一个计算机一样。群集用于并行处理、负载平衡和容错。

群集对于实现并行处理应用是一个流行的策略,因为它可以使公司将他们早已在 PC 机和工作站上的投资起到杠杆作用。此外,它可以相对容易地通过向网络加入一个新的计算机来添加新的 CPU。

微软公司的 Windows NT 系统的集群解决方案称为 MSCS。

 : Network


 : 1998. 4. 9

 : fault tolerance MSCS parallel processing Wolfpack


## CMOS 互补金属氧化物半导体

Abbreviation of complementary metal oxide semiconductor. Pronounced see-moss, CMOS is a widely used type of semiconductor. CMOS semiconductors use both NMOS (negative polarity) and PMOS (positive polarity) circuits. Since only one of the circuit types is on at any given time, CMOS chips require less power than chips using just one type of transistor. This makes them particularly attractive for use in battery-powered devices, such as portable computers. Personal computers also contain a small amount of battery-powered CMOS memory to hold the date, time, and system setup parameters.

互补金属氧化物半导体的缩写。CMOS 是一个广泛使用的半导体。CMOS 使用 N-沟道金属氧化物半导体 NMOS(阴极)和 P-沟道金属氧化物半导体 PMOS(阳极)电路。由于在一定的时间内只有一种电路类型在使用,所以 CMOS 芯片比只使用一种晶体管的芯片耗费的电量低。这对于使用电池供电的设备如便携笔记本来说很具有吸引力。个人计算机也有少量的电池供电的 CMOS 内存来维持日期、时间和系统配置参数。

: Hardware


: 2001. 11. 2

: portable


## CNR 通讯和网络 Riser 插件

Acronym for Communication and Networking Riser. Developed by Intel, CNR is a riser card for ATX family motherboards that was developed in order to reduce the cost to OEMs of implementing LAN, home networking, audio and modem subsystems widely used in modern connected PCs. The CNR Specification is an open industry specification that defines a scalable motherboard riser card and interface that support the audio, modem, and network interfaces of core logic chipsets. The specification is supported by OEMs, Microsoft and silicon suppliers. The specification defines the CNR architecture for both standard and low-profile risers and includes electrical, mechanical, and thermal requirements of the riser interface. In addition to supporting current technologies such as Ethernet and analog modems, the specification can be expanded for developing technologies, such as DSL.

通讯和网络 Riser 插件的缩写。CNR 是由 Intel 开发的,是一个 ATX 家族主板的一个 riser 卡,用来减小用 OEM 方式实施 LAN、家庭网络、音频和广泛使用在 PC 机上的调制解调器子系统等所花的费用。CNR 规范是一个定义了可伸缩主板 riser 卡和支持声音调制解调器的接口以及核心逻辑芯片组的网络接口的开放工业规范。这个规范被 OEM、微软和芯片提供商所支持。它定义了标准和简单轮廓 riser 的 CNR 构架,并包括 riser 接口所需的电子、机械和热量的要求。除了支持现在的技术如以太网和模拟调制解调器,这个规范可以扩展用来开发新的技术如 DSL。

: Hardware

: 2001.1.4

: add-on AMR backplane BIOS cache coherence  
expansion board heat sink

## codec 压缩器/解压器

(1) Short for compressor/decompressor, a codec is any technology for compressing and decompressing data. Codecs can be implemented in software, hardware, or a combination of both. Some popular codecs for computer video include MPEG, Indeo and Cinepak.


(2) In telecommunications, (short for coder/decoder) a device that encodes or decodes a signal. For example, telephone companies use codecs to convert binary signals transmitted on their digital networks to analog signals converted on their analog networks.

(3) The translation of a binary value into a voltage that can be transmitted over a wire.

(1) 压缩器/解压器 (compressor/decompressor) 的缩写, codec 是指任何压缩和解压数据的技术。Codecs 可以使用软件、硬件或者两者相结合的方法实现。一些流行的计算机视频 codecs 包含 MPEG、Indeo 和 Cinepak。

(2) 在电讯中 (coder/decoder 的缩写) 是指对于信号进行编码和解码的装置。例如, 电话公司使用 codecs 将在数字网络上传送的二进位信号转换为在模拟网络上传送的模拟信号。

(3) 将一个二进位值转换成能够在线路上传递的电压。

 : Communication

 : 1999. 6. 3

## ColdFusion

A product created by Allaire Corporation of Cambridge, Mass. that includes a server and a development toolset designed to integrate databases and Web pages. With Cold Fusion, a user could enter a zip code on a Web page, and the server would query a database for information on the nearest movie theaters and present the results in HTML form. Cold Fusion Web pages include tags written in Cold Fusion Markup Language (CFML) that simplify integration with databases and avoid the use of more complex languages like C++ to create translating programs.

是一个由 Allaire 公司制造的产品,包括一个服务器和一个设计用来集成数据库和网页的开发工具包。使用 ColdFusion,用户可以在一个网页上键入一个邮政编码,然后服务器将查询数据库中最近的电影院信息然后将结果以 HTML 格式显示出来。ColdFusion 网页包括使用 ColdFusion 标记语言(CFML)编写的标签,这种语言简化了与数据库的结合并且避免了使用更复杂的语言如 C++来创建翻译程序。

:Software

1:1998. 9. 23

:network-attached storage server farm

### collapsed backbone 折叠主干

Network backbone that consists of the backplane of a single switch, rather than multiple switches connected together.

From the ports of the single switch, cables connect to the hubs of individual LAN segments.

Collapsed backbones are typically used for mid-sized LAN networks. The architecture is easier to manage and easier to keep secure, not to mention less costly.


包含一个单一交换机而非连接在一起的多个交换机底板的网络主干。

从一个交换机的端口,电缆连接着各个 LAN 网段的集线器。

折叠主干很普遍地应用于中型的 LAN 网络。它的构架很容易管理而且较容易维持安全,更不要说它便宜的造价。

:Network

:2000.3.3

:backplane HPNA local-area network topology

## co-location 共同场所

A server, usually a Web server, that is located at a dedicated facility designed with resources which include a secured cage or cabinet, regulated power, dedicated internet connection, security and support.

These co-location facilities offer the customer a secure place to physically house their hardware and equipment as opposed to locating it in their offices or warehouse where the potential for fire, theft or vandalism is much greater.

Most co-location facilities offer high-security, including cameras, fire detection and extinguishing devices, multiple connection feeds, filtered power, backup power generators and other items to ensure high-availability which is mandatory for all Web-based, virtual businesses.

The term co-location is also known as colo.

一个服务器,通常是一个 Web 服务器,位于一个专门的设施中,在一个安全的机箱中,拥有规定的电力,专门的因特网连接和安全支持。


这些共同场所设施提供给用户一个用来安装硬件和装备的安全地方,而不是将他们安装在火灾、盗窃或者恶意破坏的可能性更大的办公室或者库房中。

大多数共同场所实施提供较高的安全性,包括监视相机、火灾探测和消防设施、多重连接供给、过滤电力、后备电力发电机和其他为所有的基于网络和虚拟的商务保证高可用性的设施。

共同设施也称为 colo。

:Online Service

:2000.4.19

:Web server World Wide Web

## color depth 颜色深度

The number of distinct colors that can be represented by a piece of hardware or software. Color depth is sometimes referred to as bit depth because it is directly related to the number of bits used for each pixel. A 24-bit video adapter, for example, has a color depth of 2 to the 24th power (about 16.7 million) colors. One would say that its color depth is 24 bits.

可以被一个硬件或者软件表现的独立颜色的数目。颜色深度有时指位深度,因为颜色深度与每个像素使用的位的数目有直接的关系。例如,一个 24 位视频适配器具有 2 到 24 次幂(大约 16.7 百万)颜色的深度。可以说它的颜色深度为 24 位。

:Graphics

1:1998.5.14

**comma-delimited 逗号分界**

A data format in which each piece of data is separated by a comma. This is a popular format for transferring data from one application to another, because most database systems are able to import and export comma-delimited data.

一种数据格式,其中数据的每一片段使用一个逗号分开。这是一个用来从一个应用程序传递数据到另一个应用程序的流行的格式,因为大多数数据库系统可以输入输出逗号分界的数据。


:Data

:1998.5.14

## command buffer 命令缓冲器

A temporary storage area where commands are kept. (In DOS environments, the command buffer is called a template.) DOS and UNIX support several operations for manipulating the command buffer. For example, you can use the F3 function key in DOS to copy the template's contents to the display screen. This is useful for repeating a command or for correcting a mistake.

一个临时的保存命令的存储区域(在 DOS 环境下命令缓冲器称为模板)。DOS 和 UNIX 支持几种用来操纵命令缓冲器的操作。例如,可以使用 F3 功能键在 DOS 中复制模板上的内容到显示器。这对于重复一个命令或者纠正一个错误是有用的。

:Operation System

:1998.5.14

## configuration 配置

The way a system is set up, or the assortment of components that make up the system. Configuration can refer to either hardware or software, or the combination of both. For instance, a typical configuration for a PC consists of 32MB (megabytes) main memory, a floppy drive, a hard disk, a modem, a CD-ROM drive, a VGA monitor, and the Windows operating system.

Many software products require that the computer have a certain minimum configuration. For example, the software might require a graphics display monitor and a video adapter, a particular microprocessor, and a minimum amount of main memory.


When you install a new device or program, you sometimes need to configure it, which means to set various switches and jumpers (for hardware) and to define values of parameters (for software). For example, the device or program may need to know what type of video adapter you have and what type of printer is connected to the computer. Thanks to new technologies, such as Plug-and-Play, much of this configuration is performed automatically.

一个系统建立起来的方法或者组成系统部件的分类。配置可以指硬件或者软件,或者两者的结合。例如,一个典型的 PC 机的配置包括 32 MB 内存、一个软盘驱动器、一个硬盘、一个调制解调器、一个 CD-ROM 驱动器、一个 VGA 监视器和 Windows 操作系统。


许多软件产品需要计算机由一个特定的最小配置。例如,软件可能需要一个图形显示监视器和一个视频适配器、一个特定的微处理器和一个最小的内存。

当安装一个新的设备或者程序时,有时需要进行配置,这就意味着设置不同的开关和跳线(对于硬件)和定一个参数的值(对于软件)。例如,设备或者程序可能需要知道视频适配器的型号和打印机的型号。感谢新的技术,如即插

即用技术,许多这样的配置可以自动完成。

:Hardware


:1998.5.14

:configuration file jumper


**configuration file 配置文件**

A file that contains configuration information for a particular program. When the program is executed, it consults the configuration file to see what parameters are in effect. The configuration file for DOS is called CONFIG. SYS. Older versions of the Windows operating system stores configuration information in files with a .INI extension. The two most important configuration files are WIN. INI and SYS. INI. Starting with Windows 95, most configuration information is stored in MIF files and in the Registry.

包含一个特定程序配置信息的文件。当程序执行的时候,它将访问配置文件来查看参数的配置。DOS 的配置文件称为 CONFIG. SYS。旧版本的 Windows 操作系统在以 .INI 扩展名结尾的文件中存储配置信息。两个最重要的配置文件是 WIN. INI 和 SYS. INI。从 Windows 95 开始,大多数配置信息存储在 MIF 文件和注册表中。

 :Operation System

 :1998. 5. 14

 :Configuration


## Content Vectoring Protocol 内容矢量协议

First developed by Check Point Software in 1996 as a protocol specification for integration with anti-virus servers. Check Point first utilized its Content Vectoring Protocol (CVP) in its FireWall-1 Version 3.0 and then developed CVP into an API specification.

The CVP API defines an asynchronous interface to server applications that perform file content validation. An important feature of this is scanning files for viruses or harmful applets as they pass through firewalls. The CVP defines a client/server relationship that enables different firewall systems to share a common content validation server. In essence, the one content validation server collects from multiple firewalls the incoming files that have been flagged for inspection.

由 Check Point 软件公司 1996 年开发作为一个与反病毒服务器集成的协议规范。Check Point 首先在它的防火墙 FireWall-1 3.0 中使用它的内容矢量协议(CVP)然后将 CVP 开发成一个 API 规范。

CVP API 定义了一个执行文件内容验证的一个针对服务器应用的异步接口。它的一个重要的特点是在文件通过防火墙时扫描文件的病毒或者有害的 applet。CVP 定义了一个客户端/服务器关系,它允许不同的防火墙系统来分享一个通用的内容验证服务器。本质上,一个内容验证服务器从多个防火墙中收集已经被标记进行审查的文件。

:communication

:2001.2.15

:PPPoE

**continuous tone 连续色调**

Refers to images that have a virtually unlimited range of color or shades of grays. Photographs and television images, for example, are continuous-tone images. In contrast, computer hardware and software is digital, which means that they can represent only a limited number of colors and gray levels. Converting a black-and-white continuous-tone image into a computer image is known as gray scaling.


Continuous-tone printers can print each dot at many different shades of lightness and darkness. Though this isn't true continuous-tone because the level of shades is limited, there are enough shades (256 or more) so that the difference between one shade and the next is imperceptible to the human eye.

指一个图像具有一个虚拟的无限颜色和灰度范围。例如照片和电视图像是连续色调图像的。相反,计算机硬件和软件是数字的,这就意味着它们仅可以表现有限的颜色和灰度级别。将一个黑白连续色调图像转换成一个计算机的图像称为灰度缩放。

连续色调打印机可以在不同的亮度和黑度阴影下打印每一个点。虽然由于阴影层的限制这不可能是真正的连续色调,但是已经有足够的阴影(256 或者更多)这样一个阴影和另一个之间的差异对于肉眼来说是觉察不到的。

:Graphics


:1998.5.14

:gray scaling


**cooperative multitasking 合作多任务**

A type of multitasking in which the process currently controlling the CPU must offer control to other processes. It is called cooperative because all programs must cooperate for it to work. If one program does not cooperate, it can hog the CPU. In contrast, preemptive multitasking forces applications to share the CPU whether they want to or not. Both the Macintosh and Windows 3. x operating systems are based on cooperative multitasking, whereas UNIX, Windows 95, Windows NT, and OS/2 are based on preemptive multitasking.

一种多任务类型,其中当前控制 CPU 的进程必须给其他进程提供控制。它被称为合作因为所有的程序必需共同合作来完成工作。如果一个程序没有进行合作,则它就会独占 CPU。相反,抢先的多任务迫使应用共享 CPU,不管他们是不是愿意。Macintosh 和 Windows 3. x 操作系统都是基于合作多任务的,而 UNIX、Windows 95、Windows NT 和 OS/2 都是基于抢先多任务的。

:Operation System

:1997. 3. 10

:multitasking

## CORBA 通用对象请求代理程序体系结构

Short for Common Object Request Broker Architecture, an architecture that enables pieces of programs, called objects, to communicate with one another regardless of what programming language they were written in or what operating system they're running on. CORBA was developed by an industry consortium known as the Object Management Group (OMG).

There are several implementations of CORBA, the most widely used being IBM's SOM and DSOM architectures. CORBA has also been embraced by Netscape as part of its Netscape ONE (Open Network Environment) platform. Two competing models are Microsoft's COM and DCOM and Sun Microsystems' RMI.

通用对象请求代理程序体系结构的缩写,这是一个使被称为对象的程序片断与其他对象通讯的结构,而不论所使用的程序语言和所运行的操作系统。CORBA 由一个名为对象管理组织(OMG)的工业社团所开发。

现在有多种实现 CORBA 的方法,其中最为广泛使用的是 IBM 的 SOM 和 DSOM 结构。CORBA 也已经被 Netscape 购买为它的 Netscape1(开放网络环境)平台的一部分。两个竞争中的模型是微软的 COM 和 DCOM 和 Sun 微系统公司的 RMI。

:Software

:1996.12.5

:DCOM IIOP ORB RMI SOM

## CP/M 微控制器控制程序

Abbreviation of Control Program for Microprocessors. Created by Digital Research Corporation, CP/M was one of the first operating systems for personal computers. However, Digital Research Corporation made a critical strategic error by not agreeing to produce an operating system for the first IBM PC. According to the folklore, the president of Digital Research was flying his airplane when IBM came to call. IBM marched out and never looked back.

Instead, IBM turned to Microsoft Corporation, which developed MS-DOS. By the mid 1980s, MS-DOS had become the standard operating system for IBM-compatible personal computers. CP/M is now obsolete.

微处理器控制程序的缩写。CP/M 是由数字研究公司创建,是个人计算机操作系统中最早的一个。然而数字研究公司由于不同意为第一个 IBM 的 PC 机生产一个操作系统而犯了一个严重的战略错误。根据民间的说法,数字研究公司的总裁在 IBM 来电话时正在飞机上。IBM 则从此没有理会。

相反,IBM 转向开发了 DOS 的微软公司。到 20 世纪 80 年代,MS-DOS 已经变成 IBM 兼容机标准的操作系统。CP/M 现在已经过时了。


:Operation System

:1998.5.14

## CRM 客户关系管理

Acronym for customer relationship management. CRM entails all aspects of interaction a company has with its customer, whether it be sales or service related. Computerization has changed the way companies are approaching their CRM strategies because it has also changed consumer buying behavior. With each new advance in technology, especially the proliferation of self-service channels like the Web and WAP phones, more of the relationship is being managed electronically. Organizations are therefore looking for ways to personalize online experiences (a process also referred to as mass customization) through tools such as help-desk software, e-mail organizers and Web development apps.

客户关系管理的缩写。CRM 使一个公司的各个方面与它的客户联系起来。计算机的使用已经改变了公司处理他们的 CRM 战略的方法,因为计算机的使用也改变了用户购买的行为。随着新技术的出现,特别是自服务增值通道如网络和 WAP 手机的出现,更多的关系是通过电子处理的。因此现在各个机构已经看准了通过如桌面帮助软件、e-mail 组织者和网络开发程序来进行个性化在线体验(也指大量的用户化)。

: WWW

: 2000. 11. 30

: EAI EBPP IVR

## crosstalk 串音

A disturbance, caused by electromagnetic interference, along a circuit or a cable pair. A telecommunication signal disrupts a signal in an adjacent circuit and can cause the signals to become confused and cross over each other.

在一个电路或者电缆中由电磁干涉产生的干扰。一个通信信号可以干扰临近电路的信号因此将导致这个信号变得模糊并且互相串线。

 :network

 :2001.3.29

 :Attenuation attenuation crosstalk ratio


## CSS 层叠样式单


Short for Cascading Style Sheets, a new feature being added to HTML that gives both Web site developers and users more control over how pages are displayed. With CSS, designers and users can create style sheets that define how different elements, such as headers and links, appear. These style sheets can then be applied to any Web page.

The term cascading derives from the fact that multiple style sheets can be applied to the same Web page. CSS was developed by the W3C. The specification is still evolving and is not fully supported by any current Web browsers.

层叠样式单的缩写,是一个加到 HTML 的一个新特性,它给网站开发者和用户对于页面如何显示以更多的控制。使用 CSS,设计者和用户可以创建多种样式单,以定义不同的元素,如题头和链接等的显示方式。这些样式单可以应用到任何网页上。

术语层叠起源于多个样式单可以应用到相同的网页的事实。CSS 是由 W3C 开发的。其规范仍在发展,但是没有被现在所有的网络浏览器所支持。

: WWW

: 2000. 11. 30

**customer support 客户支持**

Service that computer and software manufacturers, and third-party service companies, offer to customers. For personal computer products, the following are common customer-support options:

**mail-in service:** The manufacturer will repair your equipment if you mail it in. Typical turnaround time is about four days. In some service plans, the manufacturer charges you for shipping expenses.

**carry-in service:** The manufacturer will repair your equipment, but you must deliver it to a local service site. This is sometimes called depot service.

**on-site contract:** For a monthly or annual fee, a repair person will come to your site to fix problems. (The fee is included in the purchase price of some machines.) Most on-site contracts guarantee that the service will be rendered within a fixed number of hours from when you report a problem.

**hot lines:** Many software manufacturers provide a phone number that you can call for advice and troubleshooting. Often the number is toll-free. The quality of this type of support varies considerably from one company to another. Some hot lines are so good that they enable you to solve most problems yourself. Others are so bad that you are unable even to get through.

**bulletin board system :** Some companies maintain electronic bulletin boards (or forums within online services) staffed by service engineers. If you have a modem, you can report a problem to the bulletin board and a technician will respond. This can be convenient because bulletin boards are usually open 24 hours a day. Also, bulletin boards enable you to download software updates that correct known bugs.

Customer support is also called technical support.

是计算机和软件制造商、第三方服务公司提供给顾客的服务。对于个人计算机产品,以下是通用的客户支持选项:

**邮入服务:**如果用户邮入信件,制造商将会修复用户的设备。一般的运转时间大概为 4 天。在一些服务计划中,制造商要收取用户的运费。

**运入服务:**制造商将修复设备,但是用户必须将设备运送到当地的一个服务点。这有时称为网点服务。

**到点合同:**对于一个月付或者年付的费用,维修人员将到用户的地点处理问题。(费用包括购买某些机器的费用)大多数到点合同都承诺服务从报告问题开始将在一个固定的小时内完成。


**热线:**许多的软件制造商提供一个可以用来咨询和报告故障的电话号码。一般的这个电话是免费的。这种支持类型的质量一家公司同另一家公司很不同。一些热线可以让用户自己解决大多数问题。而其他的一些则根本什么都解决不了。

**电子公告牌系统:**一些公司维持着由服务工程师负责的电子公告牌(或者一个在线服务内的论坛)。如果用户有一个问题,它可以向公告牌报告,然后技术人员可以回答。这就非常方便,因为公告牌通常全天 24 小时开放。而且公告牌可以是用户下载升级纠正已知 bug 的软件。

用户支持也称为技术支持。

:Software

:1998.5.14

:bulletin board system


**cyber**

A prefix used in a growing number of terms to describe new things that are being made possible by the spread of computers. Cyberphobia, for example, is an irrational fear of computers. Cyberpunk is a genre of science fiction that draws heavily on computer science ideas. Cyberspace is the non-physical terrain created by computer systems. Anything related to the Internet also falls under the cyber category.

一个前缀,用来描述由于计算机的普及而产生的关于新事物的大量术语。例如,计算机恐惧症是一个对于计算机失去理智的害怕。计算机狂想症是一个过分注重计算机思想的幻想。电脑空间是一个由计算机系统创建的非物理区域。任何与因特网有关系的东西都可以在 cyber 分类下。

:Online Service

:1998.5.14

:Cyberspace

**cyberspace 电脑空间**

A metaphor for describing the non-physical terrain created by computer systems. Online systems, for example, create a cyberspace within which people can communicate with one another (via e-mail), do research, or simply window shop. Like physical space, cyberspace contains objects (files, mail messages, graphics, etc.) and different modes of transportation and delivery. Unlike real space, though, exploring cyberspace does not require any physical movement other than pressing keys on a keyboard or moving a mouse.

Some programs, particularly computer games, are designed to create a special cyberspace, one that resembles physical reality in some ways but defies it in others. In its extreme form, called virtual reality, users are presented with visual, auditory, and even tactile feedback that makes cyberspace feel real.

The term was coined by author William Gibson in his sci-fi novel Neuromancer (1984).


一个用来描述由计算机系统创建的非物理区域的比喻。例如,在线系统创建了一个人们可以互相交流(通过 e-mail)、做研究或者简单的购物的电脑空间。如同物理空间一样,电脑空间包含对象(文件、电子邮件消息、图形等等)和不同的输送和传递模式。虽然与真实空间不同,但是探究电脑空间不需要任何的物理行动而只是按键盘或者移动鼠标。

一些程序,特别是计算机游戏,只专门为创建一个特殊的电脑空间而设计的,它在某种程度上就如同真实的物理世界一样。在它的极端情况下,称为虚拟现实,用户可以使用视觉、声音甚至可以使电脑空间感觉到真实的触觉反馈。

这个术语是由科幻小说 Neuromancer (1984)的作者 William Gibson 创造的。

:Online Service

:1998. 8. 25

:information highway MUD VRML

## DAO 数据存取对象

Short for data access objects, objects that work with the Jet database engine. DAO objects are generally created with Visual Basic. Once created, a DAO object can be accessed and manipulated by any application that can use the Jet engine. This includes all of the applications in Microsoft Office, such as MS-Word, MS-Access, and Excel.

数据存取对象的缩写,是与 Jet 数据库引擎一起工作的对象。DAO 对象通常由 Visual Basic 创建。一旦创建,则一个 DAO 对象就可以被使用 Jet 引擎的任何应用所存取和操作。这包括所有的微软公司的 Office 应用如 Word、Access 和 Excel。

:Software

:1997.9.5

:ADO


**dark fiber 黑色光纤**


Dark fiber refers to unused fiber-optic cable. Often times companies lay more lines than what's needed in order to curb costs of having to do it again and again. The dark strands can be leased to individuals or other companies who want to establish optical connections among their own locations.

In this case, the fiber is neither controlled by nor connected to the phone company. Instead, the company or individual provides the necessary components to make it functional.

黑色光纤是指未使用的光纤电缆。通常大多数公司都铺设比所需要的要多的光缆以抑制以后反复铺设的费用。黑色光纤可以租借给个人或者其他想在自己的位置上建立光连接的公司。

在这种情况下,光纤既不被控制也不会被连接到电话公司。相反,公司或者个人会提供必要的部件来使之起作用。

:Communication

:1999.12.20

**data independence 数据独立**

The separation of data from the programs that use the data. Nearly all modern applications are based on the principle of data independence. In fact, the whole concept of a database management system (DBMS) supports the notion of data independence since it represents a system for managing data separately from the programs that use the data. In contrast, it is possible to write applications in which the data being processed is actually represented in the program's source code. This data-dependent approach is very inflexible because it makes it difficult to modify the data and it also makes the data inaccessible to other programs.

数据与使用数据的程序的分离。几乎所有现在的应用程序都是基于数据独立原则的。实际上,数据库管理系统的整个概念都是支持数据独立概念,因为它代表了一个与使用数据的程序分开的数据管理系统。相反,可以写一个处理的数据实际上出现在程序源代码中的应用。这种数据依赖的方法是非常不灵活的,因为它使得的修改数据非常困难,而且它也使数据与其他程序不可存取。

:Data

:1998.5.19

**data integrity 数据完整性**

Refers to the validity of data. Data integrity can be compromised in a number of ways:

Human errors when data is entered

Errors that occur when data is transmitted from one computer to another

Software bugs or viruses

Hardware malfunctions, such as disk crashes

Natural disasters, such as fires and floods

There are many ways to minimize these threats to data integrity. These include:

Backing up data regularly

Controlling access to data via security mechanisms

Designing user interfaces that prevent the input of invalid data

Using error detection and correction software when transmitting data

指数据的有效性。数据完整性可以由于以下几种方式受到威胁：

当键入数据时人为的错误。

当数据从一个计算机传送到另一个计算机时发生的错误。

硬件故障，如磁盘损坏。

自然灾害，如大火或者洪水。

有许多方法可以减小对于数据完整性的威胁，这包括：经常备份数据。

通过安全机制控制对数据的访问。

设计用户界面防止数据输入时的错误。

在传送数据时使用错误检查和纠正软件。

:Data

:1998.5.14

**data processing 数据处理**

(1) Refers to a class of programs that organize and manipulate data, usually large amounts of numeric data. Accounting programs are the prototypical examples of data processing applications. In contrast, word processors, which manipulate text rather than numbers, are not usually referred to as data processing applications.

(2) Same as Information Technology (IT), refers to all computing functions within an enterprise.

(1) 指一类组织和操纵数据的程序,通常是大量的数据。会计程序是数据处理应用程序的典型例子。相反,处理文本而不是数字的文字处理软件通常不是指数据处理应用程序。

(2) 与信息技术(IT)相同,指在一个企业内部所有的计算功能。

:Data

:1998.5.14

**data warehouse 数据仓库**

A collection of data designed to support management decision making. Data warehouses contain a wide variety of data that present a coherent picture of business conditions at a single point in time.

Development of a data warehouse includes development of systems to extract data from operating systems plus installation of a warehouse database system that provides managers flexible access to the data.

The term data warehousing generally refers to combine many different databases across an entire enterprise.

设计用来支持管理生成决策的数据的集合。数据仓库包含各种各样的数据,它展现了在一个单独的点上的商业条件下的内在联系。

开发一个数据仓库包含系统的开发,以此从操作系统得到数据,并且安装一个提供灵活存取数据的管理器的数据仓库数据库系统。

术语数据仓库通常指将许多不同类型的数据库在整个企业范围内结合起来。

:Software


:1996.12.17

:meta data


## DCC 直接电缆连接

Short for Direct Cable Connection, a Windows 95 feature that enables two computers to be connected via a serial or parallel cable. Once connected, the two computers function as if they were on a local-area network (LAN). Either computer can access files on the other computer. But because DCC does not require network interface cards (NICs), it is less expensive and simpler. The limitations are that it can connect only two PCs, and the data transfer rate is slower than with a true LAN.

直接电缆连接(Direct Cable Connection)的缩写,这是一个 Windows 95 的特性,可以使两台计算机通过一条串口线或者并口线建立连接。连接一旦建立,两台计算机就像处于一个局域网(LAN)上一样起作用。每一台计算机都能够访问另一台计算机上的文件。因为 DCC 不需要网络接口卡(NICs),这种方法相对较便宜、简单。但是其限制为它只能够连接两台计算机,传送数据的速度比起真实的 LAN 要慢。

:Communication

:1998.5.14

:local-area network

## DDR 按需拨号路由

Short for Dial-on-Demand Routing. DDR is a routing technique developed by Cisco that allows a user to utilize existing telephone lines, or public circuit-switched networks, to form a WAN instead of lines that are dedicated specifically to the WAN. DDR is typically implemented by users that do not need permanent, continuous links between sites on the WAN because the volume of traffic over the WAN is low and the transmissions are periodic as opposed to continuous. The connection only becomes active when data is sent to the remote site. When no data has been sent over the link for a specified amount of time, the link is disconnected.

Using DDR, a connection between sites is only established when a specific type of traffic initiates the call or when you a backup link is needed for redundancy or load sharing.

DDR is used in order to save on the costs of a dedicated WAN line for organizations that do not need permanent continuous connection and as a back-up by organizations that use the dedicated line for critical applications.


按需拨号路由的缩写。DDR 是一项由 Cisco 公司开发的路由技术,它允许用户利用现存的电话线或者公用电话交换网络组建一个 WAN 而不使用 WAN 专用的线路。DDR 特别适用于不需要在 WAN 网站进行长久连接的用户,因为 WAN 上的流量很低而且对于连续性的连接传输是阶段性的。当数据发送到远端站点时连接才有效。当在一定的时间内没有数据传输时,连接就会中断。

使用 DDR,仅当一定类型的流量初始化呼叫或者用户的备份连接需要进行冗余或者负载共享时才会建立连接。

DDR 对于那些不需要永久连续连接的组织是用来节省专用 WAN 线路的费用的,而对于关键应用程序使用专门线路的组织是用来作为备份的。

:network

:2001.4.11

: Enhanced Interior Gateway Routing Protocol  
Interior Gateway Routing Protocol VRRP

**de facto standard 事实标准**

A format, language, or protocol that has become a standard not because it has been approved by a standards organization but because it is widely used and recognized by the industry as being standard. Some examples of de facto standards include:

Hayes command set for controlling modems

Kermit Communications Protocol

Xmodem Communications Protocol

Hewlett-Packard Printer Control Language (PCL) for laser printers.

PostScript page description language for laser printers

一个已经成为一个标准的格式、语言或者协议,不是因为它已经被标准组织所认可而是因为它已经被工业广泛使用并认可为一种标准。一个事实标准的例子包括:

Hayes 控制调制解调器命令集:

Kermit 通讯协议

Xmodem 通讯协议

惠普激光打印机的打印机控制语言(PCL)

PostScript 页激光打印机描述语言

:Standard


:1997.4.17

:standard

## demultiplex 多路分解

To separate two or more channels previously multiplexed. Demultiplexing is the reverse of multiplexing.

把分开以前是多路的分成两个或者更多的通道。多路分解是多路技术的对立面。

 :communication

 :2001.2.27

 :DMA

## device manager 设备管理

Device Manager is an OS feature that lets you view and change the properties of all devices attached to your computer.

To get to the device manager in Windows, right click on the My computer icon, choose properties, then click on the device manager tab. From there you can select a variety of management options.

The device manager is found in both Windows (95 and higher) and Macintosh PC platforms. Windows2000 contains an improved device manager that detects plug-and-play hardware and displays a large list of supported hardware.

设备管理器是一个 OS 的特性,它允许查看和改变所有连接到计算机上的设备的属性。

为了在 Windows 中得到设备管理器,右击“我的计算机”图标选择“属性”,然后点击“设备管理器”标签。这样就可以选择各种管理选项了。

设备管理器是在 Windows(95 及更高版本)和 Macintosh 平台建立的。Windows 2000 包含一个改进的设备管理器,它侦测即插即用硬件并且显示一系列所支持的硬件。

:Hardware

:1999.10.21

## dial-up access 拨号访问

Refers to connecting a device to a network via a modem and a public telephone network. Dial-up access is really just like a phone connection, except that the parties at the two ends are computer devices rather than people. Because dial-up access uses normal telephone lines, the quality of the connection is not always good and data rates are limited. In the past, the maximum data rate with dial-up access was 56 Kb/s (56,000 bits per second), but new technologies such as ISDN are providing faster rates.

An alternative way to connect two computers is through a leased line, which is a permanent connection between two devices. Leased lines provide faster throughput and better quality connections, but they are also more expensive.

指通过一个调制解调器和一个公用电话线将一个设备连接到网络。拨号访问很像电话连接,除了两端的双方都是计算机设备而不是人。因为拨号访问使用通常的电话线,连接的质量一般不是太好,而且数据传输速率受到限制。过去,最大的拨号访问数据传输速率是 56 Kb/s(56,000bits per second),但是诸如 ISDN 的新技术可以提供更快的速率。

连接两台计算机可选的方法是通过一条租用线,它是两个设备之间永久的连接,但是会昂贵些。

:Network


:1999.5.11

:ISP L2TP leased line

## DASC 数字存取和跨连接系统

A digital switching device in telecommunications for routing T1 lines. The DACS can cross-connect any T1 line in the system with any other T1 line also in the system. DACS can also connect any DS-0 channel or group of channels on a T1 line to any DS-0 time slots of any other line.

在路由通信中的一个数字交换设备。DACS 可以将系统中的任何 T1 线跨连接另一个也在系统中的 T1 线。DACS 也可以将一个 T1 线上的任何 DS-0 通道或者通道组连接到任何其他线上的任何 DS-0 时间插槽。

 :communication

 :2001. 3. 14

 :BPDU

## digital wallet 电子钱包

Encryption software that works like a physical wallet during electronic commerce transactions. A wallet can hold a user's payment information, a digital certificate to identify the user, and shipping information to speed transactions. The consumer benefits because his or her information is encrypted against piracy and because some wallets will automatically input shipping information at the merchant's site and will give the consumer the option of paying by digital cash or check. Merchants benefit by receiving protection against fraud.

Most wallets reside on the user's PC, but recent versions, called "thin" wallets, are placed on the credit card issuer's server. Netscape and Microsoft now support wallet technology on their browsers.

在电子商务处理过程中像一个真实的钱包一样的加密软件。一个钱包可以装入用户的支付信息,数字证书以识别用户和输送信息以加快交易处理。消费者可以从中受益因为他或者她的信息将被加密而且因为一些钱包将在商业网点自动输入输送信息,它将给用户支付数字现金或者支票的选择。商家也会通过接受防止欺诈的保护而从中受益。

大多数钱包驻留在用户的 PC 上,但是最近的版本,称为“瘦”钱包将置于信用卡发行者的服务器上。Netscape 和微软公司都在他们的浏览器上支持钱包技术。

:Software

:1998. 9. 10

:SASL SSL

**digital watermark 数字水印**

A pattern of bits inserted into a digital image, audio or video file that identifies the file's copyright information (author, rights, etc.). The name comes from the faintly visible watermarks imprinted on stationery that identify the manufacturer of the stationery. The purpose of digital watermarks is to provide copyright protection for intellectual property that's in digital format.

Unlike printed watermarks, which are intended to be somewhat visible, digital watermarks are designed to be completely invisible, or in the case of audio clips, inaudible. Moreover, the actual bits representing the watermark must be scattered throughout the file in such a way that they cannot be identified and manipulated. And finally, the digital watermark must be robust enough so that it can withstand normal changes to the file, such as reductions from lossy compression algorithms.

Satisfying all these requirements is no easy feat, but there are a number of companies offering competing technologies. All of them work by making the watermark appear as noise - that is, random data that exists in most digital files anyway. To view a watermark, you need a special program that knows how to extract the watermark data.


插入到一个标识文件版权信息(作者、权利等)的数字图像、声音或者视频文件中的一种数字位样式。这个名字来自打印在文具上用来标识制造商的可以大概看到的水印。数字水印的目的是为以数字形式表现的知识产权提供版权保护。


不像打印的若隐若现的水印,数字水印被设计为完全不可见,或者如果是关于声音的,设计为不可听。而且实际体现声音的数字位必须在整个文件中分散,这样它们就不可能被识别或者操作。最后,数字水印必须足够稳定,这样它就可以经受住文件的变化,如由于有损耗压缩算法导致

的缩减。

满足所有这些需求不是件容易的事,但是有许多的公司提出了多种技术。所有这些工作通过将水印显示为噪音——也就是保存在大多数数字文件中的随机数据。要查看一个水印,需要一个知道如何将水印信息提取出来的特殊的程序。

:Multimedia

:1998.1.25

:software piracy


**digitize 数字化**

To translate into a digital form. For example, optical scanners digitize images by translating them into bit maps. It is also possible to digitize sound, video, and any type of movement. In all these cases, digitization is performed by sampling at discrete intervals. To digitize sound, for example, a device measures a sound wave's amplitude many times per second. These numeric values can then be recorded digitally.

转换成一个数字形式。例如,光学扫描仪通过将图像转换成位图从而将图像数字化。也有可能数字化声音、视频和任何运动的东西。在所有这些情况下,数字化过程是通过在一定间隔内采样完成的。例如要数字化声音,一个设备需要一秒钟内测量一个音波振幅很多次。这些数值然后被数字化地记录下来。

:Data

:1998.6.17

:sampling

## diskless workstation 无盘工作站

A workstation or PC on a local-area network (LAN) that does not have its own disk. Instead, it stores files on a network file server. Diskless workstations can reduce the overall cost of a LAN because one large-capacity disk drive is usually less expensive than several low-capacity drives. In addition, diskless workstations can simplify backups and security because all files are in one place -- on the file server. Also, accessing data from a large remote file server is often faster than accessing data from a small local storage device.

One disadvantage of diskless workstations, however, is that they are useless if the network fails.

When the workstation is a PC, it is often called a diskless PC or a Net PC.

在一个局域网(LAN)上没有自己的磁盘的工作站或者 PC 机。它将文件存储在网络文件服务器上。无盘工作站可以减少一个 LAN 的整体造价因为一个大容量磁盘驱动器通常比几个低容量的磁盘驱动器要便宜一些。另外,无盘工作站可以简化备份和安全问题,因为所有的文件保存在一个地方——文件服务器。同时,访问一个大型远程文件服务器数据要比访问一个小型本地存储设备更快。

然而无盘工作站的一个不足是如果网络崩溃则他们也就没有用了。

当工作站是一个 PC 机时,通常它可以称为一个无盘 PC 机或网络 PC。

:Network

:1998.5.15

:local-area network Net PC network computer

## DLSw 数据链路交换

Short for Data-Link Switching. DLSw is a means of tunneling Systems Network Architecture (SNA) and NetBIOS traffic over an IP network. Before the development of DLSw, SNA and NetBIOS traffic was transported via Source-Route Bridging (SRB), a protocol for transporting in token ring environments. DLSw uses Switch to Switch protocol instead of SRB between routers to create DLSw peer connections, locate resources, forward data, handle flow control and error recovery. The routers are called data link switches.

Initially a proprietary solution developed by IBM in 1992, DLSw was submitted to the IETF as RFC 1434 in 1993. DLSw is now documented in detail by RFC 1795, submitted in April 1995.

数据链路转换的缩写。DLSw 是连接一个 IP 网络上的系统网络架构(SNA)和网络输入输出系统的方法。在开发 DLSw 之前, SNA 和 NetBIOS 的通道是经过源路由桥(SRB)进行连接的, SRB 是一个用于在令牌环环境中输送数据的协议。DLSw 在路由之间使用交换机到交换机协议而不是 SRB 来创建 DLSw 点对点连接、定位资源、输送数据、处理流控制和错误恢复。这个路由称为数据链路交换。

DLSw 是 1992 年由 IBM 开发的一个私有解决方案, 在 1993 年被提交给 IETF 作为 RFC 1434。DLSw 在 RFC 1795 中有详细记录, 这是在 1995 年 4 月被提交的。

 :communication

 :2001.3.8

 :L2TP

## DNS 域名系统/数字神经系统

(1) Short for Domain Name System (or Service), an Internet service that translates domain names into IP addresses. Because domain names are alphabetic, they're easier to remember. The Internet however, is really based on IP addresses. Every time you use a domain name, therefore, a DNS service must translate the name into the corresponding IP address. For example, the domain name `www.example.com` might translate to `198.105.232.4`.


The DNS system is, in fact, its own network. If one DNS server doesn't know how to translate a particular domain name, it asks another one, and so on, until the correct IP address is returned.

(2) Short for digital nervous system, a term coined by Bill Gates to describe a network of personal computers that make it easier to obtain and understand information.


(1) 域名系统(或者服务)的缩写,是一个将域名翻译为 IP 地址的因特网服务。因为域名是由字母组成的,所以它们容易记忆。然而因特网是基于 IP 地址的。因此每当使用一个域名时,一个 DNS 服务就必须将这个名称翻译为相应的 IP 地址。例如,域名 `www.example.com` 有可能翻译为:`198.105.232.4`。

DNS 系统实际上是一个它自己特有的网络。如果一个 DNS 服务器不知道如何翻译一个特定的域名,则它就询问另一个,一直到返回正确的 IP 地址。

(2) 数字神经系统的缩写,这是一个由 Bill Gates 杜撰的术语,用来描述一个使得获取和理解信息更加容易的个人计算机网络。

:WWW

:1996.10.1

:domain name IAHC

## DoCoMo

DoCoMo (meaning "anywhere" in Japanese) is a NTT subsidiary and Japan's biggest mobile service provider, with over 31 million subscribers as of June, 2000.

In February, 2000 NTT DoCoMo launched its i-mode service. With over 7 million subscribers, it has overtaken traditional Japanese Internet service providers to become Japan's biggest Internet access platform.

DoCoMo's i-mode is the only network in the world that now allows subscribers continuous access to the Internet via mobile telephone. The service lets users send and receive e-mail, exchange photographs, do online shopping and banking, download personalized ringing melodies for their phones, and navigate among more than 7,000 specially formatted Web sites.

The current i-mode data transmission speed is just 9.6Kb/s, but in spring 2001 NTT DoCoMo will introduce its next-generation mobile system, based on wideband CDMA (W-CDMA), that can support speeds of 384Kb/s or faster, making mobile multimedia possible.

DoCoMo(日文中的意思为“任何地方”)是日本电话电报公司(NTT)的一个附属公司,并且为日本最大的移动服务供应商,截止 2000 年 7 月拥有 3 100 万用户。

在 2000 年 2 月 NTT 的 DoCoMo 发动了它的 i-mode 服务。随着拥有了 700 万的用户,现在它已经超过传统日本因特网服务提供商而变成日本最大的因特网访问平台。

DoCoMo 的 i-mode 现在是世界上惟一的允许用户通过移动电话连续访问因特网的网络。这项服务让用户发送和接收 e-mail、交换照片、在线购物和银行交易、下载个人定制的手机铃声、在 7 000 个特殊格式化的网页中进行浏览。

当前的 i-mode 数据传输速度仅为 9.6 Kb/s,但是在 2001 年春季 NTT 的 DoCoMo 将引入基于宽带 CDMA(W-

CDMA)的下一代移动系统,这将可以支持速率 384 Kb/s 或者更快,使得移动多媒体成为可能。

 :cor

 :2000.10.4

 :CDMA ISP

## DOCSIS 电缆数据服务接口规范

Developed by CableLabs and approved by the ITU in March 1998, Data Over Cable Service interface Specification defines interface standards for cable modems and supporting equipment.

With certification from CableLabs, manufacturers will be able to produce cable modems for retail, so consumers no longer have to depend on leased cable modems from their cable providers.

Other devices that recognize and support the DOCSIS standard include HDTVs and Web enabled set-top boxes for regular televisions.

DOCSIS specifies downstream traffic transfer rates between 27 and 36 Mb/s over a radio frequency (RF) path in the 50 MHz to 750 + MHz range, and upstream traffic transfer rates between 320 Kb/s and 10 Mb/s over a RF path between 5 and 42 MHz. But, because data over cable travels on a shared loop, individuals will see transfer rates drop as more users gain access.

In 1998, there were 1.2 million cable modems installed across the United States with an average price of \$245 per unit, and by 2004, research reports predict there will be 24.3 million units installed across the US with an average price of \$50 per unit.

电缆数据服务接口规范是由 CableLabs 开发并在 1998 年 3 月由 ITU 批准的,它为电缆调制解调器定义了接口标准。

由 CableLabs 的认证,制造商将可以生产用于零售的电缆调制解调器,所以消费者不再必须依靠电缆提供者的租借电缆调制解调器了。

其他承认并支持 DOCSIS 标准的设备包括 HDTV 和普通电视的网络机顶盒。


DOCSIS 指定了在一个音频频率 50 ~ 750 + MHz 范

围内的下游流量传输速率为  $27 \sim 36 \text{ Mb/s}$ , 在一个音频频率  $5 \sim 42 \text{ MHz}$  范围内的上游流量传输速率为  $320 \text{ Kb/s}$  到  $10 \text{ Mb/s}$ 。但是因为电缆上的数据在一个共享的回路上传送, 所以当多个用户访问时, 传输速率会下降。

1998 年, 美国安装了 120 万台电缆调制解调器, 平均每台的价格为 245 美元。到 2004 年, 研究报告预测在美国将会安装 243 万台, 平均每台为 50 美元。

: Standard

: 1999. 11. 10

: standard

## DOM 文档对象模型

Short for Document Object Model, the specification for how objects in a Web page (text, images, headers, links, etc.) are represented. The DOM defines what attributes are associated with each object, and how the objects and attributes can be manipulated. Dynamic HTML (DHTML) relies on the DOM to dynamically change the appearance of Web pages after they have been downloaded to a user's browser.

Unfortunately, the two leading browsers — Netscape Navigator and Microsoft Internet Explorer — use different DOMs. This is one reason why their respective implementations of DHTML are so different. Both companies have submitted their DOMs to the World Wide Web Consortium (W3C) for standardization, which now has the daunting task of specifying a standard DOM without alienating either of the browser giants. The W3C's DOM specification will support both HTML and XML.

文档对象模型的缩写,是一个关于一个网页中的对象(文字、图像、标题、链接等等)如何显示的规范。DOM 定义了每一个对象所关联的属性以及对象和属性如何能够被操作。在网页被下载到一个用户的浏览器后动态 HTML 依靠 DOM 来动态地改变网页的外貌。

不幸的是两个著名的浏览器——Netscape 公司的 Navigator 和微软公司的 Internet Explorer——使用不同的 DOM。这是为什么他们各自 DHTML 的实现不同的原因之一。两家公司都向万维网联盟(W3C)提交了将他们的 DOM 作为标准的申请,而在不受这两大浏览器巨人的影响下指定一个 DOM 的标准是件令人畏缩的任务。W3C 的 DOM 规范将支持 HTML 和 XML。

:DOM

:2000.4.19

:XML

## domain name 域名

A name that identifies one or more IP addresses. For example, the domain name microsoft.com represents about a dozen IP addresses. Domain names are used in URLs to identify particular Web pages. For example, in the URL <http://www.company.com/index.html>, the domain name is company.com.

Every domain name has a suffix that indicates which top level domain (TLD) it belongs to. There are only a limited number of such domains. For example:

- gov - Government agencies
- edu - Educational institutions
- org - Organizations (nonprofit)
- mil - Military
- com - commercial business
- net - Network organizations
- ca - Canada
- th - Thailand

Because the Internet is based on IP addresses, not domain names, every Web server requires a Domain Name System (DNS) server to translate domain names into IP addresses.

一个用来识别一个或多个 IP 地址的名称。例如,域名 microsoft.com 代表一个 IP 地址。域名通常使用于 URL 来识别特定的网页。比如 URL <http://www.commpany.com/index.html>,域名为 company.com。

每一个域名有一个后缀表明它所属于的顶级域 (TLD)。这样的域仅有有限的数量,例如:

- gov —— 政府机构
- edu —— 教育组织
- org —— 非盈利组织
- mil —— 军事
- com —— 商业企业

net —— 网络组织

ca —— 加拿大

th —— 泰国

因为因特网是基于 IP 地址的而不是域名的, 每一个 Web 服务器需要一个域名系统 (DNS) 服务器来将域名解析为 IP 地址。

 : Network

 : 2001. 1. 4

 : DNS FQDN TLD whois

## **dongle 加密狗**

A device that attaches to a computer to control access to a particular application. Dongles provide the most effective means of copy protection. Typically, the dongle attaches to a PC's parallel port. On Macintoshes, the dongle sometimes attaches to the ADB port. The dongle passes through all data coming through the port so it does not prevent the port from being used for other purposes. In fact, it's possible to attach several dongles to the same port.

一个连接在一个计算机用来控制一个特定程序访问的设备。Dongle 提供了最有效的软件授权的保护。一般的, dongle 连接到一个 PC 的并口上。在 Macintosh 中, dongle 有时连接到 ADB 端口。Dongle 使所有的数据都通过端口而不阻止其他应用程序使用这个端口。实际上, 同一个端口有可能连接几个 dongle。


: Hardware

 **1**: 1997. 4. 12

## DMPI DOS 保护模式接口

Created for Windows version 3.0, DPMI is an industry standard for an interface that allows DOS applications to access extended memory of the 80286-, 80386-, and 80486-based PC architecture while maintaining system protection.

在 Windows 3.0 中创建的 DPMI 是一个接口的工业标准,它允许 DOS 应用程序在维持系统保护的同时可以访问基于 80286、80386 和 80486PC 架构的扩展内存。

:operating system


:2001.3.14

**dribbleware**

Software characterized by frequent updates, fixes, and patches. The term is somewhat derogatory, indicating software that was released without sufficient testing or before all features could be added. With the intense market pressure to release software products as soon as possible, and with the increased ease of updating software via Internet downloads, dribbleware is becoming the norm rather than the exception.

具有频繁升级、修复和添加补丁特点的软件。这个术语是有些贬义的,它暗示了那些没有经过充分测试或者在所有特性加入之前就发布的软件。随着激烈的市场竞争,尽可能快的发布软件以及随着通过因特网下载升级软件的简单性,都使得 dribbleware 正在成为正常现象而不是特例。

:Software

:1998.5.28

:vaporware


## driver 驱动

A program that controls a device. Every device, whether it be a printer, disk drive, or keyboard, must have a driver program. Many drivers, such as the keyboard driver, come with the operating system. For other devices, you may need to load a new driver when you connect the device to your computer. In DOS systems, drivers are files with a .SYS extension. In Windows environments, drivers often have a .DRV extension.

A driver acts like a translator between the device and programs that use the device. Each device has its own set of specialized commands that only its driver knows. In contrast, most programs access devices by using generic commands. The driver, therefore, accepts generic commands from a program and then translates them into specialized commands for the device.

一个控制设备的程序。每一个设备,无论是打印机、磁盘驱动器或者键盘必须有一个驱动程序。许多驱动程序如键盘驱动已经在操作系统中了。对于其他的设备,当将设备连到计算机上时可能需要载入一个新的驱动程序。在 DOS 中,驱动在 .SYS 扩展名的文件中。在 Windows 环境中,驱动通常有一个 .DRV 的扩展名。

一个驱动如同一个设备和使用设备的程序之间的一个翻译器一样进行工作。每一个设备有它自己的一套特定的命令。相反,大多数程序通过使用一般的命令访问设备。因此驱动接收来自程序的一般命令,然后将他们翻译成设备特定的命令。


 : Operation System

 : 1998.5.15

## DTE 数据终端设备

Short for Data Terminal Equipment, a device that controls data flowing to or from a computer. The term is most often used in reference to serial communications defined by the RS-232C standard. This standard defines the two ends of the communications channel as being a DTE and Data Communications Equipment (DCE) device. In practical terms, the DCE is usually a modem and the DTE is the computer itself, or more precisely, the computer's UART chip. For internal modems, the DCE and DTE are part of the same device.

数据终端设备(Data Terminal Equipment)的缩写,这是一个控制数据从计算机流入或流出的设备。这个术语经常用于由标准 RS-232C 定义的串行通讯中。这个标准定义了通讯通道中的两个终端: DTE 和数据通讯设备(DCE)。实际上,DCE 通常是一个调制解调器,而 DTE 是计算机本身,或者更精确地说,是计算机的通用异步收发报机(UART)芯片。对于内置调制解调器,DCE 和 DTE 是同一设备的一部分。

:Communication

:1998.5.15

**Dvorak keyboard Dvorak 键盘**

A keyboard designed for speed typing. The Dvorak keyboard was designed in the 1930s by August Dvorak, a professor of education, and his brother-in-law, William Dealy. Unlike the traditional QWERTY keyboard, the Dvorak keyboard is designed so that the middle row of keys includes the most common letters. In addition, common letter combinations are positioned in such a way that they can be typed quickly.


It has been estimated that in an average eight-hour day, a typist's hands travel 16 miles on a QWERTY keyboard, but only 1 mile on a Dvorak keyboard.

In addition to the standard Dvorak keyboard, there are two additional Dvorak keyboards, a left-handed and right-handed keyboard. These keyboards are designed for people who have only one hand for typing.

一种用于快速打字的键盘。Dvorak 键盘是在 19 世纪 30 年代由 August Dvorak, 一名教授, 和他的姐(妹)夫 William Dealy 设计的。不像传统的标准键盘, Dvorak 键盘设计为中间行的键包含最常用的字母。除此之外, 常用的字母组合都位于最适于快速打字的位置上。

据估计在通常的一天 8 小时中, 一个打字员的手在传统标准键盘上可以走 16 英里, 但是在 Dvorak 键盘上只需要 1 英里。

除了标准的 Dvorak 键盘, 还有两种 Dvorak 键盘, 一个左手键盘和一个右手键盘。这些键盘是为只有一只手打字的人设计的。

: Hardware

: 2000. 11. 3

## DWDM 密集型波分复用

Dense Wavelength Division Multiplexing is an optical technology used to increase bandwidth over existing fiber optic backbones.

DWDM works by combining and transmitting multiple signals simultaneously at different wavelengths on the same fiber. In effect, one fiber is transformed into multiple virtual fibers. So, if you were to multiplex eight OC-48 signals into one fiber, you would increase the carrying capacity of that fiber from 2.5 Gb/s to 20 Gb/s. Currently, because of DWDM, single fibers have been able to transmit data at speeds up to 400Gb/s. And, as vendors add more channels to each fiber, terabit capacity is on its way.

A key advantage to DWDM is that it's protocol and bit-rate independent. DWDM-based networks can transmit data in IP, ATM, SONET /SDH, and Ethernet, and handle bit-rates between 100 Mb/s and 2.5 Gb/s. Therefore, DWDM-based networks can carry different types of traffic at different speeds over an optical channel.

From a QoS (Quality of Service) stand point, DWDM-based networks create a lower cost way to quickly respond to customers' bandwidth demands and protocol changes.

密集型波分复用是一项用于增加现存光纤主干带宽的光学技术。

DWDM 在同一光纤上通过捆绑和传送多路信号以不同的波长同时工作。实际上,一条光纤转成多个虚拟光纤。所以,如果要将 8 个 OC-48 信号多元化在一条光纤上,则要增加光纤的承载能力从 2.5 Gb/s 到 20 Gb/s。现在由于 DWDM 的存在,单一的光线已经可以以高于 400Gb/s 的速度传递数据。而且卖主给每个光纤增加通道就可以实现万亿位的能力。

DWDM 的主要优势在于它的协议和位率是独立的。基于网络的 DWDM 可以以 IP、ATM、SONET/SDH 和

Ethernet 进行传递数据；并在 100 Mb/s 与 2.5 Gb/s 之间的位率进行处理。因此，基于 DWDM 的网络可以在一个光学通道上以不同的速度传送不同种类的数据。

从 QoS(服务质量)的角度来看，基于 DWDM 的网络创建了一个低成本的方法来快速反应客户的带宽需求和协议变化。

:Network

:1999.10.13

:bottleneck

## EAI 企业应用集成

Acronym for enterprise application integration. EAI is the unrestricted sharing of data and business processes throughout the networked applications or data sources in an organization. Early software programs in areas such as inventory control, human resources, sales automation and database management were designed to run independently, with no interaction between the systems. They were custom built in the technology of the day for a specific need being addressed and were often proprietary systems. As enterprises grow and recognize the need for their information and applications to have the ability to be transferred across and shared between systems, companies are investing in EAI in order to streamline processes and keep all the elements of the enterprise interconnected.

There are four major categories of EAI:

**Database linking:** databases share information and duplicate information as needed.

**Application linking:** the enterprise shares business processes and data between two or more applications.

**Data warehousing:** data is extracted from a variety of data sources and channeled into a specific database for analysis.

**Common virtual system:** the pinnacle of EAI; all aspects of enterprise computing are tied together so that they appear as a unified application.

EAI 为企业应用集成的首字母缩写。EAI 是在一个组织内网络应用或者数据源上无限制共享数据和事物过程。早期一些软件诸如存货控制、人力资源、自动售货和数据管理都是为各自独立运行而设计的,而在系统之间并没有交叉和衔接。它们通常都是根据提出的具体需求在特定的系统下而定制出来的。随着企业的成熟并且逐步认识到它们的信息和应用必须具有相互传送数据以及在不同系统之间

共享的功能,大量公司正在启用 EAI 以便优化各种应用过程并且保持企业内部的所用要素相互交叉。

主要有四类 EAI:

数据库链接:数据库共享信息并且复制所需要的信息。

应用链接:企业在两个或者更多个应用间共享事物过程和数据。

数据仓库:数据从不同类型的数据源中抽取出来并输送到一个特定的数据库中进行分析。

通用虚拟系统:EAI 的应用的极点。所用的企业计算都连在一起,看起来是一个统一的应用。

:Computer Science

:2001. 1. 18

:CRM

## EBPP 电子账单显示和支付

Short for electronic bill presentment and payment, the process by which companies bill customers and receive payments electronically over the Internet.

There are two types of presentment models:

direct model: a biller delivers the bill to customers via its own Web site, or via a third-party's site.


consolidator model: bills from multiple billers are delivered to a single Web site, to be presented in aggregate to the consumer for viewing and payment.

电子账单描述和支付的缩写,通过它公司可以给顾客开账单然后接受因特网上的电子支付。

有两种类型的描述模型:

直接模型:一个出纳员通过他自己的网站或者通过一个第三方的站点将账单传送给用户。

统一模型:多个出纳员的账单传送给一个单一的网站,集合在一起交送给用户查看并支付。

: WWW

: 2001. 2. 21

: CRM EAI IVR

edge connector 边连接器 (见图 1)

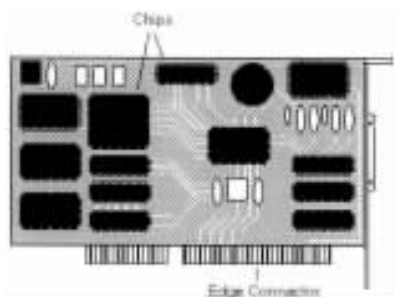


图 1

The part of a printed circuit board that plugs into a computer or device. The edge connector generally has a row of broad metallic tracks that provide the electrical connection.

一个印刷电路板插到计算机或者设备中的部分。边连接器通常有一列提供电子连接的宽金属道。

 : Hardware

 **1** : 1996. 9. 1

## EDID 扩展显示识别数据

Extended Display Identification Data is a VESA standard data format that contains basic information about a monitor and its capabilities, including vendor information, maximum image size, color characteristics, factory pre-set timings, frequency range limits, and character strings for the monitor name and serial number.

The information is stored in the display and is used to communicate with the system through a Display Data Channel (DDC), which sits between the monitor and the PC graphics adapter. The system uses this information for configuration purposes, so the monitor and system can work together.

The latest version of EDID (version 1.3) can be used in CRT displays, LCD displays, and future display types because EDID offers general descriptions of almost all display parameters.

扩展显示识别数据是一个包含关于一个监视器及其基本性能信息的 VESA 标准数据格式,其中包括提供商信息、最大图像尺寸、颜色特性、出厂预设时间、频率范围限制和有关监视器名称和序列号的字符串。

这些信息保存在显示器中并通过一个显示数据通道 (DDC) 与系统进行通信,这个通道位于监视器和 PC 机图形适配器之间。系统使用这个信息来进行配置,所以监视器和系统可以共同工作。

EDID 的最新版本 (版本 1.3) 可以用在 CRT 显示、LCD 显示和将来的显示类型,因为 EDID 提供了几乎所有显示参数的通用描述符。

: Standard

: 1999. 9. 30

: Configuration VESA


## Eiffel

An advanced programming language created by Bertrand Meyer and developed by his company, Interactive Software Engineering (ISE). The language was introduced in 1986 and a basic Windows compiler is available at no charge.

Eiffel encourages object-oriented program development and supports a systematic approach to software development. The Eiffel compiler generates C code, which you can then modify and re-compile with a C compiler.

一个由 Bertrand Meyer 创建并由他的公司,交互软件工程(ISE),开发的一个高级程序。这个语言在 1986 年引入并且免费提供一个基本的 Windows 编译器。

Eiffel 鼓励面向对象程序开发并支持一个系统的软件开发方法。Eiffel 编译器产生 C 代码,这样就可以使用一个 C 编译器修改和重新编译。


:Programming

 **1**:2001.1.24


**electronic book 电子图书**

An electronic version of a book. Currently there are two e-book products available, the Rocket eBook, from Nuvomedia ([www.nuvomedia.com](http://www.nuvomedia.com)) and the SoftBook from SoftBook Press ([www.softbook.com](http://www.softbook.com)). Both are small computers -- the size of a paperback and a legal notepad -- with backlighted screens that allow a user to read, save, highlight, bookmark, and annotate text. Both can download books from a Web site, such as [barnesandnoble.com](http://barnesandnoble.com) (although the Rocket eBook requires another PC).

一本书的电子版本。现在可以提供两种电子图书产品：Nuvomedia([www.nuvomedia.com](http://www.nuvomedia.com))的 Rocket eBook 和 SoftBook 出版社([www.softbook.com](http://www.softbook.com))的 SoftBook。这两种都是小计算机——一本平装书的大小和一个普通的记事本——带一个有背光的显示屏幕,可以让读者阅读、保存、标记、加书签和添加注释。这两种都可以从网站上下载图书,如 [barnesandnoble.com](http://barnesandnoble.com)(虽然 Rocket eBook 需要一个 PC)。

:Hardware


:1998.10.30

:palmtop

**embedded system 嵌入式系统**

A specialized computer system that is part of a larger system or machine. Typically, an embedded system is housed on a single microprocessor board with the programs stored in ROM. Virtually all appliances that have a digital interface -- watches, microwaves, VCRs, cars -- utilize embedded systems. Some embedded systems include an operating system, but many are so specialized that the entire logic can be implemented as a single program.

一个特殊的作为大型计算机系统一部分的计算机。一般情况下,一个嵌入式系统安装在一个单独的程序存储在ROM上的微处理器主板上。实际上所有的具有数据接口的设备——表、微波、VCR、汽车——都使用嵌入式系统。一些嵌入式系统包括一个操作系统,但是有许多系统很专业以至于整个逻辑可作为一个单独的程序来实现。

: Type of Computer

 **1**: 1997. 8. 15

## EIGRP 高级内部网关路由协议

Enhanced Interior Gateway Routing Protocol (EIGRP) is an evolved version of IGRP that addresses the demands of large-scale internetworks and the changes in network technology that have been developed since the implementation of IGRP. Routers that already use IGRP can use EIGRP because the metrics for both protocols are directly translatable, i. e. , they are as easily comparable as if they were routes that originated in their own autonomous systems.

A router running EIGRP stores copies of all its neighbors' routing tables so that it can quickly adapt to alternate routes. If no appropriate route exists, EIGRP queries its neighbors to discover an alternate route. These queries propagate until an alternate route is found. Unlike some earlier routing protocols that would send an entire table to neighboring routers when one routing table entry changed, EIGRP notifies the neighbors of only the specific change in the table.


Unlike IGRP, EIGRP uses the Diffusing-Update Algorithm (DUAL) developed at SRI International.

高级内部网关路由协议(EIGRP)是 IGRP 的一个升级版,它可以满足大规模内部网络的需求和自实施 IGRP 后所开发的网络技术的改变。早已经使用 IGRP 的路由器可以使用 EIGRP 因为这两个协议的规格是可以直接翻译的,也就是说如果它们是在各自的系统中产生的路由这样它们就可以很容易地进行比较。


一个运行 EIGRP 的路由器保存所有它的临近路由表的拷贝,这样它就可以快速适应变化的路由。如果没有合适的路由存在,则 EIGRP 就会查询邻近的路由来发现一个可选的路由。这些查询会进行下去直到发现一个可选的路由。不像一些早期的路由协议,当一个路由表改变时它就会向邻近的路由器发送整个表,而 EIGRP 则会向邻近的路

由器发送表中被改变的部分。

与 IGRP 不同,EIGRP 使用在 SRI 国际开发的分散升级算法(DUAL)。

:network


1:2001. 3. 29

:Interior Gateway Routing Protocol OSPF VRRP


## EPOC

An operating system from Psion Software, designed specifically for mobile, ROM - based computing devices. EPOC16 is a 16-bit version of the operating system that has been available for several years and is embedded in many handheld devices. EPOC32 is a newer, 32-bit operating system that supports preemptive multitasking. EPOC is competing head-to-head with Windows CE in the grow PDA market.

一个来自 Psion 软件公司的操作系统,它是特别为移动的、基于 ROM 计算的设备而设计的。EPOC16 是一个 16 位版本的操作系统,这个系统已经产生了几年,并且嵌入到许多手持设备中。EPOC32 是一个较新的 32 位支持抢先多任务的操作系统。EPOC 在成长中的 PDA 市场是与 Windows CE 进行竞争的。

:Operation System

:1998.1.15

:hand-held computer operating system PDA Windows CE


## EPS 压缩 PostScript

Abbreviation of Encapsulated PostScript. Pronounced as separate letters, EPS is the graphics file format used by the PostScript language.

EPS files can be either binary or ASCII. The term EPS usually implies that the file contains a bit-mapped representation of the graphics for display purposes. In contrast, PostScript files include only the PostScript commands for printing the graphic.

压缩 PostScript 的缩写。EPS 是 PostScript 语言使用的图形文件格式。

EPS 文件可以是二进制或者是 ASCII。术语 EPS 通常指文件包含一个为显示目的的图形的位映射表示。相反,PostScript 文件仅包含用于打印图形的 PostScript 命令。

:Programming

:2000.9.14

## ergonomics 人机工程学

The science concerned with designing safe and comfortable machines for humans. For example, one branch of ergonomics deals with designing furniture that avoids causing backaches and muscle cramps. In the computer field, ergonomics plays an important role in the design of monitors and keyboards.

Another term for ergonomics is human engineering.

关于设计安全和舒适的机器的科学。例如,人机工程学的的一个分支是设计避免导致背痛和肌肉酸痛的家具有。在计算机领域,人机工程学在设计监视器和键盘中占有重要的地位。

:Computer Science

:1997. 11. 25

## ERP 企业资源计划

Short for enterprise resource planning, a business management system that integrates all facets of the business, including planning, manufacturing, sales, and marketing. As the ERP methodology has become more popular, software applications have emerged to help business managers implement ERP.

企业资源计划的缩写,这是一个整合一个企业各个方面的企业管理系统,它包括计划、生产、销售和市场。随着 ERP 方法逐渐流行,已经有软件应用来帮助企业管理层来实施 ERP。

:Software

:1997.11.17

## ESD wrist strap 静电释放手腕皮带

A safety device used to channel static electricity to a proper ground while handling sensitive computer equipment. Electrostatic discharge (ESD) damage occurs when a release of stored static electricity travels from something such as a person's body into a conductor of a different potential, such as a computer being repaired. The ESD wrist strap safely channels the static electricity to a proper ground, typically the computer's chassis.

当处理敏感计算机设备时一个将静电输送到适宜的地面上的安全设备。当存储的静电从一个物体如一个人的身体上输送到一个具有不同电压的导体上如一台正在修理的计算机时,就会发生静电释放(ESD)的危险。ESD 手腕皮带可以安全地将静电释放到合适的地面上,特别是计算机的底盘。

:Computer Science

:2000.12.1

## Ethernet 以太网

A local-area network (LAN) protocol developed by Xerox Corporation in cooperation with DEC and Intel in 1976. Ethernet uses a bus or star topology and supports data transfer rates of 10 Mb/s. The Ethernet specification served as the basis for the IEEE 802.3 standard, which specifies the physical and lower software layers. Ethernet uses the CSMA/CD access method to handle simultaneous demands. It is one of the most widely implemented LAN standards.

A newer version of Ethernet, called 100Base-T (or Fast Ethernet), supports data transfer rates of 100 Mb/s. And the newest version, Gigabit Ethernet supports data rates of 1 gigabit (1,000 megabits) per second.

由 Xerox 公司与 DEC 和 Intel 公司在 1976 年合作开发的一个局域网协议。以太网使用一个总线或者星型拓扑结构,并且支持 10 Mb/s 的数据传输速率。以太网规范作为 IEEE 802.3 标准的基础,这个标准制订了物理和底层软件层。以太网使用 CSMA/CD 访问方法来处理同时请求。它是现在最为广泛使用的局域网标准之一。

一个称为 100Base-T(或者快速以太网)的以太网新版本支持 100 Mb/s 的数据传输速率。最新的版本千兆位以太网支持 1 吉位(1000 兆)每秒的数据传输速率。

:Network

:2000.11.6

## EtherLoop 以太环

Created by Nortel spin-off Elastic Networks, EtherLoop (a. k. a next generation DSL) is Ethernet over standard twisted pair (POTS ) technology that allows for simultaneous voice and high-speed data communications. Speeds range from 125 Kbps to 6 Mbps over distances of up to 21,000 feet.

Similar to Ethernet, Etherloop transmits data packets in bursts. Between bursts, EtherLoop looks for problems and interference in the lines and knows to steer clear and find an alternate path. Also, EtherLoop is Ethernet compliant, so it is easily adaptable to existing Ethernet systems.

EtherLoop also borrows from the best of DSL to offer point-to-point security and a non-shared medium (more users don't slow down connection speed), But unlike DSL, EtherLoop avoids impacting other services such as ISDN, T-1, ADSL, HDSL and SDSL, which are in the same cable binder group.

EtherLoop is not proprietary. Elastic Networks plans on licensing the technology to manufacturers who can design and create their own EtherLoop solutions.

由 Nortel spin-off Elastic Networks 创建的以太环(声称是下一代 DSL)是在允许同时通话和高速数据通信的标准双绞线(POTS)技术上的以太网。速度在 21 000 英尺的距离上从 125 Kb/s 到 6 Mb/s 不等。

与以太网相似,以太环以脉冲串传送数据包。在脉冲串之间,以太环在线上查看问题和冲突以得到一条清晰的线路。同时,以太环是适应以太网,所以它很容易适应现存的以太网系统。

以太环也借鉴了 DSL 提供的点对点的安全和非共享介质(更多的用户不会降低连接速度)的优点。但是与 DSL 不同,它避免了排挤位于同一电缆中的其他服务,如

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ISDN、T-1、ADSL、HDSL 和 SDSL。

以太环现在还不太成熟。Elastic Networks 计划将这项技术授权给能够设计和创建他们自己的以太环解决方案的制造商。

:Network

:2000.4.9

:burst mode Ethernet POTS

## expansion board 扩展板

A printed circuit board that you can insert into a computer to give it added capabilities. For example, all of the following are expansion boards:

- video adapters
- graphics accelerators
- sound cards
- accelerator boards
- internal modems

Expansion boards for PCs can be half-size (also half-length) or full-size (also full-length). Most PCs have slots for each type of board. A half-size board is sometimes called an 8-bit board because it can transmit only 8 bits at a time. A full-size board is called a 16-bit board. In addition, some expansion boards are designed to operate with a local bus, such as PCI.


Expansion boards are also called adapters, cards, add-ins, and add-ons.

一个可以插入到计算机中提供附加性能的印刷电路板。例如,所有如下的都是扩展板:

- 视频适配器
- 图形加速卡
- 声卡
- 加速板
- 内置调制解调器

PC 机的扩展板可以是半尺寸(也就是半长)或者全尺寸(也就是全长)。大多数 PC 机对于每一个板的类型都有一个槽。一个半尺寸板有时被称为 8 位板因为它同时可以传送 8 位。一个全尺寸板被称为 16 位板。除此之外,一些扩展板用来设计由一个本地总线来操作,如 PCI。

扩展板有时称为适配器、卡、插件。

: Hardware

: 1996. 9. 1

: accelerator board CNR PCI television board

**extended keyboard 扩展键盘**

A keyboard for Macintosh computers that contains up to 15 function keys above the alphanumeric keys, and a numeric keypad. It is sometimes called an enhanced keyboard because of its similarity to the PC enhanced keyboard.

在字母数字键和数字键盘基础上包含 15 个功能键的 Macintosh 计算机的键盘。有时被称为增强性键盘,因为他类似于 PC 机的增强性键盘。


: Hardware


: 2000. 12. 8

**e-zine**

Short for electronic magazine, the name for a web site that is modeled after a print magazine. Some e-zines are simply electronic versions of existing print magazines, whereas others exist only in their digital format. Most e-zines are advertiser-supported but a few charge a subscription.

电子杂志的缩写,是一个以印刷杂志为模型的网站的名称。一些 e-zine 是现存印刷杂志的电子版本,而其他的只是以电子的格式存在。大多数的 e-zine 是通过广告支持的,但是有一些要收取定购的费用。

: WWW

: 1997. 11. 19

## FAQ 经常提问的问题

Pronounced as separate letters or as fak, and short for frequently asked questions, a FAQ is a document that answers questions about some technical topic. Frequently, FAQs are formatted as help files or hypertext documents.

经常提问的问题的缩写,一个 FAQ 是一个回答有关技术主题的文档。FAQ 经常组织为帮助文件或者超文本文档。


:Online Service

:1999.5.15

## fault tolerance 容错

The ability of a system to respond gracefully to an unexpected hardware or software failure. There are many levels of fault tolerance, the lowest being the ability to continue operation in the event of a power failure. Many fault-tolerant computer systems mirror all operations -- that is, every operation is performed on two or more duplicate systems, so if one fails the other can take over.

一个系统对于一个未预料到的硬件或者软件错误的反应和处理的能力。有许多水平的容错,最低的能够在电源失灵的情况下继续进行操作。许多容错计算机系统将许多操作进行了镜像——也就是每一项操作在两个或者多个复制系统中完成,所以如果一个失败则另一个可以替代。

:Operation System


:1997. 9. 28

:Clustering RAID

## FC-PGA 翻转芯片引脚网格矩阵

Acronym for flip chip pin grid array. FC-PGA packages use chips that have been turned upside down and attached to the package or the board using solder balls instead of perimeter bonding wires. The solder balls are jointed directly to a set of solder balls on the substrate (the base layer of the chip and the electrical ground for the circuit). The exposed core rests on the actual package, and the chips make direct contact with the heat sink. This allows for more efficient cooling to take place. Since the chips are placed directly on the board, FC-PGA packages have a high I/O density and shorter electrical connections than other types of packaging, PPGA and PGA.

翻转芯片引脚网格矩阵的缩写。FC-PGA 包使用翻转向上并且附在使用焊接球而不是周边连接线的包或者板的芯片。焊接球直接与下层(芯片的基层以及电路的电子板)的焊接球相连。暴露的核心部分位于真正的包上,并且芯片与散热器直接接触。这就使得散热效率更高。由于芯片是直接位于板上,所以 FC-PGA 包与其他类型的包如 PPGA 和 PGA 相比有一个高密度的 I/O 和更短的电子连接。

: Hardware


: 2000. 12. 8

: PPGA socket 370

## Fetch 取出

To load an instruction or piece of data from memory into a CPU's register. All instructions must be fetched before they can be executed. The time it takes to fetch an item is known as the fetch time or fetch cycle, and is measured in clock ticks.

从内存中取出一条指令或者数据片到一个 CPU 的寄存器中。所有的指令必须在他们执行前取出。取一条指令的时间称为取指令时间或者取指令周期,是使用时钟滴答声来测量的。

:Programming

:2000.9.15

## FIF 分形图像格式

(Fractal Image Format) A graphics file format from Iterated Systems, Inc. ([www.iterated.com](http://www.iterated.com)) that uses fractal geometry to compress images. (Fractals are structures possessing similar-looking forms of many different sizes. They can be used to create any real-world object, like a mountain or a cloud, provided it doesn't correspond to a simple geometric shape.) These fractals can be expressed in mathematical terms, allowing an entire image to be recorded as repeated patterns.

(分形图像格式)一种 Iterated 系统有限公司([www.iterated.com](http://www.iterated.com))的文件格式,它使用分形几何学来压缩图像。(分形是处理看起来很像的许多不同尺寸格式的结构。它们可以用于创建一个真实世界的对象,如一座山或者一片云,只要它与一个简单的几何图形不相符。)这些分形可以使用数学术语进行表达,它允许整个图像被纪录为重复的样式。


:Graphics

:1998.9.8

## file handle 文件句柄

A number that the operating system assigns temporarily to a file when it is opened. The operating system uses the file handle internally when accessing the file. A special area of main memory is reserved for file handles, and the size of this area determines how many files can be open at once. In DOS and Windows, you can set the maximum number of open files with the FILES= statement in CONFIG.SYS.

当文件是打开的时候操作系统临时指定表示一个文件的数字。操作系统在访问文件的时候内部使用文件句柄。主内存的一个特殊的区域用来保存文件句柄,这个区域的大小决定了多少文件同时可以被打开。在 DOS 和 Windows 中,可以在 CONFIG.SYS 文件中使用 FILES= statement 设置打开文件的最大数目。

:Operation System

:1998.7.1

## firmware 固件

Software (programs or data) that has been written on-to read-only memory (ROM). Firmware is a combination of software and hardware. ROMs, PROMs and EPROMs that have data or programs recorded on them are firmware.

写入到只读内存(ROM)中的软件(程序或者数据)。固件是一个软件和硬件的组合。记录有数据或者程序的ROM、PROM 和 EPROM 都是固件。

: Hardware

: 1998. 5. 15

**fixed-frequency monitor 固定频率监视器**

A monitor that can only accept signals in one frequency range. In contrast, multiscanning monitors automatically adjust themselves to the frequency at which data is being sent.

在一个频率范围内才能够接受信号的一种监视器。相反,多线扫描监视器可以在数据发送的频率范围内自动调节。

: Hardware

: 2000. 9. 25


## fixed wireless 固定无线

Fixed wireless refers to wireless devices or systems that are situated in fixed locations, such as an office or home, as opposed to devices that are mobile, such as cell phones and PDAs. Fixed wireless devices normally derive their electrical power from utility mains, as opposed to portable wireless devices that normally derive their power from batteries.

The point-to-point signal transmissions occur through the air over a terrestrial microwave platform rather than through copper or fiber cables; therefore, fixed wireless does not require satellite feeds or local phone service. The advantages of fixed wireless include the ability to connect with users in remote areas without the need for laying new cables and the capacity for broad bandwidth that is not impeded by fiber or cable capacities.

固定无线是指位于一个固定位置如办公室或者家庭中的无线设备或者系统,它与运动设备如蜂窝电话和 PDA 相对应。固定无线设备通常从干线中得到电源,而便携无线设备通常从电池得到电源。

点对点信号传输在一个陆地微波平台的空气中传播时发生而不是通过铜轴线或者光纤电缆,因此固定无线不需要卫星传输或者本地电话服务。固定无线的优点包括在遥远区域内没有必要铺设新的电缆来连接用户,且提供光纤或者电缆不能支持的广播宽带网的性能。

:network

:2001.2.22



## Foobar

Foobar is a universal variable understood to represent whatever is being discussed.

It's usually used in examples that illustrate concepts and ideas in computer science.

For instance, a computer science professor may be discussing different file formats. In this case, he would call the generic-example file `foo` or `foobar`, then list the extensions associated with the file formats (e. g. `foobar.txt`, `foobar.gif`, `foobar.exe`, `foobar.tar`).

When `foo` or `foobar` is used, everyone understands that these are just examples, and they don't really exist.

Programmers and administrators also use `foo` and `foobar` in a similar context. Files or programs named with `foo` or `foobar` are understood not to be permanent and will be changed or deleted at anytime.

`Foo`, `bar`, and the compound `foobar` were commonly used at MIT, Stanford and the Helsinki University of Technology, Finland. Other generic variables are used other places, but only these three are considered universal.

One last note: hackers never use `foobar` to mean `foobar` !

Foobar 是一个通用的变量,用来理解正在讨论的内容。

它通常使用在计算机科学描述概念和想法的例子中。

例如,一个计算机学科教授可能会讨论到不同文件的格式。在这种情况下,他就会称通用的示例文件为 `foo` 或者 `foobar`,然后列出与文件类型相关联的扩展名(如:`foobar.txt`,`foobar.gif`,`foobar.exe`,`foobar.tar` 等等)。


当 `foo` 或者 `foobar` 被使用的时候,每个人都知道这些只是例子,他们并不存在。


程序员和管理员也在某种情况下使用 `foo` 和 `foobar`。带有 `foo` 或者 `foobar` 名字的文件或者程序被理解为不是永

久的而且将会在任何时候被改变或者删除。

Foo, bar 以及组合物 foobar 在 MIT、斯坦福和芬兰的赫尔辛基技术大学中被广泛地使用。其他一些一般的变量使用在其他地方,但是只有这三个变量被认为是通用的。

最后注意一点:黑客从不使用 foobar 来表示 fubar!

:Computer Science


:1999.10.20

## FPM RAM 快速页模型 RAM

Short for Fast Page Mode RAM, a type of Dynamic RAM (DRAM) that allows faster access to data in the same row or page. Page-mode memory works by eliminating the need for a row address if data is located in the row previously accessed. It is sometimes called page mode memory.

FPM RAM is being replaced by newer types of memory, such as SDRAM.

快速页模型 RAM 的缩写,是一种允许在相同行或者页更快存取数据的动态 RAM 类型。页模型内存通过消除需要一行地址来工作,如果数据存在于以前存取的行中。它有时也称为页模式内存。

: Hardware

 1: 2000. 9. 13

## FQDN 正式域名

A fully qualified domain name consists of a host and domain name, including top-level domain. For example, `www.webopedia.com` is a fully qualified domain name. `www` is the host, `webopedia` is the second-level domain, and `com` is the top level domain.


A FQDN always starts with a host name and continues all the way up to the top-level domain name, so `www.parc.xerox.com` is also a FQDN.

一个正式域名包含一个主机名和域名,其中包含顶级域。例如,`www.webopeica.com` 是一个正式域名。`www` 是主机,`webopedia` 是二级域,而 `com` 是顶级域。

一个正式域名总是由一个主机名开始,后面接着是到顶级域的各种方式,所以 `www.parc.xerox.com` 也是一个正式域名。

:Network

:2000.4.11


:domain name TLD

## FRAD 帧中继汇编/反汇编器

Short for Frame Relay Assembler/Disassembler, a communications device that breaks a data stream into frames for transmission over a Frame Relay network and recreates a data stream from incoming frames. A Frame Relay router serves the same purpose but provides more intelligence in avoiding congestion.

帧中继汇编/反汇编器的缩写,是一个将一个数据流截断为帧以在一个帧中继网络上传输并且将输入的帧重新组成一个数据流的通讯设备。一个帧中继路由器完成同样的目的但是在避免阻塞问题上可以提供更高的智能。

:Network

:2000.12.13

:Networking Hardware

## FreeBSD

A popular and free version of UNIX that runs on Intel microprocessors. FreeBSD is distributed in executable and source code form. The source code enables ambitious users to actually extend the operating system.

Another popular and free version of UNIX is Linux.

一个运行在 Intel 微处理器上的流行且免费的 UNIX 版本。FreeBSD 以可执行程序 and 源代码的形式发布。源代码可以使具有挑战性的用户来实际扩展这个操作系统。

另一个流行且免费的 UNIX 版本是 Linux。

:Software

1:1996.10.24

:GNOME KDE open source

**functional specification 功能规范**

A formal description of a software system that is used as a blueprint for implementing the program. At minimum, a functional specification should precisely state the purpose (e. g. , the function) of the software. Depending on the software engineering methodology used, the functional specification might also provide implementation details, such as how the project is divided into modules and how the different modules interact. In addition, a functional specification often describes the software from the user's perspective — how the user interface appears and how a user would use the program to perform specific functions.

A functional specification is often called a functional spec, or just spec.

作为一个实施程序的蓝图而使用的一个软件系统的正式的描述。在最小的情况下,一个功能性的规范应当详细描述软件的目的(也就是功能)。根据使用的软件工程方法论,功能规范也可以提供实施细节,如工程如何划分为模块和不同模块之间如何相互作用。除此之外,一个功能规范经常描述用户角度的软件——用户界面如何显示以及一个用户如何使用程序来完成特定的功能。


:Software

:1998.1.7

## GNOME GNU 网络对象模型环境

Acronym for GNU Network Object Model Environment. (Pronounced guh-nome.) GNOME is part of the GNU project and part of the free software, or open source, movement. GNOME is a Windows-like desktop system that works on UNIX and UNIX-like systems and is not dependent on any one window manager. The current version runs on Linux, FreeBSD, IRIX and Solaris. The main objective of GNOME is to provide a user-friendly suite of applications and an easy-to-use desktop.

GNU 网络对象模型环境的缩写。GNOME 是 GNU 项目和自由软件或者开放资源运动的一部分。GNOME 是一个类似 Windows 运行在 UNIX 和如 UNIX 一样桌面平台的系统,并且不依靠任何一个窗口管理器。当前的版本有基于 Linux、FreeBSD、IRIX 和 Solaris。GNOME 主要的目的是提供一个应用程序友好套件和一个易用的桌面。

:Operation System

:2001. 1. 4

:FreeBSD GNUKD Eopen source

## GNU

Self-referentially, short for GNU's not UNIX, a UNIX-compatible software system developed by the Free Software Foundation (FSF). The philosophy behind GNU is to produce software that is non-proprietary. Anyone can download, modify and redistribute GNU software. The only restriction is that they cannot limit further redistribution. The GNU project was started in 1983 by Richard Stallman at the Massachusetts Institute of Technology.

Linux systems rely heavily on GNU software and in the past, GNU systems used the Linux kernel. This close connection has led some people to mistakenly equate GNU with Linux. They are actually quite separate. In fact, the FSF is developing a new kernel called HURD to replace the Linux kernel in GNU systems.

这是一个由自由软件基金(FSF)开发的与 UNIX 兼容的软件系统。GNU 后面的思想是制作一个非专有的软件。任何人都可以下载、修改和重新发布 GNU 软件。惟一的限制是它们不可以限制其将来的发布。GNU 项目开始于 1983 年,是由麻省理工学院的 Richard Stallman 发起的。

Linux 系统主要依靠 GNU 软件,并且过去 GNU 系统使用了 Linux 的内核。这个紧密的联系使得一些人错误地将 GNU 等同于 Linux。它们实际上是分开的。实际上,FSF 正在开发一个称为 HURD 的新的内核来取代 GNU 系统中的 Linux 内核。

:Software

:1997.6.25

:GNOME KDE open source


## **gopher**

A system that pre-dates the World Wide Web for organizing and displaying files on Internet servers. A Gopher server presents its contents as a hierarchically structured list of files. With the ascendance of the Web, most Gopher databases are being converted to Web sites which can be more easily accessed via Web search engines.

Gopher was developed at the University of Minnesota and named after the school's mascot. Two systems, Veronica and Jughead, let you search global indices of resources stored in Gopher systems.

这是在 WWW 之前在因特网服务器上用来组织和显示文件的一种系统。一个 Gopher 服务器以层次结构文件列表的形式显示内容。随着网络的发展,大多数 Gopher 数据库都被转换成能够通过网络搜索引擎更容易被访问的网站。

Gopher 是由明尼苏达大学开发并以学校的吉祥物命名的。Veronica 和 Jughead 这两种系统可以用来在 Gopher 系统中搜索全球存储资源的索引。

:WWW

:2001.1.5

:World Wide Web

## GPF 一般保护错误

Short for General Protection Fault, a computer condition that causes a Windows application to crash. The most common cause of a GPF is two applications trying to use the same block of memory, or more specifically, one application trying to use memory assigned to another application.

The following situations can also cause GPFs.

Running an application with insufficient resources

Using improper hardware device drivers

Corrupted or missing Windows files

Applications exchanging data that cannot be read

GPFs are often preceded by an invalid page fault.

一般保护错误的缩写,是一个导致 Windows 应用程序崩溃的计算机条件。一个 GPF 最通常的原因是两个应用程序试图使用同一个内存块或者较特别地,一个应用程序试图使用指定给另一个应用程序的内存。

如下的情况也将导致 GPF:


在资源不足的情况下运行一个程序。

使用不合适的硬件设备驱动。

Windows 文件破坏或者丢失。

应用程序交换不能读取的文件。

GPF 出现在一个非法页面错误之后。

:Operation System

:1998.5.15

## GPRS 通用分组无线服务

General Packet Radio Service is a standard for wireless communications which runs at speeds up to 150 kilobits per second, compared with current GSM (Global System for Mobile Communications) systems' 9.6 kilobits.

GPRS, which supports a wide range of bandwidths, is an efficient use of limited bandwidth and is particularly suited for sending and receiving small bursts of data, such as e-mail and Web browsing, as well as large volumes of data.

通用分组无线服务是一个用于以 150 Kb/s 速度运行的无线通信的标准,可与现在的 GSM(全球移动通信系统)系统的 9.6 KB 相比。

支持各种各样带宽的 GPRS 有效利用了有限的带宽,而且非常适合于发送和接收小的突发数据如 e-mail 和网络浏览以及大的数据量。

:Standard

:1999.8.6

## GPU 图形处理单元

Used primarily for 3-D applications, a graphics processing unit is a single-chip processor that creates lighting effects and transforms objects every time a 3D scene is redrawn. These are mathematically-intensive tasks, which otherwise, would put quite a strain on the CPU. Lifting this burden from the CPU frees up cycles that can be used for other jobs.

The first company to develop the GPU is NVIDIA Inc. Its GeForce 256 GPU is capable of billions of calculations per second, can process a minimum of 10 million polygons per second, and has over 22 million transistors, compared to the 9 million found on the Pentium III. Its workstation version called the Quadro, designed for CAD applications, can process over 200 billion operations a second and deliver up to 17 million triangles per second.

The GeForce NVIDIA GPU card is compatible with the following graphics APIs : OpenGL and Microsoft's DirectX, Intel's Accelerated Graphics Port (AGP) technology and AMD's 3DNow !

The Quadro is an OpenGL specific card with driver support for Pentium III Xeon and AMD Athlon CPUs.


主要应用于 3-D 的图形处理单元是一个每当一个 3D 场景重画时创建光效果和转换对象的单片机。这些算法集中的任务将使 CPU 过分劳累。将这一重负从 CPU 中转移可以使 CPU 处理其他工作。


开发 GPU 的第一家公司是 NVIDIA。它的 GeForce 256 GPU 每秒钟可以进行上亿次的计算,可以每秒钟处理至少千万个多边形,并且拥有 2 200 万个晶体管,可以与 Pentium III 的 900 万个进行媲美。它的工作站版本称为 Quadro 是为 CAD 应用设计的,每秒钟可以处理 2 000 亿条操作并且每秒钟可以传递 1 700 万个三角形。

GeForce 的 NVIDIA GPU 卡与如下的图形 API 兼容:

OpenGL 和微软的 DirectX、Intel 的加速图形端口 (AGP) 技术和 AMD 的 Athlon CPU。

Quadro 是一个支持 Pentium III Xeon 和 AMD 的 Athlon CPU 的特定的 OpenGL 卡。


: Hardware

 **1**: 1999. 11. 12


**granularity** 颗粒性

The extent to which a system contains separate components (like granules). The more components in a system -- or the greater the granularity -- the more flexible it is.

一个系统包含分离的部件(像颗粒一样)的程度。在一个系统中的部件越多——或者颗粒性越强——则它的灵活性就越好。

: Hardware

 **1**: 1998. 11. 13

: modular architecture

## graphics based 基于图形

Refers to software and hardware that treat objects on a display screen as bit maps or geometrical shapes rather than as characters. In contrast, character-based systems treat everything as ASCII or extended ASCII characters.

All graphics software is by definition graphics based. Systems that manipulate text can also be graphics based; for example, desktop publishing systems are essentially graphics-based word processors.

Traditionally, most DOS applications -- word processors, spreadsheets, and database management systems -- have been character based. Windows and the Mac OS are graphics-based.

指将显示屏上的对象处理为位图或者几何图形而不是字符的软件和硬件。相反,基于字符的系统将任何东西都处理为 ASCII 或者扩展 ASCII 字符。

所有的图形软件都是被定义为基于图形的。操纵文本的系统也可以是基于图形的,如桌面出版系统本质上是基于图形的字处理软件。

传统上,大多数 DOS 应用——字处理软件、电子表格和数据库管理系统——都是基于字符的。Windows 和 Mac OS 是基于图形的。

:Graphics

:1998.5.15

**gray scaling 灰度缩放**

The use of many shades of gray to represent an image. Continuous-tone images, such as black-and-white photographs, use an almost unlimited number of shades of gray. Conventional computer hardware and software, however, can only represent a limited number of shades of gray (typically 16 or 256). Gray-scaling is the process of converting a continuous-tone image to an image that a computer can manipulate.

While gray scaling is an improvement over monochrome, it requires larger amounts of memory because each dot is represented by from 4 to 8 bits. At a resolution of 300 dpi, you would need more than 8 megabytes to represent a single 8 by 11-inch page using 256 shades of gray. This can be reduced considerably through data compression techniques, but gray scaling still requires a great deal of memory.

Many optical scanners are capable of gray scaling, using from 16 to 256 different shades of gray. However, gray scaling is only useful if you have an output device -- monitor or printer -- that is capable of displaying all the shades. Most color monitors are capable of gray scaling, but the images are generally not as good as on dedicated gray-scaling monitors.

Note that gray scaling is different from dithering. Dithering simulates shades of gray by altering the density and pattern of black and white dots. In gray scaling, each individual dot can have a different shade of gray.

使用许多灰度的阴影来代表一个图像。连续色调图像,如黑白照片,都使用一个几乎无限制的灰度阴影数量。然而,一般的硬件和软件只可以代表一个有限的灰度阴影数量(一般为 16 或者 256)。灰度缩放是将一个连续色调图像转变为一个计算机可操作的图像的处理过程。


灰度缩放对于单色是一个改善,但是它需要较大数量的内存,因为每一个点都由一个 4~8 位来表示。在 300 dpi 分辨率的情况下,需要至少 8 MB 来表示一个使用 256 灰度阴影的  $8\frac{1}{2} \times 11$  英尺的图像。通过数据压缩技术可以将尺寸大幅度减小,但是灰度缩放仍然需要大量的内存。

许多光学扫描仪都可以进行灰度缩放,使用 16~256 的不同灰度阴影。然而,如果有一个输出设备——监视器或者打印机——可以显示所有的阴影时,灰度缩放才是有用的。大多数彩色监视器可以灰度缩放,但是图像通常不如在专门灰度缩放监视器上的效果好。

注意灰度缩放不同于抖动。抖动通过改变黑白点的密度和模式来模拟灰度阴影。在灰度缩放中,每一个单独的点可以有不同的灰度阴影。

:Graphics

:1998.5.15

:continuous tone

## GSM 全球移动通信系统

Short for Global System for Mobile Communications, one of the leading digital cellular systems. GSM uses narrowband TDMA, which allows eight simultaneous calls on the same radio frequency. f


GSM was first introduced in 1991. As of the end of 1997, GSM service was available in more than 100 countries and has become the de facto standard in Europe and Asia.

全球移动通信系统的缩写,这是先进的数字蜂窝系统之一。GSM 使用窄带宽的 TDMA,其允许在同一个无线频率上同时进行 8 个呼叫。

GSM 于 1991 年引入。在 1997 年底,GSM 服务在 100 多个国家得到应用,并且成为欧洲和亚洲移动通信事实上的标准。

: Mobile Computing


: 1997. 12. 3

: 3G CDMA

## Hacker 黑客

A slang term for a enthusiast. Among professional , the term hacker implies an amateur or a programmer who lacks formal training. Depending on how it used, the term can be either complimentary or derogatory, although it is developing an increasingly derogatory connotation. The pejorative sense of hacker is becoming more prominent largely because the popular press has coopted the term to refer to individuals who gain unauthorized access to computer systems for the purpose of stealing and corrupting data. Hackers, themselves, maintain that the proper term for such individuals is cracker.

对于一个计算机狂热者的俚语。在专业程序员中,术语黑客表示是一个业余爱好者或者一个缺乏正式训练的程序员。根据术语使用的地方,这个术语可以是褒义的也有可能是贬义的,虽然它现在更多的具有贬义的意思。黑客的贬义变得越来越盛行了,因为大众媒体已经将这个术语指定为在未经许可的情况下闯入计算机系统试图偷窃和破坏数据的个人。黑客们自己则表示对于这些人的合适术语是解密高手。

:Programming

:1998. 1. 19

**hand-held computer 手持电脑**

A portable computer that is small enough to be held in one's hand. Although extremely convenient to carry, hand-held computers have not replaced notebook computers because of their small keyboards and screens. The most popular hand-held computers are those that are specifically designed to provide PIM (personal information manager) functions, such as a calendar and address book.


Some manufacturers are trying to solve the small keyboard problem by replacing the keyboard with an electronic pen. However, these pen-based devices rely on handwriting recognition technologies, which are still in their infancy.

一种小的足以放到手中的便携式计算机。虽然非常方便携带,但是手持电脑还不能够替代笔记本因为它们较小的键盘和显示屏。最流行的手持计算机是那些专门设计提供 PIM(个人信息管理)功能,如日历和地址本。

一些制造商现在试图通过使用一个电子笔来替代键盘的方法解决小键盘的问题。然而,这些基于笔的设备是依靠手写识别技术的,而后者仍然存在缺陷。

: Mobile Computing

: 1996. 9. 1

: Bluetooth EPOC palmtop PDA WAP WBMP  
Windows CE WTLS

## HDLC 高级数据链路控制

Short for High-level Data Link Control, a transmission protocol used at the data link layer (layer 2) of the OSI seven layer model for data communications. The HDLC protocol embeds information in a data frame that allows devices to control data flow and correct errors. HDLC is an ISO standard developed from the Synchronous Data Link Control (SDLC) standard proposed by IBM in the 1970's.

For any HDLC communications session, one station is designated primary and the other secondary. A session can use one of the following connection modes, which determine how the primary and secondary stations interact.

- \* Normal unbalanced: The secondary station responds only to the primary station.

- \* Asynchronous: The secondary station can initiate a message.

- \* Asynchronous balanced: Both stations send and receive over its part of a duplex line. This mode is used for X.25 packet-switching networks.

The Link Access Procedure-Balanced (LAP-B) and Link Access Procedure D-channel (LAP-D) protocols are subsets of HDLC.

高级数据链路控制的缩写,是一个使用于 OSI 七层数据传输层模型的数据链路层(第二层)的传输协议。HDLC 协议将信息嵌入到一个允许设备控制数据流并纠错的数据帧中。HDLC 是一个由 IBM 20 世纪 70 年代提出的同步数据链路控制(SDLC)标准而发展起来的 ISO 标准。


对于任何 HDLC 通信话路,一个站可以被指定为主要的而另一个是次要的。一个话路可以使用如下的连接模式,这些模式决定了主要和次要站是如何交叉的:


- \* 正常不平衡:次要位只对主要位有反映。

- \* 异步:次要位可以初始化一条消息

\* 异步平衡:在一个双工线上的各自部分。上每个站都可以发送和接收。这种模式使用于 X.25 的包交换网络。

平衡链路访问过程(LAP-B)和 D 通道上的链路访问过程(LAP-D)协议是 HDLC 的分支。

:Communication

:2001.10.19

## HDML 手持设备标记语言

Handheld Device Markup Language is used to format content for Web-enabled mobile phones. HDML is phone.com's (formerly known as Unwired Planet) proprietary language, which can only be viewed on mobile phones that use phone.com browsers.

HDML came before the WAP standard was created. It uses phone.com's Handheld Device Transport Protocol (HDTP), instead of WAP.

Phones access HDML sites the following way:

Once the URL is typed into the phone, the phone sends the request to phone.com's UP.Link gateway. The gateway sends a HTTP request to the Web server. The Web servers returns the page via HTTP back to the phone.com UP.Link gateway. The gateway sends the data via HDTP to the wireless carrier's network and down to the phone.

HDML and the phone.com gateway are most popular throughout North America. In Europe, WML and the Nokia WAP gateway and browser are the emerging standard. However, some versions of phone.com browsers do interpret basic WML.

To serve HDML pages, administrators must add the text/x-hdml mime type to their Web servers.

手持设备标记语言是用来格式化具有网络功能的移动电话的内容。HDML 是 phone.com 的(以前是无线星球)私有的语言,这种语言只可以在安装有 phone.com 浏览器的移动电话上使用。

HDML 比 WAP 标准创建得要早。它使用 phone.com 的手持设备传输协议(HDTP),而不是 WAP。

电话以如下方法访问 HDML 站点:

一旦在电话中键入 URL,电话就向 phone.com 的集联网关发送请求。这个网关向网络服务器发送一个 HTTP


请求。服务器通过 HTTP 向 phone.com 的集联网关返回页面。网关通过 HDTP 向无线运营商的网络和电话发送数据。

HDML 和 phone.com 网关在北美地区非常流行。在欧洲, WML 和 Nokia WAP 网关和浏览器正有变为标准的趋势。然而, 一些 phone.com 浏览器的版本会与 WML 发生冲突。

为了启用 HDML 页面, 管理员必须向网络服务器中加入 text/x-hdml 的 MIME 类型。

: Mobile Computing

: 2000. 5. 19

: WAP WML WTLS

## HDTV 高清晰度电视

Short for High-Definition Television, a new type of television that provides much better resolution than current televisions based on the NTSC standard. There are a number of competing HDTV standards, which is one reason that the new technology has not been widely implemented. All of the standards support a wider screen than NTSC and roughly twice the resolution. To pump this additional data through the narrow TV channels, images are digitized and then compressed before they are transmitted and then decompressed when they reach the TV.

高清晰度电视的缩写,是一种提供与传统基于 NTSC 标准的电视机更高分辨率的新型电视机。现在有许多竞争中的 HDTV 标准,这就是这项新技术没有广泛实现的原因之一。所有这些标准都支持比 NTSC 更宽的屏幕以及两倍的分辨率。为了将这些额外的数据送到较窄的 TV 通道内,图像在传输之前被数字化然后被压缩,当到达 TV 时进行解压。


:Multimedia

:1997.2.26

**heat sink 散热器**

A component designed to lower the temperature of an electronic device by dissipating heat into the surrounding air. All modern CPUs require a heat sink. Some also require a fan. A heat sink without a fan is called a passive heat sink; a heat sink with a fan is called an active heat sink. Heat sinks are generally made of an aluminum alloy and often have fins.

一个通过将热量排到周围空气中来降低一个电子设备温度的部件。所有现在的 CPU 都需要一个散热器，其中一些也需要一个风扇。不带风扇的散热器称为被动散热器，带有散热器的风扇称为主动散热器。散热器通常由铝合金制造并通常有散热片。

: Hardware

: 2000. 2. 11

: CNR

## Hercules graphics Hercules 图形

A graphics display system for PCs developed by Van Suwannukul, founder of Hercules Computer Technology. Suwannukul developed the system so that he could produce his doctoral thesis on PC equipment using his native Thai alphabet.

First offered in 1982, the original Hercules system filled a void left by IBM's MDA ( monochrome display adapter ) system. MDA produces high-resolution monochrome text but cannot generate graphics. Hercules systems generate both high-resolution text and graphics for monochrome monitors. The resolution is 720 by 348.


Hercules has been supplanted by other standards, such as VGA, and is now obsolete.

一个由 Hercules 计算机技术公司的创始人 Van Suwannukul 开发的一个图形显示系统。Suwannukul 开发这个系统使得他可以通过使用他的泰国母语来撰写博士论文。

最初的 Hercules 系统是在 1982 年提出,填补了 IBM 的 MDA(单色显示适配器)系统剩下的一个空白点。MDA 产生高分辨率的单色文本但是不能够产生图形。Hercules 系统既可以生成高分辨率的文本也可以生成单色监视器的图形。其分辨率为  $720 \times 348$ 。

Hercules 已经被其他标准比如 VGA 所代替,现在已经过时。

:Multimedia


:2000.12.14

## HPC 高性能计算

A branch of computer science that concentrates on developing supercomputers and software to run on supercomputers. A main area of this discipline is developing parallel processing algorithms and software: programs that can be divided into little pieces so that each piece can be executed simultaneously by separate processors.

计算机学科的一个分支,它主要注重发展超级计算机和运行在超级计算机上的软件。这一学科的主要领域是发展并行处理算法和软件:程序可以分成小的片断这样每一片断可以由单独的处理器同时执行。

:Programming

:2000.12.11

:parallel processing

## HiperLAN 高性能无线局域网

Short for high performance radio local area network. Developed by the European Telecommunications Standards Institute, HiperLAN is a set of WLAN communication standards used chiefly in European countries. HiperLAN is similar to the IEEE 802.11 WLAN standards used in the U. S.

There are two types of HiperLAN:

HiperLAN/1: provides communications at up to 20 Mbps in the 5 GHz band.

HiperLAN/2: provides communications at up to 54 Mbps in the 5 GHz band.

Like 802.11, HiperLAN serves to ensure the possible interoperability of different manufacturers' wireless communications equipment that operate in this spectrum.


高性能无线局域网的缩写。由欧洲电讯标准学会开发的 HiperLAN 是一套主要使用在欧洲国家的 WLAN 通讯标准。HiperLAN 与美国使用的 IEEE 801.11 WLAN 标准相似。

有两种类型的 HiperLAN:

HiperLAN/1: 提供在 5 GHz 带宽上高于 20 Mbps 的传输速率。

HiperLAN/2: 提供在 5 GHz 带宽上高于 54 Mbps 的传输速率。

与 802.11 相似, HiperLAN 用来保证在这个频率范围内不同无线通讯设备制造商之间的可能的交互性。

 : communication

 : 2001.5.2

 : 802.11 Ethernet Wi-Fi WLAN


## hit 点击/命中

1. The retrieval of any item, like a page or a graphic, from a Web server. For example, when a visitor calls up a Web page with four graphics, that's five hits, one for the page and four for the graphics. For this reason, hits often aren't a good indication of Web traffic. See page view.

2. Any time a piece of data matches criteria you set. For example, each of the matches from a Yahoo or any other search engine search is called a hit.

1. 从网络服务器上取得任何项目如一个网页或者图形。例如当一个访问者调用一个带有 4 个图形的网页时, 这样就会找到 5 个, 1 个是网页, 4 个是图形。由此, hit 经常不能正确表示一个网络的流量。

2. 任何时候一片符合所设置条件的数据。例如, Yahoo 或者其他搜索引擎的每一个匹配都称为一个命中。


: WWW


: 1998.10.28

## HMD 头部安装的显示器

Short for head-mounted display, a headset used with virtual reality systems. An HMD can be a pair of goggles or a full helmet. In front of each eye is a tiny monitor. Because there are two monitors, images appear as three-dimensional. In addition, most HMDs include a head tracker so that the system can respond to head movements. For example, if you move your head left, the images in the monitors will change to make it seem as if you're actually looking at a different part of the virtual reality.

头部安装的显示器的缩写,是一个用于虚拟现实系统的头部设备。一个 HMD 可以是一对护目镜或者完全是一个头盔。在每只眼睛前部是一个微监视器。因为有两个监视器,图像显示为三维效果。除此之外,大多数 HMD 包括一个头部跟踪器,这样系统可以对于头部的运动做出反应。例如,如果向左移动头部,那么监视器上的图像将会改变看起来就像实际上正在观看一个虚拟现实的另一个不同的部分。

: Hardware

 1: 2000. 11. 28

## Honeypot

An Internet-attached server that acts as a decoy, luring in potential hackers in order to study their activities and monitor how they are able to break into a system. Honeypots are designed to mimic systems that an intruder would like to break into but limit the intruder from having access to an entire network. If a honeypot is successful, the intruder will have no idea that s/he is being tricked and monitored. Most honeypots are installed inside firewalls so that they can better be controlled, though it is possible to install them outside of firewalls. A firewall in a honeypot works in the opposite way that a normal firewall works: instead of restricting what comes into a system from the Internet, the honeypot firewall allows all traffic to come in from the Internet and restricts what the system sends back out.

By luring a hacker into a system, a honeypot serves several purposes:

The administrator can watch the hacker exploit the vulnerabilities of the system, thereby learning where the system has weaknesses that need to be redesigned.

The hacker can be caught and stopped while trying to obtain root access to the system.

By studying the activities of hackers, designers can better create more secure systems that are potentially invulnerable to future hackers.

一个作为诱饵的因特网附属服务器,用来引诱潜在的黑客。目的是为了研究他们的行为并监视他们如何闯入系统。Honeypot 用来设计模仿一个闯入者有可能闯入的系统但是限制他们对整个系统的访问。如果一个 honeypot 是成功的,则闯入者就不会知道他们被欺骗了并且被监视。大多数 honeypot 安装在防火墙内这样他们就可以更好地被控制起来,虽然也有可能将他们安装在防火墙外面。一


个 honeypot 内的防火墙的工作方式与正常的防火墙正好相反,它不是限制因特网的信息进入到一个系统,而是允许所有的因特网信息进入系统并且限制系统所发出的信息。

通过引诱黑客进入一个系统,一个 honyepot 主要有如下目的:

管理员可以观察黑客试探系统的薄弱性,这样可以知道系统需要重新设计的薄弱地方。

黑客可以被抓到并且在他们试图获得系统的管理员级访问时阻止他们。

通过学习黑客的行为,设计者可以更好地制作出更安全的对于未来黑客可能无懈可击的系统。

: WWW

: 2001. 2. 7

## Hop 中继段

An intermediate connection in a string of connections linking two network devices. On the Internet, for example, most data packets need to go through several routers before they reach their final destination. Each time the packet is forwarded to the next router, a hop occurs. The more hops, the longer it takes for data to go from source to destination. You can see how many hops it takes to get to another Internet host by using the PING or traceroute utilities.

Some Internet Service Providers (ISPs) advertise how many hops away from Internet backbone they are. Theoretically, the fewer hops it takes to get your data onto the backbone, the faster your access will be.

在一个连接两个网络设备的连接串中的一个中间连接。例如在因特网上,大多数数据包在到达最终目的地时都需要通过几个路由器。每当数据包传到下一个路由器,便会出现一个中继段。中继段越多,则数据在从起始到目的花费的时间就愈多。通过使用 PING 或者 traceroute 命令,可以观察数据包到另一个因特网主机有多少个中继段。

一些因特网服务提供商(ISP)在广告上说在因特网上他们有多少中继段。理论上,到达因特网主干的中继段越少,访问的速度就越快。


:Network

:1998.3.5

## hot fixing 热固定

In a Microsoft NT File System (NTFS), hot fixing of disk sectors prevents data from being stored in a bad sector or cluster. During a hot fix, the operating system automatically detects bad disk sectors, relocates the data to a safe cluster and marks the bad cluster as unusable to the system. This process is transparent to the user, requires no interaction on the user's part and does not report any error messages (such as Abort, Retry or Fail) to any applications.

在一个 Microsoft NT 文件系统 (NTFS) 中, 磁盘扇区的热固定可以防止数据保存在一个坏的扇区或簇中。在一个热固定过程中, 操作系统自动侦测坏扇区, 将数据重新置于一个安全的簇并且将坏的簇标记为不可使用。这个过程对于用户来说是透明的, 它不需要用户的介入并且对于任何应用不会报告任何错误信息 (如放弃、重试或者失败)。

: hardware

: 2001. 4. 4


## hot potato routing 热马铃薯路由

hot potato routing , or deflection routing, the nodes of a network have no buffer to store packets in before they are moved on to their final predetermined destination. In normal routing situations, when multiple packets contend for a single outgoing channel, packets that are not buffered are dropped to avoid congestion. But in hot potato routing, each packet that is routed is constantly transferred until it reaches its final destination because the individual communication links can not support more than one packet at a time. The packet is bounced around like a “hot potato,” sometimes moving further away from its destination because it has to keep moving through the network. This technique allows multiple packets to reach their destinations without being dropped. This is in contrast to “store and forward” routing where the network allows temporary storage at intermediate locations. Hot potato routing has applications in optical networks where messages made from light can not be stored in any medium.

热马铃薯路由,或者偏差路由,是指一个网络中的信息包在送到它们的目的地之前没有缓存来存储的网络节点。在通常的路由情况下,当多个包为了一个单独的外出通道竞争时,没有被缓存起来的包就会为了避免堵塞而丢失。但是在热马铃薯路由中,每一个被路由的包通常都被一直传送到它们的最终目的地因为单一的通讯链路同时不能支持多余一个的包。这个包就象一个“热马铃薯”一样被反弹,有时它会移动超过了目的地因为它不得不穿过整个网络。这项技术允许多个包在不被丢失的情况下到达它们的目的地。这与网络允许在中间位置临时存储的“存储转发”的路由相反。热马铃薯路由在光纤网络中有了应用,其中由光产生的信息不能够存储在任何介质中。

 :network

 :2001.2.8

 :OSPF

## HPNA 家庭电话线网络联盟

Also referred to as HomePNA. A de facto home networking standard developed by the Home Phoneline Networking Alliance. This technology, building on Ethernets, allows all the components of a home network to interact over the home's existing telephone wiring without disturbing the existing voice or fax services. In the same way a LAN operates, home networking processes, manages, transports and stores information, which enables the disparate devices in a home network such as telephones, fax machines, desktops, laptops, printers, scanners and Web cameras to connect and integrate over a home's unpredictable wiring topology.


HPNA technology must coexist with telephone service and comply with FCC Part 68.

也指 HomePNA。实际上是由家庭电话线网络联盟 (Home Phoneline Networking Alliance) 开发的家庭网络标准。这项建立在以太网上的技术允许家庭网络上的所有部分在家庭现存的电话线上在不影响现存的声音或者传真服务的情况下相互作用。与一个 LAN 上的操作相同, 家庭网络处理、管理、输送和存储信息, 这样就可以使一个家庭网络上的诸如电话、传真机、桌面计算机、便携电脑、打印机、扫描仪和网络相机之类的完全不同的设备在一个家庭未知的线路拓扑上进行连接和整合。

HPNA 技术必须与电话服务共同存在并且符合 FCC Part 68。

: Network

: 2001. 1. 17

: Bluetooth collapsed backbone Ethernet local-area network mesh topology

## HSSI 高速串口接口

Short for High-Speed Serial Interface. HSSI is a serial interface that supports transmission rates up to 52 Mb/s. It is used to connect routers on local area networks with wide area networks over a 680x0 or similar high-speed line. HSSI can also be used to provide high-speed connectivity between LANs, such as token ring and Ethernet.

HSSI is a DTE /DCE interface developed by Cisco Systems and T3plus Networking to address the need for high-speed communication over WAN links.

高速串口接口的缩写。HSSI 是一个支持速率达到 52 Mb/s 传输的串口接口。它被用来将本地局域网与广域网在一个 680x0 或者高速线上的路由器连接起来。HSSI 也可以用于提供在如令牌环的 LAN 和以太网之间的高速连接。

HSSI 是一个由 Cisco 系统和 T3plus 网络开发的一个 DTE/DCE 接口用来满足在 WAN 链路上的高速通讯。

 :network

 :2001.3.8

 :topology WLAN

## HRMS 人力资源管理系统

A Human Resources Management System (HRMS) is a software application that combines many human resources functions, including benefits administration, payroll, recruiting and training, and performance analysis and review into one package.

Application Service Provider

人力资源管理系统(HRMS)是一个应用软件,它将许多人力资源功能,包括利益管理、薪水册、招聘培训和绩效分析组成在一个包中。


:software

:2001.4.20

## Hyperstitial

Hyperstitial -- A companion application, developed in the Fall of 1997 by San Francisco based software development firm Streamix Corp. As a cure for the World Wide Wait, HyperStitial technology is an application that runs alongside a browser, allowing advertisers to present full-screen ads during the delay of Web page downloads. As users wait for the content of a Web site to be displayed, or downloaded, Hyperstitial "ads" are displayed in a similar manner as television commercials. Viewers are subjected to the advertisements, which are more difficult to ignore than the common banner ad.

Hyperstitial——一个陪伴程序,1997年由软件开发商 Streamix 公司开发的。Hyperstitial 技术是一个运行在浏览器旁的应用,这样就允许广告商在网页下载等待期间展示整屏的广告。当用户等待网页显示内容时,Hyperstitial 的广告就如同电视广告一样显示出来。浏览者就会看到广告,这样比一般的横幅广告更难以忽略。

: WWW


: 1999. 1. 22

: SUPERSTITIAL

## IANA 因特网分配数字权威

Short for Internet Assigned Numbers Authority, an organization working under the auspices of the Internet Architecture Board (IAB) that is responsible for assigning new Internet-wide IP addresses.

因特网分配数字权威的缩写,是一个在因特网架构委员会(IAB)赞助下工作的组织,IAB 主要负责分配新的因特网范围的 IP 地址。

: WWW

: 2000. 5. 29

## ICANN 指定名称和数字的因特网企业

ICANN (Internet Corporation for Assigned Names and Numbers) was created by the late Jon Postel in the fall of 1998 in response to a policy statement issued by the US Department of Commerce. This statement called for the formation of a private sector not-for-profit Internet stakeholder to administer policy for the Internet name and address system.

Thus far ICANN has taken various measures to oversee the domain-name registration system's transition from government hands to private hands and to coordinate the its decentralization and integration into a global community.

Currently, ICANN is conducting a test to see how a multiple-registrars system to provide registration services for all the top-level domain names will work. The six participants are America Online Inc. , The Internet Council of Registrars, France Telecom/Oleane, Melbourne IT, an Australian e-commerce company, and register.com.

The test is scheduled to end on June 26. If it succeeds, there will be no limit to the number of companies that can register domains.

ICANN's diverse board consists of nineteen Directors, nine At-Large Directors, who serve one-year terms and will be succeeded by At-Large Directors elected by an at-large membership organization. None of the present interim directors may sit on the board once the permanent members are selected.

ICANN(指定名称和数字的因特网企业)是由 Jon Postel 在 1998 年创建的,作为一个对美国商业部发布的一个政策声明的反映。这个声明号召组成一个私人非盈利的因特网保管者来监控因特网名称和地址系统的政策。


到目前为止 ICANN 已经采取了各种措施来检查域名注册系统的从政府到个人之间的交易并且将它集中和组合

成一个全球性的组织。

现在, ICANN 正在进行一项测试来看多个注册系统如何为所有的顶级域名提供注册服务。6 个参与者是美国在线公司、因特网注册咨询、法国电信、Melbourne IT、澳大利亚电子商务公司和 register.com。

这项测试计划于 6 月 26 日完成。如果成功, 将对于能够注册域名的公司没有数字上的限制。

ICANN 的不同委员会包括 19 个主任、9 个总主任, 他们服务一年时间并将被一个由成员资格组织选举的总主任接替。现在所有的过渡期间的主任在永久成员选举起来之后都不可能任。

: WWW

: 1999. 5. 25

## IDNX 集成数字网络交换

Short for Integrated Digital Network Exchange, a technology that multiplexes voice, data, and video onto multiple T1/E1 backbones. Allowing integration of equipment from different vendors, IDNX is an integrated packet/circuit switch providing frame-relay adaption for X.25 packet switches, SNA communications processors and other HDLC-based devices. IDNX concentrates and routes this traffic along with Ethernet and token-ring LAN-generated frame-relay frames, over private or public frame-relay networks. IDNX also supports voice/fax compression, ISDN and switched 56K/64K call setup, and digital cross-connection.

The IDNX family has been functionally superseded by the Promina family of ATM switching platforms, and in particular the Promina 800 Series Multiservice Access Platform that provides an enhanced chassis and bus system to the IDNX while being able to make use of IDNX modules.

集成数字网络交换的缩写,这是一项将在多个 T1/E1 主干上的声音、数据和视频集成在一起的技术。允许集成不同生产商设备的 IDNX 是一个集成包/线路交换机,它为 X.25 包交换、SNA 通讯处理器和其他基于 HDLC 的设备提供帧中继适应。IDNX 在私有或者公用帧中继网络上通过以太网或者令牌环 LAN 产生的帧中继来集合并路由流量。IDNX 也支持声音/传真压缩、ISDN 和交换 56K/64K 拨号设置和数字交错连接。

IDNX 家族在功能上已经被 ATM 交换平台,特别是 Promina 800 系列多重服务访问平台所代替,这种交换平台给 IDNX 提供一个高级机盘和总线系统,而同时还可以使用 IDNX 模块。


 :network

 :2001.4.24

## ILEC 家庭局部交换电话公司

Short for incumbent local exchange carrier. An ILEC is a telephone company that was providing local service when the Telecommunications Act of 1996 was enacted. Compare with CLEC, a company that competes with the already established local telephone business.

家庭局部交换电话公司的缩写。一个 ILEC 是一个在 1996 年的电讯法案颁布时提供本地服务的电话公司。与 CLEC 相比,ILEC 是一个与早已建立的本地电话企业进行竞争的公司。

:communication

:2001. 2. 23

:ISP OLEC

## IMA ATM 上的反多路技术

Short for inverse multiplexing over ATM. IMA is a physical layer technology in which a high-speed stream of ATM cells is broken up and transmitted across multiple T1/E1 links, then is reconstructed back into the original ATM cell order at the destination. For companies with low to mid-range WAN requirements, the purchase of costly T3/E3 access is not a viable solution. IMA divides an aggregate stream of ATM cells across multiple T1/E1 WAN links on a cell-by-cell basis, mimicking the behavior of transmissions across T3/E3 lines.

IMA is a User-to-Network Interface standard approved by the ATM Forum in 1997.

ATM 上的反多路技术的缩写。IMA 是一个物理层技术,其中一个高速的 ATM 单元流被打散然后通过多路 T1/E1 链路进行传输,然后在目的地重新装成原始的 ATM 单元顺序。对于低范围到中等范围 WAN 需求的公司来说,T3/E3 访问的高费用不是一个可行的解决方法。IMA 将一个多路 T1/E1 WAN 链路上的 ATM 单元流集合分割为一个单元和一个单元的基本形式,这样就模仿了 T3/E3 线上的传输行为。

:network

:2001. 3. 1

:Ethernet FDDI


## iMac

An Apple computer intended for home, school, and small offices, and promoted by Apple as an easy-to-use, stylish computer that outperforms other low-cost options. The computer comes equipped with a 233MHz G3 processor -- which Apple has advertised as faster than the Pentium 400MHz Pentium IIPC processor -- 32 MB SDRAM, 4GB hard disk drive, a 56 Kb/s modem, and a Universal Serial Bus (USB), which allows a user to add devices without restarting the computer. The iMac does not come with a floppy disk drive, which has raised concerns with some critics and users. Easily recognizable for its translucent blue casing, the computer sold quickly after its introduction in August 1998.

Apple 计算机公司为家庭、学校和小型办公室制造的计算机,被 Apple 改进为一个完全超出其低造价的易用、时尚的计算机。这个计算机装备有一个 233 MHz G3 处理器——Apple 做广告说要比 Pentium 400 MHz 处理器要快——32 MB SDRAM, 4 GB 硬盘,一个 56 Kb/s 调制解调器以及一个通用串行总线(USB),这将允许用户在不用重新启动计算机的情况下添加一个设备。iMac 不带有软盘驱动器,这就受到一些评论家和用户的关注。这个具有透明蓝色外包装很容易认出的计算机在 1998 年 8 月推出后销售得很快。

: Hardware

: 1998. 10. 2

: Macintosh computer USB

**impact printer 击打式打印机**

Refers to a class of printers that work by banging a head or needle against an ink ribbon to make a mark on the paper. This includes dot-matrix printers, daisy-wheel printers, and line printers. In contrast, laser and ink-jet printers are nonimpact printers. The distinction is important because impact printers tend to be considerably noisier than nonimpact printers but are useful for multipart forms such as invoices.

指一类通过使用头或者针撞击一个墨带并在纸上打印文字的方法来工作的打印机。这包括点阵打印机、轮式打印机和行打印机。相反,激光和喷墨打印机是非击打式打印机。其中的区别是非常重要的,因为击打式打印机比非击打式打印机的噪音要大,但是对于像清单似的多部分表单是有用的。


: Hardware

: 2000. 12. 5

## impression 标记

An advertisement's appearance on an accessed Web page. For example, if the page you're on shows three ads, that's three impressions. Advertisers use impressions to measure the number of views their ads receive, and publishers often sell ad space according to impressions. (It can be tough to know, though, whether an impression really means a visitor saw the ad, since they could be browsing without graphics or might not have scrolled down far enough.) Impressions are tracked in a log maintained by a site server and are often sold on a cost per thousand (CPM) basis.

在一个被访问的网页上一个广告的外貌。例如,如果现在的页面显示了 3 个广告,这样就有 3 个标记。广告商使用标记来检测广告被浏览的次数,而且发布者根据标记来卖广告空间(虽然很难知道一个标记是否真的意味着用户看到了广告,因为用户可以不显示图像进行浏览或者可能不会向下滑动页面)。标记被一个保存在站点服务器上的一个日志文件所跟踪。

:WWW

1:1998.10.28


**information highway 信息高速公路**

A popular buzzword to describe the Internet, bulletin board services, online services, and other services that enable people to obtain information from telecommunications networks. In the U. S. , there is currently a national debate about how to shape and control these avenues of information. Many people believe that the information highway should be designed and regulated by government, just like conventional highway systems. Others argue that government should adopt a more laissez faire attitude. Nearly everyone agrees that accessing the information highway is going to be a normal part of everyday life in the near future.

一个流行的用来描述因特网、BBS、在线服务以及其他可以使人们通过网络得到信息的服务的用语。在美国,关于如何塑造和控制这些信息的方法上存在全国性的争议。许多人相信信息高速公路应当由政府设计和管理,就如同传统的高速公路系统一样。其他人则认为政府应当采用放任的态度。几乎每个人都相信访问信息高速公路将是不久的将来日常生活的一部分。

:Online Service

:1998. 5. 15

:bulletin board system

## intelligent agent 智能代理

Programs, used extensively on the Web, that perform tasks such as retrieving and delivering information and automating repetitive tasks. More than 50 companies are currently developing intelligent agent software or services, including Firefly and WiseWire.

Agents are designed to make computing easier. Currently they are used as Web browsers, news retrieval mechanisms, and shopping assistants. By specifying certain parameters, agents will “search” the Internet and return the results directly back to your PC.

Push technology relies on agents to deliver pre-selected information to your desktop. Some intelligent agents are also used as tools to track Web behavior; they can even “watch” as you surf the Net and record how often you visit certain sites. Later, they can be used to automatically download your favorite sites, let you know when your favorite site has been updated, and even tailor specific pages to suit your tastes.

在网络上广泛使用的程序,它可以完成如获取和传递信息并自动重复任务之类的工作。50 多家公司现在正在开发智能代理软件或者服务,包括 Firefly 和 WiseWire。


代理是使计算更容易而设计的。现在它们作为网络浏览器、新闻获取机制和售货助手来使用。通过指定特定的参数,代理可以“搜索”因特网并将结果返回到 PC 机。

Push 技术依靠代理来传送预先选择的信息到用户的桌面。一些智能代理也用来当做跟踪网络行为的工具,它们甚至可以“看到”用户访问的网站并纪录用户访问特定网站的频率。后来,它们被用来自动下载用户最喜欢的站点,当用户喜欢的站点更新时会让用户知道,甚至加工特定的页面来适应用户的口味。


### Interior Gateway Routing 内部网关路由协议

Interior Gateway Routing Protocol (IGRP) is a proprietary network protocol, developed by Cisco Systems, designed to work on autonomous systems. IGRP is a distance-vector routing protocol, which means that each router sends all or a portion of its routing table in a routing message update at regular intervals to each of its neighboring routers. A router chooses the best path between a source and a destination. Since each path can comprise many links, the system needs a way to compare the links in order to find the best path. A system such as RIP uses only one criteria -- hops -- to determine the best path. IGRP uses five criteria to determine the best path: the link's speed, delay, packet size, loading and reliability. Network administrators can set the weighting factors for each of these metrics.

内部网关路由协议(IGRP)是一个由 Cisco 系统公司开发的运行在独立系统上的私有网络协议。IGRP 是一个距离矢量路由协议,这就意味着在定期路由信息更新时每一个路由器向它的临近路由器发送路由表的全部或者一部分。一个路由器可以选择最近的路径。因为每一条路径可以由许多连接组成,所以系统需要一个方法为了发现更好的路径来比较连接。一个如 RIP 的系统仅使用一个方法——转发——来判断最佳路径。IGRP 使用 5 种方法来判断最佳路径连接的速度、延迟、包大小、负载和可靠性。网络管理员可以为每一个规格设置加权因素。

 :network

 :2001.3.29

 :Enhanced Interior Gateway Routing Protocol OSPF VRRP

**interrupt**

(n) A signal informing a program that an event has occurred. When a program receives an interrupt signal, it takes a specified action (which can be to ignore the signal). Interrupt signals can cause a program to suspend itself temporarily to service the interrupt.

Interrupt signals can come from a variety of sources. For example, every keystroke generates an interrupt signal. Interrupts can also be generated by other devices, such as a printer, to indicate that some event has occurred. These are called hardware interrupts. Interrupt signals initiated by programs are called software interrupts. A software interrupt is also called a trap or an exception.

PCs support 256 types of software interrupts and 15 hardware interrupts. Each type of software interrupt is associated with an interrupt handler — a routine that takes control when the interrupt occurs. For example, when you press a key on your keyboard, this triggers a specific interrupt handler. The complete list of interrupts and associated interrupt handlers is stored in a table called the interrupt vector table, which resides in the first 1 K of addressable memory.

(v) To send an interrupt signal.


(名词) 一个通知一个程序有错误发生的信号。当一个程序接收到一个中断信号时,它就采取一个特定的行动(可以不理睬这个信号)。中断信号可以导致一个程序暂时挂起以服务于中断。


中断信号来源于各种原因。例如,每一个按键会产生一个中断信号。中断也可以由其他设备产生,如打印机显示有事件发生了。这些称为硬件中断。有程序产生的中断信号称为软件中断。一个软件中断也称为一个陷阱或者异常。


PC 机支持 256 种类型的软件中断和 15 种硬件中断。

每一个软件中断类型都与一个中断句柄——当发生中断时一个获得控制的程序——有关。例如,当在键盘上按键时,这就激发了一个特别的中断句柄。中断和相关中断的完整清单保存在一个称为中断矢量的表中,这个表驻留在可设置地址内存的第一个 1K 内。

(动词) 发送一个中断信号。

:Operation System

:1998.5.16

:interrupt vector table IRQ


**interrupt vector table 中断矢量表**

A table of interrupt vectors (pointers to routines that handle interrupts). On PCs, the interrupt vector table consists of 256 4-byte pointers, and resides in the first 1 K of addressable memory. Each interrupt number is reserved for a specific purpose. For example, 16 of the vectors are reserved for the 16 IRQ lines.

An interrupt vector table is also called a dispatch table.

一个中断矢量(处理中断程序的指针)的表格。在 PC 机上,中断矢量表包含 254 个 4 字节的指针并驻留在可设置地址内存的第一个 1 K 内。每一个中断数字为一个特定的目的保留起来。例如,矢量中的 16 是为 16 IRQ 线保留的。

中断矢量表也称为分配表。

:Operation System


:1998. 3. 1


:IRQ

## Interstitial 孔隙广告

Meaning in between, an advertisement that appears in a separate browser window while you wait for a Web page to load. Interstitials are more likely to contain large graphics, streaming presentations, and applets than conventional banner ads, and some studies have found that more users click on interstitials than on banner ads. Some users, however, have complained that interstitials slow access to destination pages.

意思是当等待网页下载的时候出现在另一个浏览窗口的广告。空隙广告比传统的横幅广告更有可能包含大的图形显示和 applet,并且一些研究发现越来越多的用户点击空隙广告。然而一些用户经常抱怨空隙广告减慢了最终页面的访问速度。

: WWW

: 1998.10.15

: Hyperstitial SUPERSTITIAL World Wide Web

## IPP 因特网打印协议

The Internet Printing Protocol was first drafted between Novell and Xerox with necessary support from Internet Engineering Task Force (IETF). The idea behind the IPP is to define a protocol for end users' most common printing situations over the Internet. The IPP will be used to accommodate these four functions:

Allow a user to find out about a printer's capabilities

Allow a user to submit print jobs to a printer

Allow a user to find out the status of a printer or a print job

Allow a user to cancel a previously submitted job

IPP will be transferred using the HTTP/1.1 protocol because HTTP/1.1 has the ability to perform multiple transfers over a single TCP connection and because it is the most widely accepted protocol in the Internet marketplace.

因特网打印协议是首先在 Novell 和 Xerox 间起草的, 而且有来自因特网工程任务小组(IETF)的必要支持。IPP 的想法是定义一个适应在因特网上最终用户的最通常打印情况的协议。IPP 将被用来适应以下 4 项功能:

允许用户查看一个打印机的性能。

允许用户向一个打印机提交打印作业。

允许用户查明一个打印机的状态或者一个打印作业。

允许用户取消一个以前提交的作业。

IPP 将使用 HTTP/1.1 协议来传送, 因为 HTTP/1.1 具有在一个单一的 TCP 连接中完成多个传送的能力, 而且因为它是现在因特网市场最为广泛使用的协议。

: Standard

: 1999.5.10

## IPP 因特网包交换

Short for Internetwork Packet Exchange, a networking protocol used by the Novell NetWare operating systems. Like UDP/IP, IPX is a datagram protocol used for connectionless communications. Higher-level protocols, such as SPX and NCP, are used for additional error recovery services.

因特网包交换的缩写,这是一个 Novell 的 NetWare 操作系统使用的网络协议。如同 UDP/IP 一样,IPX 是一个用来进行无连结通信的数据包协议。更高级的协议如 SPX 和 NCP 是用来进行额外错误恢复服务的。

:Network

:1997.1.6

:SPX


## ISAM 索引顺序存取法

Abbreviation for Indexed Sequential Access Method, a method for managing how a computer accesses records and files stored on a hard disk. While storing data sequentially, ISAM provides direct access to specific records through an index. This combination results in quick data access regardless of whether records are being accessed sequentially or randomly.

There are a number of products that provide basic ISAM access for different operating systems and program languages.

索引顺序存取法的缩写,是一个用来管理计算机如何存取保存在一个硬盘上的记录和文件的方法。当顺序保存数据的时候,ISAM 提供对于特定的纪录通过一个索引来直接存取。这样就以快速的数据存取将结果组合起来而不管纪录是顺序还是随机存取的。


:Data

:1997. 11. 25

## ISV 独立软件开发商

Short for Independent Software Vendor, a company that produces software.

独立软件开发商的缩写,是一家制造软件的公司。

:Computer Industry Companies

:1998.1.14

## IT 信息技术

Short for Information Technology, and pronounced as separate letters, the broad subject concerned with all aspects of managing and processing information, especially within a large organization or company. Because computers are central to information management, computer departments within companies and universities are often called IT departments. Some companies refer to this department as IS (Information Services) or MIS (Management Information Services).

信息技术的缩写,是关于管理和处理特别是在一个大的组织和公司内部的信息的所有方面。因为计算机是信息管理的中心,公司和大学内部的计算机部门经常被称为 IT 部门。一些公司称这个部门为 IS(信息服务)或者 MIS(管理信息服务)。

:Computer Science

:1997.11.25

:MIS

## Itanium

A member of Intel's new Merced family of processors, Itanium is a 64-bit RISC microprocessor. Based on the EPIC (Explicitly Parallel Instruction Computing) design philosophy, which states that the compiler should decide which instructions be executed together, Itanium has the highest FPU power available.

In 64-bit mode, Itanium is able to calculate two bundles of a maximum of three instructions at a time. In 32-bit mode, it is much slower. Decoders must first translate 32-bit instruction sets into 64-bit instruction sets, which results in extra-clock cycle use.

Itanium's primary use is driving large applications that require more than 4 GB of memory, such as databases, ERP, and future Internet applications.

作为 Intel 处理器家族中一名新的成员, Itanium 是一个 64 位的 RISC 微处理器。Itanium 是基于 EPIC(显式并行指令计算)设计方法, 这个方法规定了编译器应当决定将共同执行哪一条指令, 因此 Itanium 具有最高的 FPU 能力。

在 64 位模式下, Itanium 同时可以计算两束最多达 3 条的指令。在 32 位模式, 这将会降低。解码器必须首先将 32 位指令组转换成 64 位指令组, 这将导致使用额外的时钟周期。

Itanium 的主要的用途在于驱动需要大于 4 GB 内存的大型程序, 如数据库、ERP 和将来的因特网应用程序。

: Hardware


: 2000. 10. 9

: ERP RISC

## IVR 交互式语音应答

Short for interactive voice response. A telephony technology in which someone uses a touch-tone telephone to interact with a database to acquire information from or enter data into the database. IVR technology does not require human interaction over the telephone as the user's interaction with the database is predetermined by what the IVR system will allow the user access to. For example, banks and credit card companies use IVR systems so that their customers can receive up-to-date account information instantly and easily without having to speak directly to a person. IVR technology is also used to gather information, as in the case of telephone surveys in which the user is prompted to answer questions by pushing the numbers on a touch-tone telephone.

交互式语音应答的缩写。这是一个电话技术,其中某个人使用一个触摸语音电话来与一个数据库进行交互以从数据库获得信息或者向数据库输入信息。IVR 技术在电话上不需要人工的介入,因为用户与数据库的交互已经由 IVR 系统所允许用户访问的内容所预先指定。例如,银行和信用卡公司使用 IVR 系统,这样他们的客户就可以马上得到最新的帐务信息并不需要直接同任何人直接说。IVR 技术也用来收集信息,如果在电话调查中用户通过点击触摸语音电话的数字键来回答问题。

: WWW

: 2001. 2. 13

: CRM EAI

Jabber 超时(长)传输

1) an error in which a faulty device (usually a NIC ) continuously transmits corrupted or meaningless data onto a network. This may halt the entire network from transmitting data beacuse other devices will perceive the network as busy.


2) a sent data packet greater than the maximum 1518 bytes specified in IEEE 802. 3. To prevent this, jabber control should be added to the hardware to make the circuitry incapable of sending information for more than 150 milliseconds ( approximately 1500 bytes).

1) 在一个出错的设备(通常是一个网络接口卡)连续不断地向网络发送破坏的或者无意义的的数据时发生的错误。这可能会影响整个网络的传输数据,因为其他设备将会认为网络很忙。

2) 一个比 IEEE 802. 3 指定的最大值 1 518 字节大的发送数据包。为了防止此问题,应当向硬件加入超时传输控制来使线路不能够发送大于 150 ms(大概 1 500 字节)的信息。

:Network

:2000. 2. 21

:network interface card

## Java

A high-level programming language developed by Sun Microsystems. Java was originally called OAK, and was designed for handheld devices and set-top boxes. Oak was unsuccessful so in 1995 Sun changed the name to Java and modified the language to take advantage of the burgeoning World Wide Web.

Java is an object-oriented language similar to C++, but simplified to eliminate language features that cause common programming errors. Java source code files (files with a .java extension) are compiled into a format called bytecode (files with a .class extension), which can then be executed by a Java interpreter. Compiled Java code can run on most computers because Java interpreters and runtime environments, known as Java Virtual Machines (VMs), exist for most operating systems, including UNIX, the Macintosh OS, and Windows. Bytecode can also be converted directly into machine language instructions by a just-in-time compiler (JIT).

Java is a general purpose programming language with a number of features that make the language well suited for use on the World Wide Web. Small Java applications are called Java applets and can be downloaded from a Web server and run on your computer by a Java-compatible Web browser, such as Netscape Navigator or Microsoft Internet Explorer.

一种由 Sun 微系统公司开发的编程语言。Java 最初称为 OAK, 为手持设备和机顶盒而设计的。Oak 并不成功, 所以在 1995 年 Sun 将名字改为 Java 并将这个语言改为可以利用当时正在萌芽阶段的 WWW。


Java 是与 C++ 相似的一种面向对象的语言, 但是它简化并消除了那些使得通常导致编程错误的语言特性。Java 源代码文件 (带有 .java 扩展名) 被编译为一种称为字

字节码(带有 .class 扩展名)的格式,它可以被一个 Java 解释器执行。编译的 Java 代码可以运行在大多数计算机上因为 Java 解释器和运行环境,称为 Java 虚拟机(VM),存在于大多数的操作系统中,包括 UNIX、Macintosh OS 和 Windows。字节码也可以通过一个运行时编译执行器(JIT)来直接转换为机器语言指令。

Java 是一个通用目的的编程语言,它带有大量的使得这个语言可以在 WWW 上使用的特性。小的 Java 应用称为 Java applet,并且可以从服务器上下载并在本地与 Java 兼容的浏览器如 Netscape 的 Navigator 或者微软的 IE 上运行。

:Software

:1996.9.1

:ActiveX bytecode JavaBeans JDBC Jini JIT JNI  
JVM icoJava thin client virtual machine

## JavaBeans

A specification developed by Sun Microsystems that defines how Java objects interact. An object that conforms to this specification is called a JavaBean, and is similar to an ActiveX control. It can be used by any application that understands the JavaBeans format.

The principal difference between ActiveX controls and JavaBeans are that ActiveX controls can be developed in any programming language but executed only on a Windows platform, whereas JavaBeans can be developed only in Java, but can run on any platform.

一个由 Sun 微系统公司开发的规范,它定义了 Java 对象如何进行相互作用。一个符合这个规范的对象被称为 JavaBean,它与 ActiveX 控件相似。它可以被任何理解 JavaBean 格式的应用程序所使用。

ActiveX 控件和 JavaBean 的主要不同在于,ActiveX 控件可以使用任何编程语言所开发但是只能够在 Windows 平台上运行,而 JavaBean 只能够使用 Java 开发,但是可以在任何平台上运行。

:Software

:1997. 1. 29

:Java

## JDBC Java 数据库连接

Short for Java Database Connectivity, a Java API that enables Java programs to execute SQL statements. This allows Java programs to interact with any SQL-compliant database. Since nearly all relational database management systems (DBMSs) support SQL, and because Java itself runs on most platforms, JDBC makes it possible to write a single database application that can run on different platforms and interact with different DBMSs.


JDBC is similar to ODBC, but is designed specifically for Java programs, whereas ODBC is language-independent.

JDBC was developed by JavaSoft, a subsidiary of Sun Microsystems.

Java 数据库连接的缩写,是一个可以使 Java 程序执行 SQL 语句的 Java API。这就使得 Java 程序可以连接任何适应 SQL 的数据库。由于几乎所有的关系数据库管理系统(DBMS)支持 SQL 并且因为 Java 自身运行于大多数的平台,JDBC 使得写一个单独的数据库应用程序而与运行于各种不同的平台以及与不同的 DBMS 进行连接变得可能。

JDBC 与 ODBC 相似,但是是专门为 Java 程序而设计的,而 ODBC 是与语言无关的。

JDBC 是由 Sun 微系统公司的 JavaSoft 开发的。


:Programming

:1997.2.14


## JDK Java 开发工具包

Short for Java Development Kit, a software development kit (SDK) for producing Java programs. The JDK is developed by Sun Microsystem's JavaSoft division. The most recent version, 1.1, includes the JavaBeans component architecture and support for JDBC.

Java 开发工具包的缩写,这是一个用来产生 Java 程序的软件开发工具包(SDK)。JDK 是由 Sun 微系统公司的 JavaSoft 分部开发。最新的版本 1.1 包含 JavaBean 组件结构并且支持 JDBC。

:Programming

:2000.10.2

:JavaBeans

## Jini

(pronounced GEE-nee; loosely derived from the Arabic for magician) Software from Sun Microsystems that seeks to simplify the connection and sharing of devices, such as printers and disk drives, on a network. Currently adding such devices to a computer or network requires installation and boot-up, but a device that incorporates Jini will announce itself to the network, provide some details about its capabilities, and immediately become accessible to other devices on the network. Under this technology it would be possible to create distributed computing, whereby capabilities are shared among the machines on a common network. This would allow users to access the power and features of any device on the network and would free the desktop computer from holding all the memory, storage and processing power it needs for any job. For example, if a disk drive on a network had Jini capabilities, any computer on that network could use the drive as though it were its own. Because Jini has the potential to make operating systems incidental to the power of networks, some have seen Jini as an attempt to reduce the influence of Windows.

The software works by passing snippets of programs, called applets, back and forth among devices. Any computer that can run Java will be able to access the code and data that passes among devices.

Sun will offer a free license for the Jini code and plans its first full release by the end of 1998.


(来自阿拉伯的魔术师)Sun 微系统公司用来简化连接和共享网络设备如打印机和磁盘驱动器的软件。现在向计算机或者网络添加这样的设备需要安装和启动,但是具有 Jini 的设备将在网络上声明自己,提供关于性能的细节并且可以立即被其他设备所访问。在这种技术下,它将有可能创建分布式计算,其中的性能被一个网络中的设备所共

享。这将允许用户访问网络上任何设备的特性和性能,而且将释放桌面计算机进行任何工作所需容纳的内存、存储和处理性能。例如,如果一个网络上的磁盘具有 Jini 性能,则任何网络上的计算机将使用这个设备就如同是他们自己的一样。因为 Jini 具有使操作系统更具有网络功能倾向,所以一些人预见 Jini 是一种减小 Windows 影响的尝试。

这个软件通过传递程序的片断来工作,称为 applet。任何可以运行 Java 的计算机将可以访问在设备间传递的代码和数据。

Sun 将为 Jini 代码提供一种免费许可证,并且在 1998 年前发布它的第一个完全的版本。

:Software


:1998. 8. 18

:JVM virtual machine


## JIT 运行时编译执行的技术

Short for just-in-time compiler, a code generator that converts Java bytecode into machine language instructions. Some Java Virtual Machines (VMs), including the VM in the Netscape Navigator browser, include a JIT in addition to a Java interpreter. Java programs compiled by a JIT generally run much faster than when the bytecode is executed by an interpreter.

运行时编译执行的技术的缩写,是一个将 Java 字节码转换为机器语言指令的代码生成器。一些 Java 虚拟机 (VM),包括 Netscape 浏览器中的 VM 除了一个 Java 解释器外还包含一个 JIT。Java 程序通过一个 JIT 来编译,通常 JIT 要比字节码由一个解释器执行的机制要更快。

:Programming

1:2000.9.26

:bytecode virtual machine

## JNI Java 本地界面

(Java Native Interface) A Java programming interface, or API, that allows developers to access the languages of a host system and determine the way Java integrates with native code. The JNI has been a point of contention between Sun and Microsoft, since Microsoft seeks to create its own native code interface and Sun claims this violates their licensing agreement.

(Java 本地界面)一种 Java 编程界面,或者 API,它允许开发者访问一个主机系统的语言,然后判断 Java 与本地代码结合的方法。JNI 已经成为 Sun 公司和微软公司之间的一个争论焦点,因为微软公司试图创建自己的本地代码界面而 Sun 公司宣称这样就违反了许可协议。

:Software


1:1998.9.8

:JVM virtual machine

**journaled file system** 日志文件系统

A file system in which the hard disk maintains data integrity in the event of a system crash or if the system is otherwise halted abnormally. The journaled file system (JFS) maintains a log, or journal, of what activity has taken place in the main data areas of the disk; if a crash occurs, any lost data can be recreated because updates to the metadata in directories and bit maps have been written to a serial log. The JFS not only returns the data to the pre-crash configuration but also recovers unsaved data and stores it in the location it would have been stored in if the system had not been unexpectedly interrupted.

一种文件系统,在这个文件系统中,当系统崩溃或者系统非正常中断时由硬盘维持数据的完整性。日志文件系统(JFS)维持着一个日志,在这个日志内记录了在硬盘的主数据区内发生的事件。如果发生了崩溃,由于对目录中元数据的更新和位图都已经写入到一个序列日志,任何丢失的数据可以得到重建。JFS 不但返回崩溃前配置的数据,而且可以恢复为保存的数据并将它保存在如果系统没有非正常中断它应当保存在的位置。


 :Computer Science

 :2001.1.29

## JPEG 联合图像专家组

Short for Joint Photographic Experts Group, and pronounced jay-peg. JPEG is a lossy compression technique for color images. Although it can reduce files sizes to about 5% of their normal size, some detail is lost in the compression.

联合图像专家组的缩写。JPEG 是一个彩色图像的有损压缩技术。虽然它可以将文件压缩到原来的 5%，但是一些细节在压缩中丢失了。

: WWW

: 1997. 2. 19

## Jscript

JScript is Microsoft's extended implementation of ECMAScript (ECMA262), an international standard based on the Netscape's JavaScript and Microsoft's JScript languages. JScript is implemented as a Windows Script engine. This means that it can be "plugged in" to any application that supports Windows Script, such as Internet Explorer, Active Server Pages, and Windows Script Host. It also means that any application supporting Windows Script can use multiple languages - JScript, VBScript, Perl, and others.

JScript (and the other languages) can be used for both simple tasks (such as mouseovers on Web pages) and for more complex tasks (such as updating a database with ASP or running logon scripts for Windows NT). Windows Script relies on external "object models" to carry out much of its work. For example, Internet Explorer's DOM provides objects such as 'document' and methods such as 'write()' to enable the scripting of Web pages.


Jscript 是微软公司对于 ECMAScript (ECMA262) 的扩展实现, 其中 ECMAScript 是一个基于 Netscape 公司的 JavaScript 和微软公司的 Jscript 的国际性标准。Jscript 是作为一个 Windows 的 Script 引擎而实施的。这就意味着它可以“插到”任何支持 Windows Script 的应用程序, 如 Internet Explorer, Active Server Pages 和 Windows Script Host。它也意味着任何支持微软公司 Script 的应用程序都可以使用多语言——Jscript、VBScript、Perl 和其他语言。

Jscript (和其他的语言) 既可以被用来执行简单的任务 (如在网页上的鼠标移动) 也可以执行复杂的任务 (如使用 ASP 更新数据库或者运行 Windows NT 的登录 scripts)。Windows Script 依靠外部“对象模型”来执行大多数工作。例如, Internet Explores 的 DOM 提供了对象如“document”和方法如“write()”来使网页的脚本生效。

## Jukebox 自动唱盘点唱机

A device that stores numerous CD-ROMs and uses a mechanical arm, carousel or other device to bring the disk to an optical station for reading and writing. A jukebox can reside in a PC or be an external device. Some of the larger jukeboxes hold as many as 500 disks and have multiple readers and drives to allow a network of users to simultaneously access data.

一个保存有大量 CD-ROM 并且使用一个机械臂、传送带或者其他设备将光盘放到一个位置进行读写的设备。一个点播机可以安装在 PC 上或者作为一个外部设备来使用。一些大的点唱机可以保存 500 张盘并且具有多个读盘器和驱动器以允许网络用户同时访问数据。

: Hardware

: 1998. 9. 29

## Jumper 跳线器

A metal bridge that closes an electrical circuit. Typically, a jumper consists of a plastic plug that fits over a pair of protruding pins. Jumpers are sometimes used to configure expansion boards. By placing a jumper plug over a different set of pins, you can change a board's parameters.

一个用来关闭一个电路的金属桥。一般的,一个跳接器包含一个用来适应一对突出管脚的塑料插头。跳接器有时用来配置扩展主板。通过在不同的管脚组上安置一个跳接器插头,可以改变组板的参数。

:Hardware

:200.12.22

:configuration expansion board


## JVM Java 虚拟机

Acronym for Java Virtual Machine. An abstract computing machine, or virtual machine, JVM is a platform-independent programming language that converts Java bytecode into machine language and executes it. Most programming languages compile source code directly into machine code that is designed to run on a specific microprocessor architecture or operating system, such as Windows or UNIX. A JVM — a machine within a machine — mimics a real Java processor, enabling Java bytecode to be executed as actions or operating system calls on any processor regardless of the operating system. For example, establishing a socket connection from a workstation to a remote machine involves an operating system call. Since different operating systems handle sockets in different ways, the JVM translates the programming code so that the two machines that may be on different platforms are able to connect.


{JP2JVMs are not the only virtual machines being used today.

Java 虚拟机(Java Virtual Machine)的首字母缩写。一个抽象的计算机器,或者虚拟机器。JVM 是一个独立的编程语言平台,它将 Java 的字节码转化成机器语言并执行。大多数的编程语言将源代码直接编译成运行于某一特定微处理器结构或操作系统如 Windows、UNIX 的机器语言。一个 JVM——一个机器内的机器——模拟一个真实的 Java 处理器,当任何处理器上的程序或操作系统调用时可以执行 Java 字节码而不管操作系统的类型。例如,建立一个工作站到远程机器的 socket 连接则包含一个操作系统的调用。由于不同的操作系统以不同的方式处理 socket, JVM 翻译了程序代码这样可能具有不同平台的两个机器能够进行连接。

现在 JVM 不是正在使用的惟一的虚拟机。

:programming


:2001.1.19

:Java Jini JIT JNI

## KDE K 桌面环境

Acronym for K Desktop Environment. A network-transparent contemporary desktop environment for UNIX workstations. KDE is part of the free software, or open source, movement, which competes with the more common commercial operating system /desktop platforms on the market. KDE is free to anyone and its source code is available to anyone to modify. Development of KDE takes place across the Internet where users share information with each other regarding current developments of the system.

K 桌面环境的缩写。作为一个 UNIX 工作站的网络透明流行的桌面环境, KDE 是自由软件或者开放资源运动的一部分, 它在市场上与普通的商业操作系统/桌面平台进行竞争。KDE 对于任何人都是免费, 并且它的源代码是公开让任何人修改的。KDE 的开发是在因特网上, 网上用户关心当前系统的开发而共享彼此的信息。

: Operation System

: 2001. 1. 19

: FreeBSD GNOME GNU open source

## kernel 内核

The central module of an operating system. It is the part of the operating system that loads first, and it remains in main memory. Because it stays in memory, it is important for the kernel to be as small as possible while still providing all the essential services required by other parts of the operating system and applications. Typically, the kernel is responsible for memory management, process and task management, and disk management.

操作系统的核心模块。这是操作系统首先载入的部分。因为内核常驻在内存,所以内核尽可能的小而且还能够向操作系统的其他部分和应用程序提供所有必须的服务。一般的,内核主要负责内存管理、处理和任务管理、磁盘管理。

 :Operation System

 :2000.12.9

 :Operating Systemskernel32.dll

**kernel32. dll**

Kernel32. dll is the 32-bit dynamic link library found in the Windows operating system kernel. It handles memory management, input/output operations, and interrupts. When Windows boots up, kernel32. dll is loaded into a protected memory space so other applications do not take that space over.

On occasion, though, users may encounter the “invalid page fault” error.

This error occurs when a program or application tries to access kernel32. dll’s protected memory space. Sometimes the error is caused by one particular program or application, and other times it is provoked by multiple files and applications.


If the problem results from running one application, then the application needs to be replaced. If the problem occurs when accessing multiple files and applications, the corruption is probably caused by faulty hardware.

Kernel32. dll 是 Windows 操作系统内核中的一个 32 位动态链接库。它处理内存管理、输入/输出操作和中断。当 Windows 启动时, Kernel32. dll 就载入到一个保护内存空间, 这样其他的应用程序不会将这个空间覆盖。

虽然偶尔用户可能遇到“非法页错误”的错误。

当一个程序或者应用试图访问 Kernel32. dll 的保护内存空间时就会出这个错误。有时这个错误是由一个特定程序或者应用导致的, 另外有些时候它是由多个文件或者应用引起的。

如果问题是由运行一个应用引起, 则需要替代这个应用。如果当访问多个文件和应用时发生问题, 则错误的原因可能是由于硬件错误引起的。

 : Operation System

 : 1999. 11. 29

 : kernel operating system

**key 键/关键字**

(1) A button on a keyboard.

(2) In database management systems, a key is a field that you use to sort data. It can also be called a key field, or index. For example, if you sort records by age, then the age field is a key. Most database management systems allow you to have more than one key so that you can sort records in different ways. One of the keys is designated the primary key, and must hold a unique value for each record. A key field that identifies records in a different table is called a foreign key.

(3) A password or table needed to decipher encoded data.

(1) 键盘上的一个按钮。

(2) 在数据库管理系统中,一个关键字是用来排序数据的字段。它也可以被称为关键字字段、索引。例如,如果通过年龄对记录进行排序,则年龄字段就是关键字。大多数数据库管理系统允许有多于一个的关键字,这样就可以以多种方式进行排序。其中一个关键字被设为主关键字,而且对于每一个字段有一个惟一的值。一个用来标识不同的表里记录的关键字字段被称为一个外来关键字。

(3) 一个用来破解编码数据的口令或者表格。

:Data


:1998.6.1

## KQML 知识查询和操作语言

Short for Knowledge Query and Manipulation Language. KQML is a language and protocol for exchanging information and knowledge. Programs use KQML to communicate attitudes about information, such as querying, stating, believing, requiring and subscribing. It is both a message format and a message-handling protocol that supports run-time knowledge sharing among agents. KQML can be used as a language for an application program to interact with an intelligent system or for disparate intelligent systems to share knowledge in support of cooperative problem solving. The language is indifferent to the format of the information itself, thus KQML expressions can contain subexpressions in other languages. It also is complementary to newer approaches to distributed computing such as CORBA.

KQML is part of the ARPA Knowledge Sharing Effort, which is a consortium to develop conventions facilitating the sharing and reuse of knowledge bases and knowledge-based systems. Its goal is to define, develop, and test infrastructure and supporting technology to enable participants to build much bigger and more broadly functional systems than could be achieved working alone.

知识查询和操作语言的缩写。KQML 是一个用来交换信息和知识的语言和协议。程序使用 KQML 来交换关于信息的意见,如查询、陈述、意见、需求和订购。它是支持在代理中共享运行知识的信息形式和信息处理协议。KQML 可以作为一个应用程序的语言来与一个智能系统进行交互,或者为全异智能系统共享知识以此支持协作解决问题。这种语言不同于信息本身的形式,这样 KQML 表达式能够包含其他语言的子表达式。它也是最新分布计算方法如 CORBA 的补充。

 :programming


 :2001. 4. 24

 :CORBA


## L2TP 二层隧道协议

Short for Layer Two Tunneling Protocol, an extension to the PPP protocol that enables ISPs to operate Virtual Private Networks (VPNs). L2TP merges the best features of two other tunneling protocols: PPTP from Microsoft and L2F from Cisco Systems. Like PPTP, L2TP requires that the ISP's routers support the protocol.

二层隧道协议的缩写,是一个 PPP 协议的扩展,它使得 ISP 可以操作虚拟专用网络(VPN)。L2TP 综合了两个其他的隧道协议最好的特性:微软公司的 PPTP 和 Cisco 系统的 L2F。如 PPTP 一样,L2TP 需要 ISP 的路由器支持这个协议。

:Communication

:2000.10.13

:dial-up access

## LATA 本地存取和传送区域

Local Access and Transport Area is a U. S. term that refers to a geographic region assigned to one or more telephone companies for providing communication services.


A connection between two telephone companies within the same region is referred to as intraLATA. A connection between two local exchange carriers in different regions is called interLATA, which is the same as long-distance service.

Provisions guiding the use of LATAs are outlined in the Telecommunications Act of 1996.

**本地存取和传送区域**(Local Access and Transport Area)是一个美国的术语,是指指定给一个或多个电话公司用以提供通信服务的地理区域。

在同一地区的两家电话公司之间的连接称为 intraLATA。在不同地区的两个本地交换载体之间的连接称为 interLATA,这等同于长途服务。

1996 年的电讯法案概述了指导用户使用 LATA 的规定。

:Communication

:2000.2.18

## LDCM 局域网桌面客户端管理器

Developed by Intel, LANDesk Client Manager is a management tool that constantly monitors networked personal computers and workstations for hardware problems. If a malfunction is detected, the administrator is alerted.


LDCM contains an inventory of hundreds of hardware and thousands of software items and provides a failure mechanism that catches problems with hard drive, fan, power supply and/or temperature.

LDCM works using standards such as SNMP, DMI and WfM.

局域网桌面客户端管理器是由 Intel 开发的,是一个监视网络上的个人计算机和工作站硬件问题的管理工具。如果监测到故障发生,就会向管理员报警。

LDCM 包含一个上百个硬件的详细名录和上千个软件条目并且提供一个处理硬盘、风扇、电源和温度问题的故障机制。

LDCM 使用标准如 SNMP、DML 和 WfM 进行工作。

: Hardware

: 1999. 10. 28

**leased line 租用线**

A permanent telephone connection between two points set up by a telecommunications common carrier. Typically, leased lines are used by businesses to connect geographically distant offices. Unlike normal dial-up connections, a leased line is always active. The fee for the connection is a fixed monthly rate. The primary factors affecting the monthly fee are distance between end points and the speed of the circuit. Because the connection doesn't carry anybody else's communications, the carrier can assure a given level of quality.

For example, a T-1 channel is a type of leased line that provides a maximum transmission speed of 1.544 Mb/s. You can divide the connection into different lines for data and voice communication or use the channel for one high speed data circuit. Dividing the connection is called multiplexing.

Increasingly, leased lines are being used by companies, and even individuals, for Internet access because they afford faster data transfer rates and are cost-effective if the Internet is used heavily.

由一个电信交换公司建立起两个点间的一个永久的电话连接。典型的租用线在商业上是用于连接远距离的办公室。不像通常的拨号连接,租用线总是处于活动状态。连接的费用在每个月是固定的。主要影响月费用的因素是两点之间的距离和线路的速度。因为连接不承担任何其他人的通讯任务,所以交换公司可以保证指定的质量。


例如,一个 T-1 通道是一种提供最大传输速度 1.544 Mb/s 的租用线。可以将连接分割成数据和声音通信等不同的线路或者使用一个高速数据线路的通道。分割连接称为多路复用。

现在租用线正逐步的被公司甚至个人用来进行因特网连接,这是因为租用线可以提供更快的数据传输速率而且

如果因特网使用的较频繁其费用是合算的。

:Network

:1998.2.26

:dial-up access

## LED 发光二极管

Abbreviation of light emitting diode, an electronic device that lights up when electricity is passed through it. LEDs are usually red. They are good for displaying images because they can be relatively small, and they do not burn out. However, they require more power than LCDs.

发光二极管的缩写,是一个当电流通过时发光的电子设备。LED 通常是红色。它们适于显示图形因为它们较小而且不会烧坏。但是他们需要的电能比 LCD 多。

:Hardware

1:1996.9.1


## library 库

(1) A collection of files.

(2) In programming, a library is a collection of pre-compiled routines that a program can use. The routines, sometimes called modules, are stored in object format. Libraries are particularly useful for storing frequently used routines because you do not need to explicitly link them to every program that uses them. The linker automatically looks in libraries for routines that it does not find elsewhere. In MS-Windows environments, library files have a .DLL extension.

(1) 一个文件的集合。

(2) 在编程中,一个库指一个程序可以使用的预编译程序的集合。程序,有时称为功能块,是以对象的形式存储的。库对于频繁储存的程序特别有用,因为不需要显式地将它们与每个使用它们的程序连接起来。连接器自动为程序查找库而不用在其他地方查找。在 MS-Windows 环境中,库文件有一个.DLL 的扩展名。

:Programming

:1997.4.15


## linkrot

Internet slang for the condition where hypertext links lead nowhere because Web sites have removed Web pages or reorganized them. Also known as outdated links.


To prevent linkrot, Web sites can add redirects, which automatically take users to the correct url, or, they can provide the new and correct url on the old page.

对于由于网站已经删除了网页或者重新组织了网页而导致超链接找不到地址的现象的一个因特网俚语。

为了防止 linkrot 的出现, 站点可以添加重定向, 这样就自动使用户到达正确的 URL。

: WWW

: 2000. 3. 6

: URL World Wide Web


## load balancing 负载平衡

Distributing processing and communications activity evenly across a computer so that no single device is overwhelmed. Load balancing is especially important for networks where it's difficult to predict the number of requests that will be issued to a server. Busy Web sites typically employ two or more Web servers in a load balancing scheme. If one server starts to get swamped, requests are forwarded to another server with more capacity. Load balancing can also refer to the communications channels themselves.

在一个计算机网络上分配处理过程和通信,这样没有一个设备会超负荷。负载平衡对于网络非常重要,因为很难预测发送到服务器上的请求数量。繁忙的网络站点一般在一个负载平衡的模式下使用两个或者更多网络服务器。如果一个服务器出现堵塞现象,请求就会发送到另一台服务器。负载平衡也可以指通信通道本身。

: Network

: 1997. 4. 23

: Clustering network-attached storage server farm  
three-tier

**local-area network 局域网**

A computer network that spans a relatively small area. Most LANs are confined to a single building or group of buildings. However, one LAN can be connected to other LANs over any distance via telephone lines and radio waves. A system of LANs connected in this way is called a wide-area network (WAN).

Most LANs connect workstations and personal computers. Each node (individual computer) in a LAN has its own CPU with which it executes programs, but it is also able to access data and devices anywhere on the LAN. This means that many users can share expensive devices, such as laser printers, as well as data. Users can also use the LAN to communicate with each other, by sending e-mail or engaging in chat sessions.

There are many different types of LANs. Ethernets being the most common for PCs. Most Apple Macintosh networks are based on Apple's AppleTalk network system, which is built into Macintosh computers.

The following characteristics differentiate one LAN from another:

**topology :** The geometric arrangement of devices on the network. For example, devices can be arranged in a ring or in a straight line.

**protocols :** The rules and encoding specifications for sending data. The protocols also determine whether the network uses a peer-to-peer or client/server architecture.

**media :** Devices can be connected by twisted-pair wire, coaxial cables, or fiber optic cables. Some networks do without connecting media altogether, communicating instead via radio waves.

LANs are capable of transmitting data at very fast rates, much faster than data can be transmitted over a tele-

phone line; but the distances are limited, and there is also a limit on the number of computers that can be attached to a single LAN.

一个覆盖相对较小地区的计算机网络。大多数 LAN 局限于一个单一的建筑内或者建筑群。然而,一个 LAN 可以通过电话线和微波在任何距离内与其他 LAN 相连。一个以这种方法连接起来的 LAN 系统称为广域网 (WAN)。

大多数 LAN 连接工作站和个人计算机。在 LAN 内的每一个节点(单一的计算机)拥有自己的可以执行程序的 CPU,但是同时也可以访问在 LAN 上的任何地方的数据和设备。这就意味着多个用户可以共享贵重的设备,比如激光打印机,还有重要的数据。用户也可以使用 LAN 通过使用 e-mail 或者聊天室与其他人进行交流。

下面的特性各个 LAN 是不同的:

拓扑:网络设备的几何安排。例如,设备可以被安排成一个环型或者一条线。

协议:发送数据的规则和编码规范。协议也决定了网络是使用点对点框架还是客户端/服务器框架。

媒介:能够由双绞线、同轴电缆或者光纤连接起来的设备。一些网络不需要将媒介连接在一起进行通信,而是通过微波进行的。

LAN 可以以很快的速度传送数据,要比数据在电话线上的传送速度要快,但是距离要受到限制,并且在能够连接到一个 LAN 上的数量上受到限制。

:Network

:1998.5.16


**localization 本地化**

The process of adapting software for a particular country or region. For example, the software must support the character set of the local language and must be configured to present numbers and other values in the local format. Localizing a word processor might require adding a new spell checker that recognizes words in the local language.

Software companies that wish to sell their software internationally must invest considerable money and energy in localization efforts. There are also companies that specialize in localizing software for third parties.

是一个软件适应一个特定的国家或者地区的过程。例如,软件必须支持当地语言的字符集并且必须以当地的形式配置成显示数字和其他值。本地化一个字处理系统可能需要加入一个用来识别本地语言文字的拼写检查器。

希望在全世界范围内销售软件的软件公司必须投资相当的数目来从事本地化工作。也有专门为第三方从事本地化软件的公司。

:Programming

1:1998.7.12

:character set

## logical 逻辑的

(1) Refers to a user's view of the way data or systems are organized. The opposite of logical is physical, which refers to the real organization of a system. For example, a logical description of a file is that it is a collection of data stored together. This is the way files appear to users. Physically, however, a single file can be divided into many pieces scattered across a disk.

(2) Refers to any Boolean logic operation.

(1) 指用户关于数据或者系统组织的观点。逻辑的反面是物理上的,后者指一个系统真实的组织。例如,一个文件的逻辑描述是它是数据存储在一起的集合。这是文件出现在用户面前的方式。然而在物理上,一个文件可以被分为许多分布在磁盘上的片。

(2) 指任何布尔逻辑操作。

:Computer Science

:1998.5.16

**loopback address 回环地址**

Loopback address is a special IP number (127. 0. 0. 1) that is designated for the software loopback interface of a machine. The loopback interface has no hardware associated with it, and it is not physically connected to a network.

The loopback interface allows IT professionals to test IP software without worrying about broken or corrupted drivers or hardware.

回环地址是一个特殊的 IP 地址 (127. 0. 0. 1), 它是为一个机器的软件回环接口设计的。回环接口与硬件没有联系, 没有与网络有物理上的连接。

回环接口允许 IT 人员测试 IP 软件, 而不用担心驱动或者硬件上的破坏或崩溃。

: Network

 **1**: 2000. 3. 24

## Luhn formula LUHN 规则

Based on ANSI X4.13, the LUHN formula (also known as the modulus 10 -- or mod 10 -- algorithm) is used to generate and/or validate and verify the accuracy of credit-card numbers.

Most credit cards contain a check digit, which is the digit at the end of the credit card number. The first part of the credit-card number identifies the type of credit card (Visa, MasterCard, American Express, etc.), and the middle digits identify the bank and customer.

To generate the check digit, the LUHN formula is applied to the number. To validate the credit-card number, the check digit is figured into the formula.

The LUHN formula was created in the late 1960s by a group of mathematicians. Shortly thereafter, credit card companies adopted it. Because the algorithm is in the public domain, it can be used by anyone.

The LUHN formula is also used to check Canadian Social Insurance Number (SIN) validity. In fact, the LUHN formula is widely used to generate the check digits of many different primary account numbers. Almost all institutions that create and require unique account or identification numbers use the Mod 10 algorithm.

基于 ANSI X4.13 的 LUHN 规则(也称为模式 10 算法)是用来产生以及/或者验证和确认信用卡号正确性的。

大多数信用卡包含一个检查数字,它位于信用卡号的末位。信用卡号的第一部分标识了信用卡(Visa、MasterCard、American Express 等等)的类型,中间部分标识了银行和客户。


为了产生检查数字,需要应用 LUHN 规则。为了验证信用卡号,检查数字被计算到规则中。

LUHN 规则由一群数学家创建于 20 世纪 60 年代。其后,信用卡公司采用了它。因为算法位于公共区域,所以

它可以被任何人使用。

LUHN 规则也可以用来检查加拿大社会保障数字 (SIN) 的正确性。实际上,LUHN 规则被广泛地使用来产生许多不同个人账号的检查数字。几乎所有创建和需要独一无二账号或者标识号码的制度都使用模式 10 算法。

:Online Service

:1999.12.13

## machine dependent 机器相关

Refers to a software application that runs only on a particular type of computer. Programs that run on a variety of different types of computers are called machine independent.

Almost all programs have some machine dependencies (that is, they run somewhat differently on different types of computers), but the degree of independence can vary widely. Machine-independent programs give you more flexibility: if you buy a new type of computer, you can continue using the same software package instead of learning a new one. On the other hand, machine-dependent programs often take advantage of special hardware features of a particular computer, making the programs faster.

Another term for machine dependent is device dependent, but whereas machine dependent usually refers to the computer, device dependent can refer to a dependency on any device, like a printer.

指一个仅仅运行在一个特定类型计算机上的软件应用程序。可以运行在各种不同类型计算机上的程序称为机器无关。

几乎所有的程序都有一些机器相关(也就是他们在不同类型的计算机上运行的有一些不同),但是无关的程度是非常不同的。机器无关的程序可以给用户更大的灵活性:如果购买一种新型的计算机,可以继续使用同样的软件包而不需要学习一种新的。另一方面,机器有关的程序经常利用一种特定计算机的特殊硬件特性来使得程序运行得更快。

另一个机器有关的术语是设备相关,但是机器相关经常指计算机,而设备相关经常指一个任何附属的设备,如打印机。

:Software

:1998.5.16

**Macintosh computer Macintosh 计算机**

A popular model of computer made by Apple Computer. Introduced in 1984, the Macintosh features a graphical user interface (GUI) that utilizes windows, icons, and a mouse to make it relatively easy for novices to use the computer productively. Rather than learning a complex set of commands, you need only point to a selection on a menu and click a mouse button.

Moreover, the GUI is embedded into the operating system. This means that all applications that run on a Macintosh computer have a similar user interface. Once a user has become familiar with one application, he or she can learn new applications relatively easily. The success of the Macintosh GUI led heralded a new age of graphics-based applications and operating systems. The Windows interface copies many features from the Mac.


There are many different Macintosh models, with varying degrees of speed and power. All models are available in many different configurations. All models since 1994 are based on the PowerPC microprocessor.


一个由 Apple 公司创建的流行的计算机型号。Macintosh 于 1984 年引入,它的特点是一个使用窗口、图标和鼠标的图形用户界面,这对于新手来说更容易使用计算机。这样就不需要学习复杂的计算机命令,用户只需要在菜单上选择并点击。

GUI 嵌入到操作系统中。这就意味着所有的运行在 Macintosh 上的应用有一个相似的界面。一旦用户对于一个应用熟悉了,则他(她)就可以相对容易地学习其他应用了。Macintosh GUI 的成功导致了基于图形的应用和操作系统的新的革命。Windows 就参考了许多来自 Mac 的特点。

有许多不同种类的 Macintosh 型号,具有不同的速度和功率。所有的型号拥有不同的配置。自 1994 年所有的

型号都是基于 PowerPC 微处理器。

: Type of Computer


: 1998. 5. 19

## MAE 城市区域以太网

Short for Metropolitan Area Ethernet, a Network Access Point (NAP) where Internet Service Providers (ISPs) can connect with each other. The original MAE was set up by a company called MFS and is based in Washington, D. C. Later, MFS built another one in Silicon Valley, dubbed MAE-West. In addition to the MAEs from MFS, there are many other NAPs. Although MAE refers really only to the NAPs from MFS, the two terms are often used interchangeably.

城市区域以太网的缩写,是一个因特网服务提供商可以用来互相连接的网络访问点(NAP)。原始的 MAE 是由一个称为 MFS 的公司建立并且在华盛顿特区建立的。以后,MFS 在硅谷建立了另一个,称为 MAE-West。除了 MFS 的 MAE,还有许多其他的 NAP。虽然 MAE 仅指 MFS 的 NAP,但是这两个术语经常交换使用。

:Network

:2000.11.28

:ISP

## magnetic drum 磁鼓

A direct-access, or random-access, storage device. A magnetic drum, also referred to as drum, is a metal cylinder coated with magnetic iron-oxide material on which data and programs can be stored. Magnetic drums were once used as a primary storage device but have since been implemented as auxiliary storage devices.


The tracks on a magnetic drum are assigned to channels located around the circumference of the drum, forming adjacent circular bands that wind around the drum. A single drum can have up to 200 tracks. As the drum rotates at a speed of up to 3,000 rpm, the device's read/write heads deposit magnetized spots on the drum during the write operation and sense these spots during a read operation. This action is similar to that of a magnetic tape or disk drive.

Unlike some disk packs, the magnetic drum cannot be physically removed. The drum is permanently mounted in the device. Magnetic drums are able to retrieve data at a quicker rate than tape or disk devices but are not able to store as much data as either of them.


一个直接访问或者随机访问的存储设备。磁鼓,也称为鼓,是一个涂有磁性金属氧化材料的圆柱,而数据和程序可以存储在上面。磁鼓曾经作为一种主要的存储设备,但是现在已经作为一种辅助的存储设备。

磁鼓上的磁轨被指定为位于鼓圆周上通道,它组成了绕鼓的临近圆形带。一个单一的鼓可以有 200 多个磁轨。当鼓以 3 000 r/min 的速度旋转时,这个设备的读/写头在写操作中将磁化的点置于鼓上,而在读的过程中就会识别这些点。这种行为与磁带或者磁盘驱动器的相似。

与一些磁盘包不同,磁鼓不能够被物理上移动。磁鼓将会永久地安装在设备上。磁鼓可以比磁带或者磁盘驱动器更快的速度读取数据,但是不能够与这两者一样存储大量的数据。

:computer science

:2001. 4. 25

:solid state disk


## Mainframe 大型机


A very large and expensive computer capable of supporting hundreds, or even thousands, of users simultaneously. In the hierarchy that starts with a simple microprocessor (in watches, for example) at the bottom and moves to supercomputers at the top, mainframes are just below supercomputers. In some ways, mainframes are more powerful than supercomputers because they support more simultaneous programs. But supercomputers can execute a single program faster than a mainframe. The distinction between small mainframes and minicomputers is vague, depending really on how the manufacturer wants to market its machines.

Unisys and IBM are the largest manufacturers of mainframes.

一种非常巨大而且昂贵的可以支持成百甚至上千的用户同时访问的计算机。在一个开始于简单的微处理器(例如手表中的)到顶部的超级计算机的层次结构中,大型机正好在超级计算机的下面。在某方面,大型机比超级计算机更强大,因为大型机支持更多的同步程序。但是超级计算机可以比大型机更快的速度执行单一一个程序。小的大型机和小型机的区别很小,主要依靠制造商如何推销它的机器。

Unisys 和 IBM 是最大的大型机制造商。


: Type of Computer

: 1998. 11. 8

**malware 恶意软件**

Short for malicious software. Software designed specifically to damage or disrupt a system, such as a virus or a Trojan horse.

恶意软件的缩写。是指专门设计用来破坏一个系统的软件,如一个病毒或者一个特洛伊木马。

 :computer science

 :2001. 3. 29

 :CERT/CC quarantine


**Managed Service Provider 管理服务提供商**

A Managed Service Provider (MSP), also called a Management Service Provider, is a company that manages information technology services for other companies via the Web. An MSP client may use internal operations or an ASP to run its business functions.

一个管理服务提供商(MSP)是一个通过 Web 为其他公司管理信息技术服务的公司。一个 MSP 客户可以使用内部操作或者一个 ASP 来运行它的商业功能。

 :software

 :2001.4.20

 :Application Service Provider

**mass storage 海量存储器**

Refers to various techniques and devices for storing large amounts of data. The earliest storage devices were punched paper cards, which were used as early as 1804 to control silk-weaving looms. Modern mass storage devices include all types of disk drives and tape drives. Mass storage is distinct from memory, which refers to temporary storage areas within the computer. Unlike main memory, mass storage devices retain data even when the computer is turned off.

The main types of mass storage are:

- \* floppy disks : Relatively slow and have a small capacity, but they are portable, inexpensive, and universal.

- \* hard disks : Very fast and with more capacity than floppy disks, but also more expensive. Some hard disk systems are portable (removable cartridges), but most are not.

- \* optical disks : Unlike floppy and hard disks, which use electromagnetism to encode data, optical disk systems use a laser to read and write data. Optical disks have very large storage capacity, but they are not as fast as hard disks. In addition, the inexpensive optical disk drives are read-only. Read/write varieties are expensive.

- \* tapes : Relatively inexpensive and can have very large storage capacities, but they do not permit random access of data.

Mass storage is measured in kilobytes (1,024 bytes), megabytes (1,024 kilobytes), gigabytes (1,024 megabytes) and terabytes (1,024 gigabytes).

Mass storage is sometimes called auxiliary storage.

指各种各样的存储大量数据的技术和设备。最早的存储设备是打孔纸卡片,它是在 1804 年用来控制丝绸织布机的。现在的存储设备包括所有类型的硬盘驱动器和磁盘驱

动器。海量存储器与内存不同,内存指计算机内部的临时存储区域。不像主内存,海量存储器设备始终保存数据,即使计算机关闭以后。

主要的海量存储器类型有:

- \* 软盘:相对来说速度较慢而且存储量较小,但是他们便于携带、便宜而且通用。


- \* 硬盘:比软盘要快而且容量要大,但是比较昂贵。一些硬盘系统可以携带,但是大多数不能。

- \* 光盘:不像使用电磁机制来编码数据的软盘和硬盘,光盘系统使用一个激光头来读写数据。光盘有非常大的容量,但是不如硬盘速度快。除此之外,较便宜的光盘驱动器是只读的。读/写光盘则要昂贵得多。

- \* 磁带:相对来说比较便宜而且有很大的存储容量,但是不允许随意地存取数据。

海量存储器是使用千字节(1 024 B)、兆字节(1 024 KB)、吉字节(1 024 MB)和特字节(1 024 GB)来度量的。

海量存储器有时称为辅助存储器。

:Computer Science

:2000.10.23


## MBR 主引导记录

Short for Master Boot Record, a small program that is executed when a computer boots up. Typically, the MBR resides on the first sector of the hard disk. The program begins the boot process by looking up the partition table to determine which partition to use for booting. It then transfers program control to the boot sector of that partition, which continues the boot process. In DOS and Windows systems, you can create the MBR with the FDISK /MBR command.

An MBR virus is a common type of virus that replaces the MBR with its own code. Since the MBR executes every time a computer is started, this type of virus is extremely dangerous. MBR viruses normally enter a system through a floppy disk that is installed in the floppy drive when the computer is started up. Even if the floppy disk is not bootable, it can infect the MBR.

主引导记录的缩写,是一个当计算机启动时被执行的小程序。一般 MBR 驻留在硬盘的第一个扇区。这个程序通过查看分区表决定使用那一个分区启动的方法来开始一个启动过程。然后它将程序控制权传送给那个分区内的启动扇区,这个扇区继续启动过程。在 DOS 和 Windows 系统中,可以使用 FKISK/MBR 命令创建一个 MBR。

一个 MBR 病毒是一个命令类型的病毒,它可以使用它自己的代码取代 MBR。由于 MBR 在每一次计算机开始时执行,这种类型的病毒相当危险。MBR 病毒通常在计算机启动时通过软驱中的软盘进入系统的。即使软盘不是启动盘,它还是可以感染 MBR 的。

:Operation Sysem

:1998.3.17

:Boot bootable diskette

## MCI 媒体控制接口

Short for Media Control Interface, a high-level API developed by Microsoft and IBM for controlling multimedia devices, such as CD-ROM players and audio controllers. Both OS/2 and Windows support MCI.

媒体控制接口的缩写,是一个由微软公司和 IBM 公司开发的高级 API,它原来控制多媒体设备,如 CD-ROM 播放器和音频控制器。OS/2 和 Windows 都支持 MCI。

:Multimedia

:1998.5.6

**memory effect 记忆效果**

The property of nickel-cadmium (NiCad) batteries that causes them to lose their capacity for full recharging if they are discharged repeatedly the same amount and then recharged without overcharge before they have fully drained. The term derives from the fact that the battery appears to have a memory for the amount of charging it can sustain.

The effect was first noticed in aerospace applications and has been widely misused with regard to the batteries used in portable computer devices. The memory effect is very rare in computer NiCad batteries, especially modern ones.

镍镉(NiCad)电池的特点。如果电池连续放电同样的数量然后在进行充电时没有超过所放的电量,这个特点就会使电池失去完全充电的能力。这个术语来自这样一个事实:电池对于它所充的电量好像有记忆。

这个效果首先在航天应用中发现的,在便携式电脑设备中的电池已经不使用它了。记忆效果在计算机的 NiCad 电池中非常少见,尤其是现在的电池。

: Mobile Computing

: 1998. 5. 16

## memory resident 内存驻留

Permanently in memory. Normally, a computer does not have enough memory to hold all the programs you use. When you want to run a program, therefore, the operating system is obliged to free some memory by copying data or programs from main memory to a disk. This process is known as swapping.

Certain programs, however, can be marked as being memory resident, which means that the operating system is not permitted to swap them out to a storage device; they will always remain in memory.

The programs and data used most frequently are the ones that should be memory resident. This includes central portions of the operating system and special programs, such as calendars and calculators, that you want to be able to access immediately.


Another term for memory resident is RAM resident. In DOS systems, memory-resident programs are called pop-up utilities or TSRs (terminate and stay resident).

永久地在内存中。通常一个计算机没有足够的内存来包含所有使用的程序。因此当想要运行一个程序时，操作系统被迫通过从主内存中复制一些数据或者程序到硬盘上来释放出一些内存。这个过程称为交换。


然而某个程序可以被标记为内存驻留，这就意味着操作系统不允许将他们交换到硬盘上，他们始终保留在内存。

最频繁使用的程序和数据是应当内存驻留的。这包括操作系统的中央部分和特殊的程序，如日历和计算器等希望能够立即存取的程序。

内存驻留另一个术语是 RAM 驻留。在 DOS 系统中，内存驻留程序称为弹出应用或者 TSR(终止并驻留)。

 :Operation System


 :1997. 11. 25

 :operating system

## Meta 元

In computer science, a common prefix that means “about”. So, for example, metadata is data that describes other data (data about data). A metalanguage is a language used to describe other languages. A metafile is a file that contains other files. The HTML META tag is used to describe the contents of a Web page.

在计算机科学中,这是一个通用的前缀,意思为“关于”。例如,metadata 意思是描述其他数据(关于数据的数据)的数据。一个 metalanguage 是一个描述其他语言的语言。一个 metafile 是一个包含其他文件的文件。HTML META 标签是用来描述一个页面内容的。


:Computer Science

1:1997.10.5

## meta ad 元广告

Used in search engines, an advertisement displayed on the results page of a search, specific to the searched term. Also referred to as keyword advertising. Advertisers pay search engines to target their ads and only display the banners when relevant keywords are searched on by a user. Keyword advertising on the search engines enables an advertiser to target a specific audience. For example, if a user searched on the term “digital camera” the ads may be for electronic boutiques or camera shops that sell digital cameras. The meta ads are displayed on the dynamic pages that result whenever the keyword “digital camera” is searched on.

使用在搜索引擎中一个显示在搜索结果页面上的广告。也指关键字广告。广告商支付搜索引擎费用,而且只有在相关的关键字被搜索到时才显示横幅广告。搜索引擎上的关键字广告可以使广告商将特定的用户作为目标。例如,如果一个用户搜索“digital camera”,则广告就会显示卖数字相机的电子商店或者照相机店。只要搜索到关键字“digital camera”元广告就显示在动态的页面上。

: WWW

: 1999. 1. 23


## meta data 元数据

Data about data. Meta data describes how and when and by whom a particular set of data was collected, and how the data is formatted. Meta data is essential for understanding information stored in data warehouses.

关于数据的数据。Meta data 表述了一个特定的数据如何、何时以及通过谁收集起来的,数据是如何格式化的。元数据对于理解存储在数据仓库中的信息是必需的。

:Data

:1999.6.17

:data warehouse meta

## MGCP 媒介网关控制协议

The Media Gateway Control Protocol, developed by Telcordia and Level 3 Communications, is one of a few proposed control and signal standards to compete with the older H. 323 standard for the conversion of audio signals carried on telephone circuits (PSTN) to data packets carried over the Internet or other packet networks.

The reason new standards are being developed is because of the growing popularity of Voice over IP (VoIP). Regular phones are relatively inexpensive because they don't need to be complex; they are fixed to a specific switch at a central switching location. IP phones and devices, on the other hand, are not fixed to a specific switch, so they must contain processors that enable them to function and be intelligent on their own, independent from a central switching location. This makes the terminal (phone or device) more complex, and therefore, more expensive. The MGCP is meant to simplify standards for this new technology by eliminating the need for complex, processor-intense IP telephony devices, thus simplifying and lowering the cost of these terminals.

媒介网关控制协议,它是由 Telcordia 和 Level 3 通讯开发的,用来与旧的 H. 323 标准进行竞争的几个建议的控制和信号标准。这些标准都是用来将在电话线路(PSTN)上的音频信号转换为在因特网或者其他包网络上的数据包。

开发新标准的原因是因为 Voice over IP (VoIP) 的逐渐普及。通常的电话相对来说比较便宜,因为他们不需要非常的复杂,他们固定于一个中心交换位置中的一个特定交换机上。而另一方面,IP 电话和设备不被固定于某个特定的交换机,这样他们必须包含能够使他们起独立于一个中心交换而起作用的处理器。这就使得终端(电话或者设备)更加复杂,由此就更昂贵。MGCP 是通过减少复杂的

处理器集中的 IP 电话设备的需要来简化这项新技术的标准,这样就降低了这些终端设备的费用。


:Online Service


:2000.6.29

## MCA 微通道结构

A bus architecture for older PCs. It is called a bus architecture because it defines how peripheral devices and internal components communicate across the computer's expansion bus. Introduced by IBM in 1987, MCA was designed to take the place of the older AT bus, the architecture used on IBM PC-ATs and compatibles. For a variety of reasons, however, the industry never accepted the new architecture.

一种适用于旧 PC 的总线结构。它称为总线结构,因为它定义了外围设备和内部部件如何在计算机的扩展总线上进行通信。MCA 是在 1987 年由 IBM 引进的,它是为了取代更老的 AT 总线和 IBM PC-AT 使用的结构而设计的。然而由于种种原因,工业上却没有接收这个新的结构。

: Hardware

 **1**: 2000.12.27

## middleware 中间件

Software that connects two otherwise separate applications. For example, there are a number of middleware products that link a database system to a Web server. This allows users to request data from the database using forms displayed on a Web browser, and it enables the Web server to return dynamic Web pages based on the user's requests and profile.

The term middleware is used to describe separate products that serve as the glue between two applications. It is, therefore, distinct from import and export features that may be built into one of the applications. Middleware is sometimes called plumbing because it connects two sides of an application and passes data between them. Common middleware categories include:

- TP monitors

- DCE environments

- RPC systems

- Object Request Brokers (ORBs)

- Database access systems

- Message Passing

连接两个分离应用程序的软件。例如,有大量的链接一个数据库系统和一个 Web 服务器的中间件产品。这就允许用户使用显示在 Web 浏览器上的表单来访问一个数据库,并且使得 Web 服务器可以返回动态的基于用户请求和个性化的网络页面。

术语中间件用来描述作为两个应用的粘接剂的独立产品。因此它不同于一个应用程序中的输入和输出特性。中间件有时称为管道,因为,它连接一个应用程序的两个方面而且在他们之间传送数据。一般的中间件包括:

- TP monitors

- DCE environments

- RPC systems


Object Request Brokers (ORBs)

Database access systems

Message Passing

application server

:Software

:1999. 9. 15

:DCE ORB three-tier

## MIME 多用途网际邮件扩展协议

Short for Multipurpose Internet Mail Extensions, a specification for formatting non-ASCII messages so that they can be sent over the Internet. Many e-mail clients now support MIME, which enables them to send and receive graphics, audio, and video files via the Internet mail system. In addition, MIME supports messages in character sets other than ASCII.

There are many predefined MIME types, such as GIF graphics files and PostScript files. It is also possible to define your own MIME types.

In addition to e-mail applications, Web browsers also support various MIME types. This enables the browser to display or output files that are not in HTML format.


MIME was defined in 1992 by the Internet Engineering Task Force (IETF). A new version, called S/MIME, supports encrypted messages.

多用途网际邮件扩展协议的缩写,是一个格式化 ASCII 信息的规范。这样信息就可以通过因特网发送。许多 e-mail 客户端现在都支持 MIME,这样可以使他们通过因特网邮件系统发送和接收图形、声音和视频文件。除此之外,MIME 支持不是 ASCII 字符集的信息。

有许多预先定义的 MIME 类型,如 GIF 图形文件和 PostScript 文件。还有可能定义自己的 MIME 类型。

除了 e-mail 应用,网络浏览器也支持 MIME 各种类型。这使得浏览器显示和或者输出不是 HTML 格式的文件。

MIME 是在 1992 年由因特网工程任务组(IETF)定义的。一个称为 S/MIME 的新版本支持加密信息。

:WWW


:1997.3.8

:Uuencode


## Minicomputer 小型机

A midsized computer. In size and power, minicomputers lie between workstations and mainframes. In the past decade, the distinction between large minicomputers and small mainframes has blurred, however, as has the distinction between small minicomputers and workstations. But in general, a minicomputer is a multiprocessing system capable of supporting from 4 to about 200 users simultaneously.

一种中等尺寸的计算机。在尺寸和功率上,小型机位于工作站和大型机之间。在过去的几十年中,大的小型机和小的大型机之间的区别很模糊,然而在小的小型机和工作站之间还是有区别的。通常,一个小型机是一个可以同时支持 4~200 个用户的多处理系统。

 : Type of Computer

 : 1998. 5. 16

 : mainframe

## MIS 管理信息系统

Short for management information system or management information services, and pronounced as separate letters, MIS refers to a class of software that provides managers with tools for organizing and evaluating their department. Typically, MIS systems are written in COBOL and run on mainframes or minicomputers.


Within companies and large organizations, the department responsible for computer systems is sometimes called the MIS department. Other names for MIS include IS (Information Services) and IT (Information Technology).

管理信息系统或者管理信息服务的缩写,MIS 指提供给管理者组织并评价他们部门工具的一组软件。一般的,MIS 系统使用 COBOL 编写并且运行在大型机或者小型机上。

在公司或者大型组织内部,负责计算机系统的部门有时被称为 MIS 系统。MIS 的其他名称有 IS(信息服务)和 IT(信息技术)。

:Network

:1996.9.1

:IT mainframe minicomputer


## MMDS 多点微波分配系统

Multipoint Microwave Distribution System, also known as Multi-channel Multi-point Distribution System and wireless cable, is another wireless broadband technology for Internet Access.

MMDS channels come in 6 MHz chunks and runs on licensed and unlicensed channels. Each channel can reach transfer rates as high as 27Mb/s (over unlicensed channels: 99MHz, 2.4GHz, and 5.7 to 5.8GHz) or 1Gb/s (over licensed channels).

多点微波分配系统,也称为多通道多点分配系统和无线电缆,是另一个访问因特网的无线宽带技术。

MMDS 通道使用 6 MHz 的字节片并且运行在授权和未授权的通道上。每一个通道可以到达 27 Mb/s(在未授权的通道:99 MHz,2.4 GHz 和 5.7 ~ 5.8 GHz)或者 1 Gb/s(在授权通道)的传输速率。

:Communication

:2000.11.8


**modular architecture 模块化结构**

Refers to the design of any system composed of separate components that can be connected together. The beauty of modular architecture is that you can replace or add any one component (module) without affecting the rest of the system. The opposite of a modular architecture is an integrated architecture, in which no clear divisions exist between components.


The term modular can apply to both hardware and software. Modular software design, for example, refers to a design strategy in which a system is composed of relatively small and autonomous routines that fit together.

指一个系统的设计是由可以连接在一起的部分组成的。模块化结构的好处在于可以替代或者添加任何部件(模块)而不会影响系统的其他部分。一个模块化结构的反面是一个集成结构,它在部件之间没有明显的区别。

术语模块可以应用到硬件和软件。例如,模块化软件设计指这样一种设计策略:一个系统是由相对较小并且独立的程序所组成的。

:Hardware

:1996.9.1

:granularity


## Monospacing 单空格

Refers to fonts in which each character has the same width. The opposite of monospacing is proportional spacing, in which different characters have different widths. For example, in a proportionally spaced font, the letter o would be wider than the letter i. Proportionally spaced fonts look more professional, but monospaced fonts are often superior for tabular data because the uniform width of each character makes alignment of columns easier.

Most printed matter, including this book, uses proportional spacing.

指字体内的每一个字符都有同样的宽度。单空格的对立面是比例间隔,其中的每一个字符有不同的宽度。例如,在一个比例间隔的字体中,字母 o 将会比字母 i 宽。比例间隔字体看起来更专业,而单空格字体对于表格数据更具优势,因为每一个字符具有统一的宽度可以使列的对齐更加容易。

大多数打印的材料,包括这本书,都是使用比例间隔字体。


:Computer Science

:2001.1.22

## Mosaic

An application that simplifies accessing documents on the World Wide Web. Originally produced by the National Center for Supercomputing Applications (NCSA), Mosaic has always been distributed as freeware. In 1994, however, the NCSA turned over commercial development of the program to a company called Spyglass. There are now several varieties of Mosaic, some free and some for sale.

一个用来简化访问 WWW 上文档的应用。Mosaic 最早是由国家超级计算机应用中心(NCSA)创建的,它是作为免费软件发布的。然而在 1994 年,NCSA 将这个程序的商业开发权卖给了 Spyglass 公司。现在有几个 Mosaic 的版本,一些是免费的而另一些则是需要购买的。

: WWW

: 2000. 3. 31

: World Wide Web

**mouseover**

A JavaScript element that triggers a change on an item (usually a graphic) in a Web page when the mouse passes over it. The change usually signifies that the item is a link to related or additional information. Mouseovers are widely used in Navigation Bars, pop-up boxes, and/or form submissions.

Mouseovers require javascript in two places of an html document. At the beginning of your document and before the BODY tag, javascript defines the event to take place. After the BODY tag, HTML code contains the actual mouseover element in the place on your Web page you want the action to take place. When your mouse passes over the html code containing the mouseover element, it signals the javascript event to take place.

指当鼠标经过时一个用来触发网页上一个项目(通常是一个图形)变化的 JavaScript 元素。这个变化通常表示这个项目是一个相关或者额外信息的链接。Mouseover 被广泛地使用在导航器、弹出框或者表格提交中。

Mouseover 在一个 html 文档中有两个地方需要 javascript。在文档的开头和 BODY 标签之前, javascript 定义了发生的事件。在 BODY 标签后, HTML 代码包含在想要产生变化的网页上实际的 mouseover 元素。当鼠标经过包含 mouseover 元素的 html 代码时, 它就触发 javascript 事件。


: Multimedia

: 1999. 3. 5

## Moustrapping 鼠标陷阱

A technique that forces a user to remain on a specific Web site by not allowing the user to leave the site. Whenever the user tries to leave the site by closing the browser window or going to a new URL, the site that is mousetrapping will automatically open a new browser window with its URL or not allow the browser to go to the new URL. Some mousetraps only will open a limited number of new browser windows and eventually will let the persevering user leave the site; other mousetraps will open new browser windows ad infinitum, and the only way to get out of the trap is to reboot the computer.

一项通过不允许用户离开网站的方法而迫使用户停留在一个特定网站上的技术。当任何时候用户想通过关闭浏览器窗口或者进入一个新的 URL 离开网站时,这个具有鼠标陷阱的网站就会自动打开具有它自己 URL 的浏览器窗口或者不允许浏览者进入新的 URL。一些鼠标陷阱只会打开有限的新的浏览器窗口而最终会让当前的用户离开网站,而其他的鼠标陷阱将会连续不断地打开新的浏览器窗口,离开这个陷阱的惟一方法是重新启动计算机。

 : WWW

 : 2001. 3. 6

## MPC 多媒体计算机

Abbreviation of Multimedia Personal Computer, a software and hardware standard developed by a consortium of computer firms led by Microsoft. There are three MPC standards, called MPC, MPC2, and MPC3, respectively. Each specifies a minimum hardware configuration for running multimedia software.

To run MPC-2 software, you need at least an Intel 486SX microprocessor with a clock speed of 25 MHz, 4 MB (megabytes) of RAM, a VGA display, and a double-speed CD-ROM drive.

MPC3 specifies the following minimum configuration:

- 8 MB RAM
- 540 MB disk drive
- 75 MHz Pentium processor
- 4X CD-Rom
- MPEG support

多媒体计算机的缩写,是一个由微软领导的计算机联盟开发的软件和硬件标准。有 3 种 MPC 标准,称为 MPC、MPC2 和 MPC3。每一种标准指定了运行多媒体软件的最小硬件配置。

为了运行 MPC2 软件,需要最少一个带有 25 MHz 时钟速度的 Intel 486SX 微处理器、4MB 内存、一个 VGA 显示器和一个倍速 CD-ROM 驱动器。

MPC3 制订了如下的最小配置:

- 8 MB 内存
- 540 MB 磁盘
- 75 MHz Pentium 处理器
- 4X CD-ROM
- 支持 MPEG

:Multimedia

:1998.5.16

**MSA/RSA 城市统计地区/农村服务地区**

Metropolitan Statistical Area/Rural Service Area refers to cellular service areas used by the FCC to license cellular telephone service. There are 306 MSAs and 428 RSAs. Every county in the United States is assigned to one of these markets.

MSAs — originally used by the US government for grouping census data — include cities of at least 50,000 people, or urbanized areas of at least 100,000 people and the counties that include these areas.

RSAs include all areas not part of MSAs. These are often rural areas.

In order for a carrier to provide service to specific MSAs and RSAs, it must have a FCC license. If the carrier did receive the license at the time of auction, then it must try to buy it from the successful bidder or create a deal with the rightful owner that allows it to serve that particular area. Multiple licenses are given out per MSA/RSA, and each carrier must transmit over its assigned frequency.

If a carrier can't build a system to serve a certain percentage of the licensed area by a specified deadline date, then it must return the license to the FCC.

**城市统计地区/农村服务地区** (Metropolitan Statistical Area/Rural Service Area) 是指由 FCC 许可的蜂窝电话服务所使用的蜂窝电话服务地区, 有 306 个 MSA 和 428 个 RSA。在美国的每一个县都被指定为这些服务地区中的一个。


MSA 原本是由美国政府用来分组人口普查资料, 它包含至少 50 000 人口的城市, 或者至少 100 000 人口以上的城市化地区和包含这些地区的县郡。

RSA 包含除 MSA 之外的所有地区。这些通常都是农村地区。

对于运营商来说要为特定的 MSA 和 RSA 提供服务,

它必须要有一个 FCC 的许可证。如果在拍卖时运营商没有得到许可证,那么它必须从成功的投标人处购买或者与合法的拥有者达成协议以便可以在特定的区域内进行服务。在每一个 MSA/RSA 内会给出多个许可证,每一个运营商必须在指定的频率范围内进行传输。

如果某个运营上不能够在一个特定的日期之前建立一个系统以在一定的许可区域百分比范围内提供服务,那么它就不得不将许可证返回给 FCC。

 :Communication

 :2000.6.1

## MSCS 微软群集服务器

Short for Microsoft Cluster Server, a clustering technology built into Windows NT 4.0 and later versions. MSCS supports clustering of two NT servers to provide a single fault-tolerant server.

During its development stage, MSCS was code-named Wolfpack.

微软群集服务器(Microsoft Cluster Server)的缩写,是一个嵌入 Windows NT 4.0 和其后版本的一项群集技术。MSCS 支持两个 NT 服务器的群集来提供一个单一容错服务器。

在其开发阶段, MSCS 的代号为 Wolfpack。

: Network

: 1998. 3. 16

: Clustering

## multimedia 多媒体

The use of computers to present text, graphics, video, animation, and sound in an integrated way. Long touted as the future revolution in computing, multimedia applications were, until the mid-90s, uncommon due to the expensive hardware required. With increases in performance and decreases in price, however, multimedia is now commonplace. Nearly all PCs are capable of displaying video, though the resolution available depends on the power of the computer's video adapter and CPU.


Because of the storage demands of multimedia applications, the most effective media are CD-ROMs.

使计算机以一种综合的方式表现文字、图像、视频、动画和声音。作为未来计算的革命被吹捧了很长时间后,多媒体直到 20 世纪 90 年代之前由于所需硬件的昂贵并不是很普及。然而,随着性能和价格上的下降,多媒体现在非常普通了。几乎所有的 PC 机都可以显示视频,当然分辨率还是要依靠计算机的视频适配器和 CPU 的性能。

因为多媒体应用的存储需要,最有效的媒介是 CD-ROM。

:Multimedia

:1998.5.16

:AAF    authoring tool    MPC    ripper    Shock-wave


**multiplier lock 多重锁**

The multiplier lock is used by CPU manufacturers to prevent consumers and dealers from overclocking the CPU. When overclocking became mainstream, profit margins for CPU manufacturers lowered because users wouldn't need to upgrade to a faster processor.

When locked, the multiplier--the factor by which the bus speed is multiplied to derive the CPU speed--is stuck at one given value, thus ruling out any overclocking on motherboards strictly built to the CPU manufacturers specifications. The lock is hard wired into the CPU and is very difficult to overcome.

多重锁是 CPU 制造商使用的,用来避免消费者和销售商超频 CPU。当超频现象很普遍时,CPU 制造商的利润就会降低,因为用户将不需要升级到一个更快的处理器上。

当锁上时,倍数(总线速度变为倍数来驱动 CPU 速度的因素)固定于一个给定的值,这样对于主板的任何超频将会严格限制在 CPU 制造商的规范内。这个锁是硬件写入 CPU 的而且很难克服。

:Hardware

:1998.8.25


## Multiprocessing 多重处理/并行处理

(1) Refers to a computer system's ability to support more than one process (program) at the same time. Multiprocessing operating systems enable several programs to run concurrently. UNIX is one of the most widely used multiprocessing systems, but there are many others, including OS/2 for high-end PCs. Multiprocessing systems are much more complicated than single-process systems because the operating system must allocate resources to competing processes in a reasonable manner.


(2) Refers to the utilization of multiple CPUs in a single computer system. This is also called parallel processing.

(1) 指一个计算机系统同时支持多于一个进程(程序)的能力。多重处理操作系统可以是几个程序同时运行。UNIX 是最为广泛使用的多重处理系统之一,但是还有许多其他系统,包括高端 PC 机的 OS/2。多重处理系统比单处理系统要复杂得多,因为操作系统必须给竞争中的进程以一种合理的方式分配资源。

(2) 指在一个单一计算机系统中实现多个 CPU 的方法。这也称为并行处理。

: Operation System

: 1996. 9. 1

: multitasking OS/2 parallel processing SMP

## Multitasking 多任务

The ability to execute more than one task at the same time, a task being a program. The terms multitasking and multiprocessing are often used interchangeably, although multiprocessing sometimes implies that more than one CPU is involved.


In multitasking, only one CPU is involved, but it switches from one program to another so quickly that it gives the appearance of executing all of the programs at the same time.

There are two basic types of multitasking: preemptive and cooperative. In preemptive multitasking, the operating system parcels out CPU time slices to each program. In cooperative multitasking, each program can control the CPU for as long as it needs it. If a program is not using the CPU, however, it can allow another program to use it temporarily. OS/2, Windows 95, Windows NT, the Amiga operating system and UNIX use preemptive multitasking, whereas Microsoft Windows 3. x and the MultiFinder (for Macintosh computers) use cooperative multitasking.


同时执行多于一个任务的能力,一个任务是一个程序。术语多任务和多重处理经常交叉使用,虽然多重处理有时指多于一个 CPU 被使用。

在多任务中,只有使用一个 CPU,但是它从一个程序很快地转向另一个,让人感觉同时在执行所有的程序。

有两种类型的多任务,抢先和合作。在抢先多任务中,操作系统给每一个程序分配 CPU 时间片。在合作多任务中每一个程序可以控制 CPU 只要这个程序需要。然而如果一个程序没有使用 CPU,它就可以允许另一个程序暂时使用它。OS/2、Windows 95、Windows NT、Amiga 操作系统和 UNIX 使用抢先多任务,而微软公司的 Windows 3. x 和 MultiFinder(针对 Macintosh 计算机)使用合作多任务。

 :Operation System

 :1997. 1. 13

 :cooperative multitasking   multiprocessing   oper-  
ating system   OS/2

**Multithreading 多线程**

The ability of an operating system to execute different parts of a program, called threads, simultaneously. The programmer must carefully design the program in such a way that all the threads can run at the same time without interfering with each other.

一个操作系统同时执行一个程序的不同部分(称为线程)的能力。程序员必须仔细地设计程序,这样所有的线程不会在相互干扰的情况下同时运行。

: Operation System


: 1996. 9. 1

: Multitasking SMP


## MVS 多重虚拟储存器

Short for Multiple Virtual Storage, the operating system for older IBM mainframes. MVS was first introduced in 1974 and continues to be used, though it has been largely superseded by IBM's newer operating system, OS/390.

多重虚拟储存器的缩写,是旧的 IBM 主流机的操作系统。MVS 是在 1974 年引入的并且继续在使用,虽然它已经大量的被 IBM 新的操作系统 OS/390 所代替。

:Operation System

:1998.6.17

:Mainframe operating system

## Napster

Created by 19-year-old Shawn Fanning in 1999, Napster is an application that gives individuals access to one another's MP3 files by creating a unique file-sharing system via the Internet.

Napster lets users view and download the contents of MP3 directories from other Napster users' hard drives.

Because Napster searches individual hard drives, the number and variety of MP3 files vary. Not all Napster users are online at the same time; therefore, what you may not find one day, may, in fact, be there the next.

Macintosh faithful who want to benefit from Napster can download Macster, which works the exact same way as Napster.

Napster has been under fire from the Recording Industry Association of America (RIAA), who interprets Napster as copyright-infringement software. But, because the MP3 files do not reside on Napster's servers, nor does Napster charge a fee for the service, critics feel the RIAA has a weak legal leg to stand on. Napster simply allows individuals to share music, as does tape recorders and CD burners.

Many feel that Napster is revolutionizing the consumer music market, and it is up to the Music industry to adapt.

Napster 是由 19 岁的 Shawn Fanning 在 1999 年创建的,它是一个让个人在因特网上通过创建一个独一无二的文件共享系统访问另一个人的 MP3 文件的应用。

Napster 让用户查看并下载另一个 Napster 用户硬盘上的 MP3 目录中的内容。

因为 Napster 搜索个人的硬盘,所以 MP3 文件的数量和种类是变化的。并不是所有的 Napster 用户都是同时在线的,因此今天不能看到的可能明天就可以看到。

对于想从 Napster 得到好处的 Macintosh 忠实用户可

以下载 Macster, 其与 Napster 的工作方法相近。

Napster 已经遭到了来自美国自动纪录工业协会 (RIAA) 的攻击, RIAA 认为 Napster 是违反版权的软件。但是因为 MP3 文件不驻留在 Napster 的服务器上, 而且 Napster 也不对服务进行收费, 所以评论家感觉 RIAA 在法律上有点站不住脚。Napster 仅仅允许用户分享音乐, 就如同磁带录音机和 CD 复制器一样。

许多人认为 Napster 正在变革整个音乐市场, 而且现在整个音乐工业都开始适应了。


: Online Service

: 2000. 3. 16


## NC 网络计算机

A type of network computer designed to execute Java programs locally. NCs do not contain any storage devices, so they must be connected to a network server that holds the data to be processed. However, unlike thin clients and Windows terminals, NCs do have a microprocessor so that they can execute programs locally.

一个类型的专门设计用来在本地执行 Java 程序的网络计算机。NC 不包含任何存储设备, 所以它们必须连接到一个包含要处理的数据的网络服务器上。然而, 不像瘦客户机和 Windows 终端, NC 有一个微处理器, 这样他们在本地可以执行程序。

: Type of Computer

: 1998. 4. 29

: Net PC network computer thin client

## NDMP 网络数据管理协议

Pioneered by Intelliguard and Network Appliance, Network Data Management Protocol defines a common architecture for the way heterogeneous file servers on a network are backed up.

The new protocol will allow the creation of a common agent used by the central back-up application to back up different file servers running different platforms and platform versions.

With NDMP, network congestion is minimized because the data path and control path are separated. Back up can occur locally—from file servers direct to tape drives, while management can occur from a central location.

NDMP is an open standard protocol promoted and supported by server vendors, back-up software vendors, and back-up device vendors.

网络数据管理协议定义了一个网络上的层次文件服务器用来备份的方法的通用结构。

新的协议将允许一个通用代理的建立,这个代理被中央备份应用来备份运行在不同平台和平台版本上的文件服务器。

有了 NDMP,网络阻塞就会减小,因为数据路径和控制路径是分离的。备份可以在本地进行——从文件服务器直接到磁带机,而管理可以在一个中央位置进行。

NDMP 是一个开放的标准协议,它由服务器商、备份软件商和备份设备商提倡并支持。

:Standard

1,1999.10.11

## Netiquette 因特网礼仪

Contraction of Internet etiquette, the etiquette guidelines for posting messages to online services, and particularly Internet newsgroups. Netiquette covers not only rules to maintain civility in discussions (i. e. , avoiding flames), but also special guidelines unique to the electronic nature of forum messages. For example, netiquette advises users to use simple formats because complex formatting may not appear correctly for all readers. In most cases, netiquette is enforced by fellow users who will vociferously object if you break a rule of netiquette.

因特网礼仪的缩写,这是一个向在线服务尤其是因特网新闻组中粘贴消息的礼仪规范。网络礼仪不仅涵盖了在讨论保持文明(也就是避免激动)的原则,而且包括了针对电子论坛消息本质的特殊的规范。例如,网络礼仪建议用户使用简单的格式因为复杂的格式可能对于所有的读者不会正确地现实。在大多数情况下,如果违反了一条网络礼仪,强烈反对的用户就会使用网络礼仪。

:Online Service

:1998.5.16

## Net PC 网络 PC

A type of network computer designed cooperatively by Microsoft and Intel. In some respects, the Net PC is really just a scaled-down PC since it is able to execute Windows applications locally. However, it also includes features to simplify connecting it to a network and to administer it remotely.


Net PCs are based on the Wintel platform, but are configured to be as inexpensive as possible and to discourage users from configuring the machines themselves. Consequently, they have no floppy disk drive or CD-ROM drive. They do have a hard disk though it's meant to be used as a temporary cache to improve performance rather than for permanently storing data. Configuration and management of a Net PC is performed through a network server and Microsoft's Zero Administration Windows (ZAW) system.

一种由微软公司和英特尔公司合作设计的网络计算机。在某些方面,网络 PC 实际上只是一种小型号的 PC,因为它可以在本地执行 Windows 应用程序。然而它也包含了简化连接到网络和远程管理的特性。

网络 PC 是基于 Wintel 平台的,但是进行了尽可能较为便宜的配置,并且不鼓励用户自己来配置它。于是,它们没有软盘驱动器或者 CD-ROM 驱动器。虽然有硬盘但是它只是作为一个临时的高速缓冲存储器来提高完成任务的效率,而不是为了永久的储存数据。配置和管理一个网络 PC 是通过一个网络服务器和微软公司的 Windows 的零管理方案(ZAW)系统进行的。

:Network

:1998. 4. 29

:diskless workstation    NC    network    computer  
ZAW

## Netscape

Officially called Netscape Communications Corporation, Netscape was founded by James H. Clark and Marc Andreessen in 1994. It revolutionized the computer software market by giving away for free its popular Navigator Web browser until it had acquired an overwhelming market share for this category of software.

This strategy is now used by many other software companies, including Microsoft, which also distributes its Web browser, Internet Explorer, for free.

In addition to its browsers, Netscape also produces Web servers and tools for building intranets. Indeed, its in the server category that Netscape gets most of its revenue.


Netscape's headquarters are located in Mountain View, California.

正式的称呼是 Netscape 通讯公司,是由 H Clark 和 Marc Andressen 在 1994 年成立的。他们通过让用户免费使用网络浏览器来使此浏览器占领这个软件市场。

这项市场策略已经被许多其他软件公司如微软公司所使用,微软公司也将它的 Web 浏览器 Internet Explorer 免费让用户使用。

除了浏览器,Netscape 也生产用户用于建立企业内部网络的 Web 服务器和工具。在服务器市场 Netscape 取得了它的利润的大部分。

Netscape 的总部位于加利福尼亚的 Mountain View。


:WWW

:1998.5.16


## NetWare

A popular local-area network (LAN) operating system developed by Novell Corporation. NetWare is a software product that runs on a variety of different types of LANs, from Ethernets to IBM token-ring networks. It provides users and programmers with a consistent interface that is independent of the actual hardware used to transmit messages.

一个由 Novell 公司开发的流行的局域网 (LAN) 操作系统。NetWare 是一个运行在各种不同类型 LAN 上的一个软件产品,从以太网到 IBM 令牌环网络。它提供给用户和开发者一个一致的界面,这个界面是与用来传输消息的真实硬件独立的。

:Operation System

:1997. 3. 31

: Ethernet IPX local-area network operating system SAP SPX token-ring network


**network-attached storage 网络附属存储**

A network-attached storage (NAS) device is a server that is dedicated to nothing more than file sharing. NAS does not provide any of the activities that a server in a server-centric system typically provides, such as, e-mail, authentication or file management. NAS allows more hardish storage space to be added to a network that already utilizes servers without shutting them down for maintenance and upgrades. With a NAS device, storage is not an integral part of the server. Instead, in this storage-centric design, the server still handles all of the processing of data but a NAS device delivers the data to the user. A NAS device does not need to be located within the server but can exist anywhere in a LAN and can be made up of multiple networked NAS devices.

网络附属存储(NAS)装置是一个致力于文件共享的服务器。NAS不提供任何的在一个以服务器为中心的系统中服务器所一般提供的服务,诸如 e-mail、验证或者文件管理。NAS 允许向一个已经运行服务的网络添加更多的存储空间,而不需要关机来进行维护和更新。使用一个 NAS 装置,存储器不是服务器的一个完整的部分。相反,在这个以存储为中心的设计中,服务器仍然处理所有的数据处理工作,而一个 NAS 装置将数据传送给用户。一个 NAS 装置不需要装在服务器内部,但是可以存在于一个 LAN 的任何内部,而且可以组成多重网络 NAS 装置。

:network

1:2001. 1. 27

:client/server architecture    load balancing    local-area network server farm

**network computer 网络计算机**

A computer with minimal memory, disk storage and processor power designed to connect to a network, especially the Internet. The idea behind network computers is that many users who are connected to a network don't need all the computer power they get from a typical personal computer. Instead, they can rely on the power of the network servers.

This is really a variation on an old idea -- diskless workstations -- which are computers that contain memory and a processor but no disk storage. Instead, they rely on a server to store data. Network computers take this idea one step further by also minimizing the amount of memory and processor power required by the workstation. Network computers designed to connect to the Internet are sometimes called Internet boxes, Net PCs, and Internet appliances.

One of the strongest arguments behind network computers is that they reduce the total cost of ownership (TCO) -- not only because the machines themselves are less expensive than PCs, but also because network computers can be administered and updated from a central network server.


一种带有最小的内存、硬盘容量和处理器能力用于连接一个网络尤其是因特网的计算机。网络计算机的思想是许多连接网络的用户不需要一般个人计算机的性能。相反,他们可以依靠网络的性能。

这是一个旧思想——无盘工作站,带有内存和处理器但没有磁盘存储的计算机的变形。无盘工作站是依靠服务器来保存数据的。网络计算机采用了这种思想而且更减小了工作站所需要的内存和处理器的性能。用于连接因特网的网络计算机有时也称为因特网盒、网络 PC 和因特网设备。

网络计算机最有力的地方是它们减小了使用者的总费用——不仅因为机器自身要比 PC 便宜,而且因为网络计算机能够由一个中央网络服务器进行管理和更新。

:Network

:1998.5.16

:diskless workstation    NCNet    PC TCO    thin  
client    ZAW

**network meltdown 网络雪崩**

A state in which a network grinds to a halt due to excessive traffic. A network meltdown generally starts as a broadcast storm that gets out of control, but even legitimate network messages can cause a meltdown if the network hasn't been designed to accommodate that level of traffic.

是由于过多的流量而导致网络遭到破坏的一种状态。网络雪崩通常由一个失去控制的广播风暴开始的,但是即使合理的网络信息如果网络没有设计成能够适应某个流量水平也可能导致雪崩。

:Network


:1998.7.7

:broadcast storm

**network operating system 网络操作系统**

An operating system that includes special functions for connecting computers and devices into a local-area network (LAN). Some operating systems, such as UNIX and the Mac OS, have networking functions built in. The term network operating system, however, is generally reserved for software that enhances a basic operating system by adding networking features. For example, some popular NOS's for DOS and Windows systems include Novell Netware, Artisoft's LANtastic, Microsoft LAN Manager, and Windows NT.

包含有将计算机和设备连入一个局域网的特殊功能的操作系统。一些操作系统,如 UNIX 和 Mac OS 具有内嵌的网络功能。然而术语网络操作系统通常保留给通过添加网络特性来增强一个基本操作系统的软件。例如,一些流行的 DOS 和 Windows 系统的 NOS 包括 Novell 公司的 Netware、Artisoft 的 LANtastic、微软的 LAN 管理器和 Windows NT。

: Operation System

: 1998. 5. 16

: local-area network operating system

**network transparency 网络透明**

A condition in which an operating system or other service allows the user access to a remote resource through a network without needing to know if the resource is remote or local. For example, Sun Microsystem's NFS, which has become a de facto industry standard, provides access to shared files through an interface called the Virtual File System (VFS) that runs on top of TCP/IP. Users can manipulate shared files as if they were stored locally on the user's own hard disk.

一种条件,其中操作系统或者其他服务允许用户在无须知道资源是在远端还是在本地的情况下通过网络访问一个远端资源。例如,Sun 微系统公司的已成为事实的工业标准的 NFS 提供了通过一个运行于 TCP/IP 之上称为虚拟文件系统(VFS)的接口访问共享文件的功能。用户可以操作共享文件如同文件保存在用户自己的硬盘上一样。

:Network

:2001.1.19


## NextStep

An object-oriented operating system developed by Next Inc. , a company started in 1985 by Steven Jobs, one of the co-founders of Apple Computer. In 1997, Apple Computer acquired Next, with idea of making NextStep the foundation of its new Macintosh operating system.

一个由 Next 公司开发的面向对象的操作系统,这个公司于 1985 年由 Steven Jobs 创建的,他是 Apple 计算机公司共同的创建者之一。在 1997 年,Apple 计算机公司取得 Next,使得 NextStep 成为新的 Macintosh 操作系统的基础。

:Operation System

:1998.5.19

:Apple Computer   object   oriented operating system

## Node 节点

(1) In networks, a processing location. A node can be a computer or some other device, such as a printer. Every node has a unique network address, sometimes called a Data Link Control (DLC) address or Media Access Control (MAC) address.

(2) In tree structures, a point where two or more lines meet.

(1) 在网络上指一个处理过程的位置。一个节点可能是一个计算机或者某些其他设备,比如一个打印机。每一个节点有一个惟一的网络地址,有时称为一个数据链路控制(DLC)地址或者媒介访问控制(MAC)地址。

(2) 在树状结构中指一个两条或者更多条线相汇合的点。

:Network

:1998.5.16


## Noise 噪音

(1) In communications, interference (static) that destroys the integrity of signals on a line. Noise can come from a variety of sources, including radio waves, nearby electrical wires, lightning, and bad connections. One of the major advantages of fiber optic cables over metal cables is that they are much less susceptible to noise.

(2) In general, anything that prevents a clear signal or message from being transmitted. For example, you might hear someone complain of a lot of noise in a newsgroup, meaning that there are many superfluous messages that don't add anything to the discussion.

(1) 在通讯中是指破坏信号完整性的干涉(静态)。噪音来自各种来源,包括无线电电波、邻近电线、光纤和破坏性的连接。比起一般的电缆,光缆的一个主要优点就是它们不易受到噪音的干扰。

(2) 一般来讲是指任何妨碍传送清晰的信号或信息的东西。例如,可能会听到一些人抱怨报纸上有大量的噪音,意思是报纸上有许多没有任何加入评论的过剩的消息。


:Communication

:1998.5.16

## NRZI 不归零翻转

Non-Return-to-Zero Inverted A method for transmitting and recording data so that it keeps the sending and receiving clocks synchronized. This is especially helpful in situations where bit stuffing is employed — the practice of adding bits to a data stream so it conforms with communications protocols. These added bits can create a long string of similar bits, which register to the receiver as a single, unchanging voltage. Since clocks adjust on voltage changes, they'll lag behind true time. NRZI ensures that after a 0 bit appears, the voltage will immediately switch to a 1 bit voltage level. These voltage changes allow the sending and receiving clocks to synchronize.

不归零翻转 (Non-Return-to-Zero Inverted) 的缩写。这是一个传递和记录数据的方法,以保证发送和接收的时钟同步。当使用位填充方法时,这种技术是十分有帮助作用的——给一个数据流加入位可以保证数据流符合一定的通讯协议。加入的位能够创建一个类似位的长数据串,对于接收者登记为一个单一的、不变的电压。由于时钟当电压变化时会进行调节,时钟就会滞后于真实的时间。NRZI可以保证在 0 位出现后,电压会立即转换为 1 位电压水平。这样的电压变化就使得发送和接收时钟同步。

:Communication

:1998.12.11

## NTVDM NT 虚拟 DOS 机

The NT Virtual DOS Machine (a. k. a WOW, or Windows on Windows), is a Win16 subsystem that runs under Windows NT, which allows 16-bit applications to run as if they were being executed on a DOS machine, with that machine's multitasking and segmented memory model.


Because the system is multitasked 16-bit DOS and Windows applications cannot crash NT. However, 16-bit apps within a Win16 subsystem run the exact same way as they do on a DOS/Win 3. x machine; therefore, 16-bit apps within the subsystem can crash one another, or the subsystem. To prevent this, you can launch multiple WOW subsystems as long as your program does not communicate using shared memory.

Windows NT will not allow NTVDM to execute instructions that try to directly manipulate hardware or memory locations. As a result, some DOS and Windows 3. x applications (such as games) may not run under Windows NT.

NT 虚拟 DOS 机(Windows 上的窗口),是一个运行在 Windows NT 下允许 16 位应用程序运行就如同它们在 DOS 上运行一样的 Win 16 子系统,而且还有机器的多任务处理和分段内存模式。

因为系统是多任务处理的 16 位 DOS 和 Windows,所以应用程序不能够使 NT 崩溃。然而在一个 Win16 子系统的 16 位应用程序与它们在 DOS/Win 3. x 机器上一样的执行,因此子系统中的 16 位应用可能会破坏另一个,或者是子系统。为了防止这个问题,可以启动多个 WOW 子系统,只要程序不会使用共享内存进行通信。

Windows NT 将不允许 NTVDM 执行试图直接操纵硬件或者内存位置的指令。因此,一些 DOS 和 Windows 3. x 应用(比如游戏)将不能在 Windows NT 下运行。

: Operation System


: 1998. 8. 16

## NUMA 非统一内存存取


Short for Non-Uniform Memory Access, a type of parallel processing architecture in which each processor has its own local memory but can also access memory owned by other processors. It's called non-uniform because the memory access times are faster when a processor accesses its own memory than when it borrows memory from another processor.

NUMA computers offer the scalability of MPP and the programming ease of SMP.

非统一内存存取的缩写,是一种并行处理结构类型,其中每一个处理器有它自己的本地内存但是也可以访问其他处理器拥有的内存。它被称为非统一因为当一个处理器访问自己的内存时与它访问其他处理器的内存相比内存存取的时间要更快。

:Type of Computer

:1997.7.2

:parallel processing   SMP

**object oriented 面向对象**

A popular buzzword that can mean different things depending on how it is being used. Object-oriented programming (OOP) refers to a special type of programming that combines data structures with functions to create re-usable objects (see under object-oriented programming). Object-oriented graphics is the same as vector graphics.

Otherwise, the term object-oriented is generally used to describe a system that deals primarily with different types of objects, and where the actions you can take depend on what type of object you are manipulating. For example an object-oriented draw program might enable you to draw many types of objects, such as circles, rectangles, triangles, etc. Applying the same action to each of these objects, however, would produce different results. If the action is Make 3D, for instance, the result would be a sphere, box, and pyramid, respectively.

一个流行的用语,意思是不同的事物是依靠它是如何被使用而分类的。面向对象编程(OOP)指一个特殊类型的编程,它将数据结构与函数结合起来创建一个可以再次使用的对象。面向对象图形与矢量图形是一个意思。

除此之外,术语面向对象通常用来描述一个主要处理不同类型对象的系统,以及所采取的行动依靠所操作对象的类型的系统。例如,一个面向对象绘画程序可以使用户画出许多类型的对象,如圆、矩形、三角形等等。然而对于这些对象的每一个应用,相同的行动将会产生各种结果。如果要制作 3D 效果,则结果将分别是一个球、一个盒和一个棱锥。

:Software

:1996.9.1

**object-oriented graphics 面向对象图形**

The representation of graphical objects, such as lines, arcs, circles, and rectangles, with mathematical formulas. This method of describing objects enables the system to manipulate the objects more freely. In an object-oriented system, for example, you can overlap objects but still access them individually, which is difficult in a bit-mapped system. Also, object-oriented images profit from high-quality output devices. The higher the resolution of a monitor or printer, the sharper an object-oriented image will look. In contrast, bit-mapped images always appear the same regardless of a device's resolution.

One of the most widely used formats for object-oriented graphics is PostScript. PostScript is a page description language (PDL) that makes it possible to describe objects and manipulate them in various ways. For example, you can make objects smaller or larger, turn them at various angles, and change their shading and color. A font described in PostScript, therefore, can easily be transformed into another font by changing its size or weight. Object-oriented fonts are called outline fonts, scalable fonts, or vector fonts.


Object-oriented graphics is also called vector graphics, whereas bit-mapped graphics is sometimes called raster graphics.

图形对象如线、弧度、圆和矩形的带有数学公式的表示方法。这个描述对象的方法可以使系统更加自由的操作对象。例如在一个面向对象系统中,可以在交迭对象的同时仍然可以操作每一个对象,而这在一个位图系统中是很困难的。而且面向对象图像也从高质量的输出设备中得到好处。监视器或者打印机的分辨率越高,则一个面向对象图像就越看起来清晰。相反,位图图像不论设备的分辨率总是显示的一样。

最被广泛使用的一种面向对象图形之一是 PostScript。PostScript 是一个页面描述语言(PDL),它可以使得描述对象并且以不同的方法来操作成为可能。例如,可以使对象更小或者更大,将它们旋转不同的角度,改变它们的阴影和颜色。因此,在 PostScript 中描述的字体可以很容易地通过改变它的大小转换为另一个字体。面向对象字体被称为轮廓字体、可缩放字体或者矢量字体。

面向对象图形也称为矢量图形,而位图图形有时称为光栅图形。

:Graphics

:1997.11.25


## OCX OLE 客户控件


Short for OLE Custom control, an independent program module that can be accessed by other programs in a Windows environment. OCX controls end with a .ocx extension. OCX controls represent Microsoft's second generation of control architecture, the first being VBX controls written in Visual Basic.

Both VBX and OCX controls have now been superseded by ActiveX controls. However, ActiveX is backward compatible with OCX controls, which means that ActiveX containers, such as Microsoft's Internet Explorer, can execute OCX components.

OLE 客户控件的缩写,是一个在 Windows 环境中被另一个程序访问的独立程序模块。OCX 控件以一个 .ocx 扩展名结尾。OCX 控件代表了微软公司第二代控件结构,第一代是使用 Visual Basic 编写的 VBX 控件。

VBX 和 OCX 控件现在都已经被 ActiveX 控件所取代。然而,ActiveX 是与 OCX 控件向后兼容的,这就意味着 ActiveX 容器,如微软公司的 IE 可以执行 OCX 部件。

:Programming

:1998.4.29

:ActiveX VBX

## ODBC 开放式数据库连结

Abbreviation of Open DataBase Connectivity, a standard database access method developed by Microsoft Corporation. The goal of ODBC is to make it possible to access any data from any application, regardless of which database management system (DBMS) is handling the data. ODBC manages this by inserting a middle layer, called a database driver, between an application and the DBMS. The purpose of this layer is to translate the application's data queries into commands that the DBMS understands. For this to work, both the application and the DBMS must be ODBC-compliant — that is, the application must be capable of issuing ODBC commands and the DBMS must be capable of responding to them. Since version 2.0, the standard supports SAG SQL.

开放式数据库连接的缩写,是一个由微软公司开发的标准的数据访问方法。ODBC 的目的是使任何应用访问任何数据成为可能,而不管是哪一种数据库管理系统(DBMS)在处理数据。ODBC 通过插入一个称为数据库驱动的中间层来进行管理,这个驱动位于应用和 DBMS 之间。这一层的目的在于将应用的数据库查询转换为 DBMS 能够理解的命令。为了能够正常工作,应用和 DBMS 必须都要与 ODBC 相兼容——也就是应用程序必须能够发出 ODBC 命令而且 DBMS 必须能够做出反应。从版本 2.0 后,这个标准支持 SAG SQL。

:Software

:1996.9.1

:ADO JDBC UDA

## OEM 原始设备制造商

(n) Stands for original equipment manufacturer, which is a misleading term for a company that has a special relationship with computer producers. OEMs buy computers in bulk and customize them for a particular application. They then sell the customized computer under their own name. The term is really a misnomer because OEMs are not the original manufacturers—they are the customizers.


Another term for OEM is VAR (value-added reseller).

(v) To provide equipment to another company, an OEM, which customizes and markets the equipment.

(n) 表示原始设备制造商,对于一家与计算机生产商有特殊关系的公司来说是一个引起误导的术语。OEM 大量地购买计算机并且为某一个特定的应用定制它们。然后它们将定制的计算机以它们自己的名称卖掉。这个术语其实是用词不当,因为 OEM 并不是原始制造商——它们是定制商品的。

另一个 OEM 的术语是 VAR(增值销售商)。

(v) 一个 OEM,提供设备给另一家公司,这个 OEM 定制设备然后销售它。

:Computer Industry Companies

:1996.9.1

:VAR

**office automation 办公自动化**

The use of computer systems to execute a variety of office operations, such as word processing, accounting, and e-mail. Office automation almost always implies a network of computers with a variety of available programs.

使用计算机系统来执行各种办公操作,如文字处理、账务和 e-mail。办公自动化几乎总是指一个计算机网络和各种可以提供的程序。

:Software

:1996.9.1

## open architecture 开放结构

An architecture whose specifications are public. This includes officially approved standards as well as privately designed architectures whose specifications are made public by the designers. The opposite of open is closed or proprietary.

The great advantage of open architectures is that anyone can design add-on products for it. By making an architecture public, however, a manufacturer allows others to duplicate its product. Linux, for example, is considered open architecture because its source code is available to the public for free. In contrast, DOS, Windows, and the Macintosh architecture and operating system have been predominantly closed. Many lawsuits have been filed over the use of these architectures in clone machines. For example, IBM issued a Cease and Desist order, followed by a battery of lawsuits, when COMPAQ built its first computers.

一个规范公开的结构。这包括官方批准的标准和私有设计且规范被设计者变成公开的结构。开放的对立面是封闭或者私有。

开放结构的最大的优点在于任何人都可以设计嵌入式的产品。但是通过使一个结构公开,一个制造商可以允许其他人复制他的产品。例如 Linux 被认为是开放的结构因为它的源代码是公开免费提供的。相反,DOS、Windows 和 Macintosh 结构和操作系统本来就是封闭的。现在有许多关于在克隆机器上使用这些结构的诉讼。例如当 COMPAQ 制造它的第一台计算机的时候,IBM 就发布了一个 Cease 和 Desist 条例,后面有一系列诉讼。


:Standard

:2000.1.13

## OpenDoc

A standard and application programming interface (API) that makes it possible to design independent programs (components) that can work together on a single document. OpenDoc is being developed by a loose alliance of companies, including Apple Computer, IBM, and Lotus. Notably absent from this list is Microsoft, which is pushing an alternative standard and API called Object Linking and Embedding (OLE).

一个标准的应用程序编程接口(API),它使得设计独立的、可以在一个单一的文档上工作的程序(部件)成为可能。OpenDoc 现在有一个松散的公司联盟,其中包括 Apple、IBM 和 Lotus。值得注意的是这其中缺少了微软公司,而微软公司推出了另一个称为对象链接和嵌入(OLE)的标准和 API。

:Operation System

:1997.9.18

**open source 开放源代码**

A certification standard issued by the Open Source Initiative (OSI) that indicates that the source code of a computer program is made available free of charge to the general public. The rationale for this movement is that a larger group of programmers not concerned with proprietary ownership or financial gain will produce a more useful and bug-free product for everyone to use. The concept relies on peer review to find and eliminate bugs in the program code, a process which commercially developed and packaged programs do not utilize. Programmers on the Internet read, redistribute and modify the source code, forcing an expedient evolution of the product. The process of eliminating bugs and improving the software happens at a much quicker rate than through the traditional development channels of commercial software as the information is shared throughout the open source community and does not originate and channel through a corporation's research and development cogs.

OSI dictates that in order to be considered "OSI Certified" a product must meet the following criteria:

The author or holder of the license of the source code cannot collect royalties on the distribution of the program

The distributed program must make the source code accessible to the user

The author must allow modifications and derivations of the work under the program's original name

No person, group or field of endeavor can be denied access to the program

The rights attached to the program must not depend on the program's being part of a particular software distribution

The licensed software cannot place restrictions on oth-

er software that is distributed with it.

Examples of open source software are UNIX, Linux and FreeBSD.

一个由开放源代码组织(OSI)发布的表示一个计算机程序的源代码可以免费向公众开放的证明标准。这个组织的理论是大量不在乎私有权或者经济利益的程序员将可以为每一个使用者编写出有用的而且公开 bug 的产品。其概念在于发现和消灭程序中间的 bug,而这个过程商业开发者是不会使用的。在因特网上阅读、重新发布和修改源代码的程序员将致力于产品的更新。消灭 bug 的过程和改善软件性能要比传统的商业软件更快,因为信息在整个开放代码社团中是共享的而且不需要一个公司的研究和开发组织。

OSI 表明为了要想成为“OSI 认证”,一个产品必须要满足如下要求:

源代码许可的作者或者拥有者不能够拥有这个程序发布的专一性。

发布的程序必须提供用户源代码。

个人、组织或者某个领域不能够阻止访问这个程序。

与程序相关联的权利不能够依据程序是一个特定发布软件的一部分。

许可软件不能够限制其他与这个软件一起发布的软件。

开放源代码软件的例子有 UNIX、Linux 和 FreeBSD。

: Software

: 2001.1.10

: FreeBSD GNOME GNU KDE

**operating system 操作系统**

The most important program that runs on a computer. Every general-purpose computer must have an operating system to run other programs. Operating systems perform basic tasks, such as recognizing input from the keyboard, sending output to the display screen, keeping track of files and directories on the disk, and controlling peripheral devices such as disk drives and printers.

For large systems, the operating system has even greater responsibilities and powers. It is like a traffic cop -- it makes sure that different programs and users running at the same time do not interfere with each other. The operating system is also responsible for security, ensuring that unauthorized users do not access the system.

Operating systems can be classified as follows:

multi-user : Allows two or more users to run programs at the same time. Some operating systems permit hundreds or even thousands of concurrent users.

multiprocessing : Supports running a program on more than one CPU.

multitasking : Allows more than one program to run concurrently.

multithreading : Allows different parts of a single program to run concurrently.

real time real\_time: Responds to input instantly. General-purpose operating systems, such as DOS and UNIX, are not real-time.

Operating systems provide a software platform on top of which other programs, called application programs, can run. The application programs must be written to run on top of a particular operating system. Your choice of operating system, therefore, determines to a great extent the applications you can run. For PCs, the most popular operat-

ing systems are DOS, OS/2, and Windows, but others are available, such as Linux.

As a user, you normally interact with the operating system through a set of commands. For example, the DOS operating system contains commands such as COPY and RENAME for copying files and changing the names of files, respectively. The commands are accepted and executed by a part of the operating system called the command processor or command line interpreter. Graphical user interfaces allow you to enter commands by pointing and clicking at objects that appear on the screen.

计算机上运行的最重要的程序。每一个普通的计算机必须有一个运行其他程序的操作系统。操作系统完成基本的任务,如识别来自键盘的输入,向显示屏幕发送输出,保持磁盘上文件和目录的跟踪以及控制外围设备如磁盘驱动器和打印机。

对于大的系统,操作系统具有更大的任务和性能。它就像一个交通中枢——确保在同一时间不同的程序和用户不会彼此干扰。操作系统也对安全负责,以保证未授权用户不会访问系统。

操作系统可以分为如下几类:

多用户:允许两个或者多个用户同时运行程序。一些操作系统允许成百上千个并发用户。

多重处理:支持在多于一个 CPU 上运行一个程序。


多任务处理:允许同时运行多个程序。

多线程:允许一个程序的不同部分同时运行。


实时:对于输入立即做出反应。一般的操作系统如 DOS 和 UNIX 不是实时的。

操作系统提供了一个其他程序可以在上面运行的软件平台。应用程序必须为特定的操作系统而进行编写。因此选择操作系统决定了能够运行的应用的范围。对于 PC 机,最流行的操作系统是 DOS、OS/2 和 Windows,以及 Linux。

作为有一个用户是通过一套命令与操作系统进行交互的。例如,DOS 操作系统包含如 COPY 和 RENAME 的命令分别用来复制文件和更改文件名称。命令是通过操作系统一部分称为命令处理器或者命令行解释器来接收并执行的。图形用户界面允许通过点击屏幕上出现的对象来输入命令。

:Operation System

:1999. 8. 27

:BeOS   BIOS   kernel kernel32. dll   multipro-  
cessing   multitasking   multithreadingMVS  
OS/2   VMS   Windows CE

## ORB 对象请求代理

Short for Object Request Broker, a component in the CORBA programming model that acts as the middleware between clients and servers. In the CORBA mode, a client can request a service without knowing anything about what servers are attached to the network. The various ORBs receive the requests, forward them to the appropriate servers, and then hand the results back to the client.

对象请求代理的缩写,在 CORBA 编程模型中作为客户端与服务器之间中间件的一个部件。在 CORBA 模型中,一个客户端可以在不需知道什么样的服务器连接在网络上的情况下请求一个服务器。各种不同的 ORB 接收请求,将它们发送到合适的服务器上,然后将结果返回客户端。

:Software

:1997.7.24

:CORBA middleware


## OS/2

An operating system for PCs developed originally by Microsoft Corporation and IBM, but sold and managed solely by IBM. OS/2 is compatible with DOS and Windows, which means that it can run all DOS and Windows programs. However, programs written specifically to run under OS/2 will not run under DOS or Windows.


Since its introduction in the late 80s, OS/2 has traveled a particularly rocky road. The first releases were hampered by a number of technical and marketing problems. Then Microsoft abandoned the project in favor of its own operating system solution, Microsoft Windows. That break spawned a feud between the two computer giants that is still being played out in many arenas.

一个开始由微软公司和 IBM 公司开发的用于 PC 机上的操作系统,但是后来卖给了 IBM。OS/2 与 DOS 和 Windows 兼容,这就意味着它可以运行 DOS 和 Windows 程序。然而在 OS/2 下编写的程序不能在 DOS 和 Windows 下运行。

由于 OS/2 在 20 世纪 80 年代后期出现,所以它经过了一条特别艰难的道路。第一次发行便由于大量的技术和市场问题而受阻。然后微软公司放弃了这个项目而转向它自己的操作系统解决方案 Windows。这次破裂导致了两大计算机巨人的宿怨一直到现在在许多领域仍然存在。

:Operation System


:1998.5.16

:multitasking operating system

**OS/9**

A real-time, multi-user, multitasking operating system developed by Microware Systems Corporation. Originally, OS-9 was a joint effort between Microware and Motorola. In the 1980's, Microware ported OS-9 to the Motorola 680x0 family of microprocessors, creating OS-9/68000, which is used in a variety of industrial and commercial arenas, including Philips' CD-I and, most recently, WebTV boxes.

一个由 Microware 系统公司开发的实时多用户多任务操作系统。OS-9 是 Microware 和 Motorola 公司共同合作的结果。在 20 世纪 80 年代, Microware 公司将 OS-9 转入 Motorola 公司的 680x0 微处理器族, 创建了 OS-9/68000。它被使用在各种工业和商业领域, 包括 Philips 的 CD-I 和大多数近期的 WebTV 盒。


: Opetation System

: 1997. 6. 18

**oscillator clock 振荡器时钟**

A circuit within a computer that creates a series of pulses that pace the computer's electronic system. The oscillator clock synchronizes, paces and coordinates the operations of the computer's circuit.

在一个计算机内创建一系列与计算机的电子系统同步的脉冲的电路。振荡器时钟可以同步和协调计算机电路的操作。

 : hardware

 : 2001. 4. 2

 : Bottleneck

## OSPF 开放最短路径优先

Open Shortest Path First is a routing protocol developed for IP networks based on the shortest path first or link-state algorithm.

Routers use link-state algorithms to send routing information to all nodes in an internetwork by calculating the shortest path to each node based on a topography of the Internet constructed by each node. Each router sends that portion of the routing table (keeps track of routes to particular network destinations) that describes the state of its own links, and it also sends the complete routing structure (topography).

The advantage of shortest path first algorithms is that they results in smaller more frequent updates everywhere. They converge quickly, thus preventing such problems as routing loops and Count-to-Infinity (when routers continuously increment the hop count to a particular network). This makes for a stable network.

The disadvantage of shortest path first algorithms is that they require a lot of CPU power and memory. In the end, the advantages out weigh the disadvantages.

OSPF Version 2 is defined in RFC 1583. It is rapidly replacing RIP on the Internet.

开放最短路径优先是一个为基于最短路径优先或者联接算法的 IP 网络而开发的一个路由协议。


路由使用联接算法通过计算基于因特网拓扑各个节点之间的最短路径向所有内网上的节点发送路由信息。每一个路由器发送描述它自己链接的状态的路由表(与特定的网络目的保持路由同步)的部分,它也发送完整的路由结构(拓扑)。

最短路径优先算法的优点在于它们在任何地方将导致更小的频率刷新。它们会很快汇聚,这样就避免诸如路由循环和无限计数(当路由连续增长一个特定网络 hop 计数)

的问题。这对于保持一个稳定的网络是有好处的。

最短路径优先算法的缺点在于它们需要大量的 CPU 和内存。总的来说还是优点大于缺点的。

OSPF 版本 2 在 RFC1583 中被定义。它很快代替了因特网上的 RIP。


 :Computer Science

 :2000.9.19


**outsourcing 外购**

The act of hiring an outside source, usually a consultant or application service provider, to transfer components or large segments of an organization's internal IT structure, staff, processes and applications for access via a virtual private network or an Internet-based browser.

是指雇用—个外部资源,通常是一个顾问或者应用服务提供商,将一个组织的内部 IT 结构、人员、处理过程和应用的部件通过一个虚拟专用网络或者一个基于 Internet 的浏览器进行转换。

 :software

 :2001.4.20

 :Application Service Provider

## OverDrive

A user-installable microprocessor from Intel for the 486 microprocessor. Many PCs 486-based PCs are built with an OverDrive socket, which allows the owner to upgrade to a faster microprocessor simply by inserting an OverDrive chip.

一个 Intel 中对于 486 微处理器用户可以安装的微处理器。许多基于 486 的 PC 机都带有 OverDrive 槽,这就允许用户通过插入一个 OverDrive 芯片升级到一个更快的微处理器。


: Hardware

: 2001. 1. 23

### P3P 私有参数选择平台

Platform for Privacy Preferences is a specification that will allow users' Web browsers to automatically understand Web sites' privacy practices. Privacy policies will be embedded in the code of a Web site. Browsers will read the policy, and then, automatically provide certain information to specific sites based on the preferences set by the users. For instance, if the site is an e-commerce site, the browser will automatically provide shipping info. If the site is requesting demographic info, then the browser will know to provide it anonymously.

私有参数选择平台是一个允许用户的网络浏览器自动理解网站的私有惯例的规范。私有的策略将被嵌入到一个网站的源代码中。浏览器将读取策略然后自动根据用户的设置来提供特定的信息。例如,如果站点是一个电子商务网站,浏览器将自动提供关于航运的信息。如果站点是请求人口统计的信息,然后浏览器将理解使用匿名来提供信息。

: WWW

: 1999. 9. 20

: World Wide Web

## packet switching 分组交换

Refers to protocols in which messages are divided into packets before they are sent. Each packet is then transmitted individually and can even follow different routes to its destination. Once all the packets forming a message arrive at the destination, they are recompiled into the original message.

Most modern Wide Area Network (WAN) protocols, including TCP/IP, X.25, and Frame Relay, are based on packet-switching technologies. In contrast, normal telephone service is based on a circuit-switching technology, in which a dedicated line is allocated for transmission between two parties. Circuit-switching is ideal when data must be transmitted quickly and must arrive in the same order in which it's sent. This is the case with most real-time data, such as live audio and video. Packet switching is more efficient and robust for data that can withstand some delays in transmission, such as e-mail messages and Web pages.

A new technology, ATM, attempts to combine the best of both worlds -- the guaranteed delivery of circuit-switched networks and the robustness and efficiency of packet-switching networks.

指信息在发送之前将其分成包的协议。每个包分别传输而且可以通过不同的路由到达目标。一旦所有组成一条信息的包到达目标,它们就被组成原来的信息。

目前绝大多数的广域网(WAN)协议,包括 TCP/IP、X.25 和帧中继都是基于分组交换技术的。相反,一般的电话服务是基于线路交换技术,其中两个点之间一个固定的线路被分配用来传输。当数据必须快速传输而且必须顺序到达时线路交换是理想的。这对于大多数的实时数据如现场声音和视频是适用的。分组交换更加有效而且对于可以承受传输过程中的某些延迟的数据如 e-mail 消息和网页有很好的稳定性。

作为一项新的技术,ATM 试图结合这两种最好的技术——线路交换网络的保证输送和分组交换网络的稳定和效率。

:Network

:1998.2.17


## PDL 页描述语言


A language for describing the layout and contents of a printed page. The best-known PDLs are Adobe PostScript and Hewlett-Packard PCL (Printer Control Language), both of which are used to control laser printers.

Both PostScript and modern versions of PCL are object-oriented, meaning that they describe a page in terms of geometrical objects such as lines, arcs, and circles.

一种描述一个打印页面布局和内容的语言。最著名的 PDL 是 Adobe 的 PostScript 和惠普的 PCL(打印机控制语言),这两种语言都是用来控制激光打印机。

PostScript 和现代的 PCL 版本都是面向对象的,这意味着它们根据几何对象如线、弧和圆来描述页面。

:Programming

1:2000.11.10

:object oriented    PostScript

## paging 分页


A technique used by virtual memory operating systems to help ensure that the data you need is available as quickly as possible. The operating system copies a certain number of pages from your storage device to main memory. When a program needs a page that is not in main memory, the operating system copies the required page into memory and copies another page back to the disk. One says that the operating system pages the data. Each time a page is needed that is not currently in memory, a page fault occurs. An invalid page fault occurs when the address of the page being requested is invalid. In this case, the application is usually aborted.


This type of virtual memory is called paged virtual memory. Another form of virtual memory is segmented virtual memory.

一项被虚拟内存操作系统所使用用来确保所需要的数据尽可能快的提供。操作系统从存储设备中复制一定数量的页数到主内存。当一个程序需要一个不在主内存中的页时,操作系统复制所需要的页到内存并复制另一页返回到磁盘。可以说操作系统调度了数据。每当需要不在内存中的页时,则页错误就会出现。当被请求的页的地址非法时就会出现非法页错误。在这种情况下,应用通常会停止。

这种类型的虚拟内存被称为分页虚拟内存。另一种虚拟内存的形式是分段虚拟内存。

:Programming

:2000.12.20

:operating system

## palette 调色板

(1) In computer graphics, a palette is the set of available colors. For a given application, the palette may be only a subset of all the colors that can be physically displayed. For example, a SVGA system can display 16 million unique colors, but a given program would use only 256 of them at a time if the display is in 256-color mode. The computer system's palette, therefore, would consist of the 16 million colors, but the program's palette would contain only the 256-color subset.

A palette is also called a CLUT (color look-up table).

On monochrome systems, the term palette is sometimes used to refer to the available fill patterns.

(2) In paint and illustration programs, a palette is a collection of symbols that represent drawing tools. For example, a simple palette might contain a paintbrush, a pencil, and an eraser.


(1) 在计算机图形学中,一个调色板是指一套可以提供的颜色。对于一个给定的应用,调色板可以是所有物理上可以显示的颜色的一部分。例如,一个 SVGA 系统可以显示 1 600 万独立的颜色,但是一个给定的系统如果是 256 色彩模式只可以使用他们中的 256 种。因此计算机的调色板将包含 1 600 万种颜色,但是程序的调色板将只包含 256 种色彩。

一个调色板也称为一个 CLUT(颜色查找表)。

在单色系统中,术语调色板有时用来指可以提供的填充模式。

(2) 在绘画程序中,一个调色板是一个现实绘画工具的符号的集合。例如,一个简单的调色板可以包含一个画笔、一个铅笔和一个擦除器。

:Graphics

:1998.5.16

## palmtop 掌上电脑

A small computer that literally fits in your palm. Compared to full-size computers, palmtops are severely limited, but they are practical for certain functions such as phone books and calendars. Palmtops that use a pen rather than a keyboard for input are often called hand-held computers or PDAs.

Because of their small size, most palmtop computers do not include disk drives. However, many contain PCMCIA slots in which you can insert disk drives, modems, memory, and other devices.

Palmtops are also called PDAs, hand-held computers and pocket computers.


一个可以放在手掌上的计算机。与正常大小的计算机相比,掌上电脑的尺寸是严格受到限制的,但是它们对于如电话本和日历似的功能是比较实用的。使用一个笔而不是键盘用来输入的掌上电脑经常被称为手持计算机或者 PDA。

因为尺寸原因,大多数掌上电脑不会有磁盘。然而许多却包含 PCMCIA 插槽,这样就可以插入硬盘驱动器、调制解调器、内存和其他设备。

掌上电脑也称为 PDA,手持电脑和口袋电脑。

: Mobile Computing

: 1996. 9. 1

: electronic book    hand-held computer    PDA

Windows CE


## paperless office 无纸办公

The idealized office in which paper is absent because all information is stored and transferred electronically. With the ever-expanding application of computers into business areas as diverse as accounting, desktop publishing, billing, mail, and scheduling, it seemed in the early 80s that the real paperless office was just around the corner. Ironically, just the opposite has transpired. The ease with which computers enable people to print all sorts of documents has created a flood of new paper. Indeed, perhaps the most widespread computer application is the fax machine, which uses paper by the ream.

Some analysts believe that the paperless office is still an achievable and laudable goal, but that certain key technologies such as optical character recognition (OCR) must be improved. Others, however, argue that the tangibility of paper documents yields certain benefits that will never disappear.

是一个理想的办公室,其中没有纸的存在,因为所有的信息都以电子的方式存储和传递。随着计算机应用在商务领域的扩展,如会计、桌面出版、清单、邮件和时间安排等领域,早在 20 世纪 80 年代真正的无纸办公只是在讨论中。具有讽刺意义的是,相反的事情发生了。计算机使得人们可以打印各种文件的便捷性产生了大量的纸张。确实,也许最为广泛使用的计算机应用是使用大量纸张的传真机。

一些分析家相信无纸办公仍然是一个可以达到的且值得称道的目标,但是特定的关键技术如光学字符识别(OCR)必须要进行改进。然而其他人认为纸张的切实性具有不可能消失的益处。

 :Computer Science

 :1998.5.16

## parallel processing 并行处理

The simultaneous use of more than one CPU to execute a program. Ideally, parallel processing makes a program run faster because there are more engines (CPUs) running it. In practice, it is often difficult to divide a program in such a way that separate CPUs can execute different portions without interfering with each other.

Most computers have just one CPU, but some models have several. There are even computers with thousands of CPUs. With single-CPU computers, it is possible to perform parallel processing by connecting the computers in a network. However, this type of parallel processing requires very sophisticated software called distributed processing software.

Note that parallel processing differs from multitasking, in which a single CPU executes several programs at once.


Parallel processing is also called parallel computing.

同时使用多余一个 CPU 来执行一个程序。理想情况下,并行处理使得一个程序运行的更快因为有更多的引擎(CPU)来运行它。实际上,很难将一个程序分割开来以使得各个 CPU 可以运行不同的部分而不会相互干扰。

大多数计算机只有一个 CPU,但是某些型号会有几个。还有带有上千个 CPU 的计算机。具有一个 CPU 的计算机可以通过连结一个网络上的其他计算机来完成并行处理。然而这种类型的并行处理需要一个称为分布式处理软件的复杂软件。

注意并行处理不同于多任务处理,多任务处理是一个 CPU 同时执行几个程序。

并行处理也称为并行计算。

:Operation System

:1997.12.4

## PCI 外围元件扩展接口

Acronym for Peripheral Component Interconnect, a local bus standard developed by Intel Corporation. Most modern PCs include a PCI bus in addition to a more general ISA expansion bus. Many analysts, however, believe that PCI will eventually supplant ISA entirely. PCI is also used on newer versions of the Macintosh computer.

PCI is a 64-bit bus, though it is usually implemented as a 32-bit bus. It can run at clock speeds of 33 or 66 MHz. At 32 bits and 33 MHz, it yields a throughput rate of 133 Mb/s.

Although it was developed by Intel, PCI is not tied to any particular family of microprocessors.


外围元件扩展接口的缩写,这是由 Intel 公司开发的一个本地总线标准。大多数现在的 PC 机除了一个更通用的 ISA 扩展总线外包含一个 PCI 总线。然而许多分析家相信 PCI 将最终取代 ISA。PCI 也用于最新的 Macintosh 计算机版本。

PCI 是一个 64 位总线,虽然它经常作为一个 32 位总线所使用。它可以以 33 MHz 或者 66 MHz 的时钟运行。在 32 位和 33 MHz 下,它产生一个 133 Mb/s 的流量。

虽然它是 Intel 开发的,但是 PCI 与任何类型的微处理器没有关系。

: Hardware

: 1996.9.1

: cache coherence

## PCMCIA 个人计算机存储卡

Short for Personal Computer Memory Card International Association, and pronounced as separate letters, PCMCIA is an organization consisting of some 500 companies that has developed a standard for small, credit card-sized devices, called PC Cards. Originally designed for adding memory to portable computers, the PCMCIA standard has been expanded several times and is now suitable for many types of devices. There are in fact three types of PCMCIA cards. All three have the same rectangular size (85.6 by 54 millimeters), but different widths

- \* Type I cards can be up to 3.3 mm thick, and are used primarily for adding additional ROM or RAM to a computer.

- \* Type II cards can be up to 5.5 mm thick. These cards are often used for modem and fax modem cards.

- \* Type III cards can be up to 10.5 mm thick, which is sufficiently large for portable disk drives.

As with the cards, PCMCIA slots also come in three sizes:

- \* A Type I slot can hold one Type I card

- \* A Type II slot can hold one Type II card or two Type I cards

- \* A Type III slot can hold one Type III card or a Type I and Type II card.

In general, you can exchange PC Cards on the fly, without rebooting your computer. For example, you can slip in a fax modem card when you want to send a fax and then, when you're done, replace the fax modem card with a memory card.

个人计算机存储卡国际协会的缩写。PCMCIA 是一个包括 500 家公司的组织,这个组织已经开发了一个针对信用卡大小称为 PC 卡的设备的标准。开始 PCMCIA 是用

来设计增加便携计算机的内存,PCMCIA 标准现在已经扩展了几倍而且适用于许多类型的设备。实际上有 3 种类型的 PCMCIA 卡。所有这 3 种卡具有相同的尺寸(85.6 mm × 54 mm),但是有不同的厚度:

- \* 类型 I 卡可以厚达 3.3 mm 并且主要用来给计算机增加额外的 ROM 或者 RAM。

- \* 类型 II 卡可以厚达 5.5 mm。这些卡通常用来调制解调器和传真调制解调器卡。

- \* 类型 III 卡可以厚达 10.5 mm,它足够大可以作为便携硬盘驱动器。


与卡型相对应,PCMCIA 槽也有 3 种尺寸:


- \* 类型 I 槽可以容纳类型 I 卡。

- \* 类型 II 槽可以容纳类型 II 卡或者两个类型 I 卡。

- \* 类型 III 槽可以容纳类型 III 卡或者一个类型 I 和类型 II 卡。

通常,可以在线更换 PC 卡,而无须重新启动计算机。例如,当想要发送一个传真可以插入一个传真调制解调器卡。发送完毕后,在使用一个内存卡代替传真调制解调器。

: Hardware

: 2000. 10. 25

## PCS 个人通信服务

Short for Personal Communications Service, the U. S. Federal Communications Commission (FCC) term used to describe a set of digital cellular technologies being deployed in the U. S. PCS works over CDMA (also called IS-95), GSM, and North American (also called IS-136) air interfaces. Two of the most important distinguishing features of PCS systems are:

They are completely digital.

They operate at the 1900 MHz frequency range.

They can be used internationally.

PCS is a second generation mobile communications technology.

个人通信服务的缩写,是用来描述一套美国使用的数字蜂窝技术的联邦通信委员会(FCC)术语。PCS工作于CDMA(也称为IS-95)、GSM和北美TDMA(也称为IS-136)的接口。PCS系统的两个最重要的特性为:

它们完全是数字的。

它们在1900 MHz频率范围内操作。

它们可以在国际范围内使用。PCS是第二代移动通信技术。

: Mobile Computing

: 1997. 12. 3

: GSM CDMA

## PDA 个人数字助理

Short for personal digital assistant, a handheld device that combines computing, telephone/fax, and networking features. A typical PDA can function as a cellular phone, fax sender, and personal organizer. Unlike portable computers, most PDAs began as pen-based, using a stylus rather than a keyboard for input. This means that they also incorporated handwriting recognition features. Some PDAs can also react to voice input by using voice recognition technologies. PDAs of today are available in either a stylus or keyboard version.

The field of PDA was pioneered by Apple Computer, which introduced the Newton MessagePad in 1993. Shortly thereafter, several other manufacturers offered similar products. Today, one of the most popular brands of PDAs is the series of Palm Pilots from Palm, Inc.

PDAs are also called palmtops, hand-held computers and pocket computers.

个人数字助理的缩写,是一个将计算、电话/传真和网络特色结合在一起的手持设备。一个典型的 PDA 可以作为一个蜂窝电话、传真机和个人组织助理来使用。不像便携式电脑,大多数 PDA 是基于笔的,使用一个 stylus 而不是键盘来输入。这就意味着它们结合了手写识别的特性。一些 PDA 也可以通过使用声音识别技术对声引起反应。现在的 PDA 可以提供 stylus 或者键盘版本。

PDA 领域首先是 Apple 公司开创的,Apple 公司在 1993 年引入了 Newton MessagePad。其后不久,其他几个制造商生产出相似的产品。现在,最流行的 PDA 品牌之一是 Palm 有限公司的 Palm Pilots 系列。

PDA 也称为掌上电脑,手持电脑和口袋电脑。

 :mob

 :2000.12.8

 :Apple Computer EPOC hand-held computer  
HPC palmtop Windows CE WTLS

### peer-to-peer architecture 点对点结构

A type of network in which each workstation has equivalent capabilities and responsibilities. This differs from client/server architectures, in which some computers are dedicated to serving the others. Peer-to-peer networks are generally simpler and less expensive, but they usually do not offer the same performance under heavy loads.

一种网络的类型,其中每一个工作站有同样的性能和功能。这不同于某些计算机用于服务其他计算机的客户端/服务器结构。点对点网络通常更简单而且更便宜,但是他们通常在重负荷情况下不能够提供同样的性能。

:Netwrok

:1998. 3. 18

:client/server architecture   local-area network


## pen computer 笔计算机

A computer that utilizes an electronic pen (called a stylus) rather than a keyboard for input. Pen computers generally require special operating systems that support handwriting recognition so that users can write on the screen or on a tablet instead of typing on a keyboard. Most pen computers are hand-held devices, which are too small for a full-size keyboard.

使用电子笔(称为一个 stylus)而不是键盘进行输入的电脑。笔计算机通常需要特殊的操作系统用来支持手写识别,这样用户可以在屏幕上写字或者在一个写字板而不是通过键盘输入。大多数笔计算机是手持设备,对于一个完整尺寸的键盘来说是非常的小。

: Mobile Computing

 1: 1997. 7. 23

: hand-held computer palmtop PDA

## Pentium 4 奔腾 4 微处理器

The next generation of microprocessors from Intel. Features such as a 32-bit microprocessor, hyper-pipelined technology, a rapid execution engine and a 100 MHz system bus that delivers three times the bandwidth of the Pentium III processor are designed to enhance online gaming, digital video and photography, speech recognition and MP3 encoding. Current speeds run at 1.4 and 1.5 GHz. The Pentium 4 processor also features:

- \* New Level 1 cache technology - Execution Trace Cache, which delivers a higher performance instruction cache than the Pentium III through a more efficient use of cache memory.

- \* NetBurst microarchitecture doubles the pipelength depth to 20 stages, and increases the frequency capability.

- \* Streaming SIMD extension 2 (SSE2) -- 144 new instructions, a 128-bit SIMD integer arithmetic and 128-bit SIMD double precision floating point instructions.

Intel 的下一代微处理器。其特点有 32 位微处理器、超管道技术、一个快速执行引擎和一个 100 MHz 系统总线,它可以传递 3 倍于 Pentium III 处理器的带宽,可以提高在线游戏、视频和照片、声音识别和 MP3 的编码的速度。现在的速度为 1.4 GHz 和 1.5 GHz。Pentium 4 处理器还有如下特性:

- \* 新的一级缓存技术——执行跟踪缓存,它通过一个更有效的缓存传递了一个比 Pentium III 更高的执行效率。

- \* NetBurst 微系统结构将管道倍增到 20,并且增加了频率性能。

- \* (单指令多数据)流扩展 2(SSE2)——144 个新的指令,一个 128 位 SIME 整数算法和 128 位双精度浮点指令。

: Hardware

: 2000.11.30

**personal computer 个人计算机**

A small, relatively inexpensive computer designed for an individual user. In price, personal computers range anywhere from a few hundred dollars to over five thousand dollars. All are based on the microprocessor technology that enables manufacturers to put an entire CPU on one chip. Businesses use personal computers for word processing, accounting, desktop publishing, and for running spreadsheet and database management applications. At home, the most popular use for personal computers is for playing games.

Personal computers first appeared in the late 1970s. One of the first and most popular personal computers was the Apple II, introduced in 1977 by Apple Computer. During the late 1970s and early 1980s, new models and competing operating systems seemed to appear daily. Then, in 1981, IBM entered the fray with its first personal computer, known as the IBM PC. The IBM PC quickly became the personal computer of choice, and most other personal computer manufacturers fell by the wayside. One of the few companies to survive IBM's onslaught was Apple Computer, which remains a major player in the personal computer marketplace.

Other companies adjusted to IBM's dominance by building IBM clones, computers that were internally almost the same as the IBM PC, but that cost less. Because IBM clones used the same microprocessors as IBM PCs, they were capable of running the same software. Over the years, IBM has lost much of its influence in directing the evolution of PCs. Many of its innovations, such as the MCA expansion bus and the OS/2 operating system, have not been accepted by the industry or the marketplace.

Today, the world of personal computers is basically

divided between Apple Macintoshes and PCs. The principal characteristics of personal computers are that they are single-user systems and are based on microprocessors. However, although personal computers are designed as single-user systems, it is common to link them together to form a network. In terms of power, there is great variety. At the high end, the distinction between personal computers and workstations has faded. High-end models of the Macintosh and PC offer the same computing power and graphics capability as low-end workstations by Sun Microsystems, Hewlett-Packard, and DEC.


一个专门为个人用户设计的相对便宜的计算机。在价格上,个人计算机从几百美元到几千美元不等。所有的都是基于微处理器技术,这样可以使制造商将整个 CPU 置于一个芯片内。商务上使用计算机用来进行文字处理、记账、桌面出版和电子表格及数据库管理应用。在家庭,个人计算机一般用来玩游戏。

个人计算机首先出现在 20 世纪 70 年代。最早流行的个人计算机是 Apple II,是由 Apple 公司 1977 年引入的。在 20 世纪 70 年代后期和 80 年代初期,新的款式和具竞争力的操作系统就要出现。这样在 1981 年,IBM 带着它的第一个个人计算机进入这个市场,称为 IBM PC。IBM PC 很快成为个人计算机的首选,而且大多数个人计算机制造商都被甩在后边。从 IBM 的冲击下剩余的公司之一是 Apple 公司,这样就在个人计算机市场上保留了一个竞争对手。

其他的公司为了对付 IBM 的独霸而采取了作 IBM 的兼容机,这是一种内部与 IBM 几乎相同而造价更低的计算机。因 IBM 兼容机使用了与 IBM PC 相同的微处理器,所以他们能够运行同样的软件。几年后,IBM 在领导 PC 机发展上起了很大的作用。许多创新,如 MCA 扩展总线和 OS/2 操作系统还没有被工业或者市场所接受。

今天,个人计算机世界基本上分为 Apple 的 Macin-

toshes 和 PC 机。个人计算机的主要特性是它们是单个用户系统并且是基于微处理器的。然而虽然个人计算机是为单个用户设计的,将它们连在一起组成一个网络是很普遍的。关于功能就有很大的不同。在高端,个人计算机和工作站的区别很模糊。Macintosh 和 PC 的高端型号提供了与低端工作站如 Sun 微系统公司、惠普公司和 DEC 公司相同的计算能力和图形性能。

:Type of Computer

:1997. 4. 14

:Macintosh computer

## PicoJava

A low cost (between \$ 10- \$ 50) RISC microprocessor dedicated to executing Java -based bytecodes without the need for a interpreter or JIT compiler. The new chip will be used in network computers, cellular telephones and pagers, hand-held PCs, and enterprise peripherals.

picoJava directly executes the Java Virtual Machine instruction set. As a result, Java software applications are up to 3 times smaller in code size and up to 5 times faster--thus reducing memory requirements--and 20 times faster than Java interpreters running on standard CPU s.

It does not include any memory or I/O interface logic. Rather, developers can add their own logic to customize memory and an interface.

一个低成本(位于 10~50 美元之间)的 RISC 微处理器,用户执行基于 Java 的字节码,而不需要一个解释器或者 JIT 编译器。这个新的芯片将在网络计算机中、蜂窝电话和寻呼机、手持 PC 和企业级外围设备中使用。

PicoJava 直接执行 Java 虚拟机的指令集。结果,Java 软件应用程序的源代码将小于 3 倍并且快于 5 倍——这样就减小了所需的内存——并且比运行在标准 PC 上的 Java 解释器快 20 倍。

它不包含任何的内存或者 I/O 接口逻辑。而且开发者可以添加他们自己的逻辑来定制内存和接口。

: Hardware

: 1999. 6. 9

: Java

## **pipelining 流水线技术**

(1) A technique used in advanced microprocessors where the microprocessor begins executing a second instruction before the first has been completed. That is, several instructions are in the pipeline simultaneously, each at a different processing stage.

The pipeline is divided into segments and each segment can execute its operation concurrently with the other segments. When a segment completes an operation, it passes the result to the next segment in the pipeline and fetches the next operation from the preceding segment. The final results of each instruction emerge at the end of the pipeline in rapid succession.

Although formerly a feature only of high-performance and RISC -based microprocessors, pipelining is now common in microprocessors used in personal computers. Intel's Pentium chip, for example, uses pipelining to execute as many as six instructions simultaneously.

Pipelining is called pipeline processing.

(2) A similar technique used in DRAM, in which the memory loads the requested memory contents into a small cache composed of SRAM and then immediately begins fetching the next memory contents. This creates a two-stage pipeline, where data is read from or written to SRAM in one stage, and data is read from or written to memory in the other stage.

DRAM pipelining is usually combined with another performance technique called burst mode. The two techniques together are called a pipeline burst cache.

(1) 一种用于提高微处理器速度的技术,即微处理器在完成前一指令之前就开始执行下一条指令。有几条指令同时在流水线上,每一个处于不同的处理阶段。

流水线被分成几个片断,每一个片断可以与其他片断

同时执行。当一个片断完成一项操作时,它就将结果传送到流水线上的下一个片断并且从正在处理的片断中得到下一项操作。每一条指令的最终结果在流水线的结尾出现。

虽然流水线技术以前只是高性能和基于 RISC 微处理器的特性,但是现在已经普遍使用于个人计算机的微处理器中。例如,Intel 的奔腾芯片使用流水线技术来同时执行多达 6 条指令。

流水线技术被称为流水线处理。

(2) 一项使用于 DRAM 中的相似的技术,其中内存将所需要的内存内容加载到一个小的组成 SRAM 的缓冲存储器然后立即开始取得下一个内存内容。这就创建了两阶段的流水线,其中数据在一个阶段读取或者写入到 SRAM,在另一个阶段数据从内存读取或者写入。

DRAM 流水线技术通常与另一个称为猝发方式的技术相结合。这两项技术一起称为流水线猝发缓冲存储器。

:Hardware

:2001.1.6

:RISC

## pixel 像素

Short for Picture Element, a pixel is a single point in a graphic image. Graphics monitors display pictures by dividing the display screen into thousands (or millions) of pixels, arranged in rows and columns. The pixels are so close together that they appear connected.

The number of bits used to represent each pixel determines how many colors or shades of gray can be displayed. For example, in 8-bit color mode, the color monitor uses 8 bits for each pixel, making it possible to display 2 to the 8th power (256) different colors or shades of gray.

On color monitors, each pixel is actually composed of three dots — a red, a blue, and a green one. Ideally, the three dots should all converge at the same point, but all monitors have some convergence error that can make color pixels appear fuzzy.

The quality of a display system largely depends on its resolution, how many pixels it can display, and how many bits are used to represent each pixel. VGA systems display 640 by 480, or about 300,000 pixels. In contrast, SVGA systems display 1,024 by 768, or nearly 800,000 pixels. True Color systems use 24 bits per pixel, allowing them to display more than 16 million different colors.

图片要素的缩写,一个像素是图像上的一个单独的点。图形监视器通过将显示屏分割为上千万的像素显示图像的。每个像素非常紧密看起来呈现是连续的。

用来表示每一个像素的位的数量决定了可以显示多少颜色或者灰色阴影。例如,在 8 位颜色模式中,颜色监视器为每一个像素使用了 8 位,这使得显示 2 到 8 次幂不同的颜色或者灰度阴影成为可能。

在彩色监视器中,每一个像素实际上包括三个点——一个红色、一个蓝色和一个绿色。理想情况下,这三个点应当在同一点上汇集,但是所有的监视器有一些汇集的偏差,

这样使得彩色像素显得有一点模糊。

显示系统的质量主要依靠它的分辨率,它可以显示多少像素,每一个像素有多少位组成。VGA 系统显示  $640 \times 480$  分辨率,或者 300 000 像素。相反,SVGA 系统显示  $1\,024 \times 768$ ,或者 800 800 像素。真彩色系统使用 24 位代表每一个像素,这样允许显示多于 1 600 万种不同的颜色。

:Graphics

1:1998.5.18

## platform 平台

The underlying hardware or software for a system. For example, the platform might be an Intel 80486 processor running DOS Version 6.0. The platform could also be UNIX machines on an Ethernet network.


The platform defines a standard around which a system can be developed. Once the platform has been defined, software developers can produce appropriate software and managers can purchase appropriate hardware and applications. The term is often used as a synonym of operating system.

The term cross-platform refers to applications, formats, or devices that work on different platforms. For example, a cross-platform programming environment enables a programmer to develop programs for many platforms at once.

一个系统基本的硬件和软件。例如,平台可能是一个运行在 Intel 80480 处理器上的 DOS 6.0 版本。平台也可以是在一个以太网上的 UNIX 机器。

平台定义了一个系统可以被开发的标准。一旦平台定义下来,软件开发人员就可创造合适的软件而经理可以购买合适的软件 and 应用程序。这个术语是作为操作系统的缩写被使用的。

术语跨平台指工作在不同平台上的应用平台或者设备。如一个跨平台编程环境使得编程人员能够同时为不同的平台开发程序。

 :Operation System

 :1998.5.18

**plug compatible 插入兼容**

Able to replace another product without any alterations. Two devices are said to be plug-compatible if either one can be plugged into the same interface. The term is also sometimes used to describe software modules that interface with an application in the same way.

在没有任何修改的情况下可以替代另一个产品。如果任何一个可以插入到同样的接口中则这两个设备就说是插入兼容。这个术语有时也用来描述以同样的方式与一个程序接口的软件模块。

 : Hardware


 **1** : 1998. 5. 19

 : expansion board

## PNG 便携网络图形

Short for Portable Network Graphics, and pronounced ping, a new bit-mapped graphics format similar to GIF. In fact, PNG was approved as a standard by the World Wide Web consortium to replace GIF because GIF uses a patented data compression algorithm called LZW. In contrast, PNG is completely patent- and license-free. The most recent versions of Netscape Navigator and Microsoft Internet Explorer now support PNG.

便携网络图形的缩写,是一个与 GIF 相似的新的位图图形格式。实际上,PNG 由 WWW 联盟通过作为替代 GIF 的标准因为 GIF 使用一个特许的数据压缩算法 LZW。相反,PNG 完全是免费专利许可的。最新版本的 Netscape 公司的 Navigator 和微软公司的 IE 都支持 PNG。


: WWW

: 1998. 2. 1


## PnP 即插即用

Short for Plug and Play, a technology developed by Microsoft and Intel that supports plug-and-play installation. PnP is built into the Windows 95 operating system, but to use it, the computer's BIOS and expansion boards must also support PnP.

即插即用的缩写,这是一项由支持即插即用安装的微软公司和 Intel 公司开发的技术。PnP 是内嵌在 Windows 95 操作系统中的,但是要使用它,计算机的 BIOS 和扩展板必须也支持 PnP。

:Operation System

:1997. 4. 17

:BIOS    expansion board    plug-and-play

## PointCast

A now-defunct company founded in 1992 to deliver news and other information over Internet connections. PointCast's flagship product was PointCast Network, which sent customized news to users' desktops. PointCast Network was free. To use it, you needed to download the PointCast client program, which was available from PointCast's Web site and many other places.

PointCast was the first company to successfully combine the Internet with push technologies.

In 1999 EntryPoint acquired PointCast, and in late 2000 EntryPoint merged with Internet Financial Network Inc. to form InfoGate.


一个现在已被收购成立于 1992 年专门传递新闻以及其他信息的公司。PointCast 的旗舰产品是 PointCast 网络,它给用户的桌面发送定制的新闻。PointCast 网络是免费的。要使用它,需要下载 PointCast 客户端程序,从 PointCast 的站点和其他许多地方可以下载。

PointCast 是第一家成功地将因特网与推进技术整合的公司。

在 1999 年,EntryPoint 购得 PointCast 公司,然后在 2000 年末,EntryPoint 与因特网金融网络有限公司合并组成了 InfoGate。

:Online Service

:2001.1.31

:CDF push webcasting

## PON 无源光纤网

Passive Optical Network is a high bandwidth point to multipoint optical fibre network based on the asynchronous transfer mode protocol (ATM).

PONs generally consist of an OLT (Optical Line Termination), which is connected to ONUs (Optical Network Units), aka subscriber terminals, using only fibre cables, optical splitters and other passive components (do not transmit signals using electricity). Up to 32 ONUs can be connected to an OLT.

The OLT is located at a local exchange, and the ONU is located either on the street, in a building, or even in a user's home.

PONs rely on lightwaves for data transfer.

In a PON, signals are routed over the local link with all signals along that link going to all interim transfer points. Optical splitters route signals through the network; optical receivers at intermediate points and subscriber terminals tuned for specific wavelengths of light direct signals intended for their groups of subscribers. At the final destination, a specific residence or business can detect its specified signal.

PONs are capable of delivering high volumes of upstream and downstream bandwidth (up to 622 Mb/s downstream and 155 Mb/s upstream), which can be changed “on-the-fly” depending on an individual user's needs.

无源光纤网是基于异步传输模式方式(ATM)的高带宽点对多点光纤网络。

PON 通常包含一个连接到 ONU(光纤网络单元)的 OLT(光缆终端)、只使用光缆的 aka 订购终端、光纤分隔和其他无源部件(不使用电子传送信号)。多达 32ONU 可以连接到一个 OLT。

OLT 被置于一个本地交换,而 ONU 被置于街道、建筑

内或者用户的家内。

PON 依靠长波进行数据传输。

在一个 PON 内,信号通过本地连接进行路由,所有的信号沿着线路到达所有的传输点。光纤分隔器路由信号是通过网络路由信号、中间的光线接收和根据订购分组划分的光信号的特定波长进行调节的订购终端。在终点,一个特定的驻留程序或者处理事务可以探测到其特定的波长。

PON 能够传递高容量的上游和下游带宽(下游至 622 Mb/s,上游至 155 Mb/s),这样可以根据用户的需要进行随时变化。

:Network

:2000.1.13

**portable 便携性**

(1) When used to descrihardware, portable means small and lightweight. A portable computer is a computer small enough to carry. Portable computers include notebook and subnotebook computers, hand-held computers, palmtops, and PDAs.


(2) When used to describe software, portable means that the software has the ability to run on a variety of computers. Portable and machine independent mean the same thing -- that the software does not depend on a particular type of hardware.

(1) 当用来描述硬件时, portable 意思是小且重量轻。一个便携式电脑是一个小的足以携带的电脑。便携式电脑包括笔记本和子笔记本电脑、手持电脑、掌上电脑和 PDA。

(2) 当用来描述软件时, portable 意味着软件具有在各种计算机上运行的性能。便携式和机器独立意味着同样的事——这个软件不依靠特定类型的硬件。

: Mobile Computing

: 1996. 9. 1

: hand-held computer    machine independent  
palmtop    PDA

## port scanning 端口扫描

The act of systematically scanning a computer's ports. Since a port is a place where information goes into and out of a computer, port scanning identifies open doors to a computer. Port scanning has legitimate uses in managing networks, but port scanning also can be malicious in nature if someone is looking for a weakened access point to break into your computer.

Types of port scans:

vanilla: the scanner attempts to connect to all 65,535 ports.

strobe: a more focused scan looking only for known services to exploit.

fragmented packets: the scanner sends packet fragments that get through simple packet filters in a firewall.

UDP: the scanner looks for open UDP ports.

sweep: the scanner connects to the same port on more than one machine.

FTP bounce: the scanner goes through an FTP server in order to disguise the source of the scan

stealth scan: the scanner blocks the scanned computer from recording the port scan activities.

Port scanning in and of itself is not a crime. There is no way to stop someone from port scanning your computer while you are on the Internet because accessing an Internet server opens a port, which opens a door to your computer. There are, however, software products that can stop a port scanner from doing any damage to your system.

系统地扫描一个计算机的端口的过程。因为端口位于信息进出计算机的地方,所以端口扫描可以识别一个计算机的开口。端口扫描已经在管理网络上合法的,但是如果某人寻找计算机的一个弱的存取点则端口扫描在本质上变为有害的了。

端口扫描的类型有：

vanilla:扫描器试图连接所有的 65 535 个端口。

闸门:一个更加针对已知设备的扫描。

片断包:扫描器发送通过防火墙中的简单包过滤器的包片断。

UDP:扫描器寻找开放的 UDP 端口。

清扫:扫描器连接到多于一台机器上的同样的端口。

FTP 反弹:扫描器通过一个 FTP 服务器以此来掩饰扫描的来源。

秘密扫描:扫描器可以防止被扫描的计算机记录其端口扫描的活动。

端口扫描其本身并不是犯罪。现在没有办法阻止某人在用户上网时对计算机进行端口扫描,因为访问一个因特网服务器就打开了一个端口,这样就开放了计算机的一个门。然而,现在已经有可以防止利用端口扫描对用户的计算机进行破坏的软件产品。

:computer science


:2001.3.15

:Hacker intrusion detection system VRRP

## POST 通电自测

Short for power-on self test, a series of diagnostic tests that run automatically when you turn your computer on. The actual tests can differ depending on how the BIOS is configured, but usually the POST tests the RAM, the keyboard, and the disk drives. If the tests are successful, the computer boots itself. If the tests are unsuccessful, the computer reports the error by emitting a series of beeps and possibly displaying an error message and code on the display screen. The number of beeps indicates the error, but differs from one BIOS to another.

通电自测的缩写,是当打开计算机时自动运行的一系列诊断测试。实际的测试可以根据 BIOS 配置不同而不同,但是通常 POST 测试 RAM、键盘和磁盘驱动器。如果测试成功,那么计算机就启动自己。如果测试失败,计算机通过发出一系列的鸣叫以及可能显示一个错误信息来报告错误。鸣叫的数量显示了错误的类型,但是根据 BIOS 的不同会有所不同。

:Hardware

:2000.11.27

:BIOS boot

**power cycling 电源循环**

In the case of a frozen or hung device, power cycling refers to turning the device's power off and then on in order to get the device to function again. For example, if a desktop computer freezes, the user is unable to perform a routine shutdown by utilizing the shut down window. In order to get the device working again, the user must power cycle the device by manually by pressing the power key or disengaging the power source.

对于死机或者挂起的设备,电源循环指为了使设备起作用而将设备的电源关闭然后再打开。例如,如果一个桌面计算机死机,用户不能使用一个通常的程序来关闭计算机。为了使设备正常工作,用户必须通过手动按动电源开关或者拆除电源来重新启动设备。

: Hardware

: 2001. 2. 14

: bug

## power supply 供电器

The component that supplies power to a computer. Most personal computers can be plugged into standard electrical outlets. The power supply then pulls the required amount of electricity and converts the AC current to DC current. It also regulates the voltage to eliminate spikes and surges common in most electrical systems. Not all power supplies, however, do an adequate voltage-regulation job, so a computer is always susceptible to large voltage fluctuations.

Power supplies are rated in terms of the number of watts they generate. The more powerful the computer, the more watts it can provide to components. In general, 200 watts should be sufficient.

给计算机提供电源的部件。大多数个人计算机可以插入标准的电源插口。供电器得到所需的电能然后将 AC 电流转换为 DC 电流。它也管理电压来消除通常在电子系统中出现的尖峰和波动。然而并不是所有的供电器可以进行电压管理的工作,所以一般计算机经常有电压波动的情况。

供电器与它们提供的瓦特数量有关系。计算机越强大,则它就可以提供更多的瓦特。通常,200 W 应当是足够的。

: Hardware


: 1996. 9. 1

: UPS voltage regulator

## PPGA 塑料引脚网格矩阵

Plastic Pin Grid Arrays were first developed by Intel in 1993 to combat power supply decoupling issues in high-performance microprocessors. This square chip packaging technology was designed for microprocessors with greater numbers of transistors on each chip than previous models. Unlike ceramic pin grid arrays (CPGA) or tape carrier packages (TCP), PPGA packages offer a greater amount of thermal resistance and improved electrical performance and power distribution, which directly affect the potential performance of microprocessors sensitive to heat transmission.

塑料引脚网格矩阵是 Intel 在 1993 年开发的用来抑制由高性能的微处理器导致到电源去耦。这个方的芯片封装技术是为带有更多数量晶体管的微处理器而设计的。不像陶瓷引脚网格矩阵(CPGA)或者磁带载波包(TCP),PPGA 包提供一个更大数量的阻热能力和更高的性能与电力分配,这将直接影响对散热敏感的微处理器的潜在性能。

: Hardware

: 2000. 11. 21

: FC-PGA


## PPPoE 以太网上点对点协议

Acronym for Point-to-Point Protocol over Ethernet. PPPoE relies on two widely accepted standards: PPP and Ethernet. PPPoE is a specification for connecting the users on an Ethernet to the Internet through a common broadband medium, such as a single DSL line, wireless device or cable modem. All the users over the Ethernet share a common connection, so the Ethernet principles supporting multiple users in a LAN combine with the principles of PPP, which apply to serial connections.

PPPoE 是以太网上点对点协议(Point-to-Point Protocol over Ethernet)的首字母缩写。PPPoE 依靠两个被广泛接收的标准:PPP 和以太网 Ethernet。PPPoE 是在一个以太网上通过一个通用的宽带媒介,如一根 DSL 线、无线设备或者电缆调制解调器,将用户连接到因特网的规范。在以太网上的所有用户共享一个连接,所以在局域网上支持多用户的以太网原理与 PPP 原理相结合一起应用于串行连接。

:network

:2001.1.24

:PPTP

**primitive 原型**

A low-level object or operation from which higher-level, more complex objects and operations can be constructed. In graphics, primitives are basic elements, such as lines, curves, and polygons, which you can combine to create more complex graphical images. In programming, primitives are the basic operations supported by the programming language. A programmer combines these primitives to create more complex operations, which are packaged as functions, procedures, and methods.

一个可以构成高级、更加复杂的对象和操作的低级对象或者操作。在图形学中,原型是基本元素,如线、弧和多边形,由此可以组成更加复杂的图像。在编程中,原型是被编程语言支持的基本的操作。一个程序员组合这些原型来创建更复杂的操作,这可以是函数、过程或者方法。

:Graphics

:1998.6.17

## Proprietary 所有权

Privately owned and controlled. In the computer industry, proprietary is the opposite of open. A proprietary design or technique is one that is owned by a company. It also implies that the company has not divulged specifications that would allow other companies to duplicate the product.


Increasingly, proprietary architectures are seen as a disadvantage. Consumers prefer open and standardized architectures, which allow them to mix and match products from different manufacturers.

私人拥有和控制。在计算机工业中,所有权是开放的反面。一个私人拥有的设计或者技术是被一个公司拥有的。它也表示公司不会泄漏将会导致其他公司复制产品的规范。

逐渐的,所有权构架被认为是一个缺点。消费者更偏好于开放和标准化的构架,这将允许他们组合并匹配不同制造商的产品。

:Computer Science

1:1996.9.1

:open architecture

## Protocol 协议

An agreed-upon format for transmitting data between two devices. The protocol determines the following:

the type of error checking to be used.

data compression method, if any.

how the sending device will indicate that it has finished sending a message.

how the receiving device will indicate that it has received a message.

There are a variety of standard protocols from which programmers can choose. Each has particular advantages and disadvantages; for example, some are simpler than others, some are more reliable, and some are faster.

From a user's point of view, the only interesting aspect about protocols is that your computer or device must support the right ones if you want to communicate with other computers. The protocol can be implemented either in hardware or in software.

在两台设备之间进行数据传递的一种业已同意的格式。协议决定了如下项目：

使用的错误检查的类型。

数据压缩方法，如果有的话。

发送设备将如何说明它已经完成发送一条信息。


接受设备将如何说明它已经完成接受一条信息。

有许多程序员可以选择的协议。每一个有其特定的优点和不足。例如，一些协议比其他要简单，而一些协议更可靠，一些更快。

从用户的角度，对于协议最感兴趣的是当想同另一台计算机通信的时候计算机或者设备必须支持的一种协议。协议可以以硬件或者软件形式实现。

 : Standard

 : 1996. 9. 1

 : bit stuffing   CIFS   PPPoE

## proxy server 代理服务器

A server that sits between a client application, such as a Web browser, and a real server. It intercepts all requests to the real server to see if it can fulfill the requests itself. If not, it forwards the request to the real server.

Proxy servers have two main purposes:

**Improve Performance:** Proxy servers can dramatically improve performance for groups of users. This is because it saves the results of all requests for a certain amount of time. Consider the case where both user X and user Y access the World Wide Web through a proxy server. First user X requests a certain Web page, which we'll call Page 1. Sometime later, user Y requests the same page. Instead of forwarding the request to the Web server where Page 1 resides, which can be a time-consuming operation, the proxy server simply returns the Page 1 that it already fetched for user X. Since the proxy server is often on the same network as the user, this is a much faster operation. Real proxy servers support hundreds or thousands of users. The major online services such as Compuserve and America Online, for example, employ an array of proxy servers.

**Filter Requests:** Proxy servers can also be used to filter requests. For example, a company might use a proxy server to prevent its employees from accessing a specific set of Web sites.

一个位于客户应用程序如 Web 浏览器和一个真实服务器之间的服务器。它拦截所有发向真实服务器的请求来检查它是否自己可以完成请求。如果不能,它就将请求发送到真实的服务器。

代理服务器主要有两个目的:


**提高性能:**代理服务器可以极大地提高用户组的性能。这是由于在特定的时间内它保存了所有请求的结果。假设用户 X 和用户 Y 都通过一个代理服务器访问 WWW。首

先用户 X 请求一个特定的网页,这里称为 Page 1。其后,用户 Y 请求同样的网页。代理服务器没有将请求发送到网页所驻留的真实服务器,这将是一个费时的操作,而是将由用户 X 得到的网页简单的返回。代理服务器支持成千上万的用戶。大多数的在线服务如 Compuserve 和 America Onlin 都拥有代理服务器阵列。

过滤请求:代理服务器也能够用于过滤请求。例如,某个公司可以使用代理服务器来拒绝它的职员访问一组特定的网站。

:Network

:1999.7.16


:Firewall network-attached storage server farm    Web server

## Pull

To request data from another program or computer. The opposite of pull is push, where data is sent without a request being made. The terms push and pull are used frequently to describe data sent over the Internet. The World Wide Web is based on pull technologies, where a page isn't delivered until a browser requests it. Increasingly, however, Information services are harnessing the Internet to broadcast information using push technologies. A prime example is the PointCast Network.

从另一个程序或者计算机取得数据。Pull 的反面是 push, push 的数据在没有请求的情况下发送出去。术语 push 和 pull 经常用来描述在因特网上的发送的数据。WWW 是基于 pull 技术的, 其中只有当一个浏览器请求时才会传递页面。然而, 信息服务正在使用利用 push 技术的广播信息。一个主要的例子是 PointCast 网络。

:Online Service

:1997. 1. 30

:push


## PURL 永久 URL

Short for Persistent URL, a type of URL that acts as an intermediary for a real URL of Web resource. When you enter a PURL in a browser, the browser sends the page request to a PURL server which then returns the real URL of the page. PURLs are persistent because once a PURL is established, it never needs to change. The real address of the web page may change but the PURL remains the same.

PURLs are managed by the Online Computer Library Center (OCLC).

永久 URL 的缩写,是一个作为一个真实的网络资源 URL 的媒介的 URL 类型。当在浏览器上键入一个 PURL 时,浏览器向一个 PURL 服务器发送一个页面请求而后会返回一个真实页面的 URL。PURL 是永久的,因为一旦一个 PURL 建立起来,它就不再需要更改。页面真实的地址可能会改变但是 PURL 保持不变。

PURL 是由在线计算机图书馆中心(OCLC)管理的。

:WWW

:1997.6.13

:URL

## push

(1) In client/server applications, to send data to a client without the client requesting it. The World Wide Web is based on a pull technology where the client browser must request a Web page before it is sent. Broadcast media, on the other hand, are push technologies because they send information out regardless of whether anyone is tuned in.

Increasingly, companies are using the Internet to deliver information push-style. Probably the oldest and most widely used push technology is e-mail. This is a push technology because you receive mail whether you ask for it or not -- that is, the sender pushes the message to the receiver.

(2) In programming, to place a data item onto a stack. The opposite of push is pop, which means to remove an object from a stack.

(1) 在客户端/服务器应用中,在没有客户端请求的情况下向一个客户端发送数据。


WWW 是基于 pull 技术的,即客户端浏览器必须得到请求一个页面。另一方面,广播介质是 push 技术的因为它们不论请求与否都会发送信息。

现在公司逐渐地在使用因特网来传递 push 类型的信息。可能历史最悠久并且最广泛使用的 push 技术是 e-mail。e-mail 是一项 push 技术因为用户无论请求与否都会收到邮件——也就是发送者将信息“推”到接收者。

(2) 在程序设计中,将一个数据项送到一个堆栈。Push 的反面是 pop,意思是将一个对象从堆栈中除去。

:Online Service

:1997.1.30

:CDF intelligent agent PointCast pull web-casting

## PVC 永久虚拟线路


Short for permanent virtual circuit, a virtual circuit that is permanently available. The only difference between a PVC and a switched virtual circuit (SVC) is that an SVC must be reestablished each time data is to be sent. Once the data has been sent, the SVC disappears. PVCs are more efficient for connections between hosts that communicate frequently.

PVCs play a central role in Frame Relay networks. They're also supported in some other types of networks, such as X.25.

永久虚拟线路的缩写,这是一个永久存在的虚拟线路。PVC和交换虚拟线路(SVC)之间的惟一不同在于一个SVC在每次数据要发送时需要重新建立。一旦数据发送完毕,SVC就消失。PVC对于频繁进行通信的主机间进行连接具有更高的效率。

PVC在帧中继网络中是作为一个中心角色的。它也支持其他类型的网络,如X.25。

:Network

:1998.2.18

:SVC virtual circuit

## quantum computing 量子计算机

First proposed in the 1970s, quantum computing relies on quantum physics by taking advantage of certain quantum physics properties of atoms or nuclei that allow them to work together as quantum bits, or qubits, to be the computer's processor and memory. By interacting with each other while being isolated from the external environment, qubits can perform certain calculations exponentially faster than conventional computers.

Qubits do not rely on the traditional binary nature of computing. While traditional computers encode information into bits using binary numbers, either a 0 or 1, and can only do calculations on one set of numbers at once, quantum computers encode information as a series of quantum-mechanical states such as spin directions of electrons or polarization orientations of a photon that might represent a 1 or a 0, might represent a combination of the two or might represent a number expressing that the state of the qubit is somewhere between 1 and 0, or a superposition of many different numbers at once. A quantum computer can do an arbitrary reversible classical computation on all the numbers simultaneously, which a binary system cannot do.


Quantum computing is not well suited for tasks such as word processing and email, but it is ideal for tasks such as cryptography and modeling and indexing very large databases.


首先在 20 世纪 70 年代提议的量子计算是依靠量子物理学,通过原子或者核子特定的量子物理性质来使他们成为量子位,从而作为计算机的处理器和内存。在于外部环境隔绝的情况下通过与其他量子的交互作用,量子位可以完成比传统计算机更快的计算。

量子位不依靠传统的计算二进制的特性。当传统的计算机将信息编码成使用二进制数字 0 或者 1 的位而且只能

够在一组数字上计算一次时,量子计算机将信息编码为一系列的量子机制的状态如电子的旋转方向或者一个光子的偏极方向,这个偏极方向可能代表 0 或 1、或者可能代表两个的组合、或者代表表示量子位位于 1 和 0 之间某个地方、或者代表许多不同数字层叠状态。一个量子计算机可以同时所有的数字上进行一种任意的可逆的经典计算,而这种计算二进制计算机是做不了的。

量子计算对于诸如文字处理和 email 的任务是不合适的,但是对于如密码系统和建模以及索引大型的数据库是理想的。

:Type of Computer


:2000.12.27

:qubit

## quarantine 隔离

To move an infected file, such as a virus, into an area where it cannot cause more harm. Antivirus softwares come with quarantine options so that the user also can keep track of virus activity.

将一个受病毒感染的文件移到一个使它不再导致破坏的区域。反病毒软件带有隔离选项这样用户也可以跟踪病毒的行为。

 :computer science

 :2001.3.9

 :bootable diskette MBR


**qubit 量子位**

A quantum bit. The smallest unit of information in quantum computing. Qubits hold an exponentially larger amount of information than traditional bits.

一个量子位。在量子计算中最小的信息单位。量子位比传统的位具有多于一个数量级的信息。

:Data

:2000.12.27

:quantum computing

## RAID 冗余阵列磁盘机

Short for Redundant Array of Independent (or Inexpensive) Disks, a category of disk drives that employ two or more drives in combination for fault tolerance and performance. RAID disk drives are used frequently on servers but aren't generally necessary for personal computers.

There are number of different RAID levels. The three most common are 0, 3, and 5:

Level 0: Provides data striping (spreading out blocks of each file across multiple disks) but no redundancy. This improves performance but does not deliver fault tolerance.

Level 1: Provides disk mirroring.

Level 3: Same as Level 0, but also reserves one dedicated disk for error correction data. It provides good performance and some level of fault tolerance.

Level 5: Provides data striping at the byte level and also stripe error correction information. This results in excellent performance and good fault tolerance.

冗余阵列磁盘机的缩写,是一组磁盘驱动器,它使用两个或者多个驱动器的组合来进行容错和提供性能。RAID 磁盘驱动器经常用在服务器上而对于个人计算机不是必须的。


有几个不同类型的 RAID。三种最常使用的是 RAID 0、3 和 5:

RAID 0:提供数据条(将每一个文件的块分散到多个磁盘中)但是没有冗余。这样就提高的性能但是没有提供容错能力。


RAID 1:提供磁盘镜像。

RAID 3:与 RAID 0 相同,但是也保留一个专门的磁盘用来纠正错误数据。它提供了较好的性能和一定水平的容错。

RAID 5:提供字节级的数据条和错误纠正信息。这将产生非常良好的性能和较好的容错。

:Hardware

:1996.11.20

:fault tolerance

## RAM latency RAM 延迟

A delay in transmitting data between a computer's RAM and its processor. Since RAM is not necessarily fast compared to the computer's processor, RAM latency can occur, causing a delay between the time a computer's hardware recognizes the need for a RAM access (initiates a request for data) and the time the data or instruction is available to the processor. If the CPU requests data that is not stored in the cache, then it will have to wait for the RAM to retrieve the data, opening the door to latency problems.

Also see latency.

在一个计算机的 RAM 和它的处理器之间传递数据时的延迟。由于 RAM 与计算机的处理器相比较慢, RAM 延迟可能会发生。这个延迟是处在一个计算机的硬件确认一个 RAM 存取(为数据发起一个请求)请求的时间与给处理器提供数据或者指令的时间之间的。如果 CPU 请求没有存储在高速缓冲存储器的数据, 它就不得不等待 RAM 来取得数据, 这样便导致延迟的问题。

参见 latency。

: computer science

: 2001. 1. 25

: Bandwidth

## raw 未处理

Unprocessed. The term refers to data that is passed along to an I/O device without being interpreted. In contrast, cooked refers to data that is processed before being passed to the I/O device.

The term comes from UNIX, which supports cooked and raw modes for data output to a terminal. In cooked mode, special characters, such as erase and kill are processed by the device driver before being sent the output device.

没有被处理的。这个术语指通过一个 I/O 设备但是没有被翻译的数据。相反,处理的指在被传送到一个 I/O 设备之前处理的数据。

这个术语来自于 UNIX,它支持输出到一个终端的数据的被处理和未被处理模式。在处理模式下,特别的字符,如 erase 和 kill 在被发送到输出设备之前被处理。

:Data

:1999.5.19

## RDF 资源描述构架

Short for Resource Description Framework. RDF is a general framework for describing a Web site's metadata, or the information about the information on the site. It provides interoperability between applications that exchange machine-understandable information on the Web. RDF details information such as a site's sitemap, the dates of when updates were made, keywords that search engines look for and the Web page's intellectual property rights.


Developed under the guidance of the World Wide Web Consortium, RDF was designed to allow developers to build search engines that relay on the metadata and to allow Internet users to share Web site information more readily. RDF relies on XML as an interchange syntax, creating an ontology system for the exchange of information on the Web.

资源描述构架的缩写。RDF 是用来描述网站的元数据或者关于网站上信息的一个通用架构。它提供了在 Web 上交换机器可以理解信息的应用程序之间的互用性。RDF 将信息详细化, 如一个网站的位置图, 网站更新的日期, 搜索引擎查询的关键字和网页的职能属性权限。

在 WWW 联盟的规范下开发的 RDF 设计用来允许开发人员建立依靠元数据的搜索引擎以及允许因特网用户共享网站更加真实的信息。RDF 依靠 XML 作为一个互相交换的规范, 并且为在 Web 上信息交换创建了一个实际存在的系统。

:data

:2001. 3. 29

:meta data    XML

**real-time clock 实时时钟**

A clock that keeps track of the time even when the computer is turned off. Real-time clocks run on a special battery that is not connected to the normal power supply. In contrast, clocks that are not real-time do not function when the computer is off.

Do not confuse a computer's real-time clock with its CPU clock. The CPU clock regulates the execution of instructions.

当计算机关闭时仍然保持时间的时钟。实时时钟运行在一个不受通常供电影响的电池上。相反,非实时时钟在计算机关闭后就会失去作用。

不要将计算机的实时时钟与它的 CPU 时钟混淆。CPU 时钟控制着指令的执行。

: Hardware

: 1996. 9. 1

## record 记录

(1) In database management systems, a complete set of information. Records are composed of fields, each of which contains one item of information. A set of records constitutes a file. For example, a personnel file might contain records that have three fields: a name field, an address field, and a phone number field.

In relational database management systems, records are called tuples.

(2) Some programming languages allow you to define a special data structure called a record. Generally, a record is a combination of other data objects. For example, a record might contain three integers, a floating-point number, and a character string.

(1) 在数据库管理系统中,是指一个完整的信息。记录是由字段组成的,每一个字段包含一个信息项目。一组记录组成了一个文件。例如,一个个人文件可能包含具有三条字段的记录:一个 name 字段,一个 address 字段和一个 phone number 字段。

(2) 在关系数据库管理系统中,记录被称为字节组。

一些编程语言允许定义的一个特殊数据结构称为一个记录。通常,一个记录是其他数据对象的组合。例如,一个记录可能包含三个整数,一个浮点数和一个字符串。

:Data

:1998.5.20

## refresh 刷新

(1) Generally, to update something with new data. For example, some Web browsers include a refresh button that updates the currently display Web pages. This feature is also called reload.

(2) To recharge a device with power or information. For example, dynamic RAM needs to be refreshed thousands of times per second or it will lose the data stored in it.


Similarly, display monitors must be refreshed many times per second. The refresh rate for a monitor is measured in hertz (Hz) and is also called the vertical frequency, vertical scan rate, frame rate or vertical refresh rate. The old standard for monitor refresh rates was 60Hz, but a new standard developed by VESA sets the refresh rate at 75Hz for monitors displaying resolutions of 640x480 or greater. This means that the monitor redraws the display 75 times per second. The faster the refresh rate, the less the monitor flickers.

(1) 通常指使用新的数据更新某个值。例如一些网络浏览器有一个刷新按钮来更新当前的页面。这个特性也称为重新装入。

(2) 使用电能或者信息来给一个设备再充电。例如动态 RAM 每秒需要刷新上千次否则就要丢失存储的数据。

与此相似,显示器每秒钟必须要刷新很多次。一个监视器的刷新率使用赫兹来测量,也称为垂直频率、垂直扫描率、帧率或者垂直刷新率。监视器旧标准的刷新率是 60 Hz,但是由 VESA 建立的新的标准的刷新率对于分辨率为  $640 \times 480$  的监视器是 75 Hz 或者更高。这就意味着监视器每秒钟重新显示 75 次。刷新率越快,监视器就会有较少的闪烁。

: Hardware

: 2000. 10. 18

## Resident Font 驻留字体

Also called an internal font or built-in font, a resident font is a font built into the hardware of a printer. All dot-matrix and laser printers come with one or more resident fonts. You can add additional fonts by inserting font cartridges or downloading soft fonts.

也称为内部字体或者嵌入字体。一个驻留字体是构建在打印机硬件内的字体。所有的点阵和激光打印机带有一种或者多种驻留字体。可以通过插入字体盒或者下载软字体来增加额外的字体。

 :Computer Science

 :2001. 1. 31

**resolution 分辨率**

Refers to the sharpness and clarity of an image. The term is most often used to describe monitors, printers, and bit-mapped graphic images. In the case of dot-matrix and laser printers, the resolution indicates the number of dots per inch. For example, a 300-dpi (dots per inch) printer is one that is capable of printing 300 distinct dots in a line 1 inch long. This means it can print 90,000 dots per square inch.

For graphics monitors, the screen resolution signifies the number of dots (pixels) on the entire screen. For example, a 640-by-480 pixel screen is capable of displaying 640 distinct dots on each of 480 lines, or about 300,000 pixels. This translates into different dpi measurements depending on the size of the screen. For example, a 15-inch VGA monitor (640x480) displays about 50 dots per inch.

Printers, monitors, scanners, and other I/O devices are often classified as high resolution, medium resolution, or low resolution. The actual resolution ranges for each of these grades is constantly shifting as the technology improves.

**Video RAM Required for Different Resolutions**

Resolution	256 colors (8-bit)	65 000 col- ors (16-bit)	16. 7 million colors ( 24- bit, true col- or)
640×480	512 KB	1 MB	1 MB
800×600	512 KB	1 MB	2 MB
1 024×768	1 MB	2 MB	4 MB
1 152×1 024	2 MB	2 MB	4 MB
1 280×1 024	2 MB	4 MB	4 MB
1 600×1 200	2 MB	4 MB	6 MB

指一个图像的清晰度。这个术语经常用来描述监视器、扫描仪和位图图像。在点阵和激光打印机中,分辨率是指每英寸中点的数量。例如,一个 300 dpi(每点英寸)打印机在一英寸长的线上可以打印 300 个不同的点。这就意味着它在每平方英寸上可以打印 90 000 个点。

对于图形监视器,屏幕的分辨率表明点(像素)在整个屏幕上的数量。例如,一个  $640 \times 480$  像素的屏幕可以在 480 条线的每一条中显示 640 个不同的点,相当于 300 000 个像素。这就依靠不同屏幕的大小来转换成不同的 dpi 度量。例如,一个 15 英寸 VGA 监视器( $640 \times 480$ )每英寸显示大约 50 个点。

打印机、监视器、扫描仪和其他 I/O 设备经常被分类为高分辨率、中分辨率和低分辨率。每一个级别的实际分辨率范围经常根据技术的改进而变化(见表 1)。

表 1 不同分辨率所需的视频 RAM

分辨率	256 色彩 (8-位)	65 000 色彩 (16-位)	1 670 万色彩 (24-位, 真色彩)
$640 \times 480$	512 KB	1 MB	1 MB
$800 \times 600$	512 KB	1 MB	2 MB
$1\,024 \times 768$	1 MB	2 MB	4 MB
$1\,152 \times 1\,024$	2 MB	2 MB	4 MB
$1\,280 \times 1\,024$	2 MB	4 MB	4 MB
$1\,600 \times 1\,200$	2 MB	4 MB	6 MB

:Graphics

:1998. 3. 19

:pixel

## Rexx 扩充重结构化执行程序语言

Rexx is short for Restructured Extended Executor, an interpreted, structured, procedural script programming language created by IBM's Mike Cowlishaw that allows programs and algorithms to be written in a clear structured way. It was designed so that it would be truly easy to use for both professionals and casual users and was designed to work in several diverse application areas -- such as personal programming, command processing, application macro processing and application prototyping -- where different languages are typically used. It is, however, designed to be platform-independent.


Even though Rexx is not BASIC, it can be used to write simple programs and large robust programs and can be used for many of the programs for which BASIC would otherwise be used.

Rexx evolved between the years 1979 and 1982 and, in 1983, IBM made Rexx the standard System Product interpreter for CMS in VM/SP and VM/XA. IBM selected Rexx as its SAA Procedures Language in 1987 and brought the language to all of its operating platforms, including MVS, VM, OS/400, AIX and OS/2. Today, Rexx is available in either commercial form or as freeware for operating systems including Amiga, MS/PC-DOS, most UNIX systems, VMS, 16-bit Windows, Macintosh, Windows NT and all IBM systems.


Rexx 是扩充重结构化执行程序语言的缩写,这是一个由 IBM 的 Mike Cowlishaw 创建的解釋型、结构化过程脚本编程语言,允许程序和算法以一种简洁的结构化方法进行编写。这样对于专业或者偶然的用户来说使用起来是非常简单的,并且被设计来在几个不同的领域工作——如个人编程、命令处理、程序宏处理和应用原型——其中都使用着不同的语言。然而它也被设计为具有平台无关性。

虽然 Rexx 不是 BASIC,但是它被用来编写简单的程序和大型的稳定程序,并且可以用于许多原来使用 BASIC 编写的程序。

Rexx 在 1979 年和 1982 年之间发展起来,在 1993 年 IBM 公司使 Rexx 称为 VM/SP 和 VM/XA 上的 CMS 的标准系统产品解释器。IBM 公司 1987 年选择 Rexx 作为它的 SAA 过程语言并且将这种语言带到它所有的操作系统,包括 MVS、VM、OS/400、AIX 和 OS/2。现在 Rexx 以商业形式和操作系统中的免费软件提供,这些操作系统包括 Amiga、MS/PC-DOS、大多数 UNIX 系统、VMS、16 位 Windows、Macintosh、Windows NT 和所有的 IBM 系统。

 :programming

 :2001.2.6

 :honeypot

## RFC 注释请求

Short for Request for Comments, a series of notes about the Internet, started in 1969 (when the Internet was the ARPANET). An RFC can be submitted by anyone. Eventually, if it gains enough interest, it may evolve into an Internet standard.

Each RFC is designated by an RFC number. Once published, an RFC never changes. Modifications to an original RFC are assigned a new RFC number.

注释请求的缩写,这是开始于 1969 年的一系列关于因特网的注释(当因特网还是 ARPANET 的时候)。一个 RFC 可以由任何人提交。最终如果有人对它感兴趣,它就会成为一条因特网标准。

每一个 RFC 是由一个 RFC 数字表示的。一旦出版, RFC 就不会变化。修改一个早期的 RFC 会分配一个新的 RFC 数字。


:Standard

1:1997. 3. 2

## Ripper

A software program that “grabs” digital audio from a compact disc and transfers it to a computer’s hard drive. The integrity of the data is preserved because the signal does not pass through the computer’s sound card and does not need to be converted to an analog format. The digital-to-digital transfer creates a WAV file that can then be converted into an MP3 file.

一个可以从光盘上“抓取”数字音频并且将其转化到计算机的硬盘上的软件。数据的完整性是可以保证的,因为信号不通过计算机的声卡从而不需要转换成模拟形式。数字到数字的传输创建了一个可以转换成 MP3 文件的 WAV 文件。

:software

:2001. 1. 30

## RISC 精简指令集计算机

Pronounced risk, acronym for reduced instruction set computer, a type of microprocessor that recognizes a relatively limited number of instructions. Until the mid-1980s, the tendency among computer manufacturers was to build increasingly complex CPUs that had ever-larger sets of instructions. At that time, however, a number of computer manufacturers decided to reverse this trend by building CPUs capable of executing only a very limited set of instructions. One advantage of reduced instruction set computers is that they can execute their instructions very fast because the instructions are so simple. Another, perhaps more important advantage, is that RISC chips require fewer transistors, which makes them cheaper to design and produce. Since the emergence of RISC computers, conventional computers have been referred to as CISCs (complex instruction set computers).

There is still considerable controversy among experts about the ultimate value of RISC architectures. Its proponents argue that RISC machines are both cheaper and faster, and are therefore the machines of the future. Skeptics note that by making the hardware simpler, RISC architectures put a greater burden on the software. They argue that this is not worth the trouble because conventional microprocessors are becoming increasingly fast and cheap anyway.


To some extent, the argument is becoming moot because CISC and RISC implementations are becoming more and more alike. Many of today's RISC chips support as many instructions as yesterday's CISC chips. And today's CISC chips use many techniques formerly associated with RISC chips.

精简指令集计算机的缩写,是一种微处理的类型,它可

以识别相对有限的指令数量。直到 20 世纪 80 年代,计算机制造商中的趋势是制造具有巨大指令集的复杂 CPU。然而在那时,几个计算机制造商决定通过制造只能执行有限指令的 CPU 来倒转这种趋势。精简指令集的计算机的优势之一是它们可以以非常快的速度执行指令,因为指令非常简单。另外,可能最重要的优势是 RISC 芯片需要较少的晶体管,这将使得它们比较便宜的进行设计和制造。由于 RISC 计算机的出现,传统的计算机就被认为是 CISC (复杂指令集计算机)。

在专家中关于 RISC 结构的最终价值仍然有相当的争论。支持者认为 RISC 机器既便宜又快速因此将是未来的机器。而怀疑者指出通过使得硬件更简单,RISC 结构将大部分负担加到软件上。他们强调这其实并不值得担心因为传统的微处理器将变得更快而且更便宜。

在一定程度上,这个争论变得没有意义,因为 CISC 和 RISC 的实现正在变得越来越相似。许多现在的 RISC 芯片支持过去 CISC 芯片拥有的指令。而且现在的 CISC 芯片使用许多以前与 RISC 芯片相关的技术。


: Hardware

 **1**: 1996. 9. 1

**RosettaNet**

Named after the ancient Rosetta stone, which helped decipher hieroglyphics. A non-profit organization ([www.rosettanet.org](http://www.rosettanet.org)) that seeks to implement standards for supply-chain (manager-supplier) transactions on the Internet. Created in Winter 1998, the group includes companies like American Express, Microsoft, Netscape, and IBM, and is working to standardize labels for elements like product descriptions, part numbers, pricing data, and inventory status. The group hopes to implement many of its goals through XML, a mark-up language that lets programmers classify information with tags.

由古代帮助解密了象形文字的 Rosetta 石命名。这是一个非盈利的组织 ([www.rosettanet.org](http://www.rosettanet.org)), 目标是在因特网上为提供链(管理者提供者)处理实施标准。这个创建于 1998 年冬天的组织包含像 American Express, Microsoft, Netscape 和 IBM 这样的公司, 并且工作于标准化诸如产品描述、产品号、价格数据和存货状态的标签。这个组织希望通过 XML——一个让程序员使用标记分类信息的标记语言——来达到他们的目标。

:Online Service

:2001. 1. 12


## RPG 报表程序生成器/角色扮演游戏


(1) Short for Report Program Generator, a programming language developed by IBM in the mid-60's for developing business applications, especially generating reports from data. The newest version, RPG 400, is still widely used on AS/400 systems.

(2) Short for role-playing games, computer games where one or more players adopt a role and act it out in a virtual reality.

(1) 报表程序生成器的缩写,是一个由 IBM 在 20 世纪 60 年代中叶为了开发商业应用特别是产生数据报表而开发的一种程序语言。最新版本为 RPG 400,现在广泛地使用在 AS/400 系统中。

(2) 角色扮演游戏的缩写,是一种计算机游戏,其中一个或者多个玩家在虚拟环境中选择一个角色并扮演它。

:Programming

:2000.11.22


## RTSP 实时流协议

Short for Real Time Streaming Protocol, a proposed standard for controlling streaming data over the World Wide Web. RTSP grew out of work done by Columbia University, Netscape and RealNetworks has been submitted to the IETF for standardization.

Like H. 323, RTSP uses RTP (Real-Time Transport Protocol) to format packets of multimedia content. But whereas H. 323 is designed for videoconferencing of moderately-sized groups, RTSP is designed to efficiently broadcast audio-visual data to large groups.

实时流协议的缩写,是一个在 WWW 上用来控制流数据的建议的标准。RTSP 是由哥伦比亚大学开发而来, Netscape 和 RealNetwork 已经提交给 IETF 进行标准化。

如 H. 323 一样,RTSP 使用 RTP(实时传输协议)来格式化多媒体内容的包。但是 H. 323 是为了一定规模团体的视频会议而设计的,而 RTSP 是为了大型团体的声音数据有效的广播而设计的。

: WWW

: 1997. 11. 16

: SMIL

## RTT 实时技术/迂回路程时间

(1) Short for real-time technology. RTT refers to technology that allows a user to receive data during the actual time that a physical process occurs, known as real time. Real time is measured in milliseconds or microseconds.


While RTT is used for sophisticated entertainment purposes, such as streaming live video or audio and has applications that ultimately will make Internet use more lively and practical, this immediate-response technology is being used for a wide array of critical applications that require instant response times. For example, an automatic pilot must respond to data on changing flight conditions or the position of other aircraft immediately; nuclear power plants must have real-time information on what is happening at all times in all critical areas of the plant for safety; space flight computers must respond instantly to changing conditions in the atmosphere.

(2) Short for round-trip time, the time required for a network communication to travel from the source to the destination and back. RTT is used by some routing algorithms to aid in calculating optimal routes.

(1) 实时技术的缩写。RTT 指允许用户在一个物理过程发生的称为实时的真实时间内获取数据的技术。实时是使用毫秒或者微秒测量的。

当 RTT 作为复杂的娱乐目的,如现场视频流或者音频流,并且有最终使使用因特网更加生动和灵活的应用,这种立即响应的技术被广泛地使用在需要立即响应时间的关键应用上。例如,一个自动驾驶仪必须对于飞行条件的变化数据或者其他飞行器的位置立即做出反应,核武器飞行器为了安全必须对于在所有关键地区的任何时间内发生的事情具有实时的信息,空间飞行计算机必须对于大气层中改变的条件及时做出反应。

(2) 迂回路程时间的缩写, 这是指一个网络通信从源头到目的地然后再返回所需要的时间。RTT 被一些路由算法用来计算最优的路由。

:computer science

:2001.4.12

:RTSP SMIL


## sampling 采样

A technique used to capture continuous phenomena, whereby periodic snapshots are taken. If the sampling rate is fast enough, the human sensory organs cannot discern the gaps between each snapshot when they are played back. This is the principle behind motion pictures.

Sampling is the key technique used to digitize analog information. For example, music CDs are produced by sampling live sound at frequent intervals and then digitizing each sample. The term sampling is also used to describe a similar process in digital photography.

一项用来获取连续图像的技术,通过这项技术可以获得周期性的瞬像。如果采样频率足够快,则人们的感觉器官就不会分辨每一个瞬像之间的间隙。这是监视器图像后面的规律。

采样是用于数据化模拟信息的关键技术。例如,音乐CD是通过以一定的频率间隙采样现场声音然后数字化每一个采样的方法而制作的。术语采样也用来描述数字照相中相同的过程。

:Computer Science

:1996.9.1

:ADPCM

## SAN 存储区域网络

Storage Area Network (SAN) is a high-speed subnetwork of shared storage devices. A storage device is a machine that contains nothing but a disk or disks for storing data.

A SAN's architecture works in a way that makes all storage devices available to all servers on a LAN or WAN. As more storage devices are added to a SAN, they too will be accessible from any server in the larger network. In this case, the server merely acts as a pathway between the end user and the stored data.

Because stored data does not reside directly on any of a network's servers, server power is utilized for business applications, and network capacity is released to the end user.

存储区域网络(SAN)是一个高速共享存储设备的子网。存储设备是一个只包含一个或者多个用来存储数据的硬盘的机器。

一个 SAN 结构在一个 LAN 或者 WAN 上以一种使所有的存储设备向所有服务器提供服务的方式工作。当更多的存储设备加入到 SAN 时,在这个更大的网络上它们仍然可以被任何服务器所存取。在这种情况下,服务器只是作为最终用户和存储数据之间的一个通道。

因为存储数据不直接驻留在任何网络服务器上,服务器性能被用于事务应用,而网络能力则留给了最终用户。

:Network

:1999.3.24

## SASL 简单验证和安全层

Acronym for Simple Authentication and Security Layer. Originating with RFC2222, written by John Myers while at Netscape Communications, SASL is a method for adding authentication support to connection-based protocols. SASL takes effect when a protocol initiates a command for identifying and authenticating a user to a server. SASL also includes an option for negotiating protection of subsequent protocol interactions. With this option in effect, SASL places a security layer between the protocol and the connection.

简单验证和安全层的首字母缩写。SASL 产生于 RFC2222,是由 John Myers 在 Netscape 公司编写的,它是一个将验证支持添加到基于连接的协议中的方法。当一个协议为了识别和验证一个访问服务器的用户的时候,SASL 就会起作用。SASL 还包含一个可协商的为其后的协议交互性进行保护的选项。如果这个选项起作用,SASL 就会在协议和连接之间放置一个安全层。

:computer science

1:2001.1.31

:digital wallet S-HTTP


**secondary memory 二级内存**

Secondary memory (or secondary storage) is the slowest and cheapest form of memory. It cannot be processed directly by the CPU. It must first be copied into primary storage (also known as RAM ).

Secondary memory devices include magnetic disks like hard drives and floppy disks ; optical disks such as CDs and CDROMs ; and magnetic tapes.

二级内存(或者二级存储)是最慢而且最便宜的内存。它不是由 CPU 直接处理的。它必须首先复制到主存储(也就是 RAM)。

二级内存设备包括磁性盘(如磁盘和软盘)、光盘(如 CD 和 CDROM)和磁带。

: Hardware

: 1999. 10. 25


## Segment 段

(1) In networks, a section of a network that is bounded by bridges, routers, hubs, or switches. Dividing an Ethernet into multiple segments is one of the most common ways of increasing bandwidth on the LAN. If segmented correctly, most network traffic will remain within a single segment, enjoying the full 10 Mbps bandwidth. Hubs and switches are used to connect each segment to the rest of the LAN.

(2) In virtual memory systems, a variable-sized portion of data that is swapped in and out of main memory. Contrast with page, which is a fixed-sized portion of data.

(1) 在网络上,指由网桥、路由器、集线器或者交换机限定的网络上的一个部分。将一个以太网分割成多个部分是最常使用的增加局域网带宽的方法。如果段划分正确,则大多数网络流量将保持在一个单一的段中,这样可以享用完整的 10Mbps 带宽了。集线器和交换机是用来将每一个段连接到局域网上的。

(2) 在虚拟内存系统中,指一个数据中变量大小的部分,它可以与主内存进行交换。它与页不同,页是数据中固定长度的部分。

:Operation System

:1998.4.13

## server farm

Also referred to as server cluster, compute farm or ranch. A server farm is a group of networked servers that are housed in one location. A server farm streamlines internal processes by distributing the workload between the individual components of the farm and expedites computing processes by harnessing the power of multiple servers. The farms rely on load-balancing software that accomplishes such tasks as tracking demand for processing power from different machines, prioritizing the tasks and scheduling and rescheduling them depending on priority and demand that users put on the network. When one server in the farm fails, another can step in as a backup.

Combining servers and processing power into a single entity has been relatively common for many years in research and academic institutions. Today, more and more companies are utilizing server farms as a way of handling the enormous amount of computerization of tasks and services that they require.

A Web server farm, or Web farm, refers to either a Web site that runs off of more than one server or an ISP that provides Web hosting services using multiple servers.

也称为服务器群计算机 FARM 或者分支。一个服务器 FARM 是一个置于某个位置的联网服务器的组。一个服务器 FARM 通过发布 FARM 各个部件的工作负载来优化内部处理过程并且通过调节多个服务器的性能来加速处理计算处理能力。FARM 依靠负载平衡软件,它可以完成诸如为不同的机器跟踪处理性能需求、优先安排任务和根据用户发布到网上的优先权和需求来安排和重新安排计划等任务。当在 FARM 中的一个服务器崩溃,则另一台可以作为备份补上。


在研究界和学术界将服务器和处理性能结合成一个单独的实体在几年内已经相当普遍了。现在,更多的公司正

使用服务器 FARM 作为一个处理大量计算任务和所需服务的方法。

一个网络服务器 FARM 或者网络 FARM,是指一个运行在多于一个服务器上的网站或者一个使用多个服务器提供网络主机服务的 ISP。

:Network


:2001.1.12

: client/server architecture ColdFusion DEC load  
balancing local-area network network-attached  
storage proxy server server-side


**server-side 服务器端**

Occurring on the server side of a client-server system. For example, on the World Wide Web, CGI scripts are server-side applications because they run on the Web server. In contrast, JavaScript scripts are client-side because they are executed by your browser (the client). Java applets can be either server-side or client-side depending on which computer (the server or the client) executes them.

在一个客户端/服务器系统中发生在服务器端的事物。例如,在 WWW 上,CGI 脚本是服务器端应用因为它们运行在 Web 服务器。相反,JavaScript 脚本是客户端因为它们在浏览器(客户端)执行。Java applets 可以是服务器或者客户端,这主要取决于在哪台计算机(服务器或者客户端)执行它们。

:Programming


:1997.5.13

: client/server architecture      network-attached  
storage    server farm    SSI


**Service Level Agreement 服务品质协议**

A Service Level Agreement (SLA) is a contract between an ASP and the end user which stipulates and commits the ASP to a required level of service. An SLA should contain a specified level of service, support options, enforcement or penalty provisions for services not provided, a guaranteed level of system performance as relates to downtime or uptime, a specified level of customer support and what software or hardware will be provided and for what fee.

服务品质协议(SLA)是一个 ASP 和向 ASP 规定所需服务品质的最终用户之间的一个协议。SLA 应当包含一个特定的服务品质、支持选项、对于没有提供的服务的强制执行或者惩罚、一个与停工期或者开工期相关的系统性能品质保证、一个特定的客户支持品质以及将提供的软件或者硬件和费用。

:network


:2001.5.1

:Application Service Provider

**service pack 服务包**

A service pack is an update to a software version that fixes an existing problem, such as a bug, or provides enhancements to the product that will appear in the next version of the product. When the new product version is released, it usually contains the fixes and updates from the service pack. Service packs can either be downloaded or ordered directly from the company.

一个服务包是一个软件版本的升级,它修复了现存的一些问题,如 bug,或者提供了将要在下一个版本中出现的产品的性能。当新的产品发布时,它会通常包含服务包的修改和更新。服务包可下载或者直接从公司订购。

 :software


 :2001.4.2

 :Dribbleware TCO


## shared loop 共享环

In telecommunications, a shared loop refers to a loop, or subscriber line, that is shared by a competitive local exchange carrier (CLEC) and an incumbent local exchange carrier (ILEC), providing both DSL and voice service over the same line. In late 1999, the FCC passed the Advance Services Third Report and Order, allowing CLECs to gain access to the high-frequency portion of the local loop from incumbent providers. Prior to the ruling, ILECs were dismissing the notion that their lines could support both DSL and voice technology. However, it has been proven that the two technologies can coexist on the copper cables that the ILECs use.

在电信中,一个共享环是指一个环路,或者订购线路,它被一个竞争本地交换运营商(CLEC)和一个家庭局部交换电话公司(ILEC)所共享,它提供 DSL 和同一条线上的声音服务。在 1999 年末,FCC 通过了高级服务第三个报告和规则,允许 CLEC 获得由家庭局部交换电话公司提供的本地环路上的高频率部分的访问。在这项规则之前,ILEC 是不能够在他们的线路上同时支持 DSL 声音技术的。然而,已经证实这两项技术可以在 ILEC 使用的铜轴电缆上同时存在。

:network

1:2001.2.28

:OLEC


## Shockwave

A technology developed by Macromedia, Inc. that enables Web pages to include multimedia objects. To create a shockwave object, you use Macromedia's multimedia authoring tool called Director, and then compress the object with a program called Afterburner. You then insert a reference to the "shocked" file in your Web page. To see a Shockwave object, you need the Shockwave plug-in, a program that integrates seamlessly with your Web browser. The plug-in is freely available from Macromedia's Web site as either a Netscape Navigator plug-in or an ActiveX control.

Shockwave supports audio, animation, video and even processes user actions such as mouse clicks. It runs on all Windows platforms as well as the Macintosh.

一项由 Macromedia 公司开发的技术,它可以使网页包含多媒体对象。为了创建一个 Shockwave 对象,需要使用 Macromedia 的多媒体创意工具 Director,然后使用一个称为 Afterburner 的程序压缩对象。然后在页面上插入一个文件的引用。要观看一个 Shockwave 对象,需要 Shockwave 插件,这是一个与网络浏览器无缝集成的程序。这个插件在 Macromedia 的网站上作为一个 Netscape 公司的 Navigator 插件或者一个 ActiveX 控件而免费提供。

Shockwave 支持声音、动画、视频甚至用户使用一个鼠标进行点击的过程。它可以在所有的 Windows 平台和 Macintosh 上运行。

 : WWW

 : 1997. 11. 25

**Short Message Service 短消息服务**

Short Message Service (SMS) is the transmission of short text messages to and from a mobile phone, fax machine and/or IP address. Messages must be no longer than 160 alpha-numeric characters and contain no images or graphics.

Once a message is sent, it is received by a Short Message Service Center (SMSC), which must then get it to the appropriate mobile device.

To do this, the SMSC sends a SMS Request to the home location register (HLR) to find the roaming customer. Once the HLR receives the request, it will respond to the SMSC with the subscriber's status: 1) inactive or active; 2) where subscriber is roaming.

If the response is "inactive", then the SMSC will hold onto the message for a period of time. When the subscriber accesses his device, the HLR sends a SMS Notification to the SMSC, and the SMSC will attempt delivery.

The SMSC transfers the message in a Short Message Delivery Point to Point format to the serving system. The system pages the device, and if it responds, the message gets delivered.

The SMSC receives verification that the message was received by the end user, then categorizes the message as "sent" and will not attempt to send again.

The number of mobile-phone users expects to reach 500 million worldwide by 2003, and with the help of SMS, 75 percent of all cellular phones will be Internet-enabled.

短消息服务(SMS)是到/从一个移动电话、传真或者/以及 IP 地址的短文字消息传输。消息必须不超过 160 个字节并且不包含图像或者图形。

一旦一个消息发出,它就被短消息服务中心(SMSC)接受,这个中心必须将它放到合适的移动设备中。

为了实现此目的,SMSC 向中心位置寄存器(HLR)发送一个 SMS 请求来找到漫游的顾客。一旦 HLR 收到请求,它就向 SMSC 反馈一个带有用户状态的信息:1) 活动或者非活动;2) 用户在哪里漫游。


如果反馈是“非活动”,SMSC 就会将消息保留一定时间。当用户访问它的设备时,HLR 就向 SMSC 发送一个 SMS 通知,然后 SMSC 就会传递消息。

SMSC 以短消息点对点格式向服务系统传送消息。这个系统通知设备,如果这个设备响应,消息就发送了。

SMSC 接收到消息已经被最终用户收到的确认后,将这个信息分类为“发送”,然后就不会再发送它。

移动电话用户的数量在 2003 年预计将达到 5 亿,随着 SMS 的普及,75% 的蜂窝电话将具有因特网功能。

: Mobile Computing

 1: 1999. 11. 24

: hand-held computer


## S-HTTP 安全 HTTP

An extension to the HTTP protocol to support sending data securely over the World Wide Web. Not all Web browsers and servers support S-HTTP. Another technology for transmitting secure communications over the World Wide Web -- Secure Sockets Layer (SSL) -- is more prevalent. However, SSL and S-HTTP have very different designs and goals so it is possible to use the two protocols together. Whereas SSL is designed to establish a secure connection between two computers, S-HTTP is designed to send individual messages securely. Both protocols have been submitted to the Internet Engineering Task Force (IETF) for approval as a standard.

S-HTTP was developed by Enterprise Integration Technologies (EIT), which was acquired by Verifone, Inc. in 1995.

一个对 HTTP 协议的扩展以支持在 WWW 上安全地发送数据。并不是所有的网络浏览器和服务器都支持 S-HTTP。另一个在 WWW 上安全传输的技术——安全套接层(SSL)——更流行。然而 SSL 和 S-HTTP 有完全不同的设计和目的,这样有可能同时使用这两种协议。其中 SSL 是用来在两个计算机之间建立一个安全连接而设计的,而 S-HTTP 是为了安全地发送一个消息而设计的。这两种协议都已经提交给因特网工程任务组(IETF)作为一个标准。

S-HTTP 是由企业集成技术(EIT)开发的,而后在 1995 年被 Verifone 公司取得。

: WWW

: 1998. 2. 3

: SASL SSL

**silicon 硅**

A nonmetallic chemical element in the carbon family of elements. Silicon - atomic symbol “Si” - is the second most abundant element in the earth’s crust, surpassed only by oxygen. Silicon does not occur uncombined in nature. Sand and almost all rocks contain silicon combined with oxygen, forming silica. When silicon combines with other elements, such as iron, aluminum or potassium, a silicate is formed. Compounds of silicon also occur in the atmosphere, natural waters, many plants and in the bodies of some animals.


Silicon is the basic material used to make computer chips, transistors, silicon diodes and other electronic circuits and switching devices because its atomic structure makes the element an ideal semiconductor. Silicon is commonly doped, or mixed, with other elements, such as boron, phosphorous and arsenic, to alter its conductive properties.

Silicon was first isolated and described as an element in 1824 by Jacob Berzelius, a Swedish chemist.

一种碳族元素中的非化学金属元素。硅——原子符号为“Si”——是地球的地壳内仅次于氧的最丰富的元素。硅在本质上是不会发生化合的。沙子和几乎所有的岩石都包含与氧化合的硅,成为了硅石。当硅与其他元素如铁、铝或者钾结合后,就形成了硅酸盐。硅的化合物也可以在大气层、自然水、许多植物和一些动物的体内产生。

硅是用来制造计算机芯片、晶体管、硅二极管和其他电子电路和集线器设备的基本原料,因为它的原子结构使得它成为一种理想的半导体。硅通常通过涂抹或者混合其他元素,如硼、磷和砷来改变它的传导属性。

硅是在 1824 年被瑞典化学家 Jacob Berzelius 所分离并被识别为是一种元素的。

: hardware

 **1**: 2001. 4. 5

: FC-PGA    FPGA

## Silicon Valley 硅谷

A nickname for the region south of San Francisco that contains an unusually high concentration of computer companies. Silicon is the most common semiconductor material used to produce chips.

旧金山南部一个计算机公司高度集中的地区的绰号。硅是芯片制造中最常使用的半导体材料。



:Computer Industry Companies



:1997. 4. 24

## Slot

An opening in a computer where you can insert a printed circuit board. Slots are often called expansion slots because they allow you to expand the capabilities of a computer. The boards you insert in expansion slots are called expansion boards or add-on boards.


Do not confuse slots with bays. Bays are sites within the computer where you can install disk drives. Typically, slots are in the back of the computer and bays are in the front.

一个计算机中的口,其中可以插入一个印刷电路板。插槽通常被称为扩展槽因为它们允许用户扩展计算机的性能。在扩展槽上插入的板称为扩展板。

不要将插槽与盘架混淆。盘架是计算机内可以安装磁盘驱动器的位置。一般的,插槽在计算机的后面而盘架位于计算机的前面。

 :Hardware

 :1998.5.18

 :chassis expansion board

**sleep mode 睡眠模式**

An energy-saving mode of operation in which all unnecessary components are shut down. Many battery-operated devices, such as notebook computers, support a sleep mode. When a notebook computer goes into sleep mode, it shuts down the display screen and disk drive. Once awakened, the computer returns to its former operating status.

一种节电类型的操作,其中所有不需要的部件被关闭。许多电池操作设备如笔记本电脑支持睡眠模式。当一个笔记本电脑进入睡眠模式,它就关闭显示屏幕和磁盘驱动器。一旦醒来,就会恢复到原来的操作状态。

 : Mobile Computing

 : 1996. 9. 1

 : ACPI Suspend-to-RAM

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**slotket**

Slotket is an adapter that accepts socket 370 CPUs into Slot 1 motherboards.

Computer owners can upgrade their systems with the newest CPUs, such as current and future Celerons and Pentiums, without having to replace their Slot 1 motherboards for the new 370s.

Slotket 是一个接受 socket 370 CPU 插到 Slot 1 主板上的一个适配器。

计算机用户可以使用最新的 CPU 将系统升级,比如现在的 Celeron 和 Pentium,而不需要为了新的 370 而替换 Slot 1 主板。

 : Hardware

 : 2000. 2. 4

 : socket 370

## smart card 智能卡

A small electronic device about the size of a credit card that contains electronic memory, and possibly an embedded integrated circuit (IC). Smart cards containing an IC are sometimes called Integrated Circuit Cards (ICCs).

Smart cards are used for a variety of purposes, including:

- Storing a patient's medical records

- Storing digital cash

- Generating network IDs (similar to a token)

To use a smart card, either to pull information from it or add data to it, you need a smart card reader, a small device into which you insert the smart card.

一个信用卡大小的电子设备,包含电子内存和一个内嵌的集成电路(IC)。包含一个 IC 的智能卡有时称为集成电路卡(ICC)。

智能卡用于各种目的,包括:

- 存储一个病人的医疗纪录

- 存储数字现金

- 产生网络 ID(与记号相似)

为了使用一个智能卡,从卡中取得信息或者添加数据,需要一个智能卡的阅读器,这是一个可以插入智能卡的小设备。

 : Hardware

 : 1998. 1. 27

## SMIL 同步多媒体集成语言

Short for Synchronized Multimedia Integration Language, a new markup language being developed by the World Wide Web Consortium (W3C) that would enable Web developers to divide multimedia content into separate files and streams (audio, video, text, and images), send them to a user's computer individually, and then have them displayed together as if they were a single multimedia stream. The ability to separate out the static text and images should make the multimedia content much smaller so that it doesn't take as long to travel over the Internet.

SMIL is based on the eXtensible Markup Language (XML). Rather than defining the actual formats used to represent multimedia data, it defines the commands that specify whether the various multimedia components should be played together or in sequence.

同步多媒体集成语言的缩写,是一种由 WWW 联盟开发的新的标记语言。它能够使网络开发人员将多媒体内容分为分离的文件和流(声音、视频、文本和图像),分别将它们发送到用户的计算机上,然后将它们同时显示,就如同是一个单独的多媒体流一样。分离静态文本和图像的能力使多媒体内容变得更小,这样就不会在因特网上传送得太久。

SMIL 是基于可扩展标记语言(XML)的。它不是定义实际的格式用来表示多媒体数据,而是定义用来指定各种多媒体组成部分是否应当一起显示还是顺序显示的命令。

 :Multimedia

 :1998. 1. 23

 :RTSP XML


## S/MIME 安全/MIME

Short for Secure/MIME, a new version of the MIME protocol that supports encryption of messages. S/MIME is based on RSA's public-key encryption technology.

It is expected that S/MIME will be widely implemented, which will make it possible for people to send secure E-mail messages to one another, even if they are using different E-mail clients.

安全/MIME 的缩写,是支持消息编码的 MIME 协议的新版本。S/MIME 是基于 RSA 的公钥加密技术的。

S/MIME 被希望得到广泛地实施,这将使得用户向另一个人发送安全的 E-mail 消息成为可能,即使如果用户使用不同的 E-mail 客户端。

 : WWW

 1 : 1997. 3. 20

## SMP 对称多处理器/简单管理协议

(1) Short for Symmetric Multiprocessing, a computer architecture that provides fast performance by making multiple CPUs available to complete individual processes simultaneously (multiprocessing). Unlike asymmetrical processing, any idle processor can be assigned any task, and additional CPUs can be added to improve performance and handle increased loads. A variety of specialized operating systems and hardware arrangements are available to support SMP. Specific applications can benefit from SMP if the code allows multithreading.


SMP uses a single operating system and shares common memory and disk input/output resources. Both UNIX and Windows NT support SMP.


(2) Short for Simple Management Protocol, another name for SNMP2. SNMP2 is an enhanced version of the Simple Network Management Protocol (SNMP) with features required to support larger networks operating at high data transmission rates. SNMP2 also supports multiple network management workstations organized in a hierarchical fashion.


(1) 对称多处理器的缩写,是一个计算机框架,它通过使多个 CPU 同时完成单个进程以提供快速的执行性能。不像非对称处理系统,任何闲置的处理器可以被分配任何任务而多出的 CPU 可以用来提高性能和处理增长的负荷。如果操作系统允许多线程则各种特殊的操作系统可以从 SMP 中受益。

SMP 使用一个操作系统并且共享内存和磁盘输入/输出资源。UNIX 和 Windows NT 都支持 SMP。

(2) 简单管理协议的缩写,这是 SNMP2 的另一个名字。SNMP2 是一个简单网络管理协议(SNMP)的增强版,具有支持高速数据传输速率下的大型网络操作。SNMP2 也支持以分层结构组织的多个网络管理工作站。

 :Operation System

 :1998. 5. 18

 : BeOS   multiprocessing   multithreading   NU-

MA

**sneakernet 运动鞋网络**

(jargon.) Refers to the channel by which electronic information is transmitted from one computer to another by physically carrying it stored on a floppy disk, CD or other removable medium. This play on words stems from the idea that a person is using their feet, i. e. , sneakers, to transfer data instead of through the Internet or an organization's intranet.

(行话)指一个通道,通过它,电子信息从一台计算机传输到另一台计算机经过物理地发送并存储在一个软盘、CD或者其他可移动的媒介上。这个开玩笑的词汇源于这样一个想法:某人使用他的脚——也就是运动鞋(表示偷窃)——来传输数据,而不是通过因特网或者一个单位的内部网。

 :Network

 :2001. 1. 17

## socket 套接/插槽

(1) In UNIX and some other operating systems, a software object that connects an application to a network protocol. In UNIX, for example, a program can send and receive TCP/IP messages by opening a socket and reading and writing data to and from the socket. This simplifies program development because the programmer need only worry about manipulating the socket and can rely on the operating system to actually transport messages across the network correctly. Note that a socket in this sense is completely soft - it's a software object, not a physical component.

(2) A receptacle into which a plug can be inserted.

(3) A receptacle for a microprocessor or other hardware component.

(1) 在 UNIX 和一些其他操作系统中,是指连接一个应用到一个网络协议的软件对象。例如在 UNIX 中,一个程序可以通过打开一个套接并读取和写入套接中的数据来发送和接收 TCP/IP 消息。这样就简化了程序开发因为程序员仅需要关心操作套接并可以依靠操作系统来实际在网络上正确传送消息。要注意,在这个意义上的套接完全是软的——是一个软件对象,而不是一个物理部分。

(2) 一个插件可以插入的插座。

(3) 一个微处理器或者其他硬件部分的插座。

 :Network

 :1998.3.18


## Socket 370

Socket 370 is Intel's new plastic PGA ZIF motherboard socket for its line of Celeron and Pentium processors. Intel plans to move its entire processor line from the Slot 1 to the socket 370 standard.

If you still happen to use a Slot 1 motherboard, you can purchase a slotket, which will support socket 370 chips.

Socket 370 是 Intel 对于它的 Celeron 和 Pentium 处理器的一种新的塑料 PGA ZIF 主板插槽。Intel 计划将它整个处理器生产线从 Slot 1 转移到 socket 370 标准。

如果仍然偶尔使用一个 Slot 1 主板,就可以购买一个 slotkey,它可以支持 socket 370 芯片。

 :Hardware

 :2000.2.4

 :FC-PGA slotket

## software licensing 软件许可

Allowing an individual or group to use a piece of software. Nearly all applications are licensed rather than sold. There are a variety of different types of software licenses. Some are based on the number machines on which the licensed program can run whereas others are based on the number of users that can use the program. Most personal computer software licenses allow you to run the program on only one machine and to make copies of the software only for backup purposes. Some licenses also allow you to run the program on different computers as long as you don't use the copies simultaneously.

允许个人或者组织使用软件的一部分。几乎所有的应用程序都是授权许可而不是出卖。有各种不同类型的软件许可。一些是基于许可程序可以运行的数字机器而另一些则是基于可以使用程序的用户数量。大多数个人计算机软件的许可允许在一台机器上运行程序从而使得仅可以为了备份目的而复制。一些许可也允许用户在不同计算机上运行程序,只要用户不会同时使用拷贝。

 :Software

 :1996.12.3

 :EULA

**software piracy 软件盗版**

The unauthorized copying of software. Most retail programs are licensed for use at just one computer site or for use by only one user at any time. By buying the software, you become a licensed user rather than an owner. You are allowed to make copies of the program for backup purposes, but it is against the law to give copies to friends and colleagues.

Software piracy is all but impossible to stop, although software companies are launching more and more lawsuits against major infractors. Originally, software companies tried to stop software piracy by copy-protecting their software. This strategy failed, however, because it was inconvenient for users and was not 100 percent foolproof. Most software now requires some sort of registration, which may discourage would-be pirates, but doesn't really stop software piracy.

An entirely different approach to software piracy, called shareware, acknowledges the futility of trying to stop people from copying software and instead relies on people's honesty. Shareware publishers encourage users to give copies of programs to friends and colleagues but ask everyone who uses a program regularly to pay a registration fee to the program's author directly.

Commercial programs that are made available to the public illegally are often called warez.

未经允许的软件复制。大多数零售程序被授权只能在一个计算机上使用或者在任何时候只能被一个人使用。购买了软件,用户就变成一个授权用户而不是一个拥有者。用户将被允许为了备份目的而进行复制,但是向朋友和同事复制程序是违法的。

软件盗版是不可能停止的,虽然软件公司正在向主要的违规者发起越来越多的诉讼,软件公司试图通过防止复

制他们的程序来停止软件盗版。然而这项策略失败了,因为对于用户来说是不方便的而且并不是百分之百的有效。现在大多数软件需要各种注册,这将削弱可能的盗版行为,但是不能够真正地停止软件盗版。

现在有一个完全不同于软件盗版的方法,称为共享软件,它认同试图停止人们复制软件的行为但是却依靠人们的自觉性。共享软件的发布者鼓励用户向朋友和同事复制程序但是要求使用程序的每一个人规定性的直接支付给程序的作者一笔注册费。

非法提供给公众的商业程序经常称为 warez。

 :Software


 :1997.8.19

 :warez

## SOHO 小办公室/家庭办公室

Acronym for Small Office/Home Office, the fastest growing market for computer hardware and software. So-called SOHO products are specifically designed to meet the needs of professionals who work at home or in small offices.

小办公室/家庭办公室缩写,是计算机硬件和软件中发展最快的市场。这些称为 SOHO 的产品是为了满足在家中或者小办公室中工作的人士而专门设计的。

 :Type of Computer

 :1996. 9. 1

## solid state disk 固态电子盘

Solid State Disks (SSD) are high performance plug-and-play storage devices that contain no moving parts. SSD components include either DRAM or EEPROM memory boards, a memory bus board, a CPU, and a battery card.

Because they contain their own CPUs to manage data storage, they are a lot faster (18Mb/s for SCSI-II and 35 Mb/s for UltraWide SCSI interfaces) than conventional rotating hard disks ; therefore, they produce highest possible I/O rates.

SSDs are most effective for server applications and server systems, where I/O response time is crucial. Data stored on SSDs should include anything that creates bottlenecks, such as databases, swap files, library and index files, and authorization and login information.

固态电子盘(SSD)是高性能的不含有可移动部件的即插即用存储设备。SSD 部件包含 DRAM 或者 EEPROM 内存板、一个内存总线板、一个 CPU 和电池板。

因为固态电子盘包含自己的 CPU 来管理电子存储,要比传统的旋转硬盘要快很多(SCSI-II 为 18 Mb/s,UltraWide SCSI 接口为 36 Mb/s),因此可以产生最快的 I/O 速率。

SSD 对于服务应用程序和服务系统最为有效,这两者的 I/O 响应时间是关键的。SSD 上的存储数据应当包含任何导致瓶颈的东西,包括数据库、交换文件、库和索引文件以及验证和逻辑信息。

 : Hardware

 : 2000.1.6


## Spooling 假脱机

Acronym for simultaneous peripheral operations on-line, spooling refers to putting jobs in a buffer, a special area in memory or on a disk where a device can access them when it is ready. Spooling is useful because devices access data at different rates. The buffer provides a waiting station where data can rest while the slower device catches up.

The most common spooling application is print spooling. In print spooling, documents are loaded into a buffer (usually an area on a disk), and then the printer pulls them off the buffer at its own rate. Because the documents are in a buffer where they can be accessed by the printer, you can perform other operations on the computer while the printing takes place in the background. Spooling also lets you place a number of print jobs on a queue instead of waiting for each one to finish before specifying the next one.

在线同时外围设备操作的缩写。假脱机指将作业置于缓冲器,缓冲器是在内存或者硬盘上的一个特殊区域,其中设备可以在准备好时进行存取。假脱机是非常有用的因为设备的存取速率是不同的。缓冲器提供了一个当低速设备获取数据时数据等待的地方。

最常用的假脱机应用是打印假脱机。在打印假脱机中,文档被置于缓冲器中(通常是硬盘上的一个区域),然后打印机以自己的速率得到缓冲器中的文档。因为文档位于打印机可以存取的缓冲器中,所以当打印工作在后台进行的时候用户可以完成其他操作。假脱机也让用户在一个队列中放入多个打印作业而不用在指定下一个作业之前等待前一个作业的完成。

 :Operation System

 :1996.9.1

## SPX 序列包交换

Short for Sequenced Packet Exchange, a transport layer protocol (layer 4 of the OSI Model) used in Novell Netware networks. The SPX layer sits on top of the IPX layer (layer 3) and provides connection-oriented services between two nodes on the network. SPX is used primarily by client/server applications.

Whereas the IPX protocol is similar to IP, SPX is similar to TCP. Together, therefore, IPX/SPX provides connection services similar to TCP/IP.

序列包交换的缩写,是使用在 Novell Netware 网络上的一个传输层协议(OSI 模型的第四层)。SPX 层位于 IPX 层(第三层)的顶部并且提供网络上两个节点间的面向连接服务。SPX 主要用于客户端/服务器应用。

IPX 协议有些像 IP,而 SPX 有些像 TCP。因此,IPX/SPX 提供了与 TCP/IP 相似的连接服务。

 :Network

 :1997.8.8

 :IPX

## SSI 服务器端包含

Short for server-side include, a type of HTML comment that directs the Web server to dynamically generate data for the Web page whenever it is requested. The basic format for SSIs are:

```
<!--# command tag="value" ?
```

Where # command can be any of various commands supported by the Web server. The simplest command is # include, which inserts the contents of another file. This is especially useful for ensuring that boilerplate components, such as headers and footers, are the same on all pages throughout a Web site. To change a boilerplate element, you need only modify the include file, instead of updating every individual Web page.

SSIs can also be used to execute programs and insert the results. They therefore represent a powerful tool for Web developers.

There is no official standard for SSIs, so every Web server is free to support different SSIs in different manners. However, many SSI commands, such as # include and # exec, have become de facto standards.

Web pages that contain SSIs often end with a .shtml extension, though this is not a requirement. The filename extension enables the Web server to differentiate those pages that need to be processed before they are sent to the browser.

服务器端包含的缩写,是一种 HTML 注释的类型,它指导网络浏览器动态地产生网页所需要的数据。SSI 基本的格式如下:

```
<!--# command tag="value" ?
```


其中,# command 可以是任何网络服务器可以支持的命令。最简单的命令是 # include,它插入了另一个文件的内容。这对于保证样板部分如头标题和脚注非常有用,因


为他们对于所有网站的网页都是一样的。为了改变一个样板文件的元素,只需要修改包含文件就可以了,而不需要更新每一个页面。

SSI 也可以使用来执行程序 and 插入结果。因此它们为网络开发者提供了一个强大的工具。

SSI 没有正式的标准,所以每一个网络服务器以不同的形式来支持不同的 SSI。然而许多 SSI 命令如 `#include` 和 `#exec` 都变成事实上的标准。

包含 SSI 的网页经常以一个 `.shtml` 扩展名结束,虽然这不是必须的。文件扩展名使得网络服务器可以区别需要在发送到浏览器之前进行处理的网页。

 :WWW


 :2000.10.16


 :server-side

## SSL 安全套接层

Short for Secure Sockets Layer, a protocol developed by Netscape for transmitting private documents via the Internet. SSL works by using a private key to encrypt data that's transferred over the SSL connection. Both Netscape Navigator and Internet Explorer support SSL, and many Web sites use the protocol to obtain confidential user information, such as credit card numbers. By convention, Web pages that require an SSL connection start with https; instead of http:.

安全套接层的缩写,是一个由 Netscape 公司开发的为了在因特网上传送私人文档的协议。SSL 通过使用一个私钥来加密通过 SSL 连接的传送的数据来进行工作。Netscape Navigator 和 IE 都支持 SSL,并且许多网站都使用这个协议来获得保密用户的信息,如信用卡号码。按照惯例,需要 SSL 连接的网页都使用 https 开头,而不是 http。

 :WWW

 :1999. 8. 4

 :digital wallet S-HTTP

## stand-alone 独立设备

Refers to a device that is self-contained, one that does not require any other devices to function. For example, a fax machine is a stand-alone device because it does not require a computer, printer, modem, or other device. A printer, on the other hand, is not a stand-alone device because it requires a computer to feed it data.

指一个自包含的设备,它不需要任何其他设备来起作用。例如,一个传真机是一个标准的独立设备,因为它不需要一个计算机、打印机或者其他设备。另一方面,一个打印机就不是一个独立设备因为它需要一个计算机来提供数据。

 : Hardware

 : 1996. 9. 1

**Standard 标准**

A definition or format that has been approved by a recognized standards organization or is accepted as a de facto standard by the industry. Standards exist for programming languages, operating systems, data formats, communications protocols, and electrical interfaces.

From a user's standpoint, standards are extremely important in the computer industry because they allow the combination of products from different manufacturers to create a customized system. Without standards, only hardware and software from the same company could be used together. In addition, standard user interfaces can make it much easier to learn how to use new applications.

Most official computer standards are set by one of the following organizations:

ANSI (American National Standards Institute)

ITU (International Telecommunication Union)

IEEE (Institute of Electrical and Electronic Engineers)

ISO (International Standards Organization)

VESA (Video Electronics Standards Association)

IEEE sets standards for most types of electrical interfaces. Its most famous standard is probably RS-232C, which defines an interface for serial communication. This is the interface used by most modems, and a number of other devices, including display screens and mice. IEEE is also responsible for designing floating-point data formats.

While IEEE is generally concerned with hardware, ANSI is primarily concerned with software. ANSI has defined standards for a number of programming languages, including C, COBOL, and FORTRAN.

ITU defines international standards, particularly communications protocols. It has defined a number of stand-

ards, including V. 22, V. 32, V. 34 and V. 42, that specify protocols for transmitting data over telephone lines.

In addition to standards approved by organizations, there are also de facto standards. These are formats that have become standard simply because a large number of companies have agreed to use them. They have not been formally approved as standards, but they are standards nonetheless. PostScript is a good example of a de facto standard.

一个已经被认可的标准组织同意的定义或者格式或者被工业界接受为一个事实上的标准。标准包括编程语言、操作系统、数据格式、通信协议和电子接口。

从一个用户的角度,标准在计算机工业中是最重要的因为它们允许由不同的制造商的产品组合成一个定制的系统。没有标准,仅可能一家制造商的软件和硬件可以使用在一起。除此之外,标准用户接口使得学习如何使用新的应用变得更容易。

大多数官方的计算机标准由如下组织设置:

ANSI:美国国家标准化协会

ITU:国际电讯联盟

IEEE:电子和电器工程师协会

IOS:国际标准化组织

VESA:视频电子标准协会

IEEE 设置大多数电子接口类型的标准。它最著名的标准可能是定义了一个用来串口通讯的 RS-232C。这是大多数调制解调器使用的接口,并且大量的其他设备,包括显示器和鼠标也使用这项接口。IEEE 也负责设计浮点数据格式。

IEEE 一般只关心硬件,而 ANSI 则主要关心软件。ANSI 已经为大量编程语言定义了标准,包括 C、COBOL 和 FORTRAN。

ITU 主要定义通信方面的国际标准。它也定义大量的标准,如用来在电话线路上传输数据的 V. 22、V. 32、

V. 34 和 V. 42。

除了有组织批准的标准,还有许多事实上的标准。它们已经变成标准因为大量的公司已经同意使用它们。它们还没有正式批准为标准,但是确实是标准了。PostScript 是一个事实标准的例子。

 :Standard


 :1998. 6. 17

 :de facto standard    ITU    MGCP    open architecture    VESA    VSB


**Storage Service Provider 存储服务提供商**

A Storage Service Provider (SSP) is a company that provides computer storage space and related management services. SSPs also offer periodic backup, archiving and the ability to consolidate data from multiple company locations so that data can be effectively shared.

存储服务提供商(SSP)是一家提供计算机存储空间和相关的管理服务的公司。SSP 也可以为多家公司提供定期的备份、归档和加强数据的能力,这样数据就可以被有效地共享。

 :software

 :2001.4.20

 :Application Service Provider


## Stateless 无状态

Having no information about what occurred previously. Most modern applications maintain state, which means that they remember what you were doing last time you ran the application, and they remember all your configuration settings. This is extremely useful because it means you can mold the application to your working habits.

The World Wide Web, on the other hand, is intrinsically stateless because each request for a new Web page is processed without any knowledge of previous pages requested. This is one of the chief drawbacks to the HTTP protocol. Because maintaining state is extremely useful, programmers have developed a number of techniques to add state to the World Wide Web. These include server APIs, such as NSAPI and ISAPI, and the use of cookies.

没有关于以前发生的信息。大多数现在的应用程序都保留状态,这就意味着它们可以记得最后一次使用程序所作的事情,而且它们可以记忆所有的配置设置。这一点非常有用因为这意味着可以将应用塑造为适合个人的工作习惯。

另一方面,WWW 在本质上是无状态的,因为每一个对于新页面的请求都是在没有以前页面请求的情况下进行处理。这是 HTTP 协议主要的缺陷之一。因为维持状态是非常有用的,程序员已经开发了大量的技术来向 WWW 中加入状态。这些技术包括服务器 API,如 NSAPI 和 ISAPI,以及 cookies 的使用。

 :Computer Science


 :1997. 6. 16

## STP 生成树协议

Acronym for Spanning Tree Protocol. STP, a link management protocol, is part of the IEEE 802.1 standard for media access control bridges. Using the spanning tree algorithm, STP provides path redundancy while preventing undesirable loops in a network that are created by multiple active paths between stations. Loops occur when there are alternate routes between hosts. To establish path redundancy, STP creates a tree that spans all of the switches in an extended network, forcing redundant paths into a standby, or blocked, state. STP allows only one active path at a time between any two network devices (this prevents the loops) but establishes the redundant links as a backup if the initial link should fail. If STP costs change, or if one network segment in the STP becomes unreachable, the spanning tree algorithm reconfigures the spanning tree topology and reestablishes the link by activating the standby path. Without spanning tree in place, it is possible that both connections may be simultaneously live, which could result in an endless loop of traffic on the LAN.

生成树协议的缩写,是一个连接管理协议,是用于媒质存取控制桥的 IEEE802.1 标准的一部分。使用生成树算法,STP 提供了路径冗余同时避免了在一个由多个活动路径创建的网络中的不理想的回路。当在主机间有可选路由时就会产生回路。为了建立路径冗余,STP 产生一个跨越所有交换机的树,迫使冗余的路径进入到一个备用的或者是阻塞的状态。STP 在两个网络设备间只允许一条活动的路径,但是建立起多个路径作为最初一条崩溃情况下的备份。如果 STP 变化,或者如果在 STP 中的一个网络部分不可用,则生成树算法就重新配置生成树拓扑并且通过激活多余的路径重新建立连接。没有生成树,就有可能同时有两个连接,而这将导致在 LAN 中一个无穷的流量回路。

 :Data

 :2000.12.12

 :BPDU

## Streaming 流技术

A technique for transferring data such that it can be processed as a steady and continuous stream. Streaming technologies are becoming increasingly important with the growth of the Internet because most users do not have fast enough access to download large multimedia files quickly. With streaming, the client browser or plug-in can start displaying the data before the entire file has been transmitted.

For streaming to work, the client side receiving the data must be able to collect the data and send it as a steady stream to the application that is processing the data and converting it to sound or pictures. This means that if the streaming client receives the data more quickly than required, it needs to save the excess data in a buffer. If the data doesn't come quickly enough, however, the presentation of the data will not be smooth.


There are a number of competing streaming technologies emerging. For audio data on the Internet, the de facto standard is Progressive Network's RealAudio.

一项用来传送数据的技术,这样数据可以作为一个稳定连续的流进行处理。流技术随着因特网而变得越来越重要,因为大多数用户不会有足够快的速度来下载多媒体文件。使用流,客户端浏览器或者插件就可以在整个文件传到之前开始显示数据。

为了使流工作,接收数据的客户端必须能够收集数据然后将它作为一个流发送到一个处理数据并将它转换为声音或者图像的应用程序中。这就意味着如果流客户端比所需的接受数据速度要快,则它需要将额外的数据存放到一个缓存中。如果数据来得不够快,则数据的显示就不会平滑。

现在有大量的流技术出现。对于因特网上的声音数据,实际上的标准是 Progressive Network 公司的 RealAudio。

 :Multimedia

 :1997. 1. 20

 :ASF RTSP SMIL


## SUPERSTITIAL

SUPERSTITIAL(tm) format is a new standard in on-line advertising created by Unicast - a non banner, interactive advertising solutions and services company for the Internet.

SUPERSTITIALs are highly interactive, non-banner ads that can be any size on the computer screen and up to 100K in file size, featuring full animation, sound and graphics capable of effectively conveying integrated advertising while protecting a Web site's performance.

SUPERSTITIAL 格式是一个在线广告的新标准,它是由 Unicast——一个非横幅、交互式的广告解决和服务因特网公司——开发的。

SUPERSTITIAL 是高度交互式、非横幅式的广告,它可以以任何尺寸显示在屏幕上而且文件可以达到 100K,在保证一个站点性能的情况下,具有完全的能够传送集成的广告动画、声音和图形的能力。


 : WWW

 : 2000. 4. 12

## Surf 冲浪

To move from place to place on the Internet searching for topics of interest. Web surfing has become a favorite pastime for many Internet users. The links on each page enable you to start virtually anywhere on the Web and eventually find interesting pages. The term surfing is generally used to describe a rather undirected type of Web browsing in which the user jumps from page to page rather whimsically, as opposed to specifically searching for specific information.

在因特网上从一个网站转到另一个网站来搜索感兴趣的<sup>①</sup>主题。网络冲浪已经成为许多因特网用户的一个主要娱乐方式。每一个页面的链接可以在网站的任何地方开始到达感兴趣的网站。术语冲浪通常用来描述一种非直接的网络浏览方式,其中用户从一个网页跳到另一个页面,而不是特定的搜索某个信息。

 : WWW

 : 1996. 10. 7

 : World Wide Web

## surge protector 电涌防护

A device that protects a power supply and communications lines from electrical surges. All computers come with some surge protection built into the power supply, but it is a good idea to purchase a separate device. Many uninterruptible power supplies (UPSes) include surge protection.

Surge protectors are also called surge suppressors.

一个用来保护电源和通讯线路防止电涌的设备。所有的计算机都带有一些电涌防护的电源,但是购买一个分离的设备是个好主意。许多不间断电源(UPS)都包含电涌防护。

: Hardware

: 1998. 5. 19

: UPS

## Suspend-to-RAM RAM 悬挂

Suspend-to-RAM (STR) occurs when a system enters a low-power state. Information on system configuration, open applications, and active files is stored in main memory (RAM), while most of the system's other components are turned off. A system in STR can use as little as 5 watts of power, with most of it going to main memory for data maintenance.

If left in STR, a system may be programmed to awaken, so it can perform tasks at any given time. If the power is interrupted, then the system will undergo a normal reboot, restoring full power to the machine and losing any information not saved to the hard disk.

当一个系统进入到一个低电能状态时就会发生 RAM 悬挂(STR)。系统配置信息、开放应用程序和活动文件都保存在主内存中(RAM),而大多数系统的其他部件就会关闭。一个处于 STR 的系统可以使用 5 伏的电能,其余都用于维持主内存的数据了。

如果处于 STR 状态,系统可能会使用程序的方法来唤醒,所以它可以在给定的时间内完成任务。如果电能中断,系统将会进行一次正常的重新启动,完全恢复机器的电能并且会丢失任何没有保存的信息。

: Hardware

: 2000.1.13

## SVC 交换虚拟线路

Short for switched virtual circuit, a temporary virtual circuit that is set up and used only as long as data is being transmitted. Once the communication between the two hosts is complete, the SVC disappears. In contrast, a permanent virtual circuit (PVC) remains available at all times.

交换虚拟线路的缩写,这是一个临时建立起来并只是数据被传输时才被使用的虚拟线路。一旦两个主机间的通信完成,SVC 就会消失。相反,一个永久虚拟线路(PVC)在任何时候都会保留。

:Network

:1998.2.18

:packet switching    PVC

## SVG 可伸缩矢量图形

Scalable Vector Graphics is a vector graphics language written in XML. Using SVG, graphics can be coded directly into an XML document.

Benefits of SVG include:

- smaller files size than regular bitmapped graphics such as GIF and JPEG files.
- resolution independence, so that the image can scale down or up to fit proportionally into any size display on any type of Net device
- text labels and descriptions for searchability
- ability to link to parts of an image
- complex animation

SVG works by assigning attributes to SVG elements. For instance, the “svg” element takes on the attributes x, y, height, width, allowZoomAndPan. This element is the outermost container, which defines the image. The allowZoomAndPan attribute gives the author control over zooming in and panning over the image. Other elements define shapes and lines, others define opacity and others define ways to embed JPEGs and PNG s into the SVG image.

Currently, SVG images cannot be seen through a Web browser ; therefore, a user must download a SVG viewer.

可伸缩矢量图形是一个使用 XML 编写的矢量图形语言。使用 SVG,图形可以直接被编码为 XML 文档。

SVG 的好处包括:

- 比通常的位图图形如 GIF 和 JPEG 要小。
- 分辨率独立,这样图像可以伸缩以适应任何网络设备的显示尺寸。
- 可搜索的文本标签和描述符。
- 可以链接到一个图像一部分的性能。
- 复杂的动画。

SVG 通过指定 SVG 元素的属性来工作。例如,“svg”

元素包含属性 `x`、`y`、`height`、`width` 和 `allowZoomAndPan`。这个元素是定义图像的最多的容器。`AllowZoomAndPan` 属性给用户控制图像缩放和移动的能力。其他元素定义了外形和线条,剩余元素定义了透明度和将 JPEG 和 PNG 嵌入到 SVG 图像的方法。

现在,SVG 图像不能够通过网络浏览器看到,因此用户必须下载一个 SVG 阅读器。

:Graphics

:1999.9.9

## switch 交换机/开关/选项

(1) In networks, a device that filters and forwards packets between LAN segments. Switches operate at the data link layer (layer 2) of the OSI Reference Model and therefore support any packet protocol. LANs that use switches to join segments are called switched LANs or, in the case of Ethernet networks, switched Ethernet LANs.

(2) A small lever or button. The switches on the back of printers and on expansion boards are called DIP switches. A switch that has just two positions is called a toggle switch.

(3) Another word for option or parameter — a symbol that you add to a command to modify the command's behavior.

(1) 在网络中,是一个在 LAN 部件之间过滤和传递包的设备。交换机在 OSI 参考模型的数据链路层(第二层)上操作因此支持任何包协议。使用交换机连接部件的 LAN 称为交换 LAN,或者根据以太网的情况称为交换以太 LAN。

(2) 一个小的杠杆或者按钮。打印机后面和扩展板上的开关称为 DIP 开关。有两个位置的开关称为一个双态开关。

(3) 表示选项或者参数意思的另一个表示方法——加入到一个命令来修改命令效果的一个符号。

: Hardware


: 1998. 3. 22

: BPDU

## Synchronous 同步

Occurring at regular intervals. The opposite of synchronous is asynchronous. Most communication between computers and devices is asynchronous—it can occur at any time and at irregular intervals. Communication within a computer, however, is usually synchronous and is governed by the microprocessor clock. Signals along the bus, for example, can occur only at specific points in the clock cycle.

发生在一定的时间间隔内。同步的对立面是异步。大多数计算机和设备之间的通信属于异步。然而,一个计算机内的通信通常是同步的并且由微处理器时钟来管理。例如,总线上的信号只有在时钟周期的一个特定点上出现。

 :Communication

 :2000.10.27

 :asynchronous    bisync

**system unit 系统单元**

The main part of a personal computer. The system unit includes the chassis, microprocessor, main memory, bus, and ports, but does not include the keyboard or monitor, or any peripheral devices.


A system unit is sometimes called a box or main unit

个人计算机的主要部分。系统单元包括底盘、微处理器、主内存、总线和端口,但是不包括键盘和监视器或者任何外围设备。

一个系统单元有时称为一个盒子或者主单元。

 :Hardware


 :1998.5.18

 :Chassis


## system call 系统调用

The invocation of an operating system routine. Operating systems contain sets of routines for performing various low-level operations. For example, all operating systems have a routine for creating a directory. If you want to execute an operating system routine from a program, you must make a system call.

一个操作系统程序的调用。操作系统包括一系列用来完成各种不同级别操作的程序。例如,所有的操作系统有一个创建一个目录的程序。如果想在程序中执行一个操作系统程序就必须使用一个系统调用。

 :Operation System


 :1996. 9. 1

 :operating system


## system tray 系统托盘

Introduced with Windows 95, the system tray is located in the Windows taskbar (usually at the bottom next to the clock) and contains miniature icons for easy access to system functions such as fax, printer, modem, volume, and more. Double click or right click on an icon to view and access the details and controls.

系统托盘是 Windows 95 中引入的,位于 Windows 的任务栏中(通常在靠近时钟的底部),它包含容易点击到的系统功能小图标如打印机、调制解调器、音量以及更多的。双击或者右击图标可以查看并进行控制。

 :Operation System


 :1999.12.8

 :operating system

**systems software 系统软件**

Refers to the operating system and all utility programs that manage computer resources at a low level. Software is generally divided into systems software and applications software. Applications software comprises programs designed for an end user, such as word processors, database systems, and spreadsheet programs. Systems software includes compilers, loaders, linkers, and debuggers.

指在底层管理计算机资源的操作系统和实用程序。软件通常分为系统软件和应用软件。应用软件包含为最终用户设计的程序,如字处理软件、数据库系统和电子表格程序。系统软件包括编译器、加载程序、链接器和调试器。

 :Operation System

 **1**:1996.9.1

## task 任务

An operating system concept that refers to the combination of a program being executed and bookkeeping information used by the operating system. Whenever you execute a program, the operating system creates a new task for it. The task is like an envelope for the program; it identifies the program with a task number and attaches other bookkeeping information to it.

Many operating systems, including UNIX, OS/2, and Windows, are capable of running many tasks at the same time and are called multitasking operating systems.

In most operating systems, there is a one-to-one relationship between the task and the program, but some operating systems allow a program to be divided into multiple tasks. Such systems are called multithreading operating systems.


The terms task and process are often used interchangeably, although some operating systems make a distinction between the two.


是一个操作系统的概念,指被执行和被记录信息的操作系统使用的程序组合。当执行一个程序的时候,操作系统就创建一个新的任务。这个任务像一个程序的信封:它使用一个任务数字来识别这个程序并将记录信息附加在上面。

许多操作系统,包括 UNIX、OS/2 和 Windows 都可以同时运行多个任务因此被称为多任务操作系统。

在大多数操作系统中,在任务和程序之间有着一对一的关系,但是有些操作系统允许一个程序分成多个任务。这样的系统被称为多线程操作系统。

术语任务和进程经常交叉使用,虽然一些操作系统在这两者间有些不同。

 :Operation System

 1 :1998.5.18

 :multitasking   multitreading   operating system

## television board 电视板

An expansion board that enables your computer monitor to do double-duty as a television screen. The board contains a TV tuner to select channels and circuitry to convert from the TV video standard (NTSC) to your computer's video standard (normally VGA or SVGA). Most television boards support windowed TVs as well as full-screen viewing. With a TV window you can place a mini television in the corner of your screen while you use the computer for other tasks.


Today's television boards produce TV images comparable to normal televisions. Many home computers now come with a television board pre-installed.

一块使计算机的监视器能够作为电视机屏幕的扩展板。这个板包含一个选择频道的 TV 调谐器和将 TV 视频标准(NTSC)转换为计算机的视频标准(通常为 VGA 或者 SVGA)的电路。大多数电视板支持窗口化的 TV 和全屏观看。有一个 TV 窗口就可以在使用计算机进行其他任务同时将一个小的电视窗口置于屏幕的角落。

现在的电视板可以显示出与正常的电视媲美的电视图像。许多家用计算机现在都预装了一块电视板。

 :Multimedia

 :1996.12.3

 :expansion board

## Telnet

A terminal emulation program for TCP/IP networks such as the Internet. The Telnet program runs on your computer and connects your PC to a server on the network. You can then enter commands through the Telnet program and they will be executed as if you were entering them directly on the server console. This enables you to control the server and communicate with other servers on the network. To start a Telnet session, you must log in to a server by entering a valid username and password. Telnet is a common way to remotely control Web servers.

一个 TCP/IP 协议网络如因特网中的终端仿真程序。Telnet 程序运行在用户的计算机上并且将 PC 机与网络上的远程服务器进行连接。可以通过 Telnet 程序键入命令，这些命令会如同直接在服务器控制台一样执行。这可以使用户控制服务器并与服务器通信。要启动一个 Telnet 会话，必须通过键入一个有效的用户名和口令登录一个服务器。Telnet 是远程控制 Web 服务器的一个普遍的方法。

 :Network


 :1998.5.18

## texel 结构元素

Short for Texture Element. Like a pixel, a texel is the base unit of a graphic, although texels make up textured graphics - graphics that define the surface of three dimensional objects. The base unit of the surface of a 3D brick wall would be a texel, while a two-dimensional wall would consist of pixels.

结构元素的缩写。如同一个像素,一个 texel 是一个图形的基本单元,虽然 texel 组成了构造成的图形——定义了第三个空间对象的平面尺寸。一个 3D 砖墙的平面的基本单元是一个 texel,而一个两维的墙是由像素组成的。

 :Graphics

 :1998.10.15


**thin client 瘦客户端**


In client/server applications, a client designed to be especially small so that the bulk of the data processing occurs on the server. The term thin client is an especially popular buzzword now because it serves as a symbol dividing the computer industry into two camps. On one side is a group led by Netscape and Sun Microsystems advocating Java-based thin clients running on network computers. The other side, championed by Microsoft and Intel, is pushing ever-larger applications running locally on desktop computers.

Although the term thin client usually refers to software, it is increasingly used for computers, such as network computers and Net PCs, that are designed to serve as the clients for client/server architectures. A thin client is a network computer without a hard disk drive, whereas a fat client includes a disk drive.

在客户端/服务器应用中,一个设计得特别小这样大量的数据处理工作在服务器完成的客户端。术语瘦客户端现在是个特别流行的用语,因为它是将计算机工业划分为两大阵营的一个标志。其中一边是由 Netscape 公司和 Sun 微系统公司领导的支持运行在网络上的基于 Java 的瘦客户端。另一个是由微软公司和 Intel 公司领导的支持在桌面计算机运行的大型应用。

虽然术语瘦客户端通常指软件,但是它逐渐被计算机所使用,如网络计算机,它是作为客户端/服务器结构中的客户端的。一个瘦客户端是一个没有硬盘驱动器的网络计算机,而一个胖客户端则包含一个硬盘驱动器。

 :Computer Science

 1 :1997. 3. 24

 :client/server architecture    Java    NC    network computer


## thread 线索/线程

(1) In online discussions, a series of messages that have been posted as replies to each other. A single forum or conference typically contains many threads covering different subjects. By reading each message in a thread, one after the other, you can see how the discussion has evolved. You can start a new thread by posting a message that is not a reply to an earlier message.

(2) In programming, a part of a program that can execute independently of other parts. Operating systems that support multithreading enable programmers to design programs whose threaded parts can execute concurrently.

(1) 在在线讨论中,指一系列的作为应答已经贴上去的信息。一般的一个单一的论坛或者讨论会包含许多覆盖各种主题的线索。通过一个个的读取线索上的每一条消息,用户就可以看到讨论是如何进行的。可以通过粘贴一条不对前面任何消息应答的消息就可以开始一个新的线索。

(2) 在编程中,指一个程序可以独立于其他部分单独执行的部分。支持多线程的操作系统可以使程序员设计线程部分可以同时执行的程序。

 :Operation System

 :1996.9.1

 :multithreading

### three-tier 三层结构

A special type of client/server architecture consisting of three well-defined and separate processes, each running on a different platform:

1. The user interface, which runs on the user's computer (the client).
2. The functional modules that actually process data. This middle tier runs on a server and is often called the application server.
3. A database management system (DBMS) that stores the data required by the middle tier. This tier runs on a second server called the database server.

The three-tier design has many advantages over traditional two-tier or single-tier designs, the chief ones being:

The added modularity makes it easier to modify or replace one tier without affecting the other tiers.


Separating the application functions from the database functions makes it easier to implement load balancing.

一个特殊类型的客户端/服务器结构,它包含三个预先定义且分离的过程,每一个运行在一个不同的平台上:

1. 用户界面,它运行在用户的计算机上(客户端)。
2. 实际处理数据的功能模块。这个中间层运行在一个服务器上并且经常被称为应用服务器。
3. 存储数据的数据库管理系统(DBMS)是中间层所必需的。这一层运行在一个称为数据库服务器的第二层服务器上。

三层设计与传统的二层结构相比有许多的优势,主要有:增加的模块化使得在不影响其他层的情况下修改或者替代一层变得很容易。

将应用功能从数据库功能中分离出来使得实现负载平衡变得较为容易。

 :Computer Science

 :1997.7.22

 : client/server architecture load balancing  
middleware

## throughput 输送量

The amount of data transferred from one place to another or processed in a specified amount of time. Data transfer rates for disk drives and networks are measured in terms of throughput. Typically, throughputs are measured in Kb/s, Mb/s and Gb/s.

是指从一个地方传输到另一个地方的数据量或者在特定的时间内的处理量。输送量是根据硬盘和网络的数据传输速率来测量的。一般,输送量是由 Kb/s、Mb/s 和 Gb/s 测量的。

 :Network

 :1998.5.18

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**title bar 标题栏**

A bar on top of a window. The title bar contains the name of the file or application. In many graphical user interfaces, including the Macintosh and Microsoft Windows interfaces, you move (drag) a window by grabbing the title bar.

在一个窗口上的一个栏。标题栏包含文件或者应用的名称。在许多图形用户界面,包含 Macintosh 和 Microsoft Windows 的界面,可以通过抓取标题栏来拖拉窗口。

 :Software

 :2001.1.4

## TLD 顶级域名

Short for top-level domain, and refers to the suffix attached to Internet domain names. There are a limited number of predefined suffixes, and each one represent a top-level domain. Current top-level domains include:

com - commercial businesses; this is the most common

### TLD

gov - U. S. government agencies

edu - Educational institutions such as universities

org - Organizations (mostly nonprofit)

mil - Military

net - Network organizations

ca - Canada

th - Thailand

With the explosion of the Internet over the last few years, competition for domain names has become fierce. Of all the companies named Acme Inc., for example, only one can have the domain name Acme.com. The Internet Ad Hoc Committee (IAHC) is addressing this problem by creating six new TLDs, which will start being used sometime in 1998:

store - merchants

web - parties emphasizing Web activities

arts - arts and cultural-oriented entities

rec - recreation/entertainment sources

info - information services

nom - individuals

顶级域名的缩写,指附在因特网域名的后缀。预先定义的后缀的数量是有限的,并且每一个代表一个顶级域名。现在的顶级域名包括:

com - 商业企业,这是最为普遍的 TLD

gov - 美国政府机构

edu - 教育组织比如大学

org - 组织(大部分为非盈利)

mil - 军事

net - 网络机构

ca - 加拿大

th - 泰国

随着因特网在过去几年的发展,域名的竞争已经进入白热化。例如,所有的命名为 Acme Inc. 的公司只能够有一家具有 Acme.com 的域名。IAHC 现正在通过创建 6 个新的 TLD 来解决这一问题,这将在 1998 年的某个时候开始使用:

store - 商业


web - 重点在于网络行为的人群


arts - 艺术和面向文化的组织


rec - 娱乐资源

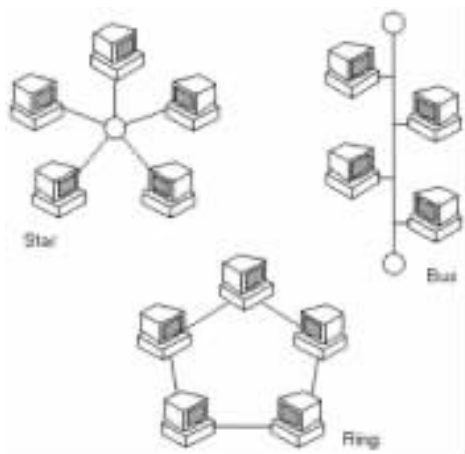
info - 信息服务

nom - 个人

 :Online Service

 :2000.12.12

 :domain name FQDN

**topology 拓扑 (见图 2)****图 2**

The shape of a local-area network (LAN) or other communications system. There are three principal topologies used in LANs.

- \* **bus topology:** All devices are connected to a central cable, called the bus or backbone. Bus networks are relatively inexpensive and easy to install for small networks. Ethernet systems use a bus topology.

- \* **ring topology :** All devices are connected to one another in the shape of a closed loop, so that each device is connected directly to two other devices, one on either side of it. Ring topologies are relatively expensive and difficult to install, but they offer high bandwidth and can span large distances.

- \* **star topology:** All devices are connected to a central hub. Star networks are relatively easy to install and man-

age, but bottlenecks can occur because all data must pass through the hub.

These topologies can also be mixed. For example, a bus-star network consists of a high-bandwidth bus, called the backbone, which connects a collections of slower-bandwidth star segments.

一个局域网或者其他通信系统的外形图。共有三种主要使用于局域网的拓扑结构。

\* 总线拓扑:所有的设备连接到一个称为总线或者主干的中心电缆上。总线网络相对来说不昂贵并且对于使用一个总线拓扑的小以太网来说容易安装。

\* 环拓扑:所有的设备在一个封闭的环上相互连接,这样每一个设备与其他两个设备连接。环拓扑相对来说比较昂贵而且安装起来比较困难,但是可以提供较高的带宽而且可以跨越较长的距离。

\* 星拓扑:所有的设备都连接到一个中心的集线器。星型网络相对来说容易安装和管理,但是由于所有的数据必须通过集线器所以会发生瓶颈现象。

这些拓扑也可以混合使用。例如,一个总线星型网络包含一个称为主干的高带宽总线,它连接一个较低带宽的星型部分的集合。

 :Network

 :2000.11.17

 :collapsed backbone   Ethernet local-area network


**transaction processing 事务处理**

A type of computer processing in which the computer responds immediately to user requests. Each request is considered to be a transaction. Automatic teller machines for banks are an example of transaction processing.

The opposite of transaction processing is batch processing, in which a batch of requests is stored and then executed all at one time. Transaction processing requires interaction with a user, whereas batch processing can take place without a user being present.

一种计算机处理类型,其中计算机对于用户的请求立即做出反应。每一个请求被认为是一个事务。银行的自动出纳机就是一个事务处理的例子。

事务处理的反面是批处理,其中一系列请求被存储起来然后同时执行。事务处理需要与用户进行交互,而批处理在没有用户的情况可以代替执行。

 :Operation System


 :1996.9.1

 :CICS

## Transparent 透明

Invisible. In computer software, an action is transparent if it takes place without any visible effect. Transparency is usually considered to be a good characteristic of a system because it shields the user from the system's complexity.

不可见的。在计算机软件中,如果一个行为在没有任何可见效果的情况下发生了则它是透明的。透明通常被认为是一个系统良好的特性,因为它使用户避免了系统的复杂性。

 :Computer Science

 **1** :1996.9.1

## Triton

Refers to the Intel 430 family of Pentium chipsets. The first in family, the 430FX, is called the Triton; the enhanced 430 HX is called Triton 2. The Triton chipset supports the PCI bus and was the first x86 chip to use EDO DRAM. The Triton 2 is one of the fastest Pentium chipsets, with support for multiple CPUs, pipelined burst SRAM cache, memory error checking and correction (ECC), 512 MB of memory, and caching of RAM over 64 MB. The 430VX, a third member of the family, supports USB and uses SDRAM. The VX model is sometimes called Triton-2 or Triton-3.

指 Intel 430 奔腾芯片家族。作为家族中的第一个成员,430FX 被称为 Triton;升级了的 430HX 被称为 Triton2。Triton 芯片支持 PCI 总线而且是使用 EDO DRAM 的第一个 x86 芯片。Triton2 芯片是奔腾芯片中速度最快之一,而且还支持多 CPU、管线脉冲 SRAM 高速缓冲存储器、内存错误检查和纠错码(ECC)、512 MB 内存和超过 64 MB RAM 的缓冲存储。家族中的第三个成员 430VX 支持 USB 并使用 SDRAM。VX 模型有时称为 Triton2 或者 Triton3。

 :Hardware

 :2001.1.11

**troubleshoot 检修故障**

To isolate the source of a problem and fix it. In the case of computer systems, the term troubleshoot is usually used when the problem is suspected to be hardware -related. If the problem is known to be in software, the term debug is more commonly used.

隔离一个问题的来源并修复它。关于计算机系统,术语检修故障通常在有关硬件的东西出问题时使用。如果问题是有关软件的,则通常使用术语 bug。


 : Hardware

 **1** : 1998. 6. 18

## Turing test 图灵测试

A test devised by the English mathematician Alan M. Turing to determine whether or not a computer can be said to think like a human brain. In an attempt to cut through the philosophical debate about how to define “thinking,” Turing devised a subjective test to answer the question, “Can machines think?” and reasoned that if a computer acts, reacts and interacts like a sentient being, then call it sentient. The test is simple; a human interrogator is isolated and given the task of distinguishing between a human and a computer based on their replies to questions that the interrogator poses. After a series of tests are performed, the interrogator attempts to determine which subject is human and which is an artificial intelligence. The computer’s success at thinking can be quantified by its probability of being misidentified as the human subject.

一个由英国数学家阿兰·M·图灵设计用来判断一个计算机是否被认为像人的大脑一样思考的测试。为了尝试理解关于如何定义“思考”的哲学争论，图灵设计了一个客观的测试来回答问题，“机器能否思考”，并且认为如果一个计算机像有意识的人一样进行行动、反应和交互，那就可以称之为有意识。这个测试很简单：一个人类询问者被隔离起来并根据对于询问者提出的问题的答复给予区别人类和计算机的任务。在完成了一系列的测试后，询问者试图判断那一个是人类，那一个是人工智能。计算机在“思考”方面的成功可以由它们被误认为是人类的概率所量化。


 : Computer Science

 **1** : 2001. 1. 25

**turnkey system turnkey 系统**

A computer system that has been customized for a particular application. The term derives from the idea that the end user can just turn a key and the system is ready to go. Turnkey systems include all the hardware and software necessary for the particular application. They are usually developed by OEMs (original equipment manufacturers) who buy a computer from another company and then add software and devices themselves.

为一个特定的应用程序定制的计算机系统。这个术语是从最终用户可以启动一个键,然后系统准备启动的想法中产生的。Turnkey 系统包括所有的特定应用的硬件和软件。它们通常由 OEM(原始设备制造商)开发,OEM 从另一家计算机公司购买一个计算机然后他们自己给计算机添加软件和设备。

 :Type of Computer

 :1996. 9. 1


 :OEM

## UDA 通用数据存取

Short for Universal Data Access, a high-level specification developed by Microsoft for accessing data objects regardless of their structure. One of the main components of UDA is the ActiveX Data Objects (ADO) interface.

通用数据存取的缩写,这是一个由微软公司用以存取数据对象而忽略其结构的高层规范。UDA 的主要组成部分是 ActiveX 数据对象(ADO)接口。

 :Data

 :2000.12.26

 :ADO   DAO   ODBC


## UDDI 通用描述、发现和集成

Short for Universal Description, Discovery and Integration. A Web-based distributed directory that enables business to list themselves on the Internet and discover each other, similar to a traditional phone book's yellow and white pages.

通用描述、发现和集成的缩写。这是一个基于 Web 的发布目录,它可以使企业在因特网上列出自己的信息并且可以发现其他企业,就如同传统的电话黄页和白页一样。

 :online service

 :2001. 3. 16

 :. NET

## UNC 通用命名标准

Short for Universal Naming Convention or Uniform Naming Convention, a PC format for specifying the location of resources on a local-area network (LAN). UNC uses the following format:

`\\server-name\shared-resource-pathname`

So, for example, to access the file `test.txt` in the directory examples on the shared server `silo`, you would write:

`\\silo\examples\test.txt`

You can also use UNC to identify shared peripheral devices, such as printers. The idea behind UNC is to provide a format so that each shared resource can be identified with a unique address.

UNC is supported by Windows and many network operating systems (NOS's).

通用命名标准或者统一命名标准,是一个用来指定在一个局域网资源位置的 PC 机格式。UNC 使用如下的格式:


`\\server-name\shared-resource-pathname`

例如,要访问一个共享服务器 `silo` 上目录 `examples` 上的文件 `file.test`,应当这样写:

`\\silo\example\test.txt`

还可以使用 UNC 来识别共享的外围设备,如打印机。UNC 后面的想法是提供一种格式,这样每一个共享资源可以使用一个惟一的地址来识别。

 :Standard


 :2000.11.16

## unique visitor 独特访问者

When tracking the amount of traffic on a Web site, it refers to a person who visits a Web site more than once within a specified period of time. Software that tracks and counts Web site traffic can distinguish between visitors who only visit the site once and unique visitors who return to the site. Different from a site's hits or page views -- which are measured by the number of files that are requested from a site -- unique visitors are measured according to their unique IP addresses, which are like online fingerprints, and unique visitors are counted only once no matter how many times they visit the site. There are some ISPs that use Dynamic Host Configuration Protocol, such as AOL and cable modem providers, which use different IPs for every file requested, making one visitor look like many. In this case, a single IP address does not indicate a unique visitor.

baseband transmission   click-through   impression  
Web page   Web   server

当在一个网站上跟踪流量时,这是指在一个特定的时间内访问一个站点多于一次的人。跟踪并计算网站流量的软件可以区别只访问网站一次的访问者和返回网站的独特访问者。与由一个网站的文件被请求的数量所测的网站的采样数或页面访问数不同,独特访问者是根据他们独一无二的 IP 地址所测得的,而且独特访问者只计算一次而不管他们访问多少次这个站点。有一些 ISP,比如 AOL,使用动态主机配置协议(DHCP)和电缆调制解调器,这样为每一个请求的文件使用不同 IP 地址,使得一个访问者看起来很多。在这种情况下,一个单独的 IP 地址并不表示一个独特的访问者。

 : WWW

 : 2001. 1. 23

## UPS 不间断电源

Abbreviation of uninterruptible power supply, a power supply that includes a battery to maintain power in the event of a power outage. Typically, a UPS keeps a computer running for several minutes after a power outage, enabling you to save data that is in RAM and shut down the computer gracefully. Many UPSs now offer a software component that enables you to automate backup and shut down procedures in case there's a power failure while you're away from the computer.

There are two basic types of UPS systems: standby power systems (SPSs) and on-line UPS systems. An SPS monitors the power line and switches to battery power as soon as it detects a problem. The switch to battery, however, can require several milliseconds, during which time the computer is not receiving any power. Standby Power Systems are sometimes called Line-interactive UPSes.


An on-line UPS avoids these momentary power lapses by constantly providing power from its own inverter, even when the power line is functioning properly. In general, on-line UPSs are much more expensive than SPSs.

不间断电源的简称,这是一个包含在断电情况下维持电源的电池的供电。一般的,UPS在断电后可以维持计算机运行几分钟,这可以使用户保存在RAM内的数据并正常地关闭计算机。许多UPS现在提供一种软件,当用户不在计算机边上时有电力故障发生时,可以使用户自动进行备份然后关闭程序。

有两种基本类型的UPS系统:独立电源系统(SPS)和在线UPS系统。一个SPS在发现一个问题时就会监视电源线和电池电源的开关。然而电池的开关可能需要几个微秒,其中计算机是不会有电力供给的。独立电源系统有时称为线交互UPS。

一个在线UPS可以通过经常从它的转换器提供电力

来避免这些短暂的电力空白,甚至当电源线工作正常。通常在线 UPS 比 SPS 更贵。

:Hardware

:1996.11.7

:power supply

## upward compatible 向上兼容

Refers to software that runs not only on the computer for which it was designed, but also on newer and more powerful models. For example, a program designed to run on an Intel 386 microprocessor, which also runs on a Pentium, is upward compatible. Upward compatibility is important because it means you can move to a newer, larger, and more sophisticated computer without converting your data.

In contrast to upward compatibility, downward (backward) compatible means that a program runs not only on the computer for which it was designed, but also on smaller and older models. For example, a program designed to run under MS-DOS 6.0, which also works under MS-DOS 5.0, is downward compatible.

Upward compatibility is sometimes called forward compatibility.

指能够在指定的计算机上运行的软件,但是也可以在更新的和功能更强大的型号(版本)上运行。例如,一个用来设计在一个 Intel 386 微处理器上运行的程序也可以在一个 Pentium 上运行,这就称为向上兼容。向上兼容性是重要的因为这意味着可以在不必转换数据的情况下将程序移到更新、更大、更先进的计算机上。

与向上兼容性相反,向下兼容性意味着一个在指定的计算机上运行的程序可以在更小和更旧型号的计算机上运行。例如,一个涉及在 MS-DOS 6.0 上运行的程序也可以在 MS-DOS 5.0 上运行,这就称为向下兼容。

向上兼容性有时称为向前兼容性。

:Software


:1998.5.19

:backward compatible

## URI 统一资源标识符

Short for Uniform Resource Identifier, the generic term for all types of names and addresses that refer to objects on the World Wide Web. A URL is one kind of URI.

统一资源标识符的缩写,代表 WWW 上所有对象的名称和地址的所有类型。URL 是一种 URI。

: WWW

: 1996.12.9

: URL

## URL 统一资源定位符

Abbreviation of Uniform Resource Locator, the global address of documents and other resources on the World Wide Web.

The first part of the address indicates what protocol to use, and the second part specifies the IP address or the domain name where the resource is located.

For example, the two URLs below point to two different files at the domain company. com. The first specifies an executable file that should be fetched using the FTP protocol; the second specifies a Web page that should be fetched using the HTTP protocol:

ftp://www. company. com/stuff. exe

http://www. company. com/index. html


统一资源定位符的缩写,是在 WWW 上文档和其他资源的全球地址。

地址的第一部分表示使用的协议,第二部分指定了资源所在的 IP 地址或者域名。

例如,在域名 company. com 下的两个 URL 指向不同的文件。第一个制订了一个必须使用 FTP 协议得到的可执行文件,另一个指定了一个必须使用 HTTP 协议得到的网页:

ftp://www. company. com/stuff. exe

http://www. company. com/index. html

: WWW

: 1998. 6. 24

: linkrot PURL URI World Wide Web


## USB 通用串行总线

Short for Universal Serial Bus, a new external bus standard that supports data transfer rates of 12 Mbps (12 million bits per second). A single USB port can be used to connect up to 127 peripheral devices, such as mice, modems, and keyboards. USB also supports Plug-and-Play installation and hot plugging.


Starting in 1996, a few computer manufacturers started including USB support in their new machines. It wasn't until the release of the best-selling iMac in 1998 that USB became widespread. It is expected to completely replace serial and parallel ports.

通用串行总线的缩写,这是一个新的支持 12 Mb/s 数据传输速率的外部总线标准。一个单一的 UBS 端口可以用来连接到 127 个外部设备,如鼠标、调制解调器和键盘。USB 也支持即插即用安装和热插拔。

从 1996 年,一些计算机制造商开始在他们的计算机中支持 USB。直到 1998 年推出卖得最好的 iMac,USB 才变得流行。它有希望完全代替串口和并口。

: Hardware


: 1996. 11. 15

: cache coherence   iMac   PCMCIA

## UNI 用户网络接口

A term used in ATM and Frame Relay networks, UNI is the interface between the ATM end user and a private ATM switch. It also can represent the interface between a private ATM switch and the public carrier ATM network.

这是一个在 ATM 和帧中继网络上使用的术语, UNI 是 ATM 终端用户和一个私有 ATM 交换机之间的接口。它也可以表示一个私有 ATM 交换机和公用运营 ATM 网络之间的接口。

 :network

 :2001. 3. 17

 :Ethernet FDDI

## utility 实用程序

A program that performs a very specific task, usually related to managing system resources. Operating systems contain a number of utilities for managing disk drives, printers, and other devices.


Utilities differ from applications mostly in terms of size, complexity and function. For example, word processors, spreadsheet programs, and database applications are considered applications because they are large programs that perform a variety of functions not directly related to managing computer resources.

Utilities are sometimes installed as memory-resident programs. On DOS systems, such utilities are called TSRs.

一个用来完成特定任务的程序,通常与管理系统资源有关。操作系统包含大量的实用程序来管理磁盘驱动器、打印机和其他设备。

实用程序在大小、复杂程序和功能上不同于大多数应用程序。例如,字处理程序、电子表格程序和数据库应用被认为是应用程序,因为它们是完成各种功能而与管理计算机资源无关的大型程序。

实用程序有时被作为内存驻留程序来安装。在 DOS 系统中,这些实用程序被称为 TSR。

 :Operation System

 :1998.5.19

## Uencode 电子邮件用于对二进制数据进行文本化编码的工具

A set of algorithms for converting files into a series of 7-bit ASCII characters that can be transmitted over the Internet. Originally, uencode stood for Unix-to-Unix encode, but it has since become a universal protocol used to transfer files between different platforms such as Unix, Windows, and Macintosh. Uencoding is especially popular for sending e-mail attachments. Nearly all e-mail applications support uuencoding for sending attachments and uudecoding for receiving attachments.

Another popular encoding algorithm is BinHex, which is often used for transferring Macintosh files, such as PICT graphics files.

一套用来将文件转换为一个 7 位可以在因特网上传输的 ASCII 字符序列的算法。起初 uencode 代表 Unix-to-Unix 编码,但是它已经变成一个用于在不同平台如 Unix、Windows 和 Macintosh 之间传送文件的通用协议。Uencoding 对于发送 e-mail 附件尤为通行。几乎所有的 e-mail 应用程序都支持 uuencoding 用来发送附件并对接收到的附件进行相应的解码。

另一个常用的编码算法是 BinHex,它经常用于传输 Macintosh 文件,例如 PICT 图形文件。

:Data

:2000.9.18

## UUNET

(UNIX to UNIX Network) The first commercial Internet service provider, headquartered in Fairfax, VA. The company (www.us.uu.net) was founded in 1987 by Rick Adams, one of the original developers of ARPAnet, the precursor to the Internet. In 1996, UUNET merged with MFS Communications, Inc., and later that year, WorldCom acquired both MFS and UUNET. In 1998, WorldCom acquired Advanced Network Services and CompuServe Network Services. UUNET is now a full-service provider.

(UNIX 或者 UNIX 网络)第一个商业因特网服务提供者,总部于位美国弗吉尼亚州的 Fairfax。这个公司(www.us.uu.net)是由 Rick Adams 在 1987 年成立的,Rick Adams 是 ARP Anet 最初开发者之一,因特网的先驱。在 1996 年,UUNET 与 MFS 通信有限公司合并,1996 年末 WorldCom 得到 MFS 和 UUNET。在 1998 年,WorldCom 取得 Advanced Network Services 和 CompuServe Network Services。UUNET 现在是一个完全服务提供者。

:Online Service


:1998.8.13

:ISP

**VAR 增值销售商**

Acronym for value-added reseller. Same as OEM (original equipment manufacturer).

增值销售商的缩写。与 OEM(原始设备制造商)相同。

:Computer Industry Companies

:1996.9.1

:OEM

## vBNS 极高速主干网服务

Short for very high-speed Backbone Network Service, an experimental wide-area network backbone sponsored by the National Science Foundation (NSF) and implemented by MCI. vNBS has replaced NSFnet and is designed to serve as a platform for testing new, high-speed Internet technologies and protocols. It currently links several Supercomputer Centers (SCCs) and Network Access Points (NAPs) at OC-12 speeds (622 Mb/s). By 1998, it will support data, voice and video traffic at 2.5 Gb/s.

极高速主干网服务的缩写,是一个由国际科学基金会所赞助并由 MCI 实施的一个实验性的广域网主干。VNBS 已经替代了 NSFnet,是作为一个测试新的高速因特网技术和协议而设计的。现在它以 OC-12 的速度(622 Mb/s)连接了超级计算机中心(SCCs)和网络访问点(NAPs)。到 1998 年,就可以以 2.5 Gb/s 的速度支持数据、声音和视频流。

:Network

:1998.3.5


## VBX Visual Basic 客户控件

Short for Visual Basic custom control, a reusable software component designed for use in many different applications. While VBXs can be used in other environments, they were initially created for developing Windows applications with Visual Basic. An application developer can use a number of selected VBXs to quickly develop an application. While similar to objects, VBXs do not have two of the properties (inheritance and polymorphism) required by true object-oriented systems.

Many different companies offer specialized VBXs for tasks such as controlling instruments or image handling. However, VBXs are being superseded by ActiveX controls, which are more flexible.

Visual Basic 客户控件的缩写,是一个设计用来使用在不同应用中的可重复使用软件部件。VBX 在许多环境下可以使用,而它们最初是为了开发使用 Visual Basic 的 Windows 应用程序的。一个应用程序开发人员可以使用大量的可选择的 VBX 来快速开发一个应用。虽然 VBX 与对象相似,但是它不需要真正的面向对象系统所必需的两个属性(继承和多态)。

许多不同的公司提供特殊的 VBX 来进行诸如控制设备或者图形处理的任务。然而 VBX 正在被更加灵活的 ActiveX 控件所取代。

:Programming


:1996.12.19

:OCX


### Vertical Service Provider 垂直服务提供商

A Vertical Service Provider (VSP) is an ASP that covers the application needs of a specific vertical market or industry, such as banking, manufacturing, education, real estate, government or law. A Vertical Service Provider (VSP) is an ASP that covers the application needs of a specific vertical market or industry, such as banking, manufacturing, education, real estate, government or law.

一个垂直服务提供商(VSP)是一个应用需求分布在一个特定的垂直市场或业务上的 ASP,如银行、制造业、教育、房地产、政府或者法律界。

 :software

 :2001.4.20

 :Application Service Provider

## VESA 视频电子标准协会

Short for Video Electronics Standards Association, a consortium of video adapter and monitor manufacturers whose goal is to standardize video protocols. VESA has developed a family of video standards that offer greater resolution and more colors than VGA. These standards are known collectively as Super VGA ( SVGA ).

视频电子标准协会的缩写,是一个以标准化视频协议为目标的视频适配器和监视器制造商的组织。VESA 已经开发了一个视频标准族,它们提供了比 VGA 更大的分辨率以及更多的颜色。这些标准被总称为 Super VGA(SVGA)。

:Standard

:1996.9.1

**video mode 视频模式**

The setting of a video adapter. Most video adapters can run in either text mode or graphics mode. In text mode, a monitor can display only ASCII characters. In graphics mode, a monitor can display any bit-mapped image. In addition to the text and graphics modes, video adapters offer different modes of resolution and color depth.

一种视频适配器的设置。大多数视频适配器可以以文本模式或者图形模式运行。在文本模式下,一个监视器只能显示 ASCII 字符。在图形模式下,一个监视器可以显示任何位图图像。除文本和图形模式外,视频适配器还提供了不同分辨率和色彩深度的模式。

:Graphics

1:1998.5.19


## Virtual 虚拟

Not real. The term virtual is popular among computer scientists and is used in a wide variety of situations. In general, it distinguishes something that is merely conceptual from something that has physical reality. For example, virtual memory refers to an imaginary set of locations, or addresses, where you can store data. It is imaginary in the sense that the memory area is not the same as the real physical memory composed of transistors. The difference is a bit like the difference between an architect's plans for a house and the actual house. A computer scientist might call the plans a virtual house. Another analogy is the difference between the brain and the mind. The mind is a virtual brain. It exists conceptually, but the actual physical matter is the brain.


The opposite of virtual is real, absolute, or physical.

不是真实的。术语虚拟在计算机科学家中非常流行并且用于各种情况下。通常,它将只是概念上的东西与真实存在的东西区分开来。例如,虚拟内存是指一个想象的位置或者内存,在其上可以存储数据。在感觉上存储区域不同于真实的、由晶体管组成的物理内存,是假想的。不同之处就犹如一个建筑师对于一件房子的计划和真实的房子一样。一个计算机科学家可能称此技术为一个虚拟房间。另一个比喻是大脑和智力的区别。智力是一个虚拟的头脑。它存在于概念中,而真实的物理物质是大脑。

虚拟的反面是真实、绝对或者物理。

 :Computer Science

 :1997.7.8

 :JVM   virtual machine   virtual server

**virtual circuit 虚拟线路**

A connection between two devices that acts as though it's a direct connection even though it may physically be circuitous. The term is used most frequently to describe connections between two hosts in a packet-switching network. In this case, the two hosts can communicate as though they have a dedicated connection even though the packets might actually travel very different routes before arriving at their destination. An X.25 connection is an example of a virtual circuit.

Virtual circuits can be either permanent (called PVCs) or temporary (called SVCs).

两个设备之间的一个连接,它看起来就像一个直接的连接,虽然它可能在物理上是通过线路连接的。这个术语经常用来描述在一个包交换网络中两个主机间的连接。在这种情况下,两个主机就如同有一个连接一样进行通信,虽然包有可能实际上在到达目标之前通过了不同的路由。一个 X.25 的连接就是典型的一个虚拟线路。

虚拟线路可以是永久的(称为 PVC)或者临时的(称为 SVC)。

 :Network

 :1998.5.19

 :packet switching   PVC   SVC

## virtual desktop 虚拟桌面

A feature supported by some notebook computers that enables them to display images on an external monitor at a higher resolution than is supported by the built-in flat-panel display. For example, most flat-panel displays are limited to a maximum resolution of  $800 \times 600$ . With the virtual desktop feature, you could connect the computer to an external monitor and enjoy full SVGA ( $1\,024 \times 768$ ) resolution.

The term also refers to a feature supported by some video adapters that enables them to provide a desktop larger than what's actually displayed. Only part of the virtual desktop is displayed at any one time, but you can see hidden areas by scrolling the display. It's as if the display screen is a small window overlaid upon a larger desktop.

一个被许多笔记本电脑支持的特性,它可以使笔记本电脑在一个额外的高分辨率监视器而不是内嵌的平面显示器上显示图像。例如,大多数平面显示器具有最大分辨率  $800 \times 600$  的限制。带有虚拟桌面特性,就可以将计算机连接到一个外部监视器上来享受完全 SVGA( $1\,024 \times 768$ ) 的分辨率。

这个术语也指被一些视频适配器所支持的能够显示比实际显示要大的桌面的性能。只有一部分虚拟桌面可以在任何时候显示,但是可以通过滚动显示来观看隐藏的区域。这就如同显示器是在一个较大的桌面上一个小窗口。

: Mobile Computing

: 1998. 5. 19

**virtual device driver 虚拟设备驱动程序**

In Windows systems, a special type of device driver that has direct access to the operating system kernel. This allows them to interact with system and hardware resources at a very low level.

In Windows 95, virtual device drivers are often called VxDs because the filenames end with the .vxd extension .

在 Windows 系统中,是指直接访问操作系统内核的一种特殊类型的驱动器。这允许它们与系统和硬件资源在底层进行交互。

在 Windows 95 中,虚拟设备驱动程序一般称为 VxD,因为它的文件名是以 .vxd 结尾的。

:Operation System

:1997. 6. 27

:VMM32. vxd

## virtual machine 虚拟机

A self-contained operating environment that behaves as if it is a separate computer. For example, Java applets run in a Java virtual machine (VM) that has no access to the host operating system. This design has two advantages:

**System Independence:** A Java application will run the same in any Java VM, regardless of the hardware and software underlying the system.

**Security:** Because the VM has no contact with the operating system, there is little possibility of a Java program damaging other files or applications.


The second advantage, however, has a downside. Because programs running in a VM are separate from the operating system, they cannot take advantage of special operating system features.

一个自包含的操作环境,其行为就如同它是一个分开的计算机一样。例如,Java applets 运行在不会访问主机操作系统的 Java 虚拟机(VM)上。这种设计有两个优势:

**系统独立性:**一个 Java 程序可以在任何 Java VM 上运行而不管系统的硬件和软件。

**安全性:**因为 VM 不与操作系统接触,一个 Java 程序破坏其他文件或者应用的可能性就比较小。

然而第二个优势有下降的趋势。因为运行在一个 VM 上的程序是与操作系统分开的,它们不能利用特定操作系统的特性。

:Programming

:2001.1.18

:Java Jini JIT JNI JVM


**virtual router 虚拟路由**

An abstract object managed by VRRP that acts as a default router for hosts on a shared LAN. It consists of a Virtual Router Identifier and a set of associated IP addresses across a common LAN.

一个由 VRRP 管理的抽象的对象,它作为在一个共享 LAN 上的主机的一个默认路由器。它包括一个虚拟路由器标识符和一套通用一个 LAN 上的相关 IP 地址。

:network

:2001.3.13

:OSPF


## VMM32. vxd

Found in Windows 9x machines, VMM32. vxd is the virtual device driver library that contains virtual device driver files needed for system start up.

VMM32. vxd is different for every machine; therefore, if it gets corrupted, it cannot be copied from another computer; it'll need to be rebuilt.

VMM32. vxd 存在于 Windows 9x 的机器上,它是包含系统启动时所需的虚拟设备驱动文件的虚拟驱动程序库。

每一个计算机的 VMM32. vxd 是不同的,因此如果这个文件崩溃,它就不能够从其他计算机上复制过来,它需要重新建一个。


:Operation System

 1 :2000. 1. 19


## VMS 虚拟存储器系统

Short for Virtual Memory System, a multi-user, multitasking, virtual memory operating system that runs on DEC's VAX and Alpha lines of minicomputers and workstations. VMS was introduced in 1979 along with the first VAX minicomputer. Like the VAX itself, VMS has undergone many changes over the years. DEC now refers to it as OpenVMS.

虚拟存储器系统的缩写,是一个运行在 DEC 的 VAX 和 Alpha 小型机和工作站上的一个多用户、多任务虚拟内存操作系统。VMS 是在 1979 年随着第一个 VAX 小型机而引入的。如同 VAX 自身一样,VMS 在过去几年里经历了许多变化。现在 DEC 将它变为 OpenVMS。

:Operation System


:1998.3.12

:multitasking operating system

**von Neumann machine von Neumann 计算机**

(pronounced von noi-man) An early computer created by Hungarian mathematician John von Neumann (1903-1957). It included three components used by most computers today: a CPU ; a slow-to-access storage area, like a hard drive ; and secondary fast-access memory (RAM ). The machines stored instructions as binary values (creating the stored program concept) and executed instructions sequentially - the processor fetched instructions one at a time and processed them. Today “von Neumann architecture” often refers to the sequential nature of computers based on this model.

一个由匈牙利数学家 John von Neumann(1903-1957)创造的早期计算机。它包括三个现在大多数计算机使用的部分:一个 CPU,一个像硬盘的慢速存取区域和二级快速存取内存(RAM)。这个机器存储指令作为二进制值(创建存储程序概念)并且序列执行指令——处理器取得指令然后执行。现在“von Neumann 结构”经常指基于这种模型的计算机的本质。

:Computer Science

:1998. 8. 21


## VRRP 虚拟路由冗余协议

Short for Virtual Router Redundancy Protocol. An election protocol that dynamically assigns responsibility for one or more virtual router (s) to the VRRP router(s) on a LAN, allowing several routers on a multiaccess link to utilize the same virtual IP address. A VRRP router is configured to run the VRRP protocol in conjunction with one or more other routers attached to a LAN. In a VRRP set-up, one router is elected as the master router with the other routers acting as backups in case of the failure of the master router.

虚拟路由冗余协议的缩写。这是一个动态给一个 LAN 上的 VRRP 路由制订一个或者多个虚拟路由的备选协议,它允许在一个多路访问链路上的几个路由器使用同样的虚拟 IP 地址。一个 VRRP 路由器被配置为运行 VRRP 协议并与一个或者多个连接在一个 LAN 上的其他路由器进行连接。在一个 VRRP 设置中,一个路由器被选择为主路由器而其他路由器作为主路由器失效后的备份。

:network

:2001.3.13

:OSPF


## VSB 残留边带/VME 子系统总线

1. (vestigial side band) A method for modulating — or converting for transmission — digital data over coaxial cable. Created by Zenith, VSB has been chosen by the FCC as a standard for digital TV.


2. (VME Subsystem Bus) An auxiliary bus used with a primary 32-bit bus called a VME (VersaModule Euro-card), made for commercial, industrial, and military uses. The VSB helps speed transfers between devices.

1. (残留边带) 一种调制——或者传输的转换——同轴电缆上数字数据的方法。由 Zenith 创造的 VSB 已经被 FCC 选定为数字电视的标准。

2. (VME 子系统总线) 一个使用一个称为 VME (Motorola 公司于 1981 年推出的第一代 32 位标准总线) 的 32 位总线的辅助总线, 用于商业、工业和军事。VSB 有助于提高设备之间的传输速度。

: Hardware

 1: 1998. 9. 8

: cache coherence

## vt100 视频终端 100

Introduced by DEC in August 1978, Video Terminal 100 was the first terminal to use a general-purpose processor for interpreting the newly published (1977) ANSI control codes (ANSI X3.64).

Quickly, the vt100 become popular, and the ANSI control codes embodied in the vt100 became a de facto standard. Eventually, IBM adopted them for its line of PCs.

Today, most terminal-emulation programs commonly use the vt100 setting.

在 1978 年 8 月由 DEC 引入, 视频终端 100 是第一个使用一个通用处理器来理解新出版(1977)的 ANSI 控制代码(ANSI X3.64)的终端。

很快, vt100 流行开来, 嵌入到 vt100 的 ANSI 控制代码成为事实标准。最终, IBM 为它的 PC 机线采用了这个标准。

现在, 大多数终端模拟程序都使用 vt100 设置。

: Standard

: 1999.12.8


## VXML 语音扩展标记语言

Short for Voice Extensible Markup Language. VXML, or VoiceXML, technology allows a user to interact with the Internet through voice-recognition technology. Instead of a traditional browser that relies on a combination of HTML and keyboard and mouse, VXML relies on a voice browser and/or the telephone. Using VXML, the user interacts with voice browser by listening to audio output that is either pre-recorded or computer-synthesized and submitting audio input through the user's natural speaking voice or through a keypad, such as a telephone.

AT&T, IBM, Lucent Technologies, and Motorola created VXML 1.0 in a joint effort to promote the technology.

语音扩展标记语言的缩写,或者缩写为 VoiceXML,这项技术允许用户通过语音识别技术与因特网进行交互。不像传统的依靠 HTML 和键盘、鼠标结合的浏览器,VXML 则依靠一个语音浏览器和/或电话。使用 VXML,用户可以通过使用语音浏览器收听语音输出以及通过用户的自然语音或者一个电话递交语音输入来进行交互,而这种语音输出可以是预先录制或者是计算机合成的。

AT&T、IBM、Lucent 和 Motorola 为了发展这项技术创建了规范 VXML 1.0。

 :programming


 :2001.3.21

 :XML

## W3C WWW 联盟

Short for World Wide Web Consortium, an international consortium of companies involved with the Internet and the Web. The W3C was founded in 1994 by Tim Berners-Lee, the original architect of the World Wide Web. The organization's purpose is to develop open standards so that the Web evolves in a single direction rather than being splintered among competing factions. The W3C is the chief standards body for HTTP and HTML.

WWW 联盟的缩写,是一个国际性的与因特网和网络有关的公司联盟。W3C 于 1994 年由 Tim Berners-Lee 成立,它也是 WWW 的最初的构建者。这个组织的目的是开发开放的标准,这样网络仅包含一个单一的标准而不是在竞争中分成几部分。W3C 是 HTTP 和 HTML 的主要的标准主体。

: WWW

: 1997. 4. 2

: World Wide Web

## Wake-on-LAN LAN 唤起

Often, IT personnel prefer to maintain client systems after employees have gone home. Even if these tasks are automated, client machines must be left on. In the past, if they weren't left on, personnel had to manually turn them on. But, with wake-on-LAN, client systems can be remotely and automatically powered up.

Wake-on-LAN technology resides in a PC's managed network adapter and motherboard. The two are attached via a wake-on-LAN cable terminated by a 3-pin connector on each side.

When the system is turned off, the managed network adapter uses an alternate power source to monitor the network and watch for a wake-up packet from the server. Once it receives a packet, it alerts the system to power up and accept any maintenance task it is given.

Wake-on-LAN is a part of Intel's Wired for Management System and is a result of the Intel-IBM Advanced Manageability Alliance.


一般,IT 人员在职员下班后倾向于维护客户端系统。即使这项任务是自动的,客户端机器必须是打开的。过去,如果机器被关闭,则 IT 人员只能手工将其打开。但是,有了 LAN 唤起,客户端系统就可以被远程自动启动了。


LAN 唤起技术驻留在一个 PC 的管理网络适配器和主板。这两个通过一个两头由 3 个针连接器的 LAN 唤起电缆连结起来。

当系统关闭后,管理网络适配器使用一个可选的电源来监视网络并从服务器查看一个唤起包。一旦它接收到一个包,它就会警告系统启动并接受任何维护任务。

LAN 唤起是 Intel 的有线管理系统的一部分并且是 Intel-IBM 高级管理联盟的结果。

: Hardware

: 1999. 11. 16

: LDCM personal computer WfM

## WAP 无线应用协议

The Wireless Application Protocol is a secure specification that allows users to access information instantly via handheld wireless devices such as mobile phones, pagers, two-way radios, smartphones and communicators.

WAP supports most wireless networks. These include CDPD, CDMA, GSM, PDC, PHS, TDMA, FLEX, ReFLEX, iDEN, TETRA, DECT, DataTAC, and Mobitex.

WAP is supported by all operating systems. Ones specifically engineered for handheld devices include PalmOS, EPOC, Windows CE, FLEXOS, OS/9, and JavaOS.

WAPs that use displays and access the Internet run what are called microbrowsers--browsers with small file sizes that can accommodate the low memory constraints of handheld devices and the the low-bandwidth constraints of a wireless-handheld network.

Although WAP supports HTML and XML, the WML language (an XML application) is specifically devised for small screens and one-hand navigation without a keyboard. WAP also supports WMLScript. It is similar to JavaScript, but makes minimal demands on memory and CPU power because it does not contain many of the unnecessary functions found in other scripting languages.

Because WAP is fairly new, it is not a formal standard yet. It is still an initiative that was started by Unwired Planet, Motorola, Nokia, and Ericsson.

无线应用协议是一个允许用户立即通过如移动电话、寻呼机、双路收音机、智能电话和发信机等手持无线设备来访问信息的安全规范。

WAP 支持大多数无线网络。其中包括 CDPD、CDMA、GSM、PDC、PHS、TDMA、FLEX、ReFLEX、iDEN、TETRA、DECT、DataTAC 和 Mobitex。

WAP 为所有的操作系统所支持。这些用来专门为手

持设备设计的系统包括 PalmOS、EPOC、Windows CE、FLEXOS、OS/9 和 JavaOS。

使用显示和访问因特网的 WAP 运行一个微浏览器——带有较小的文件,它可以与手持设备的低内存限制和无线手持网络的低带宽相适应。

虽然 WAP 支持 HTML 和 XML,但是 WML 语言(一个 XML 应用)是为小屏幕和没有键盘的单手导航器所设计的。WAP 也支持 WMLScript。它类似于 JavaScript,但是需要较小的内存和 CPU 性能,因为它不包含其他 Scripting 语言所具有的许多不必要的功能。

因为 WAP 是相当新的技术,所以它还不是一个正式的标准。它现在还是由 Unwired Planet、Motorola、Nokia 和 Ericsson 所创建的一个初步的技术。

: Mobile Computing

: 2000. 4. 5

: bluetooth hand-held computer


**warez**

Pronounced wayrz or wayrss, refers to commercial software that has been pirated and made available to the public via a BBS or the Internet. Typically, the pirate (also called a cracker) has figured out a way to de-activate the copy-protection or registration scheme used by the software. Note that the use and distribution of warez software is illegal. In contrast, shareware and freeware may be freely copied and distributed.

指已经被盗版和通过 BBS 或者因特网提供给公众的商业软件。一般的,盗版者(也称为解密者)已经想出一个削弱复制防护和软件使用的注册方案的方法。注意 warez 软件的使用和发布是非法的。相反,共享软件和免费软件可以自由地复制和发布。

:Software

:1998.5.19

:software piracy

## WBMP 无线位图

Wireless BitMap is a graphic format optimized for mobile computing devices.

A WBMP image is identified using a TypeField value, which describes encoding information (such as pixel and palette organization, compression, and animation) and determines image characteristics according to WAP documentation.

TypeField values are represented by an Image Type Identifier. Currently, there is only one type of WBMP specified; the Image Type Identifier label for this is 0.

0 has the following characteristics:

- No compression
- One bit color (white=1, black=0)
- One bit deep (monochrome)

Any WAP device that supports WBMPs can only support type 0.

WBMP is part of the Wireless Application Protocol, Wireless Application Environment Specification Version 1.1.

无线位图是一个优化移动计算设备的图形格式。

一个 WBMP 图像使用一个 TypeField 值来识别,这个值描述了编码信息(如像素和调色板组织、压缩和动画)并且根据 WAP 规定判断图像的特性。

TypeField 值通过一个图像类型标识符来表现。现在,只有一种 WBMP 指定的类型,图像类型标识符将这标记为 0。

0 具有如下的特性:

没有压缩

单位色彩(白色=1,黑色=2)

单位深度(单色)

任何支持 WBMP 的 WAP 设备只能支持 0 类型。

WBMP 是无线应用协议,无线应用环境规范版本 1.1

中的一部分。

: Mobile Computing


: 1999. 11. 2

: hand-held computer

## Webcasting 网上直播

Using the Internet, and the World Wide Web in particular, to broadcast information. Unlike typical surfing, which relies on a pull method of transferring Web pages, webcasting uses push technologies.

使用因特网,特别是 WWW 来传播信息。不像一般的冲浪依靠 PULL 的方法传送网页,网上直播使用 PUSH 技术。

:WWW


:1998.5.19

:PointCast push

## Web portal 网络门户

A Web site or service that offers a broad array of resources and services, such as e-mail, forums, search engines, and on-line shopping malls. The first Web portals were online services, such as AOL, that provided access to the Web, but by now most of the traditional search engines have transformed themselves into Web portals to attract and keep a larger audience.

一个提供资源和服务列表的网站或者服务,如 e-mail、论坛、搜索引擎和在线商店。第一个网络门户是在线服务,如提供网络门户的 AOL,但是到目前为止大多数传统的搜索引擎已经将它们自己转换为网络门户来吸引并保持大量的访问者。

:WWW

:1998.6.18


## Web server Web 服务器

A computer that delivers (serves up) Web pages. Every Web server has an IP address and possibly a domain name. For example, if you enter the URL <http://www.company.com/index.html> in your browser, this sends a request to the server whose domain name is company.com. The server then fetches the page named index.html and sends it to your browser.


Any computer can be turned into a Web server by installing server software and connecting the machine to the Internet. There are many Web server software applications, including public domain software from NCSA and Apache, and commercial packages from Microsoft, Netscape and others.

一种传递网页的计算机。每一个网页都有一个 IP 地址和一个域名。例如,如果在浏览器上键入 URL <http://www.company.com/index.html>,这就向域名为 companyr.com 的服务器发送一个请求。然后服务器就取得名为 index.html 的页面并发送到浏览器中。

任何计算机都可以通过安装服务器软件并将机器连接到因特网上来变成一个 Web 服务器。有许多网络服务软件,包括 NCSA 的公共域名软件和 Apache,以及微软公司、Netscape 公司和其他软件商的商业包。

: WWW

: 1998.5.19

: CERN    proxy server    unique visitor    virtual server World Wide Web


## WebTV

Originally, a general term for a whole category of products and technologies that enable you to surf the Web on your TV. Most WebTV products today consist of a small box that connects to your telephone line and television. It makes a connection to the Internet via your telephone service and then converts the downloaded Web pages to a format that can be displayed on your TV. These products also come with a remote control device so that you can navigate through the Web.

More recently, the name WebTV has been trademarked by Microsoft.

原来这个通用术语指能够在电视上进行网络冲浪的产品和技术的一个总范畴。现在的大多数 WebTV 产品包含一个连结电话线和电视的小盒子。它通过电话服务连接到因特网然后将下载的网络页面转换为可以在电视上显示的格式。这些产品也带有一个远程控制设备这样就可以操作网络了。

最近,名称 WebTV 已经被微软公司进行了商标注册。

:Multimedia

:2001.2.9

:World Wide Web

## WDDX 网络发布数据交换

Created by Allaire, Web Distributed Data Exchange is an XML-based technology that facilitates complex-data exchange between Web programming languages (ColdFusion, Perl, ASP, Java, JavaScript, PHP, etc.).

For example, a Web site based in ColdFusion can share data with a Web site based in ASP. Data in ColdFusion would be translated into XML, sent to an ASP server, translated out of XML and into VBScript.

WDDX assigns a specific module for each supported language. The module will translate (or serialize) the native data structures into an abstract form represented as XML, or deserialize the WDDX XML into a native data structure.

WDDX supports Boolean, number, date-time, and string data types, as well as, arrays, structures, and recordsets.

WDDX can be used with HTTP, SMTP, POP, and FTP.

由 Allaire 创建的网络发布数据交换是一个基于 XML 的技术,它简化了网络编程语言 (ColdFusion、Perl、ASP、Java、JavaScript、PHP 等等)之间的复杂数据交换。

例如,一个基于 ColdFusion 的网站可以分享一个基于 ASP 的网站的数据。ColdFusion 的数据将被转换为 XML,发送到一个 ASP 服务器,再转换为 VBScript。

WDDX 为每一个支持的语言分配一个特定的模型。这个模型将把本地的数据结构转换为一个抽象的代表 XML 的形式或者将 WDDX XML 并行化一个本地数据结构。

WDDX 支持布尔、数字、日期和字符数据类型以及数组、结构和记录集。

WDDX 可以在 HTTP、SMTP、POP 和 FTP 中使用。

:Data

:1999.11.9

:XML

## WfM 有线管理

Wired for Management is an open-industry specification developed by Intel that lets IT professionals automate client-PC management over a network.

WfM technology is used in client-side hardware (such as circuitry, memory, power supply and NIC ) and management software applications (such as LDCM ). IT managers will use the software to interact with PCs through their (PCs) hardware. From there, managers can monitor, update, and configure PCs. As long as they have the software — let's say on their laptops — they can access PCs from anywhere, even through a dial-up connection.

WfM biggest asset comes when managers have to access mobile computers from remote locations. For many critical tasks, users only need to dial-up through an analog modem, and the management application will take care of the rest.

WfM is in its second version (v 2.0).

有线管理是一个由 Intel 开发的开放工业规范,它可以使用 IT 人员在网络上使客户机管理自动化。

WfM 技术使用于客户端硬件(如电路、内存、电源和 NIC)和管理软件应用(如 LDCM)。IT 管理者将使用软件通过 PC 机的硬件来与 PC 机进行交互。从这里,管理者可以监控、升级和配置 PC 机。只要有软件——更不要说在他们的桌面机上——他们就可以访问任何地方的 PC 机,甚至通过拨号连接。

当管理者从远端访问移动计算机时 WfM 就会显现出最大的特点。对于许多关键性的任务,用户只需要通过一个模拟调制解调器进行拨号,然后管理应用就会处理剩下的工作。

WfM 现在是它的第二个版本(v 2.0)。

: Hardware

: 1999. 11. 15

: personal computer    troubleshoot    Wake-on-LAN


**whois**

An Internet utility that returns information about a domain name or IP address. For example, if you enter a domain name such as microsoft.com, whois will return the name and address of the domain's owner (in this case, Microsoft Corporation).

一个返回关于一个主机名称或者 IP 地址信息的因特网实用程序。如果键入一个域名如 microsoft.com, whois 将会返回域名的拥有者(在这里是微软公司)的名称或者地址。

:Online Service


:2000.11.15

:domain name

## Wi-Fi

Wi-Fi is short for wireless fidelity and is another name for IEEE 802.11b. It is a trade term promulgated by the Wireless Ethernet Compatibility Alliance (WECA). “Wi-Fi” is used in place of 802.11b in the same way that “Ethernet” is used in place of IEEE 802.3. Products certified as Wi-Fi by WECA are interoperable with each other even if they are from different manufacturers. A user with a Wi-Fi product can use any brand of access point with any other brand of client hardware that is built to the Wi-Fi standard.

Wi-Fi 是无线保真的缩写,是 IEEE802.11b 的另一个名称。它是由无线以太网兼容联盟(WECA)发起的一个商业术语。“Wi-Fi”使用在 802.11b 使用的地方,方法如同以太网使用在 IEEE802.3 的地方。被 WECA 鉴定为 Wi-Fi 的产品是具有互换性,即使他们来自不同的制造商。拥有 Wi-Fi 产品的用户可以使用任何品牌的无线登录点和其他内嵌 Wi-Fi 标准的客户端硬件品牌。

 :communication

 :2001.5.2

 :802.11 HiperLAN WLAN


## win. com

Win. com is the executable file responsible for Windows start-up. It runs after the autoexec. bat file is processed, and it accesses the VMM32. vxd file.

In a Windows 3. x environment, the win. com file is executed by typing “win” in the DOS prompt. In version 9x OSs, win. com runs automatically.

Win. com 是负责 Windows 启动的可执行文件。当批处理文件 autoexec. bat 执行 win. com 就会运行并且访问文件 VMM32. vxd。

在一个 Windows 3. x 环境中, win. com 文件通过在 DOS 提示符键入“win”来执行。在 Windows 9x 版本中, win. com 自动运行。

 :Operation System

 :2000. 1. 19

 :boot VMM32. vxd


## Windows CE

A version of the Windows operating system designed for small devices such as personal digital assistants (PDAs) (or Handheld PCs in the Microsoft vernacular). The Windows CE graphical user interface (GUI) is very similar to Windows 95 so devices running Windows CE should be easy to operate for anyone familiar with Windows 95.

专门为较小的设备如个人数字助理(PDA 或者微软公司 vernacular 中的手持电脑)设计的 Windows 操作系统的一个版本。Windows CE 图形用户界面(GUI)非常类似于 Windows 95,这样运行 Windows CE 的设备对于熟悉 Windows 95 的人来说很容易操作。

: Mobile Computing

: 1997. 3. 18

: EPOC hand-held computer HPC operating system palmtop PDA

**wizard 向导/程序员/管理员**

(1) A utility within an application that helps you use the application to perform a particular task. For example, a “letter wizard” within a word processing application would lead you through the steps of producing different types of correspondence.


(2) An outstanding programmer. Also called a super-programmer. Common wisdom holds that one wizard is worth ten average programmers.


(3) The system administrator for a chat room or MUD.

(1) 在一个应用程序内帮助用户使用程序完成特定任务的程序。例如，一个文字处理程序中的“信件向导”可以指导创建各种不同类型信件步骤。

(2) 一个优秀的程序员。也称为一个超级程序员。一句名言说一个优秀的程序员相当于十个一般的程序员。

(3) 一个聊天室或者 MUD 的系统管理员。

:Programming

:2000.10.30

## WML 无线标记语言

Wireless Markup Language is an XML language used to specify content and user interface for WAP devices; the WAP forum provides a DTD for WML.

WML is supported by almost every mobile phone browser around the world.

WML pages are requested and served in the same way as HDML pages. For Web servers to serve WML pages, they must contain the text/vnd.wap.wml mime type.

无线标记语言是一种用户指定 WAP 设备内容和用户界面的 XML 语言, WAP 论坛对于 WML 提供了一个 DTD。

WML 几乎被每一个移动电话浏览器所支持。

WML 页面与 HDML 页面以相同的方法被请求和服务。对于服务 WML 页面的网络服务器, 它必须包含 text/vnd.wap.wml 的 MIME 类型。

: Mobile Computing

: 2000. 5. 18

: WAP WTLS


## Wolfpack

The codename for Microsoft's clustering solution. Wolfpack was released in September, 1997 as part of Windows NT 4.0, enterprise Edition. Its official name is Microsoft Cluster Server (MSCS).

微软公司的集群解决方案的代码。Wolfpack 作为 Windows NT 4.0 第二版的一部分于 1997 年 9 月发布。它正式的名称是微软集群服务器(MSCS)。

:Network

:1998.5.19

:Clustering MSCS


## WWW

A system of Internet servers that support specially formatted documents. The documents are formatted in a language called HTML (HyperText Markup Language) that supports links to other documents, as well as graphics, audio, and video files. This means you can jump from one document to another simply by clicking on hot spots. Not all Internet servers are part of the World Wide Web.

There are several applications called Web browsers that make it easy to access the World Wide Web; Two of the most popular being Netscape Navigator and Microsoft's Internet Explorer.

一个支持特殊格式文档的因特网服务系统。这些文档是使用一种可以支持链接到另一个文档、图像、音频和视频的称为 HTML(超文本标记语言)的语言进行格式化的。这就意味着可以通过简单地点击热点从一个文档跳到另一个文档。并不是所有的因特网服务都是 WWW 的一部分。

有几个称为网络浏览器的应用使得访问 WWW 非常简单;两个最流行的浏览器是 Netscape 公司的 Navigator 和微软公司的 Internet Explorer。

: WWW


: 1998. 5. 19

: CERN Mosaic surf W3C

## Wrapper 包装

Software that accompanies resources or other software for the purposes of improving convenience, compatibility, or security. For example, a wrapper is used to compress and encrypt software that is being sold over the Internet. It is also used to make EDI - a decades-old electronic commerce standard - compatible with the Internet. The term can also apply to hardware: the casing around a Pentium II CPU is called a wrapper.

为了提高方便性、兼容性或者安全性而附在资源或者其他软件的软件。例如,一个包装用来压缩或者加密在因特网上出售的软件。它也用于使 EDI——一个 10 年前的电子商业标准——与因特网兼容。这个术语也可以应用于硬件:一个 PentiumII CPU 外的包装称为是一个包装。

: Hardware

: 1998. 8. 29


## WTLS 无线传输层安全

Short for Wireless Transport Layer Security. WTLS is the security layer of the WAP, providing privacy, data integrity and authentication for WAP services. WTLS, designed specifically for the wireless environment, is needed because the client and the server must be authenticated in order for wireless transactions to remain secure and because the connection needs to be encrypted. For example, a user making a transaction with a bank over a wireless device needs to know that the connection is secure and private and not subject to a security breach during transfer (sometimes referred to as a man-in-the-middle attack). WTLS is needed because mobile networks do not provide complete end-to-end security.


WTLS is based on the widely used TLS v1.0 security layer used in Internet. Because of the nature of wireless transmissions, modifications were made to the TLS v1.0 in order to accommodate for wireless' low bandwidth, datagram connection, limited processing power and memory capacity, and cryptography exporting restrictions.

无线传输层安全的缩写。WTLS 是 WAP 的安全层，它为 WAP 服务提供保密、数据完整和验证。专门为无线环境设计的 WTLS 是必需的，因为客户端和服务端必须为了无线处理保持安全而进行验证而且因为连接需要进行加密。例如，一个通过无线设备与一家银行进行事务处理的用户需要知道所进行的连接是安全、秘密而且在传输（有时指一个中间人的攻击）过程中不易被安全漏洞所攻击。WTLS 是必需的，因为移动网络不提供完全的端对端的安全措施。

WTLS 是基于在因特网上广泛使用的 TLS v1.0 安全层。因为无线传输的本质，对 TLS v1.0 进行的修改，以适应无线传输的低带宽、数据包连接、有限的处理能力、电力和内存能力和密码出口限制。

: WWW

: 2001. 2. 27

: Bluetooth   client/server architecture   hand-held  
computer   PDA   SSL   WML


## XML 扩展标记语言

Short for Extensible Markup Language, a specification developed by the W3C. XML is a pared-down version of SGML, designed especially for Web documents. It allows designers to create their own customized tags, enabling the definition, transmission, validation, and interpretation of data between applications and between organizations.

Whether XML eventually supplants HTML as the standard Web formatting specification depends a lot on whether it is supported by future Web browsers. Microsoft Internet Explorer version 5 handles XML, but renders it as CSS, and Mozilla (Netscape) is still in experimenting with XML support.

扩展标记语言的缩写,是一种由 W3C 开发的规范。XML 是一个 SGML 精简的版本,专为网络文档而设计。它允许设计者创作他们自己定制的标签,使得在应用和组织之间定义、传输、验证和解释数据成为可能。

XML 是否会最终取代 HTML 成为标准网络格式规范很大程度上取决于它是否支持未来的网络浏览器。微软公司的 IE 5 可以处理 XML,但是将它解释为 CSS,而 Mozilla (Netscape) 仍然处于支持 XML 的试验期。

: WWW

: 2000. 5. 30

: DOM   WDDX   XML   XSL

## ZAW Windows 零管理

Short for Zero Administration for Windows, a collection of utilities developed by Microsoft that should enable administrators to centrally manage and update software on PCs connected to a LAN. ZAW was developed partly as a response to the emergence of Net PCs. One of the main selling points of Net PCs is that they enable software to be centralized, which greatly simplifies administration of applications. ZAW attempts to offer the same sort of administration ease while letting the applications remain on traditional desktop PCs.

Windows 零管理的缩写,是一个由微软公司开发的应用集合,可以使管理员在一台连在局域网上的 PC 机上集中管理并升级软件。ZAW 是部分作为对网络 PC 机的出现的一种反应而开发的。网络 PC 机的一个主要卖点在于它们可以使软件集中起来,这样就极大地简化了应用的管理。ZAW 试图让应用保持在传统的桌面 PC 上的同时提供了某些更加方便的管理。

:Network

:2000.12.15

:Net PC   network   computer   TCO

## ZV Port 放大视频端口

Short for zoomed video port, a port that enables data to be transferred directly from a PC Card to a VGA controller. The port is actually a connection to a zoomed video bus. This new bus was designed by the PCMCIA to enable notebook computers to connect to real-time multimedia devices such as video cameras. The first notebook computers with the ZV port arrived in late 1996.

放大视频端口的缩写,这是一个可以使数据直接从一个 PC 卡传输到一个 VGA 控制器的端口。这个端口实际上是一个与放大视频总线的连接。这个新的总线由 PCMCIA 设计来使得笔记本电脑连接一个实时多媒体设备如视频照相机。第一个带有 ZV 端口的计算机在 1996 年底出现。

: Mobile Computing

: 1999. 9. 15

: cache coherence    PCMCIA

## 附录 I 词汇分类

**Communication( 通讯 )**

802.11	ADPCM	bandwidth
Bisync	bit stuffing	Bottleneck
burst mode	CAPI	Clickstream
codec	Content Vectoring Protocol	dark fiber
DCC	demultiplex	
digital access and cross-connect system (DACS)		DLSw
DTE	HDLC	HiperLAN
ILEC	L2TP	LATA
MMDS	MSA/RSA	Noise
NRZI	Synchronous	Wi-Fi

**Computer Industry( 计算机工业 )**

ISV	OEM	Silicon Valley
VAR		

**Computer Science( 计算机科学 )**

Alan Turing	Backdoor	Bioinformatics
client/server architecture	EAI	Ergonomics
ESD wrist strap	Foobar	journaled file system
IT	malware	logical
magnetic drum	mass storage	Meta
Monospacing	OSPF	paperless office
port scanning	Proprietary	quarantine
RAM latency	Resident Font	RTT
sampling	SASL	Stateless
thin client	three-tier	Transparent
Turing test	Virtual	Von Neumann machine

**Data( 数据 )**

Attribute	BinHex	comma-delimited
data independence	data integrity	data processing
digitize	ISAM	key
meta data	qubit	raw
RDF	record	STP
UDA	Uuencode	WDDX

**Graphics( 图形 )**

Aliasing	Antialiasing	authoring tool
bit block transfer	capture	color depth
continuous tone	FIF	graphics based
gray scaling	object-oriented graphics	palette
pixel	primitive	resolution
SVG	texel	video mode

**Hardware( 硬件 )**

accelerator board	AGP	ANI
antistatic mat	Architecture	Backplane
BEDO DRAM	burn in	cache coherence
Chassis	CMOS	CNR
Configuration	device manager	dongle
Dvorak keyboard	edge connector	electronic book
expansion board	extended keyboard	FC-PGA
firmware	fixed-frequency monitor	flat technology-monitor
FPM RAM	GPU	granularity
heat sink	HMD	hot fixing
iMac	impact printer	Itanium

Jukebox	Jumper	LDCM
LED	Micro Channel Architecture (MCA)	
modular architecture	multiplier lock	network-attached storage
oscillator clock	OverDrive	PCI
PCMCIA	Pentium 4	picoJava
Pipelining	plug compatible	POST
power cycling	power supply	PPGA
RAID	real-time clock	refresh
RISC	secondary memory	silicon
Slot	Slotket	smart card
socket 370	solid state disk	stand-alone
surge protector	Suspend-to-RAM	switch
system unit	Triton	troubleshoot
UPS	USB	VSB
Wake-on-LAN	WfM	Wrapper
<b>Mobile(移动通信)</b>		
3G	ACPI	APM
battery pack	Bluetooth	CardBus
CDMA	GSM	hand-held computer
HDML	memory effect	palmtop
PCS	pen computer	portable
Short Message Service	sleep mode	virtual desk top
WAP	WBMP	Windows CE
WML	ZV Port	
<b>Multimedia(多媒体)</b>		
AAF	AIFF	ASF
BLOB	digital watermark	HDTV
Hercules graphics	MCI	mouseover
MPC	multimedia	SMIL
Streaming	television board	WebTV

## Network(网络)

Application Service	Provider	
Attenuation		attenuation crosstalk ratio
bastion host	broadcast storm	CAN
Cells in Frames	CERT/CC	Cloud
Clustering	collapsed backbone	crosstalk
DDR	dial-up access	diskless work- station
domain name	DWDM	
Enhanced Interior Gateway Routing Protocol		EtherLoop
Ethernet	fixed wireless	FQDN
FRAD	Hop	hot potato routing
HPNA	HSSI	IDNX
IMA	Interior Gateway Routing Protocol	
IPX	Jabber	leased line
load balancing	local-area network	loopback address
MAE	MIS	MSCS
Net PC	network-attached storage	
network comp- uter	network meltdown	network tran- sparency
Node	switching	peer-to-peer architecture
PON	PPPoE	proxy server
PVC	SAN	server farm
Service Level Agreement	shared loop	sneakernet
Socket	SPX	SVC
Telnet	throughput	topology
User-to-Network	VBNS	virtual

Interface (UNI)		circuit
virtual router	VRRP	Wolfpack
ZAW		
<b>Online Service( 在线服务 )</b>		
ActiveMovie	AUP	bulletin
		board system
CBT	co-location	Cyber
Cyberspace	DoCoMo	FAQ
information	Luhn formula	MGCP
highway		
Napster	Netiquette	PointCast
Pull	push	RosettaNet
TLD	UDDI	UUNET
whois		
<b>Operating System( 操作系统 )</b>		
. NET	background	BeOS
BIOS	blue screen of death	Boot
bootable diskette	clean boot	command
		buffer
configuration file	cooperative multitasking	CP/M
DOS Protected Mode Interface (DPMI) driver		EPOC
fault tolerance	file handle	GNOME
GPF	interrupt	interrupt
		vector table
KDE	kernel	kernel32. dll
MBR	memory resident	Multiprocess-
		ing
Multitasking	Multithreading	MVS
NetWare	network operating system	NEXTSTEP
NTVDM	OpenDoc	operating
		system
OS/2	OS/9	parallel
		processing

platform	PnP	Segment
SMP	Spooling	system call
system tray	systems software	task
thread	transaction processing	utility
virtual device driver	VMM32. vxd	VMS
win. com		

### Programming( 编程 )

Abstraction	ADO	alpha ver- sion
ANNA	base address	Benchmark
beta test	big-endian	BPDU
brute force	bubble sort	Bug
Bytecode	CICS	Eiffel
EPS	Fetch	Hacker
High Performance Computing	intelligent agent	JDBC
JDK	JIT	Jscript
JVM	Library	KQML
localization	OCX	
Page Description Language (PDL)	paging	Rexx
RPG	server-side	VBX
virtual machine	VXML	wizard

### Software( 软件 )

Abandonware	absolute cell reference	ActiveX
add-in	add-on	Aloha
backward compatible	bundled software	Castanet
character set	ColdFusion	CORBA
customer support	DAO	data ware- house
digital wallet	Dribbleware	ERP
FreeBSD	functional specification	GNU

Human Resources Management System	Java
JavaBeans	Jini
JNI	Managed Service Provider
machine dependent	middleware
object oriented	ODBC
	office auto-
	mation
open source	ORB
Ripper	outsourcing
	service pack
	software
	licensing
software piracy	Storage Service Provider
upward compatible	title bar
Vertical Service Provider	warez

### Standard( 标准)

AMR	Baby AT	CIFS
de facto standard	DOCSIS	EDID
GPRS	IPP	NDMP
open architecture	Protocol	RFC
Standard	UNC	VESA
vt100		

### Type of Computer( 计算机类型)

Amiga	Apple Computer	embedded
		system
Macintosh	Mainframe	Minicomputer
		computer
NC	NUMA	personal
		computer
quantum	SOHO	turnkey
computing		system

### World Wide Web

animated GIF	CDF	CERN
CSS	DNS	DOM
EBPP	e-zine	gopher
hit	Honeypot	Hyperstitial
IANA	ICANN	impression
Interstitial	IVR	JPEG

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Linkrot	meta ad	MIME
Mosaic	MousetrappingNetscape	P3P
PNG	PURL	RTSP
S/MIME	Shockwave	S-HTTP
SSI	SSL	SUPERSTI- TIAL
Surf	unique visitor	URI
URL	W3C	Web portal
Web server	Webcasting	
WTLS	World Wide Web	XML

## 附录 II 词汇出现时间顺序(仅供参考)

### 1996 年

character set	edge connector	expansion board
hand-held computer	Java	LED
MIS	modular architecture	Multiprocessing
Multithreading	object oriented	ODBC
OEM	office automation	palmtop
PCI	portable	power supply
Proprietary	Protocol	real-time clock
RISC	sampling	sleep mode
SOHO	Spooling	stand-alone
system call	systems software	thread
transaction processing	Transparent	turnkey system
VAR	VESA	DNS
FreeBSD	Surf	USB
AGP	RAID	UPS
data warehouse	VBX	software licensing
television board	CORBA	URI

### 1997 年

Multitasking	Streaming	JavaBeans
Pull	push	IPX
JDBC	JPEG	HDTV
cooperative multitasking	Windows CE	RFC
S/MIME	thin client	NetWare
MIME	CDF	dongle
Library	de facto standard	personal computer
PnP	W3C	load balancing
Silicon Valley	server-side	CERN

PURL	Stateless	OS/9
GNU	virtual device driver	NUMA
CardBus	three-tier	pen computer
ORB	Virtual	embedded system
software piracy	SPX	ACPI
ActiveMovie	ActiveX	add-in
APM	Apple Computer	Architecture
authoring tool	base address	Benchmark
BLOB	Boot	bubble sort
bulletin board	bundled software	OpenDoc
		system
fault tolerance	DAO	Meta
clean boot	RTSP	ERP
e-zine	add-on	bit block transfer
Bytecode	ergonomics	ISAM
IT	memory resident	object-oriented
		graphics
Shockwave	CDMA	GSM
PCS	parallel processing	
<b>1998 年</b>		
CICS	ISV	EPOC
Hacker	SMIL	digital watermark
smart card	key	functional specification
Cells in Frames	PNG	packet switching
PVC	SVC	leased line
S-HTTP	interrupt vector table	VMS
MSCS	MBR	peer-to-peer
		architecture
Socket	bootable diskette	resolution
Switch	brute force	Hop
VBNS	ADO	Segment
Abstraction	BeOS	NC

Net PC	OCX	AAF
ASF	clustering	accelerator board
ADPCM	Amiga	animated GIF
Antialiasing	attribute	CBT
background	Backplane	bandwidth
capture	chassis	color depth
comma-delimited	command buffer	configuration
configuration file	continuous tone	CP/M
customer support	Cyber	data integrity
data processing	DCC	diskless works- tation
driver	DTE	firmware
GPF	graphics based	gray scaling
information highway	interrupt	local-area net- work
logical	machine dependent	MCI
memory effect	Minicomputer	MPC
multimedia	Netiquette	Netscape
network computer	network operating system	Node
Noise	OS/2	palette
paperless office	BIOS	pixel
platform	Slot	SMP
system unit	task	Telnet
throughput	Aliasing	data independ- ence
Macintosh computer	NEXTSTEP	plug compatible
surge protector	upward compatible	utility
video mode	virtual circuit	virtual desktop
warez	Web server	Webcasting
Wolfpack	World Wide Web	record
burn in	Dribbleware	Attenuation
big-endian	digitize	MVS
primitive	Standard	troubleshoot

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Web portal	battery pack	URL
bit stuffing	file handle	localization
intelligent agent	broadcast storm	network melt-down
UUNET	NTVDM	Jini
Von Neumann machine	Wrapper	Aloha
digital wallet	ColdFusion	CAPI
Jukebox	FIF	JNI
VS8	ANI	Interstitial
Texel	iMac	hit
Impression	Castanet	electronic book
Granularity	Mainframe	NRZI
<b>1999 年</b>		
Hyperstitial	meta ad	SAN
Mouseover	IPP	dial-up access
FAQ	AUP	raw
ICANN	meta data	codec
PicoJava	proxy server	cyberspace
multiplier lock	operating system	Bluetooth
SSL	blue screen of death	GPRS
CIFS	middleware	ZV Port
P3P	EDID	SVG
NDMP	DWDM	AMR
Foobar	device manager	secondary memo-ry
LDCM	Application Service Provider	DOCSIS
GPU	WfM	Wake-on-LAN
WBMP	bastion host	Short Message Service
kernel32.dll	WDDX	Luhn formula
dark fiber	system tray	vt100

**2000 年**

NDMP	DWDM	AMR
Foobar	device manager	open architecture
PON	Suspend-to-RAM	VMM32. vxd
win. com	solid state disk	heat sink
Bug	LATA	Jabber
Slotket	socket 370	Napster
loopback address	collapsed backbone	Mosaic
Linkrot	FQDN	SUPERSTITIAL
co-location	DOM	EtherLoop
WAP	WML	HDML
IANA	XML	3G
flat technology	MSA/RSA	MGCP
monitor		
FPM RAM	EPS	Fetch
Uuencode	OSPF	BEDO DRAM
fixed-frequency	JIT	Baby AT
monitor		
L2TP	SSI	refresh
HDLC	JDK	mass storage
burst mode	PCMCIA	client/server architecture
Synchronous	wizard	DoCoMo
Itanium	Page Description Language (PDL)	
Jscript	whois	UNC
Topology	CMOS	PPGA
RPG	POST	HMD
MAE	Dvorak keyboard	CRM
CSS	Pentium 4	Ethernet
MMDS	Bisync	ESD wrist strap
BPDU	High Performance Computing	STP
TLD	FRAD	Hercules graphics
ZAW	Alan Turing	kernel

Paging	Jumper	UDA
Micro Channel Architecture (MCA)		quantum computing
Qubit	ANNA	Bottleneck
impact printer	extended keyboard	FC-PGA
<b>2001 年</b>		
antistatic mat	open source	Bioinformatics
Triton	RosettaNet	server farm
Pipelining	HPNA	sneakernet
virtual machine	BinHex	backward compatible
Monospacing	OverDrive	Eiffel
Turing test	alpha version	beta test
PointCast	Resident Font	CNR
domain name	GNOME	title bar
gopher	absolute cell reference	KDE
network transparency	network-attached storage	power cycling
AIFF	EBPP	WebTV
EAI	JVM	unique visitor
cache coherence	PPPoE	RAM latency
network-attached storage	journaled file system	Ripper
SASL	IVR	CERT/CC
Content Vectoring Protocol	EBPP	fixed wireless
ILEC	demultiplex	WTLS
shared loop	Rexx	Honeypot
hot potato routing	IMA	virtual router
VRRP (DACS)	digital access and cross-connect system	
DOS Protected Mode Interface (DPMI)		port scanning
.NET	UDDI	
User-to-Network Interface (UNI)	VXML	Abandonware

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attenuation crosstalk ratio	crosstalk	
Enhanced Interior Gateway Routing Protocol		
Interior Gateway Routing Protocol		malware
RDF	Mousetrapping	DLSw
HSSI	quarantine	Clickstream
DDR	RTT	oscillator clock
service pack	Human Resources Management System	
Managed Service Provider	outsourcing	Storage Service Provider
Vertical Service Provider	IDNX	KQML
magnetic drum	CAN	Backdoor
hot fixing	silicon	Service Level Agreement
HiperLAN	Wi-Fi	802.11
Cloud		