AppleDirections

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Apple News

Announcing Software Dispatch, the "Virtual" Software Shop

Problem: You need shelf space for your products, especially if you're a smaller developer or software publisher whose products aren't always noticed by buyers for wholesalers and retail outlets.

Solution: AppleSoft's Software Dispatch CD-ROM, announced October 11 at the Software Publishers Association Convention in Chicago. The CD provides "virtual shelf space" for dozens of software products. It will be sent to millions of Macintosh and Windows computer customers, first in the United States and then around the world.

The new Software Dispatch business unit, part of the AppleSoft division of Apple Computer, Inc., grew out of the Software Access Initiative, launched in 1992. We've always known that the success of your software products was crucial toward increasing the value of the Macintosh computer in customers' eyes and building market share.

Apple pushed the Software Access Initiative to help you put your software in the

Strategy Mosaic

Apple Turns Pro

Here's Why You'll Want to, Too

By Paul Dreyfus, Apple Directions Staff

This month the key development at Apple Computer, Inc., was the release of System 7 Pro on October 4. What you need to know about it is that Apple's new software division, AppleSoft, is going to make a business—a serious business—of selling the Macintosh operating system separately from Macintosh computers. In turn, this will significantly broaden the market for your products that take advantage of the new operating system capabilities.

Apple is serious enough to have spent a significant amount of money—ten times the six-figure budget it had originally planned on for the PowerTalk introduction—on the global introduction of System 7 Pro. Like any new division's first major release, System 7 Pro will play a significant role in AppleSoft's drive toward profitability.

I mention that to let you know just how strategic the new operating system is to us; the message from Apple this month should tell you that developing System 7 Pro products will be strategic to you, too.

Please turn to page 4

Gregg Williams is on special assignment; he'll return to Strategy Mosaic soon.



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Editor's Note

Trick Survey

Last month we made a mistake in *Apple Directions*—the kind of mistake that usually has you, our careful readers, reaching out and touching me (so to speak) over AppleLink: On page 3, we reported dates for the *Apple Directions* AppleLink postings that were off by *an entire month,* and so far, no one's pointed it out.

If no one seemed to notice, why am I bothering to mention it here? Precisely *because* no one noticed, which makes me wonder if you're using our new on-line service. This month, then, we're giving you a little added inducement to look at *Apple Directions* on AppleLink. We're posting on AppleLink a part of *Apple Directions*, albeit a small part, that you won't find in the the printed verstion. It's a brief survey in which we ask for your feedback about *Apple Directions* On Line and other features, as well, old and new.

A word or two about our new features, starting with *Apple Directions* On Line. We've always posted *Apple Direct* and *Apple Directions* on AppleLink, but usually weeks *after* publishing the newsletter in its paper form. However, since August, we've been posting preliminary files on or about the first of the month, several weeks before we print the paper version. Final files then replace the preliminary files the day we go to press, usually on the fifteenth. Now you can read *Apple Directions* long *before* it's sent to you in the monthly developer mailing.

As for the other new features, you can think of *Apple Directions* the way you might think of a new product. When we shipped you the first one in June, it was a little like a beta version that's not "featurecomplete." Since then, we've made it more robust with each issue; with the September and October issues, we finally reached "golden master" and sent you a full-featured product.

Two features took us the longest to implement: slightly reducing the trim size to an international "A4" width (although it retains a U.S. 11-inch height) and drilling *Apple Directions* with five holes to fit binders around the world. Binders in the United States use the middle, top, and bottom holes, while binders in other parts of the world use the other two holes.

Since the June issue, we've also introduced several new columns—Strategy Mosaic, IndustryWatch, Ask Don Norman, and Market Research Monthly.

You could do us a great favor by getting on AppleLink, going to the location that contains *Apple Directions* files (the path is provided at the bottom of this page), and letting us know how useful each part of *Apple Directions* is to you.

We want to know if you're reading *Apple Directions* on AppleLink, especially if you're looking at the "preliminary draft copy" we post around the first of each month.

We'd also like to know if you're finding the newsletter in its new format useful and interesting. Specifically, we'd like to know how valuable each part of *Apple Directions* is to you on a 1-to-5 scale, with 1 being less valuable and 5 being more valuable.

So, find *Apple Directions* on AppleLink, copy the survey (it's contained in a file called "Survey") you'll find there, paste it into a new AppleLink message, and fill it out and send it back to us at A.DIRECTIONS.

Thanks for all your help. We'll let you know the results of our survey as soon as they're final.

Paul Dreyfus, Editor

Apple Directions On Line–December

The December issue of *Apple Directions* will be available on AppleLink as follows: November 1—Preliminary draft copy

November 15—Final copy

To view *Apple Directions* on line, follow the AppleLink path Developer Support:Developer Services:Periodicals:Apple Directions:Apple Directions November.



Of Newton, Home "Computers," Support Costs, and PowerPC Envy

By Amanda Hixson, Instant Insight

Newton Note

In typical fashion, how well Apple will do with Newton over the long haul is the subject of tremendous, heated industry debate. Dozens of analysts and journalists have spilled ink over the viability of handwriting recognition, battery life, communication capabilities, software availability, development tools and every other controversial Newton feature.

Like so many other new technologies, what the computer industry thinks of Newton matters not one whit. As always, the only thing that really matters is what customers think. It's already proving a boon to consumers in the market for devices in the loosely defined personal digital assistant category.

AT&T, for example, recently reduced the price of its EO 440 and 880 Communicators. AT&T won't credit the price reductions of its EO penbased products to pressure from the highly popular Newton device, but it doesn't take a genius to perceive a relationship between Newton's introduction and AT&T's price reductions a short time later.

It also probably isn't coincidental that Compaq recently issued a press release detailing a joint development effort with Microsoft, Intel and VLSI to deliver a new line of hand-held "mobile companions" sometime in 1994 that seems aimed directly at key points in the controversy surrounding Newton.

The Compaq Companions are expected to include infrared communication, LAN connectivity, pen input, a price in the 650-buck range and a weight between 1 and 2 pounds. Sounds like a checklist of favorite Newton features, doesn't it?

Of course, these machines are also expected to feature detachable keyboards, batteries that will last for several weeks, Microsoft's littleknown Microsoft At Work operating system, and, amazingly, no troublesome intelligent handwriting recognition; except for the operating system (about which I have no clue unless it is a renamed version of an earlier Microsoft operating system such as modular Windows), a feature set seemingly designed to address often-discussed components in the first Newton devices.

The lack of handwriting recognition—explained in a recent quote in *InfoWorld* by Steve Malisweski, Compaq's director of mobile products, who reportedly said that "Today, handwriting recognition is inappropriate as a primary means of controlling the interface" seems contrary to existing evidence.

EO has been shipping useful business products that feature handwriting recognition for some time (even prior to the company's acquisition by AT&T) so I have to wonder whether Mr. Malisweski's statement would have been made prior to Newton's shipping. I think such a statement is a simplified justification for Compaq not having to do something that is incredibly difficult to do and, accordingly, that they are unwilling to attempt to deliver.

No matter how you cut it, Newton is already a blessing to consumers because it has already forced the industry to accept a long list of features at better price points for these types of machines.

Wake Up!

There's something I've been saying for the last decade and this is the last time I'm going to say it. After this, all of you out there trying to sell *computers* to ordinary people with no real need for them are on your own. You can consider yourselves duly warned: There is no home personal computer market.

Whoa! Before you head for your machines to write me nasty letters or send harsh AppleLinks, hear me out. I'm not talking about folks who knowingly acknowledge that they need a "real computer" in their homes for business or educational reasons; I'm talking about the myth of the common man dying for the computer as an appliance.

I'm not saying your average Joe and Joan are adverse to the benefits of computer technology; they simply don't want to have to know about computers or acknowledge their existence to use the technology. I know that this is a cliché, but if we had to understand auto mechanics to drive a car, most of us would be walking.

Witness Super Nintendo and Sega Genesis. We all know these game machines are controlled by computers, but to the typical user they are game "things" that are connected to the television using some "stuff." After making the connections, you insert a cassette-like thing, press a few buttons and—"Holy DogCow, Batman!"—something appears on the television.

Interaction with that "something" may be controlled by software and a computer chip, but it's transparent to the person using the machine. As an added bonus, and to make sure Junior doesn't confuse his Super Nintendo or Genesis system with the computer he uses at school, most new game machines are designed not to look like computers. What do the game makers know that the computer industry can't seem to learn?

In the extreme we could assume that if people were turned on knowing they had computers in their homes, Melitta, Inc. would surely use the name "computerized coffee makers" for the ones that brew coffee at specified times, and irons with automatic shut-off would probably have "computerized" stamped all over them.

They don't. And for a good reason. Most industries know that you don't ask people not to think of an elephant unless you want them to think of an elephant. Therefore, knowing that most people are leery of computers, your typical household appliance manufacturer avoids the problem by not bringing it up. Why is it so difficult for people in the computer industry to envision television-like appliances containing a PowerPC processor or other chip set with appropriate operating system software, complete circuitry for telephony, and video capture and playback that also includes external connectors for the rumored broadband ISDN-based data highway due any day now, along with mindlessly simple connectors for various other devices such as camcorders, VCRs, and laserdisc players—through all of which you could place two-way, video-based telephone calls (or almost anything else) using a one-button remote control (or PDA) and something as common as your voice?

If you want to sell computers and software to people at home, you must figure out how to eliminate the need for your customers to know they are being sold computers and software.

Excuse Me, Do You Have a Premier Card?

In case you missed it, Microsoft recently announced a new support structure for customers and developers. The new structure is fairly complex, depending on the level and type of support required, but it's relatively easy to understand if you remember that the more adjectives used to label the support, the more it will probably cost.

For example, Premier Comprehensive Support, one of two Premier support service options, is designed for organizations with deep pockets, such as the Fortune 500 companies and government agencies, and costs \$20,000 per year. Your 20 grand lets you assign four contacts for the contract with additional contacts costing \$3,000 each per annum. Premier Developer Support, the other Premier service, is priced similarly.

With Standard Support, users of Microsoft's applications can call without charge between 6 A.M. and 6 P.M. on weekdays, a pretty good deal if you live near Microsoft. If not, you get to pay toll charges for the call so the price of the call goes up based on the distance rate (toll) charged by your long-distance telephone carrier. There are a variety of other support options between the Standard and Premier categories mentioned.

By now you probably think I'm going to dump on Microsoft for raising its support prices.

Wrong.

On the contrary, I think it's great that a player of Microsoft's size is acknowledging that it costs a lot to support product development, application customers, and buyers of its operating systems. Remember, roughly one in five people at Microsoft works in a support role of one type or another. Combine that with the fact that the cost of providing support grows in proportion to reductions in sales margins, and you can easily see why Microsoft had to start charging more for support. What is surprising is that it didn't happen sooner.

If Microsoft is being pressured to increase support costs in the current economy, it is only a matter of time before other companies follow suit, if they haven't already done so.

Think They're a Little Scared?

Remember a few issues back when I pointed out that the PowerPC processor seemed like a "cool," lower-cost alternative to Intel's vaunted Pentium processors for folks in the market for powerful RISC-based technology? Even if you don't recall my suggestion, Intel seems to have heard about it. At least that helps explain the company's recent preemptive print ad campaign to get Macintosh users to upgrade to Pentium now, rather than wait for PowerPC-processor—based Macintosh systems.

Is Intel afraid people might enjoy using powerful machines based on the PowerPC architecture and ignore Intel's higher priced spread? It's too late, Intel, they're here.

Amanda Hixson is currently a consultant in the area of product and process management. Along with being a five-year Apple alum, during which time she was, among other things, an evangelist, product marketing manager, and software project leader, she is also the author of four books and a successful CAI training tool, a journalist, industry analyst, former book acquisitions editor, accounting manager, and perpetual realist (or cynic, depending on whom you talk to).

Strategy Mosaic

System 7 Pro

continued from page 1

The bundling of core System 7.1 technology with PowerTalk, AppleScript, and QuickTime 1.6.1 into System 7 Pro marks a significant departure for Apple. For the first time, we're selling a dramatically enhanced, new version of the Macintosh operating system to be sold on its own. (In fact, at first, it won't be shipped with Macintosh computers, however Apple is considering which CPUs to ship System 7 Pro with in the future.)

Why, you might ask? Kirk Loevner, now vice president of the AppleSoft Product Group, sums it up: "Our System 7 Pro strategy is expected to increase adoption of our new technologies more quickly and more broadly than if they'd been released as separate system extensions. We're also simplifying the purchase decision for the customer by not selling the new enhancements separately. This is going to provide developers with a larger installed base to which they can sell their new products."

That's a thumbnail sketch of our System 7 Pro strategy; the rest of this article and, in fact, a good part of this month's issue, fleshes out the sketch, giving you the facts of the strategy, the reasons we're doing it, and ways in which it benefits you. I'm telling you all this because Apple wants you to start taking your products "Pro" if you haven't started doing so already.

First off, the facts of the strategy, and then the "whys" behind it.

Two Versions of System Software

Until now, Apple has provided one current version of its operating system, shipping it with the latest Macintosh computers and offering it as an upgrade to users running the previous version. Two years ago, Apple introduced System 7, which has evolved into System 7.1 with WorldScript, integrated TrueType and Type 1 fonts in the new Fonts folder, and other technologies. Approximately 60 percent of the worldwide installed base of Macintosh computers uses System 7. (See the last two months' Market Research Monthly columns for Apple's System 7 installed base numbers.)

Apple's research shows that customers will benefit from being able to choose between two versions of System 7, a basic release and a full-featured version incorporating the latest technologies.

Standard System 7 is aimed primarily at selling to new consumer users, K-12 users, and the current base of System 6 users who have yet to upgrade; it will also be the base operating system installed in new Macintosh



computers. System 7 Pro, on the other hand, will be marketed primarily to new and existing customers in business—including home and small, medium, and large business settings government, and higher education, as well as to current System 7 users. Apple also hopes that many System 6 users will find that the enhanced features offered by System 7 Pro finally give them the motivation to upgrade.

For the foreseeable future, the current base version will be System 7.1. The first release of System 7 Pro will be the most powerful release of Macintosh system software yet, providing System 7.1 in addition to three new enhancements users need to streamline work and communicate more effectively.

PowerTalk, Apple's first AOCE-based product, provides a common, system-level infrastructure for collaboration and communications; AppleScript offers a powerful, easy-to-use scripting language for automating, integrating, and customizing applications; and QuickTime 1.6.1 provides rich video and sound capabilities.

Apple will continue to provide two system software versions in the future. Some of the new technologies that are first released for higher-end users with System 7 Pro will eventually become part of the base operating system, and other new technologies will take their place in future releases of System 7 Pro. Both products will undergo user

Strategy Mosaic is a monthly look at pieces of Apple's overall strategy. This column is based on information obtaianed from managers throughout Apple Computer, Inc. interface enhancement to better and more easily meet the needs of Macintosh users.

Both versions of the operating system will run on PowerPC processor based Macintosh computers. In addition, parts of the new operating system will be taken across platforms: There's already a Microsoft Windows version of QuickTime, and it's a priority for Apple to provide PowerTalk capabilities for DOS/Windows computers.

Toward that end, Apple and Microsoft announced on October 4 that they'll be collaborating to provide AOCE technologies and services on Windows computers. Details about their announcement will be forthcoming by December, according to Microsoft.

Product Availability, Price

Apple shipped the beta 11 version of System 7 Pro to developers on the October 1993 Developer CD: the latest version will be made available on the December 1993 Developer CD. System 7 Pro was shipped to U.S. retailers on October 4. Localized versions will start shipping in November, availability to vary by country. The suggested retail price for the single-user product, the System 7 Pro Personal Upgrade Kit, is \$149 (all prices listed here are U.S. only), and the suggested retail price for the ten-user product, the System 7 Pro MultiPack, is \$999. The base version of System 7 will cost \$79 (for a limited time), \$499 for the ten-user product.

Apple recommends that System 7 Pro be used on a Macintosh computer system with a minimum of 5 MB of RAM; 4 MB of RAM is recommended for System 7.

Rapid Market Adoption of New Technologies

Those are the "whats" of the new system software strategy. I asked

Kirk Loevner to elaborate on the "whys" behind shipping the fullfeatured System 7 Pro in addition to standard System 7. Here's what he had to say:

"The release of System 7 Pro should speed acceptance of the new system extensions—PowerTalk, AppleScript, and Quick-Time 1.6.1—by grouping them together and selling them as a single release instead of releasing them piecemeal.

"There are three main messages about System 7 Pro we're trying to get across. First, we recognize that one version of our operating system no longer fits all users needs. Some want only the basic features provided by System 7 while others, especially those in business and higher education, are looking for greater computing power and advanced features.

"Second, making these new capabilities part of a new operating system release adds significant value to the user's experience, giving Macintosh users a tremendous edge over users of other systems. The competition simply doesn't deliver this kind of functionality, and we think people who aren't yet using Macintosh computers, especially those in business and higher education, will be drawn by this kind of clear advantage.

"And third, we're committed to convincing the current base of Macintosh users, as well as developers, to adopt these new extensions, and to adopt them sooner instead of later.

"Another factor driving this decision is that a great deal of developer work has been taking place in the direction we're going with System 7 Pro; developers have been hearing about AOCE, AppleScript, and QuickTime for a long time now, and many of them have done a great deal of work on them already.

"With the products they're bringing to market simultaneously with the System 7 Pro release, we feel we have the critical mass to attain rapid market adoption of these new technologies."

Categories of System 7 Pro Applications

Developers' products released along with System 7 Pro fall into several strategic categories. Together, the new operating system and these products offer an immediately useful customer solution, one that truly makes the new operating system more advanced than the competition. It's likely that any product you develop can benefit by aligning with these categories.

These categories are:

• *gateways* that let a Macintosh computer reach out over the network through PowerTalk and obtain every imaginable service from any kind of server

• *agents* that help the Macintosh computer organize files and information, whether created by the user or received over the network

• *mail-capable applications* that let users send files to other users on the network from within that application instead of having to switch to a specific mail application

• *team productivity applications,* such as scheduling, budgeting, and calendar software, that help groups of people work together more effectively

• *workflow solutions* designed to enhance the flow of information and "paperwork" in office settings

• *QuickTime applications* that help make the Macintosh the multimedia platform of choice for many users

For a list of products that were announced along with System 7 Pro, see the chart on page 6. Also, for more about specific opportunities made available to you by PowerTalk, see "How to Get Started With PowerTalk" on page 18.



(For more about the other new System 7 Pro technologies, see our coverage of AppleScript starting on page 17 of the July 1993 issue. We'll tell you more about QuickTime 1.6.1 in a future issue; until then, you can get caught up on QuickTime 1.5 by reading the page 1 story in the November/ December 1992 Apple Direct. Technical information about QuickTime can also be found in the "QuickTime Technical Backgrounder" on AppleLink [path— Developer Support:PR Express:Press Materials & Information:Backgrounder].

Immediate Benefits for Developers

Apple's big plan for System 7 Pro translates into an immediate developer benefit—any of you who have been working on PowerTalk-, AppleScript-, or Quick-Time-savvy products (or all three) can expect a larger market for those products, much sooner than you might have anticipated.

Yes, I know, talk and words on the page are cheap, but Apple is putting money—a lot of it—where its mouth is: Apple's marketing folks spent ten times what they would normally spend on the introduction of a system extension.

Products Announced With System 7 Pro

Here's a list of developers' products announced on October 4, the same day Apple Computer, Inc., shipped the new version of its operating system, System 7 Pro, which includes PowerTalk, AppleScript, and QuickTime 1.6.1. Products marked with an asterisk (*) shipped on or before October 4. It should be noted that a wide variety of applications supporting QuickTime and AppleScript have previously been made available.

Product

iSpv video and still camera iMail video mail software iMovie audio/video board Stuffit Deluxe file compression PowerRules for PowerTalk mail agent NetWORKS for Macintosh network monitoring* QuickMail for PowerTalk* Fair Witness 2.0 information manager MacWrite® Pro 1.5 ClarisWorks™ CompuServe personal gateway Telesearch for PowerTalk catalog personal gateway* VoiceAccess for PowerTalk voice mail personal gateway* PhonePro voice mail personal gateway* TeamLinks collaboration software* Notify! for PowerTalk sending pager personal gateway AgentBuilder information-handling agent development system Dynamics* Newscast news gathering agent/personal gateway* Common Ground document distribution software Octel API visual voice and messaging services PacerForum bulletin board* QuarkXPress Data Encryption Technology* Informed Foundation electronic forms Atlantis Data Publisher report writer* Snow Report Writer report writer* Power Agent mail agent* Stacker compression technology* Mail Link for PowerShare/MS Microsoft Mail server gateway* Mail Link for PowerTalk/QM QuickMail personal gateway* Mail Link SMTP for PowerShare UNIX® mail server gateway* FAXstf 3.0 PRO personal gateway* Team Agenda scheduler X.500 DSA personal gateway* Userful Voice Processor sound recorder* WordPerfect 3.0*

Company

Axion Axion Axion Aladdin Systems, Inc. Beyond, Inc. Caravelle Networks Corp. CE Software. Inc. Chena Sotware, Inc. **Claris Corporation Claris Corporation** CompuServe, Inc. **CTM Development SA** CTM Development SA Cypress Research Corp. Digital Equipment Corp. Ex-Machina. Inc. Full Moon Software. Inc. Great Plains Software Mainstream Data. Inc. No Hands Software Octel Communications Corp. Pacer Software, Inc. Quark. Inc. **RSA Data Security** Shana Corp. Snow Software Snow Software SouthBeach Software Corp. Stac Electronics StarNine Technologies, Inc. StarNine Technologies, Inc. StarNine Technologies. Inc. STF Technologies, Inc. Team Coordination Software, Inc. University of Michigan **Useful Software Corporation** WordPerfect Corp.

New Technologies Supported

QuickTime PowerTalk, QuickTime QuickTime PowerTalk, AppleScript PowerTalk, AppleScript PowerTalk PowerTalk PowerTalk, AppleScript PowerTalk, AppleScript, QuickTime PowerTalk, AppleScript, QuickTime PowerTalk PowerTalk PowerTalk PowerTalk, AppleScript PowerTalk PowerTalk, AppleScript PowerTalk, AppleScript PowerTalk, AppleScript PowerTalk PowerTalk PowerTalk PowerTalk, QuickTime PowerTalk, AppleScript, QuickTime PowerTalk PowerTalk, AppleScript PowerTalk, AppleScript PowerTalk, AppleScript PowerTalk, AppleScript QuickTime PowerTalk PowerTalk PowerTalk PowerTalk PowerTalk PowerTalk PowerTalk PowerTalk, AppleScript, QuickTime



Apple will be building, and forcefully, on this announcement effort between now and San Francisco Macworld Exposition in January, when there will be a System 7 Pro showcase. And Apple's not just going to be selling System 7 Pro; we're going to be working with you to help sell your products, as well. It's part of a simple formula we imagine you're used to hearing by now: Our operating system and computers plus your hardware and software products offer users a complete solution. Your products and ours accomplish together in the marketplace what they never could on their own.

System 7 Pro Marketing

Here's how we're applying our marketing muscle and how you can join us; you'll note that just about everything we're doing includes, or even relies on, developer participation.

For the past couple of months, we've been briefing members of the press about System 7 Pro and developers' products that take advantage of PowerTalk, Apple-Script, and QuickTime 1.6. In addition, we've been working with retailers to make sure System 7 Pro and your products have a large presence in stores. Walk into a software store sometime soon and you're likely to see "Pro Man," a cardboard cutout of a sixfoot-tall football player carrying the System 7 Pro box and a banner announcing "System 7 has gone Pro."

We're conducting a large direct mail marketing campaign to the installed base of Macintosh users in the United States, as well as offering customer seminars in ten U.S. cities starting by early next year. Selected developers will help us conduct these seminars, which will be designed to teach a broad customer cross-section, from home business users to systems integrators, about the advantages of System 7 Pro. To make sure customers know that they can begin using System 7 Pro technology *today*, we're including separate fliers in the System 7 Pro box about a dozen developers' products that distinctively take advantage of the new operating system features. These include the following:

• a gateways product connecting PowerTalk to other mail services and another that lets users send and receive faxes using PowerTalk

• an agent for gathering news from on-line services

• a mail-capable word-processing application that can send its own files to other System 7 Pro users

• a scheduling package

• word-processing and other applications that can handle QuickTime sound and video

• a wide variety of scriptable applications

There's a small (I repeat, small) chance that literature for your product may one day be included in the System 7 Pro box. We have to keep this to a highly limited group of products selected from the hundreds that will soon be made available. All I can say is, keep working on products that use PowerTalk, AppleScript, and Quick-Time 1.6.1; you can think of having your flier included in a future box as a small pot of gold at the end of the development rainbow.

Apple would also like to work with you on publicity opportunities for your System 7 Pro product and your customers' successes. Please send an AppleLink message to AOCE.IDEAS when you are ready to announce a product or publicize a particular customer's interesting solution, and you'll be provided with the right contact in Apple Public Relations.

In addition, Apple is assembling an electronic catalog (actually an AOCE catalog, for those of you familiar with PowerTalk terminology) directed at customers that will promote System 7 Pro applications; the catalog may one day be shipped with System 7 Pro. We're making available System 7 Pro labels to put on your System 7 Pro product's box. Further, we're putting together a "solutions cookbook" describing the categories of System 7 Pro products and the various products available within those categories for dealers, value-added resellers, inhouse developers, and multi-user customers.

Finally, we'll be conducting an extensive coadvertising campaign for System 7 Pro and your products in the months to come. This is likely to include a so-called showcase in *MacWEEK*, where we buy a large amount of ad space and sell parts of it to those of you who want to advertise System 7 Pro products. This helps you because the cost of buying one big chunk of advertising space is less than buying many small ones, and we can pass this savings on to you. We'll also be putting togeth-

er a print catalog of your products for distribution through the mail, at trade shows, and, possibly, in the System 7 Pro box.

If you're interested in joining in on any of these comarketing programs, send an AppleLink message to AOCE.IDEAS.

Take Your Applications "Pro"

I hope this Strategy Mosaic leaves you poised to jump on the System 7 Pro bandwagon (if you haven't already). Before doing anything else, be sure to read "How to Get Started With PowerTalk" on page 18 as well as our exclusive interview on page 15 with Gursharan Sidhu, the visionary behind AOCE. This month's Market Research Monthly (page 23) also provides details about the market for collaborative applications.

To conclude with the point I made earlier, this article deliberately emphasizes how important the success of System 7 Pro is to Apple. I figure that if you know how serious we are about "going Pro," you'll turn up both the development and marketing flames under your System 7 Pro products. Going Pro together helps us further establish the Macintosh computing experience's edge in the marketplace, making us the platform of choice for collaboration. customization, and multimedia. All of which leads to that elusive increase in marketshare we've all been looking for. 🕈



NOVEMBER 1993

AppleDirections

Apple News

Software Dispatch

continued from page 1

hands of customers who needed it but might otherwise have had trouble finding it. Apple Direct reported in April 1992 that one of the initiative's goals was to ship users a CD "that contains demo programs for numerous Macintosh products [to help] purchasers . . . make better buying decisions." That idea became more specific over time: Those working on the initiative hoped to collect software and place it in encrypted form on the CD. Users could purchase the "key" to decrypt the software they wanted. The intent was both to increase visibility of your products and to help customers find the software they needed.

That idea is now a new business for Apple. The first Software Dispatch CD is currently being distributed to U.S. customers and it contains more than 75 Macintosh titles from dozens of publishers. Apple will soon release a second CD with Microsoft Windows titles, followed by a Macintosh CD for the United Kingdom at the end of the year.

Eventually, localized Macintosh and Windows CDs will be released in many major geographic markets; Software Dispatch will also prepare special CDs with software intended for specific markets, such as accounting, high-end publishing and network administration.

While Apple intends for Software Dispatch to be a profitable business, it will also offer you a compelling way to market your software products without many of the risks associated with other CD-based distribution opportunities; Software Dispatch doesn't charge up-front fees for participation, sign-up fees, or per-CD or per-megabyte charges. Having your product included on the CD will result in new sales for you. In addition, it will save you the money usually required to manufacture and inventory physical packaging and manuals, because the CD delivers your product and its documentation electronically.

Perhaps the greatest benefit the CD offers is the convenient shopping experience it provides customers. Software shoppers have long demanded the ability to try out software before they buy it, a luxury few retailers can offer. Through the CD, you can provide potential customers with trial versions of your software as well as "infomercials" and data sheets. Also, the CD employs a fast, easyto-use "shopper" application for browsing the wide variety of software and information included on the CD, from clip art and communications/networking packages to utilities and word processors.

After customers decide on what they'd like to purchase, they call a toll-free telephone number anytime, night or day, and give a sales representative a credit card number and an order code generated by the "shopper" application. In return, customers receive an numeric "key" that they enter to unlock purchased products on the CD. (Purchases take place only after users view and agree to licensing conditions, and all sales come with a 30-day money-back guarantee.) The products are then placed in a "shopping bag" icon on the desktop, from which they can be downloaded, complete with electronic documentation, onto a hard drive.

It's expected that Software Dispatch's round-the-clock toll-free telephone shopping will generate the kinds of impulse sales that just aren't possible in retail channels. (How many software stores do you know that are open at 3:00 A.M. or on Christmas day?)

Getting your product on the CD takes some work on your part.

First, Software Dispatch has to select your product, basing the decision on its quality, market potential, and its fit with the customer set the particular disc is intended for. After the product has been accepted, you have to provide the sales materials, including a demo version and/or guided tour for the CD, as well as electronic versions of your documentation prepared in Apple DocViewer format or Adobe[™] Acrobat if you're a Windows developer. (Apple can refer you to consultants who can help you prepare multimedia sales material and electronic documentation.)

In return for your effort, Apple puts its muscle into widely distributing the CD, giving your product and marketing material unprecedented visibility. This year alone, Apple anticipates delivering Software Dispatch CDs to more than two million owners of CD-ROM drives, in the next 12 months, through these channels:

• in-box shipments with new CD-equipped computers (both Macintosh computers, and, through agreements with other manufacturers, Windows computers) and external CD-ROM drives

• direct mail campaigns

• direct response advertising In addition, you receive competitive royalties for each sale, publicity and advertising for your products through Apple's marketing of the CD, and access to information about the customers that purchase your product.

If you'd like Software Dispatch to consider your products for inclusion in an upcoming Software Dispatch CD, you can send your request for an application to Apple Computer, Software Dispatch, MS 303-4S, 20525 Mariani Ave., Cupertino, CA 95014. Be sure to include your name, title, company name and address, phone and fax numbers, AppleLink and/or Internet addresses, and product names.

Newton Development Gears Up, Goes International

Several numbers point to the growing popularity of the Newton platform with both developers and the public at large. First on Sept. 11 and 12, Apple's new R&D Campus in Cupertino, California, hosted a Newton Expo that drew over 20,000 people-more than twice as many as expected. Second, Apple Computer, Inc., reports that over 2,000 developers have expressed interest in developing Newton titles. And third, Apple reports that is has sold over 50,000 Newton MessagePad units in the United States and Europe.

For you as a developer, the bottom line is this: Market leadership often starts with getting your product out first, and more than a handful of developers are already ahead of you. Here's a list of announced Newton products and technologies, most of which were demonstrated at the Newton Expo:

• ClarisGames[™] for Newton (Claris Corp.)—a collection of single-player games and puzzles.

• ContactPad (Pastel Development Corp.)—a contact-management tool for the Newton MessagePad device.

• CSL Profiles in Hand (Chancery Software)—a datacollection tool used to track students' performance.

• Day-Timer Meeting and Expense Pack (Slate Software) software for scheduling and running meetings and organizing expense reports.

• DrawPad (Saltire Software)—a drawing program for capturing, refining, and dimensioning graphical information.



• Dyno Notepad (Portfolio Software, Inc.)—a word-processing tool designed to help users compose and organize agendas, lists, and outlines.

• Fingertip for Golf (Fingertip Technologies, Inc.)—a scoring, performance-tracking, and advisory program for golf.

• GeoAssist (Strategic Mapping, Inc.)—an application that provides street-map information for "thousands of U.S. cities" and allows the user to connect to the On-Line Telephone Directory database and the Dun and Bradstreet Business Database.

• GoFigure (Dubl-Click Software, Inc.)—a collection of over a dozen general and specialized calculators and numeric worksheets.

• Hippocrates (HealthCare Communications)—a program to help manage prescriptions, schedules of patients and healthcare professionals, and other hospital-care related duties.

• Meeting Maker (ON Technology)—a new Macintosh version of Meeting Maker that can export schedules to a Newton datebook.

• MobileCalc (MobileSoft Corp.)—a spreadsheet application slanted toward business and financial calculations.

• PocketCall (Ex Machina, Inc.)—a configurable data-display program and terminal emulator that allows a Newton MessagePad device to communicate with online databases and wireless messaging services. A related Macintosh product, Notify! for PowerTalk, is a PowerTalk personal gateway that allows System 7 Pro users to send messages to a Newton MessagePad device.

• Portable MLS (Integration Systems, Inc.)—a program that allows realtors to capture and search up-to-date real estate information from real estate Multiple Listing Services.

• PresenterPad (Avalon Engineering, Inc.)—tools for running

meetings, making presentations, and giving speeches, including a portable TelePrompTer and a remote slide show manager.

• PRINCIPIA (Dendrite International, Inc.)—a program that gives health-care salespeople tools for keeping track of their schedules, contacts, and sales efforts.

• QuickAccess (CE Software, Inc.)—software that allows Newton MessagePad users to send and receive mail on LAN-based mail system transports, including CE Software's QuickMail, Novell's NetWare MHS, and Apple's PowerTalk.

• VoiceAccess (CTM Development SA)—though VoiceAccess is a line of Macintosh-based voicemail products, CTM is distributing a Newton application that helps the on-the-road user access voice mail through a telephone and reconfigure the user's account.

Additional companies have announced plans to create as-yetunnamed products for the Newton platform:

• ComputerBooks announced "new medical software designed to provide doctors . . . with instant access to an array of specialized medical knowledge."

• CorNet, Inc., announced plans for a Newton MessagePad program to complement its desktop Electronic Territory Management platform (for sales tracking and account management).

• Fingertip Technologies and Sports Team Analysis and Tracking Systems (STATS, Inc.) will develop software that will access and manipulate detailed majorleague baseball statistics and assist fantasy-league baseball enthusiasts.

• GeoSystems (part of R. R. Donnelley and Sons Co.) will provide "mapping technology" for applications like Fodor's 1994 Travel Manager: Top U.S. Cities. It will allow the Newton MessagePad to do things like giving directions to locations listed in the city databases.

• KPMG Peat Marwick has announced Newton • Solutions, specialized applications that will focus on business issues such as customer response speed and productivity enhancement. Targeted industries include manufacturing, health care, financial services, information and communication, and government. One such solution, ProMED, is described as a "package of methodologies, services, and customized technology solutions" that will give physicians "immediate access to critical care data for orders, results, medical history, documentation, consultative care, scheduling, patient records, and problem lists."

• Pharos Technologies, Inc., has announced the introduction of Newton software development services for industries including manufacturing, customer service, sales and marketing, entertainment, field support services, decision support, engineering, and accounting.

• PRC Realty Systems, a supplier of computer-based information services for the real estate industry, has announced that it will develop software that will allow Realtors on-line "access to multiple listing service databases such as property listings, tax roll and deed transfer information, and mortgage information."

• State of the Art, Inc., has announced that it has begun work on software that will help individuals record business-related expenses and generate expense reports that are consistent with U.S. Internal Revenue Service guidelines.

• BellSouth Corp. announced that their Mobile Systems Group will offer wireless communications products and services for Newton-based products.

In related news, Apple's new Starcore publishing group announced the following titles:

• Fodor's '94 Travel Manager: Top U.S. Cities • Fortune 500 Guide to American Business

• Dell Crossword Puzzles and Other Games

• Money Magazine Financial Assistant

Money Magazine Business
Forms

Columbo's Mystery CapersThe Economist World in

Figures

The Newton MessagePad device was introduced at the Live '93 Consumer Electronics Show on Sept. 16, and developers in the United Kingdom are already producing Newton titles. The MultiMedia Corporation is an associated company of the BBC; it has developed an upcoming Starcore title, The Economist World in Figures. Also, Electronic Book Publishing has developed a Newton title for Oxford University Press that contains a dictionary, encyclopedia, and book of quotations.

For further information on many of these and other more recently announced products, see AppleLink, pathname Newton: Software & Hardware.

If you have purchased a copy of the Newton Toolkit (NTK) from APDA, you are entitled to access to a private section of AppleLink for registered NTK owners. If you have not received this information from APDA, send an AppleLink message to PIESYSOP.

Drag and Drop— Anywhere, Anything

This month, Apple Computer, Inc., released the Macintosh Drag and Drop Developer's Kit, a product that implements a new Toolbox service and extension to System 7. The Macintosh Drag





Dragging text between applications.



Dragging a clipping file into a document.

and Drop technology, implemented as a system extension, provides the Finder's standard drag-and-drop interface and extends it with support for drag and drop of any data between applications. Macintosh Drag and Drop is compatible with the System 7 Pro Finder; when used with Macintosh Easy Open, it also provides support for automatic data type translation.

The reason for Macintosh Drag and Drop is simple: Users want to drag data the same way they copy and paste it today. Macintosh Drag and Drop allows drag and drop between different applications, much like the Scrap Manager's copy and paste. And because drag and drop is a more intuitive and faster operation than copy and paste, drag and drop is easier for users to learn.

Macintosh Drag and Drop is in your—and your applications' future. It's available for today's applications, and drag-and-drop behavior is very much a part of the OpenDoc cross-platform document architecture. (For more information on OpenDoc, see the Strategy Mosaic article on page 1 of the August 1993 issue of *Apple Directions;* also, see "Component Integration Laboratories To Promote Open Document Standards" on page 11 of this issue.) Apple is making these extended drag-and-drop features a fundamental part of the Macintosh user interface, and users will

By using the Drag Manager (the API that implements the Macintosh Drag and Drop technology), you can easily provide the standard drag and drop behavior and add extended dragand-drop behavior to applications. By extending drag-anddrop behavior to new situations-dragging a graphic image from one document to another, for example—Apple gives users a powerful, intuitive way of manipulating data using a metaphor they're already comfortable with.

To add drag and drop to your application, you need only add a few new calls and provide two callback routines that are utilized during drags. Apple provides both sample code and utility routines that will help you support the recommended drag-and-drop interface.

For example, with an application that uses the Macintosh Drag and Drop extension, users can simply select their text and drag it from a word processor to a pagelayout application (see the illustrations to the left). After receiving electronic mail, users can drag files out of an "enclosures" window and onto the Finder desktop. Or as users organize a slide-show presentation, they can delete unwanted slides by dragging them to the Trash.

The Macintosh Drag and Drop architecture is flexible and supports any drag-and-drop services you've already implemented. This architecture gives you several ways to customize and override default behavior, as well as provide the standard drag-and-drop interface with minimal effort on your part.

Macintosh Drag and Drop improves on the Scrap Manager by allowing the streaming and delayed delivery of data. Users can drag and drop multiple items, each with different data types.



Macintosh Easy Open integrates with the Macintosh Drag and Drop extension, providing datatype translation services automatically and without any additional effort on your part. This means you can simply support your application's data types and count on Macintosh Easy Open to automatically translate data formats from other applications.

The Macintosh Drag and Drop extension, when present, works well with the System 7 Pro Finder. (Though System 7 Pro contains its own drag-and-drop capabilities, the Macintosh Drag and Drop extension must be present for your application to support drag-and-drop behavior.) Because of the System 7 Pro Finder's builtin software hooks to Macintosh Drag and Drop, drag-and-dropaware applications can work more closely with it. For example, if a user drags a file from the System 7 Pro Finder desktop to an application's window, the application receives file information about the file that was dragged onto it. The application can use that information to manipulate the file itself-for example, to extract the file's contents and put them in the document's window. When a user drags data from an application to the System 7 Pro Finder, the application can find out where the data was dropped-for example, that it was dropped into the Trash.

In addition, Macintosh Drag and Drop lets users drag and drop any data to the System 7 Pro Finder. Hooks in the System 7 Pro Finder cause data dropped onto the desktop to appear as a "clipping" file that users can then use as clipboards. Conversely, clipping files dragged into application windows appear as data within the window (see the illustrations on the previous page). System 7 Pro users who use Macintosh Drag and Drop can keep frequently used data handy as clipping files.

Macintosh Drag and Drop requires System Software version 7.0 or later and is available in the Macintosh Drag and Drop Developer's Kit from APDA. Contact APDA at (800) 282-2732 in the United States or (716) 871-6555 outside the United States. You'll be able to license Macintosh Drag and Drop through Apple Software Licensing (AppleLink: SW.LICENSE; or phone: [408] 974-4667) for inclusion in your products.

Component Integration Laboratories to Promote Open Document Standards

In an effort to establish a common framework that will allow different desktop platforms to create and exchange documents easily, seven hardware, software, and networking companies have united to form the Component Integration Laboratories (CIL). Apple Computer, Inc., IBM, Novell, Oracle, Taligent, WordPerfect Corporation, and Xerox Corporation recently participated in a joint announcement establishing the Component Integration Laboratories.

The purpose of CIL is to establish, promote, and certify key technologies that will integrate information and media from many applications within a networked environment. CIL technology is designed to fundamentally change the way a user works with a computer, evolving the focus from application-centered to document-centered computing. This new architecture allows users to embed different kinds of documents from different applications into a single working document.

Users will be able to integrate multimedia, three-dimensional models, text, graphics, and other types of information in any application. In essence, CIL provides an industry-wide compound-document architecture.

Commercial and in-house developers can become members of CIL and will gain immediate access to software architectures that have already been designed or, in some cases, completed. By using these architectures, developers will be able to write flexible, more sophisticated applications in much less time than before. In addition. users will find such applications more valuable because they can be used with other applications that comply with this emerging, multivendor standard.

Developers writing to the association's specifications will be able to create plug-and-play applications that can be partitioned into independent components. As part of CIL, they will receive early access to leading-edge technology, training, comarketing, and technical support. Once their products are ready for market, they can be tested and certified by CIL, indicating that they meet the software integration standards adopted by industry members.

Initial CIL technology will include

• the OpenDoc software architecture for Windows, OS/2, Macintosh, and UNIX

• the Bento specification for the storage and interchange of multimedia information

• the Open Scripting Architecture (OSA), which facilitates the coexistence of multiple scripting systems

• the System Object Model (SOM) architecture, a highly efficient platform and languageindependent run-time mechanism for dynamic object linking

"CIL is the outgrowth of indi-

vidual vendors' efforts toward the development of compound documents, scripting and automation interfaces, and standards for object interfaces," said Cliff Reeves, director of Object Systems, from IBM's Personal Software Products division. "We see joining CIL and contributing the SOM technology as an opportunity to leverage and speed this development cycle."

"OpenDoc is an exciting foundation that allows developers to move their existing applications to the compound document world, and provides compatibility across Macintosh, OS/2, DOS, Windows, and UNIX operating systems," said David Nagel, senior vice president and general manager of Apple's AppleSoft division. "As well, Open-Doc will work with Taligent's new object-oriented operating environment, assuring a smooth path between OpenDoc and Taligent electronic documents."

Bento, the OSA, and SOM are currently available from Apple and IBM and will be made available to members. For more information regarding membership, contact the Component Integration Laboratories at (415) 750-8352.

The Component Integration Laboratories, based in San Francisco, California, is a nonprofit association dedicated to software plug-and-play compatibility across multiple computer platforms and applications.

Apple Expands Chinese Business Operations

Although the People's Republic of China won't be hosting the Olympic games in the year 2000, by then we expect that it will provide a significantly larger market for your products.



In September, Apple Computer, Inc., announced it has greatly expanded its business operations in the People's Republic of China with a trio of initiatives. Apple CEO Michael Spindler, delivering the announcement in Beijing, said the initiatives-the opening of a Beijing office, the signing of a distribution agreement with Legend Computer Group, and the establishment of an Apple-sponsored computer training center at Beijing's Tsinghua University-will make it easier than ever before for Chinese people to purchase Apple products.

"Today marks a significant milestone for Apple in our efforts to become a leading provider of personal computers in China," said Spindler. "We intend to offer our Chinese customers leadingedge products and an outstanding sales and service network—a combination that will enable us to succeed in the market."

As Apple becomes successful in this vast new market, you'll have increasing opportunities to sell versions of your products localized for Chinese users, especially in business and government. The Apple Beijing office plans to provide support for resellers, developers, and customers and help in establishing relationships with government and business partners in China. Apple is already working closely with software developers in China to provide more localized applications to meet specific customer requirements.

Last year China's was the fastest growing economy in the world. The International Data Corporation (IDC) China/Hong Kong estimates that the Chinese personal computer market will grow at an annual rate of more than 20 percent between now and the year 2000.

Apple designed the Chinese System 7.1S operating system from the beginning with the Chinese user in mind. Combined with localized versions of your products, the Macintosh computer and ChineseSystem 7.1S will offer an elegant, leading-edge computing solution for Chinese users. Today in China, Apple sells its Macintosh personal computers, including the popular PowerBook family, standard with Chinese System 7.1S, TrueType Chinese fonts, and four popular input methods.

Under the agreement, the Legend Computer Group will market and service a wide range of Apple desktop and notebook computers, as well as printers and other peripherals, through its nationwide network of 18 sales offices, more than 200 dealers and 50 service centers. Legend's own computers and distribution agreements with AST, Hewlett-Packard, IBM, and other firms already give it more than a 20 percent share of the Chinese market.

The Tsinghua Apple Training Center at the Computing Center at Tsinghua University plans to provide training on the Macintosh platform for Apple developers, resellers, and customers, as well as provide a multimedia training environment for Tsinghua University students and professors. The Apple Training Center will also serve to demonstrate the Macintosh platform's suitability for use with education and training applications for many government departments throughout China.

DocViewer Licensing Update

To update last month's article "Apple to License Apple DocViewer," the currently available version of the builder is B14.

The fee for rights to distribute only the viewer part of Apple DocViewer to your customers was inaccurately reported last month. The fee is \$2500 for up to 50,000 copies (not 10,000 copies, as originally reported) and \$5000 for over 50,000 copies.

For more information about Apple DocViewer, send an AppleLink message to ADV. *



Technology

CD Highlights

Tool Chest Edition, November 1993: *Northern Hexposure*

Hello and welcome to the November Tool Chest Edition of the Developer CD Series, featuring over 120 MB of new and revised technical documentation, tools, utilities, and system extensions. Along with updates to the MPW Interfaces, Apple IIe Card software, and the Thread Manager, here's what this month's new material includes.

CODE Editor for ResEdit

The file "CODE editor for ResEdit 2.1" contains a ResEdit 2.1 (or later) 'RSSC' resource that adds a disassembly viewer to ResEdit to handle the 'CODE' resource and code-like resources. It allows you to view code resources as assembly code instead of "raw" hexadecimal code. When added to ResEdit version 2.1.1 or later, the CODE editor can also operate concurrently with the basic HEXA editor, providing editing and searching capabilities as well. The disassembly code is annotated with the module names extracted from the MacsBug strings in the code. Navigation facilities are provided to allow you to view related pieces of code. Special formatting can be applied to the disassembled code for embedded data that cannot normally be distinguished from actual code. There are also facilities to allow you to answer the question "who references this location?"

Macintosh Drag and Drop

The Drag Manager implements intra-application and interapplication drag and drop, while integrating with the Finder and Macintosh Easy Open. This folder includes documentation for the new Drag Manager Toolbox and new human interface guidelines for implementing drag and drop in your applications. For more about the Drag Manager, see Drag and Drop—Anywhere, Anything" on page 9 of this issue.

MCL Utilities

Includes the latest patches and interface files for users of Macintosh Common Lisp (MCL). This is a maintenance release, with some bug fixes and support for MCL on newer Macintosh platforms such as the Macintosh Quadra av series. If you currently have MCL 2.0, the enclosed files will update you to



Tool Chest Edition

2.01. This package includes tutorials and discussions of various Lisp-related topics.

MoreFiles

MoreFiles is a collection of high-level routines written over the last couple of years to answer File Manager questions developers have sent to the Developer Support Center (DSC) of Apple Computer, Inc. The routines have been tested (but not stress-tested), documented, and code-reviewed by DSC staff. MoreFiles provides high-level and FSSpec-style routines

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for parameter-block only File Manager calls, useful utility routines that perform many common operations related to the File Manager, a robust file-copy routine, and a recursive directory-copy routine.

Network Software Installer 1.4

This version of the Network Software Installer (NSI) includes AppleTalk version 58.1 and updates to the EtherTalk and TokenTalk drivers. NSI 1.4 correctly installs Ethernet software on the Macintosh Quadra 840av and Macintosh Centris 660av systems.

PlainTalk Speech Technologies

This folder contains Apple's PlainTalk speech technologies, including software, sample code, and documentation for both automatic speech recognition and text to speech:

- Speech Manager (1.1.1 Golden Master)
- MacinTalkPro 2 (1.0 Golden Master)
- speech-recognition extensions and control panels
- documentation
- sample code

QuickDraw GX 1.0b2

This folder contains the latest beta release of QuickDraw GX software. It provides all the code you need to use QuickDraw GX, plus documentation, development tools, sample code, and human interface guidelines.

SpriteWorld 1.0b3

SpriteWorld is a sprite-based animation architecture for the Macintosh. SpriteWorld provides a set of code libraries and interfaces specifying a simple but complete application

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Human Interface

Menu Bar Madness

By Peter Bickford

A while ago, a discussion started up on AppleLink about the need for interface direction for enterprise computing. I invited folks to send in questions that they thought should be addressed, so that I could perhaps tackle them in the monthly Human Interface article.

John Gallaugher sprang to the challenge immediately, sending me a list of questions that I've excerpted below:

Doc,

I'll try to bigblight some of the problem areas that our group has experienced while developing a large, integrated corporate application. If you can offer any advice we'd really appreciate it.

• The actions that can operate on a record list are usually quite different from the functions that can operate on a window for an individual record. Should the menu bar change depending on which window is in front? Some record lists and menus support unique actions that only appear in one or two areas—if we use one big "uni-menu," these items would be disabled in most places and it seems this might confuse the user.

• What is the best way to handle items that are security dependent? For example, if the application allows some users to add and delete items, but the current user does not have the security, should the Delete menu be disabled or should it be completely removed? What if the administrator is only one user out of dozens?

• Should we use the File menu to hold items relating to record manipulation on the host? For example, in some sections we'll need to create new records on the host, allow the user to view and modify records on the host, and allow users to close the open window and print the current window's contents. Do we create a File menu to hold a New command for a new record and an Open command to open a record selected from a record list, even when the File menu is actually something on the host instead of something accessible on the desktop? If we shouldn't use File, what should we use?

• Do you have thoughts on Save/Cancel/Close implementations for forms and record lists? Currently the application is set up so that records are entered in "form-like" windows that are essentially modeless dialog boxes. The dialogs contain Save and Cancel buttons along the bottom. A record list doesn't have any buttons on the bottom—it just has a close box. A record list does have an icon list on the bottom for performing manipulations on the records. I've included a few screen shots of the current application. We have had all sorts of debates on whether or not we should have icons, buttons, or nothing at all.

Any ideas/recommendations?

Thanks-John

Gentle Reader (I wanted to start with something other than "Dear John"):

The menu bar has been getting a lot of abuse and misuse lately, not all of it the application developer's fault. Applications such as databases seem to cry out for different standards than the ones we've known in the past, and Apple hasn't been very quick to address the issues. Moreover, some development environments make it nearly impossible to implement a menu bar that doesn't mysteriously swap out menus, make items disappear, and so forth. All in all, it's high time that we took aim at the confusion surrounding this venerable interface element.

Menus Are the Map to the Application

To most folks, it's pretty obvious that the menu bar is the place where the application's menus go. I say "most" because I've seen at least one developer who thought the menu bar was also a nifty place to put the program's serial number.

What's not as obvious is how important the menu bar is to the user's sense of place. In a very real way, the menu bar is the user's "map" to the application. When users start to use a new application, they'll typically walk through the menus, trying various menu commands to see what they do. In a way, the menu bar becomes a table of contents to the features of the program. Users get a sense that they've mastered the application when they know how to work all the commands in the menu bar.

If you want to prevent your users from ever feeling like they know what's going on with a program, all you have to do is keep switching the menu bar around. Make menu items disappear and reappear capriciously. Have whole menus come and go based on mysterious program states. Do this often enough and you can frustrate just about anyone.

Sadly, we at Apple have been unable to turn frustration into a competitive advantage.

As a result, we try to practice something called *perceived stability*, the idea that you don't change users' environments around on them. For menus, this means that the menu bar stays constant, that commands are disabled (grayed out) rather than disappear, and that the only time the menu bar changes is when users switch between applications.

Admittedly, disabling commands can cause confusion, since most users' reaction to disabled commands is to try to figure out what enables them. Often the answer is fairly obvious, but sometimes users need to explore a bit to find the solution. (Incidentally, Balloon Help is especially useful for showing why things are disabled.) In any case, once the user realizes why a command is disabled, they can use that knowledge when they see the menu item again.

The alternative, to have disabled commands simply disappear, may seem to be less confusing at first, but only as long as it doesn't occur to users that they'd like to use that command. When that happens, users simply become lost. At best, users are left with a sense of "I've seen it around here someplace," and will proceed to hunt through every menu and dialog box until they



either find the magically reappearing menu item or else give up in frustration.

At worst, users don't remember, or never discover, the invisible feature at all. Microsoft Mail, for example, has legions of users who are unable to manage groups, change their passwords, or even access the help system, since the menu for doing this only appears when users click on a particular window. This is a key flaw in what is otherwise a fine program.

Strangely, all this may be an argument for making security-sensitive items invisible to nonprivileged users. Depending on the circumstance, you may not want the users to know that the secured options exist at all. If so, making them invisible would be a good choice. On the other hand, if the users are likely to look for these items (for example, a Delete Record command) then you may stave off trouble by showing the item, either disabled or with an alert reporting that they don't have the proper privileges to use it.

The File Menu and Documentless Applications

On the Macintosh, we're used to using applications, like word processors, to manipulate documents. A document can be thought of as the smallest body of your work that can be handled as an independent entity. For example, you can save a document, copy it onto a disk, and give it to another person who can then open it. The clever observer will note that creating a document is pretty much the same as creating a file. As such, it makes sense that the basic document-handling functions (open, close, print, and so on) are located under the File menu. For most applications, manipulating information means manipulating documents. However, there are some applications, like databases, for which this isn't necessarily the case. For instance, you may enter all sorts of records into a customer database, but the customer records aren't documents—they can't stand by themselves. In this case, the database itself is the document. If the database is located on a remote mainframe, it's not uncommon for the Macintosh application to be unable to create a new "document" at all. If we had a mind to, we could refer to such programs as "documentless applications."

As I pointed out earlier, the File menu is really meant for documents. If you're working on a database program, menu commands like New (database) would belong there, but New (customer record) would not. If you don't have the ability to make a new database, leave New out of the File menu. The same goes for Open, Save, and so on.

Commands that deal with records can be handled under their own menus (for example, a menu named Customers might have a New Customer command). Another solution is to feature the necessary Open/Save/Remove commands as buttons in the windows used for manipulating those sorts of records.

> Till next time, Doc AppleLink: THE.DOKTOR

Pete Bickford is a member of the Apple Business Systems human interface team.

A Talk With Gursharan Sidhu, AOCE Architect

The release of PowerTalk as part of System 7 Pro this month and the imminent release of Power-Share server software represents a significant achievement for Apple Computer, Inc.'s Collaboration Products Group.

This month, Apple Directions spoke with the Collaboration Products Group's director, Gursharan Sidhu, the chief visionary behind the Apple Open Collaboration Environment (AOCE) technology and the PowerTalk and PowerShare products. You might also recall that Sidhu was the principal architect of AppleTalk, the network system built into every Macintosh computer and LaserWriter printer, as well as the AppleShare and Macintosh File Sharing family of products.

Sidhu spoke enthusiastically about a wide range of subjects, from Apple's System 7 Pro strategy and PowerTalk's key features to the opportunities created for both developers and users by the release of the new technology.

Apple Directions: Why is Apple releasing System 7 Pro?

Gursharan Sidhu: Apple has been developing a number of cutting-edge technologies, and one of the issues that we have spent a lot of time discussing is how to deliver these technologies in a manner which makes the customer's decision simple. At the same time, we want to provide the greatest opportunity for developers to sell products which take advantage of these technologies.

A key decision reached by AppleSoft was to act on our realization that one size doesn't fit all and to offer two "flavors" of the Macintosh operating system, System 7.1, which has been shipping already, and a version called System 7 Pro, which becomes a vehicle for the latest and greatest technologies from Apple.

This makes the decision for customers very simple. If the customer has a Macintosh computer being put to use at home for very simple standard activities like keeping recipes, writing a few documents, etc., which don't require integrating processes across applications, interacting with others, or using communications technology—they can go with System 7, the base system that has been in the marketplace for some time.

What if customers want to run, let's say, a home business, or if they would like to use System 7 capabilities in a small business or enterprise and in higher education? These are settings in which the marketplace has told us repeatedly that working with others is really important. The system software of choice for these customers is System 7 Pro. This has major implications for developers: System 7 Pro makes these exciting new technologies mainstream.

Advantage Over the Competition

AD: What kind of response have you had to the new release?



Sidhu: Very positive. We've had a very remarkable increase in the commitment by third parties to deliver applications and capabilities that take advantage of the new technologies in System 7 Pro. This is an indication that developers appreciate this decision. We've also had feedback from sites that have been seeded AOCE technologies; they like the simplified decision afforded them by this approach.

A number of analysts have also commented very favorably on Apple's decision to make the new technologies mainstream; in fact, some have noted that this way of delivering our technologies has potentially given the Macintosh computer an 18-month advantage over competitive system software from other vendors. So, all around, we feel that this difficult decision has been a good one for everybody concerned.

AD: Getting back to the 18month advantage, can you be more specific about that?

Sidhu: A very respected industry analyst was urging us to put System 7 Pro technologies in every Macintosh computer to really get a market benefit. That individual's observation is that we are the first vendor to make interpersonal communication and collaborative computing technologies mainstream in the operating system. Other vendors, like Lotus and Borland, are providing middleware that sits on someone else's operating system and requires an additional customer purchase. We are making capabilities of that ilk fundamental to the operating environment.

This is very similar to the way we made printing intrinsic to the Macintosh in the mid-1980s. Now in the early to mid-90s we are bringing communication and collaboration features into the mainstream of the operating system for use by every application running on a Macintosh computer and, eventually, on other platforms. Those features are made available at the operating system level so that developers don't have to go out and reinvent them again and again with their scarce resources.

AD: The most recent of the three new extensions, PowerTalk, is impressive technology, but we're wondering if you saw any limitations to its acceptance—and, if so, what are you doing about them?

Sidhu: Clearly to get such an extensive technology to market in a timely fashion means releasing it with the potential for improvement. We could wait and perfect it for many months, but by then we could lose our advantage, even if the competition only produced some half-baked thing.

We also have to bring it to market now to help developers recoup the investments they've already made in developing software for the new technology. We've obviously had to make a few trade-offs; we could go on refining the user experience even more, make the footprint even smaller, and get the last ounce of performance out of the system. These are things that we will have to keep on improving in subsequent releases.

Fortunately, the feedback from seed sites and even from users at Apple—probably the most critical and unforgiving seed site for any Macintosh product—has been extremely positive.

Cross-Platform Issues

AD: Right now, PowerTalk and the applications that work with it are valuable in Macintosh sites. What's being done to take it across to other platforms?

Sidhu: This is the top priority for us. The most important thing from the customers' point of view is that they not be penalized for previous purchase decisions they have made. They may have already acquired messaging and mail products, and they don't want these legacy systems to become instantly obsolete. They don't want the decision to replace their systems forced upon them; they need to be able to make the decision according to their own time frame.

Also, other computers than Macintosh computers are in fact prevalent in large enterprises; even in small businesses where the Macintosh computer is very, very strong, there will be a few Windows-based machines. We want to be sure that these computers can communicate with each other.

In the short term, service access modules will provide the main solution in this area. They provide interoperability at the electronic-mail and catalogs/directories level. So, for instance, if an office is already using an existing mail system, even if they use both Macintosh and Windows computers, they'll still be able to communicate very effectively, except the Macintosh computers running System 7 Pro will have a much higher level of capability than they had before. The Windows machines initially won't, but this provides us an opportunity to put PowerTalk solutions on the Windows platform, a further business opportunity for Apple.

Likewise, Apple will be making its PowerShare server technologies available on an appropriate licensing basis to developers who would like to make them available on other server platforms than a Macintosh computer.

AOCE, PowerTalk, and PowerShare

AD: You just mentioned Power-Share. I understand there's been some confusion between PowerTalk and PowerShare. Can you clear this up for us?

Sidhu: Gladly. In the past, we've talked in terms of an umbrella technology called AOCE-the Apple Open Collaboration Environment. PowerTalk and Power-Share are Apple's first product manifestations of AOCE technology. PowerTalk is one of the technology components of System 7 Pro, and it resides on a user's Macintosh computer. This is the software through which users can access AOCE collaboration services, including a universal mailbox for sending and receiving any kind of electronic mail. the catalog that provides access to all kinds of information, and the digital signature capability that enables electronic approval of documents. There are a host of other services enabled through PowerTalk, such as the PowerTalk Key Chain, personal catalogs, and drag-and-drop sending.

The PowerShare server software sits on a Macintosh computer being used as a server and provides collaboration services including store-and-forward messaging, shared catalogs, and encryption and authentication for computers connected to an AppleTalk network system.

The PowerShare Collaboration Servers product includes two different servers, a high-end mail and messaging server and a novel and sophisticated catalog server.

The catalog server can be used initially to build shared directories of users; it also offers a very sophisticated distributed and replicated object store that can be put to multiple uses, in particular when OpenDoc and other technologies that make use of objects in a more direct fashion become mainstream. PowerShare servers provide a rich suite of capabilities for third parties to build innovative workflow and other kinds of resource management applications.

(Editor's Note: The Power-Share Collaboration Servers product will ship in early 1994.)

The Key Chain

AD: Could you tell us about the most important Power'Talk features? Perhaps you could start by telling us the idea behind the Key Chain.

Sidhu: Right. When you build an open system into whose back end you can plug any communications technology, as we have done with PowerTalk, the user could potentially face the hurdle of having to log on to every single individual service with a different account, each employing different kinds of control parameters. This kind of complexity is, obviously, very annoying for users.

There's an analogous situation that most people are familiar with: Although all of us carry key chains with many many keys, we don't always know which key opens which lock. We thought, "Wouldn't it be nice to have a magical key chain on a computer where the computer decided which key was needed for which lock." So that's the idea behind the PowerTalk Key Chain; all the user has to do is put the right keys on the Key Chain. To keep anyone else from using it, the user protects it with an access code that's like the PIN code you use with an automated teller machine.

Now, as far as the user is concerned, the computer will only prompt once for the Key Chain access code. In this way, after the user has gone through this "single log-on," the various underlying service access components can use the appropriate keys off the Key Chain without further user intervention. Of course, at any time, the user can again lock the Key Chain and prevent its further use. This provides both a great deal of convenience and, at the same time, a high level of security.

People can use the Key Chain to add services provided by developers onto the System 7 Pro product and set up access to PowerShare server accounts; they can also make keys on the Key Chain out of the names and passwords they use to access various AppleShare and file-sharing accounts. Then, for example, when they wish to use an AppleShare server, they no longer have to type in their name and password; the Key Chain provides this information automatically to the system. This is astonishing to people who are used to typing in names and passwords *ad nauseum* when using their AppleShare servers; now they can simply double-click on an alias for a file server, and it opens right up for them.

AD: Do you think PowerTalk's enhanced ease of accessing network services will attract new customers who previously found networking too complex?

Sidhu: Yes, and frankly it will make existing network users do things over the network in a smoother way. I think this is an important step toward making the network disappear from the consciousness of the user, freeing them to focus instead on their real work objectives.

AD: Which means they'll do more things over the network.

Sidhu: Exactly right.

Personal Gateways and the Mailer

AD: What are some of the other PowerTalk features you'd like to be sure developers know about?

Sidhu: I'd stress three: service access modules (SAMs for short, which we have also called *personal gateways*), the mailer, and digital signatures. SAMs are the software modules that provide plug-and-play capability to let Macintosh users send and receive faxes, e-mail messages over any kind of e-mail system, perform automatic dial-up, receive voicemail messages, etc., etc. via PowerTalk system software. The actual configuration information for each service access module can be customized by developers through PowerTalk's templates technology. This is a very important and interesting opportunity that many developers have already jumped on.

Regarding the mailer, we're urging all developers to make interpersonal communications intrinsic to the Macintosh experience by building the mailer into their applications. This does require revving applications to incorporate the PowerTalk mailer, but this is fairly easy and it's been done successfully by many vendors. All the leading vendors, such as Claris. Microsoft. and WordPerfect, are introducing mail-capable applications. With the PowerTalk mailer, an application can be used for sending files regardless of which mail services you have available to you. So in a sense we've made interpersonal communication independent of special e-mail applications and systems. With the mailer, every application becomes an e-mail application.

AD: In other words, the mailer is a standard Macintosh element now.

Sidhu: Absolutely, and we implement the mailer so it's always going to provide the same user experience elements, regardless of the application. The code that actually implements and manages the mailer is provided by Apple; it's already resident in the system, so the application doesn't have to be larger to use the mailer, and developers don't have to do a lot of unnecessary coding.

Digital Signatures

AD: What about digital signatures?

Sidhu: That's another capability we have made mainstream through PowerTalk. Essentially, this offers users a way of signing documents without having to print them out. It's our contribution towards the paperless world that some have talked about.

Other vendors have provided digital signature capability, but in those cases the signatures can only be used when you are connected to that vendor's server. We believe that you should be able to approve documents and that the signatures should be verifiable anywhere, anytime, by anybody, independent of any need for servers. So we've devised a completely different way of doing signatures based on public-key encryption technology, and every application can easily incorporate this ability.

In the Finder itself you can sign any document by dragging it on top of something called a *signer file*, which is issued by an appropriate signer issuing agency, either RSA Data Security, from whom we've licensed the technology, or someone authorized by RSA. The signer also has its own access code, which the user has to enter everytime a signature is to be attached to a document.

The same signing ability is also provided in the mailer. When someone is going to send a document from within an application, the sender can choose to sign it by clicking a checkbox in the Send dialog box and entering the signer access code.

A third use of signatures is from within applications. Take for instance an architect's drawing done in a CAD program. The drawing goes through various approval phases-the structural engineer, the chief architect, the builder, the building's owner all have to approve it. If the drawing application incorporates digital signatures, the architect's drawing could flow electronically from one person to the other, and each of them could affix a digital signature. These signatures are valid forever and can be verified anvwhere and anytime. And, in fact, if anybody makes a change to that document, you will even be able to detect that this happened.



Developer Opportunities With AOCE

AD: Can you tell us about other ways developers and users can take advantage of AOCE technology?

Sidhu: Absolutely. We're looking out towards newer uses, newer collaboration capabilities beyond interpersonal communications. One such area is in the improvement of business operations such as forms routing and approval and business management systems like accounts payable. There are many vendors who have made significant progress in making such products available using AOCE.

Developers will also want to think about building agents to enhance a user's productivity. Now that it's simpler to send and receive electronic correspondence, you also have to help the user deal with the flood of information coming at them. There are a number of wonderful personal productivity agents that run in the background of the user's machine and provide all kinds of exciting value. One agent lets you call your computer from a telephone anywhere and have the agent read your mail to you. Another is able to forward your mail through a fax phone number that you punch in using a telephone. Also, you can have a mailbox agent scan your correspondence and sort it (tag it) according to guidelines the user provides to the agent.

Then there are applications that help the management of resources in a company, such as schedulers and calendaring applications. Over time, video conferencing and shared document systems will provide yet another collaboration dimension to users.

Working With Others Has Never Been Easier

AD: Perhaps you could close by talking briefly about the vision that's been driving AOCE development.

Sidhu: Our vision has been to let people work with others more efficiently, effectively, and productively through the power of computer technology. We have been talking at a somewhat abstract level about the merging of media, communications, and the computer. We think System 7 Pro and Power-Share take a major step forward in this direction for desktop computers and, as Newton and desktop computers become closer buddies over time, these technologies will merge even more tightly.

I think the excitement around PowerTalk and PowerShare is going to mushroom as developers' products start appearing in the marketplace. Now that the technology is available, our focus will be shifting from making everyone understand the technology and making it available on the Macintosh to providing real enduser solutions.

Think of this as a ramp up; over the coming months, we plan to continually bring out news about new happenings in the area of PowerTalk, PowerShare, and AOCE. We're looking forward to the January Macworld, where with the help of developers' products we plan to focus on end-user solutions. We want to make sure that every product is really on this bandwagon and that all kinds of exciting solutions are available to users. Our goal is to help ensure that Apple, developers, and users all mutually benefit from the major investment we've made in developing and releasing System 7 Pro.

PowerTalk and PowerShare are yet two more examples of Apple's drive to make the future happen today. I want to record my gratitude to the finest team of Apple professionals and third-party developers who have worked with enthusiasm, resilience, and vision for over four years to make this a reality.

How to Get Started With PowerTalk

By Gregg Williams Technical Editor, Apple Directions

Apple's System 7 Pro is an exciting new product because it "raises the bar" on what users (and developers) can expect from Macintosh system software—the ability to customize software through AppleScript, work with time-based data through Quick-Time, and communicate with others through PowerTalk. In this article, I want to highlight PowerTalk (and a bit of PowerShare) and clarify exactly where Apple thinks your best, most immediate developer opportunities are.

Technology and Architecture

You're probably familiar with the Apple Open Collaboration

Environment, or AOCE. Apple Computer, Inc., has seeded it to over 15,000 developers worldwide. (See the March 1993 issue of *Apple Direct* for our cover story on AOCE.) AOCE is Apple's *technology*; PowerTalk and PowerShare (or, more completely, the PowerShare Collaboration Servers software) are Apple's first products that embody that technology.

PowerTalk is the AOCE client software integrated with System 7 and is one of the three main parts of System 7 Pro. The PowerShare Collaboration Servers Software is a separate software product (not yet released) that the user installs on one or more server computers, somewhere on the network. A PowerShare server computer must be present so that certain PowerTalk features, like clientserver messaging and secure transmissions, can work. (Even without a PowerShare server, PowerTalk users can send and receive mail, but the server makes messaging somewhat more convenient and allows mail to be encrypted.) For a summary of capabilities made possible by PowerTalk and PowerShare, see the chart "PowerTalk and Power-Share" on page 21.

The "PowerTalk Architecture," on page 19, depicts the structure of the PowerTalk client software, which is part of System 7 Pro. PowerTalk includes three separate layers that bridge the gap between applications (shown as being "on top of" PowerTalk) and *personal gateways* (shown "below" PowerTalk).

Desktop Capabilities

The top layer of PowerTalk

provides the human interface that users employ to browse, send, receive, and manage information from others:

• *The desktop mailbox.* This icon, new to the desktop, is the one place where the user goes to get all incoming information—files, phone and pager messages, fax messages, and electronic mail from various sources.

• The desktop, personal, and other catalogs. In PowerTalk, catalogs are structured sources of information. Their first and most immediate use is as directories that show who is available for communication and how they can be reached. However, you can use catalogs to make virtually any kind of data available to PowerTalk users, and doubtless some developers will use PowerTalk catalogs as an easy way of doing so.





These catalogs (which have their own icons) reside within another new icon, also named Catalogs, which expands to a window when opened. At the very least, users will have two catalogs: an AppleTalk catalog, which has information cards (records) for each user and server on the AppleTalk network, and a personal catalog, which resides on the user's hard disk that contains whatever information cards the user puts there. Personal catalogs are more convenient and sometimes faster to access than network-based catalogs, and users can take their personal catalogs with them for use whenever they are not connected to their network.

• PowerTalk templates. Templates are important because they can change and control the way users view catalog data, allowing users to focus on only the data that are relevant to a given situation. For example, a client's information card may contain both her addresses (geographic and electronic) and recent sales history. A "business card" template might allow a user to view only the client's name and addresses, while a "sales history" template might show past purchases and allow her to add new ones. You can create new templates to group catalog data in a meaningful way.

Collaboration Packages

Collaboration packages give you tools and user-interface elements that you can use to add catalog and electronic-mail browsing capabilities to your application:

• *The Standard Mail Package*. This package implements the *mailer*, a new user-interface element (see "The PowerTalk mailer," on page 20) that allows users to send a document (and, optionally, enclosed files and folders) to any person or group of people for whom they have an information card. They can also add a *digital signature* to their document. This guarantees to the receiver the identity of the sender; it also guarantees that the document has not been altered in any way. When you add a mailer to your documents, you also get DigiSign digital signature capability, a major feature of PowerTalk, with no extra programming on your part.

• *The Standard Catalog Pack-age.* This package provides you with standard user-interface elements for browsing, finding, and selecting catalog records, as well as getting password information from users.

System Software Managers

Four system software managers form the heart of PowerTalk. They provide PowerTalk's messaging, catalog, authentication, and digital-signature services. The first two include public, standardized APIs (application programming interfaces) that allow external messaging and catalog services to work seamlessly with PowerTalk. (Users can then take advantage of these services through the standard PowerTalk interface, not knowing—or caring—that they are communicating with services not explicitly designed to work with PowerTalk.) PowerTalk uses four managers:

• The InterProgram Messaging (IPM) Manager. Just as IAC (the System 7 interapplication communications architecture) makes system-wide real-time program-to-program communications possible, IPM allows PowerTalk-based Macintosh computers on a network that includes a PowerShare server to do generalized messaging. PowerTalk uses the IPM Manager to implement electronic mail, which can occur even when the computers involved are not running at the same time. (This is often called store-and-forward messaging.)

By adding a piece of software called a *personal messaging gateway*, any software that uses PowerTalk can transparently access external messaging systems (such as CE Software's QuickMail, cc:Mail, and X.400). PowerTalk includes gateways to AppleTalk and PowerShare. Apple will soon be shipping a peer-to-peer dial-up



module that will allow individual users to connect to each other through modems and phone lines; early System 7 Pro purchasers will receive this dial-up module at no charge.

• The Catalog Manager. This manager, which also has an API that you can write to, gives applications transparent access to any kind of catalog service. PowerTalk comes with modules called cata*log gateways* for both AppleTalk and PowerShare, and you can develop such gateways for other catalog services. (Usually, catalog and personal messaging gateways come in pairs and, together, are called personal gateways. For readers familiar with AOCE, gate*way* is PowerTalk terminology for what AOCE previously called service-access modules, or SAMs.)

• *The Authentication and Privacy Manager.* This manager requires that a dedicated Power-Share collaboration server be present for two of its three main functions. The first such function is authentication. Using a proprietary Apple private-key encryption algorithm, this manager can verify the identities of two communicating parties to each other, thus promoting trust in the communication that is taking place.

The second function, which also requires the presence of a Power-Share server, is privacy through encryption of the message itself. The Authentication and Privacy Manager uses the AppleTalk Secure Data Stream Protocol (ASDSP) to encrypt and decrypt messages. ASDSP uses the RC4 algorithm from RSA Data Security, Inc. to ensure that even if a transmission is intercepted, it cannot be understood. In this way, the Authentication and Privacy Manager promotes trust in the confidentiality of electronic communications. (For legal reasons, the version of PowerTalk sold in France does not include the message encryption/decryption technology.)

The third function, which works on *every* PowerTalk-based

Macintosh computer, is that of the PowerTalk Key Chain. The more information services and file servers you use, the more passwords you need to remember. The PowerTalk Key Chain is a great convenience in that it allows you to store passwords to information services and file servers, all of which are controlled by a master access code. When you "unlock" your PowerTalk Key Chain with this code, PowerTalk automatically supplies passwords as needed, so that you can use services and file servers without constantly being interrupted by password requests.

• *The Digital Signature Manager*: This manager makes it feasible for companies to contemplate replacing traditional office paperwork with electronic equivalents; it promotes trust that electronic documents are unaltered from when they were "signed" and that signers are who they say they are. Apple has licensed the Public Key Cryptography System (PKCS)

technology from RSA Data Security for use in PowerTalk's DigiSign digital signatures.

To add a digital signature to a document, the user must first obtain a special kind of file called a *DigiSign Signer*. This file can be created only by RSA Data Security or (in most cases) an issuing authority certified by RSA. From the System 7 Pro Finder, a user can digitally sign a file by dropping its icon on top of the Signer's icon. The Signer then creates a digital signature that is unique to the file's content and the Signer's internal data. This digital signature is then inserted into the signed file as a Macintosh resource. Once the signed file is received, the recipient can confirm from the Finder both the identity of the sender and the integrity of the document.

There are two other ways by which the user can access digital signatures. As mentioned earlier, if your documents include a mailer, the user can digitally sign a document before sending it. Also, by doing additional programming, you can use the Digital Signature Manager to guarantee the integrity of any piece of data you wish.

Developer Opportunities

The more things change, the more they stay the same. Apple has always focused on the individual, and it's interesting to note that the PowerTalk technology offers collaborative computing benefits not just to workgroups (as DOS collaborative technology does) but also to individuals. You don't have to be connected to a local area network to benefit from PowerTalk technology. You can, for example, work at home and (through modem and fax connections and AppleTalk Remote Access) still reach your networked coworkers, as well as other individual PowerTalk users and people with fax machines.

Also, PowerTalk is more useful



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than most DOS collaborative technologies, which usually work within a single "groupware" application. PowerTalk facilitates communication at the *system* level, and all PowerTalk-savvy applications can communicate with each other—and, through the PowerTalk universal mailbox, directly to the PowerTalk user.

Solutions for Individuals

Apple sees three categories of developer opportunities that relate to providing collaborative solutions for individuals:

• PowerTalk mailer-capable applications. The mailer is easily the single most visible part of PowerTalk and the most important to implement. When you add it to your application, your users will be able to send documents created with your application to any person or group for whom they have an information card. They can also attach other files and folders to the documents they send.

Apple expects all applications that create documents to be mailer-capable; with the mailer, communicating with others—whether they're PowerTalk users, anywhere, or people you can reach through various gateways—will be as easy as printing a document.

Implementing mailer capability is quick and simple because the PowerTalk technology does most of the work for you. Implementation time is measured in days, not months; in fact, one developer implemented the basic mailer features in one day. The advantage to you is that, with little work, you can have a leading-edge Macintosh application that is clearly superior to products that aren't mailer-capable.

• *Personal gateways*. With personal gateways, PowerTalk users can access messaging and catalog systems—things like external electronic mail systems and structured directories of data.

PowerTalk provides standard APIs so that, with the appropriate software, PowerTalk users can seamlessly collaborate and communicate with the outside world. PowerTalk is unique in that personal gateways and access modules provide collaboration support for users who aren't connected to a local area network but who have modem or fax connections.

You may decide that a personal gateway product is a good business proposition for you. Who will want them? Individual users who will be connecting to the outside world through modems and dedicated phone lines will want them, as will users of LAN-based mail systems and small workgroups that are networked but have no dedicated PowerShare server. Granted, most service providers will supply their own gateway software, but some markets will exist. For example, the market may support multiple Internet gateways, each of which is optimized for providing certain services to certain kinds of customers.

• *Mail agents.* The good news is that everybody with PowerTalk will be able to communicate with a *lot* of people—every PowerTalk user plus everybody they can reach through a gateway, phone line, or fax line. The bad news is that they may feel overwhelmed by the amount of data they receive. This means there will be a market for tools that help manage the flow of information.

The PowerTalk architecture makes it possible for you to implement mail agents, software that *assists* the user in dealing with incoming information perhaps by prioritizing or categorizing mail based on preset or dynamically changing criteria, routing outgoing mail based on the data in the recipient's information card, or even automatically responding to set kinds of mail.

Solutions for Groups

PowerTalk and PowerShare provide the following additional developer opportunities for products that help groups of people collaborate.

• Focused applications that rely on PowerTalk collaboration services. Until now, group-oriented software has been largely "rollvour-own"-if you wanted messaging, you had to create your own messaging system, and if you wanted catalog or directory services, you had to create those, too. This caused several problems: The expense of such development kept many companies out of the market entirely; you spent so much time implementing the "plumbing" that you had little time or money left for your

actual application; and you ended with a solution that was incompatible with other applications' messaging and directory services.

PowerTalk gives you a robust, standardized set of messaging and directory services already implemented for you. This leaves you more time and money to devote to the heart of your application. It also helps ensure that your application can work with other applications, thus making it more useful to—and valued by your customers.

• Server gateways. Many businesses will add PowerShare servers to their networks. These customers will be interested in server gateways—that is, hardware and software that supply external messaging and catalog

PowerTalk and PowerShare

PowerTalk Features Added by Features **PowerShare** Peer-to-peer messaging Client-server messaging Personal and AppleTalk catalogs Shared catalogs (lower cost, overhead); distributed, synchronized catalogs (higher performance) **Digital signatures** Secure (encrypted) messaging Two-way authentication of communicating parties Personal gateways Server gateways Centralized and richer message queue management Compound mailbox Easy document mailing from any (PowerTalk-compliant) application Catalogs AppleMail

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services to every PowerTalk Macintosh on the network through one high-capacity point of contact.

Server gateways provide several benefits. First, they can be more cost-effective than personal gateways-they eliminate individual modems and phone lines for those gateways that would otherwise require them. Second, server gateways can cost less to maintain and can provide better management of services with the centralized administration of users' services. Third, they improve the performance of individual computers by eliminating the disk, memory, and performance "footprints" of a personal gateway on the individual Macintosh computer.

Should you sell personal or server gateways? Since mediumsize companies and large corporations are the most likely to buy a server gateway, you will probably sell more *units* of personal gateways. However, server gateways are more expensive because they serve a large number of users. Many companies will buy both server *and* personal gateways the former for office users and the latter for mobile and at-home users.

• Improving the flow of data within a business. We've always known that computers can do repetitive, simple tasks faster and more accurately than humans. These days, when businesses are looking for ways to be more productive with limited resources (read: limiting the number of employees), it makes sense to use computers to do simple, welldefined tasks that don't absolutely need human intervention.

With PowerTalk, PowerShare, and AppleScript, you can create software solutions that save companies both time and money. For example, with a PowerTalkbased electronic-forms application, a salesperson can digitally sign a customer order and send it to the home office. There, an AppleScript-based program can automatically process the order, routing it to a senior manager if additional approval is needed and alerting the ordering clerk if part of the order is not in stock.

Do you think businesses would be interested in improving their paperwork flow by a factor of ten? (Rhetorical question, right?) One test that Apple ran showed that, in a real-world situation, a paper form in an accounts-payable system took three weeks to get approved, while an equivalent electronic form got approved in three days. This is a seven-times improvement alone; Apple feels that a fully integrated "paperwork" system can be even faster. Such a system can offer more benefits than just speed and accuracy—it can, for example, tell you exactly "where" in the system a piece of unresolved paperwork is.

Until now, the greatest barrier to fully electronic paperwork within a business has been security. How do I know this document came from my boss? Can I guarantee this memo will remain private? How can I get the accounting department to accept this expense account without printing it out and signing it?

Apple believes that the DigiSign digital signature capability of PowerTalk and the secure communications made available by PowerShare will encourage even the most security-sensitive companies to make the transition to electronic documents. Apple believes that the business community will accept the use of digital signatures.

One factor that should encourage this acceptance is that the PKCS technology used in DigiSign digital signatures is now an International Standards Organization (ISO) standard. Another is that digital signatures are virtually impossible to forge, making them much more trustworthy than a paper document containing a handwritten signature.

If you are a commercial developer, you may want to design applications that create and process electronic forms. If you are a consultant, systems integrator, or in-house developer, PowerTalk-savvy applications and AppleScript give you the tools you need for creating packages that help companies automate their information flow—and at a much lower cost than has been possible until now. There's a lot of room for innovation here, so surprise us-and your customers-with something nobody's ever done before.

Riding the Success of PowerTalk

Apple is committed to making PowerTalk and PowerShare successful. For you, that means that many serious Macintosh users, both individuals and companies alike, will be able to run applications that use PowerTalk and PowerShare.

These two technologies will make entirely new categories of applications possible and will cause many new people to start using Macintosh computers. Both of these represent new markets for you—but only if you create innovative PowerTalk-savvy applications that allow your customers to work smarter and faster. ◆

CD Highlights

continued from page 13

programming interface for implementing smooth, fast animation in your applications. Complete source code to the SpriteWorld libraries and sample applications is provided. SpriteWorld was designed for arcade-style game animation in particular, with full support for multiframe, overlapping, and animated sprites and custom pixel-blitting routines.

Thomas 1.1/Gambit 2.0

Thomas is an experimental implementation of Dylan, the new object-oriented dynamic language from Apple. Thomas is implemented in Scheme, and runs on many Schemes on many platforms. In particular, Apple is including MacGambit, a standalone Thomas interpreter for the Macintosh based on Gambit, which is a freeware Scheme for Macintosh (and 680x0 UNIX computers). Full sources are included for both Thomas and MacGambit. Thomas implements the Dylan language as specified in *Dylan: An Object-Oriented Dynamic Language* (Addison Wesley, 1992). For more information, please read the Dylan FAQ document in the same folder.

ZAM 1.0a13

This sample shows how to use the Time Manager and Quick-Draw to do animation, as well as to play asynchronous sounds and use Apple events.

Coming Next Month

Next month you'll find the latest version of System 7 Pro, a big pile of Developer Notes, possibly new versions of Apple Doc-Viewer and the Contents Catalog, and more. See you there! *Alex Dosher Acting Developer CD Leader*

Business & Marketing

Market Research Monthly

Networked Macintosh Computers to Increase

Analyst Expects 29 Percent Global Annual Growth

The number of Macintosh computers connected through local area networks (LANs) is expected to grow at an annual rate of 29 percent over the next three years to a global total of more than 17 million in 1996, according to personal computer market analyst Pieter Hartsook. Hartsook says that a major factor creating growth in the size of the Macintosh LAN market is the presence of System 7 Pro, which he says "puts Apple 12 to 18 months in front of Microsoft in the operating systems features race."

He adds, "System 7 Pro provides an enabling infrastructure for collaborative and communications applications; it will be a significant stimulus for the growth in the number of connections and increased bandwidth demands in Macintosh local area networks."

Hartsook publishes of *The Hartsook Letter*, which focuses on trends in the market for Macintosh computers. We talked to Hartsook to find out the potential size of the global market for communications and collaboration products and to let you know how many users could benefit from your System 7 Pro products.

Hartsook studies the market on a quarterly basis through primary research and analysis, including discussions with Apple Computer, Inc., and Macintosh developers, distributors, and customers. He released this data in September 1993, before the release of System 7



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Pro. It's important to note that his data on Macintosh LANs covers true multicomputer networks; it doesn't include computers connected only to a LaserWriter printer.

He projects that the worldwide percentage of Macintosh computers on LANs will increase from 62 percent in 1993 to 69 percent in 1996 (see "Macintosh Computers Connected Through Local Area Networks").

The increase in the percentage of Macintosh computers on LANs will be fueled by the availability of easier-to-use network services made possible by AOCE technology, by increasing sales of Apple Workgroup Server products and other servers, and by renewed sales of high-end Macintosh computers that are more likely to be connected to a LAN. In contrast, sales of low-end Macintosh computers, such as the Classic[®], which are less likely to be connected to LANs, increased dramatically in 1992 and 1993. This caused the percentage of Macintosh computers on LANs to fall in those years.

Hartsook's analysis breaks down the installed base of Macintosh computers connected through LANs by the type of network connection used, including LocalTalk, Ethernet, and token ring and other connections (see "LAN-Based Macintosh Computers, by Type of Network Connection"). While the number of computers using LocalTalk connections can be expected to increase because of the sheer number of Macintosh computer sales over the next four years, it's expected that use of other, higher bandwidth network connections will increase far more rapidly. Use of Ethernet by Macintosh customers will also increase AppleDirections

because more Macintosh computers are shipping with built-in Ethernet connections.

The reasons for this growth: Increasing numbers of servers, network services made possible by AOCE, and computers connected by LANs as well as an increase in the size of files sent, will cause users to make greater demands on local area networks. This will place a burden on network bandwidth and cause customers to move increasingly from LocalTalk toward Ethernet and token ring connections.

According to Hartsook, increased network traffic will also increase demand for routers and network management software. While he thinks that future LAN activity will move increasingly to Ethernet and token ring connections, he expects that the installed base of LocalTalk LANs will remain a significant market simply because of its size.

To obtain *The Hartsook Letter*; write to *The Hartsook Letter*; 3001 Marina Drive, Alameda, CA 94501; phone: (510) 521-4988; AppleLink: HARTSOOK. ♣



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Marketing Feature

Tips and Techniques for Direct Mail Success

By Ivan Levison Ivan Levison & Associates

One of the great things about direct mail is that it can give you quick, definitive answers to your most important marketing questions. Instead of relying on your own gut instinct, taste, or opinion, you can let the marketplace decide which price, offer, product feature (or whatever) is the most profitable. Here are some typical questions that clients often ask about direct mail, plus some answers culled from my trusty database (and hard-won experience).

How Do You Create a Dynamite Offer?

Let's face it. Consumers are getting swamped with mailings from software publishers of all kinds. This means you have to be smarter, faster, and more creative than ever to make money using direct mail.

One way to guarantee success is to make prospects an offer they just can't refuse. Let's take a look at a company that always seems to be in the mail with a terrific offer. The company is T/Maker, the creators of WriteNow, a word processor for the Macintosh. (This product was recently sold to WordStar.) CEO Heidi Roizen and President Andrew Preston are always looking for new offers that motivate prospects and get them to act. Let's take a look at one of T/Maker's mailings that just came across my desk and see what we can learn from it.

The front of their 6-by-9-inch envelope reads as follows:

Express yourself ...

- with the Writers' Bundle!
- WriteNow 3.0
- Grammatik Macintosh 2.0
- The American Heritage
- Dictionary
 WordStar Correct O
- WordStar Correct Quotes

• Plus . . . SimAnt FREE! \$570 worth of award-winning software only \$69.95! Save 88%

Now that's an offer a Macintosh user can get excited about! What's more, this bundle comes with a 60-day money-back guarantee, so the consumer doesn't risk a dime by ordering.

Why does T/Maker make such an aggressive offer? One good reason is that they have to. After all, Macintosh business users have pretty much standardized on Microsoft Word. As a result, T/Maker faces a tough challenge with the corporate market. On





T/Maker's Writers' Bundle is a great example of an effective, inexpensive two-color direct mail piece. It spells out an irresistible offer on both sides of the envelope and includes a "free gift" to push buyers over the top.

the mass-market consumer side, T/Maker is also under pressure. You see, word-processing software is given away free with all Macintosh Performa computers, so none of these users ever have to buy one off the shelf.

The bottom line? People who fork over their hard-earned money to purchase WriteNow have to be motivated. And the way to motivate them is with fabulous deals that break down sales resistance.

With roughly a 10 percent share of the Macintosh wordprocessor market (on a unit basis), T/Maker is willing to make aggressive offers through the mail and make money later on upgrades.

That's not to say that T/Maker settles for a loss at the front end. President Andrew Preston tells me that a 1 percent response on the offer I mentioned means they break even.

Six months out they should be able to upgrade 10 to 25 percent of these buyers for a very nice profit! (According to a spokesperson within the company, this specific mailing was quite profitable.)

An important point to remember: The "free gift" (the bonus item) can be something a little wild or different. In this case, T/Maker chose SimAnt, a wonderful game that has absolutely nothing to do with word processors or writers' tools. It's a fun item that may just push the prospect over the top.

Let me give you another example of a creative offer. I recently wrote a direct mail package for Pioneer Software's Q + E, a

powerful database access tool. We tested two different bonus items—Knowledge Adventure's Space Adventure and The Software Toolworks' World Atlas for Windows.

These products obviously have nothing to do with database access. All they do is "sweeten the pot."

The key point is, don't make the mistake of demanding that all your bundled items belong to the same product category. Open up your thinking and start looking for items your customers might enjoy playing with or trying out. A terrific bonus item can really boost response rates.

Another important point: If you're just getting into direct mail and are ready to start doing some rigorous testing, be sure to test the offer early on. Don't worry about testing blue ink against red ink until you've discovered the right price point for your product and the strongest lists available.

Many of the books on the market that deal with direct marketing urge you to test just about every variable there is: stamps versus bulk postal marks, different envelope sizes, paper color—you name it. This is simply not realistic most of the time. Sure, we'd all love to test everything, but there's only so much time and money to play with.

What's the Best Way to Get the Envelope Opened?

The greatest letter in the world won't get read if your envelope doesn't get opened. That's why



it's so important to handle this crucial element of your direct mail package the right way.

As your prospects plow through the piles of mail on their desks, they're moving quickly. You only have a nanosecond to stop them and get them to look inside the package. So don't blow it! And now, the envelope, please...

• Don't feature your corporate name and address if it doesn't mean anything to the reader. In the software business, users typically remember the name of your application, not your corporate identity. They're interested in Quicken, not Intuit. QuickKeys, not CE Software. Fastback Plus, not Fifth Generation Software.

That's why it's OK to put your corporate name, return address, and logo on the back of the envelope. Who cares what your logo looks like? Why have it fight with the teaser copy? Unless you're a Microsoft or a Borland, and your corporate identity adds to your credibility, consider losing names, addresses, and symbols that mean absolutely nothing. And did you know that the only time postal regulations require you to include identification on the envelope is when you're mailing at the low rates available to fund raisers?

• Load up your envelope with copy. There's no law that says teaser copy has to be one line long. In fact, these days, when so many software direct mail packages are based on bundled offers, spelling out the deal on the envelope is the smartest way to go.

I recently completed a direct mail package for SunSoft that featured teaser copy 50 words long. That's a lot, but I was confident that our carefully targeted readers would be interested in why Solaris 2.0 is a hot UNIX platform. On that basis, we made the decision to be aggressive on the envelope. While we're on the subject of envelope copy, let me mention that I think some of the best in the software industry is produced by Tiger Software in Coral Gables, Florida. I've always admired the way Carl Fiorentino and his talented in-house team turn out vibrant, engaging, and, I'm sure, highly effective envelopes and packages. If you haven't been receiving their mailings, buy some Tiger Software, get on their list, and take a look at some hot direct mail.

• *Try using a different size envelope.* If you're not locked into using #10 envelopes, try testing another size. The obvious choice is the 6-by-9-inch format, but consider using a 6.5-by-9.5inch envelope. It's a standard size and only costs a little more. Anything you can do to stand out from the other letters in the pile is a plus.

• Use the space on the back of the envelope. A lot of the envelopes I see completely ignore the back surface. Hey. You never know how your package is going to fall on someone's desk. That's why it makes good sense to use both sides of the envelope, if your printing budget permits.

Here are two other examples of good envelopes. First, Alpha Software Corporation recently sent me a really nice #10 package. The front had a personalized invitation on it. The back had another hard-hitting "Dear Mr. Levison" message telling me about the awards they'd won. Good stuff! Next, on the back of a T/Maker envelope I recently received, I found a quick note signed by founder Heidi Roizen, telling me not to miss a great offer on Macintosh tools. That's a good use of the space.

Which Typeface Works Best?

Let's pretend that I've just written a killer sales letter for you. I caught the reader's attention, made a compelling offer, overcame all objections, and forcefully asked for the order.

Now, it's time to set type and take the letter to the printer, which means you have to make an important decision. Do you go with a Courier or Elite typeface, and try to make the letter look as though it were typed on a typewriter? Or do you select Times[®] Roman, or some other attractive serif typeface, and give the letter a more finished, "professional" look?

For me the answer has always been clear—make your letter look as if it were typed. There are a number of reasons for my thinking.

First of all, the copy testing results I've come across over the years have always been clear and persuasive—the "typed look" consistently outpulled the "typeset look."

Second, there is virtually total agreement among my fellow direct mail copywriters that sales letters should appear to be typed. Here's an absolutely typical example of the kind of advice we direct mail copywriters have been offering for years. René Gnam, in his wonderful book, René Gnam's Direct Mail Work*shop*, writes, "Although there is nothing wrong with using type set by a typesetter for the body of a letter (as long as you use serif type), typewriter type is warmer in its appeal, looks like a letter should look, and pulls better . . . a lot better."

Third, I have always thought that a typewritten letter provides an attractive visual contrast to the other elements of the package. After all, the flier is virtually always more elaborately produced than the letter. So why not keep the letter simple and let the flier shine?

I've always reasoned that when the reader pulls the nested items from the envelope, a "typed" letter identifies itself quickly. It also has a crisp, clean appearance that I think is both attractive and businesslike.

The bottom line is, don't take my word for it—testing is the key to direct marketing success. Things change quickly in the direct mail business and it's hard to keep track of what's going on in peoples' heads. When you have hard data at your fingertips you don't have to guess. You can test your theories in the crucible of the marketplace and let your customers show you the way.

How Important Is the Guarantee?

Guarantees are essential to direct mail success. They help overcome the skepticism and inertia that are our mortal enemies. Here are seven practical ideas that can help make your next direct mail package a winner.

• Don't just call it a "guarantee." That's flat and boring. Give your guarantee a little personality or individuality. Call it an "ironclad, no-questions-asked guarantee." Or a "no-risk (really!) guarantee." Anything to brighten it up a little bit.

• *Make the guarantee as strong as possible.* If you can live with a 30-day guarantee, why not consider going out to 45 days or 60 days? It's definitely worth testing. If you have few problems with returns, make the guarantee stronger and stronger.

• Don't be afraid to spell things out. There's no reason to restrict your guarantee to a single sentence. Put a little personality into the copy. If you want to go two or three sentences long, and you have something to say, go for it!

• *Be clear: Be honest.* Your guarantee should spell things out in simple terms and should never scare people away with legalistic clauses or "fine print." You know those TV commercials that local car dealers run? The ones with the eight sentences of unreadable type that flash on the



screen for a picosecond at the end? You and I have to do just the opposite and make unqualified promises of satisfaction.

Let me give you an example of a company that watered down the effectiveness of a direct mail piece with fine print. They recently ran a really nice ad with a big headline, "Beats Pagemaking. Guaranteed."

That's a reasonable premise. So far, so good. But when you get down to their guarantee (which is the underpinning of the whole ad) here's what you get:

We're so sure our product will win you over, we're offering a no-risk free trial. If you're not satisfied within 60 days, your purchase price will be fully refunded.*

The mistake? That awful asterisk that lets you know you have to go searching for a sneaky disclaimer. Down at the very bottom of the page in tiny type you find the additional information:

*Refunds to be made by us or retailer, depending on where purchased.

It turns out that the software company isn't trying to slip one past the reader at all. They just didn't want to clutter the guarantee with details. They should have avoided the asterisk altogether and rewritten the guarantee as follows:

We're so sure our product will win you over, we're offering a no-risk, free trial. Give our product a try and if you're not delighted, just return it within 60 days of purchase. Your money will be fully (and cheerfully) refunded by us or your retailer, depending on where you bought the product.

It's much better than an asterisk and small print, don't you think?

• Use a border around the guarantee. Never, ever bury a guarantee in body copy! That's a great way to lose one of the most compelling elements of your mailing. The guarantee should float as a separate element.

• *Try to offer more than one* guarantee. For example, I once wrote an ad for an Advanced Micro Devices Math Coprocessor and included a triple guarantee. The first offered a 30-day moneyback refund. The second offered a lifetime product performance guarantee. The third was a money-back software compatibility guarantee. Now that's an offer that overcomes sales resistance! In fact, I got a nice letter from Glen Burchers, the AMD Marketing Manager, who wrote to tell me that "in terms of reader response, this ad has been the most successful that AMD has ever run."

• *Include the guarantee on the reply device.* Don't forget to make sure that your terrific guarantee is repeated on your business reply card, coupon, or whatever.

Just How Useful Are the Leads Generated by "Bingo Cards"?

People in the direct mail business often debate the value of leads generated by "bingo cards." (These are the reply cards inside magazines that are printed with an array of numbers that correspond to ads. A reader circles ad numbers and sends the card in to get more information about specific products.) Some software publishers have no use for bingo cards at all. Others find that they're quite profitable and follow up on them aggressively. My own experience is that bingo card leads can be extremely valuable if bandled correctly.

Obviously, you can't throw a lot of money at bingo leads. Mailing an expensive fulfillment piece to a bingo card lead is a good way to lose money fast. However, if you test carefully and spend wisely, you may be able to milk significant profits from what superficially appears to be a rather low-grade source of leads. Here's some data that supports the value of bingo card leads.

• Greg Jarboe, an extremely experienced executive from Ziff-Davis Publishing, stated at a recent Software Publishers Association Symposium that only 20 percent of readers use bingo cards. 80 percent of buyers respond through some other vehicle—an 800 number, coupon, and so on.

• Of the 20 percent of readers who do send in bingo cards, 20 percent will buy your product within 90 days. Not bad!

• Greg also mentioned a fascinating study designed to discover whether people who circled a lot of numbers were less likely to buy than people who circled only a few numbers. The interesting result? There was no correlation between the number of inquiries and purchase rate. It turns out that some people just have to buy a lot of stuff quickly and need information fast. Maybe they're opening a new office and have to load up on a lot of software. (I hope it's yours!) In any case, don't assume that because they do a lot of circling, readers aren't serious. Some of my clients tell me that they'll take anyone seriously who doesn't circle more than 40 numbers!

To further support this premise, I found this interesting quote in a book called *Readings* & *Cases in Direct Marketing* by Brown and Buskirk. It occurs in an article titled "Bingo Card Junkies: Why They Could Be Your Best Prospects."

Contrary to common perception, people who circle a large number of bingo card numbers are very important prospects.

Heavy circling causes some marketers to think that the literature they supply is money thrown away, but not responding to such inquiries leaves vendors "unqualified" from the buyer's perspective when the buyer's problem does get hot. They're not on the buyer's list because they took the inquiry too lightly. Sometimes a multiple circler is a "squirrel"—a person who is known to have files when the need for information arises, and is looked to to provide problemsolving information. It is important that the person's files contain the seller's material when such requests come.

A Final Word...

Direct mail can provide a significant source of revenues to your software or hardware company and give you quick, definitive answers to questions that you may have on product pricing, bundles, or features. By creating direct mail pieces that present irresistible offers, eye-catching envelopes, and iron-clad guarantees, you'll be on your way to creating a successful direct mail program.

Ivan Levison is a freelance direct response copywriter who works for software and hardware companies like Apple Computer, Adobe, SCO, and many others. He publishes The Levison Letter, Action Ideas For Better Marketing Communications. He can be reached at Ivan Levison & Associates, 14 Los Cerros Drive, Greenbrae, CA 94904, (415) 461-0672.

Developer Outlook

Licensing Characters for Software Products

AppleDirections

What Image Smith Learned From Snoopy

By Jim Myrick Image Smith, Inc.

Creating and launching software titles is a risky, high-stakes game today—especially with skyrocketing development costs and an increasingly competitive global market. For new players in the game, there are two ways to develop a brand name and establish a reputation of quality with consumers: You can build a brand name for yourself or license someone else's brand name.

Products carrying a licensed image or trademark often sell more easily and are able to command a higher retail price. Take a plain white T-shirt or sweat shirt, for example; add the NFL or Harvard logo and the retail price doubles. We're all familiar with stories of Levi's jeans selling for outrageous sums in the black markets of Moscow or fake Rolex watches smuggled in from Hong Kong. All over the world brand names are perceived as being higher quality, so consumers are willing to pay a premium.

At Image Smith we chose to incorporate Peanuts comic strip characters into our new line of "edutainment" titles in order to minimize market risk and capitalize on preexisting character awareness. In this article, I'll discuss what it takes to license

Editor's Note: This article in no way constitutes legal advice. Don't license properties armed only with information contained in this article obtain outside legal advice first. characters or "properties" like these, and share some advice on using licensed properties to gain a competitive edge in your market.

Choosing the Right Characters

Studies have shown that Snoopy and the entire Peanuts gang are some of the most popular cartoon characters in the world. It was natural for Image Smith to develop and market our new YEARN 2 LEARN edutainment products to the very same people who react positively to Snoopy. Countless people have grown up watching Peanuts specials on television and reading the daily Peanuts comic strip found in some 2,300 newspapers. They can relate to the warm childhood memories conjured up by their favorite Peanuts characters, and, in turn, they want to share these memories with their children.

Children, teenagers, and young adults all react differently to a particular licensed character or brand. Peanuts characters test well across all ages, but this is not necessarily true for all licensed characters. If you're going to use a licensed property, use one that appeals to the same audience as your target market. (Most licensers have this information readily available.) Stretching the age or demographic characteristics of a licensed property is never a good idea, no matter how good the software may be.

When looking at potential brands and properties, there are more options available than you may initially realize. Unusual products and licensing deals can result in very successful products. For example, Budweiser, a domestic brand widely associated with the beer of the same name, produces a line of jeans that are very popular in Japan. Many American companies would never have considered licensing the Budweiser brand for apparel, but it works in some overseas markets.

When choosing licensed properties, take a moment to review your product idea to determine whether it's an appropriate match. A Harley-Davidson license may not be applicable for kids' products, but may be just the thing to add brand-name recognition to your new motorcycle maintenance interactive CD-ROM. The right licensed property with the wrong product just won't work. And the most successful new products are the ones that use licensed material in a new way, without just slapping a licensed logo or character on an existing product package.

When looking for a jump start for sales of a new software product, you may want to consider licensing a well-known logo, rather than a character or other





asset. Some names and logos carry enough weight with consumers to justify "content-light" deals. For instance, the National Geographic logo may be ideal for your company's next mapping product, although it may not be important that they supply the actual maps. Just remember, in most cases, you'll need to get a licenser's approval on any products that carry its name, so obtaining a license will affect your product's cost and development schedule. (See "Hidden Licensing Costs: Approvals and Audits," later in this article, for more information.)

Why Legally License?

One of the most frequently asked questions of Image Smith is whether we had to license the Peanuts characters. My answer to this is always an emphatic "Yes." Under all circumstances, a formal license must be obtained from the rights holder of a character, brand, or logo. It's essential never to attempt to use something that's in any way protected without first obtaining a legally binding *license agreement.* (See "Where to Find Licensers" on page 31 for help in searching for a property's owner.)

Delrina, a Toronto-based software company, found out that licensing is no laughing matter when they shipped a screen saver titled Death Toasters. This product satirizes Berkeley Systems' famous Flying Toaster screen saver by depicting the Outland cartoon character Opus the penguin shooting down flying toasters with a shotgun. While Delrina maintains that Death Toasters is simply a parody of the trademarked flying toaster image, Berkeley Systems insists that the rival product really seeks to profit by capitalizing on their toaster image. Berkeley Systems filed a suit over the matter, and the attorneys from each company are currently in discussion.

Using unlicensed properties is illegal. These days, large licensing organizations like Determined Productions or United Media scan the global market for counterfeit merchandise. Since bootlegging and counterfeiting have become such large businesses, many licensing companies who in the past have "looked the other way" are now choosing to prosecute those who use their properties without first obtaining permission.

Weighing Benefits vs. Costs

Choosing to license a property is a tough decision, with many pros and cons. On the positive side, licensing characters or other properties can give your product higher visibility and can minimize risk. It can help you target a specific market or even generate additional sales. For example, Gary Larson's "Far Side Calendar" sold extremely well to his large "installed base" of devoted fans. On the negative side, licenses are expensive and time consuming to acquire. The cost of licenses ranges from a low, one-time-use fee to millions of dollars. Most licenses require a royalty advance of \$10,000 to \$25,000 and a royalty payment of 3, 5, 10, and even 12 percent. (See "Common Licensing Terms" below for detailed definitions of terms you should be familiar with when negotiating for licensable properties.) Royalty rates that exceed 20

Common Licensing Terms

Advance. The amount of money one pays upon signing a license. Advances can vary from a few thousand dollars to many hundreds of thousands of dollars. Normally this amount is deducted from ongoing sales, so it's like having a prepaid credit from your licenser.

Assets. The term used to describe the licensable material available in a licensing deal. Assets can include the brand-name awareness of the license, artwork, full-motion film or video, written documents, databases, specific skills, knowledge, or cross-promotional tie-ins.

Content. Like assets, content is the "raw material" from which a product can be made. In looking at assets of a license, content is a major category of value if it can be converted into a computer-usable format.

Copyright. When you write something down or write a computer program, you've automatically created a copyrightable work, assuming you haven't plagiarized the material. The owner of a copyrighted work has the exclusive right to reproduce, distribute, modify, display, and perform the work. A copyright automatically exists in every work as soon as it is created, although maximum protection is obtained by including a copyright notice on each copy of the work and by promptly registering it with the U.S. Copyright Office. This protection lasts a long time—75 years after publication for works created by corporations. The benefit of federal copyright registration is that you, as a registrant, may obtain statutory damages and attorneys' fees in infringement actions occurring after registration.

Deal Sheet. The working document used to form the basis of a contractual understanding in a licensing deal. It should include the royalty rate, payment

schedule, up-front signing fee, royalty advance, a product shipment commitment, and so on. The deal sheet normally precedes the actual legal contract.

Renewal Period. The active time period of your license is the renewal period. Normally this is at least one year and could be from three to five years. It's not uncommon for licenses to turn over rather quickly; a ten-year license is highly unusual.

Shovelware. An industry term used to describe lowquality software products where licensed properties are quickly slapped onto a product box or interface without being thoughtfully integrated into the product. Shovelware is a particular problem in the multimedia market, since it corrupts the consumer's expectations of quality. It's a dangerous problem that can lower the value of all licensed material.

Territory. Territory defines the geographical area in which you may sell your products. North America, Europe, Japan, and South America are common territories. Worldwide rights are unusual, and may require dealing with multiple foreign organizations for contracts and approvals.

Trademark. A trademark or service mark is not a copyright: It is a word, design, or phrase that is used by a company to identify its product or services. It assures the consuming public that the product or service is of a certain quality. A trademark such as Rolls Royce spells the ultimate in luxury; K-Mart the ultimate in savings. The owner of a trademark has the right to prevent others from using the mark on similar products or services in the jurisdiction in which the trademark is protected. The primary purpose of a trademark is to differentiate a company's products or services from its competitor's. \clubsuit





Image Smith learned to get frequent product approvals after having to reprogram Snoopy to bowl right-handed rather than left-handed. (*This screen is reprinted with permission from Image Smith.*)

percent are rare and should guarantee substantially valuable assets or finished content to carry such a stiff rate.

One common licensing pitfall is to underestimate the impact of licensing costs. All these costsadvances, ongoing royalties, and increased product development time-result in a higher cost of goods. When the long-term guarantees of licensing are factored in, the total liability of a product undertaking skyrockets. The higher cost of goods that will slow the positive cash flow on a successful product may prove to be fatal to a marginal or struggling product. So, you'll have to weigh the marketing benefits versus costs by talking to retailers and test-marketing your concepts.

Hidden Licensing Costs: Approvals and Audits

One often overlooked cost of licensing properties is the over-

head of licenser product approvals. You'll have to submit your product for periodic review and approval, and the net result is a decrease in your product development freedom. Besides submitting a product for review, the approval process extends to all advertising, packaging, sales sheets, and collateral materials. Approvals are a time overhead that have to be absorbed, and these time delays should be included in product development schedules.

Based on our experience, it's better to get frequent approvals than to send a licenser a completed product and find it won't pass approval. We learned this lesson the hard way when we sent our completed Snoopy bowling game to the Peanuts creator, Charles Schulz, for approval. Mr. Schulz politely informed us that we had Snoopy bowling with his left hand and this was impossible—he always uses his right hand. (See the picture of Snoopy bowling on this page.) This simple bowling arm switch took more than a few days to reprogram and taught us to get more frequent approvals.

In addition to having veto power over the use of their characters, licensers have the right to audit your books. Getting a license means your company will always have more accounting overhead in keeping track of royalty payments. What's more, licensers normally take their royalty cut from your product's wholesale price before product development, manufacturing, advertising, and tax costs are deducted. This "off-the-top" cost, the additional accounting overhead, and loss of company privacy are all negative aspects of licensing that should be considered.

Working With the Peanuts Gang

Working with one of the world's

most famous cartoonists was a childhood dream and a daunting challenge. Mr. Schulz, the creator of the Peanuts characters, is a living legend and a thrill to work with. His concern over details like whether Snoopy was bowling with his right or left hand explains why his characters have been so consistently successful—Snoopy and the Peanuts gang have endured in their popularity for 40 years. And Mr. Schulz is the only cartoonist to be invited to give a one-man show at the Louvre.

Because Mr. Schulz is known for a reclusive business style and publicity-shy personality, we didn't approach Mr. Schulz directly. First we created a prototype of an interactive comic that demonstrated what our multimedia Peanuts product could look like. This simple prototype was submitted with a proposed license to Mr. Schulz's business division. (The greatly enhanced outcome of this initial proposal is the YEARN 2 LEARN PEANUTS interactive comics product.)

While working with his formal business arm, we quickly learned that Mr. Schulz is in control, behind the scenes, throughout the entire product approval process. Mr. Schulz is unlike other famous creators in that he's fairly active in the product review and creative process. In many other licensing entities there are art directors and trusted employees who help oversee the approval process. Some companies have full-time people on staff just to handle the paperwork and logistics of product approval.

During product development for both our children's edutainment line and screen-saver product line, we visited Mr. Schulz and his licensing group over 50 times. We went there frequently to pick up artwork or a needed comic strip. These trips and the approval process are now "business as usual" at Image Smith. Mr. Schulz



helped us achieve the right look and feel of the product, selected colors, changed poses, and suggested product features. He was intrigued by seeing his characters on the computer screen, but said he'd never stray from drawing his characters by hand.

Because he wants future generations to know the Peanuts characters, Mr. Schulz expressed an interest in making sure the younger kids using our products know the correct names of the Peanuts gang. (It seems the little ones mix up Lucy and Peppermint Patty.) As a result of this request, we have the Peanuts characters introduce themselves with soundeffect buttons in our YEARN 2 LEARN title.

Useful Licensing Tips

If you're currently considering licensing characters for an upcoming product, you may find these tips useful.

• Beware of fad characters. Remember that you don't completely own a product with a licensed character in it: Your product will always be tied to the destiny of the character's ultimate owner or rights holder. Sometimes a property loses its appeal, and you're stuck with a product destined for yesterday's news. The licensed product gravevard is littered with countless "here today, gone tomorrow" products, whose fortunes were tied to the unpredictable trends of consumer fancy. (Pet Rocks had their day in the sun, and now, thank heaven, they rest in peace.)

• Clearly define how you'll use a character. When approaching a licenser, be extremely clear about how you'll use that character. Licensing companies are accustomed to granting narrow, carefully defined licenses. It's not uncommon for a licenser to grant a book license for kids aged 3–6 to one company and kids aged 6–10 to another firm. Be prepared to describe your computer platform and geographical territory. You may find you can only obtain rights to sell the product in a certain geographical location say, North America only, but not Europe or Japan. The rights holder will also expect you to describe your market niche.

• Don't be surprised by lengthy negotiations. These negotiations can take time; in fact, six months to a year is not unusual. I find that having preliminary verbal discussions to define the basic terms and conditions works best. The licenser will tell you the upfront advance, the basic royalty rate, and so forth. Some haggling should be expected.

• *Make sure the licenser is* the "sole holder." Before signing any contracts, make sure the party granting you the license is the sole holder of the rights and has them all free and clear. Even if you inadvertently use copyrighted or trademarked material without legal permission, you can be sued and held liable for damages. In addition, thoroughly look into other licenses that may eventually conflict with yours and limit your freedom in developing additional products. Such issues could become a "bone of contention" at your next product review meeting.

• *Create a "deal sheet.*" Before a contract is drafted, jointly create a deal sheet to spell out all the final terms and conditions of your license. It should include the royalty rate, payment schedule, up-front signing fee, royalty advance, a product shipment commitment, and so on. Often you can get a three- to six-month jump on product development before the final contract is signed by working from this preliminary document (with the blessing of your lawyer, of course).

• Consider using a recommended graphics development service to facilitate product approvals. A license doesn't

Where to Find Licensers

The International Licensing Directory A4 Publishers 41 Madison Avenue New York, NY 10010 (212) 685-0404

Licensing Industry Merchandising Association (LIMA) 350 - 5th Avenue, Suite 6210 New York, NY 10118 (212) 244-1944

necessarily give you access to the creator or even art services. You may still have to create all art and packaging. Sometimes there are licenser-recommended art services available for a fee to assist in product development and graphics. These inhouse or preferred vendors may be worth extra money when it comes to the approval process. Prior experience working with a property and getting artwork approvals is invaluable and worth a premium.

• Beware—even if you don't ship, you pay. Once you've signed a contract, you're legally obligated to fulfill your part of the bargain and actually develop, shrink-wrap, and get full retail deployment of your licensed product within a given time period. Typically this period is three years. A sympathetic licenser will be forgiving with a few minor product delays, but be prepared to lose the license and pay a shipment guarantee fee if you fail to deliver the product.

The Licensing Gamble—Is It Worth It?

At the end of your product's sales life cycle, you'll have to take stock of your decision to license and decide if you made the right choice. In the case of our Peanuts license, initial results are promising. Sales of the first product have taken off and it seems to be a hit with kids, parents, teachers, the press, and resellers. Our screen saver has tested well in beta and early evaluation copies. Based on the positive results we've had with these first two products, we're currently developing a second Peanuts title in the YEARN 2 LEARN line.

The bottom line is that we feel confident that the positive reception our first Peanuts product enjoyed should continue as long as we can create quality products with this license. There are examples of other companies selling two different products that use the same licensed character, with one product successful and one not. A license doesn't guarantee success. A license can help a good product but will never save a weak product. ♣

Jim Myrick is cofounder and vice president of marketing at Image Smith, Inc. He's also an internationally recognized electronic graphics artist and coproducer of Image Smith's first edutainment product, YEARN 2 LEARN SNOOPY.



GetNextEvent

The *indicates the trade shows/events at which Apple Computer, Inc., is scheduled to exhibit as of press time. This list may be incomplete. If you have information about a show that you want listed here, contact Apple Directions, 20525 Mariani Avenue, M/S 303-4DP,*

Cupertino, CA 95014. For further information, check the Events folder on AppleLink (path—Third Parties:3rd Party Connection: Contests and Events).

October 27 ---29

ITTE/NSBA '93 Technology and Learning Conference Dallas, TX

Contact: Jeryl Gerhardt Apple Link: JERYL (408) 974-2368

October 28 - 30

🗳 Seybold

San Francisco, CA Contact: Russ Havard AppleLink: HAVARD1 (408) 974-4371

November 7 ---10 MacIS Conference "Back to the Future"

Orlando, FL Contact: Jerry Star AppleLink: JERRY.STARR (408) 974-3836

November 12 ----16

of Realtors (NAR)

Miami Beach, FL Contact: Cheryl Bunch AppleLink: BUNCH1 (408) 974-2853

November 14 --- 17

League for Innovation

Nashville, TN Contact: Jeryl Gerhardt AppleLink: JERYL (408) 974-2368

November 15 -- 19

Comdex Las Vegas, NV Contact: Dave Billmaier

Apple Link: BILLMAIER1 (408) 974-6553

December 7 ---10

San Diego, CA Contact: Eliza Lapé Apple Link: ELIZA (408) 974-1248

APDA Ordering Information

To place an APDA order from within the United States, contact APDA at (800) 282-2732; in Canada, call (800) 637-0029. For those who need to call the United States APDA office from abroad, the number is (716) 871-6555. You can also reach us by AppleLink; the address is APDA. If you're outside the United States, you may prefer to work with your local APDA contact. For a list of non-U.S. APDA contacts, see the "International APDA Programs" page in the *APDA Tools Catalog*.





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