

printout

Keystone MacCentral Macintosh Users Group ❖ <http://www.keystonemac.com>



Be back in
September

Meet us at

Giant Food

Corner of Trindle Road & 32nd St (Route 15)
3301 East Trindle Road, Camp Hill, PA 17011

Tuesday, September 21, 2010, 6:30 p.m.

Attendance is free and open to all interested persons.

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Keystone MacCentral is a not-for-profit group of Macintosh enthusiasts who generally meet the third Tuesday of every month to exchange information, participate in question-and-answer sessions, view product demonstrations, and obtain resource materials that will help them get the most out of their computer systems. Meetings are free and open to the public. The *Keystone MacCentral Printout* is the official newsletter of Keystone MacCentral and an independent publication not affiliated or otherwise associated with or sponsored or sanctioned by any for-profit organization, including Apple Computer, Inc. Copyright © 2010, Keystone MacCentral, 305 Somerset Drive, Shiresmanstown, PA 17011.

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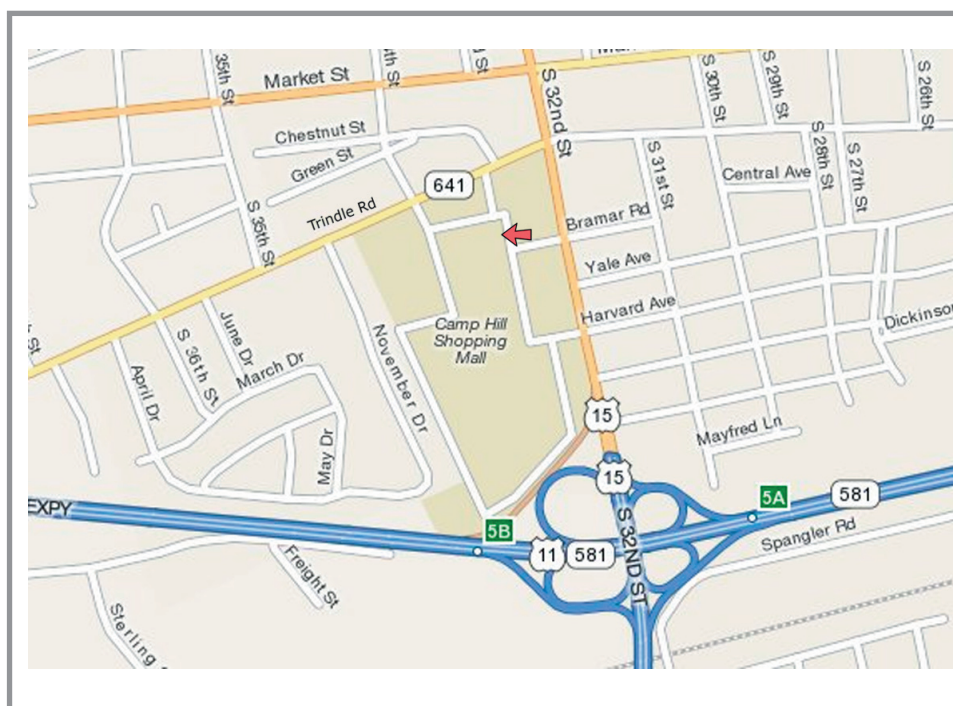
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Google Voice Opens to All Americans

Google Voice is now available to everyone in the United States, and no longer requires an invitation. The system, which includes a Web site, telephony components, and mobile apps, allows you to obtain a phone number and manage what happens to calls coming into that number or originating from it.

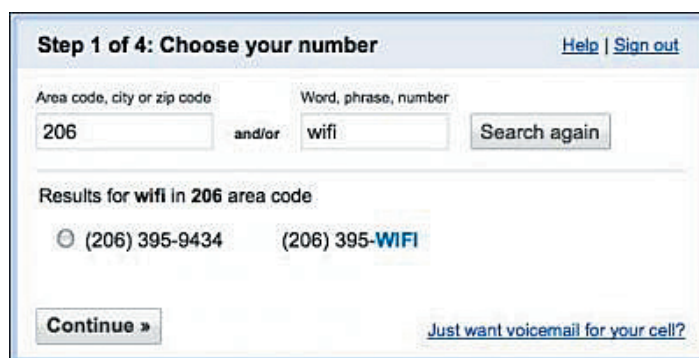
Google Voice includes, at no fee, unlimited incoming voice calls and SMS text messages, as well as unlimited outgoing calls and text messages to numbers in the United States and Canada. For now, Google Voice acts as a switchboard for numbers you already have; it doesn't include telephony client software.

Calls placed to numbers outside North America are [charged at rates](#) comparable to those from Vonage and Skype - a few cents a minute to landlines in developed nations and substantially higher rates to mobile phones everywhere. Text messages are free for you to send from any Google Voice interface, and received messages don't count against mobile totals if you disable forwarding to your cell phone.

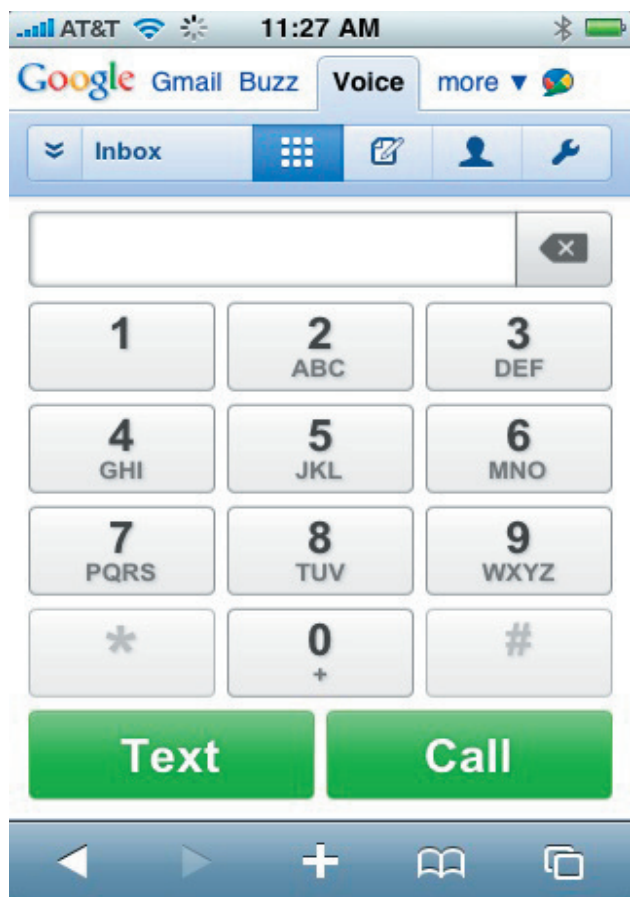
Google Voice can be used from voice.google.com, through mobile apps on several platforms other than the iOS, and via a [special mobile Web app](#) that works well in iOS.

Google tried to get a native Google Voice iPhone app approved by Apple nearly a year ago, but Apple rejected it with AT&T's participation. The FCC got involved, and Apple said it was reviewing the app, but hadn't rejected it, while AT&T said it wasn't involved in the decision. Nearly a year later, the app still isn't available.

When you sign up for Google Voice, you choose a number, specifying an area code or a text pattern you want the number to spell, in part or whole. You then associate real phone numbers with the account - verified by an automated phone call at which you enter a code - as well as behavior for those numbers. You can associate each of your phone numbers with only a single Google Voice account.



When someone calls your Google Voice number, you can simultaneously. Each line can be set up with rules for when it rings, such as time of day or day of the week. You can also use Caller ID to recognize incoming callers, and group them for specific behavior, such as sending directly to voicemail.



- Voicemail Access:** Direct access to voicemail when calling your Google number from this phone?
 - Yes (default for mobile phones)
 - PIN required (for added safety)
 - PIN not required (for added convenience)
 - No (requires pressing star during greetings - default for non-mobile phones)
- Ring Schedule:**
 - Weekdays**
 - Always ring on weekdays
 - Never ring on weekdays
 - Use custom schedule
 - Do not ring phone from 7:00pm to 7:00am [Remove](#)
 - [Add time range](#)
 - Weekends**
 - Always ring on weekends
 - Never ring on weekends
 - Use custom schedule
- Forwarding Options:** [Activate](#) - [Deactivate](#)
 - When someone calls this phone directly and I don't pick up
 - Ring my other phones before going to voicemail
 - Go straight to voicemail

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Google Voice Opens to All Americans

Along with audio voicemail, Google Voice also includes voicemail transcription, which I've found erratic, although interesting. I haven't received a single voicemail that was 3improving (and asks for your help in improving it).

Google provides [instructions](#) for having its system handle your mobile phone's voicemail, too, if you want to unify all your voicemail into Google Voice. (This feature works only with Alltel, AT&T, Cricket Wireless, MetroPCS, Sprint, T-Mobile, US Cellular, and Verizon, and only if your plan supports conditional forwarding, which isn't true of T-Mobile prepaid plans.)

You can also enable [call screening](#), a feature that requires callers to state their name, and then rings you, with an automated voice providing Caller ID and the name the caller spoke. You then have the option of how to handle the call, including sending the caller to voicemail while you listen to them record a message. (This was one of those crazy features that made the service stand out when it was in testing as GrandCentral, before Google purchased the firm developing it. It's like having an old-fashioned answering machine on your mobile phone.)

Google Voice has an option I use frequently to avoid toll charges from my home landline number, which we have set for limited service. Both my father and my wife's parents live just far enough away within our state that we either have to make cell calls (less comfortable in the home) or pay long distance toll charges.

Instead, I bring up the Google Voice Web site, click the Call button, enter the phone number I want to call (or select it from the contacts list), and select my home line from the Phone to Ring pop-up menu. (You can also initiate calls by dialing your own number, accessing the voicemail options, and entering the number to call.)

My phone rings, and because this counts as an inbound call, I don't pay toll charges; when I pick up, Google dials the other end and connects the call. This also works well when you're somewhere you can't make a toll call from and it's preferable or cheaper than using your cell phone.

I also make use of Google Voice's free text messaging. In the United States, both the sender and recipient of a text message are dinged for the same message, which is even more ridiculous since the nominal cost is, at most, a tiny fraction of a cent. (See "[When iPhone Pushes, Text Message Fees Fall](#)," 9 April 2009.)

I have a 200 SMS plan (\$5 per month) from AT&T, and when I have occasionally gone over that amount, I pay 10 cents per message for the privilege. Using Google Voice for my half of the communication reduces my cost, as I don't use the feature to forward SMS to my cell phone; instead, the messages are sent to me via email and I reply via the Web app or Web site. I'm still subtracting from my recipient's message totals - unless they have unlimited messaging plans - but it's a way to reduce my costs.

Google Voice is so far available only in the United States. Google's response to those who try to sign up elsewhere is: "We're not yet open for users outside the U.S., but are planning to expand our service to additional countries in the future." ☹

by Adam C. Engst

Change Your Passwords: e-mail Account Hacking on the Rise

In the past month or so, I've received a number of spam messages from people with whom I've had previous e-mail correspondence. (I noticed these because Gmail is less likely to mark messages as spam when they come from someone with whom I've already exchanged e-mail.) What's unusual is that these spam messages were not spoofed to appear as though they came from my acquaintances; the messages actually did originate from the listed accounts and were sent to people in those accounts' address books.

Tracing backwards through the Received headers in each of the messages reveals that this is indeed the case; messages that purport to have come from a user's Gmail account

really did originate from within Gmail. I've seen several of these spam messages from Gmail accounts, several from AOL accounts, and a few from an MSN account. Most of the ones I saw were simple links to pharmaceutical sites. Also common is a [particular type of spam](#) sent from a friend's account asking for immediate financial help after a wallet theft while travelling in London — though poorly written, it's just believable enough to fool some people.

The Received headers, along with the fact that the To lines contain alphabetized addresses that come from someone's address book, indicate to me that the accounts in question have been hacked in some way, that the bad guys are actually logging in to the victims' accounts and sending mail. Plus, although I haven't received any of this sort of spam from any MobileMe or Yahoo Mail subscribers personally, I know people who have experienced their MobileMe and Yahoo accounts being hacked and used to send spam.

What You Can Do — To reduce the likelihood of this happening, or the damage if it does, here are a few suggestions.

Most importantly, if you use one of the major e-mail services with a Web-based client (Gmail, MobileMe, AOL, MSN, Hotmail, Yahoo Mail, etc.), change the account's password immediately. That may not be sufficient, depending on how the accounts are being hacked, but it's worth doing.

When you change the password, make sure it's a strong one that includes letters, numbers, and punctuation if possible (not all sites allow punctuation). To see if a password is strong, open Apple's Keychain Access application from your Utilities folder, choose File > New Password Item, and watch the strength indicator as you type your password. If you can't think of a good password, click the key button to open the Password Assistant, which will create strong passwords for you. For much more information about passwords, read Joe Kissell's "[Take Control of Passwords in OS X, Second Edition](#)."



Don't use the same password on multiple large sites that contain personal information. If a spammer were able to come by your information in a large number of Facebook usernames and passwords, for instance, you wouldn't want them to use that information to compromise your accounts at Gmail, Amazon.com, and Citibank. (Facebook hacking is believed to be one of the ways e-mail account passwords were acquired.) For the ultimate in security, though it increases your reliance on a single program, try a utility like [1Password](#) that can create individualized strong passwords for every site you access, and then enter them for you (since you'll stand no chance of remembering any of them).

Remember that certain passwords, like those for Gmail, Twitter, and Facebook, are used by ancillary Web services like dlvr.it, Mac programs like TweetDeck, and iOS apps like Twitterrific. Once you change the main password, certain things may break until you update the password everywhere else too.

Whenever possible, and particularly when you're accessing the Internet via a Wi-Fi hotspot or other public connection, use secure connections (or a VPN!) if possible (look for https in the address field). If you're using Firefox, try the EFF's new HTTPS Everywhere extension (see "[HTTPS Everywhere Enables Easy Encryption](#)," 18 June 2010). For more details and real-world advice about securing connections, see "[Take Control of Your Wi-Fi Security](#)," which I co-authored with Glenn Fleishman.

If your e-mail provider allows forwarding of mail to another account, check those settings! Scan your filters as well, if they could be used to forward mail automatically too. The London scammers rely on e-mail forwarding so they can remain undetected even if you continue to use your account. More generally, although it seems unlikely, a bad guy could use forwarding to siphon copies of all your messages to another account for scanning. In one case of a MobileMe account being hacked, the scammers were not only forwarding e-mail from it, but had also changed the password and all the security questions.

Be careful what you put in e-mail — random bad guys aren't likely to do anything with information about your life, but passwords, bank account numbers, credit card numbers, and the like could be extracted automatically.

Prepare for the possibility that your account could be hacked by figuring out ahead of time who you can contact and how to respond. For instance, if you use Gmail, [pre-configure a mobile phone number](#) at which you can receive a verification text message to re-enable a temporarily disabled account (more on why that might happen shortly). And if you use MobileMe, note that although there's no phone support, there is [live chat support](#).

Use Apple Mail or another POP or IMAP client, if possible, to keep a local copy of all your mail. If someone can send spam from your account, they could also delete all your stored mail, though vandalism is the only reason to do that. If you're saving a local copy via IMAP, back up that local IMAP store, since an IMAP client would likely delete its archive if all the remote messages were deleted.

Escalating Warfare and Collateral Damage — I now believe that at least Google is increasing security based on these events. Within the last two weeks, [a number of people](#), including Tonya and me, have had their Gmail accounts disabled temporarily by Google. We were each able to reactivate our accounts by receiving a verification code on our iPhones, entering it in Gmail, and then changing the passwords.

Working on a tip from a friend who had this happen to him as well, I went back through the e-mail I'd sent in the previous 24 hours and found one message that Google could easily have seen as spammy — it was a single line of text followed by a URL and was sent to three recipients.

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Change Your Passwords: e-mail Account Hacking on the Rise

I assume that Google monitors outgoing mail for spam-like behavior, so if they had ratcheted up the sensitivity on that monitoring code to detect account hacking more quickly, that could explain why my account was disabled temporarily. (I have no evidence to indicate that my account was compromised or my password stolen.)

These sorts of problems are less likely to occur to smaller ISPs and e-mail providers that aren't large targets like

Apple, Google, Yahoo, and Microsoft. And if problems do occur, smaller companies are more likely to provide human support, which can be extremely comforting when an account has been compromised or disabled. Of course, the large e-mail services offer many advantages too — life is full of tradeoffs.

A good deal of what I've said here is based on observation and conjecture, of course, but regardless, it's a good idea to change your passwords every so often. And if you have suffered from having your account hacked and know how it happened, please share your experiences in the comments! 🗑️

by Tim Sullivan

July Software Review

FLV Crunch 1.3.1

<http://flvcrunch.awardspace.us/>

Requires: Mac OS 10.1 or higher. Universal Binary. Free-ware.

This program converts one video file format into another.

It can accept as input:

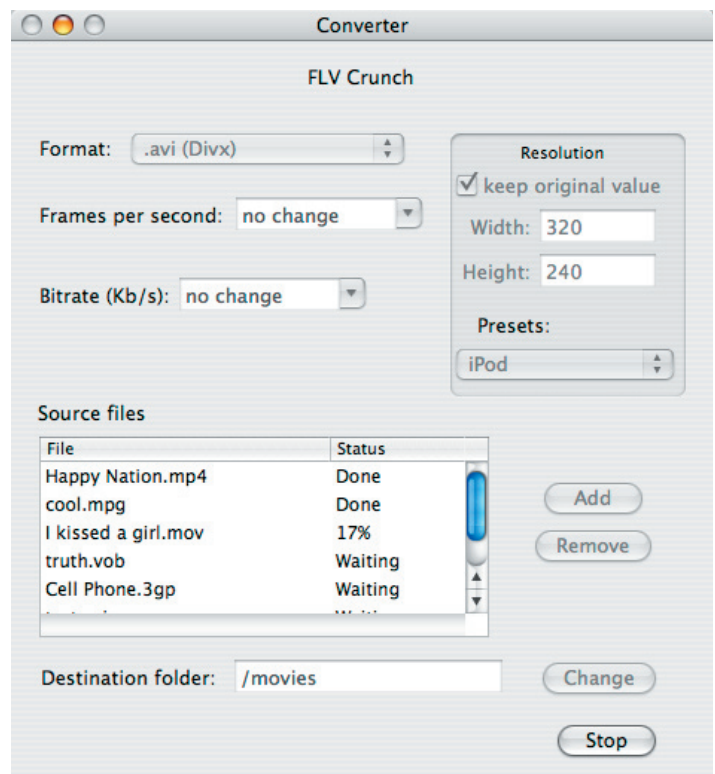
- FLV (Downloaded YouTube videos),
- MPEG 1 (.mpg),
- MPEG 2 (.vob),
- MPEG 4 (.mp4),
- Quicktime (.mov),
- Cell Phone videos (.3gp),
- Windows Media Player files (.wma, .wmv),
- RealPlayer files (.ra, .rm),
- Divx AVI (.avi),
- Digital Video (.dv),
- MP3,
- AAC,
- MKV,
- and MKA files.

It can convert input files into:

- MPEG 1,
- MPEG 2,
- MPEG 4,
- Quicktime Mov,
- 3GP,
- Digital video,
- Windows Media Video (wmv),
- Divx AVI,
- MP3 (audio only),
- AAC (audio only),
- and FLV.

PDA, iPod, iPhone, Apple TV, or any other device. You could turn a video you downloaded from YouTube into something you can use with iMovie, iDVD, iTunes, Quick-time Player, and others.

If you want to obtain some video files, the links to [kissyoutube](#) and [ripzor](#) are provided. These rippers allow you to download Youtube videos.



Apple Updates

iTunes 9.2.1

July 19, 2010

iTunes 9.2.1 provides a number of important bug fixes.

iOS 3.2.1 Update for iPad

July 15, 2010

This iOS software update for iPad contains bug fixes and improvements. This update is available via iTunes.

iOS 4.0.1 Software Update for iPhone

July 15, 2010

This update contains bug fixes and improvements. This update is available via iTunes.

iPhone Configuration Utility 3.0 for Mac OS X

July 14, 2010

iPhone Configuration Utility lets you easily create, maintain, encrypt, and install configuration profiles, track and install provisioning profiles and authorized applications, and capture device information including console logs.

HP Printer Drivers 2.4.1 for Mac OS X 10.6

June 30, 2010

This download includes the latest HP printing and scanning software for Snow Leopard.

Epson Printer Drivers 2.4 for Mac OS X 10.6

June 30, 2010

This update installs the latest software for your Epson printer or scanner.

iOS 4 Software Update

June 21, 2010

This update contains over 100 new features.

Mac OS X 10.6.4 Update Mac mini (Mid 2010)

June 15, 2010

The Mac OS X 10.6.4 Update is recommended for all users of Mac mini (Mid 2010). This update contains all the applicable fixes from the Mac OS X 10.6.4 Update, plus specific fixes for Mac mini (Mid 2010).

Mac OS X 10.6.4 Update (Combo)

June 15, 2010

The 10.6.4 Update is recommended for all users running Mac OS X Snow Leopard. It includes Safari 5 and general operating system fixes.

Mac OS X 10.6.4 Update

June 15, 2010

The 10.6.4 Update is recommended for all users running Mac OS X Snow Leopard. It includes Safari 5 and general operating system fixes.

Security Update 2010-004 (Leopard-Client)

June 15, 2010

Security Update 2010-004 is recommended for all users and improves the security of Mac OS X. Previous security updates have been incorporated into this security update.

Safari 4.1 for Tiger

June 07, 2010

This update contains improvements to performance, usability, compatibility and security.

Safari 5.0

June 07, 2010

This update contains improvements to performance, usability, compatibility and security.

Boot Camp Update for MacBook Pro (13-inch, Mid 2010) (Windows 64 bit)

May 25, 2010

This update applies to the MacBook Pro (13-inch, Mid 2010) running Windows operating systems.

Boot Camp Update for MacBook Pro (13-inch, Mid 2010) (Windows 32 bit)

May 25, 2010

This update applies to the MacBook Pro (13-inch, Mid 2010) running Windows operating systems.

Java for Mac OS X 10.6 Update 2

May 18, 2010

Java for Mac OS X 10.6 Update 2 delivers improved compatibility, security, and reliability by updating Java SE 6 to 1.6.0_20.

Java for Mac OS X 10.5 Update 7

May 18, 2010

Java for Mac OS X 10.5 Update 7 delivers improved compatibility, security, and reliability by updating J2SE 5.0 to 1.5.0_24, and updating Java SE 6 to 1.6.0_20 for 64-bit capable Intel-based Macs.

QuickTime Player 7.6.6 for Mac OS X 10.6.3

May 10, 2010

QuickTime Player 7 supports older media formats, such as QTVR, interactive QuickTime movies, and MIDI files on Snow Leopard

Mac Pro Audio Update 1.1

May 03, 2010

This update addresses an audio anomaly that some customers may hear coming from inside their Mac Pro computer when using FireWire audio devices. This update is for Mac Pro (Early 2009) computers running Mac OS X 10.6.3.

Apple Donates MacPaint and QuickDraw Source Code to Museum

Few pieces of software inspire rapture. QuickDraw and MacPaint are surely at the top of the short list. QuickDraw, developed by Bill Atkinson, defined what you saw when you used a Mac; MacPaint was the first mainstream program that let you create imagery on a personal computer.

Through the efforts of Andy Hertzfeld, an early and long-time Apple employee deeply involved in the Mac's creation and development, Apple has donated the [source code for QuickDraw and MacPaint](#) to the Computer History Museum. Apple retains the copyright, but it's generous of the firm to give an insight into the fundament of Macintosh's heart.

QuickDraw and MacPaint were both developed by Atkinson for the Mac's predecessor, the Lisa. However, they reached fruition on the Mac.

QuickDraw is a set of graphic primitives and window-handling routines that provided Apple's developers and third-party software companies with highly optimized ways to present and update information on screen. That is, no one had to develop the same approach twice, but could tap into a constantly improving set of routines designed to work as fast as possible. (Graphic primitives includes things like making squares, circles, and polygons, or shading an area enclosed by a line.)

This was in contrast to most graphical systems of the time and for years thereafter. I recall using Windows 1.0 a few years later, in which every piece of software seemed to invent its own way of interacting with a user, although Microsoft had consistency across its own software line.

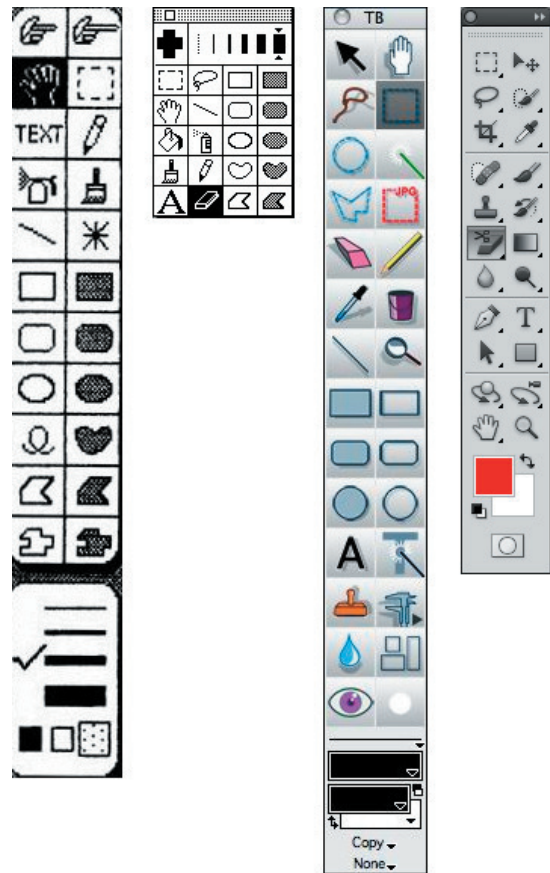
Atkinson figured out ways to speed up clipping by a couple orders of magnitude. Clipping happens when overlapping windows have to be drawn. Atkinson describes some of his techniques in this [Computer History Museum oral interview](#) (with both him and Hertzfeld) in 2004.

By making clipping fast, you could drag arbitrary windows around and have many windows on screen without the operating system becoming unusably slow. Hertzfeld wrote the glue (literally called QuickGlue) that connected QuickDraw into the Mac OS for developer's use.

MacPaint's importance shouldn't be overlooked, either. It was the first capable digital drawing program available to a mass audience, and it could be used to produce real work. Relying on QuickDraw components and extending them, Atkinson developed a rich set of metaphors and approaches for drawing that still define the dominant paradigm in software today.

In the image below, LisaSketch's toolbar is at the far left, and MacPaint's is just to its right. The two right toolbars

are from the latest versions of GraphicConverter (6.7) and Adobe Photoshop (CS5).



MacPaint was also one of the few programs that came with the Mac. For a lot of people, it was the Mac: no one had ever seen anything like this. Swipe with the mouse and make shapes! And few people had ever used a mouse before, either, so MacPaint introduced users to the power of hand gestures translated through hardware.

MacPaint was written in Mac Pascal and 68000 assembly language (about 60 percent Pascal); QuickDraw is 100-percent assembler. Assembly language is one step above machine language. Machine language is the program code represented directly in the numbers the CPU uses for commands; programmers sometimes reach down to this layer today for optimization. Assembler is a lightly abstracted layer above it that allows the use of symbols and operations that are converted into sequences of machine code.

Hertzfeld wrote up a series of stories about his experiences at Apple at [Folklore.org](#). I reviewed the book adaptation of this site in "[Continuous Revolution](#)" (24 January 2005).

Rumors and Reality

Around Apple

* So whatever happened to Blu-Ray? We haven't seen any Blu-Ray drives in Apple computers yet. And don't expect to in the foreseeable future. In a back and forth e-mail dialogue with a Mac user, Steve Jobs made the following comment: "Blu-ray is looking more and more like one of the high end audio formats that appeared as the successor to the CD - like it will be beaten by Internet downloadable formats." As for high quality videos and movies: "...free, instant gratification and convenience (likely in that order) is what made the downloadable formats take off. And the downloadable movie business is rapidly moving to free (Hulu) or rentals (iTunes) so storing purchased movies or TV shows is not an issue. I think you may be wrong - we may see a fast broad move to streamed free and rental content at sufficient quality (at least 720p) to win almost everyone over."

So again, we won't be seeing Blue-Ray on Macs anytime soon.

- What are the odds? David Kahn, chief executive with Covia Labs of Mountain View, was in San Francisco on Monday demonstrating a product called Alert & Respond to some of his PR colleagues. While the product is design for police and military, it is readily adaptable to small devices such as an iPhone. It allows real time tracking of the device.

To demonstrate Kahn had an assistant take his iPhone outside. Within seconds, a thief on a bicycle snatched and made off with phone. The police were notified and able to pinpoint the location of the iPhone, had the thief in custody within 10 minutes.

The moral of the story: don't steal in iPhone in the middle of a demonstration.

T-Mobile or Verizon or neither? Before there was an iPhone, there was The Deal. Verizon turned down the deal. AT&T snapped it up. ATT&T became the only carrier that could be used by iPhone users.

Since that day, rumors abound. Steve Jobs is really annoyed with AT&T, reportedly talking about severing the relationship on several occasions. A lot of the tension in their relationship is due to AT&T's inability to provide enough network for the voracious iPhone users. Apple was unwilling to restrict the iPhone's Internet access while AT&T just couldn't build out a network fast enough.

Speculation is that T-Mobile could be selected as the replacement. An anonymous source in T-Mobile suggests that there is an 80% chance the deal could be made in the 3rd quarter of this year. The deal does make sense in that both AT&T and T-Mobile use GSM technology.

The GSM Association estimates that 80% of the global mobile market uses the standard. GSM is used by over 4.3 billion people across more than 212 countries and territories. Its ubiquity enables international roaming arrangements between mobile phone operators, providing subscribers the use of their phones in many parts of the world. GSM differs from its predecessor technologies in that both signaling and speech channels are digital, and thus GSM is considered a second generation (2G) mobile phone system. This also facilitates the wide-spread implementation of data communication applications into the system.

Verizon Wireless and Sprint Nextel are the two major U.S. carriers to use CDMA technology. (Verizon would not be a replacement, rather an addition — Apple can't just abandon the current base of iPhone users.)

Verizon Wireless invests \$8 billion annually to maintain and expand its nationwide CDMA network. Verizon Wireless offers voice services as well as 3G data services such as wireless broadband, text and picture messaging, over-the-air downloadable applications and content from its "Media Center" (previously called, Get-It-Now) service, Video on Demand in the form of V CAST (which allows customers to download and view video content), location-based services, and Push-to-Talk.

However, on September 20, 2007, Verizon Wireless announced a joint effort with the Vodafone Group to transition their networks to the 4G standard LTE and on November 29, 2007, Verizon Wireless announced that they would start LTE trials in 2008. On December 9, 2008, Verizon announced that they intend to build and begin to roll out, a LTE network, by the end of 2009. Adopting LTE would make for a gradual shift away from Verizon Wireless' current use of CDMA technology because it is a completely different platform, but would offer increased operability for users traveling worldwide.

4G refers to the fourth generation of cellular wireless standards. It is a successor to 3G and 2G families of standards. The nomenclature of the generations generally refers to a change in the fundamental nature of the service, non-backwards compatible transmission technology and new frequency bands. The first was the move from 1981 analogue (1G) to digital (2G) transmission in 1992. This was followed, in 2002, by 3G multi-media support, spread spectrum transmission and at least 200 kbit/s, soon expected to be followed by 4G, which refers to all-IP packet-switched networks, mobile ultra-broadband (gigabit speed) access and multi-carrier transmission.

A 4G system is expected to provide a comprehensive and secure all-IP based solution where facilities such as IP telephony, ultra-broadband Internet access, gaming services and streamed multimedia may be provided to users. ☺