

COMPUTER EDGE ONLINE

```
#include <stdio.h>
#include <math.h>
#include <stdlib.h>
#include <string.h>

void generate(int level)
{
    int generator_size = 3;
    int level;
    int init_size = 1;
    int initiator_x1[10] = {1, 50, 100, 150, 200, 250, 300, 350, 400, 450};
    int initiator_y1[10] = {10, 10, 10, 10, 10, 10, 10, 10, 10, 10};
    int combination = 0;
    unsigned long int PATTERN=0xFFFFFFFF;
    float theta;
    int i;
    float x;
    float y;
}

main(
{
```

Programmer's Brain

October 24, 2014

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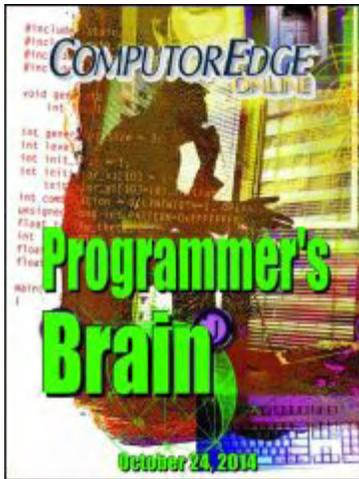
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Programmer's Brain

Very few people have it, but maybe more people should want it.

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Digital Dave answers your tech questions.

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by ComputerEdge Staff

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Digital Dave

“Digital Dave answers your tech questions.” by *Digital Dave*

Removing Insta Share Adware; Too Many Chrome Processes.

Removing Insta Share Adware

Dear Digital Dave,

Thanks for being here after many years. I started reading ComputerEdge like 13 years ago, when my brother, whom is a technician, recommended it to me. I stopped reading it like five years ago, but now that I have a problem and after Chrome and Advance System Care failed to help me, I remembered that you always have an answer for most things.

The problem is that after trying several free applications, I've got an infection in my browser. I ran ASC antivirus and IOBIT malware several times with no luck. When I click on a link, an ad in another tab appears. The ads are from Insta Share. (It doesn't appear in control panel to uninstall and neither in Chrome extensions) I sent a feedback to Chrome, but they didn't answer (three days already). I installed adblock, block site, which blocks many pages at the second or third time, but not one in particular: a Time Warner warning message urging me to call them to call tech support. In the small print says it's not affiliated with Time Warner and in the right upper corner says ad by Insta Share. Can you or your readers help?

Thanks.

PS: I'd hate to restore to earlier points.

*Victor Rodriguez
El Centro, CA*

Dear Victor,

There is no doubt that Insta Share was installed through one of those free downloads. That's why you need to be careful when installing anything, looking for unwanted extras. But even then not everyone is good about telling you that you're going to get more than you bargained

for.

You have the right idea when you try to uninstall both through the Control Panel and extensions in the browser. This type of adware often does both so even if you get it removed from one place, it comes back on the next load. The problem is that the name you see in Programs and Features or browser extensions may not be the same as the name you see on the ad (Insta Share). You may need to sort the programs by installation date and remove anything that was recently installed. The same is true for browser extensions.

Go through the programs and extensions and remove anything that looks suspicious. If you're not sure, Google it.

For more details on how to remove Insta Share, see this [MalwareTips page](#).

Digital Dave

Too Many Chrome Processes

Dear Digital Dave,

*Chrome seems to be a strange browser. For example, after just booting my laptop, I open Task Manager and have seen as many as 16 Chrome*32 processes running, yet I have not even opened Chrome. Other times I see 7 or 8 after closing Chrome. With Chrome closed and CCleaner running very often I was told that Chrome needs to close but again it is not open. What is going on?? Why is Chrome wasting so much processor resource?*

Thx,

*Ron
San Diego, CA*

Dear Ron,

One of the features of Google Chrome is it starts a new process every time a new tab is opened. While this does create a higher level of processor usage, it also isolates each tab in the event of a problem. This makes Chrome a little more robust than other browsers.

There are also applications which use Chrome when they are running in the background. This will cause Chrome processes to be launched even when you don't load the browser. In addition, certain processes may continue running after you close the browser.

To prevent some of this behavior open Settings => Show advance settings... in Google Chrome and uncheck the box System => Continue running background apps when Google

Chrome is closed (see Figure 1).

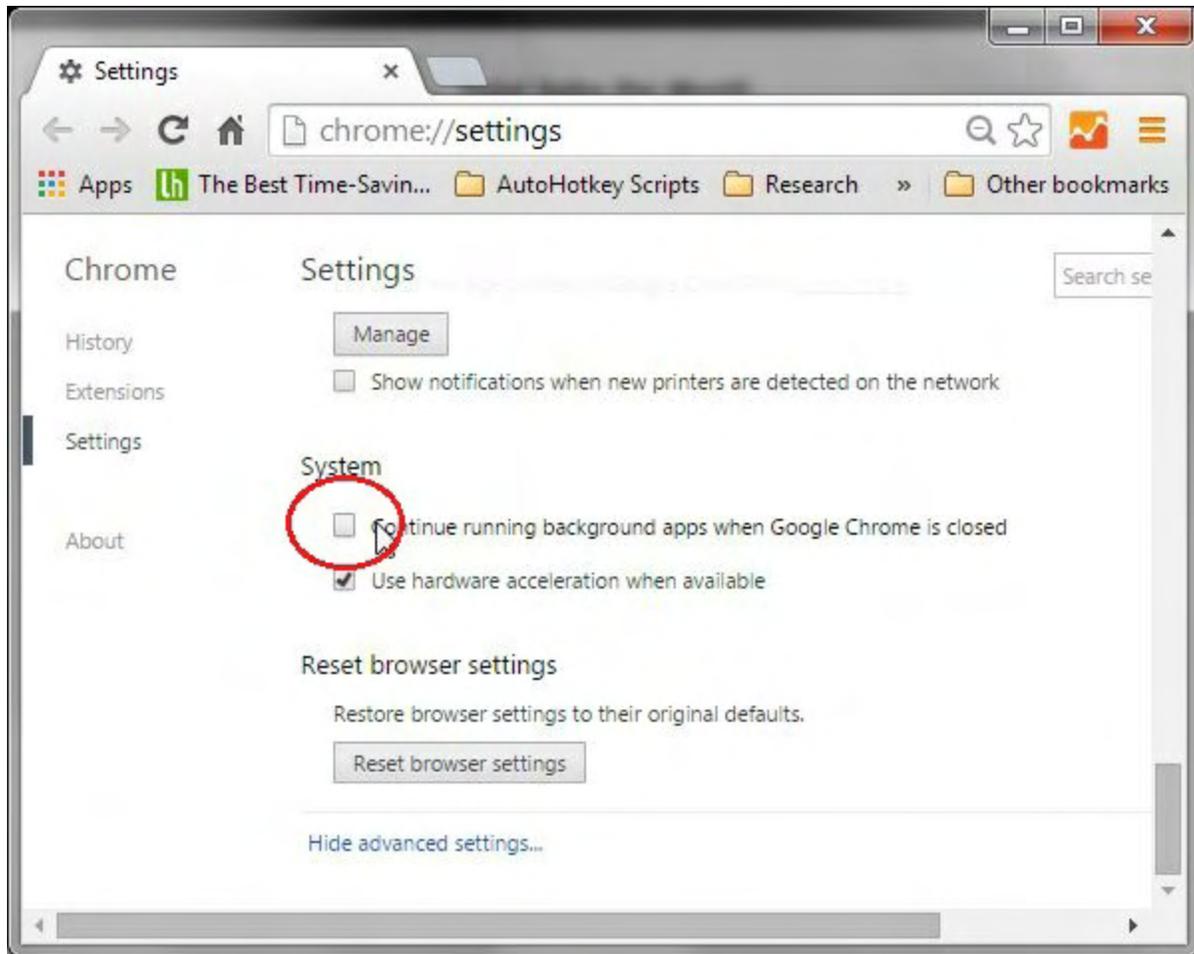


Figure 1. Uncheck System => Continue running background apps when Google Chrome is closed.

This may not end all extra processes—especially if you use any apps that automatically use Chrome—but should reduce the number of open processes.

Digital Dave



Programming and the Brain

“In the Brain Programming Is More Like Language Than Math” by Jack Dunning

While there is controversy about how beneficial writing programs is to the human brain, there are good reasons for everyone to learn at least a little coding.

The most mysterious organ in the human body is the brain. In spite of numerous studies, we still know very little about how the brain works. Most of the results are shrouded in speculation and controversy.

It is often suggested that doing puzzles and other cognitive activity which stimulate the brain can stave off dementia. While it sounds good and may make anecdotal sense, there is very little evidence to support this contention. There may be other genetic and environmental factors that play a much bigger role. However, considering the alternative, it is wise to live in a manner that assumes that increasing mental activity will indeed produce many health benefits—even if it merely makes us a little smarter.

Not all thinking is the same. When electrodes are attached it's found that different types of thoughts and processes spark activity in various portions of the brain. We do language in one place and math in another. The latest question is whether programming a computer is more closely related to language or math.

The Programmer's Brain

Programming computers as a regular occupation is a relatively new activity. Logic has been

around for millennia, but writing snippets of code is the result of needing to control computers. The question is how does writing programs affect the human brain? Tanisia Morris in her article "[Can Computer Programming Boost Your Brain Power?](#)" investigated the connection between coding and cognitive ability. "According to research, brain exercises help improve brain function and can possibly fight dementia." With the emphasis on the word "possibly," programming does improve brain function although the connection with staving off mental deterioration is a little more tenuous.

"One way to keep the brain young is learning a new skill. Last year, researchers from the University of Texas at Dallas discovered that mentally challenging activities that you've never done before can sharpen the brain." It's long been accepted that you either "use it or lose it." The brain does continue to make new connections throughout life and any mental stimulation helps—whether doing crossword puzzles, Sudoku, or reading books. Learning to program may be an entirely new type of mental exercise.

When it comes to cognitive stimulation programming may be in a category of its own. "When we learn a new programming skill—such as Python, PHP, Ruby on Rails,...our brains are forming new neural connections while strengthening existing ones each time we practice, according to the National Institutes of Health." Dr. Sherrie All, a neuropsychologist and founder of the Chicago Center for Cognitive Wellness, says, "As people get older, they actually don't lose the capacity to learn," "Our brains are constantly changing up until the point that we die." She adds: "I've learned [to code] before and it's a really complex brain exercise."

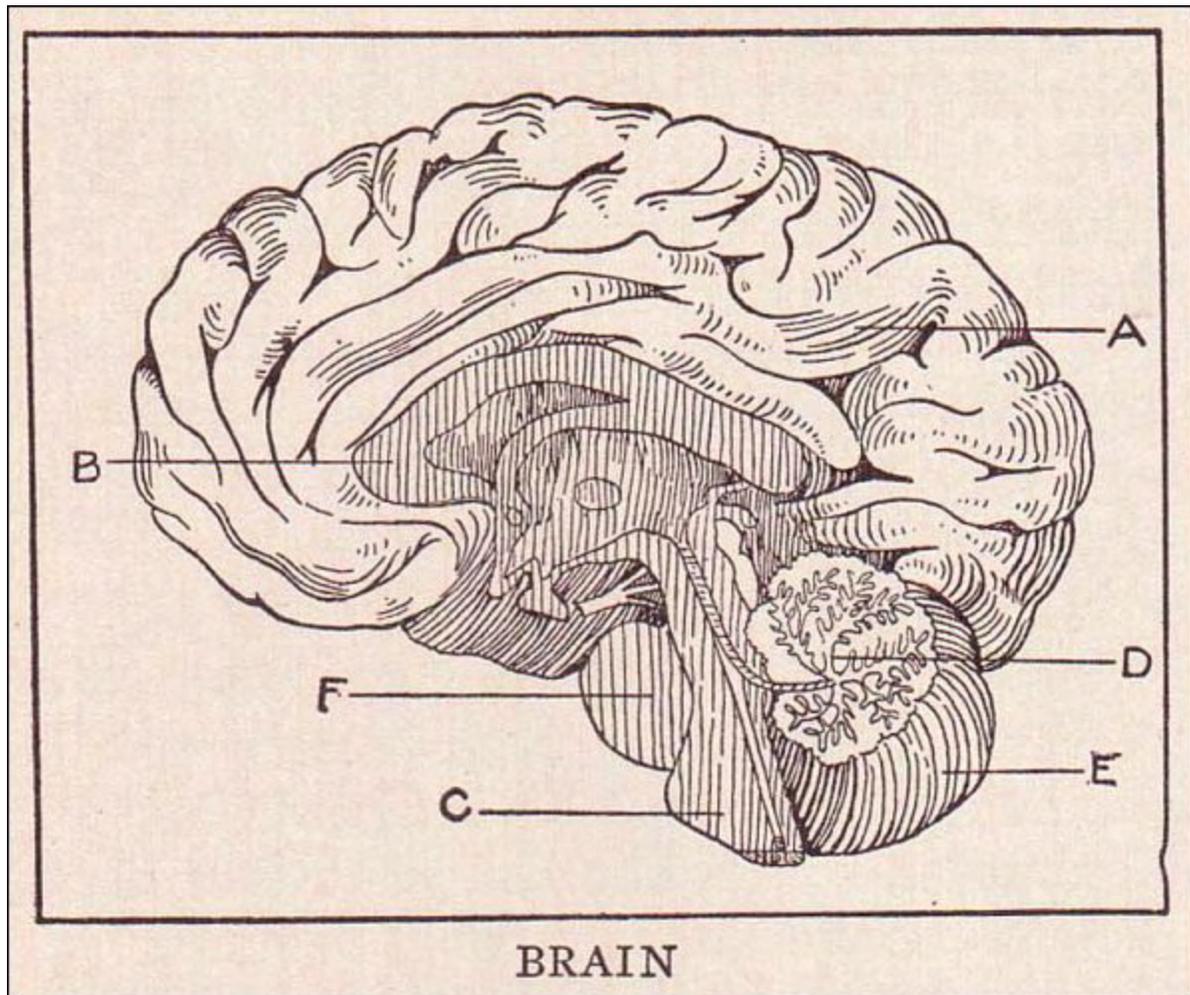


Figure 1. This illustration is from "The Home and School Reference Work, Volume I" by The Home and School Education Society, H. M. Dixon, President and Managing Editor. The book was published in 1917 by The Home and School Education Society. This illustration of the parts of the brain can be found on page 368. The parts are A. Cerebrum; B. Corpus Callosum; C: Medulla Oblongata; D. Arbor-Vitae; E: Cerebellum, F: Pons Varolii.

Many people assumed that programming is like to doing math and that it happens in the same portion of the brain. However, studies are starting to point to more similarities between writing code and processing human languages. "A new study provides evidence that programmers are using [language regions of the brain](#) when understanding code and found little activation in other regions of the brain devoted to mathematical thinking." This means that there might be additional benefits in mental stimulation when learning to program. This is assuming that activating more portions of the brain will result in saving or increasing more neural connections.

The Programming Process

I don't consider myself an expert programmer. I'm completely self-taught and have written various programs over the years for personal and business reasons. I've noticed that when I'm working on a coding problem, I enter a surreal mental state. It is not unlike the experience of

immersing myself in a good book, except it requires my interaction. With a book you're transported from the reality of today to a universe deep within the pages. If someone calls to you, you may not even hear them. It's a world that totally ignores the outside with a wall of isolation. The passage of time is inconsequential. Hours may pass without notice.

The steps are often, "That didn't work." "That didn't work either." "Now, that worked!" "But now this other line (which used to work) doesn't work?" Possibly the interaction of programming is more like writing the book. Each line of syntax is part of the dialog that adds to the plot. The ultimate satisfaction comes when the computer is made to do what you want it to do. But, even then, the book is not quite finished.

Deep, although not forced, concentration may be the best way to describe the programming mental state. It is a willingness to commit to the problem regardless of how simple. The only goal is to get the result. A programmer when making progress is oblivious to the outside world. The experience is definitely different from the usual activities such as watching television, listening to the radio, driving a car, or talking to neighbors.

I don't know if the difference in this programming mode of thinking has any impact on how the brain is affected. It's a consuming process that seems to occupy the entire mind. If a programmer appears to be ignoring you, don't take it personally. It's not that they aren't listening—they just can't hear you.

Learning to Program

People are realizing that there are good reasons beyond mental stimulation to learn a little programming. Professionally, regardless of your field of endeavor, a little more computer literacy adds volumes to your qualifications. Learning to program gives insight into how computers work and adds credibility to your words at company meetings. You may actually understand what the programmers are saying at technical meetings. You don't need to become an expert programmer, just learn enough to know what's going on. Knowing how a computer works helps you to understand what is possible.

There are a number of ways to get started in programming without too much pain. Many articles found on the Web offer good starting points, such as "[Upgrade your brain: Programming resources for coding newbies](#)." I'm not sure it matter which language you learn, but pick one that is easy for you to learn and will give quick results. All programming languages have the same basic functions, but some are certainly simpler to understand than others. Some may use less cryptic words, but it is the programming process that is important—and that's almost always the same.

Naturally, I recommend AutoHotkey for first time programmers—which despite the misleading name is a full-blown computer language. It's not just because I'm an AutoHotkey fanatic, but due to the fact that you can have get a quick result (success) on a Windows computer with

only one short line of code. There are not many programming languages that can do that. When you make a computer do what you want it to do, it's like the completion of a short story. There is a tangible result which you can immediately see. AutoHotkey gives you that outcome quicker than most programming languages. (See this [Introduction to AutoHotkey!](#))

Learning to program is built upon a series of successes. The easy first steps give you confidence and help to build your vocabulary. As you add a little more, the patterns become clear and process gets easier. The early achievements in AutoHotkey are profound. Each new line can add a specific useful feature to your Windows computer. You don't need to immediately jump into complicated long scripts. (That comes later.) You can move ahead at your own speed, adding skills a little at a time—all the while stimulating your brain.

Programming for Kids

Any parent with teenagers can tell you that their brains don't work the same as an adult's. This has been increasing verified by studies. "[The Teen Brain: Still Under Construction](#)" tells us that there are substantial physical differences in teenage brain from both adults and younger children. Many more neural connections exist and the entire teen brain is consumed when confronted with an emotionally charged question. While at times this activity may seem to cause irrational behavior, it is also the prime time for learning. It is not until early adulthood that unused connections start getting flushed to make the brain more efficient and (according to adults) logical.

If I were introducing programming to a teenager, I would again recommend AutoHotkey. One of the most common uses for AutoHotkey is to control the playing of computer games on Windows computers. By creating short auto-repeating scripts, players make their weapons many times more devastating. Many kids pick up AutoHotkey just to build this capability. Without even knowing it, they are learning to program. As they work to get more control over their games, they develop more powerful tools through more complex programming—not because they have to, but because they want to. Once they become adults, programming is hardwired into their brain.

Regardless of your age there are good reasons for learning to program. The fact that it can make your computing life easier is almost incidental. I don't know how many people will ultimately reach that Zen-like mental state (considered rude and nerdy), but it is certainly a lofty goal.

Maybe only the very best programmers can attain that type of nirvana. According to "[This Is Your Brain On Code, According To Functional MRI Imaging](#)", Christian Kästner, co-author of the study, says "We still have no clear idea how to train really good developers. For decades researchers have found that there are individual programmers who program more productively at higher quality and also do most of the communication in the project. These are often referred to as 10Xers because many studies found that they produce ten times more code, or

in a tenth of the time or do ten times more communication." Most companies have one or two of these people with the remaining programmers following their lead.

But the goal is not to become a super programmer. I just want to stimulate my brain while making a few useful computers tools. Will it prevent dementia in my old age? There is not much to support that thesis. But, programming adds challenge and interest to my life while possibly making me just a little smarter. (I wish I had started when I was a teen—but there were no PCs in those days.) Despite the image promoted by non-programmers, writing code is not boring. It is more like traveling a road on a mystical journey. Ask any programmer—if you can get their attention.

Jack is the publisher of ComputerEdge Magazine. He's been with the magazine since first issue on May 16, 1983. Back then, it was called The Byte Buyer. His Web site is www.computoredge.com. He can be reached at ceeditor@computoredge.com. Jack is now in the process of updating and compiling his hundreds of articles and columns into e-books. Currently available:

Recently released is Jack's FREE AutoHotkey book, [AutoHotkey Tricks You Ought to Do with Window](#), available exclusively at ComputerEdge E-Books in the EPUB for e-readers and tablets, MOBI for Kindle, and PDF for printing formats.

ComputerEdge E-books offering is his [AutoHotkey Applications](#), an idea-generating intermediate level e-book about using the AutoHotkey Graphical User Interface (GUI) command to write practical pop-up apps for your Windows computer. (It's not as hard as it sounds.)

[Hidden Windows Tools for Protecting, Problem Solving and Troubleshooting Windows 8, Windows 7, Windows Vista, and Windows XP Computers.](#)

Jack's [A Beginner's Guide to AutoHotkey, Absolutely the Best Free Windows Utility Software Ever!: Create Power Tools for Windows XP, Windows Vista, Windows 7 and Windows 8 and Digging Deeper Into AutoHotkey.](#)

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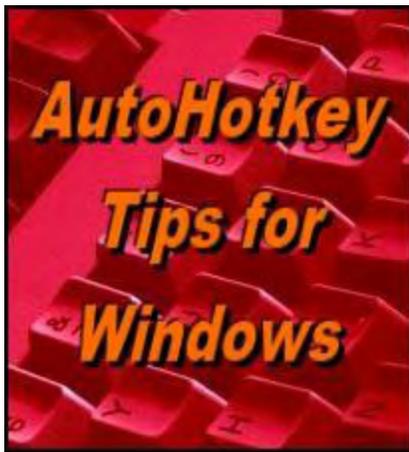
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Yet, One More Reason to Use AutoHotkey Free Software!

A Beginner's Trick for Inserting Next Friday's Date and an

Important Tip for Any AutoHotkey User

“A Novice AutoHotkey Trick for Next Friday and a Possible Solution for Failing Hotkeys” by Jack Dunning

Taking a break from Regular Expressions (no we are not done, yet), a simple script for adding next Friday's date (or any other day of the week) to any Windows document. Plus, if you have AutoHotkey hotkeys that occasionally fail, here is a possible solution.



This week offers a beginner's AutoHotkey tip for adding next Friday's date to any document. It could be any day of the week, but for me Friday's date is important since it is the day *ComputerEdge* is posted. I could use the *AddDate.ahk* script found at the [Free AutoHotkey Scripts and Apps](#) site which uses the calendar input graphic (shown at left), but that returns the date in the standard American format (October 24, 2014). I wanted an abbreviated format (10-24-14) which would instantly be inserted after typing a short hotstring (*AFri*).

This AutoHotkey trick can be used for determining the date for any chosen day of the week. The only change needed in the script is the constant numeric value for the target day of the week. A person could set up a different hotstring for each day (*ASun*, *AMon*, *ATue*, *AWed*, *AThu*, *AFri*, and *ASat*), but all I need is Friday.

In order to determine next Fridays' date a quick calculation is made using today's date. AutoHotkey has all the tools required for the job:

```
:c*:AFri::
today := A_Now
today += 6-A_WDay, days
FormatTime, friday, %today%, M-d-yy
```

```
SendInput %friday%
return
```

Notice that the hotstring I use (*AFri* for "Add Friday") is short and easy to remember. I use the *c* option between the first two colons to tell AutoHotkey that the string is case sensitive. This is important since otherwise, if I typed the word "Africa" it would convert the first part to Friday's date (*10-24-14ca*). I know of no word that starts with *AFri*—the first two letters capitalized. The *** option is used to instantly add the date when the letter *i* is typed at the end of the hotstring.

Tip: It is often better to use hotstrings (short text entries) rather than hotkey combinations (usually with CTRL, the WIN key , ALT, or SHIFT). If you pick the right text, hotstrings can be much easier to remember and won't interfere with other Windows or program hotkey combination.

To calculate Friday's date we start with today (*today := A_Now*). *A_Now* is the built-in AutoHotkey variable which always contains today's date.

Next, today's data is incremented to Friday using the shortcut version of the [EnvAdd command](#) (*today += 6-A_WDay, days*). If using the full *EnvAdd* command, then the equivalent expression would be *EnvAdd, today, 6-A_WDay, days*—they are interchangeable. This line of code adds the number of days until the next Friday to today's date.

The built-in AutoHotkey variable *A_WDay* contains today's day of the week in numeric form. Sunday is 1, Monday is 2, and so on, with Friday being 6. To calculate how many days until the next Friday, the current numeric day of the week is subtracted from Friday (6). The *days* parameter is needed to tell AutoHotkey to do a time calculation in days.

The only day that this won't work properly is Saturday (7) since it produces a negative number and jumps to the day before—rather than the following Friday. If I wanted to correct this problem, I would add a conditional for Saturdays:

```
If A_WDay = 7
    today += 6, days
Else
    today += 6-A_WDay, days
```

If you're writing the code for any other day of the week, then the conditional might be changed to *If A_WDay > 6*, where the number 6 is replaced throughout the snippet with the weekday number of the target day and that number plus one week (seven days). For example, this snippet will deal with all possibilities for next Wednesday's date:

```
today := A_Now

If A_WDay > 4

    today += 11-A_WDay, days
```

Else

```
today += 4-A_WDay, days
```

If the day of the week is greater than 4 (Wednesday), then *4-A_WDay* plus one week (add 7 days to get the 11) gives the next Wednesday. Otherwise (*Else*), the next Wednesday is *4-A_WDay* days later. (In this example, I would change the hotstring to *AWed*.)

Since I don't plan to use this hotstring on Saturday, I haven't changed the snippet in my regular AutoHotkey tricks file.

The [FormatTime command](#) is used to put Friday's date in the proper format (*FormatTime, friday, %today%, M-d-yy*) and store it in the variable *friday*. *M* is the month without leading zero (1 - 12); *d* is day of the month without leading zero (1 - 31); and *yy* is the two-digit year.

Lastly the [SendInput command](#) is used to replace the hotstring with the value of *friday* (*SendInput %friday%*) in the current Windows document or input field. The *Return* is required to mark the end of the hotstring commands.

An Important Tips for Any AutoHotkey User

You may have noticed that from time to time some of your hotkey combinations just stop working. It might happen on one computer more than another. I've certainly seen it and found that reloading the script will normally fix the problem, but it is annoying when a hotkey you depend upon suddenly stops working. Since it was random and I didn't know where to look, I just lived with it. There may be a solution.

While I was perusing one of the AutoHotkey forums, I came across a post by someone whose key reassignments would suddenly stop working. Interestingly, he had found a solution before anyone else had a chance to make any suggestions. It turned out that a line in the template file for new AutoHotkey scripts may have been the culprit:

```
SendMode Input ; Recommended for new scripts due to its superior speed and reliability
```

When he removed or commented out the line from the script, the problems stopped occurring.

As it turned out, I was having a similar problem with a script I was currently working on. The hotkey combination would work a couple of times, but then just stop. I put a semicolon in front of the same line in the boilerplate of the test script and ran it again. The problem did not reoccur.

It seemed odd to me that there would be a line in the standard new AutoHotkey script file setup that caused problems. It was even ironic since it was supposed to increase "reliability." I did a little more investigating.

While I don't fully understand the [SendMode command](#), it seems that other programs which use keyboard hooks can interfere with AutoHotkey. It is not really an AutoHotkey bug. If you encounter similar problems where hotkeys stop working, then it may be worthwhile noting what else is loaded on your computer. The problem is that there is no list (that I know of) of the programs which may cause these symptoms.

For now there are a couple of options. First is to remove the line, but then you lose some its benefits. The second option is to try replacing the line with:

```
SendMode InputThenPlay
```

Then, if the Input mode fails the Play mode kicks in. I don't know if this will resolve the problem or not, but I think it is worth a shot. If anyone has experience with resolving this issue, I would certainly like to hear from you.

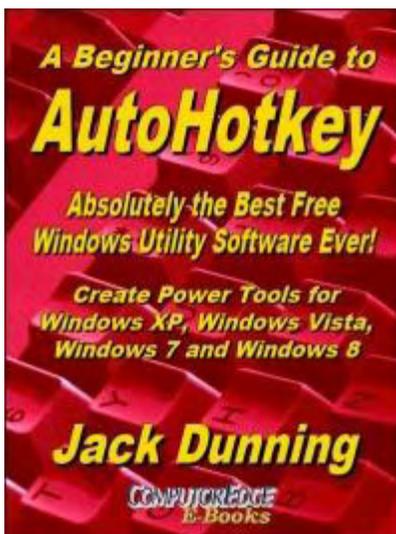
To change the template file navigate to *Windows => ShellNew* and edit the *Template.ahk* file. For now, I'm going with *SendMode InputThenPlay*. But if I continue to see similar symptoms, I'll remove the line completely.

* * *

Free! [AutoHotkey Tricks You Ought To Do With Windows!](#) This e-book includes both those tips and the reference material (Table of Contents and indexes) from the other three AutoHotkey books. Pick up a copy free and share it with your friends.

* * *

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The second edition with more chapters and an index to the AutoHotkey commands found in the book is available in e-book format from Amazon (and other formats—EPUB and PDF— at the ComputerEdgeBooks Web site linked below). Jack's [A Beginner's Guide to AutoHotkey. Absolutely the Best Free Windows Utility Software Ever!: Create Power Tools for Windows XP, Windows Vista, Windows 7 and Windows 8](#) (preferred, EPUB format for iPad, Android, and computers; MOBI for Amazon Kindle; and PDF for printing) offers a gentle approach to learning AutoHotkey. (Also available from [Amazon](#) for the Kindle and Kindle software on other devices.)

Building Power Tools for Windows XP, Windows Vista, Windows 7 and Windows 8, AutoHotkey is the most powerful, flexible, *free* Windows utility software available. Anyone can instantly add more of the functions that they want in all of

their Windows programs, whether installed on their computer or while working on the Web. AutoHotkey has a universality not found in any other Windows utility—free or paid.

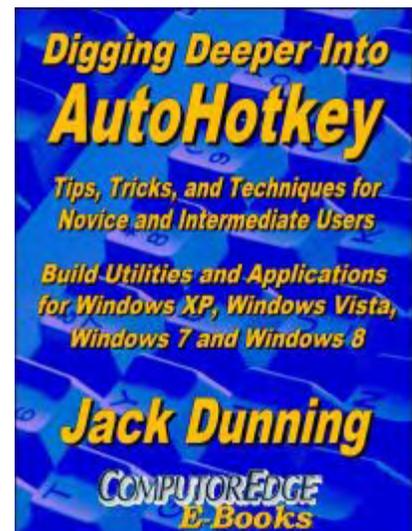
Based upon the series of articles in *ComputerEdge*, Jack takes you through his learning experience as he explores writing simple AutoHotkey scripts for adding repetitive text in any program or on the Web, running programs with special hotkeys or gadgets, manipulating the size and screen location of windows, making any window always-on-top, copying and moving files, and much more. Each chapter builds on the previous chapters.

[For an EPUB \(iPad, NOOK, etc.\) version of A Beginner's Guide to AutoHotkey click here!](#)

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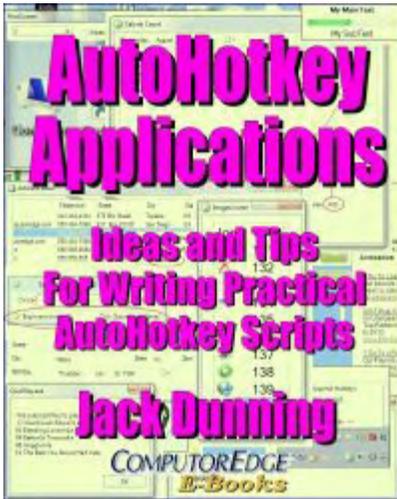
Jack's second AutoHotkey book, [Digging Deeper Into AutoHotkey](#) (preferred, EPUB format for iPad, Android, and computers; MOBI for Amazon Kindle; and PDF for printing) is comprised of updated, reorganized and indexed columns from *ComputerEdge* is now available. Since the columns were not all written in a linear fashion, the book has been reorganized and broken up into parts by topic. The book is not for the complete beginner since it builds on the information in [A Beginner's Guide to AutoHotkey](#). However, if a person is reasonably computer literate, they could go directly to this book for ideas and techniques without the first book. (Also available from [Amazon](#) for the Kindle and Kindle software on other devices.)



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Jack's third AutoHotkey book [AutoHotkey Applications](#) (preferred, EPUB format for iPad, Android, and computers; MOBI for Amazon Kindle; and PDF for printing) is an intermediate level book of ideas and applications based primarily on the AutoHotkey GUI command. The book emphasizes practical applications. The book is not for the complete beginner since it builds on the information in the other two books. However, if a person is reasonably computer literate, they could go directly to this book for ideas and techniques without the other books. There is an extensive index to the ideas and techniques covered in the back of the book. (Also available from [Amazon](#) for the Kindle and Kindle software on other devices.)

[For an EPUB \(iPad, NOOK, etc.\) version of AutoHotkey Applications click here!](#)

[For a PDF version for printing on letter size paper for inclusion in a standard notebook of AutoHotkey Applications click here!](#)

Jack is the publisher of ComputerEdge Magazine. He's been with the magazine since first issue on May 16, 1983. Back then, it was called The Byte Buyer. His Web site is www.computoredge.com. He can be reached at ceeditor@computoredge.com. Jack is now in the process of updating and compiling his hundreds of articles and columns into e-books. Currently available:

Recently released is Jack's FREE AutoHotkey book, [AutoHotkey Tricks You Ought to Do with Window](#), available exclusively at ComputerEdge E-Books in the EPUB for e-readers and tablets, MOBI for Kindle, and PDF for printing formats.

ComputerEdge E-books offering is his [AutoHotkey Applications](#), an idea-generating intermediate level e-book about using the AutoHotkey Graphical User Interface (GUI) command to write practical pop-up apps for your Windows computer. (It's not as hard as it sounds.)

[Hidden Windows Tools for Protecting, Problem Solving and Troubleshooting Windows 8, Windows 7, Windows Vista, and Windows XP Computers.](#)

Jack's [A Beginner's Guide to AutoHotkey, Absolutely the Best Free Windows Utility Software Ever!: Create Power Tools for Windows XP, Windows Vista, Windows 7 and Windows 8](#) and [Digging Deeper Into AutoHotkey.](#)

Our second compilation of stupid *ComputerEdge* cartoons from 2011 and 2012 is now available at Amazon! [That Does Not Compute, Too! ComputerEdge Cartoons, Volume II: "Do You Like Windows 8 or Would You Prefer an Apple?"](#)

Special Free Offer at ComputerEdge E-Books! [*Jack's Favorite Free Windows Programs: What They Are, What They Do, and How to Get Started!*](#)

[*Misunderstanding Windows 8: An Introduction, Orientation, and How-to for Windows 8 \(Seventh Edition\)!*](#)

[*Windows 7 Secrets Four-in-One E-Book Bundle*](#),

[*Getting Started with Windows 7: An Introduction, Orientation, and How-to for Using Windows 7*](#),

[*Sticking with Windows XP—or Not? Why You Should or Why You Should Not Upgrade to Windows 7*](#),

and [*That Does Not Compute!*](#), brilliantly drawn cartoons by Jim Whiting for really stupid gags by Jack about computers and the people who use them.



Wally Wang's Apple Farm

“The Variety of Price Ranges for Apple Products” by Wally Wang

Wally Wang's Apple Farm

The Variety of Price Ranges for Apple Products; OS X 10.10 Yosemite; Keeping Up With Changes for Developers; Computer-Aided Design on Mobile Devices; Apple Exceeds Wall Street Expectations; Changing Your Search Engine.

Apple has released a huge number of products recently, which should keep their holiday profits steadily growing. First, they released the iPhone 6 and iPhone 6 Plus. However, you can still get the iPhone 5S for only \$99 or the iPhone 5C for free with a two-year contract at most major carriers. If you think a free iPhone is too expensive, then it's hard to justify paying for any other phone and still believe you're saving money.

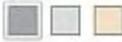
<p>Apple iPhone 6 ★★★★☆ (44) </p>  <p>\$199.99 to \$399.99 16 to 128 GB</p> <p>Available colors: </p> <p>Agmt/svc may be req'd. Fees/rest'r's apply. See Offer Details</p> <p><input type="checkbox"/> Add to Compare View</p>	<p>Apple iPhone 6 Plus ★★★★☆ (27) </p>  <p>\$299.99 to \$499.99 16 to 128 GB</p> <p>Available colors: </p> <p>Agmt/svc may be req'd. Fees/rest'r's apply. See Offer Details</p> <p><input type="checkbox"/> Add to Compare View</p>	<p>Apple iPhone 5c Write a review </p>  <p>\$0.00 to \$79.99 8 to 32 GB</p> <p>Available colors: </p> <p>Agmt/svc may be req'd. Fees/rest'r's apply. See Offer Details</p> <p><input type="checkbox"/> Add to Compare View</p>
<p>Apple iPhone 5s ★★★★☆ (102) </p>  <p>\$99.99 to \$149.99 16 to 32 GB</p> <p></p> <p>Available colors: </p> <p>Agmt/svc may be req'd. Fees/rest'r's apply. See Offer Details</p> <p><input type="checkbox"/> Add to Compare View</p>	<p>Samsung Galaxy Note 4 ★★★★☆ (5) </p>  <p>\$299.99</p> <p>Available colors: </p> <p>Agmt/svc may be req'd. Fees/rest'r's apply. See Offer Details</p> <p><input type="checkbox"/> Add to Compare View</p>	<p>Amazon Fire Phone ★★★★☆ (31) </p>  <p>\$0.99 to \$99.99 32 to 64 GB</p> <p></p> <p>Agmt/svc may be req'd. Fees/rest'r's apply. See Offer Details</p> <p><input type="checkbox"/> Add to Compare View</p>

Figure 1. AT&T sells iPhones at a variety of prices, including free.

Besides introducing new iPhone models, Apple also announced new iPad Air 2 and iPad mini 3 models that add the TouchID fingerprint sensor. To keep the iPad affordable, Apple will continue selling the older iPad Air and even the original iPad mini for \$249. While there are still cheaper Android and even Windows tablets you can buy, the price for the iPad has come down far enough that it's no longer drastically more expensive to get an iPad over a rival tablet.



Model	Capacity	Price (Wi-Fi)	Price (Wi-Fi + Cellular)
iPad Air 2	16GB	\$499	\$629
	64GB	\$599	\$729
	128GB	\$699	\$829
iPad Air	16GB	\$399	\$529
	32GB	\$449	\$579
iPad mini 3	16GB	\$399	\$529
	64GB	\$499	\$629
	128GB	\$599	\$729
iPad mini 2	16GB	\$299	\$429
	32GB	\$349	\$479
iPad mini	16GB	\$249	\$379

Figure 2. Apple continues selling older iPad models at lower prices.

Many people complain that the Macintosh is too expensive, so to make the Macintosh more affordable, Apple recently released new Mac mini models starting at \$499. Combined with Apple's low-cost iMac for \$1,099, the price of a Macintosh is within the reach of most people. You may be able to buy a Windows PC with better technical specifications than a Mac mini, but unless you actually need those better technical specifications, it won't matter.

If you can afford to wait on a new Macintosh, wait until next year. One reason why Apple didn't announce newer iMac models (except for the one with the Retina display) is because Apple is waiting for the newer Intel processors. The current Intel processors are called Haswell, but Intel is promising faster, smaller, and less power hungry processors called [Broadwell](#).

If you get an iMac running a Haswell processor, it will still work just fine. However, if you can wait, you might as well get an iMac with a Broadwell processor. Even if you don't care about the faster speed of the Broadwell processors, the moment Apple introduces new iMac models with Broadwell processors, the price for the current iMacs using Haswell processors will drop, so you might as well pay less for the exact same product, or pay the exact same price and get an improved version.

Ideally, you want the most for your money just as long as you're buying real advantages and not meaningless technical specifications that won't translate into noticeable satisfaction. With Apple's wide price range for their family of products, there's no longer a reason to complain that Apple products are too expensive, especially when you can find rival products that cost even more.

OS X 10.10 Yosemite

If you have a Macintosh capable of running OS X 10.9 Mavericks, you can upgrade to OS X 10.10 Yosemite for free. The main reason not to upgrade to any new operating system version is if your crucial software isn't compatible with the newer operating system.

Even though OS X Yosemite has been in beta testing since the summer, many programs may still not be compatible so find out first before upgrading. Fortunately, the major programs are compatible so you should (note the emphasis on the word "should") be able to upgrade with few problems although you may want to play it safe and wait until the first update arrives. That will not only make OS X Yosemite more stable, but also give software developers a chance to release compatible versions of their programs.

For everyone willing to update to OS X Yosemite, set aside about two hours. You'll need about one hour to download OS X Yosemite. Then you'll need a second hour to actually install OS X Yosemite along with upgrades to any Apple software such as iMovie, GarageBand, and the iWork office suite.

(Before installing OS X Yosemite, my iMac had 59GB of free space left on the hard disk. After installing OS X Yosemite, I now have 65GB of free space on the same hard disk. It appears that OS X Yosemite takes up less space than OS X Mavericks, but your results may vary.)

Once you get OS X Yosemite running, you'll be greeted with a flatter looking user interface. Beyond the visual differences, the main reason to upgrade to OS X Yosemite is to take advantage of tighter integration with iOS through the [Continuity feature](#). (Just keep in mind that Continuity only works with fairly recent Macintosh models sold within the last three years.)

Continuity lets you make phone calls from your Macintosh and work on e-mail messages and documents on an iPhone or iPad and transfer your work to your Macintosh without typing cryptic commands to transfer documents from one device to another. If you don't use an iPhone or iPad, you can't use this Continuity feature with your Macintosh using other smartphones or tablets.

By tightly integrating the Macintosh with the iPhone and iPad (and soon the Apple Watch), Apple increases the chance of retaining current customers by making it difficult for rivals to

duplicate the Continuity feature of OS X Yosemite. If people like the advantages of Continuity, they'll likely switch from rival products to Apple products.

Samsung may make smartphones with better technical specifications than the iPhone, but Samsung can't get their smartphones and tablets to seamlessly share documents with a Macintosh or Windows PC. Microsoft may dominate the desktop operating system market with Windows, but Windows can't seamlessly share files with Android smartphones and tablets as easily as Continuity can do between a Macintosh and an iPhone/iPad.

OS X Yosemite is just the start of Apple's integrated ecosystem of mobile computing (iPhone and iPad), wearable computing (Apple Watch), and personal computing (Macintosh and Apple TV). Toss in Apple's software toolkits for controlling your home through HomeKit, and you have a family of products that work together to solve useful problems that individual devices can't do on their own.

If you want to see the future of home automation, visit the [August Door Lock site](#) and watch a short video demonstration of a device that attaches on to your front door lock. Now using your iOS or Android smartphone, you can remotely unlock doors and track who goes in and out of your house at what time.

More third-party manufacturers will release iOS and Android compatible products, so if you buy an iOS device, you'll be able to expand its usefulness. If you rely on a smartphone that doesn't run iOS, just be aware that not all Android smartphones will work with products such as the August Door Lock, especially if your smartphone or tablet can't run the latest version of Android. If you're using Windows Phone, it might not be a bad operating system, but its small market share means far fewer third-party devices will work with Windows Phone devices.

For greater headaches, you can use a mixture of smartphone and tablet operating systems to work with your computer, or you can simplify your life and just rely on iOS and OS X instead. Apple's products will always have annoying bugs like any software, but at least when Apple's products work, they're designed to simplify your life, not complicate it.

Keeping Up With Changes for Developers

In the old days, new versions of operating systems appeared every few years. That gave everyone plenty of time to prepare for the next version. For developers especially, changes in operating systems often broke or disabled their programs, so infrequent operating system updates were ideal.

In today's world, operating systems change much more rapidly. Apple has committed to annual refresh cycles and Microsoft keeps putting out rapid updates as well. For developers, this causes a problem.

Each time Apple updates iOS or OS X, you can immediately spot programs that weren't

created using Apple's application programming interface (API) because those programs still retain the appearance of the previous operating system. Rather than use Apple's API, these development tools often mimic the appearance of an operating system through "skins." That way you can create one program, apply a different operating system skin to your program, and have a cross-platform program quickly and easily.

This is what [LiveCode](#) does. LiveCode, a cross-platform HyperCard clone, lets you write one program that can run on desktop operating systems like Windows, Linux, or OS X, and then slap on a skin that mimics that target operating system's appearance. You can also write an iOS or Android app and slap on different operating system skins as well.

The advantage of skins is that you can create cross-platform programs easily. The drawback is that skins don't reflect changes in the operating system so when the operating system displays buttons or windows differently, your program still retains the skin of the previous operating system. LiveCode developers have to wait until the company develops new skins that mimic the current operating system appearance.

A similar cross-platform tool called [Xojo](#) is a Visual Basic clone that also lets you create Windows, Linux, and OS X programs. Xojo for iOS abstracts Apple's iOS API so Xojo programmers can create iOS apps easily and Xojo automatically takes care of making Xojo apps change its appearance depending on the operating system version it's running on. In this way, Xojo apps rely on the iOS itself to determine the user interface appearance so it's always visually up to date and accurate.

The drawback with Xojo's approach is that they need to develop their compiler to rely on the specific operating system's API, which makes it harder to create cross-platform apps. Xojo for iOS will likely arrive early in 2015, but it can only create iOS apps. Xojo may create a version for Android, but that would require making sure the Xojo compiler works with the Android API too, which is completely different from iOS.

That means Xojo for Android won't likely appear for years. In the meantime, the Android API keeps changing, making it a moving target for development companies like Xojo. Even though Xojo for iOS will let you create iOS apps, the first version will only let you [tap into a subset](#) of iOS's API. Since iOS is itself also a moving target with annual updates, Xojo for iOS will take years until it can offer all the features of iOS to Xojo developers.

As users, you'll be able to spot programs created by LiveCode and similar tools when their user interface doesn't reflect the changes in the last version of OS X or iOS. That won't make the apps less useful, but the visual difference can be jarring and create a less than satisfactory user experience.

A better approach is to use the operating system itself to insure your program's user interface accurately reflects the operating system it's running on. Xojo will let your programs do that, but you have to wait for Xojo to create their compiler to take advantage of iOS's numerous API features. While LiveCode developers can create Android and iOS apps today, Xojo

developers must still wait for Xojo for iOS.

Rather than rely on skinning or waiting for a compiler company to catch up with an operating system's changes, a far simpler approach for developers is to rely on Apple's tools themselves to create iOS and OS X programs.

Apple's compiler, Xcode, is completely free for anyone to download and install. Xcode gives your programs full access to the iOS and OS X APIs so your programs can take advantage of every operating system feature as soon as it's available. The drawback with relying so heavily on a specific operating system's API is that it makes creating cross-platform programs far more difficult.

If you want to create programs for OS X and iOS, there are literally hundreds of possible solutions. If you choose a cross-platform tool like LiveCode or Xojo, you'll sacrifice the features of each specific operating system. If you rely on Xcode, you'll gain all the features of iOS and OS X but at the sacrifice of cross-platform development.

In the old days when Windows dominated, cross-platform programs were far less important. Today as people rely less on Windows exclusively and more on a mix of operating systems, cross-platform tools are more important.

However, you can look back to the days of MS-DOS and AppleDOS when two rival spreadsheets appeared. Context MBA was a cross-platform program designed to reach a broad market regardless of the operating system. Unfortunately, its cross-platform features [hampered its performance](#).

The developers of a second spreadsheet program took a different approach. They gambled that MS-DOS would become the dominant operating system so they created a spreadsheet that ran only on MS-DOS. They called their spreadsheet Lotus 1-2-3, and they quickly dominated the spreadsheet market for years until Windows and Microsoft Excel took away the spreadsheet crown.

As a developer, do you want the advantage of a broader market with a cross-platform program that dilutes the user experience on all operating systems, or do you want an optimized program for a specific operating system that risks missing the market for rival operating systems?

For the longest time, programming tools like LiveCode and Xojo were attractive because they made programming easier. Xcode 6.01 currently lets you use the Swift programming language to create iOS apps and Xcode 6.1 (arriving soon) will let you create Swift programs for OS X. With Swift, Apple has made programming far easier than before, which negates much of the advantage of the LiveCode (HyperTalk clone) and Xojo (Visual Basic clone) programming languages.

With Apple's new Continuity feature, you can seamlessly transfer documents from iWork on OS X to iWork on iOS devices like an iPhone or iPad. Xcode and Swift will let you add this

feature to your OS X and iOS programs today. LiveCode and Xojo developers will have to wait for the companies to add this feature sometime in the future. As Apple keeps adding new features that tightly integrate OS X and iOS, this problem will only get more complicated for cross-platform tools.

If you're interested in creating iOS and OS X programs, look at your options carefully. For many developers, the easy choice is to follow the money, and that means relying on Swift and Xcode to focus on iOS and OS X first.

Computer-Aided Design on Mobile Devices

When the iPad first appeared, many people claimed that netbooks were superior because they could run all Windows programs such as computer-aided design (CAD) programs, even if the tiny keyboard and underpowered processor made running CAD programs sluggish and nearly impossible to use.

Nowadays with both iOS and Android devices getting more powerful, a company called [AutoQ3D](#) has released a CAD program that runs on iOS and Android. Best of all, you can actually use these CAD programs to create and edit designs, which underpowered netbooks could barely do. (Once again if you're a Windows Phone or Blackberry user, you won't find a version of AutoQ3D for your phone.)

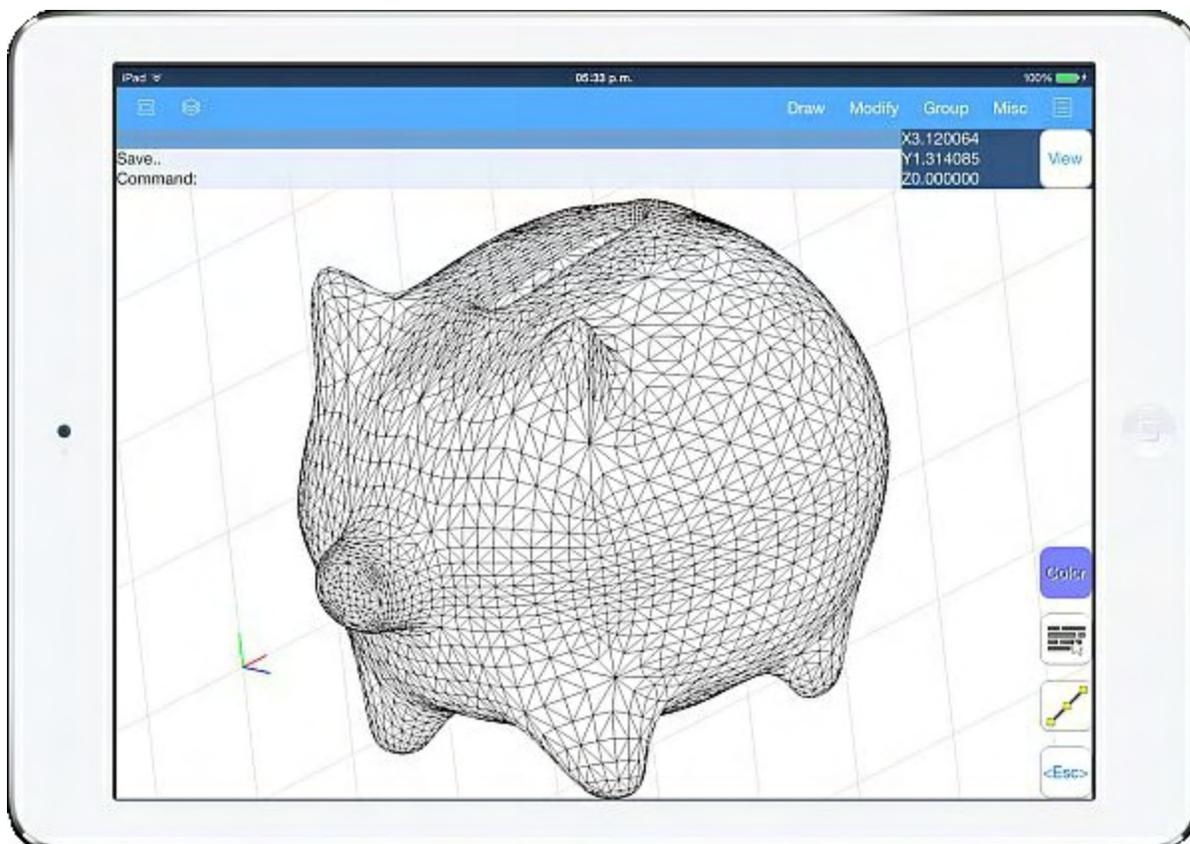


Figure 3. You can now do CAD on a smartphone or tablet.

As smartphones and tablets get more powerful, expect to see the boundary between desktop programs and mobile programs begin to blur. In the old days, creating a CAD image on a mobile phone was impossible just as sophisticated data analysis was once the realm of mainframe computers and impossible for early PCs to do. Today, that impossible task is now a reality. What will tomorrow bring? More powerful and capable mobile computing devices, or a return to the past when desktop and laptop computers reigned supreme? (Or a return to an even earlier past when mainframe and minicomputers reigned supreme?)

Apple Exceeds Wall Street Expectations

Due to strong iPhone sales, Apple [exceeded sales expectations](#) for the past quarter. Apple sold 39.27 million iPhones, up from 33.79 million units in the year-ago period. Surprisingly, they also sold 5.52 million Macintosh computers vs. 4.41 million a year ago, but sold only 12.31 million iPads vs. 13.27 million last year.

Why people are buying fewer iPads and more Macintosh computers may seem odd, but iPads don't follow a two-year refresh cycle like the iPhone. Even the first generation iPad can work perfectly fine for many people so either people aren't replacing iPads as often or the market for iPads is already winding down.

What's stranger is that Macintosh sales keep rising. Macintosh owners don't need to replace their computers as often as iPhones either, so it's likely that many Macintosh sales are coming to first time Macintosh users. Perhaps they're trying a Macintosh for the first time or getting one as a secondary computer.

Whatever the case, Apple's fortunes continue riding on the iPhone. With sales to China and other countries starting, the iPhone 6 will likely continue reaching buyers who want a larger screen phone. Then next year Apple can see if the future iPhone model continues breaking sales records.

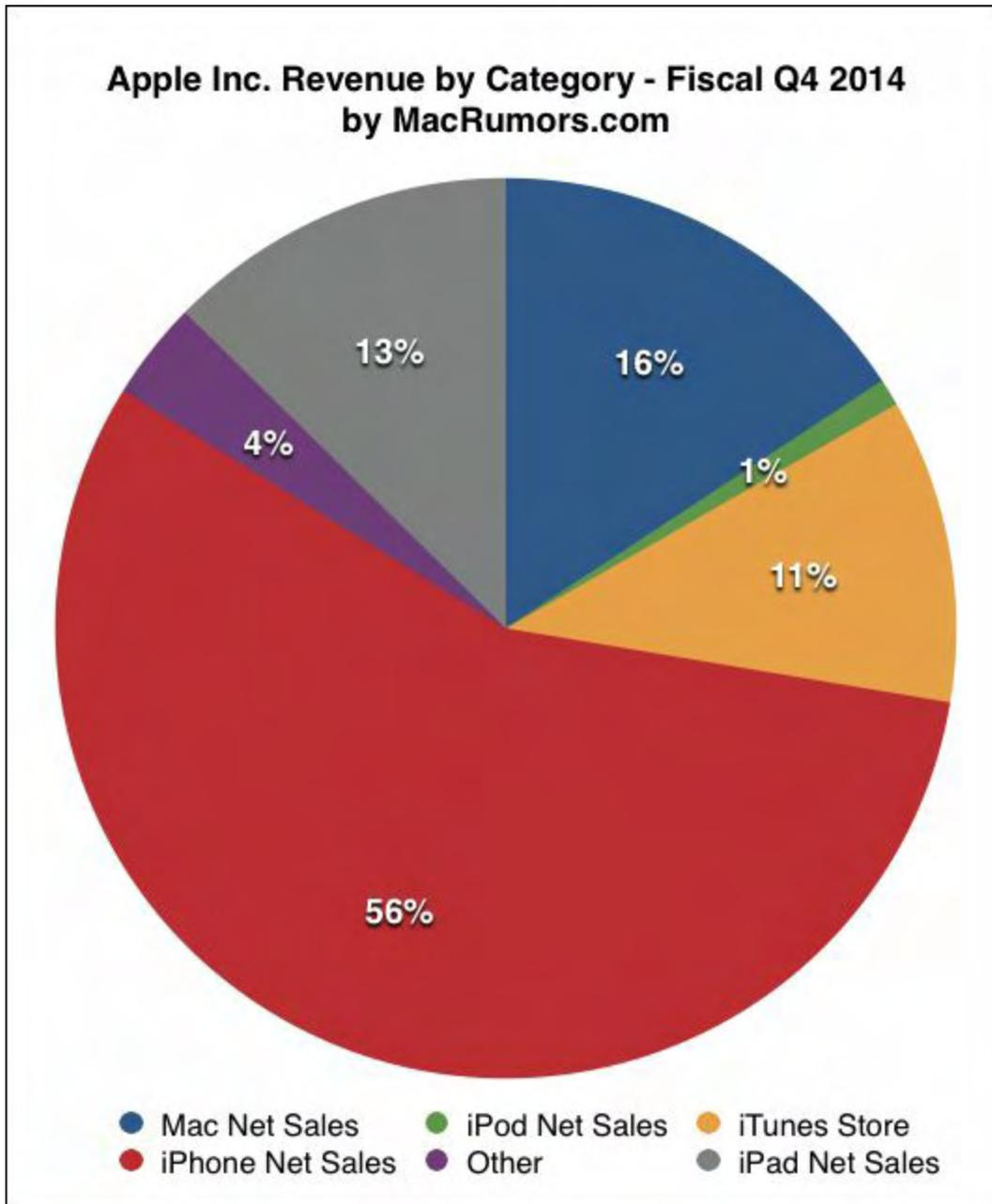


Figure 4. The iPhone makes up more than half of Apple's revenue.

* * *

By default, Safari uses Google as its search engine. Since most people never bother to change the default settings, this gives Google a large majority of Macintosh users. In case you're interested in setting a different default search engine, you can choose from a handful of other options.

Click the Safari menu and choose Preferences. Click the Search icon and then click in the Search engine popup menu to choose Google, Bing, or DuckDuckGo, which is a unique search engine that doesn't track your searches (unlike both Google and Bing).

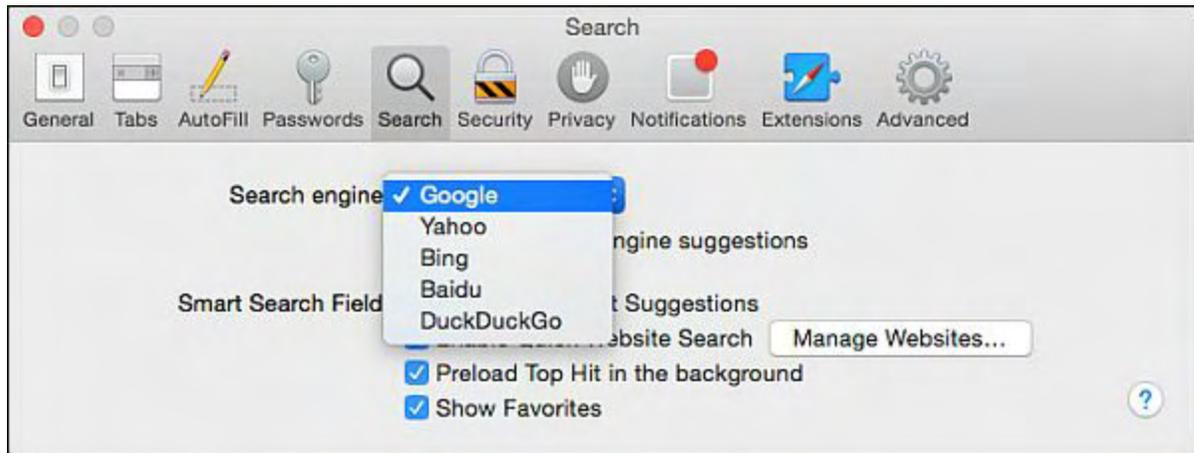


Figure 5. You can choose a default search engine for Safari.

In the early days, before Wally became an Internationally renowned comedian, computer book writer, and generally cool guy, Wally Wang used to hang around The Byte Buyer dangling participles with Jack Dunning and go to the gym to pump iron with Dan Gookin.

Wally is responsible for the following books:

[*Microsoft Office 2013 For Dummies*](#)

[*Beginning Programming for Dummies*](#)

[*Beginning Programming All-in-One Reference for Dummies*](#)

[*Breaking Into Acting for Dummies with Larry Garrison*](#)

[*Strategic Entrepreneurism with Jon and Gerald Fisher*](#)

[*How to Live with a Cat \(When You Really Don't Want To\)*](#)

[*The Secrets of the Wall Street Stock Traders*](#)

[*Mac Programming For Absolute Beginners*](#)

[*Republican Fairy Tales \(Children's Stories the 1% Tell About the Rest of Us\)*](#)

[*The Zen of Effortless Selling with Moe Abdou*](#)

[*The 15-Minute Movie Method*](#)

[*Erotophobia \(A novel\)*](#)

[*Math for the Zombie Apocalypse*](#)

[How to Write a Great Script with Final Draft 9](#)

[How to Write a Great Script with Fade In](#)

[The Elements of a Great Script: Star Wars](#)

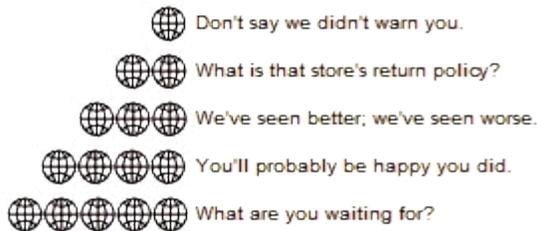
[The Elements of a Great Script: Die Hard](#)

[The Element of a Great Script: Back to the Future](#)

[The Elements of a Great Script: Rocky](#)

[The Elements of a Great Script: It's a Wonderful Life](#)

In his spare time, Wally likes blogging about movies and writing screenplays at his site "[The 15 Minute Movie Method](#)," finding interesting news stories about cats at his site "[Cat Daily News](#)," giving advice to authors who want to self-publish e-books at his site "[The Electronic Author](#)," and providing the type of advice he wishes someone would have told him when he was much younger at his [personal Web site](#). Wally can be reached at wally@computoredge.com or you can follow him on Twitter [@wallacewang_com](#).



Worldwide News & Product Reviews

“The latest in tech news and hot product reviews.” by Charles Carr, News and Reviews Editor

Analyst: Apple Watch an Underwhelming Offering for Mobile Healthcare; A Computer Theft Story With a Happy Ending; Jabra REVO Wireless headphones; LG G3 Smartphone (AT&T).

Analyst: Apple Watch an Underwhelming Offering for Mobile Healthcare

Niharika Midha, MSc, an analyst covering Medical Devices with the global research and consulting firm [GlobalData](#), says the Apple Watch has not surpassed competitors in health and fitness tracking due to iPhone dependency:

If wearable devices specific to certain diseases are released in the future, it would be a revolutionary step in healthcare management, says analyst.



The Apple Watch is a robust offering for health and fitness enthusiasts, as it tracks steps, heart rate and calories while allowing users to set fitness goals. However, Apple's health and fitness

trackers are largely dependent on the iPhone's Wi-Fi and Global Positioning System (GPS) capabilities, which is a considerable drawback in comparison to other vendors. For example, the Samsung Gear S has a built-in GPS and can be used to track activities without requiring connection to the handset.

As the Apple Watch is only its first product in this new category, we can definitely expect greater innovation from Apple in future devices. At present, the product is not substantially superior to existing devices in terms of health tracking mechanisms.



The current smartwatch space is lacking direction. Since most of the available devices are targeted towards the consumer group, the overall impact of these on current healthcare management practices is difficult to measure.

If wearable devices specific to certain diseases are released in the future, however, then this would be a revolutionary step. It would involve leveraging data generated by current smartwatch sensors, or incorporating more sensors, to detect symptoms of particular conditions. For example, Google's development of smart contact lenses targeted towards monitoring glucose levels in diabetic patients is potentially groundbreaking."

A Computer Theft Story With a Happy Ending

We heard this week from Bob "Megabob" Diachenko, a communications team member from the anti-theft software company [MacKeeper](#):



Laptops and mobile devices continue to be the most attractive goods for thieves. The global technology research company Gartner Group reports that one laptop is stolen every 53 seconds in the United States. The independent research and data security company Ponemon Institute estimates that as many as 12,000 laptops are lost or go missing in US airports each week, and 70 percent of those returned to "lost and found" are never reclaimed.

Retrieving a lost or stolen laptop is possible, though, with a little luck and the foresight to enable or install an application like MacKeeper's Anti-Theft to help you locate your missing device.

Here is a real-life experience with laptop theft as described by social worker Claudio Oliver, who lives and works in Brazil. Like many people, his computer is a necessity in his everyday work routine.

In 2014, Claudio left for vacation with his family. Once they arrived home, they went to sleep. All of their personal belongings, including laptops and cameras, were left unpacked. In the middle of the night, their house was robbed.

"In the middle of the night, I woke up to drink water and then I perceived something had happened here," said Claudio. "Then I realized that somebody invaded my home and took my computers, cameras and all that I had brought from my trip."

The first thing he did was to call the police in an attempt to get his belongings recovered while the trail was still "hot." Then he went online from another computer and logged in to his account to report the Mac as stolen.

Claudio had MacKeeper's anti-theft feature turned on, so all he had to do was wait for the thief to go online. When MacKeeper Anti-Theft is activated, it uses the Webcam to take a picture of the next person who logs on to the Web. In addition to the picture of the thief, there is the physical address, IP address, and even the name of the wireless network the thief uses.

The computer thief did not go online immediately, but Claudio checked several times to see if there was any activity. And that was it! The thief had gone online and Claudio received Webcam pictures of the criminal as well as his coordinates. Thirty to forty minutes after Claudio gave the police the MacKeeper Anti-Theft report, he got a call that the criminal was found and arrested at his home. All the stolen belongings were also found in various places throughout the man's home.

Coincidentally, the criminal lived just at the end of Claudio's block—he was his neighbor.

Watch the story [here](#).

Jabra REVO Wireless headphones

Product category: Wireless headphones

Manufacturer: Jabra

Model: REVO

Web site: www.jabra.com

Price: about \$200

The Jabra REVO Wireless headphones hit the mark in all the right prices, and they come in at a fair price for what they are offering. These headphones are built to be indestructible, they feature an aluminum frame, steel hinges, and a shatterproof headband that all compile together for an extremely sleek and durable build. They don't scuff or break easily, and after doing everything from dropping to accidentally throwing them, they still show very little wear. For an all around great pair of headphones, these definitely hit the mark.

The REVO Wireless produces some amazing sound. One thing that headphones of this nature usually do is feature an incredibly deep and loud woofer, however, the REVO skips that and delivers a perfect balance of all parts of music. They deliver a very nice balance of sounds, not too boomy and nothing too high pitched; they hit the sweet spot in the middle perfectly. It seemed like Jabra prioritized a full bodied listening experience rather than targeting a specific sound, and it definitely paid off in their favor. These headphones produce amazing sound, and what I found incredible was that I could hear things that I usually couldn't with other headphones I've tried. From finger sliding on acoustic guitars to subtle rhythms hidden in the melody, these headphones opened up a world of music I hadn't heard before.

Aside from the stunning sound that comes from the REVO Wireless headphones, the accessories that are included with it are of a quality above the competition. Included with the headphones are two cables, a USB charging cable and a 2.5mm auxiliary cable.

The quality of these cables absolutely amazed me, as rather than being just a rubber encapsulated cable they come with a braided sheath that helps prevent them from being tangled.



Along with the superior build, the auxiliary cable features a built in microphone and control piece. This way your headphones can be used to answer calls as well as control the play of your music, a very nifty feature that allows you to change between calls and music seamlessly. One of my favorite things about the REVO Wireless is the ease of connectivity that is offered. The headphones are equipped with a Bluetooth receiver as well as an auxiliary cable input, so you can choose whichever you prefer to listen to your device. The Bluetooth connectivity with this device never gave me any issues whatsoever, and the setup was as easy as switching them to pairing mode and selecting the headphones from my devices.

The battery life with these headphones is nothing to worry about, as they gave me around 11 to 12 hours on a single charge. Turning the device off preserves the battery life very well, while using them on and off for intervals of around an hour a day I was able to keep using them over a period of 10 days. The battery also does not need to be turned on when Bluetooth isn't in use, so something I found pretty neat, was that if the battery in the headphones ever died, I was able to plug the auxiliary jack in and keep listening with no issues.

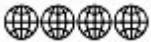
Controlling your tunes is easy and actually really cool with the REVO Wireless. The device features a built in "touch turntable" to provide a controller on the earpiece itself. It allows you to slide your finger to adjust the volume, or tap the touch dial itself to change which song is playing and pause or play the music. One nuance that I found with these headphones was that the dial was extremely specific about where it responded to interaction. In order to change a song you tap on a certain 1/4 of the circle to interact with the remote. If you don't tap the device exactly where you are supposed to, however, you get no response from the device at all.

Once I found the spot, it worked 100% of the time, but finding that spot proved to be a pain

as I was looking for it every single time.

There was only one downfall I found with these headphones, and it was discomfort that came from prolonged periods of wearing the headphones. This is not a problem that is unique to this set, but rather to the entirety of on-ear style headphones. So keep this in mind when you're next out looking for a new set of headphones; it might be a deal-breaker for some people.

If you're in the market for new headphones, the Jabra REVO Wireless has a superior package to its competitors and is offered at a much tastier price point. If it's time to upgrade, the REVO Wireless is definitely one of the best options in the on-ear headphone category. You can grab a pair of these beauties for about \$200 from various retailers.



Review contributed by Jeremy Halligan

LG G3 Smartphone (AT&T)

Product category: Smartphone

Manufacturer: LG Electronics

Model: G3

Web site: www.att.com

Price: \$199 with two-year contract, \$579 with no annual contract, other monthly plans available

I'm going to let the specs (posted below) speak for themselves for the LG G3 smartphone. I'll just tell you this: I had it for about four weeks and News and Reviews Editor Charles Carr had to pry it out of my hands when it was time to give it back.

So, now that I've come out of withdrawal, here are the good things about it—and maybe one or two not-so-great things:

The screen looks incredible and its large size is fantastic, 5.5 inches. There's so much room on the screen it makes features like Android's Dual Screen feature feasible. On smaller phones, it's just too much to cram two complete apps working side-by-side, but on the G3, no prob. No prob at all.



Thanks to the 2.5Ghz quad core processor, the G3 is *extremely* quick and responsive. Also, the eval I was testing didn't seem to feel bloated with useless stuff. I personally always disable some of the locator features and autosync on almost all my phones but, even before that, it was a speed demon.

I love the fact the G3 has an external microSD card option. The phone itself already had 32GB, which was still more than I needed but with an additional card you can get an extra 128GB. Truly unbelievable.

Thanks in no small part to that large screen and all the room it creates in the chassis under it, the G3 has a big, fat battery that easily lasts all day—two, if you take it easy. Still, go ahead get in the habit of charging it up every day so you always have way more than you need. Better yet, you can *remove* it. So you can get yourself a spare if you need it.



The phone itself is a real head-turner. It looks fantastic and the double-tap feature, which allows you to wake it up just by double-tapping the screen, gets people's attention *really* fast. I had tons of people ask me, "Is that the new LG G3?" The word is spreading fast.

On that point, you don't really have to worry about accidentally turning on the phone when it's in a pocket or purse bouncing around because you have to tap in pretty much the exact same place twice to turn on the phone—which is easy with a finger with the phone sitting on a table, but never once happened when the G3 was in my jeans.

As far as negatives. It's pretty hard to come up with any. I suppose the size I mentioned liking so much, could be a minus for some people. If you're used to doing everything with one hand, that's not going to be happening with the G3, but that's also something you know going into purchase. If you want a big phone you *know* you want a big phone.



The phone crashed once or twice, but that was over more than a month of use, so I guess that's the exception that proves the rule: It's a really stable phone (and OS). Reboot is *really* quick—less than 30 seconds I would estimate, and there's none of the "please wait" while we optimize apps or other wait screens I've gotten on other phones I've used.

Like I said, it broke my heart when Charles Carr said I had to give the phone back (a day I knew was going to some sooner or later) but it even held up well when he used that crowbar to get it out of my hands!



Review contributed by Alex Caratti

Specs (from AT&T):

The 5.5-inch Quad-HD IPS display has 4 times the resolution of regular HD.

Battery capacity

3000 mAh Lithium Ion (removable)

Talk time (hours)

Up to 21

Standby time (days)

Up to 28

Size (inches)

5.76x2.94x0.35

Display size (inches)

5.5

Resolution (pixels)

2560x1440 Quad HD, 538 ppi

Colors

16 million

Chipset

Qualcomm® Snapdragon™ 801

Cores

up to 2.5GHz quad-core

Internal memory storage

Up to 32GB

Expandable memory storage

Up to 128GB

Memory format

microSD™

RAM

3GB

Wireless Technology

4G-LTE

Bands 1, 2, 3, 4, 5, 7, 17, and 29

4G

HSPA+ with enhanced backhaul

UMTS/HSPA+

850/1900/2100MHz

GSM/GPRS/EDGE

850/900/1800/1900MHz

Wi-Fi® connectivity

802.11 a/b/g/n/ac

5GHz Wi-Fi capable

Near Field Communication (NFC)

Open, secure, ISIS-ready

Bluetooth® technology

v4.0

Mobile Hotspot

Up to 8 devices

FOTA capable - upgrade Firmware Over The Air

Android™

v.4.4 (KitKat)

Predictive text for fast typing

Backlit keys

Rear-facing camera

13MP OIS+ Camera with Laser Auto Focus which allows you to measure the distance to the subject and allows for improved focusing speed and object detection in low-light situations.

8x zoom

Live video capture and playback

Video Capture: 3840 x 2160 (highest), default 1920 x 1080; Video Playback: 3840 x 2160

Front-facing camera

2.1MP with 1080p full HD video capture

Gesture Shot

Take selfies that are natural and less shaky without fumbling for the capture button. Simply raise your hand, and then make a fist. The front camera will recognize you're ready and will shoot your picture in 3 seconds.

Burst Shot

Take multiple shots quickly by pressing and holding the camera icon.

Voice Shutter

Take photos using only your voice.

Panorama

Assemble continuous photos into one single panoramic image.

Dual Camera & Video

Use both cameras to include the photographer in a window in the image or video.

HDR

Apply High Dynamic Range shot mode for light contrast situations

Magic Focus

Refocus images after the shot to add clarity to out-of-focus images.

Timer Shot

Set a 3- or 10-second timer to allow the photographer to join the shot.

Music player

Google Play™ Music, LG Music Player

Supported music formats

AAC, AAC+, eACC+, AMR, MP3, MIDI, WAV, WMA

Subscription Music Services

Beats Music™

Streaming radio

Create music playlists

External music play controls

Via lock screen

Other

Dolby® Mobile with headphones

Text messaging

Insert pictures, video clips and sound clips easily (messaging charges apply)

Instant Messaging (IM)

Google+™ Hangouts

Mobile email

POP3/IMAP, Gmail™, Microsoft® Exchange ActiveSync®, Yahoo!®, Outlook.com

Microsoft Direct Push

ico_VideoWeb_sm

Video & Web

Web browser

Android™ WebKit, Google Chrome™

Applications/Media

Applications/Media

Ringtones

Cool Tools

LG Knock Code™, Famigo®, Lookout®, Games, Keeper, Usage Manager, ISIS Mobile Wallet®, CIQ, NameID, Remote Support, Browser Bar, Amazon Kindle®, Facebook®, Twitter®, Smart Notice, Smart Keyboard, LG Health, Smart Cleaning, Dual Window, Guest mode, Rear Key, Quick Memo+™, Qslide 2.0™

Preloaded apps from AT&T

AT&T Mobile Hotspots, AT&T Navigator®, AT&T FamilyMap®, AT&T Locker™, AT&T Mobile TV®, AT&T Address Book, AT&T Hotspots, AT&T Smart Wi-Fi, AT&T Mobile Locate; YPmobile®, AT&T DriveMode®, AT&T Device Help. Separate subscription may be required.

myAT&T

Provides fast, easy account access virtually anywhere, anytime

Productivity apps:

Calendar

Alarm clock

Call waiting

Caller ID

Personal organizer

Address book

Conference calling

Call forwarding

Multitasking

Use voice and data simultaneously

ico_sustain_sm

Sustainability

Device Eco-rating

5 stars. Visit www.att.com/ecospace for additional information.

World phone

Tri-band

USB connectivity  transfer data through a USB cable

USB cable included

Hands-free speakerphone

Voice dialing and voice commands

Hearing Aid (HAC) rating

M3,T3

TTY/TTD compatible

AT&T Ready2Go

Offers easy online setup and personalization of your new smartphone. See Quickstart Guide included in box for details.

AT&T Device Help

Device Help provides easy access to step by step tutorials and videos about features, functions and AT&T services directly from the web browser on the device (data charges apply).

Wireless Emergency Alerts-capable Technical Specifications

Multiple award-winning author Charles Carr has written more than two thousand newspaper articles, magazine stories, and columns for many publications including the San Diego Union Tribune, The Californian, The North County Times, Parent Magazine, ComputerScene, and ComputerEdge Magazine where he has been an editor for more than two decades. He is also a television producer/director with shows both currently airing and in production on Cox Cable and elsewhere.

In the 1990s, Charles wrote 3DHouse, a complete inside-and-out virtual reality tour of his family's log home in Southern California. One of the first virtual reality programs ever created, 3DHouse enjoyed tens of thousands of shareware downloads on all major portals. He also sold the rights to Radio Shack and Egghead Software. 3DHouse has since been featured in many books and articles about VR.

Carr has also been commissioned to write and/or directed many of his own stage plays. Several years ago, Carr and others looking for ways to help organizations struggling in difficult economic times, founded Art Animates Life (www.artanimateslife.org).

To date, Art Animates Life, a CA incorporated, federal non-profit, has raised tens-of-thousands of dollars for San Diego area disaster relief, an arts non-profit and municipal gallery, a community outreach center, and several struggling community theaters.

Several years ago Carr was commissioned to adapt and direct the beloved Dickens classic, A Christmas Carol. The play, titled "Mr. Scrooge & Mr. Dickens," has sold out So Cal theaters for the past several years. Six shows will take place Dec. 2013 to benefit the San Marcos Historical Society.

Another original play, "All the Time in the World," has been performed many times and garnered broad acclaim from audiences and critics alike. Carr is working on a brand new adaptation of the classic Hitchcock thriller, "The Lady Vanished," to be performed spring 2014.

Carr has won many writing accolades, including San Diego Press Club awards for Best Column Writing, Best Consumer Writing, and Best Arts and Entertainment. He has repeatedly taken top honors in San Diego Songwriter's Guild competitions for his original musical compositions.

Carr is also a noted producer, director, and videographer. Several of his documentaries can currently be seen on So Cal's Cox Cable. Since its inception he has produced the Fallbrook International Film Festival's red carpet event and panel discussions.

Charles receives dozens of requests each year to appear on Southern California television and

radio stations to talk about important tech events. He also speaks from time-to-time to high schools and organizations about his eclectic life in the arts.

Learn more at www.charlescarr.com.



Editor's Letters: Tips and Thoughts from Readers

“Computer and Internet tips, plus comments on the articles and columns.” by ComputerEdge Staff

"The Bad Old Days," "Download Proxy Script Errors," "Port Blocking and Stealth," "Windows 8.1 Loss of Connection"

The Bad Old Days

[Regarding Jack Dunning's September 26 [article](#), "The Internet of Stuff (IoS) and Free Cloud Services":]

Great data that is free and easily available. But if you have an old clunky system that you've been using forever, you have a tendency to use it until it breaks down or someone shows you how to do it better, cheaper and faster.

Re: Your section on cabling in the "Old Days." I could tell you horror stories of setting up and cabling 34 computers in a three story concrete office building. This was in the bad old days of 2001.

-Buck-O

Download Proxy Script Errors

[Regarding the September 26 [Digital Dave column](#).:]

I'd recommend just disabling/telling your Web browser *not* to use any proxy (unless you have some sort of fancy program that needs it to filter for bad stuff).

If you don't know how, Google it for your particular Web browser.

Proxies for Internet connections are usually associated with businesses and there's no need for them at home.

If in doubt, disable it (set to *no* Proxy), but make note of the previous settings.

-Rich Ernst, San Diego

Port Blocking and Stealth

[Regarding the September 26 [Digital Dave column](#).]

Many years ago you mentioned this site, [ShieldsUP](#). Great site for checking for open ports. Just checked mine and all are stealth.

-Marshal, Santee, CA

[Regarding the October 3 [Digital Dave column](#).]

Understanding GRC's Shield's Up: The past two weeks have mentioned Shield's Up, an amazing port scanner from GRC that has been around since the '90s. For home users the Internet usually comes in via Broadband/DSL to a Modem/DOCSIS box. This rarely has protection and simply passes your public Internet IP address from outside your home to inside. Nowadays most homes will have a router next with a Wi-Fi and/or 4 Ethernet ports to connect things inside your home with the outside. These Routers have Firewall capabilities and use Network Address Translation (NAT) to provide an entire internal network via a single external/public IP address.

Unless your router is configured to put your home Computer in a "DMZ" or you have configured it to port forward from the outside to the internal network (and a specific IP), the Shield's Up scanner is not going to provide accurate data. For example, Shield's Up may report all ports are stealth mode (meaning your Router's Firewall is not passing any traffic inside to a listening device). However, if your home network itself is compromised (via Wi-Fi or an infected device plugged into Ethernet) your computer may have dozens of ports open and vulnerable. Be aware and understand what you are testing.

-Stephen T, San Diego, CA

Windows 8.1 Loss of Connection

[Regarding the September 26 [Digital Dave column](#).]

Hi Dave, Just wanted to say, that I too have issues with Windows 8.1 losing my connection. Any time I exit Google and immediately try to connect to something else, let's say CNN News app, it won't connect. If I wait two to four minutes it seems OK. Sometimes it just seems to hang after a disconnect and I must reboot. My router is kind of old, maybe I'll replace it. Take Care.

-James Wing, San Diego

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