

MyApple

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1

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El Capitan

First Impressions iPhone 6s Plus

Mac Book 12" review

Steve

in Steve's memories



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From Moscone Center to MyApple Magazine

I remember it all as if it was yesterday. My first journey from Poland to United States for Macworld in 2011. In the media room I sat at the big round table occupied by a group of bloggers. Soon I realized that those guys were from TUAW (The Unofficial Apple Weblog), one of my favorite blogs about Apple. As a Polish Apple blogger I read many other blogs in English, and one of the first I spotted was TUAW. Sitting at the big round table I was thinking about all of us as a big community of passionates. There was one thing to do — to introduce myself to those guys. That went almost seamlessly thanks to the Woz signature on my 13-inch MacBook Pro that drew their attention. It was then that I met Dave Caolo and Steve Sande, two editor/bloggers at TUAW. Later, I got together with Steve every year at Macworld until the event was suspended.

Over those years I became editor-in-chief of the leading and the biggest Polish Apple Users' website - MyApple.pl. After TUAW shared the fate of Macworld (the site was shut down in February of 2015), Steve has started his new site - Apple World Today — to carry on the old traditions of TUAW and explore new directions. About six months ago MyApple launched a digital magazine for Polish Apple users. I invited some new and old friends, including Steve, to participate in that project. The feedback we got after release of each issue was dominated by the opinions and suggestions that we should release it in English as well. So we decided to do so. "Do. Or do not. There is no try" as Yoda said. Here we are. Welcome to MyApple Magazine.

Krystian Kozerański
MyApple Magazine

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Mac OS X El Capitan

An overview of some useful features



Steve Sande



OS X 10.11 El Capitan has been available to Mac users for about a little over two weeks at this point, and for those who have updated their Mac(s) to the new operating system, it's been one of the smoothest major updates in recent memory. El Capitan has a number of features and enhancements that make it a “must-install” upgrade from OS X Yosemite, and in this article I'll take a look at some of the new capabilities that make it so appealing.



Improved Spotlight Searching

Beginning a search with Spotlight is still the same — just press the Command key and spacebar simultaneously to make the search field appear — but the OS X search engine is even more powerful than before.

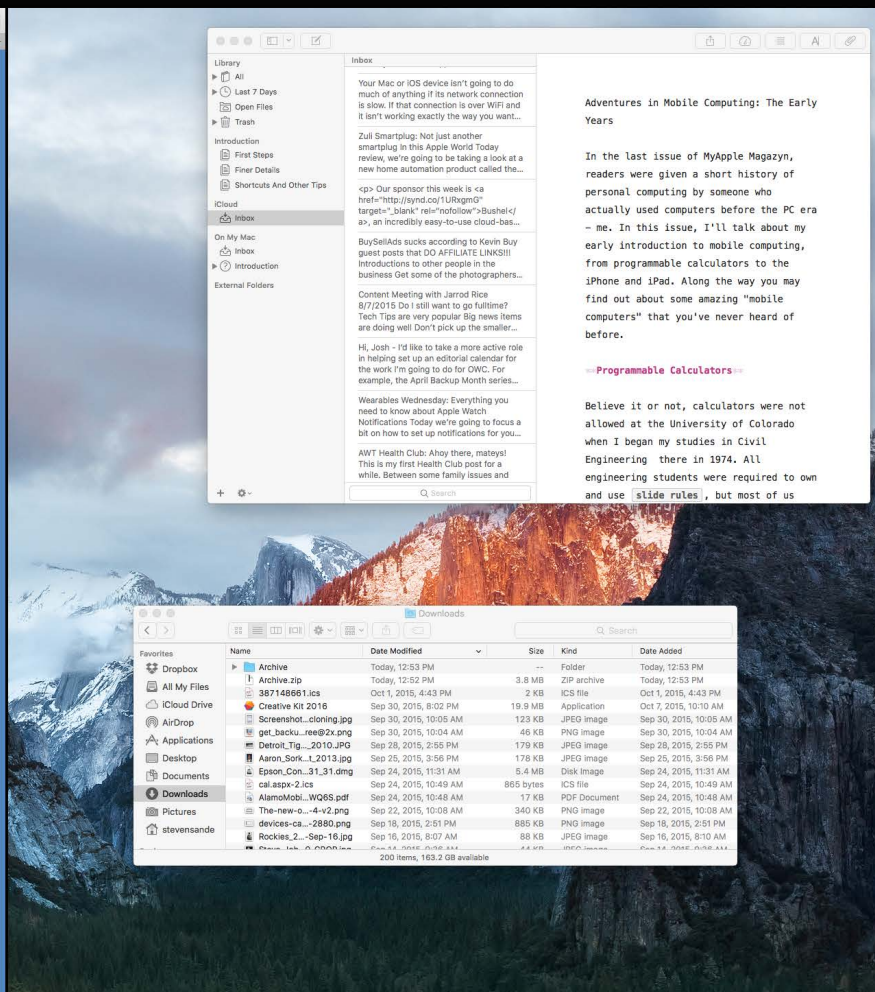
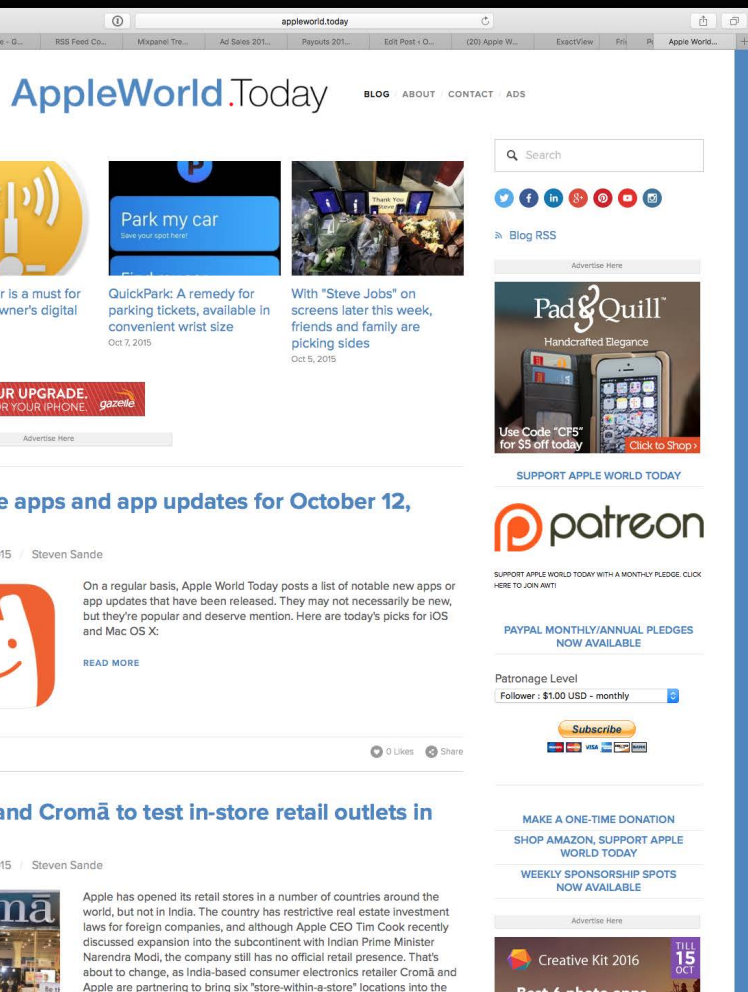
Users can now search for information that has nothing to do with finding files on the Mac. Want the local weather forecast? Just type in “weather” and a ten-day forecast appears based on your location. Need to know how your favorite sports team is doing? Type in “Denver Broncos” and you’ll see that the 5-0 Broncos recently defeated the 2-3 Oakland Raiders. How’s Apple stock doing? Type in the code for Apple — AAPL — and the current quote appears.



One of the more impressive feats of Spotlight is how it can use natural language queries to find documents and emails. For example, typing “email from emily in august” displays all emails from people named emily that arrived during the month of August.

Split View

Split View may have debuted on the iPad Air 2 first (it’s coming soon on the iPad Pro), but OS X El Capitan adds the ability to display two apps side by side to any Mac.



To put apps into the split view or split screen configuration, just launch the apps and then click and hold the green “full screen” button on one of them. A light blue rectangle will fill half of the computer display. Drag the app window to either the left or right side of the display and drop it on the blue-shaded area, and it fills half of the display. Next, just click on the other app — which will be highlighted with a blue border — and it fills the other half of the screen. For students or writers, it’s a great way to use both reference (Safari) and writing (Pages) tools side by side in a very convenient manner.

Mission Control

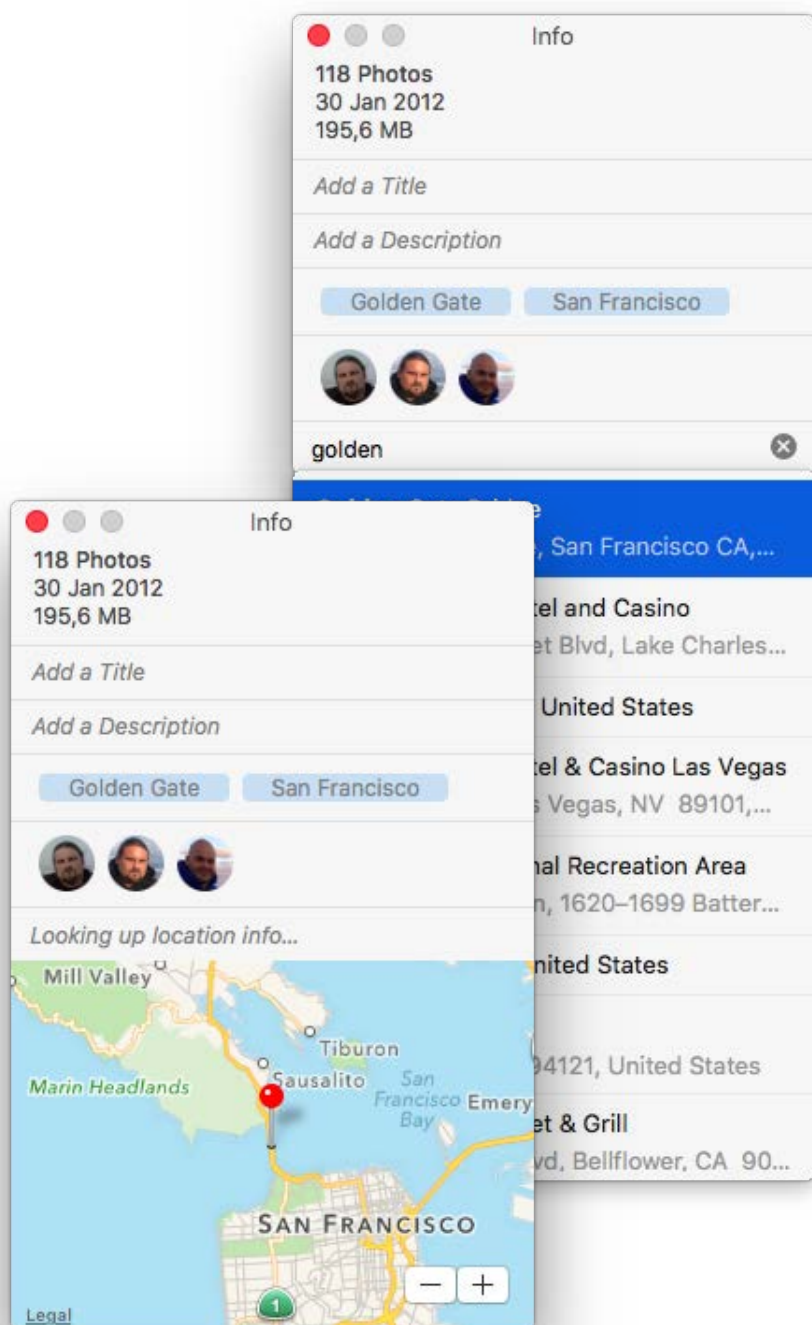
Apple’s much-ignored Mission Control also received some attention in El Capitan. There are new, simple gestures for Mission Control that make a lot of sense. A three-finger swipe up on a trackpad takes a user right into Mission Control, where all open apps can be viewed simultaneously. To place apps in their own Spaces, just drag them to the top of the Mission Control screen, and they can be accessed by doing a three-finger swipe right or left.

Split View can also be arranged from Mission Control. Drag an open app to the top of Mission Control to create a new space, then drag a second app onto the first and drop it. Click the new space, and the two apps are in Split View.

Find The Mouse Pointer

Do you have a large display on your Mac? If so, and for those with Retina displays, it can sometimes be difficult to find the mouse pointer. There's an accessibility setting that is turned on by default in El Capitan that turns the mouse pointer into a very large arrow if you shake your mouse (or swipe on the trackpad) from side to side quickly.

Sure, it sounds like a simple thing, but you wouldn't believe how useful it can be with large or multiple displays.



Photos Extensions

Here's something cool that you'll be able to use almost immediately in the OS X El Capitan Photos app. Photography apps can be written in such a way that they become extensions that can be used right in the Photos app.

One of the first developers to embrace Photos Extensions was Macphun, which added the capability to its Snapheal, Tonality, Noiseless, and Intensify apps. Select any photo in the Photos app, click "edit", and then click the Extensions button. Select from any one of the installed extensions, and that app takes over the editing field in Photos. When you're done, save your changes and you're right back in the Photos browser.

Performance Enhancements,

Especially In Graphics-Heavy Applications

One of the first things I noticed after installing OS X El Capitan was that things just seem faster. Apple says that app launching can be up to 1.4 times faster, app switching up to twice as fast, viewing your first email messages can be up to twice as fast, and even viewing a PDF in Preview can be up to 4 times faster.

The real improvements will be seen when apps — primarily games — written with Apple's new Metal graphics core technology become available. Metal will result in graphics rendering up to 50 percent faster and much more efficient, perfect for those on battery-reliant laptops. Apple says that Metal-based games can improve call performance by up to 10 times, making games even more detailed and realistic,

Pinned Sites in Safari

The final feature to highlight in OS X El Capitan is simple — pinned sites in Safari. I don't know about many of our readers, but I am one of those people who can easily have 10 - 15 open tabs in Safari at one time. This new feature lets you replace a full tab with a small "pin" that indicates the site.

Pin those sites to the tab bar (a right-click brings up a context menu displaying the Pin Site command), and they're always available at a click and only take up a tiny amount of space on the tab bar.

Conclusion

There are many more features, both hidden and highly-touted, in OS X El Capitan. If you haven't yet updated your Mac and it was running OS X Yosemite, make sure you have a backup in place, then go to the Mac App Store and download the El Capitan installer. You'll be happy that you did!

Photos: Apple Press Kit and Steve's screenshots

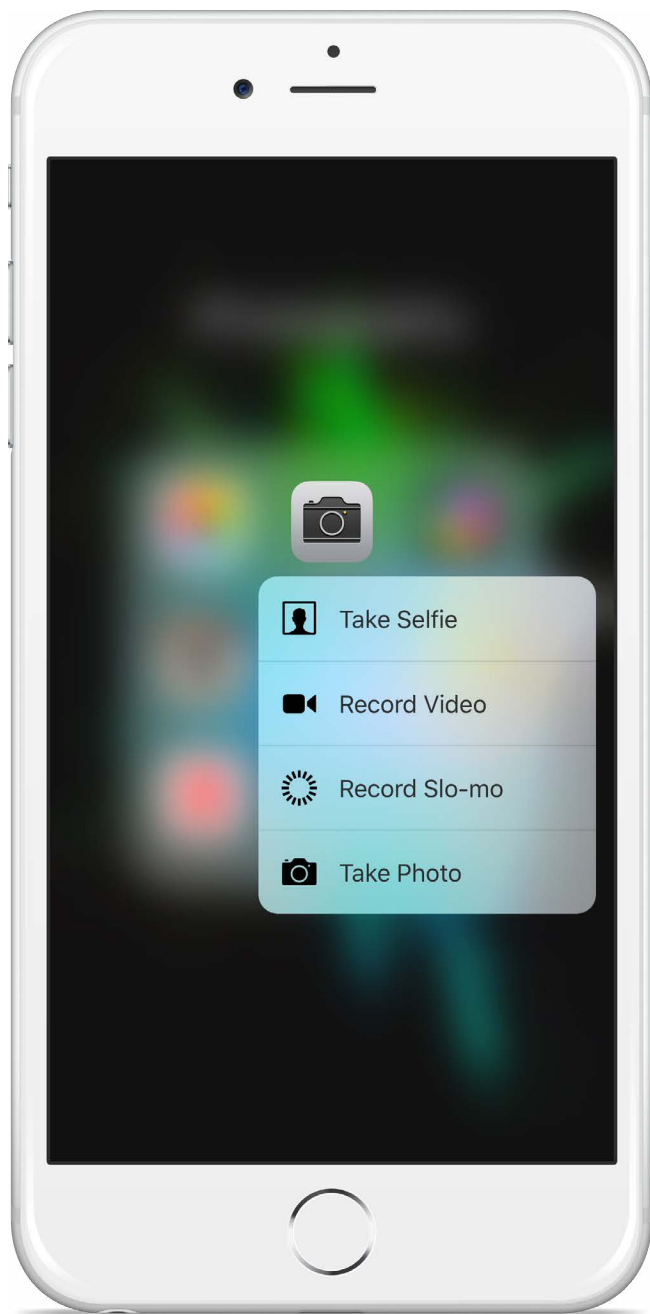


First impressions of the iPhone 6s Plus



Steve Sande

Last year when I bought an iPhone 6 Plus, my first thought was “this is such a perfect phone, how is Apple going to improve on it next year?” Well, over the year there were several things that became apparent -- the speed of retrieving images from a large Photos library could be improved, Touch ID sometimes didn’t work the way we wanted to, and the camera had some issues with low-light conditions and had no flash for the front-facing camera. The iPhone 6s Plus has shown me that Apple made not just incremental changes since the last iPhone series, but has made huge strides in almost every aspect of the design of its phablet.



3D Touch

I find myself still getting used to the newest feature of the iPhone 6s and 6s Plus -- 3D Touch. Apple built in a Taptic Engine similar to that in the Apple Watch to provide a sense of touch to presses and “deep presses” on the display. As with the Apple Watch, 3D Touch provides a sense of tactile depth to the display.

The two new gestures added by 3D Touch -- Peek and Pop -- have already proven their utility to me. Now when I’m going through email, I find myself pressing hard enough to bring up a view of the email so I can see if it’s important. If it isn’t, I can just flick it to the left to delete it.

Quick Actions are also an instant hit. For example, pushing on the Camera icon now displays four common options in a pop-up menu -- take selfie, record video, record slo-mo, and take photo -- so instead of launching the app and tapping on something, I can go straight to the action with a push and a swipe. The same type of thing happens when opening Safari, Photos, Messages (which displays recent contacts as well as a generic “new message” item), Phone, Wallet, Maps, Notes, Contacts, Calendar and other built-in apps.

Even third-party apps are starting to get in on the action; so far, Dropbox, Scanbot, and Tweetbot 4 are some of the only three non-Apple apps on my 6s Plus with Quick Actions. I can’t wait to see what other developers do with this.

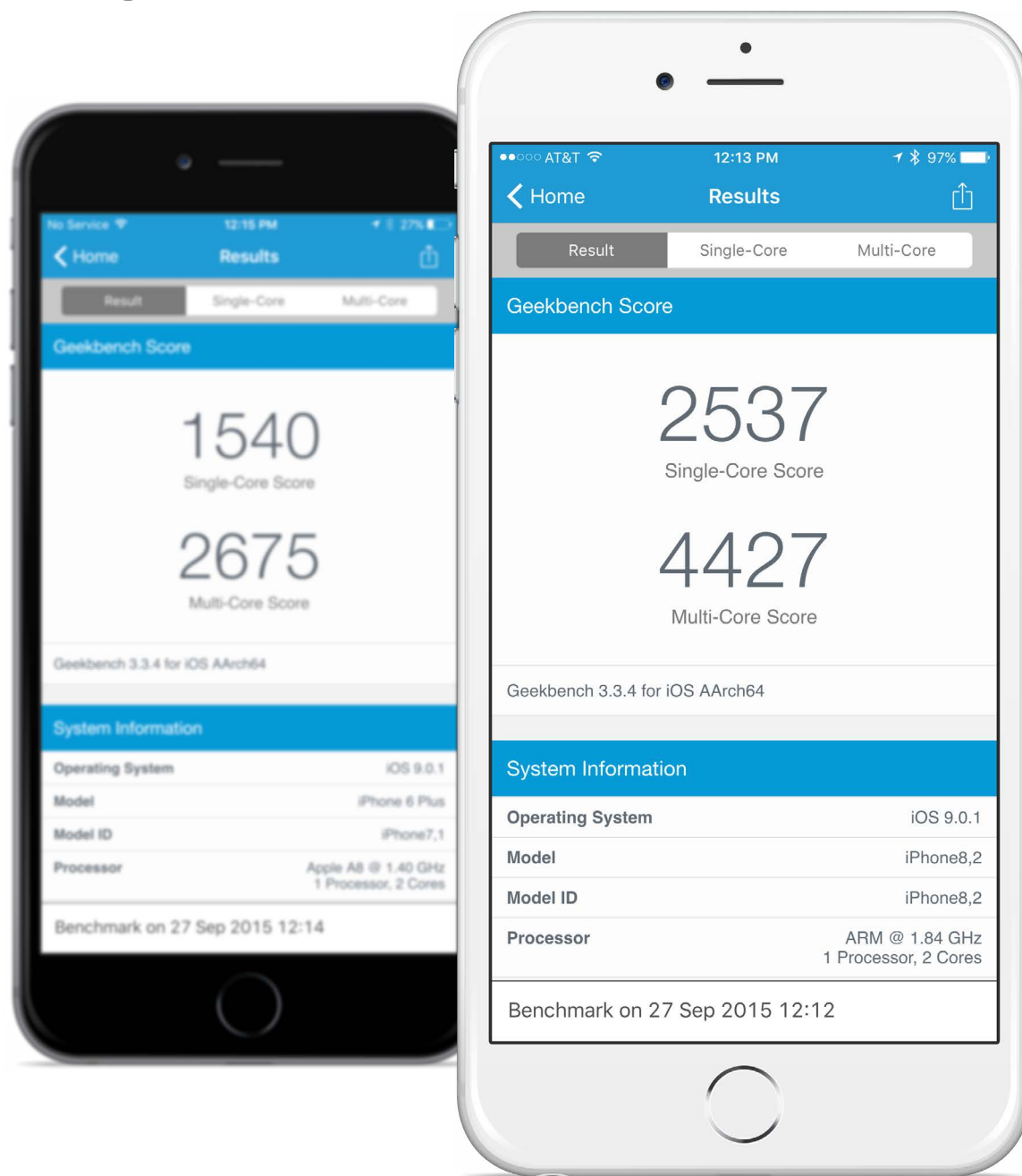
Touch ID

All I’ll say about Touch ID’s second-generation is that it is fast. Barely brushing a finger on the Home button unlocks the device, making Touch ID even more useful than it already was.

Camera

The iSight (rear) camera on the iPhone 6s Plus has been improved so much that it will probably take me well into the next issue of MyApple Magazine to figure out all of the details. I’ll just say that by packing 50 percent more pixels into the sensor and making other changes, photos and videos have much more detail and nuanced color than before.

I did side-by-side photos of a flower soon after getting the iPhone 6s Plus set up; both looked great, but zooming in on the 6s Plus photo revealed a tiny spiderweb that was almost completely obscured in the iPhone 6 Plus photo.



4K video and Live Photos? I haven't had a chance to play with either of these yet and sadly don't even have a monitor or UHDTV I can display the 4K video on. Those features will have to wait a bit for a full review.

Processing Power

The A9 processor makes the iPhone 6s Plus a monster of a fast phone. Running Geekbench 3 on both phones shows just how much more powerful the new iPhone is.

But the benchmark scores really don't really convey how much faster everything seems on the 6s Plus. Opening apps and folders happens so quickly it's surprising; apps for photo manipulation operate much faster, games seem to run smoother.

Even Wi-Fi appears to be somewhat faster; in a series of side-by-side tests, the iPhone 6s Plus showed consistent 7 percent faster download times than the 6 Plus. That doesn't seem like much, but when downloading a large file it makes a big difference.

Conclusion

Just two weeks into using the new iPhone 6s Plus and I'm already impressed. I can't wait to dig even deeper into the capabilities of the Apple phablet.

Artwork: imitation of iPhone 6s back-panel: Radek Szwarc
Photos: iPhone 6 Plus / 6s Plus screenshots by Steve Sande

Launch of the New iPhones

Berlin / Germany



Krystian Kozerawski

Due to lying in close proximity to the eastern border of Germany, the Apple Stores in Berlin and Dresden are often visited by Apple fans from eastern European countries. An annual pilgrimage usually takes place in September coinciding with the launch of new iPhones. Along with many Apple fans, there are hundreds of merchants and paid queuers who travel a thousand or more kilometers just to spend time in line for over a dozen hours to buy iPhones for sale in Poland or Russia.

This time was no different. A few days before the launch of the iPhone 6s and iPhone 6s Plus, a small camp with tents appeared in front of the Apple Store at Kurfürstendamm in Berlin. [The most die-hard fans had been camping since September 18th](#), a full week before the release.



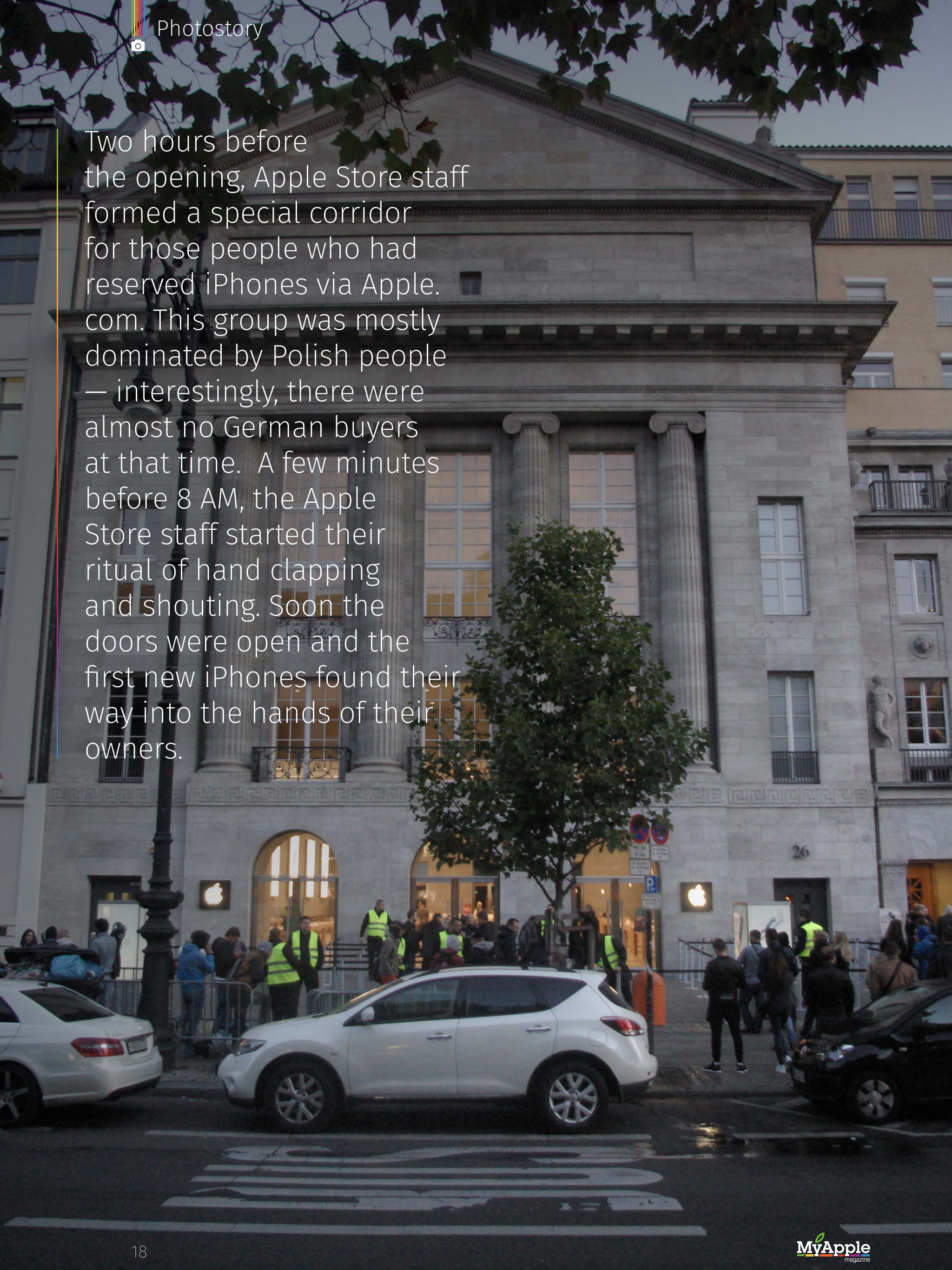
One can ask why there was such a big need for the new iPhones, making it profitable for people to travel so far and wait so long. Many of the new iPhones, especially those with a rose gold finish, would be sold later that day at up to twice the original price so rich Muscovites could show them off to others at parties on Saturday night. Rose gold was the clear indicator of the most expensive iPhone its owner could afford.








Two hours before the opening, Apple Store staff formed a special corridor for those people who had reserved iPhones via Apple.com. This group was mostly dominated by Polish people — interestingly, there were almost no German buyers at that time. A few minutes before 8 AM, the Apple Store staff started their ritual of hand clapping and shouting. Soon the doors were open and the first new iPhones found their way into the hands of their owners.







One can ask why Apple fans travel such a long distance and camp out in front of the Apple Store. Apart from wanting to be one of the first to put his or her hands on the new magical toys, there is a pure need to get together with other Apple fans. The launch of new iPhones is a great excuse to meet with other fans and friends not only from other parts of Poland, but most importantly from other countries.



Photos: Apple Store Berlin - Krystian Kozerański



Steve Jobs

On the fourth anniversary of his death



Steve Sande

It seems like you can't open a newspaper, turn on the television, or look at a website right now without seeing some mention of Steve Jobs. A major motion picture about his life is about to be released — the latest in a string of movies about the man — and there's a lot of conflicting opinion over whether this film depicts his life and personality, or if it's just a script writer's look at the quirks of the man.

Regardless of what you personally felt about the man, his impact on humankind can't be underestimated. His first accomplishment, with the help of Steve Wozniak and others, was to bring personal computing to the masses with the Apple II, then make computing more personal with the Macintosh. After returning to Apple in the late 1990s, Jobs streamlined the bloated Apple product line and brought humanity away from the impersonal beige computer with the colorful and playful iMac.

Jobs' personal fascination with typography also created the desktop publishing industry...

Jobs felt a strong connection to music, and that love resulted in the first easy-to-use MP3 player — the iPod. Often credited with saving the company, the iPod showed Apple how to have Asian manufacturing partners mass-produce small devices, something that would later benefit the company in producing the first true smartphone — the iPhone. It also resulted in the development of iTunes and the online iTunes store, which would later become a huge marketplace for not only music, but video, books, and applications.

Oddly enough, it's been revealed that Jobs actually wanted to create the usable, stylus-free tablet that took form as the iPad, but the iPhone was the first feasible product.

Outside of Apple during his hiatus between 1985 and 1997, Jobs's focus was on NeXT, a company that would produce the core of Mac OS X. The graphics focus of the NeXT platform also resulted in him funding the spin-out of Pixar from Lucasfilm, and if it hadn't been for Jobs's financial support of the stu-

dio, the string of stunning animated feature films from Pixar that began with *Toy Story* would not have been possible.

Jobs' personal fascination with typography also created the desktop publishing industry in 1985 when Apple released the first vector-graphic laser printer — the LaserWriter. The Apple that Jobs headed also made the web more accessible to the world through tools that made Internet connectivity simple.

With the exception of the namesake of a company that Jobs would one day be the largest single shareholder in — The Walt Disney Company — I've never shed a tear for the death of the head of any corporation. But I know that I was personally quite devastated with the news of Jobs dying, as my adult working life has been very tied to Apple for 31 years.



On my wall is a painting by artist and cartoonist Nitrozac (The Joy of Tech) of Steve Jobs at the moment he unveiled the first iPhone to the public at the Macworld Expo keynote in 2007. I was in the audience, and witnessed firsthand what a showman Jobs could be. Eight years later, my heart still beats a bit faster every time I look at that painting and think about that day.

Artworks: sketch - Radek Szwarc
painting - Nitrozac

Iconoclast Alex Gibney

- Steve Jobs: The Man in The Machine



Krystian Kozerawski

Steve Jobs is undoubtedly an icon for users and fans of Apple products as well as for entrepreneurs, because he learned from his own mistakes and faults. Thanks to that character trait, he was able to make the most valuable company in the world out of the nearly bankrupt 1997 Apple. Jobs is an icon not just for entrepreneurs and fans; he was and still is a pop culture icon like actors, artists and musicians. Instead of creating movies or music, though, Jobs created consumer products that were something equally important to a huge number of people. His life is a fascinating story that has practically become a legend. Jobs made a long journey, from a hippie traveling to India for enlightenment, to the corporate rebel whose company appears to be still - even several years after his death - a kind of counter-culture, to the charismatic creator of magical and revolutionary products who dressed in blue jeans and a black turtleneck.

Director Alex Gibney decided to face that legend in his recently released documentary *Steve Jobs: The Man in the Machine*, while at the same time trying to answer a question: why did so many people admire Jobs so intensely? Why did the head of a company producing consumer electronic devices enjoy the same kind of esteem usually reserved for famous artists? The answer to this question is relatively simple - Jobs built a company that created wonderful and indeed revolutionary products. At the same time, he was seen as a great storyteller - just like his idol Bob Dylan - a fact that Gibney notes at the beginning of his documentary. Anyone who has seen or heard even short excerpts from his speeches knows what a dynamic and mesmerizing speaker Jobs was.

Another important question that Gibney also explores is what links us, as humans, with Apple products? In my opinion, this bond is similar to the emotional connection of a listener or reader to a book or song. Extraordinary works of art, amazing music, or emotional poetry can make people love their creators. Gibney didn't need to make a two-hour documentary to answer the question of why people were entranced by Jobs. Instead, Alex Gibney took on the role of a iconoclast, deciding to strip away the legend and showing the other, darker side of Jobs and Apple. I must admit that he had something to show.

In this documentary, Gibney x-rays Jobs from almost the moment of his birth until his death, focusing closely on selected events from his life that demonstrate Jobs' chaotic and contradictory character, a selfish maniac striving for perfection, destroying and pushing out of his way anyone who violated his elaborate plan and who could slow him down on the way to his ultimate goal. So it was with Chrisann Brennan, when she became pregnant by Jobs and later gave birth to his daughter Lisa. Jobs accused her of hav-



ing many sexual relationships, arguing that the child was not his. Finally, after being confronted by friends, he acknowledged his paternity and agreed to pay Lisa - his daughter - just \$500 in monthly child support. Similar situations occurred with Daniel Kottke and even Apple co-founder Steve Wozniak, who Jobs cheated out of money while they were working together on the Breakout game at Atari. According to Gibney, Jobs was focused on his own goals with the intensity of a meditating Buddhist monk, while lacking the empathy typical of a monk. Daniel Kottke says that Jobs deeply believed in his mission to change the world for the better. Gibney demonstrates that Jobs was a person who was guided by the maxim “the end justifies the means”.

Belleville mentions that due to time pressures and his involvement in work on the first Macintosh, he devoted himself almost exclusively to Apple. Sadly, that led to the disintegration of his family.

In clever ways, the director presents one story after another placing both Jobs and Apple in a bad light, often playing with the emotions of the people being interviewed in front of the camera. One of the most moving images of the film is an interview with a member of original Mac team, Bob Belleville. With tears in his eyes and a breaking voice, Belleville reads an epitaph for Jobs that written shortly after the death of the Apple founder. Moments later, Belleville mentions

that due to time pressures and his involvement in work on the first Macintosh, he devoted himself almost exclusively to Apple. Sadly, that led to the disintegration of his family.

Steve Jobs: The Man in the Machine is worth watching because of the great number of interviews with people who played important roles in Jobs’ life and in the history of Apple. I’ve already mentioned Chrisann Brennan (ex-girlfriend and mother of his daughter Lisa) and Daniel Kottke (his longtime friend, companion during his trip to India and one of the first Apple employees). In addition, there are interviews with Regis McKenna (responsible for marketing in the early years of Apple), Jon Rubinstein (one of so-called fathers of the iPod), Andy Grignon (one of the engineers who worked on the first iPhone), several journalists and Jobs himself.

Gibney treated all of these interviews as building blocks assembled cleverly to create his own portrait of Steve Jobs. Was he successful in showing Jobs essentially naked, stripped of the legend of a nimble magician conjuring up an endless parade of new and highly successful products? Well, yes and no — at the same time. Although this is a fairly one-sided or even biased documentary, it certainly shows Jobs and Apple from a different perspective than the legend. It’s definitely a documentary worth seeing. Taken together with the many published books on the subject — the “Steve Jobs” biography by Walter Isaacson or “Becoming Steve Jobs” by Brent Schlender and Rick Tetzeli — it helps one to form his or her own opinion about the man. Jobs, like everyone, had certain traits that distinguished him from the rest of humanity and determined his behavior. In some situations, those traits worked to the advantage of Jobs and Apple, while in other situations they showed the man’s failings.

Photos: Magnolia Pictures Press Kit,
Alex Gibney’s photo: Andrew Brucker
Photo courtesy of Jigsaw Productions and Magnolia Pictures

Starting in 1997, Apple asked you to “Think Different”. At that time, two bloggers had already been “thinking differently” for several years about personal and mobile computing, and writing about Apple and its products. Today those same two writers, Steve Sande and Dennis Sellers, bring you daily news, reviews, and how-tos about the world of Apple [at Apple World Today](#)

We do “think different”, in that the site is predominantly supported by readers through monthly pledges and some sponsorships. Apple World Today hopes to do away with any and all advertising this way, providing site supporters with such benefits as their own Slack channel for real-time communications with the blogging team.

You have many choices of websites for your daily fix of everything Apple. We hope that you find the experience and insight provided by Apple World Today to be to your liking.

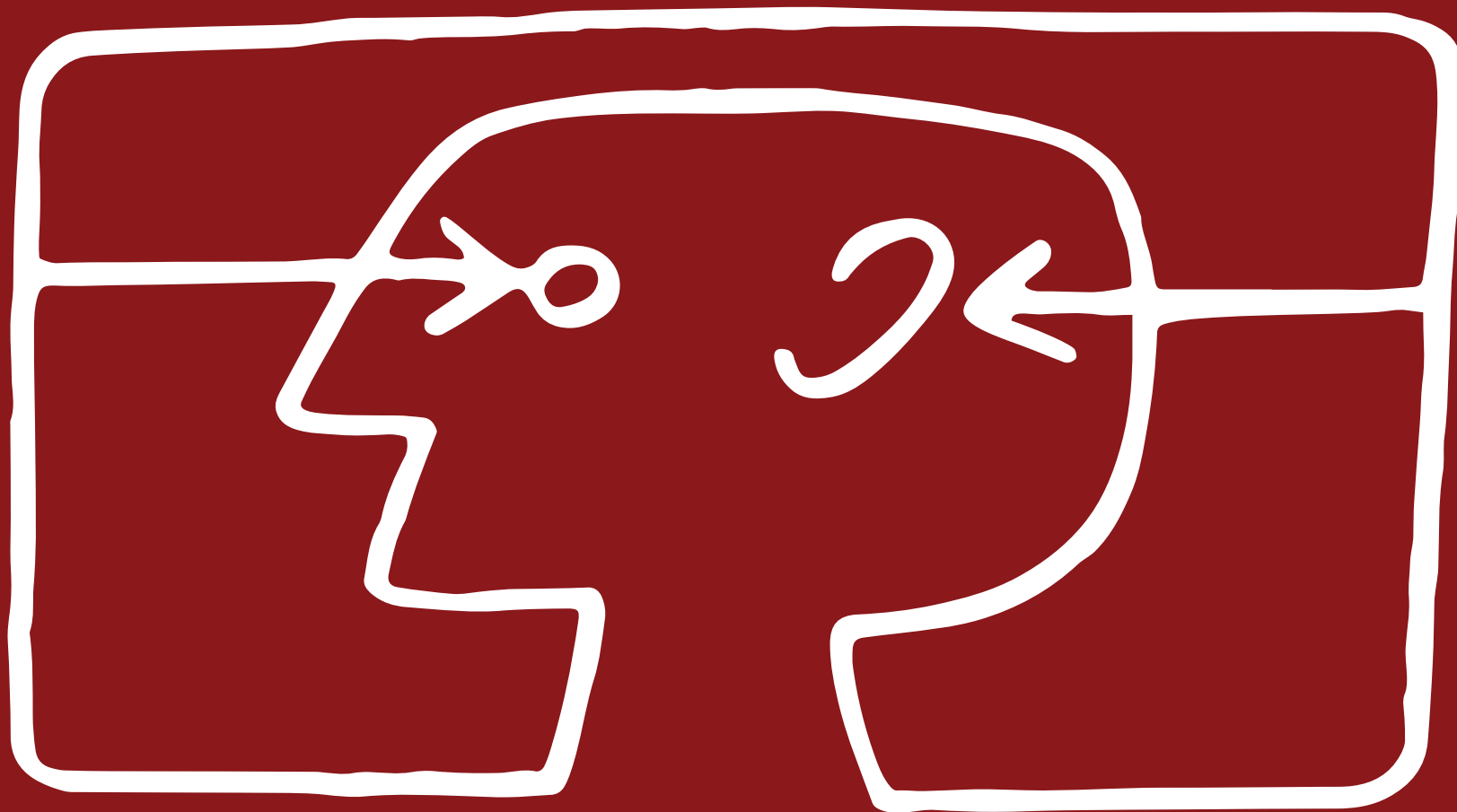


AppleWorld.Today

IFA 2015 - Berlin



Krystian Kozerański



Every year in September, Berlin hosts one of the largest and oldest consumer electronic trade shows — IFA. Although you'll find the latest from producers of washing machines, refrigerators, TV sets and other home appliances, many computer, mobile and mobile accessory brands are also represented. IFA is usually dominated by huge companies like Samsung, Acer, Lenovo, Sony and the rest, but Apple users can also find many interesting products that are targeted directly at them.



For this article about IFA 2015, I decided to focus on only those products that really impressed me. There's no point in writing about the different models of PCs or Android tablets and smartphones that were shown at the fair. There is one worth mentioning — in a negative way. It was an Android phone branded with the Marshall name. Jim Marshall, who died in 2012, produced a legendary brand of guitar amps and it's sad that his name is being used that way. Most of the manufacturers of Android devices and PCs only seem to be chasing numbers in technical specifications, and add what they think are revolutionary improvements that really aren't — such as the curved sides of the screen on Samsung's smartphones or the 5.5-inch 4K screen on the Sony Xperia Premium Z5. In my opinion, Sony should invest in better design of its products and not put so much emphasis on high resolution phone screens.

Apple Watch and other smartwatches

As with most expos like this and typical of IFA, there are hundreds of manufacturers showing a wide variety of mobile accessories — protection cases for mobile devices, headphones, speakers, and external battery packs. This year, a new category of products was introduced — Apple Watch accessories. In the iZone, located at the main entrance to the Messe Berlin complex, one could find third-party straps and even protective armor for Apple Watch. Many of the latter accessories were especially eye-catching with their own belts or straps, and massive housings made of steel or plastic. The variety of the Apple Watch accessories was huge, from nicely designed cases to motley trash taken from Jony Ive's worst nightmares.



A Chinese exhibitor, Adition, showed one of the first external power banks for Apple Watch, equipped with an induction charger almost identical to the original one made by Apple. There were also many different Apple Watch stands, but the one that caught my attention was the aluminum TimeStand from Just Mobile.

I find it interesting that although smartwatches from Samsung, Motorola, Sony and LG have been present at IFA for a few years (Samsung showed its first Gear watch two years ago in Berlin), there aren't any accessories for them. Analysts believe that the number of Apple Watches sold already exceeds 3 million, which is almost certainly why the Apple Watch accessories market is so dynamic.

Although there was an official Apple Watch presence at IFA, there were also many new

smartwatches from Apple's competitors. Motorola introduced the second generation of the Moto 360. The company introduced the watch just a few days before the trade show, and it received a facelift. The side button that was previously in the central position was moved slightly up to a 2 o'clock position. A new strap mount lets users replace the strap, and there's also a clearly visible Apple influence in a strategic move made by Motorola's owner Lenovo — there are now two sizes of Moto 360, 46mm and 42mm. It's not obvious if these different versions are aimed at men and women; instead, it looks like the choice of size is a matter of the buyer's taste. The watch runs Android Wear, which is still sadly lacking in apps. Perhaps the recent introduction of Android Wear for iOS will help motivate developers, but Moto 360 will still face tremendous competition from the Apple Watch.

Samsung is usually strongly associated with Google since it uses Android on most of its smartwatches, but in the case of the Gear S2, it appears that the company has decided to go to war with Mountain View — the Gear S2 runs the Tizen operating system.

Samsung unveiled its new smartwatch at IFA as well, the Gear S2. I must commend the South Korean manufacturer, because its watch finally looks good. It's not necessarily a masterpiece of design, but at least it can be worn without shame or embarrassment. The Gear S2 is available in two versions, modern and classic. The latter version looks like a traditional watch with an exchangeable leather strap. Samsung is usually strongly associated with Google since it uses Android on most of its smartwatches, but in the case of the Gear S2, it appears that the company has decided to go to war with Mountain View — the Gear S2 runs the Tizen operating system.

I spent over an hour playing with the Gear S2 in the Samsung exhibition hall — that's right, they don't have a booth, they rent an entire hall at IFA. I'm not very convinced with the usability of the rotating rim around the screen that is supposed to work like the Apple Watch's Digital Crown in terms of navigating through menus and applications. It's certainly an original solution, and there will be people who prefer it to the Digital Crown. As opposed to Apple's solution, though, the rim has no "back button" functionality. Instead, pushing one of two physical buttons takes you





back to the previous view in an app or menu. Like the Apple Watch, the Gear S2 has a touchscreen that allows navigation through some of the elements of the system using gestures. The setup of the menu of available apps isn't all that convincing — the small round icons resemble those on those on the Apple Watch, but are arranged in a circle. To nav-

Runtastic's Moment watch is much less developed in terms of functionality. It's a classic watch with simple fitness tracker functionality. The watch face shows an additional "clock" displaying progress towards a daily activity goal. Sadly, the Moment works only with the Runtastic app, while the Withings Activité supports many third-party apps.



igate to an app on the bottom of the list, you need to tap the corresponding icon a couple of times and then turn the rim. The rim, of course, is the only way to navigate through the list of apps, and you find yourself getting irritated spinning the rim. At least the operating system running on the Gear S2 responded quickly, and I didn't notice any lag at all in my more than an hour of playing with the smartwatch. Apps load quickly; the big question is how many will be available in the near future.

Also presented at IFA, Runtastic's Moment watch is much less developed in terms of functionality. It's a classic watch with simple fitness tracker functionality. The watch face shows an additional "clock" displaying progress towards a daily activity goal. Moment measures the physical activity of the wearer, and moves the needle on that display forward. This isn't a new idea by any means. Last year, Withings presented an almost identical solution in its Activité watch. Runtastic Moment is available in many different design variants, from a traditional watch look to very modern designs, and works with iOS and Android devices. Sadly, the Moment works only with the Runtastic app, while the Withings Activité supports many third-party apps.

It's a traditional bracelet band for a wristwatch, with each of the elements containing a small battery. The fastening system hides fitness sensors and Bluetooth connectivity. Developed in Japan, the bracelet can be used with almost any watch.

When talking about smartwatches, I can't fail to mention a very unique design, the Sony Wena smart steel bracelet. It's a traditional bracelet band for a wristwatch, with each of the elements containing a small battery. The fastening system hides fitness sensors and Bluetooth connectivity. Developed in Japan, the bracelet can be used with almost any watch. The creators admitted that they're looking for opportunities to establish cooperation with famous brand watch manufacturers. In my opinion, Sony Wena would be a great solution for people who don't want to part with a traditional watch and aren't convinced to switch to watch-like devices like the Withings Activité or Runtastic Moment.

Everything else

While crossing the miles of exhibition halls, I was looking for interesting products that bring something new to already existing solutions and don't duplicate existing ideas by just adding more complexity.

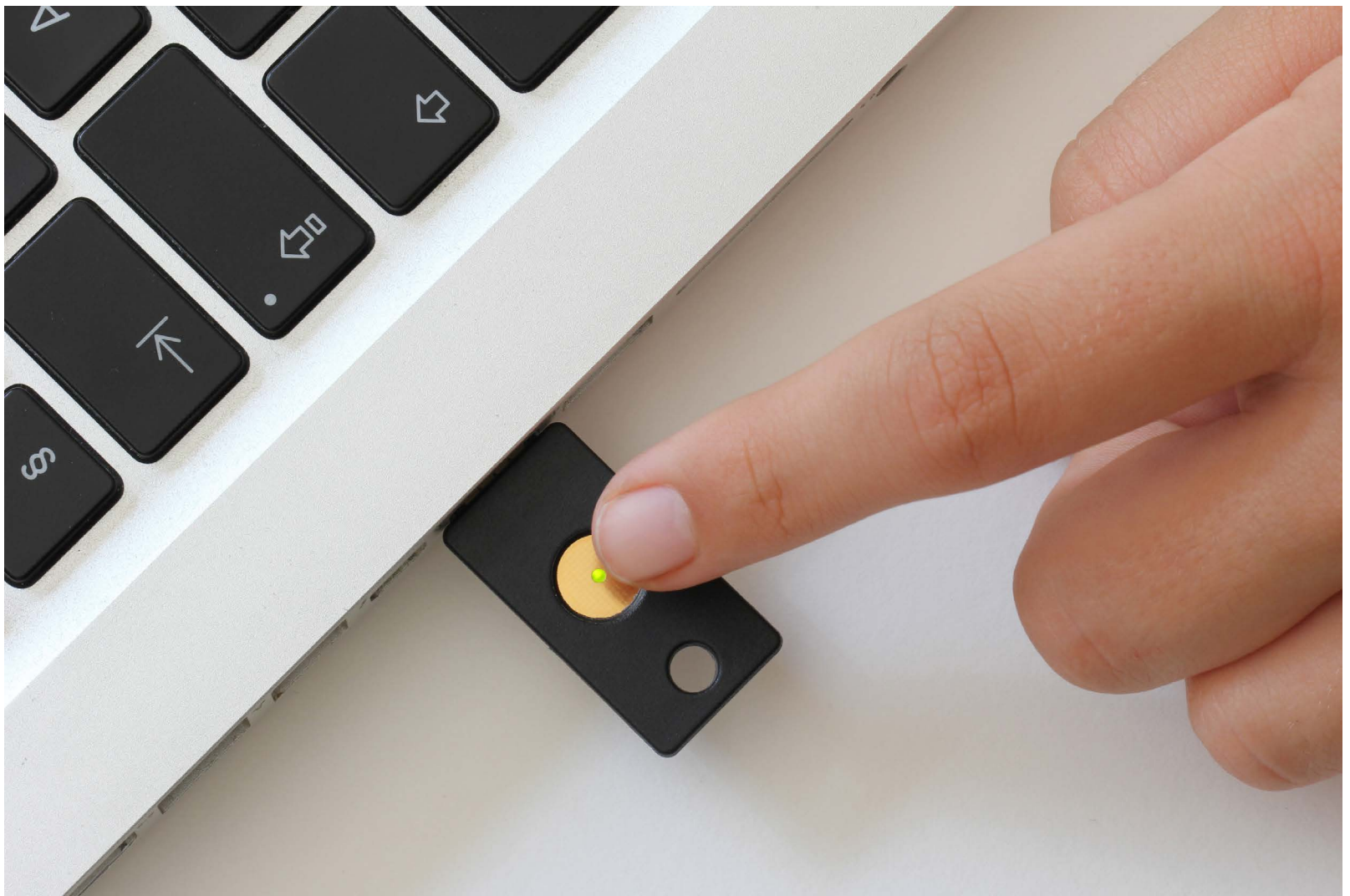
One such product bringing something new to the relatively boring category of mobile device speakers is Tribby, which is attached to a refrigerator with a magnet and connected to a home Wi-Fi network. It can play Spotify playlists and display messages sent



to its screen from a dedicated iPhone app. I must admit that when I saw it at the booth, I thought it was another one of those thousands of existing wireless speakers that attempt to attract buyers not by sound quality, but by looks. Interestingly, some exhibitors at IFA admitted that many people who buy this kind of device care more about looks than sound quality. Tribby certainly isn't audiophile-grade hardware, but rather a replacement for a kitchen radio and fulfilling the role of a family communications hub. iMessages and emails can be sent to Tribby, and you can also draw or write in the dedicated app and it appears on the speaker screen.

Another interesting solution that connects the automotive and mobile markets was presented by the SteelMate brand. Four small sensors embedded in screw-on tire valve caps monitor the air pressure in each tire, transmitting that information to an iPhone via a special hub plugged into the car's 12V power socket. This product may really be of interest to owners of older cars that aren't equipped with tire pressure sensors by default.

My attention was also captured by some special Yubico Edge USB keys that act as hardware two-step verification during website and web service logins. Google is one of the services



Instead of doing two-step verification by retyping a code from a text message, a user can just plug in the Youbico Edge key. Implementation of this service is quite simple...

that already supports this solution. Instead of doing two-step verification by retyping a code from a text message, a user can just plug in the Youbico Edge key. Implementation of this service is quite simple, requiring only the installation of appropriate software on a server.

At this year's IFA I also had a chance to take a close look at Palette, which is an interest-

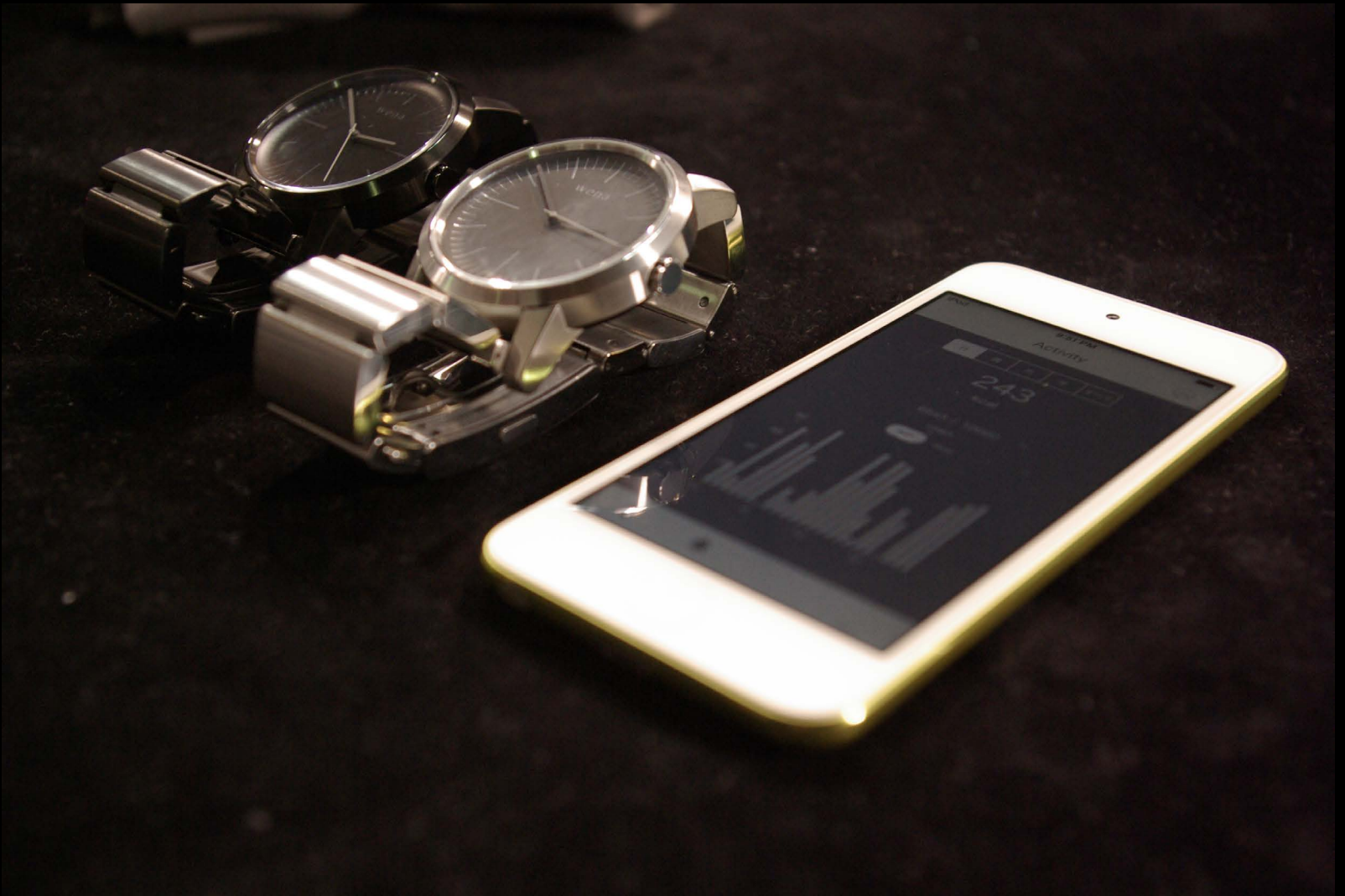
ing set of hardware potentiometers for controlling various parameters in Mac applications like Photoshop. They're packed in small boxes that look similar to stomp boxes for guitars, and playing with them also reminded me of working in a recording studio. The Palette potentiometers can be arranged in many ways, depending on the needs and tastes of the user.

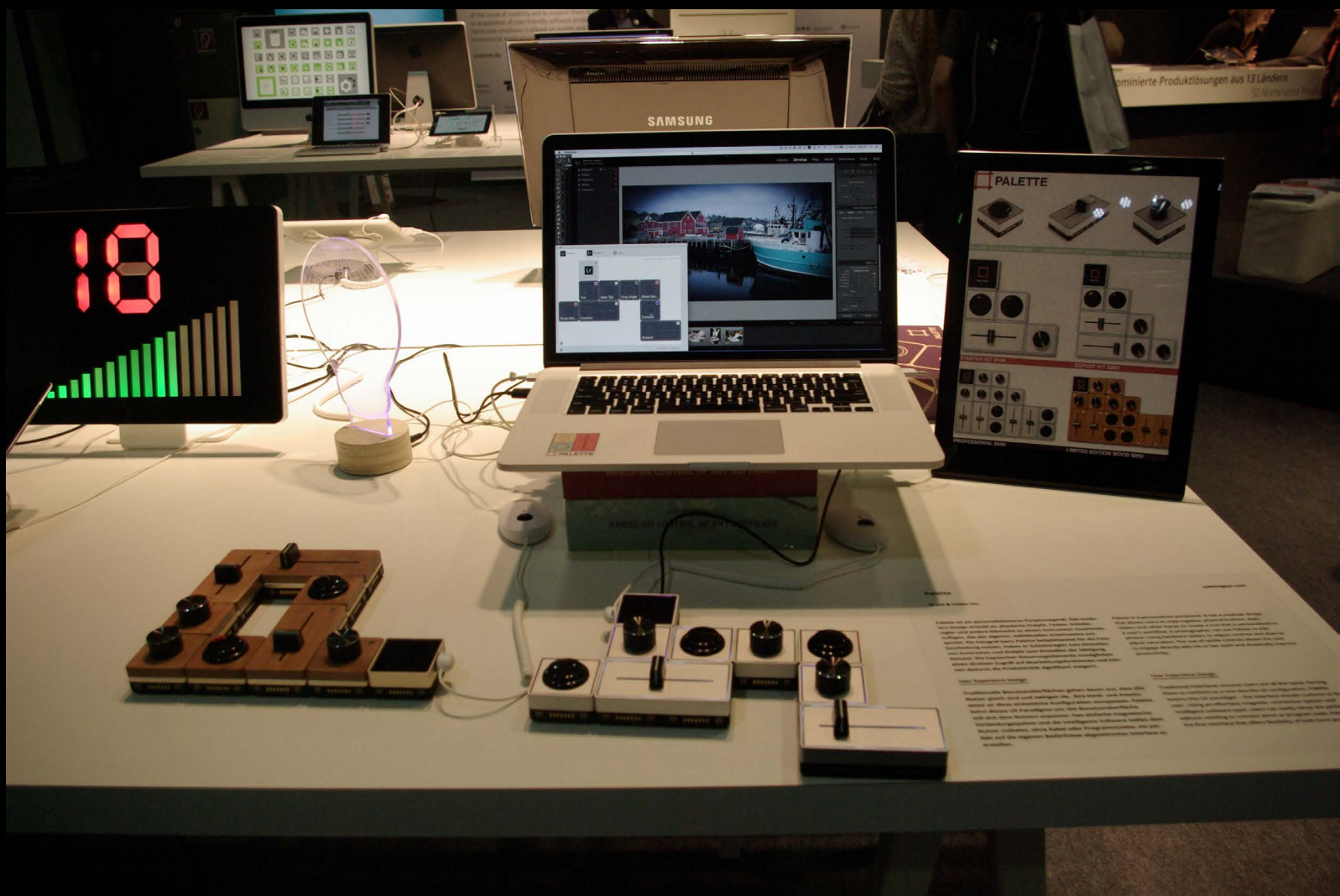
These are only a few of the tens of thousands of products that were displayed at this year's IFA. I'm pretty sure that number of opinions about what was worthwhile to see at the event is equal to the number of attendees and visitors. For me, this year's IFA seemed much more interesting than the event in previous years.

Ilustracje: archiwum Autora i materiały producentów











It's time to make up my mind

Apple Music



Krystian Kozerawski

The past three months have passed more quickly than I expected. I spent those months on intense and frequent journeys. The summer has passed, as well as the three-month period of free access to Apple Music. It's time to decide whether to move for good to this new service, or to stay in Spotify, for which I have been prudently paying my subscription for its premium plan. Above all, I need to answer the question of where Apple Music is now, three months after its launch. Does its offerings and quality win out over Spotify? And is there something in Apple Music that would make me use the service frequently?

To be honest, I didn't carry out any extensive testing or searching for bugs, and I didn't especially care about the issue with creating playlists that was and is still the bane of a large group of users. I create playlists extremely rarely; I used to save entire albums as playlists in Spotify before they enabled saving them as they were - albums. For the last three months I have been using Apple Music the same way I usually use streaming services - browsing and listening to entire albums and playlists served up by the service. I wanted this three months to be a musical journey in which Apple Music was the only a vehicle, a cabriolet in which I would speed on the freeway of sounds. Sadly, the freeway turned out to be a rather bumpy road full of holes, and even the car turned out to be in rather poor condition. Nevertheless, this three-month journey was an interesting musical adventure.

Apple Music treats two bands with the same name, but of completely different genres, as one.

First of all, Apple Music - despite one undoubted advantage which is the full integration with iOS via Music app and OS X via iTunes - is losing against Spotify in terms of its musical offerings. I know it is a rather subjective matter, and a lot depends on one's musical preferences, but in my case I can definitely find more music that interests me on Spotify than on Apple Music. It's not the case of searching for some unknown bands and performers of the music genres I like (prog-rock, metal, soundtracks and smooth jazz), but for a few well-known bands like Rammstein. In Spotify, I can find the band's complete discography, while in Apple Music

there is only one album available - the latest, *Liebe ist für Alle Da*. The latest album of popular thrash metal band Slayer was initially available in full only on Spotify. On Apple Music, I could find just a few songs and the rest was blanked.

This isn't the only annoying flaw. Several times I have discovered that Apple Music treats two bands with the same name, but of completely different genres, as one. Browsing the discography of a heavy metal band named Fate I found a rap music album from a band with the same name.

I have mentioned the problem with creating playlists that many users complain about. There are, in fact, other complexities of the interfaces that I found irritating. One of them is the complete lack of clear designation of what is stored on my iPhone or iPad, and what is stored on my iCloud music folder. Yes, I can hide what is in the cloud, but this is a far from perfect solution. It annoys me no end, because it is not rocket science to mark songs or albums that are downloaded and stored within the device. Spotify does that in a very simple and smooth way - there is an offline switch in a album or playlist view, as well as a small downward-pointing green arrow icon that marks downloaded albums, playlists and songs.

After one of the last updates of iTunes for OS X, all of my songs stored in iCloud or the ones I added to My Music on my iPhone disappeared completely on my Mac. Oddly, they still are available on my iPhone and iPad. Logging out and back in doesn't help. On my Macs with the latest iTunes app, I have access only to music that I bought in the past on iTunes (including the last year's gift from Apple - U2's Songs of innocence) or I that I have ripped from my personal CDs in the past.

The iOS Music app is also far from perfect. After upgrading my iPhone and iPad to iOS 9 it stopped showing me the content of playlists provided in the For You view. I can't view artist profiles anymore - they went just as blank as the playlists. On the other hand, Spotify works with iOS 9 just fine. I can't help myself thinking of the three-month period of free access to Apple Music as beta testing the app for Apple. Even worse, I will have to pay if I want to continue my participation in these tests. Apple Music is far behind Spotify both in terms of reliability and user experience.

...my decision doesn't concern making a choice between Apple Music and Spotify, but rather whether I am going to pay additional money for Apple Music while sticking with Spotify.

I realize that my decision doesn't concern making a choice between Apple Music and Spotify, but rather whether I am going to pay additional money for Apple Music while sticking with Spotify.

Why would I do that? Apple Music offers something that I can not find in Spotify and probably in any other streaming music services available here in Poland — human-curated playlists. The selection of both albums and performers is usually perfect. To be honest, listening to the playlists that are prepared to suit my musical preferences is a great experience. In fact, while listening to many rock and metal playlists — especially those ones with music from the 1990s or late 1980s —

I experienced a kind of time-travel. I felt like I was watching Headbangers Ball on MTV, a popular metal music program of that time. Almost every playlist - or perhaps it is better to call them compilations - provided by Apple Music suits me perfectly.

Another great Apple Music feature is Connect, which is a music social network where artists can communicate with fans. I would say that it's a similar experience to following bands and artist profiles on Facebook. As on Facebook, I can like and comment on their activity - videos, songs or photos. However, I don't like to follow bands and artists on Facebook. Since I am not much of a "social network person", I prefer just to stay in touch with a few people I know on Facebook and I don't follow public figures, bands, etc... I found Connect a perfect place to follow bands. What you can find in Connect depends on your own musical tastes and of course the artists themselves. Fortunately, many of the bands and performers I follow are very active on a daily basis. Every day I find their archival photographs from concerts (eg. Dream Theater on stage at the biggest Polish open air and admission-free festival, Bus Stop Woodstock), and artwork for new album covers — "album covers" being a term I find to be very archaic. The most active band on Connect among all of those that I follow is Pearl Jam.

In my opinion, the curated playlists and Connect are the huge advantages of Apple Music that I am willing to pay extra money for. I will therefore end up paying for both Spotify and Apple Music, although I have no hope that the quality and reliability of the latter service will be significantly improved in the near future. Apple has always had a problem with its own internet services.

Photo: Radek Szwarc

Shackled to notifications



Michał Maślowski

Do Not Disturb

Will turn off tomorrow



Just a while ago I sat down in front of a computer. I have a very important article to write. The deadline for sending it ends in three hours. I have thought it over in detail; what I want to write and how I should write it. This should go smoothly and be done in no time at all.

In the meantime, I got two more very important messages. I give up...

Flash in the pan

I am full of verve. The most difficult part is already behind me — I figured out what will my article be about, and that's always the biggest pain. I always convince myself that when I force myself to sit down and write, then it goes like clockwork. Then, I simply work as a professional typist — I am a master of my keyboard, and I will have my article ready in just a flash.

I have already written the title of my article. I am trying not to focus on it, since there is always time to change it. However, I know that in my case the first thought is always the best. Never after I finish an article can I find a better title than the one I wrote at the beginning. Being aware of that, I cannot help myself and need to devote a bit more time to the title... The first five minutes have passed, but at least I have a title.

Take a break for Twitter

After such an amazing start, I am still full of zeal. I did a great job with this title! Meanwhile, I got a notification from Tweetbot. Somebody just mentioned me in a tweet with a short movie taken at a triathlon that took place this past weekend. I can't keep myself from watching the movie. To be honest, I could do it later, but I still have a lot of time in which to write my article. There is no harm in taking a break from hard work, right? I reply with two or three tweets, and while I'm at it, I check my Twitter timeline. Of course it is full of interesting and important news. Bah! 20 more minutes have passed and still I only have the title of my article.

Let's listen to music

OK, I slap myself and come back to work. I wrote my first two sentences and then Apple Music started to play another song from a suggested playlist. And there is a notification! Oh! I don't know that song, and the band is awesome. For a short while I am tapping my fingers to the music — it almost sounds like my favorite band, Slayer! I like it! So I switch to iTunes and check out the band. I browse for a while and then add their latest album to "My Music". Then I do another irrational thing - I grab my iPhone and check to see if the album has been added to "My Music" on this device. And what about the iPad? I check it as well. Yes! It is on all of my Apple devices right now!. I love this kind of synchronization. I listen to the first, then the second song from album I just added. Another 10, maybe 15 minutes passes by, and I have only a title and first paragraph.

Just one very important mail

I shake it off, turn off iTunes, and then type a few words in the silence and focus. But what's that? I am getting email. Oh no! I take a glimpse at the notification, and it may be an important message. OK, I click at the notification that brings me to the Mail app. Unfortunately, it is a very important and long mail message. I read it for a while longer and think about whether should I reply now or later. It's important, so I'd better reply now. Instead of writing my article, I'm writing my email reply. In the meantime, I got two more very important messages. I give up, and after sending my reply to the first email I shut down the Mail app. Let it go! I have just lost more critical minutes of work to notifications. Well, I do have to reply to important mail, but it didn't get me any closer to the end of the article I have been trying to write for two hours.

Devastated, broken and desperate due to my lack of productivity, I once again try to sit down and start writing. I stare blankly at my text. I have to read it from the beginning, since I've already forgotten what I was writing about. I am trying to evaluate its merits, and I know it is a failure. I admit to myself that the piece of the article written between one Twitter notification and replying to email cannot be good.

I turn off the Mail app, music and Tweetbot and start again from scratch. I write in a frenzied passion for another dozen minutes and just when I am starting to become proud of myself, I get a notification from the Slack app. It's hard to ignore it, since someone wants something important from me here and now. I start a short chat that should only last a few minutes.

Everybody, but not me

Meanwhile, I get another notification, this time from Dropbox. My co-worker edited a file stored in that cloud. Finally! I had been waiting for it for over a week. What a lazy man he is! He needed so much time for this. How one could be so giddy and so unorganized as to be so late with his appointed tasks? I wonder what finally dragged the work out of him?

Notifications chase notifications, with somebody always wanting something from me, and everything must be done right now for if I don't answer that email in an hour, I'm pretty sure my phone will start to ring.

Shouting in my mind at my colleague who was late with his work, I start to realize the irony of the entire situation. From the corner of my eye, I glance at my watch and I know that I have a serious problem with meeting my deadline. In just this moment, another notification appears. This time, the notification is the most dramatic one I've received all evening - OmniFocus just informed me that the allotted time for delivering my article has just run out and I have been working on this for three hours. A few seconds later my co-workers calls me, saying „Half an hour ago I sent you a message telling you that you can't break the deadline. Why didn't you reply?”

Do not disturb!

Have you ever experienced something similar to this situation? Do you recognize yourself as the distracted worker? In my case, this happens too often. Notifications chase notifications, with somebody always wanting something from me, and everything must be done right now for if I don't answer that email in an hour, I'm pretty sure my phone will start to ring.

I have two methods to deal with such situations. First is turning on „do not disturb” in Notification Center. I almost always turn it on when things start going this way. Second, I try to force myself not to disturb my own work. It's not good to postpone almost-done work when I am getting tired and I know I still have plenty of time. The pangs of remorse are much bigger than the satisfaction of well-done work in such cases.

So, I really had to finish this article at Midnight, and it's only 11:26 PM. Well done!

Artwork: Radek Szwarc

Five Months With The Apple Watch



Steve Sande

April 24, 2015 was a happy day for a lot of Apple fans, as it marked the day that the first Apple Watches were delivered to those people who ordered them shortly after midnight Pacific Time two weeks earlier. After slightly over five months of Apple Watch usage, I am more impressed with the device than I thought I would be. It's not perfect — no first-generation electronic device ever is — but it is surprisingly polished, especially after the release of watchOS 2 on September 16. Here are my thoughts about the Apple Watch five months on.



Pleasant Surprises

Battery Life

Battery life has far exceeded what I expected. While early reports raised concerns that battery life would only be in the 8 to 10 hour range, I've found that a normal day of usage leaves the Watch at about 70% of full battery capacity. I still don't wear it at night, instead returning it to its charger to be topped off. Sure, there are some use cases — such as listening to native playlists on the Watch or using maps for directions — that chew up additional battery life, but the device still lasts a long day without recharging.

The Watch is also slightly waterproof. Before the Watch shipped, there was a surprisingly high level of concern from pundits that it wasn't waterproof. While you shouldn't go swimming with the Watch, you can shower with it on and even get it wet while doing dishes or fixing sprinklers...

Taptic Engine

I love the feel of a tap on my wrist to notify me of something. It's less obtrusive than a sound and it's surprisingly "human". In addition, the use of the Taptic Engine for Force Touch feedback is brilliant - it feels

like you are pushing into the tiny display of the Watch when in actuality it's not moving at all. When using the Watch along with my iPhone for driving instructions, I love getting the haptic notification of which way I should turn along with audible directions



Durability

I purchased the least expensive Apple Watch that I could; a Space Gray Apple Watch Sport with the Black Sport Band. Although I always try to take care to not bump the watch, but I've inadvertently run it into walls, tables, car doors and a number of other solid objects. I have seen some minor scratching on the Watch face as a result — if I replace the Watch in the future with a new one, I will definitely either spend the extra money for the sapphire-faced Watch or make sure I get a stick-on screen protector.

When I'm doing yard work and gardening, I do have a Speck CandyShell FIT and several Griffin Ultra Thin Cases that I use to give the watch some extra protection. All in all,

I'm quite pleased that the Watch still looks almost as good as it did the day I got it.

The Watch is also slightly waterproof. Before the Watch shipped, there was a surprisingly high level of concern from pundits that it wasn't waterproof. While you shouldn't go swimming with the Watch (it will void your warranty), you can shower with it on and even get it wet while doing dishes or fixing sprinklers, and it handles the water with ease. Apple even suggests running the Digital Crown under warm water if it begins to stick.

Usefulness

Prior to buying the Apple Watch, I had not worn a watch in about five years. My iPhone had become both a timepiece and an alarm, so I had no reason to wear a watch. The usefulness of the device was one concern I had; now I use it regularly for a number of purposes.

It's no big surprise that I use the Apple Watch quite often to find out what time it is. Rath-

Some apps crash for no apparent reason; iPhone apps with Watch companion apps sometimes lose contact with the iPhone and time out, or install themselves on the Watch without asking. I do find that native apps under watchOS 2 seem to be less prone to crashing, and they're certainly faster.

er than dig my iPhone out of my pocket, I just raise my wrist like in the good old days of watches!

I'm also trying hard to change my life habits, and the built-in Activity app is a pleasant and useful tool. During a recent cruise vacation I ate way too much, but I also tried hard to walk more, take the stairs instead of the elevator, and even make side trips to raise my activity level. I was pleased to see that over the three weeks I was on the cruise, my activity goal increased by 70 calories, meaning that I was more active every week. My hope is to increase the activity goal every week. The Activity app also does a good job of gently reminding me to get up at least once an hour and move around, something that's difficult to do with the sedentary lifestyle of a writer.

As a fan of Siri (I co-wrote "Talking to Siri" with my friend Erica Sadun), I was pleased to see how well Apple's intelligent assistant works on the Apple Watch. Using the "Hey, Siri" prefix to get Siri's attention, I often use the assistant to set alarms, write text messages, and launch built-in apps all with verbal commands.

The final pleasant surprise is just how many apps are now available for the Apple Watch. I recall the early days of the iPhone, when the only third-party apps available were "web apps". In less than six months, there are nearly 10,000 apps available for the Watch.

Unpleasant Realities

As expected, not everything about the Apple Watch is all roses and sunshine.

Poorly Written or Slow Apps

Even with the advent of native apps under watchOS 2, some apps are still quite slow

or poorly written. [Early on, I did a review of four calculator apps for the Apple Watch](#), and only one of those was worth keeping (PCalc).

Some apps crash for no apparent reason; iPhone apps with Watch companion apps sometimes lose contact with the iPhone and time out, or install themselves on the Watch without asking. I do find that native apps under watchOS 2 seem to be less prone to crashing, and they're certainly faster.

“Sleeveshots”

OK, I know this is a minor item, but I've noticed when I am wearing either a long sleeved shirt or a jacket, I sometimes will accidentally take Apple Watch screenshots that end up cluttering my iPhone.

Taking a screenshot with the Apple Watch consists of pressing the side button and Digital Crown simultaneously, which captures the current screen and then syncs it to the Photos app on the iPhone. Apple might want to re-think the gestures required to take Watch screenshots if something as simple as pulling up a sleeve can do it.

The Near Future

It's interesting that at this point, the “killer app” that seems to be the reason for get-

ting a Watch is activity tracking — especially with the built-in Activity and Workout apps. There is yet to be another app or genre of apps that has caught the imagination of developers and Watch users.

I look forward to a future Apple Watch that could totally replace my iPhone, allowing me to make phone calls and use a huge variety of apps with a wrist-mounted device. But that's going to take a much more robust power source and a miniscule cellular chipset to accomplish, so we're probably years away from that dream. For the present, the Apple Watch is an amazing device that delights and surprises me each and every day.

Photos: Apple Press Kit, editorials archive



MacPaw

and the Ukrainian app revolution



Krystian Kozerański



I guess there is no need to introduce our readers to apps like CleanMyMac, Hider 2 and Gemini, particularly the first two that have been around for seven years. My adventure with Macintosh computers started at about the same time, and shortly after I bought my first Mac I found CleanMyMac, a utility app published by Ukraine developers MacPaw. The Mac apps were created and the company founded by Oleksandr Kosovan.



From Passionate Student To Successful Entrepreneur

Oleksandr has been an Apple fan since he was a student. In the middle of the first decade of the 2000s, earning only 200 hryvnas (about 20 dollars) a month, he couldn't afford much. In one of computer shops in Kiev he was attracted by the desk-lamp-like iMac G4, but figured that he could only afford the Apple keyboard that went with it.

Oleksandr's father and brother - like many Ukrainians - emigrated to the West, to Paris. Thanks to their support and his own savings, Oleksandr bought a PowerBook. At that time he was probably the only student at Kiev Polytechnic who was working on a Mac. He remembers that lecturers were glowering at him, since he was the only

student who was taking notes not on paper, but on his laptop. Oleksandr's diploma work was done on the Mac - a neural network app using image recognition to register the state of water meters. While working on the PowerBook, he started to dig into the details of Mac OS X. Then Apple announced the move of the Mac line to Intel processors and the two-year-old PowerBook soon found a new owner. Once again, Oleksandr found himself short of money to buy a new Mac, so he turned to building a Hackintosh. At the time, these customized PCs were gaining popularity among students who couldn't afford a Mac. Setting up Mac OS X on a PC required a lot of work, so Oleksandr began writing drivers and fine-tuning Mac OS X to make it work better on his own PC. Thanks to that work, he got to know Mac OS X architecture pretty well. During that time Oleksandr created his first apps - CleanMyMac and MacHider (currently known as Hider 2).



Almost everything in the office, including one of the coffee machines and a gas fireplace, is controlled with the iPhone. Some of the apps to control the gadgets were written by the MacPaw team.



...the entire team believes
in the new Ukraine.
It is symbolized in a portrait
of the greatest Ukrainian poet
and bard of the 19th century
- Taras Shevchenko - holding
an iPhone in his hand.

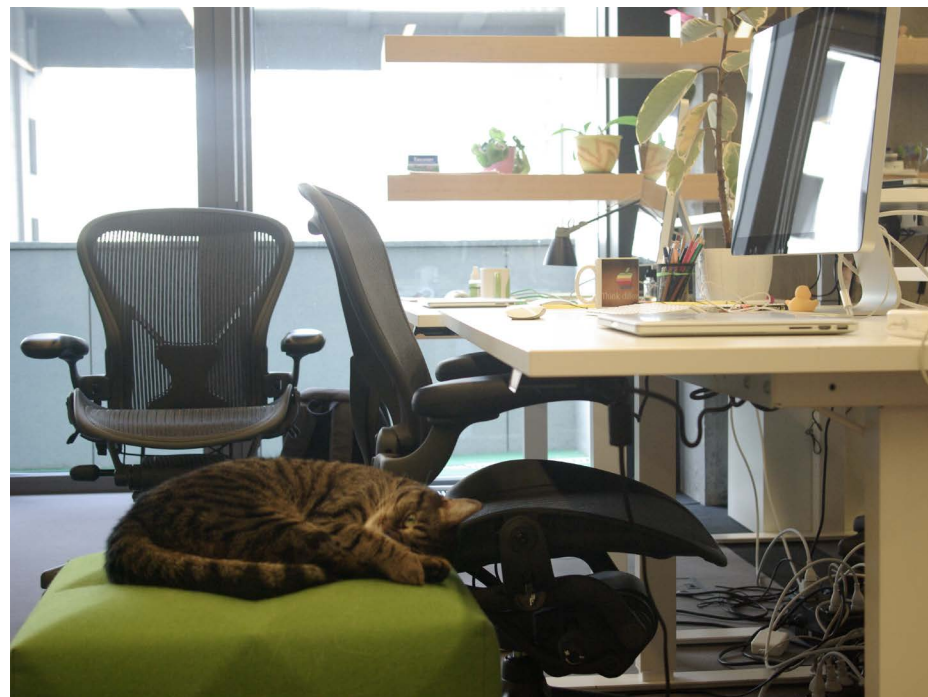
He developed the apps mostly for himself, but when beta versions became available via download sites, users who wanted to buy a final version quickly appeared.

I was dreaming about my own company, about a company like OmniGroup or CulturedCode. I was learning from their experiences. And I was trying to promote my own apps. There were customers; there was also a company and website. Oleksandr admits that the company name - MacPaw - was chosen while he was checking out available web domains. It refers directly to Macintosh, but the second part of the name - Paw - refers to the big cats after which Apple named each major version of the operating system between Mac OS X 10.0 Cheetah and Mac OS X 10.8 Mountain Lion.

At that time in Kiev, a Mac developer community started to form. Oleksandr made friends with Ivan Ablamsky, who later founded Coppertino, the development firm known for its popular OS X and iOS music player app Vox. On January 6, 2009, sales of CleanMyMac and MacHider launched on the MacPaw.com website. The company was selling quite a lot of software at that time, but it wasn't profitable yet. In an interview for the Russian language site MacOSWorld.ru, Oleksandr recalled that at the end of the week they were eating the leftovers that they could find in the refrigerator, and only his sense of humor kept him going.

In 2009 the MacPaw offices housed five people working in a room of 23 square meters (about 250 square feet) furnished with old second hand desks and chairs. By 2012, there were 30 employees in a larger space, and now there are over 80. MacPaw is no longer a startup and - according to Julia Petryk, MacPaw's PR manager - it doesn't want to be regarded that way. The present MacPaw office is really huge and full of new technologies.

Each team works in its own spacious room. Employees can also hide in small compartments if they want to work on their own in quiet (see image below). There are two spacious terraces, and even a lab equipped with soldering stations, electronic test equipment, and a 3D printer where employees can work on their own projects that are not necessarily linked to MacPaw products. Almost everything in the office, including one of the coffee machines and a gas fireplace, is controlled with the iPhone. Some of the apps to control the gadgets were written by the MacPaw team.



Writing about MacPaw headquarters for Apple World Today (the official home of Caturday), I of course have to mention the two cats that are living there - Fixel and Hoover. Furry animals make the atmosphere in the office more homelike. It's important for the company to strive to make the best apps, and the office is a place of work, but at MacPaw they try to make things enjoyable. Oleksandr even introduced his own motivation system for the employees, with an internal currency named after Fixel the cat. Coins with the cat on one side and MacPaw logo on the other are acceptable in vending machines at the office.



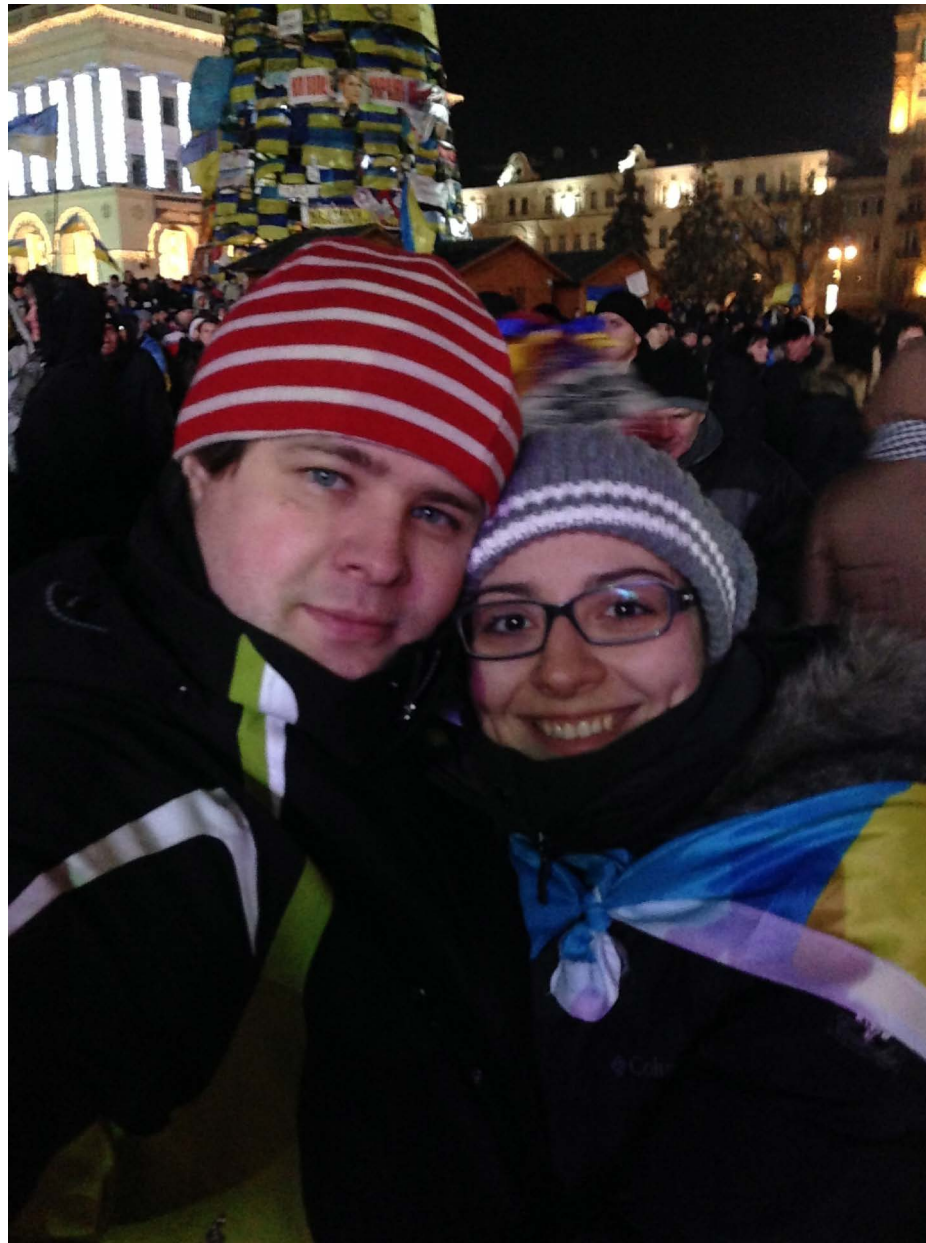


Shche Ne Vmerla Ukraina (Ukraine Has Not Yet Died)

Over the years of my adventure with OS X and iOS, I have discovered that many popular apps are made in the East (at least east of Poland), mostly in the Ukraine. CleanMyMac and the other apps by MacPaw are not the exceptions. I have mentioned Coppertino and its great Vox player, but there are more of them -- MacPhun and its stellar photo editing apps for OS X and iOS, Softorino and its amazing multimedia converter Waltr, and even ZeoBit, the company behind MacKeeper. All of these companies are based in Kiev. There is also Readdle in Odessa - creators of a number of popular apps like Documents, Scanner Pro and the new email client Spark.

...one very important factor is the quality of education. In his opinion, education and especially science education in Ukraine during its time as part of the Soviet Union was on a very high level. Over time, sadly, it got worse.

There's nothing unique about the fact that there are a lot of excellent developers in Kiev and Ukraine. Here in Poland there are at least as many. What is interesting is how it is possible that in one country that for almost a century was a part of Soviet Union (and before that was part of the undeveloped Russian Empire) - a country that for the last 20



years was consumed by corruption and nepotism - not only are great apps born, but also great ideas for them. I know that my question "how can it be?" comes in part from my lack of knowledge about my neighbor (just to mention, I live in Poland) and stereotypes.

Oleksandr doesn't have a simple answer to my question. He is of the opinion that one very important factor is the quality of education. In his opinion, education and especially science education in Ukraine during its time as part of the Soviet Union was on a very high level. Over time, sadly, it got worse. However many people got an education from the old-school teachers, really passionate instructors who inspired students to develop themselves. Moreover, computers of all sorts were available in Ukraine in the past.



In one respect, MacPaw is an international company, with Ukrainians, Russians (like Dmitry Novikov, who designed CleanMyMac's logo and interface, is originally from one of the top secret towns in Russia) and Americans. On the other hand, as Oleksandr admits, the entire team believes in the new Ukraine. It is symbolized in a portrait of the greatest Ukrainian poet and bard of the 19th century - Taras Shevchenko - holding an iPhone in his hand.

The MacPaw team not only believes in the new Ukraine, they were actively fighting for it. The company has supported the ongoing revolution and Oleksandr was fighting Berkut (a very brutal special police and a successor of the Soviet OMON) with his friends on Maidan Nezalezhnosti (Independence Square) in Kiev.

Oleksandr also admits that the events that have happened in the past three years, like the invasion by the Russian Federation and the annexation of Crimea, caused a massive change in the thinking of many Ukrainians. People started to help each other, thinking and caring not only about themselves, but also about their countrymen. You can feel it not only in MacPaw's office, but also on the streets of Kiev.

Oleksandr recalls that before the revolution when the Ukrainian state was decaying, he was thinking about moving the company to the West. Now there is a light at the end of the tunnel and you can see the change of mentality of Ukrainians. MacPaw, at least for now, is not moving anywhere.

Photos of MacPaw office - Kiev: Krystian Kozerański
/ Oleksandr's own photo - Maidan, Kiev

Interview with PCalc's James Thomson



Jacek Zięba

James Thomson is a well-known iOS and OS X developer from Scotland. I had a chance to talk with him about development, new Apple solutions and adblocking. He offers not only great apps, but also very interesting views on many topics.

Hi James, could you introduce yourself and say a few words about your apps?

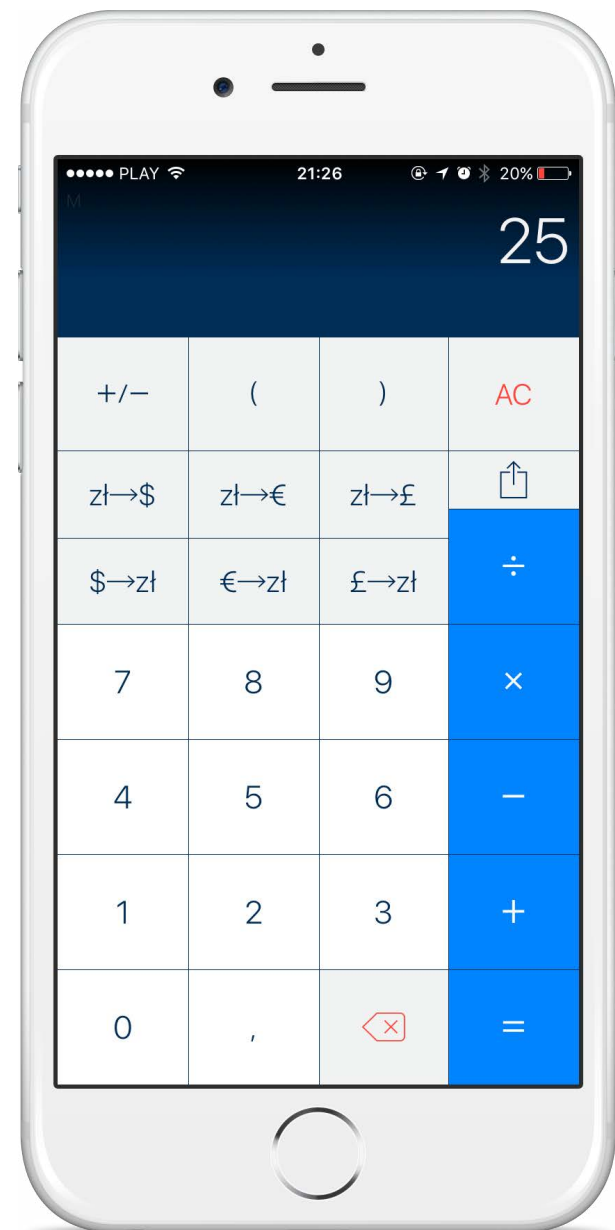
Hi there! Well, I've been writing software for the Mac for over 23 years, and iOS since day one. I'm best known currently for my scientific calculator **PCalc for iOS**, watchOS, and OS X, and previously for my Mac dock application DragThing. I worked briefly for Apple in the late Nineties, where I was part of the OS X Finder team, and wrote the original version of the OS X Dock. Which never actually shipped apart from in Mac OS X Developer Preview 3, where John Siracusa described it as a "total failure" in his review.

You decided that you're not going to create PCalc for Windows and Android. Why?

The core of PCalc is written in Objective-C, and makes use of a lot of Apple's APIs. For an Android port, that would mean I would need to rewrite all the code from scratch, which would be a lot of work. I don't have much experience with writing code in Java either, and to be honest, I have heard from fellow developers that it is a lot harder to sell premium software on Android. Both of those reasons mean that the work involved in creating an Android version would be unlikely to pay off for me.

Windows is a slightly more interesting proposition. Microsoft has recently introduced a porting layer that implements some of Apple's iOS on top of Windows. It might be possible to create a version of PCalc using that technology, although my understanding is that it's still quite early at the moment. Who knows, maybe I'll make a something for Windows one day, and I'll eventually have PCalc on my Xbox. But right now, I'm just focused on Apple's platforms.

I read your article about "social currency", advertising and ad blocking in **iMore.**



Your vision of the future is very apocalyptic. Do you have any ideas about how to fight ad blocking or finding alternative solutions for monetizing content on the web?

I think fighting ad blockers isn't going to work - a long technological and legal war between advertising companies and ad blocker companies is very likely though. I think the approach of sites like MacStories is interesting - they are asking users to pay directly to support their writing. Jason Snell has said he's considering doing something for Six Colors, and he also sells weekly sponsorship slots for the site. Giant Bomb is a video game site I like which has premium subscriptions to access exclusive content. Such an approach probably only works if you have a sizable and loyal audience already though,

and I don't know how well it will scale if every site does it. But I think it's important that creators can make a living somehow, otherwise there isn't going to be any decent content at all.

Certainly, I think many developers aren't charging enough to make their apps a long term sustainable business.

You wrote on Twitter that developers can earn money by selling relatively expensive apps. Do you think that apps should cost more in the “freemium and apps with ads era”?

Certainly, I think many developers aren't charging enough to make their apps a long term sustainable business. There are enough people with iOS devices out there that you don't need to solely target the mass market who seem to expect their software for free. You don't need to sell it to everybody, just enough people to make a living.

My adventure with programming (C++) ended when I finished high school, so I'm not into it anymore. What's your attitude to Swift and Objective-C? Which one of those should teenagers choose to learn?

That's a good question - Apple is encouraging developers to embrace Swift, and that's likely to be the future. It doesn't hurt to know some Objective-C as well, but if I had to pick one today I'd go for Swift. Of course, at this point, I haven't written a line of Swift code yet, so ask

me again in six months! Generally though, if you have learned one programming language, it's pretty easy to transfer those skills over to another language.

You are a longtime Mac and iOS user. What do you think about the latest Apple products and the direction in which Tim Cook is leading the company?

I'm very happy with the products - my Retina MacBook Pro is the best laptop I've ever owned, and likewise my iPhone 6S. Both El Capitan and iOS 9 seem to be noticeably more stable than last year's offerings. And Tim Cook seems to be making Apple more open than before - the new Apple TV SDK hardware was quite a pleasant surprise to developers, for example. So, I can't complain there. I do sometimes have frustrations with Apple's developer support - the iTunesConnect website in particular was being problematic earlier in the month just as many developers were trying to submit their iOS 9 and watchOS 2 apps. But they've just rolled out a new site, which already seems to be an improvement, so we shall have to wait and see.

Do you have any plans to build a new app?

Right now, I'm still working on updates for PCalc - I have a version for iOS due shortly that adds 3D Touch support for the new phones, and I'm looking at tvOS as well. After that will probably be the iPad Pro, and then I think I'll take a bit of a break over the festive season. We shall see what happens next year!

Thank you for the interview, James.

Thanks, I hope the answers are interesting!

Photos: James's private archive and PCalc screenshot

Through the lens of the soul



Kinga Zielińska

Moments, memories, sometimes hazy, sometimes as if they happened literally a while ago. Scents, sounds, images that left on us everlasting impressions, that changed who we are, inscribed eternal marks in our memory, just like a scar. We remember them once in a while, not necessarily when we want to. "The year 1990 / summer holidays by the lake", "The garden party", "The cousin's wedding". Albums, stamp albums, envelopes, empty chocolate and cigarette boxes filled with old photos, slides and negatives.

My childhood memories kick in when I look at old photographs, mostly slides. Back in those days the camera was used for special occasions only - baptisms, weddings, communions, great-grandma's 90th birthday, etc. We acted "happy", well dressed, often prim and artificial. Some of us even got

curls in our usually straight hair to look really up to the moment. All in all, it bore some hallmarks of paradoxical naturalness because no one thought the pictures could be "improved" after they were taken. And who was the photographer? A man possessing a secret knowledge of how to handle this super snap-

ping machine called the camera. Most often it was the father, uncle, brother, because what would a woman do with the camera? The fair sex representatives were primarily the subject of photographs, or rather a foreground or background for fountains, old buildings, cars, fish bars by the beach. Sometimes there was even the question “Has daddy really been with mum on these holidays in Bulgaria?” because he was always behind the camera. And today? Thanks to selfie photos we would not only know that daddy has been there with mom, but also that these holidays really suited them (thanks to good photo retouch applications).

When I upgrade my phone, I never take into account its water resistance, color or the size of the screen. What counts most of all to me is the quality of the built-in camera.

We take our smartphones everywhere these days — at least I do. Their business, financial, social networking, entertainment, navigation, multimedia, educational and fitness functions and abilities have proved it has nothing in common with a traditional land-line telephone that hung on the wall of every flat in 80’s multifamily residential buildings. Smartphones are our link with the world, thanks to which we give and receive, we are witnesses and participants, creators and consumers, photographers and models. Those of us who have lost a smartphone know this the best.

When I upgrade my phone, I never take into account its water resistance, color or the size



of the screen. What counts most of all to me is the quality of the built-in camera. I take photos very often in the most unusual and unexpected moments, in all lighting conditions, at any time of day or night, regardless of latitude and longitude. I crop them, cut, rotate, delete, some of them I share, most of them I keep on my phone, in the cloud, or on a computer.



Today's pictures are not just dignified images of special occasions with prepared and posing people, they're snapshots of our daily lives. A morning selfie with the new make-up, a coffee, a quick look from the car on the way to the office, a pile of papers at work, lunch in a fashionable cafe, a new dress in a dressing room, a still-life shot with a TV show with a foot and a glass of wine in the foreground, a colorful sunset, or the cover of a favorite book. Bits and pieces of each day running by, the moments that made them worth remembering.

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Photos: Kinga Zielińska

BookBook Covers

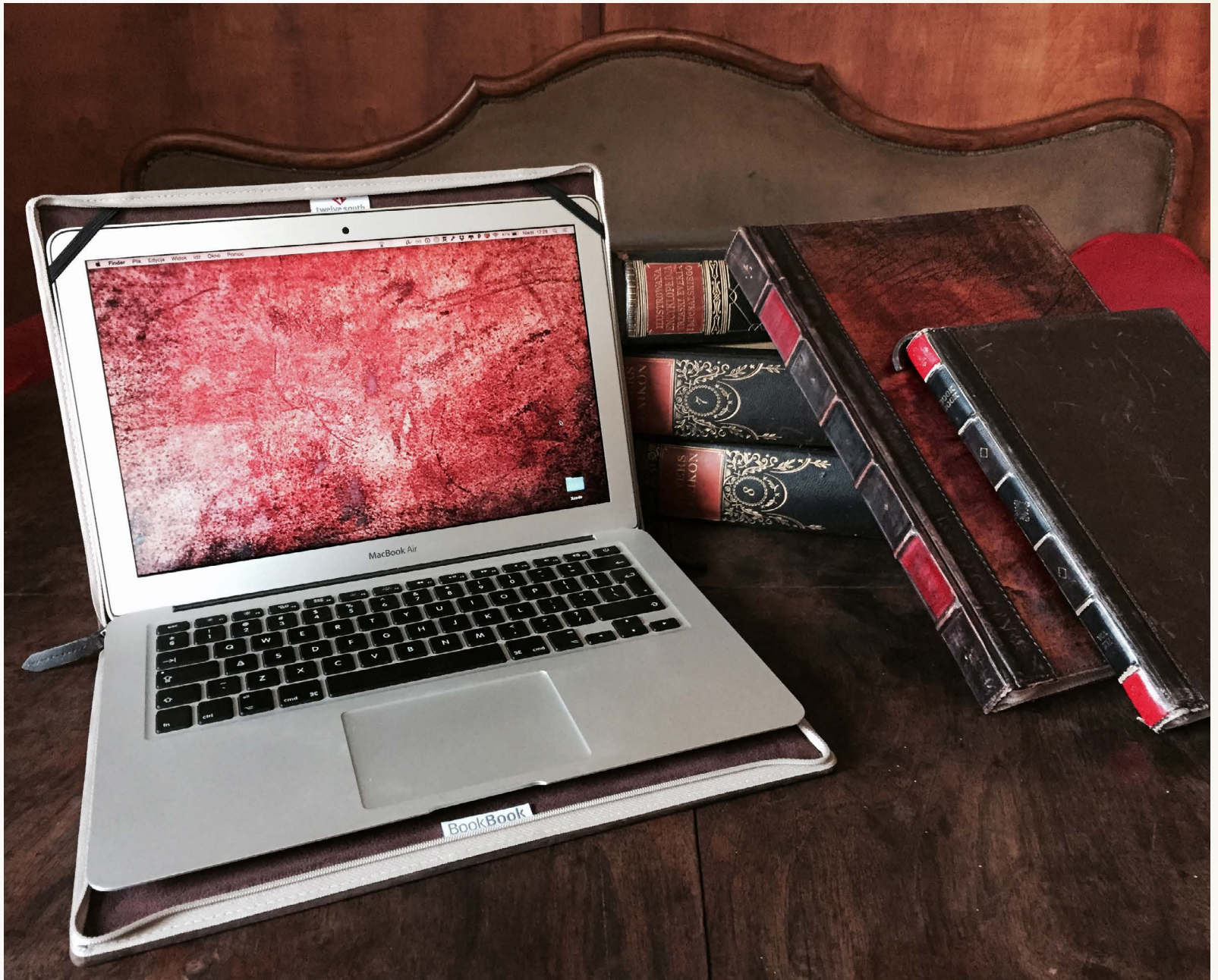
by TwelveSouth



Krystian Kozerawski

Leaving apart the incredible reliability of Apple products - a controversial topic for many, as there's a common opinion that Apple devices never break - one of the most renowned features of them is their minimalistic design. Apple products have been trendsetters for many years, starting with the Apple II and early Macintosh, as well as present day MacBooks, iMacs, MacBooks, iPads and iPhones.





Contrary to Apple's minimalistic design choices, I see a massive flow of cheap and usually ugly trash accessories like a large variety of cases, color headphones or earphones, keyboards, cables etc... those generic mass-produced items that are available in the market. Fortunately, there are notable exceptions like the BookBook cases by Twelve South.

Now these are certainly not accessories for purists mad about minimalism, on whose pure crystal-clear desks (with no coffee cup marks, of course!) there is almost nothing that is not absolutely necessary. I think they will be appreciated by people who like old stuff, antiques, especially old books. The MacBook or iPad made of cold, impersonal anodized aluminum will be hidden in a big bound volume with a leather finish.

Contrary to many MacBook and iPad covers of purely utilitarian function, that have to look nice and inexpressive, BookBook cases smell of leather and are eye-catching. They look like an old treasured book that is taken with care from the library shelf.

BookBook covers are antonyms of minimalism. They are works of art enclosing a utilitarian product that is also another work of art - that MacBook or iPad. Putting BookBook covers side by side with a collection of old books makes them hard to distinguish at first sight.

Both the front and back of each case, as well as spine of the cover, are finished with fine leather typical of old books with an embossed spine and printed name. BookBook covers

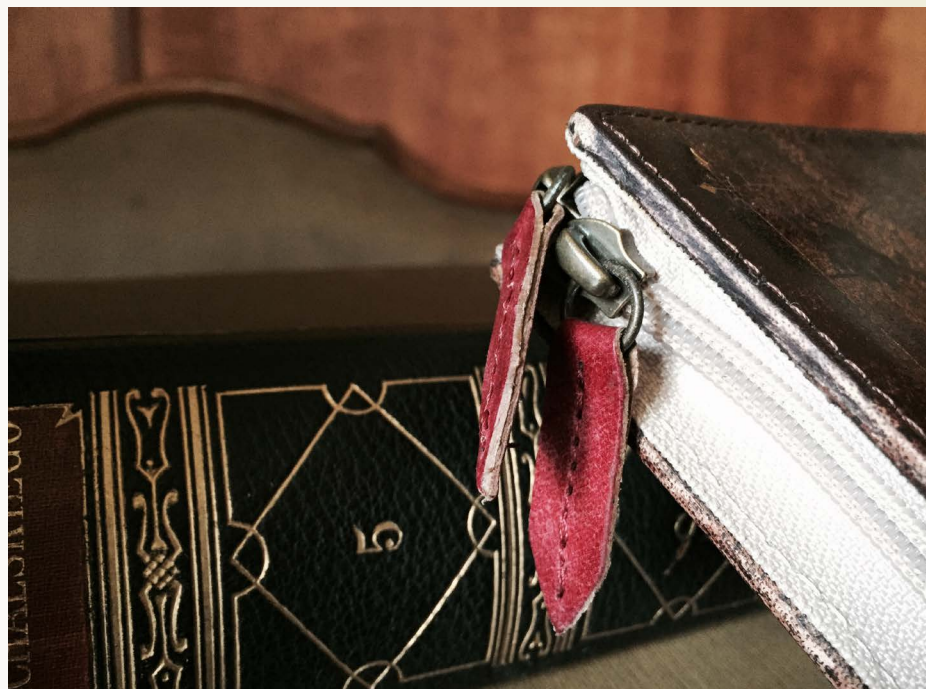
look as vintage as the late 19th and early 20th century books from my library.

There are two versions of finish used with the BookBook covers. One of them is a matte finish that will get more scratches and stains over months of use, making it appear even more vintage. The other finish uses a glossy colorless paint that more scratch proof.

The only piece of the cover that reveals its modern provenance is a zipper. However, it is not easily visible, mostly because of the color of the fabric resembles the color of old paper pages. The slider heads and pull tabs are equipped with leather straps for easier opening or closing.

Are there any disadvantages of the BookBook? That's a hard question to answer. Their specific form determines their functionality and features, some of which can be considered both as pros and cons.

Opposed to the minimalistic, inexpressive covers that are usually put aside after drawing the Mac or iPad out of a bag, BookBook covers are created to tantalize a user's senses not only while they're being carried, but also while you're working with the electronic device inside them. There's a kind of symbolic meaning in the connection between the BookBook cover and the computer. The personal computer and tablet made classic printed or handwritten books obsolete in many ways, taking over their function



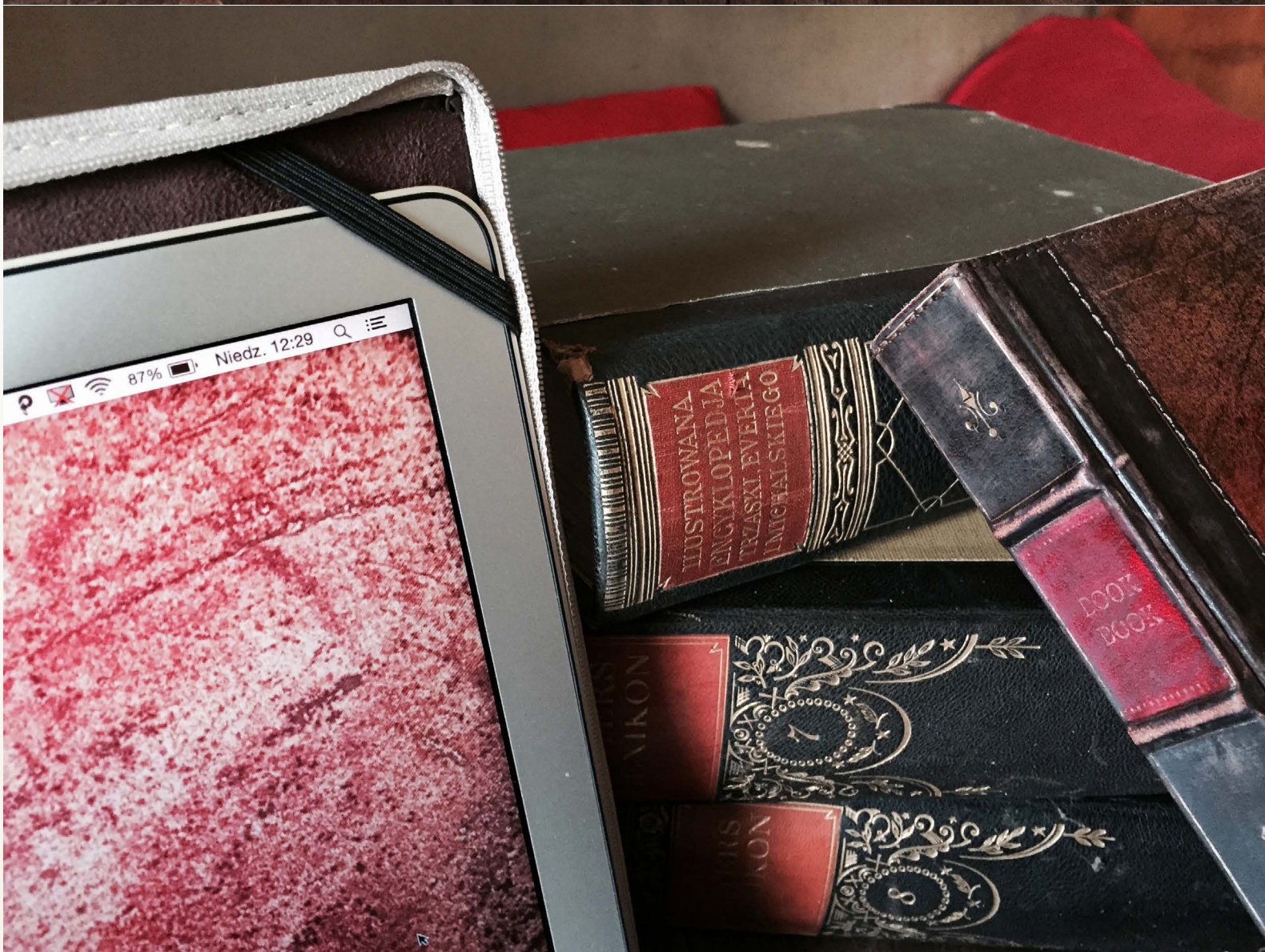
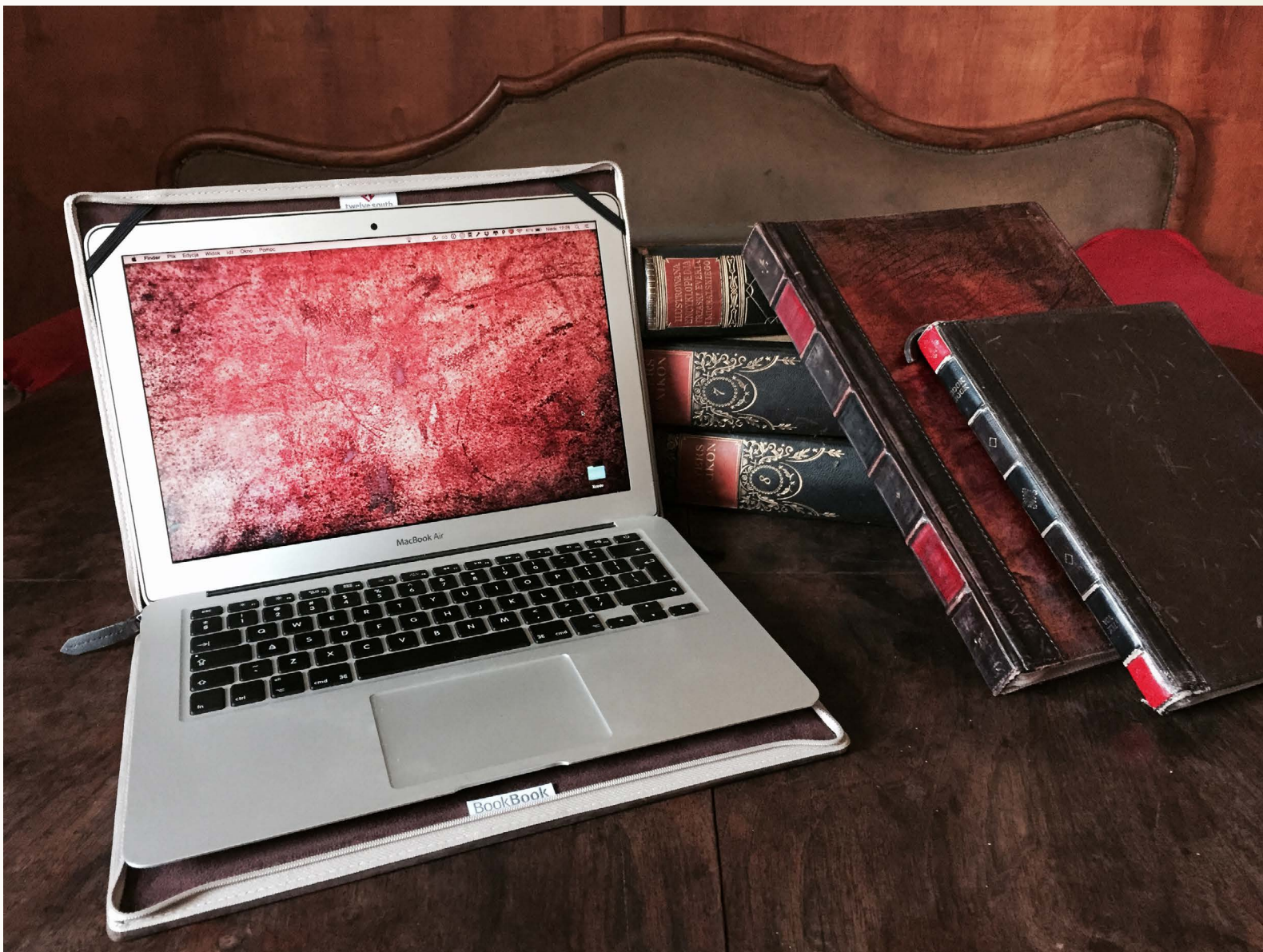
— you only need to open a text editor to write on its blank pages.

The inside of each BookBook cover is lined with velvet and thanks to that, both MacBooks and iPads are protected from scratches. For the MacBook covers, there are small ribbons that go over the top corners of the display. Thanks to those, the MacBook is stable in the cover, even when fully opened.

The design of the inside of the BookBook for iPad is a bit different. There is a special leather envelope into which the device slides. The case also tilts the iPad slightly to make it easier and more comfortable to use.

Are there any disadvantages of the BookBook? That's a hard question to answer. Their specific form determines their functionality and features, some of which can be considered both as pros and cons. They're heavier and bulkier than other cases or covers made of plastics or artificial fabrics. Using a BookBook on daily basis, you will have to accept the fact that it needs more space in the bag or on your desktop than your uncovered MacBook or iPad. BookBooks are not mere mass-market accessories for everybody, but rather for lovers of classic design and workmanship.

Photos: Krystian Kozerański





Hands-on Review:

The 12-inch Retina display MacBook



Dennis Sellers



I've been using the 12-inch MacBook for over five weeks. My conclusion: it's a good (if pricey) secondary Mac, but won't work as the main computer for anyone who tackles more than basic computing chores.

If you're looking for a laptop to complement your desktop, the MacBook is a fine choice. My primary computer is my 27-inch iMac (the best computer ever made, in my opinion). However, when I'm making a road trip or simply want to work in the sunroom at home, the latest Apple laptop comes in handy.

Once I began using the ultra-portable, I was immediately impressed with two things: its size and the Retina display. At just two pounds and 13.1 mm thick, it's hard to believe this is a full-fledged laptop. However, it is (well, with some compromises; more on that in a second). In terms of sheer svelte design, Apple has done an incredible job.

The MacBook display (with a 16:10 aspect ratio) is stunning and simply pops with clarity. Its physical resolution is 2304 by 1440 pixels. This means that, at standard "2x" retina resolution, it's the equivalent of a 1152×720 display. For some folks that's going to be too small.

That's why Apple ships the laptop with its default resolution scaled to emulate a 1280 x 800 display, which is about the same screen area as you'd find on an 11-inch MacBook Air. However, I prefer the More Space setting, which emulates a 1440×900 display (think 13-inch MacBook Air pixel size).

It took me a while to acclimate myself with the new keyboard and trackpad. The MacBook's keyboard is 34% thinner than those on other Mac laptops. It uses an Apple-designed butterfly mechanism that's 40% thinner than a traditional keyboard scissor mechanism.

Apple says the keyboard is four times more stable, "providing greater precision no matter where your finger strikes the key." New stain-

less steel dome switches located beneath each key deliver a responsive feel when typing with no "give" on the sides of the keys.

Since other keyboards wiggle a bit on the sides, this takes some getting used to. However, after about an hour, the new tactile experience had won me over. Also, every key on the new keyboard is individually backlit with its own single LED, which comes in handy in low (or no) light situations. (Alas, the Apple logo isn't backlit like with other Macs. You've been warned if that's important to you.)

The MacBook also features the all-new Force Touch trackpad that features built-in force sensors that allow you to click anywhere and haptic feedback that provides a responsive feel. This also requires a bit of adjustment, but it's a pleasure to use once you have made the adjustment. Unlike the hinge-based multitouch trackpad it replaces, Apple's Force Touch unit doesn't move, but the effect of simulated clicks is so convincing that you'll think it's moving.

You can even customize the feel of the trackpad by changing the amount of pressure needed to register each click. The Force Touch trackpad also enables a new gesture called Force Click. That's a click followed by a deeper press, and can be used for tasks like pulling up the definition of a word, quickly seeing a map or glancing at a preview of a file.



With no moving parts or vents, the new MacBook was designed from the ground up to be the first fanless Mac notebook. I expected it to get warm with long use. However, in work stretches of an hour or so, it's remained comfortable enough that it can sit on my uncovered legs without discomfort.

The MacBook features the new fifth-generation Intel Core M processor which sips power at just 5W, and the Intel HD Graphics 5300 graphics coprocessor.. This makes the MacBook very energy efficient, but means it's no powerhouse. Still, the MacBook is more powerful than I'd anticipated.

I can work with Pages, Safari, Mail, Pixelmator, and Calendar open simultaneously with no performance hits. iMovie also chugs along well. However, if you're a serious gamer, Final Cut Pro X user, or Photoshopper, move on along, cause the MacBook isn't for you.

For one thing I miss the MagSafe connector that comes with all other Mac laptops. Perhaps Apple thinks the MacBook will run long enough on a full battery charge...

The new laptop features a terraced battery design layered in individual sheets contoured to fit the MacBook's sleek, curved enclosure. Apple says the new portable has 35% more battery capacity than would be possible with traditional battery cells and delivers all-day battery life with up to nine hours of wireless web browsing and up to 10 hours of iTunes movie playback. I found the company's estimates to be spot-on.

Unfortunately, other things aren't so seamless with the MacBook. For one thing I miss the MagSafe connector that comes with all other Mac laptops. The connector is held in place magnetically so that if it's tugged — for example, by someone tripping over the cord — it will pull out of the socket without damaging the connector or the computer power socket, and without pulling the computer off the surface on which it's located.

Perhaps Apple thinks the MacBook will run long enough on a full battery charge that folks generally won't use the power cord when working with the MacBook. I think that's a poor assumption, but Apple has made the move because of the next-generation USB-C port.

It's a new industry standard, USB-C supports higher wattage charging, USB 3.1 Gen 1 (5Gbps) data transfer and DisplayPort 1.2 all in a single connector that's one-third the size of a traditional USB port. It's the word "single" that's the key here. Sharing a single port for all accessories as well as the power cord will be frustrating if you're using the MacBook as your main computer.

If you're using it as a secondary, supplemental Mac, the 12-inch MacBook is a solid choice. However, if you're a "power user," don't plan on making this your main Mac.

The MacBook is available in three finishes—gold, silver and space gray (the one I chose)—and is the first MacBook with an all-metal enclosure. It comes with a 1.1 GHz dual-core Intel Core M processor with Turbo Boost speeds up to 2.4 GHz, 8GB of memory, 256GB of flash storage and Intel HD Graphics 5300 starting at US\$1,299 and with a 1.2 GHz dual-core Intel Core M processor with Turbo Boost speeds up to 2.6GHz, 8GB of memory, 512GB of flash storage and Intel HD Graphics 5300 starting at \$1,599.

Photos: Apple Press Kit

Lifeproof frē power

for iPhone 6 / 6s



Krystian Kozerawski

LifeProof cases are known worldwide as a range of hard cases for protecting iPhones from scratches, dust, sand and water. One of the best cases of the range is the LifeProof FRĒ that keeps the iPhone nestled tight inside of protective armor. It's probably the best solution for people who use their iPhones under adverse conditions like working outside in rain and mud, or enjoying holidays on a beach or trekking in the hills.



There are a lot of situations in which our iPhones need protection: camping in the forests or mountains — and I am not talking about a gentle walk in the park — or kayaking on a wild river. Under such conditions and in such places, proper protection is an absolute must. When far away from the civilized world, there's another concern we need to address - a lack of electricity. Sure, there are external battery packs, but we have to remember to put those into a backpack or bag. Luckily there is a solution that addresses both the need for protection and for extra power - the LifeProof FRĒ Power.

The new armor resembles an older LifeProof FRĒ in most respects. There is a waterproof, hard plastic case made of two tightly interlocking pieces. The front of the case is equipped with a thick plastic shield that protects the iPhone display. The Home button with Touch ID is protected with a bit softer shield that allows a user's fingerprints to be scanned.

Sadly, this type of protection usually lowers the user experience. The thick plastic shield doesn't stick tightly to the iPhone screen as it doesn't use an adhesive of any sort.



While using the iPhone's touchscreen, I could feel the gap between the the iPhone and the shield itself and had to press much harder than I usually do. There's also another con - the clear plastic shield doesn't have a good antireflection layer. In bright sunlight it's hard to see what is on the iPhone screen as the light is reflected both by the shield and the screen.

After the case is snapped together onto the iPhone, it has no openings except for the speakers and microphones which have their own waterproofing. The LifeProof

FRĒ Power provides pass-through volume and sleep buttons, as well as a covered mute switch. That latter switch presents some problems during installation, as it's necessary to make sure it's aligned with the switch on the iPhone.

There's also a waterproof cover for the power port. Instead of using a Lightning connector like the iPhone, the LifeProof FRĒ Power uses a common micro-USB cable so your more expensive Lightning cables can stay at home in the drawer. For the earphone port, there's a special plug to waterproof it and also an extension adapter that can be plugged in.

The back side of the case has a battery level indicator, as well as a button to activate the indicator or start charging the iPhone. It goes without mentioning that the camera lens and flash are also protected with a clear plastic cover.

I have tested this case under many different conditions. My iPhone 6, protected by the LifeProof FRĒ Power, landed in water and sand many times without a scratch. That's not a surprise, since all LifeProof armor cases I have used in the past also did their job admirably.

There is also one more important factor to consider: both the LifeProof FRĒ and LifeProof FRĒ Power are some of the best-looking protective armor cases made for iPhones.

If you're looking for the best protection for your iPhone and need the occasional power boost as well, the LifeProof FRĒ Power is one of the top choices in this genre of case.

Photos: Producer's Press Kit



Home Automation

with Smart Devices and Apple's HomeKit



Steve Sande

Futurists have always dreamed of the day when the home could be controlled with simple voice commands. That day is coming soon, thanks to home automation standards, connected devices, and Apple's HomeKit framework. This article describes the current state of controllable devices and how HomeKit works with a growing number of them to make controlling your home through Siri a reality.



Almost any electric appliance can be turned on and off remotely using today's home automation devices and apps. Home lighting was the first focus of automation vendors, with Philips releasing the colorful [Hue light-bulb](#). Through an iOS app, the color and intensity of the light can be controlled. The Hue range has increased in size over the years and, more importantly, will be supported by Apple HomeKit later in 2015.

Since the Hue, more “smart bulbs” have been released by a growing number of manufacturers. [Belkin's WeMo](#) home automation line includes bulbs from [Osram](#), [Sylvania](#), and [TCP](#), and the [Cree Connected](#) lightbulb also works with WeMo. Most lights of this type require a home automation hub, and starter kits are available that include a hub and two or more bulbs.

For those who wish to use existing lamps or lightbulbs, control is still possible through switches that plug into existing wall outlets and provide one or two controllable outlets. Belkin's WeMo switches don't require a special hub — they are just plugged in, then configured and controlled through the WeMo app. Other switches can replace existing wall switches and outlets, but require the ability to work with electrical wiring.



Part of the dream of home automation is to have your house become aware of you and your environment. That is where sensors come into the story. Motion sensors can determine when someone has entered a room, and the [Netatmo Welcome](#) even uses facial recognition to determine who the person is. Door and window sensors can inform you of the open or closed state of a door or window, important for home security. Other sensors track temperature, humidity, CO₂ or CO levels, sound levels, and other environmental sensors in your home. Moisture sensors can tell you when a water pipe is broken or a basement is flooded, although you may not want to get that information when you're on a vacation!



Smart thermostats take that temperature data and control your heating and cooling for the most efficient use of electricity. Devices like the [Nest Thermostat](#) and [Honeywell's Lyric Thermostat](#) can be remotely controlled, or even adjust temperatures up or down when you're away from home to save energy.

The [Nest Protect](#) brings automation and notification to a common household device — the smoke detector. It also protects households from the dangers of carbon monoxide poisoning.

In terms of security, the sensors can work in tandem with electronic locks. Locks like the [August Smart Lock](#) can be unlocked or locked from anywhere in the world through a home hub, while others like the [Kevo Smart Lock](#) use Bluetooth to communicate with your iPhone and work only in the near vicinity of the lock. It is possible to send an electronic "key" to others who may need access to your home.

Garage door openers and sensors can provide notification of whether or not a garage door is open, and close it automatically under certain conditions. Just last year, I personally used a [WeMo Maker Switch](#) to retrofit a 25-year-old garage door opener so that it can be opened or closed with my iPhone.

Kitchen appliances are getting connected, too! The [Mr. Coffee Smart Optimal Brew Coffee maker](#) and [Crock-Pot Smart Slow Cooker](#) use the Belkin WeMo app for control. For once, setting a weekly coffee brewing schedule is made simple through an app and it's possible to turn down the temperature on the slow cooker if you're delayed in getting home. Other smart appliances include room air conditioners, heaters and humidifiers.

My favorite home automation device of 2014 was the [Rachio Iro](#) smart internet-connected sprinkler controller. Not only did it save me money last year by checking local weather conditions before adjusting the sprinkling times, but the intelligent timing algorithms also ended up giving me the best-looking lawn I've had in years.

The big thing to think about before purchasing all of the bits and pieces for a home automation system is how they will work together. Fortunately, there are some standards that exist and that make it easier to determine which items will easily work with one hub or another. Zigbee is one standard that's used to create mesh networks of compatible devices, Z-Wave is another, and Insteon is yet another. Many of the automation hubs

on the market also support both Zigbee and Z-Wave, as well as other standards.

There are also methods of linking differing systems through software. Probably the most common is [If This Then That](#), which lets users create their own “recipes” with certain triggers and actions. A lot of the home automation companies support IFTTT, so it’s easy to do something like create a recipe to turn off all lights – even those controlled by different standards – in your home with one command.

For those who use Apple devices, the HomeKit framework will be the standard to tie all of the devices together and make them easily accessible through compatible apps and Siri. Many of the devices currently on the market are being made compatible with HomeKit, and home automation device manufacturers will have a huge incentive – a large market full of iOS devices – to adapt future products to the HomeKit framework.

HomeKit’s overriding benefit is that it makes control possible through Siri voice commands. As outlined in an [Apple support article](#), pairing your iOS device with any HomeKit-enabled accessory is fast and easy. Once that’s done, devices can be grouped in homes, zones, rooms or scenes. Individual devices will be controllable with a voice command like “Turn the temperature up to 22°C”, or a number of devices can be controlled through those pre-defined groupings – “Turn on the living room lights” or “Shut off all lights in the mountain cabin.”

What’s the easiest way to get started with home automation? Purchase a well-known existing device that fits your needs, like WeMo switches, CREE, Hue or TCP light bulbs, or a Nest Thermostat. Make sure that the device is either equipped with the “Works with HomeKit” certification or that the manufacturer has publicly announced support for HomeKit. Then load the controlling app for your device from the App Store, pair your device and your iPhone or iPad, and begin to have fun with the world of home automation.

Photos: Producers’s Press Kit



Growing up with computers



Steve Sande

The one thing I really love about my life right now is my age - 58 years old. I was born just two weeks before the first Sputnik ushered in the Space Age, I followed all of the American Mercury, Gemini, and Apollo spaceflights with intense concentration, and reveled at the sight of my fellow human beings walking on the Moon for the first time in July of 1969. At the same time, I was a witness, among with others of my generation, to the rise of the computer age -- specifically, the personal computer age.



MITTS

BUILDING YOUR OWN COMPUTER WON'T BE A PIECE OF CAKE.

(But, we'll make it a rewarding experience.)

Chances are you won't be able to assemble the *Altair 8800 Computer* in an hour or two. But, that's only because the *Altair* is a real, full-blown computer. It's not a demonstration kit.

The *Altair Computer* is fast, powerful, and flexible. Its basic instruction cycle time is 2 microseconds. It can directly address 256 input and 256 output devices and up to 65,000 words of memory.

Thanks to buss orientation and wide selection of interface cards the *Altair 8800* requires almost no design changes to connect with most external devices. Up to 15 additional cards can be added inside the main case.

The *Altair Computer* kit is about as difficult to assemble as a desktop calculator. If you can handle a soldering iron and follow simple instructions, you can build a computer.

You see, at *MITTS*, we want your experience with our kits to be rewarding. That's why we take such pains to write an accurate, straight-forward assembly manual. One that you follow step-by-step. (We leave nothing to the imagination.)

Some electronic kit companies are experts at cutting the corners. They promise you the sky and deliver a box full of surplus parts and a few pages of faded instructions run off on their copying machine.

We're experts at **not** cutting the corners. Our *Altair Computer* has been designed for both the hobby and the industrial market. It has to be constructed of the finest, quality parts. And it is.

That's why we give you double-sided boards, gold-plated connectors, a 10 Amp power supply (enough to power 15 additional cards), toggle switches and an all aluminum case complete with sub-panel and detachable dress panel.

That's why we give you three manuals (Assembly, Operator's and Trouble-shooting) in a hard-cover, 3 ring binder plus an Assembly Hints manual.

Buy our computer and we'll automatically make you a member of the *Altair User's Group*. You'll have access to a whole range of custom software designed exclusively for the *Altair 8800*.

We're quite serious about making computer power available to you at a price you can afford.

BASIC ALTAIR AND OPTIONS

The basic *Altair 8800 Computer* includes the CPU, front panel control board, front panel lights and switches, power supply and expander board (with room for 3 extra cards) all enclosed in a handsome, aluminum case.

Options now available include 4K dynamic memory cards, 1K static memory cards, parallel I/O cards, three serial I/O cards (TTL, RS232, and TTY), octal to binary computer terminal, 32 character alpha-numeric display terminal, ASCII keyboard, audio tape interface, floppy disc system, and expander cards.



PRICES: Altair Computer Kit with complete assembly instructions \$439.00
Assembled Altair Computer \$621.00
1,000 word static memory cards \$176.00 kit & \$209.00 assembled.
4,000 word dynamic memory card \$264.00 kit & \$338.00 assembled.

NOTE: Altair Computers come with complete documentation and operating instructions. Altair customers receive software and general computer information through free membership to the Altair User's Club. Software now available includes a resident assembler, system monitor, text editor, and Basic compiler.
Prices and specifications subject to change without notice. Warranty: 90 days on parts for kits and 90 days on parts and labor for assembled units.

MITTS/6328 Linn N.E., Albuquerque, N.M., 87108, 505/265-7553

MAIL THIS COUPON TODAY!

☐ Enclosed is a Check for \$ _____
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Include \$8.00 for Postage and Handling
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MAY 1975
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Circle 16 on reader service card

When I was a child, I remember looking out the car window as my Dad drove past the IBM sales office in Denver, Colorado, where there were actual computers on display! Dad worked for United Airlines back in those days, at its Denver flight training center, and he got to work with -- at the time -- state of the art computers and visual systems. So I had a deep fascination with computers, the thinking machines of our age, which I knew would only get smarter and smarter as time went by - I mean, that's what I saw on the original episodes of *Star Trek* I watched between 1966 and 1969, so it had to be true!

In the late 60s, like many of my fellow nerds, I became a big fan of model rocketry. I was actually quite good at it, running a local club, teaching other kids the ins and outs of rocketry, math and physics, and even competing on a national level as a member

of the U.S. [National Association of Rocketry](#) (NAR). As I progressed in my skills at rocketry, I kept wondering what it would be like to actually be on that rocket, so I eagerly bought and used the early film-based still and movie rocket cameras of the time.

One day in late 1969, I read an article in the NAR's monthly magazine in those days, *Model Rocketry*, about a company in Albuquerque, New Mexico called "[Micro Instrumentation and Telemetry Systems](#)" or MITTS. They were going to design and build actual electronic payloads for those rockets -- in other words, taking my little model rockets and turning them into actual scientific sounding rockets of a sort. I ended up buying and building a MITTS kit to send simple telemetry -- roll rate and acceleration -- and flew it successfully on a number of model rocket missions. But that wouldn't be my only expe-

rience with a MITS product, and it was MITS that really launched the personal computer revolution.

Fast forward to December of 1974. By this time, I had graduated from high school and was a freshman [civil engineering student at the University of Colorado](#). My father was subscribing to Popular Electronics magazine at the time, and during my winter break from college I remember picking up the January, 1975 issue and being transfixed. The magazine featured a cover article about a computer from MITS -- the Altair 8800, essentially the first really affordable personal computer.

There was something quite satisfying about the electronics kits of that time... An emerald green board laced with copper traces, with chips, resistors, capacitors, and other components neatly lined up can be beautiful, especially when it is literally mingled with your own blood, sweat and tears.

Like many leading-edge electronic products of the time, the Altair 8800 came in kit form. You bought a kit of parts, then soldered them together and hoped that everything worked. Now even at the price of \$439 for the basic kit back in those days, I couldn't afford it. But a friend of mine who was an electrical engineering student, Rick, came from a family with a little money and with a combination

of my enthusiasm, my promise to help him build the kit, and his checkbook, we bought one of the Altair kits. When it showed up at his dorm room a few weeks or months later (it seemed like it took forever), I remember being somewhat disappointed. Here was a computer that was equivalent to the Data General NOVA that was used in labs and offices around the world at the time, but it was just a metal case, a bunch of switches and red LEDs, and a pile of electronic components. Rick and I spent a weekend sorting parts (we were actually short a few critical chips, so we had to get them from a local electronics shop), and then started spending hours after doing our homework sitting at the desks in his dorm room soldering chips onto a printed circuit board.

There was something quite satisfying about the electronics kits of that time; you learned how to solder microprocessor pins quite accurately, you learned the importance of grounding yourself before handling the microprocessors (we destroyed a few with static...), and slowly but surely the printed circuit board became a thing of beauty. An emerald green board laced with copper traces, with chips, resistors, capacitors, and other components neatly lined up can be beautiful, especially when it is literally mingled with your own blood, sweat and tears.

Once Rick and I were done with our soldering, we were ready to test the system. At the time, we had an 256-byte system. Two hundred and sixty-five bytes. Think about that. We didn't have the money at the time to purchase a memory expansion card, so we were stuck with one quarter of a kilobyte of working memory. Nonetheless, we were able to test our work by entering some simple machine language programs by flipping the little switches on the front of the Altair 8800, then viewing the results on the bright red LEDs that were on the front of the case.

I don't remember much of the convention thanks to sleep deprivation, too many beers... But there were some highlights, one being going to a table where a guy named Bill Gates who had started a company called Micro-Soft (original spelling)...

Not. Very. Exciting.

But we knew we had a working computer, so we saved up our dollars and eventually bought two very important accessories: a used (and quite beat-up) [Teletype Model 33 ASR](#) terminal with a punch-tape reader/writer that we got for a steal for \$300 in a rather shady deal (they were going for \$700 new) and a \$264 8K memory board. There was no way we could afford an actual CRT display like the [ADM-3A](#). By the way, if my parents knew that a lot of my savings from my odd jobs at the time was going to buy a computer? They would have killed me...

With those two items added to the Altair, we had a way of typing in input, reading it in through paper tape, and getting output on the printer. Of course, in the junior and senior high schools that Rick and I attended, we had a similar setup that used a 300-baud dial-up connection to a [PDP-8](#) and a [Nova](#), so we were very familiar with how this worked. But this was OUR computer, not one owned by a school system!

Typing in machine code got really boring after a while, as did the horrible output we printed out slowly on the Model 33. So our interest in the Altair flagged for a while un-

til something interesting happened in March of 1976 -- the first (and ultimately, the only) World Altair Computer Convention in Albuquerque! We were only about a seven-hour drive away, and without our parents knowing, we loaded our Altair and the Model 33 (minus its heavy rolling base) into Rick's van and drove to the convention.

I don't remember much of the convention thanks to sleep deprivation, too many beers, and some bad Tex-Mex food that kept me away from the show floor for a while. But there were some highlights, one being going to a table where a guy named Bill Gates who had started a company called Micro-Soft (original spelling) was selling copies of a **BASIC** interpreter that worked on the Altair 8800. I think pretty well tapped out my wallet at the time to buy a copy, but BASIC was a programming language that I knew, having used it in junior high, high school, and college before moving on to [Fortran](#).

I am not happy to reveal what Rick and I did that evening with our copy of Micro-Soft Altair BASIC. Since the Altair 8800 we had built was tied to that clunky electromechanical Teletype Model 33, we were able to figure out a way to read the paper tape we had purchased into the Altair, then punch out copies of the interpreter onto blank paper tape we had on hand. Ummm, let's just say that several of our closest friends back in Boulder got free copies of Micro-Soft Altair BASIC when we got back.

Meanwhile, back in Boulder, we were beginning to see the ripples of a computer revolution. There was now a computer store - I'll be darned if I remember if it was a Byte Shop or one of the other many failed early attempts at creating a retail computer chain - and it was there that in 1978, not long before graduating with my Bachelor of Science degree in Civil Engineering -- that I saw my first Apple II.



It was gorgeous. It didn't require any assembly. It had a manual! It could connect to a color television! You could buy a relatively cheap disk drive to go with it for data storage (the one for the Altair had sold for some ridiculous amount like \$2,000, so it was just a dream to poor college students). But for a new engineer who was going to make a whopping \$16,000 a year at his first job, buying a \$1,298 computer was completely out of the question... especially when you were planning on getting married to that lovely electrical engineer you had been madly in love with since 1976 and wanted to buy a house...

I'm a bit of an anachronism in today's tech blogging world, and I'm sometimes wonder if my relevance has begun to fade away. I will always cherish the fact that I have grown up with the personal computer instead of knowing of these miraculous devices...

Needless to say, it would be six years before I bought my first Apple product - a [Macintosh 512K](#). To say that my life changed at that point is an understatement. It's hard for me

to believe that 31 years later, I have spent most of my adult life as an evangelist, tech support consultant or writer for Apple products. Now that the company is worth about \$650 billion dollars and commands an amazing market share for smartphones and tablets, and it the only company seeing growth in personal computer sales, those days when you had to build your own personal computer to do virtually nothing seem very far away.

My friend Rick died a few years ago of the same disease that killed Steve Jobs -- pancreatic cancer. Rick had spent his career designing low-power chips that would eventually launch the smartphone revolution. A few years before he passed on, we talked about our days in college, the MITS Altair (which had sadly disappeared during a move), and the strange paths our lives had taken between launching model rockets with little transmitters inside them to the present day.

Let's face it; I'm a bit of an anachronism in today's tech blogging world, and I'm sometimes wonder if my relevance has begun to fade away. I will always cherish the fact that I have grown up with the personal computer instead of knowing of these miraculous devices as just another commodity that you can pick up online or at a store. What I really look forward to, though, is what miracles of technology I'll be able to see in the time left I have on Earth.

Photos:
1 - Rama & Musée Bolo / Wikipedia
2 - MITS Altair 8800 Commercial / Wikipedia
3 - Jonathan Zuffi, <http://iconicbook.com>

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