50 Year Timeline: Merging Microsoft Windows, Office, SQL Server, CE, and the Internet in 2006

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Microsoft appeared halfway through our half-century of commercial computing, in 1975. Microsoft has always had the goal of doing useful things in a commercially successful way. Microsoft has not yet made elegance a corporate goal. The closest has been the Microsoft Palladium initiative to provide better security.

Column Headings

Code Base

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Software configuration management has a goal of having only one copy of each routine that is available to all applications. All of the common routines used in a software product are called the code-base. If two products share all common routines, then the two products are said to have a common code-base. For example, Windows-32 for 32-bit Intel Pentium processors might share most of its modules with Windows-64 for 64-bit Itanium processors.

Windows NT was a new code base, ignoring DOS. Windows CE (originally Consumer Electronics by now sans meaning) ignored the Windows NT code base, to save on memory (make the memory footprint smaller). DOS was killed (expensively and at great length) (1995-Windows 95 to 2002-Windows XP). Everyone with a CE based Pocket PC wishes that they could edit their PowerPoint presentation on the spot when they see they have the wrong client name or a suddenly unavailable product line in their presentation. CE is not enough like Windows to support PowerPoint and its editing functions.

Where we are going?

Longhorn Timeline

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And More

Because all information and processing routines will be very thoroughly mixed together and spread (distributed) across all known computing devices, the separation between application, service, and operating system will become a moot point (to use a legal term). The yin and yang of an approximately infinite number of information objects and services yields a single homogenous computing and information object bound together by the Internet (perhaps by 2006).

Timeline Columns
(Where we have been.)

Mainframes

Univac I was the first mainframe (1951). IBM (incorporated 1911) brought us the vacuum tube 650 (1956); almost 2 thousand were sold at one-half million USD 1950's dollars each. The 1401 (1960) was the first widely used transistorized computer (when you could still see the transistors.) The 360 (1965) was the first universal computer that had a unifying architecture that could be built in many sizes. The 360 Operating System (OS 360) (1968, a little late) was the first commercial operating system. OS 360 has lived for almost 40 years to date and is now called OS 390 (1990). In addition, OS360 separated applications and the OS (1968), which Microsoft wants to put back together with Longhorn (2004).

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Microsoft got its own ISP (Internet Service Provider) in MSN (MicroSoft Network) which almost immediately begat MSNBC (MSN+NBC) (National Broadcasting Company, part of GE) and later the MSN Game Zone (1996) as Microsoft branched out. (Microsoft has now branched out a lot more, but this whitepaper is written to give a sense of history, not a blow-by-blow account.)

DOS

DOS (1981) and Windows (1985) grew up together, intertwined, inseparable, to the end. Killed by Windows XP (2002).

DOS needed a floppy drive (1967) and a hard drive (1956) and ASCII (American Standard Code for Information Interchange) (1963).

Windows (NT) Desktop

Not wanting to lose a valuable trademark (Windows), Microsoft simply transferred it to the new Windows (NT) code-set. Now that DOS (1981) is gone, Windows NT (1988) is just Windows.

Windows now embodies the goodies from PARC (Formerly Xerox Palo Alto Research Center, now operating independently, or available for sale.): laser printer (1969), ethernet (1973), JAM (1978) begat Interpress (1980) begat Postscript (1981), the bit mapped display with windows: Alto (1976) begat Star (1981) begat the Mac (1984) begat (at least according to Apple, which sued) Windows (1985). The mouse was already around (1963).

The idea of higher-level languages got its start with ForTran (Formula Translator) (1954). A subset of Ted Nelson's Hypertext (1960) and Project Xanadu (1981) is the basis for the Internet. The Internet had GML (Generalized Mark-up Language) (IBM 1969) begat SGML (Structured Mark Up Language) (1974) begat HTML (HyperText Mark-up Language) (1989) begat XML (eXtensible Mark-up Language) (1998).

Windows, Advanced, and Enterprise Servers

Microsoft made its OS more robust for servers with NT Server (1993), and so that it could charge more for them (market segmentation 101).

Data Center Server

Like other servers, but more, and harder to get. It (2000) only comes bundled with hardware. (In the 1960's, IBM would not write software for other computers, would not sell its computers, and would not service its computers if customers ran non-IBM software on the IBM computers the customers leased.)

Embedded

Those microprocessors that run all devices have an operating system, and Microsoft plans for it to be Windows. If the designer can afford 12 MegaBytes of memory, Window embedded (2000) is the key (common code base and all that). Otherwise, use CE.

CE (originally Consumer Electronics)

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Microsoft Applications: Microsoft has followed (the industry) in applications (Word 1983) and in application suites (Office 1990) and System Services (SQL Server, 1988-2002, Structured Query Language, part of the Back Office system services suite). Microsoft has issued different versions of applications and suites for the Mac and the PC (Personal Computer). The Mac products have traditionally given Microsoft a window on advanced technology.

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Note to Editors

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Steve Gilheany, BA in Computer Science, MBA, MLS Specialization in Information Science, CDIA (Certified Document Imaging System Architect), AIIM Maser, and AIIM Laureate, of Information Technologies, CRM (Certified Records Manager, ARMA) has twenty years experience in document imaging and is a Sr. Systems Engineer at Archive Builders.

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Steve Gilheany is a Sr. Systems Engineer at Archive Builders. He has worked in digital document management and document imaging for twenty years.

His experience in the application of document management and document imaging in industry includes: aerospace, banking, manufacturing, natural resources, petroleum refining, transportation, energy, federal, state, and local government, civil engineering, utilities, entertainment, commercial records centers, archives, non-profit development, education, and administrative, engineering, production, legal, and medical records management. At the same time, he has worked in product management for hypertext, for windows based user interface systems, for computer displays, for engineering drawing, letter size, microform, and color scanning, and for xerographic, photographic, newspaper, engineering drawing, and color printing.

In addition, he has nine years of experience in data center operations and database and computer communications systems design, programming, testing, and software configuration management. He has an MLS Specialization in Information Science and an MBA with a concentration in Computer and Information Systems from UCLA, a California Adult Education teaching credential, and a BA in Computer Science from the University of Wisconsin at Madison. His industry certifications include: the CDIA (Certified Document Imaging System Architect) and the AIIM Master (MIT), and AIIM Laureate (LIT), of Information Technologies (from AIIM International, the Association of Information and Image Management, www.AIIM.org), and the CRM (Certified Records Manager) (from the ICRM, the Institute of Certified Records Managers, the official certifying body for ARMA International, the Association of Records Managers and Administrators, [www.ARMA.org]).

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