Macintosh Beats Windows **Oct. 1990**

by Lisa Raleigh, *Apple Direct*

Developers have been telling us that they want to see competitive analysis. How are we positioning the Macintosh in the marketplace? What is Apple telling its customers about how the Macintosh stacks up against the competition? And what are our customers telling us about our competitive strengths?

In the July issue of *Apple Direct,* we published Jim Davis' discussion of the merits of the Macintosh versus Windows, and this month we're offering a more quantitative analysis in the form of benchmarks. We'll also share with you some customer feedback on how the Macintosh is perceived versus MS-DOS and Windows.

Did Someone Say Benchmarks? Benchmarks run by Ingram Laboratories confirm that the Macintosh computer's unified architecture of hardware and software produces better performance than does a graphical interface grafted on top of an existing operating system. In this series of benchmarks, Macintosh computers outperformed comparable systems from IBM and Compaq running the latest version of Windows.

Wait a minute, you say. Isn't this the same publication that last month contained a Viewpoint by Scott Darling that said, "There are lies, damn lies, and then there are benchmarks"? Absolutely. We want to be very cautious with benchmarks, and we stand by our statement that better performance is just one part of the overall Macintosh advantage. You won't find Apple encouraging its customers to base a buying decision solely on a Macintosh benchmarked performance advantage. Instead, we want customers to look at the full range of computers' capabilities and buy the one that can do the most for them, both today and in the future.

Comparable Apps Faster on Mac. Ingram performed benchmarks comparing today's Macintosh product line with competitive machines from IBM and Compaq. Ingram ran many different tests for seven applications: Powerpoint, Wingz, Excel, Word, PageMaker, Omnis, and HyperCard/Toolbook. Except for HyperCard, the applications tested are available in both Macintosh and Windows versions. These applications were selected because they were the only ones shipping at test time that ran on both Windows 3.0 and the Macintosh.

Ingram created a series of real-world tasks for each application and then measured the amount of time required to complete each one (see chart at left). They summarized the results by totaling the time each machine took to run all the tests for all the applications. (All color-capable machines were running in 4-bit mode. The 386SX systems included a floating-point coprocessor. The Macintosh LC is not included, because no system was available at testing time.)

The prices indicated for IBM and Compaq models—and for the Macintosh IIfx, IIci, and SE/30—are Ingram's estimates of the suggested retail prices at the time the benchmarks were run and do not reflect any subsequent price cuts. (For instance, the suggested retail price of the IIci model used in this test has since been dropped by $1,500.) In these tests, modular Macintosh systems used Apple's 13" color monitor and extended keyboard while compact systems used Apple's standard keyboard.

In Ingram's overall results, the Macintosh IIfx came out ahead of every other machine. The Macintosh SE/30 came in ahead of 20-MHz 386 machines from IBM and Compaq. The Macintosh Classic came in ahead of the 10- and 12-MHz Windows systems. In general, the tests show that Macintosh systems are faster than comparably configured PC-compatibles running Windows 3.

Apple encourages customers to try their own tests. Performance can vary, depending on the configuration of a machine, the software being tested, and the variety of tasks the user is performing.

Beyond Benchmarks. The performance benchmarks demonstrate the sort of advantages produced by the unified architecture of the Macintosh, in which the hardware and operating system are designed together, from the chips up. The real advantage of the Macintosh is that it does a lot of things no other personal computer can do, not that it does the same old PC tasks a little faster. When all is said and done, this is what users perceive and respond to.

In fact, two studies completed for Apple in March by Diagnostic Research, Inc., show that users and computer managers give the Macintosh higher ratings than MS-DOS and Windows on a broad range of criteria. The studies were completed before the introduction of Windows 3, but Apple plans to do research on how users compare Windows 3 and Macintosh.

If you'd like to obtain a report on the DRI studies, you can get one on AppleLink. (AppleLink path: Developer Services: Market Research: Industry Reports/Surveys:.) Here are some of the highlights from the report:

Strong Recommendations. One study was conducted with MIS managers and the other with personal-computer users. Both sets of respondents gave the Macintosh a stronger purchase recommendation than either MS-DOS or Windows. And both MIS managers and end users also rated the Macintosh higher than MS-DOS and Windows in overall satisfaction. In fact, this pattern is repeated across the board in many different areas. Here's a partial list of the areas in which MIS managers rated Macintosh higher than MS-DOS or Windows:

- Satisfaction with overall performance
- User productivity
- Ease of upgrading operating systems
- Ease of use
- Ease of learning new applications
- Quality of printed output
- Versatility (the ability to run many different applications)
- Training cost per user

End users gave Macintosh higher ratings in the following areas:

- Presenting ideas effectively
- Being a source of satisfaction on the job
- Having consistency between applications
- Reliability
- Performance as a business tool
- Availability of business applications
- Ease of accessing/using a LAN

The study offers substantial proof that both MIS managers and users are the most satisfied with the Macintosh. When you combine these findings with the benchmarks described above (in the context of the overall Macintosh advantage) and the price reductions in the product line, you've got a clear picture of our selling proposition—namely, that we have brand-name computers that do more than the competition and cost less.

Table

Comparable Apps Faster on Mac

System Total Time	Suggested (minutes)	Retail Price
Macintosh IIfx	**8.1**	**$11,745**
Compaq 486/25	9.7	$,15,068
Macintosh IIci 5/80	**10.9**	**$9,696**
Compaq 386/33	11.4	$13,166
Macintosh IIsi 2/40 (w/FPU)	**11.5**	**$5,227**
IBM Model 70 486 (25 MHz)	12.0	$15,004
Macintosh IIsi 2/40 (no FPU)	**13.4**	**$5,028**
Compaq 386/25e	15.2	$10,966
IBM Model 70 386 (25 MHz)	15.4	$12,304
Macintosh SE/30 1/40	**17.4**	**$4,498**
Compaq 386/20e	17.8	$8,366
IBM Model 70 386 (20 MHz)	19.7	$9,504
IBM Model 70 386 (16 MHz)	24.6	$8,804
Compaq 386s (386SX@16 MHz)	25.9	$4,767
IBM Model 55SX (16 MHz)	28.7	$4,614
Macintosh Classic 2/40	**32.9**	**$1,499**
IBM Model 50z (286@10 MHz)	37.1	$4,014
Compaq 286e (12 MHz)	37.9	$4,667
IBM Model 30-286 (10 MHz)	44.5	$3,564