Rick's Place

Notes, Thoughts, and Random Musings on the Online Experience
by Rick Hein, AMIS web master

> Until 1964 each computer model, even from the same manufacturer, had a unique design and required its own operating system and application software...Under the direction of "Young Tom" as Watson's son and successor was known, the company (IBM) gambled $5 billion in the mid 1960s on the novel idea of scalable architecture–all the computers in the System/360 family, no matter what size, would respond to the same set of instructions.
>
> Bill Gates
> *The Road Ahead*

Forty years on, we must be reminded of the revolution in computing that took place in the 1960s when the room-sized behemoth computer, tended by scientists and technicians in white lab coats, emerged from its cave and began the journey to its present day ubiquitous invisibility. We find it hard to believe that the people who planned the future had learned no lessons from Henry Ford and the production line techniques of modern manufacturing.

Still today, we find the same lack of common language - Intel microprocessors respond to different commands than Motorola processors; the chip structures are different; the architecture of data flow is different. Hollywood has seen fit to enshrine these differences in films and televisions. Tom Cruise saves the world using an Apple PowerBook; Lex Luthor uses a PC clone; Clark Kent, and the rest of the students in his circle at Smallville High School, use Apples. But I digress.

Common languages do exist in the open protocols that are used to transfer information. Everyone agrees what a text file is, what instructions are recognized in transferring information between systems. Our Apples and IBM clones share information, read the same files, understand the same messages. The language of the document is standard - how it is operated on by the local computer is of no importance. One can now plug in an object smaller than a nine volt battery to a computer and wirelessly communicate with and control another object up to fifty feet away using the Bluetooth protocol. On your way home you can call the microwave oven from your mobile phone and tell it to use the program you stored in its memory to reheat the dinner you left in it in the morning. You can also telephone the video and check that it is set to tape the cooking program you plan to watch when you eat your meal.

Marvelously new - except we musicians solved some of the same problems many centuries ago when notation became standardized and the rustlings of the air could be programmed by being written into scores and therefore repeated at a later date. Musicians have linked organic processors and simple machines together into networks for years. By using a common time code, standardized symbols, and an agreed set of standards for the mechanical shifting of data to meet localized mechanical variances, the musicians - centuries ahead of the techno-boffins - created a programming language that is rich, adaptable, and able to be translated across a variety of platforms with only minimal degradation of content.

Huh?

The score and the music it represents transcend the performers; the coded elements of pitch, duration, intensity, proportional relationships and timbre are set down by the programmers, oops - sorry, the composer and/or arranger. This mechanical portrait of how they propose the vibration of the air to be ordered forms the basis of each performance. The power of the computer used to run the program, oops–sorry again, the abilities of the ensemble realizing the score will create the actual performance. We are in the lucky place to be not only the agents controlling the 'central processing unit' of this organic, massively parallel super computer, but also its programmer. Each of the modules has been finely tuned to the best of our and their ability to work towards the higher goal of making the mind of previous generations known to us again today, using the power of music to convey across the generations the feelings that words can only dimly mirror.

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