Computer Chronicles Revisited 2 — Visi On vs. the Apple Lisa

May 12, 2021   📁 Computer Chronicles Revisited   🏷️ Integrated Software

There was apparently a roughly two-month gap between the taping of episodes of *The Computer Chronicles* in late 1983 and their initial airing in early 1984. Looking back 37 years later, this gap may not seem that significant. But in just the second broadcast episode, it may be that *Chronicles* unintentionally provided information that was already out-of-date to its PBS audience.

Integrated Software — The Descendants of Xerox

The subject of this episode was "integrated software," i.e., a suite of business programs that all work together. Today, most of us intuitively associate integrated software with Microsoft Office, but that product would not exist for another six years. Indeed, Stewart Cheifet opened the host segment by reminding the audience, "And when we mention integrated software, you probably think of Apple's Lisa," the business-focused computer released in January 1983.

Cheifet and Gary Kildall briefly bantered about the precise definition of integrated software. Kildall explained there were really two things involved: integrated applications and the use of a visual interface. He noted that the subjects of the episode's product demos, the Lisa and Visi On, were both descended from work done by Xerox in the 1970s, specifically the idea of an overlapping windowed graphical interface developed by legendary computer scientist Alan Kay.

Cheifet then provided narration over some especially unremarkable B-roll footage. He reiterated that integrated software relied on a graphical interface that could split up the screen and create overlapping windows to enable multi-tasking. The long-range objective of such software was making computers more manageable and easy to use. Cheifet added that such software required a "low level of artificial intelligence" and that the simper such programs were for the user, the more complex they were for the machine. And many observers still believed that the computers of present-day 1983 were "too immature" to use integrated software effectively.

John Couch Defends "Cutesy" Lisa's Approach to User Interface

For the next segment, former Apple executive John Couch joined Cheifet and Kildall. Couch had been vice president of the Lisa division at Apple and left the company to start his own retail store called Computer Kingdom. Kildall opened the discussion by mentioning the similarity of the Lisa to Xerox's work from the previous decade. Couch noted he was hired by Steve Jobs at Apple back in 1978 as part of the company's "new products" group, where the goal was to "define the personal computers of the 1980s." Couch and his team were tasked with addressing the growth of the

personal computer industry in the wake of the Apple II line's success.

In particular, Couch said that existing machines were too difficult to use and relied on knowledge of programming languages and a command-line interface. To the extent there was integration, it was only at the file level. Couch said he had recalled seeing Xerox's earlier work when he was in graduate school and concluded it was possible to replace the command-line interpreter with hi-resolution bitmap graphics that would "emulate how people work in offices."

Kildall pointed out that Apple's real breakthrough with the Lisa was in terms of price. The Xerox Star workstation, released in 1981, was prohibitively expensive for most businesses. The Apple Lisa, in contrast, was relatively less expensive. (The Star's introductory price was about $17,000, while the Lisa initially sold for around $10,000.) Couch replied the real benefit of the Lisa over the Star was that Apple had managed to displace the command-line interface entirely. The Star also contained "very little integration" in his words, at least in term of moving data between different applications. Apple's goal with the Lisa was to build a software architecture that would define the path for data movement and rely on a graphical interface.

Cheifet then asked Couch about what kind of user he had in mind when he developed the Lisa. In a typically Apple response, Couch said the target users were the developers themselves. Echoing the legend of Jobs and Steve Wozniak—they couldn't buy a computer they wanted so they built one themselves—Couch said they developed an integrated computer that a user could learn to use in less than a half-hour. Couch emphasized the importance of the Lisa project in penetrating the business market, pointing out there were "still 32.5 million people" working in offices who could benefit from the use of a personal computer, but they were limited by the time it took to learn a machine like the Star.

Kildall retorted that some folks were critical of the Lisa's half-hour learning time, dismissing Apple's graphical interface as relying on "cutesy" gimmicks like an animated trashcan. Couch said he didn't see a problem. The garbage can was simply an alternative way to delete files. And he rejected Kildall's implicit argument that the Lisa was not a serious business machine. Couch noted that he still used the Lisa to run his own business. To that point, Couch offered a demo of the Lisa using his company's sales spreadsheets.

The demo itself was basically Couch showing how cut-and-paste works, selecting a column of data from the sales spreadsheet and pasting it to the Lisa's graphing program to make a pie chart. Cheifet had to end the segment for time, quipping, "I know it took you three years to figure this out and I only gave you 3 minutes to demonstrate it."

Bill Coleman Offers a Competing Visi On

In the final segment, Bill Coleman joined Cheifet, Kildall, and Couch. Coleman was the group manager at VisiCorp, which developed a rival integrated software package called Visi On. Similar to the Lisa's operating system, Visi On provided a graphical interface with integrated applications, albeit on top of MS-DOS. (Keep in mind, Microsoft Windows would not be released for another two years.) Coleman jumped right into his demo, showing how Visi On's Applications Manager could manipulate windows, launch programs, and bring up the built-in help pages. He also mirrored Couch's demo, copying data from a spreadsheet and pasting it into an integrated graphics application.

Cheifet then asked Couch how these types of integrated software packages differed from Lotus 1-2-3, then a popular spreadsheet program for the IBM PC. Couch explained that Lotus was a single application. It did not offer any integration with a larger accounting package or other software. In

contrast, both Lisa and Visi On were "systems themselves," where additional applications could be installed on top of what was provided.

Kildall asked if this meant that the Lisa and Visi On were "closed systems." Coleman said no, both were actually open systems that provided toolkits for third-party developers to write their own applications. Couch agreed. He noted that while the Lisa came with seven pre-installed applications, its toolkit could be used to write additional software, such as a legal or accounting package.

Kildall asked both guests how their software compared with DESQ, a task-switching program that like Visi On worked on top of MS-DOS. Coleman said DESQ had little or no integration and "very, very little capability" to transfer data between programs. Couch added that DESQ only offered limited integration at the file level.

Finally, Cheifet asked where software integration was going. Couch replied that rather that simply transferring data through a conduit like the Lisa, he saw future systems relying more extensively on database management systems. This would allow data to always reside in a central location while the software would define pathways to cut and "can" that data to create new applications. (This process sounds an awful lot like modern APIs.)

"The Biggest Problem for the Lisa Was Apple Itself"

As I alluded to in the introduction, the gap between the recording and initial airing of this episode would seem to have been unfortunate, largely due to the focus on the Lisa. In January 1984, a month before this episode aired, Apple released the original Macintosh. This basically relegated the Lisa to the dustbin just a year after its own release. Longtime Apple podcaster Stephen Hackett wrote on his 512 Pixels blog in 2010:

> The biggest problem for the Lisa was Apple itself. In January 1984, the Macintosh was released at a much lower $2,500 price tag. The Mac had many more features than the Lisa and a larger software library. The Macintosh outsold the Lisa very quickly, and was soon the system of choice for Apple customers.
>
> Four short months later — April 1984 — Apple released MacWorks, which allowed the Lisa to emulate the Macintosh ROM. This solution was based entirely on the floppy drives — it could not use a hard disk drive for storage. To call it rough is an understatement.
>
> One year later, Apple released the Macintosh XL. In reality, the XL was just re-badged a Lisa that ran Macintosh System 5 in emulation (via MacWorks XL) in a much smoother fashion than the Lisa machines, including hard drive support.

Hackett's reference to the Macintosh's "larger software library" may have been something of an understatement. From what I can tell, there was essentially no third-party software ever developed

for the Lisa. John Couch told Gary Kildall that the Lisa came with its own development toolkit. It was actually an entirely separate operating system called the Lisa Workshop, and it ended up being used to develop early Macintosh software.

VisiCorp's Quick Collapse

For what it's worth, Visi On did not fare much better than the Lisa. Robin Webster reported in the October 2, 1984, issue of *PC Magazine* that after suffering "legendary problems" in actually trying to bring Visi On to the market, VisiCorp "has called it quits" and sold the source code to Minneapolis-based Control Data Corporation (CDC). Webster said CDC had no plans to sell Visi On to end users —Visi On retained any retail rights—but would instead integrate the product into its own information services network.

Webster noted that Visi On was criticized "for being too expensive and too slow," as well as requiring an excessive amount of memory and storage for the time—512 KB of RAM and 5 MB of hard disk drive space. VisiCorp itself was also "strained" under the pressure of developing a complex integrated software package like Visi On. One unidentified source told Webster, "Our development cycle was too long; we were not put in a position to put all of the Visi On pieces together in time."

This may have been an allusion to another key reason for Visi On's failure to thrive in the market: the looming threat of Microsoft's Windows. John Markoff reported in the October 1983 issue of *InfoWorld* that "[l]ess than two weeks after VisiCorp started shipping its long-awaited Visi On integrated software package, archrival Microsoft has fired an answering volley by introducing a lower-cost window manager with new features tat both users and applications-program developers will love." Microsoft formally announced Windows on November 10, 1983, just a few weeks after Coleman taped his *Chronicles* appearance. Although Windows 1.0 did not actually ship until November 1985 — and it was not well received at that time — the writing was on the wall for VisiCorp. Microsoft's premature announcement was enough to draw the attention of key hardware and software developers. One software developer told Markoff:

> We had to make a decision between VisiCorp and Microsoft. We decided to go with Microsoft because we think windows should be part of the operating system. Today, Microsoft is the company in the operating system business.

Even with the lengthy delay before customers actually saw Windows 1.0, VisiCorp was already done. Aside from the failure of Visi On, VisiCorp was also involved in a disastrous lawsuit against Software Arts, the company that actually developed VisiCorp's signature product, the spreadsheet VisiCalc. VisiCorp published VisiCalc and later released other products under the "Visi" brand. Dan Bricklin, a co-developer of VisiCalc and co-founder of Software Arts, later relayed his account of what happened on his personal blog:

> As the success of VisiCalc became apparent in early 1980, Personal Software proposed a merger with Software Arts in mid-March. Around the same time, Personal Software decided to obtain venture capital funding, which it received in May of 1980, and brought in a new person to run the company. Talk of merger stopped (to the surprise of Software Arts, which was working hard to prepare for it) and relations between the two companies soured. Exactly how this change came about within Personal Software, I don't know. The talk from senior Personal Software executives, as we heard it, turned to how to lower royalty rates and then to a buy-out by Personal Software of VisiCalc outright for a lump sum. Animosity between the top executives at the time led to a change to negotiations done by second level executives. Negotiations moved slowly.

Bricklin said VisiCorp sued Software Arts in September 1983, right around the time VisiCorp was marketing Visi On, alleging that Software Arts was late in delivering an updated version of VisiCalc. Software Arts then counter-sued for breach of contract. Eventually, the lawsuit settled in the summer of 1984, with "VisiCorp paying Software Arts some money for past royalties and giving up the VisiCalc (but not "Visi" alone) trademark." This would also prove to be the end of the line for VisiCorp as an independent company, as in November 1984, it merged into Paladin Software, which dropped the "Visi" branding as it was considered damaged beyond repair.

Couch Returns to Apple, Retires to the Vineyard

As for John Couch, I guess things didn't work out with his computer store. Sometime later in 1984 he decided to take over a Christian school in California. Couch reemerged in the tech industry during the 1990s, first serving as CEO of a biotechnology software company and then returning to Apple as the company's first vice president of education during Steve Jobs' second tenure as CEO. Couch continued to work at Apple until the late 2010s, when he retired and bought a wine vineyard.

William T. Coleman III (1947 - 2020)

Bill Coleman is no longer with us. He passed away on November 29, 2020, from pancreatic cancer, according to the *Los Altos Town Courier*. Coleman was a former officer in the United States Air Force who earned his master's degree in computer science and computer engineering from Stanford University. After leaving the Air Force, Coleman joined VisiCorp and helped oversee the development of VisiCalc.

In 1995, Coleman co-founded and served as chairman of BEA Systems, an enterprise software company, which was sold to Oracle in 2008 for $8.5 billion. Coleman spent the final years of his career working in venture capital, including stints as CEO of the Cassatt Corporation and Veritas Technologies. Coleman and his wife also founded the Coleman Institute for Cognitive Disabilities at the University of Colorado.

Notes from the Random Access File

- This episode was recorded at KCSM-TV on October 24, 1983, and first broadcast on February 12, 1984–three weeks after the famous "1984" ad announcing the launch of the Macintosh.
- You can watch this episode at the Internet Archive.
- If you are interested in learning more about the development of Visi On, the June 1983 issue of *Byte* Magazine published an extensive "guided tour," featuring an extended interview with Bill Coleman.
- John Couch has a forthcoming memoir about his time at Apple, *My Life at Apple: And the Steve I Knew*, scheduled for publication on July 13, 2021.
- Not to forget the other Steve, Couch's winery sells a 2019 Chardonnay named in honor of Woz.
- Seriously, Couch should sell the wine and the book as a package deal.
- Despite the Apple Lisa's short life, there was apparently an Apple Lisa Association that published its own newsletter called *ICON*. The October 1983 issue compared the relative cost of the Lisa with the IBM XT, one of the machines targeted by Visi On, and found that a "complete Lisa" with "software, hardware, and a dot matrix printer is now only $8,400 compared to the IBM at $9,229 without a printer."
- For all the emphasis tat modern Apple places on making their devices thin and light, it's amusing to note the Lisa weighed in at 48 pounds. And that's not even counting the keyboard, which added an additional 4 pounds.
- Ronald K. Lakis was the director of *The Computer Chronicles* during this time. Lakis' only other IMDB credit is for a documentary, *The UFO Experience*, produced in 1982 for KPIX-TV in San Francisco.
- One thing I would love to ask Lakis about is his practice of cutting to shots of Stewart Cheifet nodding while the guests are answering a question. It's happened like 3 or 4 times in the episodes I've watched so far. I may need to start keeping a running count.
- May 21, 2021, addendum – After I published this post, Stephen Hackett and Quinn Nelson released an episode of their tech history podcast *Flashback* discussing the Apple Lisa.