

Engineering Windows 7

Welcome to our blog dedicated to the engineering of Microsoft Windows 7

User Account Control

We promised that this blog would provide a view of Engineering Windows 7 and that means that we would cover the full range of topics—from performance to user interface, technical and non-technical topics, and of course easy topics and controversial topics. This post is about User Account Control. Our author is Ben Fathi, vice president for core OS development. UAC is a feature that crosses many aspects of the Windows architecture—security, accounts, user interface, design, and so on—we had several other members of the team contribute to the post.

We continue to value the discussion that the posts seem to inspire—we are betting (not literally of course) that this post will bring out comments from even the most reserved of our readers. Let's keep the comments constructive and on-topic for this one.

FWIW, the blogs.msdn.com server employs some throttles on comments that aim to reduce spam. We don't control this and have all the "unmoderated" options checked. I can't publish the spam protection rules since that sort of defeats the purpose (and I don't know them). However, I apologize if your comment doesn't make it through. --Steven

User Account Control (UAC) is, arguably, one of the most controversial features in Windows Vista. Why did Microsoft add all those popups to Windows? Does it actually improve security? Doesn't everyone just click "continue"? Has anyone in Redmond heard the feedback on users and reviewers? Has anyone seen a tv commercial about this feature?

In the course of working on Windows 7 we have taken a hard look at UAC – examining customer feedback, volumes of data, the software ecosystem, and Windows itself. Let's start by looking at why UAC came to be and our approach in Vista.

The Why of UAC

Technical details aside, UAC is really about informing you before any "system-level" change is made to your computer, thus enabling you to be in control of your system. An "unwanted change" can be malicious, such as a virus turning off the firewall or a rootkit stealthily taking over the machine. However an "unwanted change" can also be actions from people who have limited privileges, such as a child trying to bypass Parental Controls on the family computer or an employee installing prohibited software on a work computer. Windows NT has always supported multiple user account types – one of which is the "standard user," which does not have the administrative privileges necessary to make changes like these. Enterprises can (and commonly do) supply most employees with a standard user account while providing a few IT pros administrative privileges. A standard user can't make system level changes, even accidentally, by going to a malicious website or installing the wrong program. Controlling the changes most people can make to the computer reduces help desk calls and the overall Total Cost of Ownership (TCO) to the company. At home, a parent can create a standard user account for the children and use Parental Controls to protect them.

However, outside the enterprise and the Parental Controls case, most machines (75%) have a single account with full admin privileges. This is partly due to the first user account defaulting to administrator, since an administrator on the machine is required, and partly due to the fact that people want and expect to be in control of their computer. Since most users have an Administrator account, this has historically created an environment where most applications, as well as some Windows components, always assumed they could make system-level changes to the system. Software written this way would not work for standard users, such as the enterprise user and parental control cases mentioned above. Additionally, giving every application full access to the

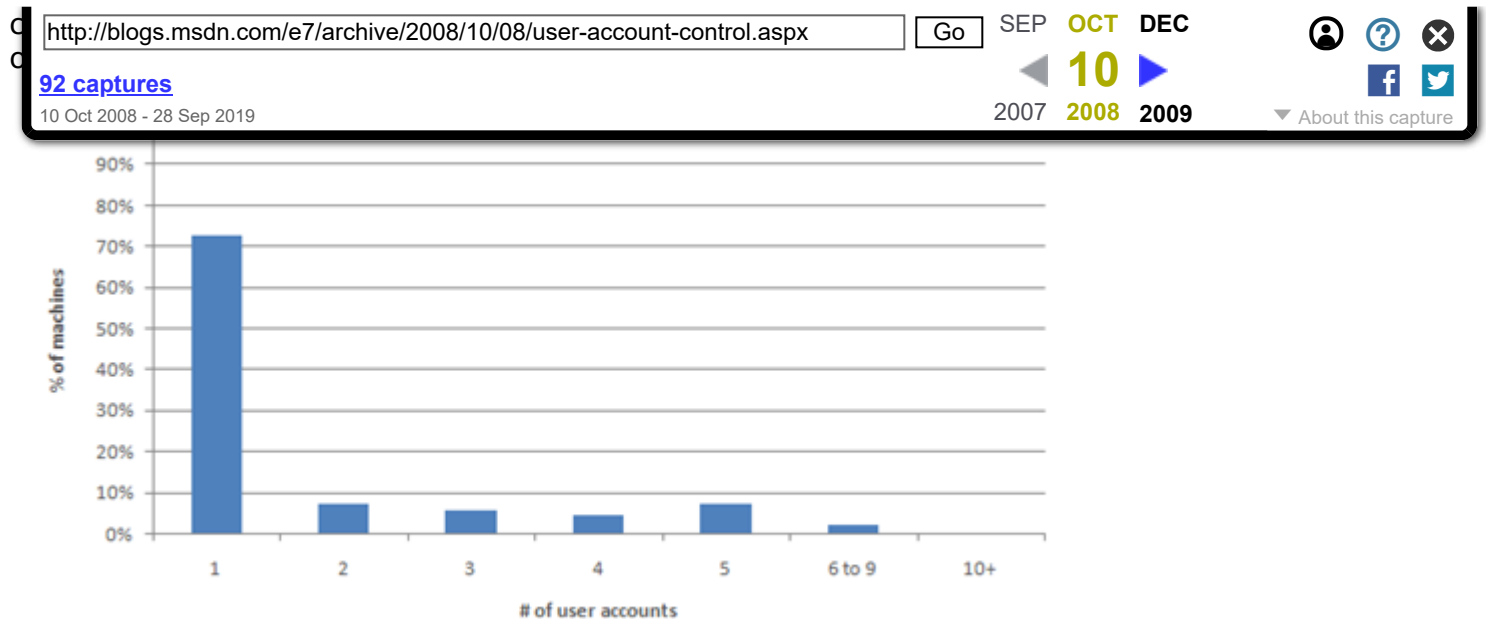


Figure 1. Percentage of machines (server excluded) with one or more user accounts from January 2008 to June 2008.

User Account Control was implemented in Vista to address two key issues: one, incompatibility of software across user types and two, the lack of user knowledge of system-level changes. We expanded the account types by adding the Protected Admin (PA), which became the default type for the first account on the system. When a PA user logs into the system, she is given two security tokens – one identical to the Standard User token that is sufficient for most basic privileges and a second with full Administrator privileges. Standard users receive only the basic token, but can bring in an Administrator token from another account if needed.

When the system detects that the user wants to perform an operation which requires administrative privileges, the display is switched to “secure desktop” mode, and the user is presented with a prompt asking for approval. The reason the display is transitioned to “secure desktop” is to avoid malicious software attacks that attempt to get you to click yes to the UAC prompt by mimicking the UAC interface (spoofing the UI.) They are not able to do this when the desktop is in its “secure” state. Protected Admin users are thus informed of any system changes, and only need to click yes to approve the action. A standard user sees a similar dialog, but one that enables her to enter Administrative credentials (via password, smart card PIN, fingerprint, etc) from another account to bring in the Administrator privileges needed to complete the action. In the case of a home system utilizing Parental Controls, the parent would enter his or her login name and password to install the software, thus enabling the parent to be in control of software added to the system or changes made to the system. In the enterprise case, the IT administrator can control the prompts through group policy such that the standard user just gets a message informing her that she cannot change system state.

What we have learned so far

We are always trying to improve Windows, especially in the areas that affect our customers the most. This section will look at the data around the ecosystem, Windows, and end-users—recognizing that the data itself does not tell the story of annoyance or frustration that many reading this post might feel.

UAC has had a significant impact on the software ecosystem, Vista users, and Windows itself. As mentioned in previous posts, there are ways for our customers to voluntarily and anonymously send us data on how they use our features (Customer Experience Improvement Program, Windows Feedback Panel, user surveys, user in field testing, blog posts, and in house usability testing). The data and feedback we collect help inform and prioritize the decisions we make about our feature designs. From this data, we’ve learned a lot about UAC’s impact.

<http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx>

 SEP OCT DEC
 10
 2007 2008 2009

92 captures
 10 Oct 2008 - 28 Sep 2019

About this capture

the risks inherent in software on a machine which requires full administrative access to the system.

In the first several months after Vista was available for use, people were experiencing a UAC prompt in 50% of their "sessions" - a session is everything that happens from logon to logoff or within 24 hours. Furthermore, there were 775,312 unique applications (note: this shows the volume of unique software that Windows supports!) producing prompts (note that installers and the application itself are not counted as the same program.) This seems large, and it is since much of the software ecosystem unnecessarily required admin privileges to run. As the ecosystem has updated their software, far fewer applications are requiring admin privileges. Customer Experience Improvement Program data from August 2008 indicates the number of applications and tasks generating a prompt has declined from 775,312 to 168,149.

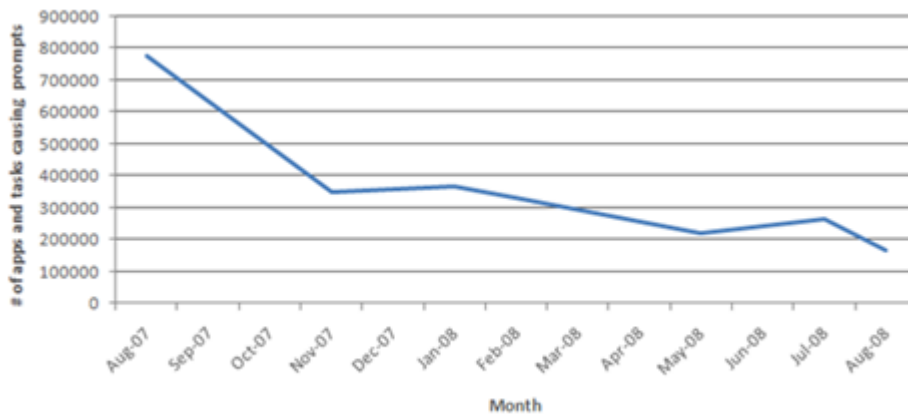


Figure 2. Number of unique applications and tasks creating UAC prompts.

This reduction means more programs work well for Standard Users without prompting every time they run or accidentally changing an administrative or system setting. In addition, we also expect that as people use their machines longer they are installing new software or configuring Windows settings less frequently, which results in fewer prompts, or conversely when a machine is new that is when there is unusually high activity with respect to administrative needs. Customer Experience Improvement Program data indicates that the number of sessions with one or more UAC prompts has declined from 50% to 33% of sessions with Vista SP1.

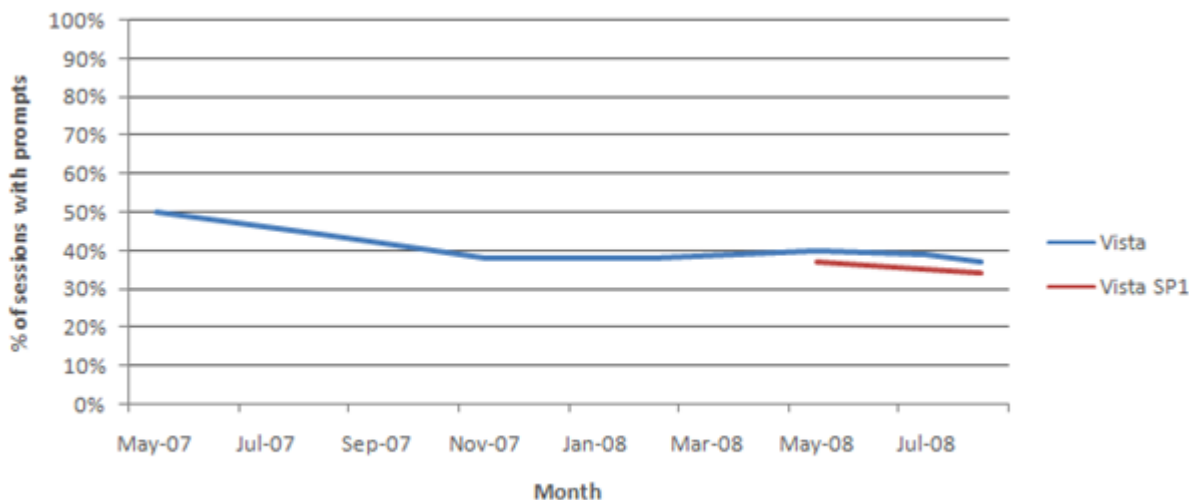


Figure 3. Percentage of sessions with prompts over time.

Impact on Windows

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx Go SEP OCT DEC 10 2007 2008 2009 About this capture

92 captures

10 Oct 2008 - 28 Sep 2019

look at the most frequent prompts: Windows components accounted for 17 of the top 50 UAC prompts in Vista and 29 of the top 50 in Vista SP1. Some targeted improvements in Vista SP1 reduced Windows prompts from frequently used components such as the copy engine, but clearly we have more we can (and will) do. The ecosystem also worked hard to reduce their prompts, thus the number of Windows components on the top 50 list increased. Windows has more of an opportunity to make deeper architectural changes in Windows 7, so you can expect fewer prompts from Windows components. Reducing prompts in the software ecosystem and in Windows is a win-win proposition. It enables people to feel confident they have a greater choice of software that does not make potentially destabilizing changes to the system, and it enables people to more readily identify critical prompts, thus providing a more confident sense of control.

One important area of feedback we've heard a lot about is the number of prompts encountered during a download from Internet Explorer. This is a specific example of a more common situation - where an application's security dialogs overlap with User Account Control. Since XP Service Pack 2, IE has used a security dialog to warn users before running programs from the internet. In Vista, this often results in a double prompt - IE's security dialog, followed immediately by a UAC dialog. This is an area that should be properly addressed.

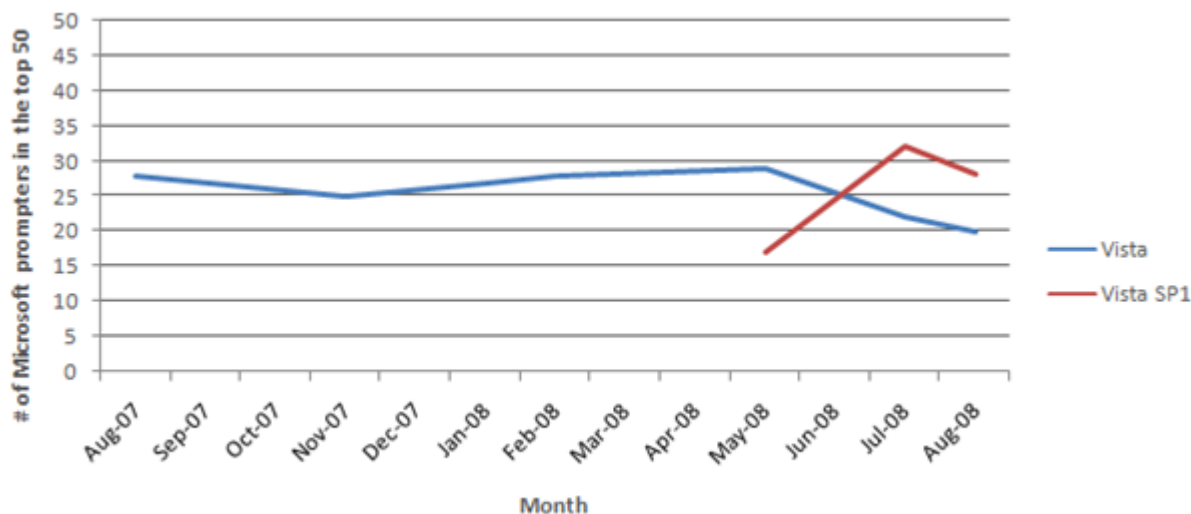


Figure 4. Number of Microsoft prompts in the top 50 over time.

Impact on Customers

One extra click to do normal things like open the device manager, install software, or turn off your firewall is sometimes confusing and frustrating for our users. Here is a representative sample of the feedback we've received from the Windows Feedback Panel:

- "I do not like to be continuously asked if I want to do what I just told the computer to do."
- "I feel like I am asked by Vista to approve every little thing that I do on my PC and I find it very aggravating."
- "The constant asking for input to make any changes is annoying. But it is good that it makes kids ask me for password for stuff they are trying to change."
- "Please work on simplifying the User Account control.....highly perplexing and bothersome at times"

We understand adding an extra click can be annoying, especially for users who are highly knowledgeable about what is happening with their system (or for people just trying to get work done). However, for most users, the potential benefit is that UAC forces malware or poorly written software to show itself and get your approval before it can potentially harm the system.

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx Go SEP OCT DEC 10 2007 2008 2009 About this capture

92 captures

10 Oct 2008 - 28 Sep 2019

setting that is admittedly hard to find. We don't recommend you do this, but we understand you find value in the ability to turn UAC off. For the rest of you who try to figure out what is going on by reading the UAC prompt, there is the potential for a definite security benefit if you take the time to analyze each prompt and decide if it's something you want to happen. However, we haven't made things easy on you - the dialogs in Vista aren't easy to decipher and are often not memorable. In one lab study we conducted, only 13% of participants could provide specific details about why they were seeing a UAC dialog in Vista. Some didn't remember they had seen a dialog at all when asked about it. Additionally, we are seeing consumer administrators approving 89% of prompts in Vista and 91% in SP1. We are obviously concerned users are responding out of habit due to the large number of prompts rather than focusing on the critical prompts and making confident decisions. Many would say this is entirely predictable.

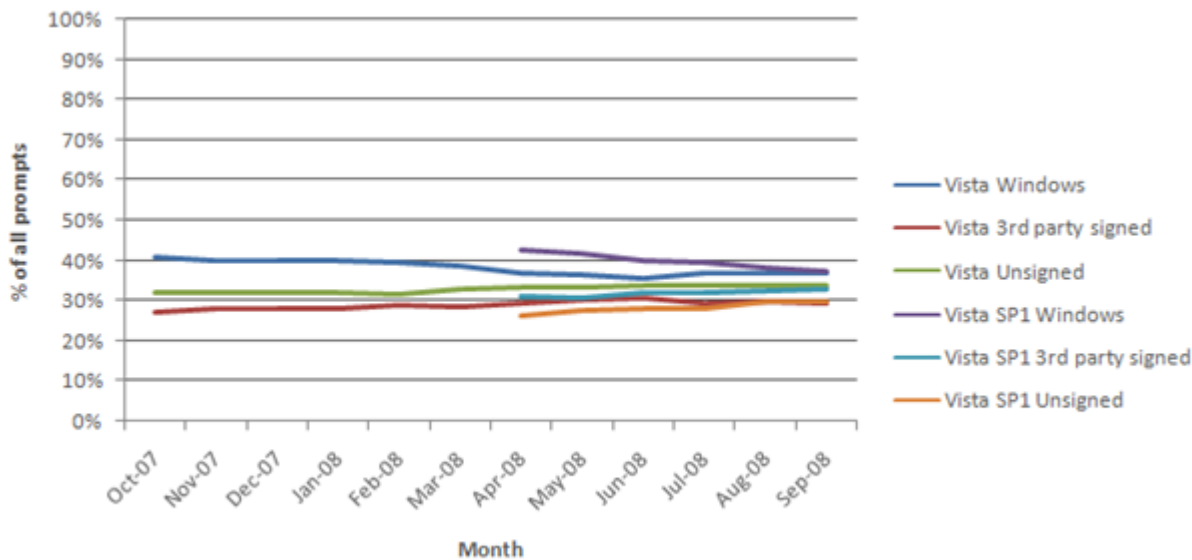


Figure 5. Percentage of prompts over time per prompt type.

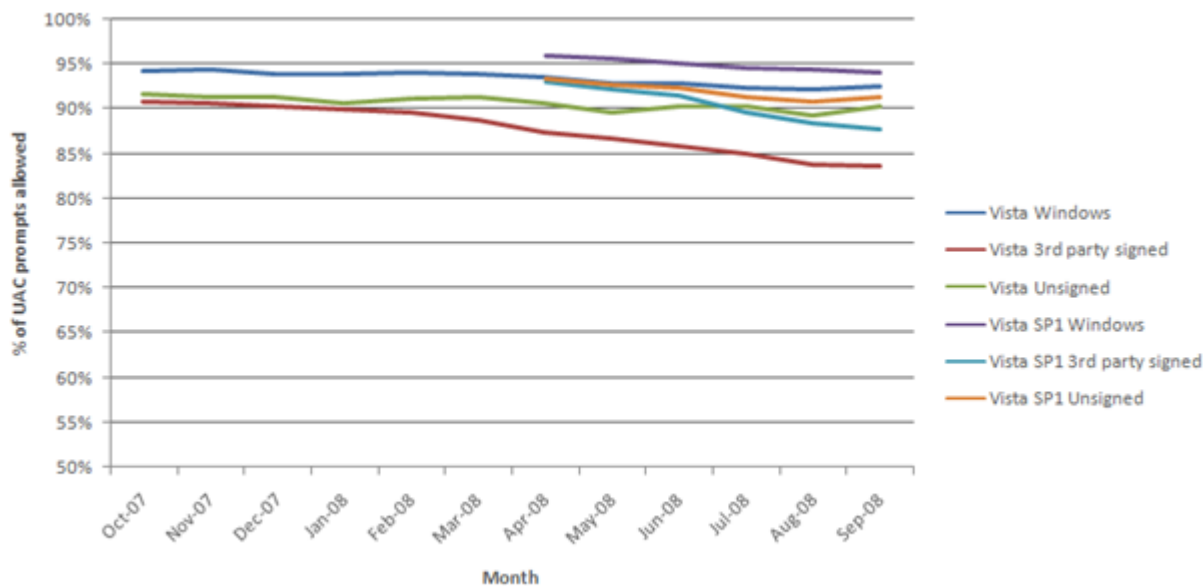
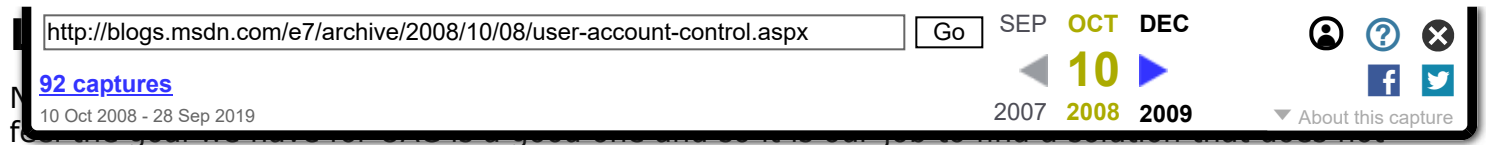


Figure 6. Percentage of UAC prompts allowed over time.



abandon this goal. UAC was created with the intention of putting you in control of your system, reducing cost of ownership over time, and improving the software ecosystem. What we've learned is that we only got part of the way there in Vista and some folks think we accomplished the opposite.

Based on what we've learned from our data and feedback we need to address several key issues in Windows 7:

- Reduce unnecessary or duplicated prompts in Windows and the ecosystem, such that critical prompts can be more easily identified.
- Enable our customers to be more confident that they are in control of their systems.
- Make prompts informative such that people can make more confident choices.
- Provide better and more obvious control over the mechanism.

The benefits UAC has provided to the ecosystem and Windows are clear; we need to continue that work. By successfully enabling *standard users* UAC has achieved its goal of giving IT administrators and parents greater control to lock down their systems for certain users. As shown in our data above, we've seen the number of external applications and Windows components that unnecessarily require Admin privileges dramatically drop. This also has the direct benefit of reducing the total amount of prompts users see, a common complaint we hear frequently. Moving forward we will look at the scenarios we think are most important for our users so we can ensure none of these scenarios include prompts that can be avoided. Additionally, we will look at "top prompters" and continue to engage with third-party software vendors and internal Microsoft teams to further reduce unnecessary prompts.

More importantly, as we evolve UAC for Windows 7 we will address the customer feedback and satisfaction issues with the prompts themselves. We've heard loud and clear that you are frustrated. You find the prompts too frequent, annoying, and confusing. We still want to provide you control over what changes can happen to your system, but we want to provide you a better overall experience. We believe this can be achieved by focusing on two key principles. 1) Broaden the control you have over the UAC notifications. We will continue to give you control over the changes made to your system, but in Windows 7, we will also provide options such that when you use the system as an administrator you can determine the range of notifications that you receive. 2) Provide additional and more relevant information in the user interface. We will improve the dialog UI so that you can better understand and make more informed choices. We've already run new design concepts based on this principle through our in-house usability testing and we've seen very positive results. 83% of participants could provide specific details about why they were seeing the dialog. Participants preferred the new concepts because they are "simple", "highlight verified publishers," "provide the file origin," and "ask a meaningful question."

In summary, yes, we've heard the responses to the UAC feature – both positive and negative. We plan to continue to build on the benefits UAC provides as an agent for standard user, making systems more secure. In doing so, we will also address the overwhelming feedback that the user experience must improve.

Ben Fathi

Published Wednesday, October 08, 2008 12:00 PM by [e7blog](#)

Filed under: [Security](#), [Design](#)

Comments

re: User Account Control

No idea if this is possible, but it would be nice to get IE to still run in protected mode even with "overall" UAC off. Since browsers tend to be the biggest malware entrance portals, a compromise of

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx Go SEP OCT DEC 10 2007 2008 2009 92 captures 10 Oct 2008 - 28 Sep 2019 About this capture

Yes, the User Account Control is a great idea and in theory it should ensure that there is no malicious software on Windows computer. Please do not allow this tool to be weakened in any way, only strengthened so that one day, users won't need any anti-spyware software or anything like that.

To help the average user understand this feature, you could add a "What is this?" link and include UAC in a walk-around of all the features of Windows 7 that is displayed during installation or the first time that the PC is used.

One problem that I've had with the UAC is that sometimes the prompt is delayed and the installation that I am running is stuck at 0% until the prompt is displayed.

Wednesday, October 08, 2008 4:40 PM by [Cartman05](#)

re: **User Account Control**

UAC prompts going down from 775,312 to 168,149 makes me feel goooooood. Can you implement a feature where when Vista is manually installed (not unattended or automatic deployment), UAC is not enabled at all (no reboots required) for the first half hour/an hour during which the admin can setup his machine completely (including Control Panel settings, registry tweak and Group policies) and installs the most important of apps after which UAC is never again disabled unless the user disables it? For automatic deployment scenarios, it can be turned on by default. Same thing when a new user account is created. And if the admin finishes setting up his system earlier than that time, he can turn on UAC at any point after that.

Oh, and one more thing, can we have RunAs back in the GUI (or integrate ShellRunas into the OS) and make it run with explorer.exe (Windows Explorer), iexplore.exe (IE), MSIs and batch files & scripts? And a "Run as" in the "Run" box?

Wednesday, October 08, 2008 4:45 PM by [someone](#)

re: **User Account Control**

- > Since most users have an Administrator
- > account, this has historically created an
- > environment where most applications, as well
- > as some Windows components, always assumed
- > they could make system-level changes to the
- > system. [...] Additionally, giving every
- > application full access to the computer left
- > the door open for damaging changes to the
- > system, either intentionally (by malware) or
- > unintentionally (by poorly written software.)

I'm really sorry, but once again. If applications can add files to system core and if Registry is shared, it also left the door open. What will you do in 7 for avoiding it ?

UAC could be very good, if:

1. it will be used in really critic things only (like adding drivers)
2. it will be possible easy disable some alerts

Wednesday, October 08, 2008 4:47 PM by [marcinw](#)

re: **User Account Control**

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx Go SEP OCT DEC 10 2007 2008 2009 92 captures 10 Oct 2008 - 28 Sep 2019 About this capture

the leader and remove all those small artifacts in Windows. Mostly graphical artifacts thinks which make Windows look cheap (which its not ;)). Anyway, this blog is a cool thing :)

Best regards

Wednesday, October 08, 2008 5:08 PM by [espeholt_jr](#)

re: User Account Control

- > No idea if this is possible, but it would be
- > nice to get IE to still run in protected mode
- > even with "overall" UAC off.

It would be possible to minimize problems, when IE and other applications will be separated from each other and main system "core" (will have separate Registry, will put files in separate directories, etc.)

Microsoft will probably not do it, because:

1. it will need some additional work
2. some applications will need changes
3. MS doesn't probably WANT to make IE another "ordinary" application (this is closed circle: people search for alternatives, because IE is very integrated with main system parts and each bug can make many problems; Microsoft thinks probably, that separating IE will make, that people will search more easy for alternatives and this thinking is wrong, because non technical users will use browser "from box")

Wednesday, October 08, 2008 5:11 PM by [marcinw](#)

re: User Account Control

Great that finally someone is talking about it. UAC has really been a pain sometimes. Its a great idea about broadening the control because i definitely want to be notified if something unwanted is accessing stuff in my PC but definitely not when i try to open MSCONFIG to remove the startup programs.

I second the thot of running IE in a protected mode. I am by no means a OS expert so am not sure if thats totally possible with win NT kernel or not.

finally here is my 2 cents - as much as i appreciate the existance of a virtual controller to control the ISVs but wudnt it be better if they are somehow brought under one umbrella to make sure all of them follow a standard. This sure is a herculian task but assures a radical improvement of software quality and user experience.

Wednesday, October 08, 2008 5:24 PM by [anshu_10us](#)

re: User Account Control

UAC is a great thing for users that want to keep tabs on everything that's being installed. I, myself, have disabled UAC because of the prompts. I move a lot of files around a lot of sensitive folders and it just doesn't make sense to keep it enabeled when I know what I'm doing and the system thinks I don't. It's a great idea to get people started on the path of thinking about what goes on their PCs but for power users like myself it can really only be a hinderance.

Wednesday, October 08, 2008 6:18 PM by [L33tMasta](#)

re: User Account Control

The thing will all those warning is that some webpages already explain that the user will have to acknowledge this and that to make a program run. Users are trained to acknowledge UAC (and other) security prompts. This situation can only be improved by showing less UAC prompts.

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx Go SEP OCT DEC 10 2007 2008 2009 92 captures 10 Oct 2008 - 28 Sep 2019 About this capture

a new device to your computer?". With dangerous symbols. Users should be scared when they see the prompt - because they only see the prompt once a year and because it makes a lasting impression. It should give them bad dreams...

Two things I couldn't figure out in all those years:

1. The need for the yellow security bar in IE - the one that blocks downloads...
2. Why MS invented UAC instead of just improving the usability of standard user accounts. Because the security subsystem itself was/is perfectly fine...

Wednesday, October 08, 2008 6:31 PM by [d_e](#)

re: User Account Control

I disabled UAC for the first couple days after I got a new computer to make transitioning easier. After I had most everything transitioned, I turned UAC back on and haven't seen too many UAC dialogs. The ones that I have seen have been useless, though, in that they don't give me any useful information about what's really going on.

One drawback to the new security model is that I've got to open a privileged command prompt to execute a single command. I'd love a way to elevate to admin rights for just the one command, as sudo does on *nix systems.

Wednesday, October 08, 2008 6:41 PM by [Puckdropper](#)

A great post!

While some have started muttering that this blog is nothing more than another marketing ploy, this post proves them wrong (or for the cynical, partly wrong).

A clear, informative, and above all honest post about designing and building in integral part of the OS, targets, successes, flaws and missed opportunities all quantified and addressed. Well done, this makes me feel a lot more comfortable about the work that's going into Win 7.

Of course, I'm still not going to use it if you keep that horrible Vista Explorer. XP's was 99% perfect, apart from its intransigent refusal to display folder sizes. (don't tell me it causes too much overhead, because you've got pointless fancy sliders for changing between view types. If I can get it in a balloon tip, show it in Explorer)

Wednesday, October 08, 2008 6:44 PM by [Hairs](#)

re: User Account Control

here's my initial response before even reading the article. i'll append to it if necessary.

to me, if i click on something, whether it's to change the time, go into device manager or computer management, i must want to do it.

so, once you get uac to know:

1. i clicked on something so i want access to it.
 2. something i didn't click on is opening
- or
3. that i clicked on paint and some other app is trying to launch, i turn it off.

(can't believe uac is invoked when accesing the time ui, anyway)

once it's smart enough to know this, i'll leave it on.

Wednesday, October 08, 2008 6:50 PM by [gkeramidas](#)

re: User Account Control

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx Go SEP OCT DEC 10 2007 2008 2009 92 captures 10 Oct 2008 - 28 Sep 2019 About this capture

>>...i definitely want to be notified if something unwanted is accessing stuff in my PC but definitely not when i try to open MSCONFIG to remove the startup programs.

I believe MSConfig makes changes to startup that are system-wide. Not only that, but you can change boot options, services, etc. It's not the kind of config panel you want every user to have access to.

A better option for you would be to use the Startup folder, Windows Defender (I think...), or Task Scheduler. I prefer Task scheduler as I can put my startup programs on a 30 second to 60 second timer (more wouldn't make sense).

Wednesday, October 08, 2008 6:53 PM by [Vistaline](#)

re: User Account Control

Personally I like the UAC. I'm not saying that there aren't areas of improvement, but the fact that I'm very confident about the security of my vista computer I think speaks a lot to UAC. While it can be annoying, and may slow down the computer at times, its a great safety net.

And the fact that because of UAC, Windows is changing the software ecosystem is an even better thing.

Wednesday, October 08, 2008 6:59 PM by [sag969](#)

re: User Account Control

I understand what you are trying to achieve with UAC and I do agree that it is worthwhile goal. Also given where you are starting from the current implementation is a reasonable solution.

Perhaps the biggest frustration for me (and I consider myself a knowledgeable Windows user) is the 1 to 2 second screen blank that occurs on my PC before the UAC prompt occurs. Although it sounds silly that long jarring pause has already put me in a bad mood that I don't want to take the time to fully comprehend the information the dialog is telling me. I don't know if the screen blank is a result of my hardware or device drivers or is caused by the OS itself but by getting rid of this one artifact would improve my UAC experience by an order of magnitude. Some quick searching on the web would suggest other people feel the same way.

Andrew.

Wednesday, October 08, 2008 6:59 PM by [asymtote](#)

re: User Account Control

>>Of course, I'm still not going to use it if you keep that horrible Vista Explorer. XP's was 99% perfect, apart from its intransigent refusal to display folder sizes.

I'm sure if they made a post on the UI/Explorer we'd crash their servers with responses. :) We have much to say. lol

>>The ones that I have seen have been useless, though, in that they don't give me any useful information about what's really going on.

I love UAC but, generally, the prompts do look rather vague and useless. Makes me interested to see what they're doing with these new UAC dialogs for W7.

Wednesday, October 08, 2008 7:00 PM by [Vistaline](#)

re: User Account Control

Personally, I'd like to see the transition to UAC prompts a bit more smooth. I realize the importance of using secure desktop, but the way the screen flashes is really annoying. Some kind of smooth fade would be a huge improvement!

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx

Go

SEP

OCT

DEC

10

2007

2008

2009

92 captures

10 Oct 2008 - 28 Sep 2019

About this capture

P.S. I'm one of the few Vista users I know who have left UAC enabled; I think it's useful, if a bit annoying at times.

Wednesday, October 08, 2008 7:37 PM by [FreakyT](#)

re: User Account Control

I bought a computer with Windows Vista within the first few days of its release. UAC was the first thing about Vista that I noticed when I started using it. After fighting off Malware on Windows 98 and Windows Xp machines for so long, and so many futile hours of trying to sanitize the compromised machines of friends and families, I immediately appreciated what you guys were doing with UAC. It is absolutely necessary and I'm glad to hear that you will bring an improved version of UAC to the next version of Windows.

Wednesday, October 08, 2008 8:16 PM by [jgoto](#)

re: User Account Control

One easy tweak that could eliminate many UAC prompts would be make a "Programs" folder inside the "User" folder. Make it easy for installers to give an option switch to this alternative "Programs" directory before the UAC popup is presented. Right now applications let either let you choose a folder or default to the "Application Data" folder (See sync-toy).

Overall UAC is a great idea, it just has some rough edges and needs more support by making user specific copies of system directories.

One graph that I would like to see is the % of people with UAC turned off. From comments on forums it sounds like many people have it turned off, but in my experience I have found very few people with it off.

Wednesday, October 08, 2008 8:26 PM by [PRab](#)

re: User Account Control

One of the things I would like added is an "Approved List" for the UAC. There are a couple pieces of software, mainly updaters, that prompt a UAC message each time the program runs. I know what these programs are and I will always approved each time.

If there was a list that users could add programs to that would allow the programs to either bypass the UAC or send an approved response to it automatically it will be great. Putting programs on this list should not be easy but it should not be difficult either. Maybe a right click, run as admin, then check mark in the admin login box would work. Programs should not be allowed to place themselves or other programs onto this list.

Wednesday, October 08, 2008 8:54 PM by [Rayadoman](#)

re: User Account Control

It took me a while to get around to using UAC but now that i know how to use it correctly i really dig it, well done! The only problem i have with it is with the secure desktop, when it's activated it's sort of a jarring experience, almost akin to a system crash. Would it be possible to maybe smooth the transition somewhat, my nerves are not what they were lol

Wednesday, October 08, 2008 9:08 PM by [steak820](#)

Steady State User Account.

Microsoft has a free software called Steady State. This is a kid safe environment. It doesn't save any changes to the computer. I think MS should consider it build-in.

About UAC, it is fine. I am using it to know what the installer is modifying important sector or not. But sometimes it is quite annoying indeed.

Wednesday, October 08, 2008 9:35 PM by [magicalclick](#)

re: User Account Control

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx

Go

SEP

OCT

DEC

10

2007

2008

2009

92 captures

10 Oct 2008 - 28 Sep 2019

About this capture

Wednesday, October 08, 2008 9:47 PM by [LordAntares](#)

re: User Account Control

I have been running separate accounts since Windows 2000. I know how my system works and keep it running like clockwork. I was happy without UAC and hoped it would not affect me. With every system I gave UAC a fair chance, but had to turn it off every time.

The popups are annoying, but far worse is when UAC fails silently. For no apparent reason, actions fail to execute, files are not created where they are supposed to, applications crash.

Example 1: change the source viewer in IE7 to VIM, then choose "View source", then nothing happens.

Example 2: installation of a mission-critical software package fails with UAC on, even with administrator rights. The installer tries to copy its "ini" to the Windows folder.

Example 2: game modification installer, properly designed to work with restricted rights, crashes with UAC on. File creation operations succeed, but the files are not created, at least not where they are expected.

It does not stop there. Even when off, UAC is a major pain. Things that worked fine in XP break. RunAs no longer works. CardSpace fails.

UAC is appalling.

Wednesday, October 08, 2008 9:55 PM by [Don Reba](#)

re: User Account Control

Windows Steady State is very very good, especially if you have kids in the home.

Implementing a feature or at least a link to the download location in the Parental Controls would be very very helpful.

Wednesday, October 08, 2008 10:01 PM by [irdawood](#)

re: User Account Control

I have always had user account control on, and I don't mind it too much. The security makes up for the annoyance...most of the time. There are certain things which bring up WAY too many UAC prompts.

For example: I want to manually delete a folder from C:/Program Files. First, I have to click "Yes" to confirm that I really wanted to delete it. Then I have to click "Continue" because I am modifying C:/Program Files. Clicking that brings up UAC, where I have to click "Continue" again.

Sorry, but that is too many prompts. There should a maximum of ONE prompt after I confirm the deletion. This prompt would tell you why it had appeared ("Modifying C:/Program Files could cause undesirable program errors. Click continue if you are sure you want to delete this folder.")

...Just one example of excess annoyance. I agree with the previous posts that when users see too many prompts, they stop reading them and just click continue.

Keep up the great work!

Wednesday, October 08, 2008 10:06 PM by [WindowsFanboy](#)

re: User Account Control

Of course, so many people complain about the secure desktop (jarring screen 'crash', etc.) and there is a group policy setting that can turn it off (google "turn off secure desktop") while still leaving uac on. This really tells you something about the people who sit around on forums criticizing MS all day, and what they know. Anyway, I like UAC as it is, I only see a uac screen when I am doing system

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx Go SEP OCT DEC 10 2007 2008 2009 92 captures 10 Oct 2008 - 28 Sep 2019 About this capture

is now, malware can't write to the system areas and auto-start with windows and so on, but it can still read user data and this is a security concern MS should address. MS should notify developers that this will go into effect in Windows 7 so that they have time to fix whatever code this affects and then set it up like that so that users don't have valuable private data stolen by any malware that exploits IE. Thanks for the blog and good work, again.

Wednesday, October 08, 2008 10:14 PM by [VistaLover](#)

re: User Account Control

>> I don't know if the screen blank is a result of my hardware or device drivers or is caused by the OS itself but by getting rid of this one artifact would improve my UAC experience by an order of magnitude.

It is your hardware. Is your monitor connected via VGA by chance? When Windows resets the video mode, VGA monitors have to resync and that takes time. DVI monitors don't have this problem.

Why it resets the video mode I still haven't figured out, there has to be a way to have a secure desktop without the video driver needing to know.

>> Example 1: change the source viewer in IE7 to VIM, then choose "View source", then nothing happens.

Just an aside, you are enough of a power user to use VIM (heck, even know what VIM is) and you still use IE for anything where viewing source matters? You are probably one in a million. The rest of us left that piece of trash long ago and only use it for that one percent of the web that hasn't figured out what standards mean.

Directly on topic, I really think the UAC developers should put Windows away for a month and go use either OS X or Linux. Experience sudo and how it works. Return to Windows development, throw out UAC entirely, and as Apple would say, "start your photocopiers."

Duplicate prompts aren't a problem, the user is allowed to do anything that affects only them without a prompt, and the prompts that you do get have this nifty button titled "Details" which when clicked tells you what wants privs and why. If you're having prompts being automatically triggered by requests to change certain things, clearly the software knows what triggered it and can tell me so I don't have to guess.

Wednesday, October 08, 2008 10:22 PM by [wolrah](#)

re: User Account Control

I believe this three points would be very usefull to improve UAC:

1- If i check an application to run always as an administrator... why i need to aprove it every time? whit just once uthorization would be great.

2- Detect when a user makes changes and when another source make the changes (virus, malware, other apps no directly opened by users etc.) UAC must be less extrict when the action is made it directly by an admin user.

3- Create 'UAC - permisson groups', may be i need my kids or my workers can change some 'less dangerous' configurations, but not anothers.

Wednesday, October 08, 2008 11:02 PM by [Juan Carlos Ruiz Pacheco](#)

UAC is the boy who cried wolf.

Isn't this just like the boy who cried wolf story?

Now that Vista has been out for a while and people have become used to the "excessive" UAC prompts isn't it kinda too late to train people to pay attention to these prompts. I can see if people jumped from XP to Windows 7 you could easily instill in users that if you see a UAC prompt pay close

<http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx>

 SEP OCT DEC
 10
 2007 2008 2009

92 captures
 10 Oct 2008 - 28 Sep 2019

About this capture

If I could request certain areas for UAC not to be enabled it would be the Reliability and Performance Monitor cause what setting can you adjust there? None that I know of. When adjust the date and time. When you install update from Windows Update. On that subject why don't we get UAC prompts when Windows automatically installs updates itself during a shutdown or restart?

Slightly OT but I'd like to remove the dialog box that pops up when you move something to the recycle bin asking if I'm sure I want to do this. I understand why you do this but I'd like the option to turn this off.

Wednesday, October 08, 2008 11:04 PM by [Daniel Smith](#)

re: User Account Control

- I would like to add the following games to Windows or Windows Ultimate Extras: Shogi, Go, Xiàngqí, sudoku and Pai Sho, which also include the features of the Microsoft Plus Pack for hearing, Microsoft Plus! Labyrinth, dancers for windows media player

- Recommend that the new windows did not have the most win.ini and the registration and be changed to a more secure, better designed and do not let so many traces, which also did not install an administrator account by default but a limited and in linux

- New effects in wpf and more customizable as Compiz-Fusion, the desktop is equal to KDE and GNOME, windows media center that supports full HD audio, video and images, support for Nintendo Wii and PlayStation

Thursday, October 09, 2008 12:04 AM by [Lockon](#)

re: User Account Control

I also find that UAC has some performance issues. Sometimes it can take as long as two seconds for a prompt to appear, and in the meantime my display is either solid black, or the machine appears frozen. This is intermittent, but happens frequently enough to be a real annoyance.

I also totally agree with d_e's comments about the form UAC prompts should take. In essence, "Program x needs your permission to continue," followed by one of the following:

- "Are you attaching a new device to your computer?"
- "Are you updating a driver or system component?"
- "Are you installing or updating a program?"
- "Are you making changes to your system settings or files?"

A "Details" button would also be helpful, especially if it includes details like:

- the full path and filename of the app that produced the prompt
- the publisher of the app
- what, exactly, the app is attempting to do.

Lastly, and most importantly, I believe UAC should be taken a step further. When a user approves an action, immediately create a Restore Point before allowing the app to proceed (perhaps display a progress bar while the restore point is made so the user doesn't think the machine simply froze).

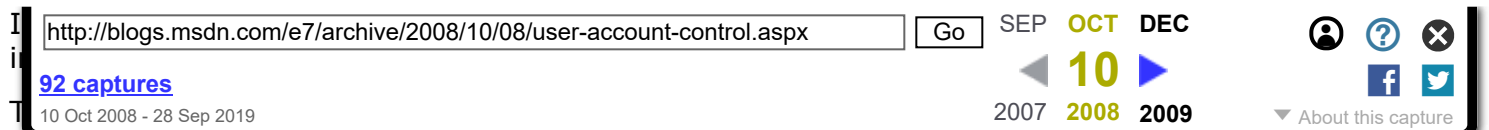
That way, if approves something they shouldn't have, they can still recover.

Thursday, October 09, 2008 12:14 AM by [sdwolf](#)

re: User Account Control

UAC was a good step in the right direction (particularly in forcing the 1st and 3rd party ecosystem to stop expecting users as admin), but needs a few improvements.

1. UAC needs to provide enough information to make a valid choice!



http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx

Go SEP OCT DEC

10

2007 2008 2009

92 captures

10 Oct 2008 - 28 Sep 2019

values it's trying to write. And detailed information it adding to startup, or otherwise installing drivers or similar.

values it's trying to write. And detailed information it adding to startup, or otherwise installing drivers or similar.

This information just is not available now, and it needs to be.

2. Remember last-used username when UAC is running in credentials mode (ie, requiring a username and password to elevate).

On a non-server, the vast, vast majority of the usage of elevation is going to be to the same alternate account (ie, an la-* local admin or a da-* domain admin account).

Why cant it remember the last used username in my profile, to save me a bunch of typing every time I have to elevate?

3. RunAs needs to return!

It's insane that we lost a big piece of functionality in this space when UAC hit by losing RunAs. And unless it was just sheer lack of manpower, I cant imagine why you would take that away. There is still a very common set of use-cases for RunAs, even with UAC turned on, PARTICULARLY in the corporate environment.

I do understand that the switches will become more complicated, as you have to handle in-place elevation on the same account vs. elevating to a different account, etc. But we need that back.

4. Tighter integration with RunAs/etc with the Shell.

For example, I would really like to be able to modify my hosts files by right clicking it, and holding down shift while I choose 'Edit with Notepad++' which launches it with elevation.

Right now, you have to manually elevate/launch the editor, then find and open the text file. Seems like an unnecessary pain.

5. Opening a new explorer.exe shell as admin is fairly broken.

For example, if I waded through the program files, accessories, and launch Windows Explorer as Admin, do I get it actually launched as Admin? No! It silently fails to do what I told it to do, and launches a new explorer window in the regular account.

If this worked, much like we have been doing for years on XP, we can launch an explorer window as Admin, and keep it open for days or weeks while we do stuff there we need admin for.

Overall, nearly every IT pro needs to run Vista with a permanently-running command prompt that has been 'Run as Administrator' opened.

Look for ways to eliminate needing to do that.

And please oh please bring back runas, or make something new similar to sudo/su. We need this so much on the command line.

Thursday, October 09, 2008 12:35 AM by [hollamon](#)

re: **User Account Control**

personally, UAC has never given nuisance

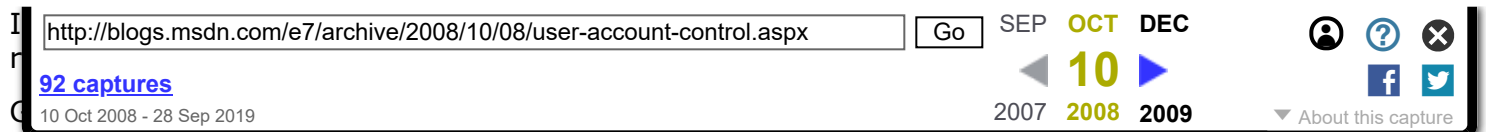
Thursday, October 09, 2008 12:36 AM by [Domenico](#)

re: **User Account Control**

One more thing I forgot while writing my post a minute ago.

UAC hangs for several minutes sometimes in the Secure Desktop.

It only happens when my laptop is at home, so on the internet and a valid network, but cannot reach the corporate DCs.



100% non-usable and effectively gone during that time period.

Note that this is elevation with credentials, so I have to type in a different set of credentials to elevate.

There should be a hard-timeout period of 5 seconds. Or drop out of secure desktop instantly before doing the network query.

This actually seemed to get dramatically worse with SP1, even though I read in the release notes that some work was done to improve that.

Thursday, October 09, 2008 12:39 AM by [hollamon](#)

re: User Account Control

@marcinw -- what you describe sounds a lot like the former NGSCB project (aka Palladium) -- secure, segregated areas ("nexuses") running on a single machine.

@asymtote & wolrah -- One thing to watch for is driver updates which actually make the "blank screen" delay worse. A while back, updated Nvidia drivers were offered via Windows Update and I installed them, and after that I started getting the same UAC delays. Rolling back to the previous drivers solved the problem.

Thursday, October 09, 2008 2:02 AM by [PatriotB](#)

re: User Account Control

One thing that I think would be helpful would be a secure hardware-based approval mechanism of some sort, for example a new key on your keyboard that when held down, would suppress the UAC prompt when clicking on a button/program.

It's not as easy as it might seem, forever. First of all, you could have malware just waiting around in the background, trying to elevate repeatedly and it will eventually sneak through when the timing is right.

Secondly, how long would the user need to hold down the key after performing the UI action? If for some reason the app showing the UI has a delay before trying to create the elevated process, the user would need to keep the key down the entire time.

In any event, it would be great if there was some way to authoritatively know whether an elevated process creation request was really intended/initiated by the user.

Thursday, October 09, 2008 2:14 AM by [PatriotB](#)

re: User Account Control

I'd have more to say regarding UAC if I had a real amount of experience "using" it on a day to day basis (I turned it off in the Beta), and if I knew what the changes would constitute. So far as I can tell, you're dealing with all the issues I actually care about; keeping my system secure, without bothering the daylights out of me in the process.

Thursday, October 09, 2008 2:36 AM by [RotoSequence](#)

re: User Account Control

I think the UAC is very great, but! there are some problems, first there is the problem for just watch for information, a sample: If i would to watch my drive informations with the tool for that i need to give them admin rights. i think you just need to become an admin when you wona change something and not if you just would to watch informations.

second, double clicks...also a sample: if i wona create a folder in maybe the Users Folder(i now that is not normal but i use this for the sample) i make ->rightclick->New->Folder->Continue->Continue...why we dont have just ->rightclick->New->Folder>Continue, why we dont just need to say 1 time ok and not 2 times?

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx

Go

SEP

OCT

DEC

10

2007

2008

2009

About this capture

92 captures

10 Oct 2008 - 28 Sep 2019

re: User Account Control

One that drives me bonkers is why I need elevation to do an ipconfig release or renew? Since Vista took away the very handy "repair" option (which renews the address very quickly) I find myself running into a roadblock here all the time. The vista repair option takes forever to run since I already know what the problem is.

As an admin, I may go to someones machine and need to make a networking adjustment. I then open a command prompt and try to release and renew but of course get the elevation error. I then have to close the cmd window and hunt down the cmd icon (since it's not my machine I'm usually doing this on so don't have an admin shortcut already made) so I can right click and choose run as administrator.

Often times I find it easier to just unplug the network cable and plug it back in which does the same thing with no UAC issues! There is a real breakdown somewhere when software behavior pushes users to a hardware workaround because the software is making a relatively benign task such a pain.

I am encouraged to see that we will have more control in the next Windows over generates these error messages.

Thanks!

Danny

Thursday, October 09, 2008 3:40 AM by [danwdoo](#)

re: User Account Control

The reason that I have turned UAC off on my machine is because when I want to work with files outside of my profile directory UAC seems to block it all the time. For example it won't let me create a folder in the program files directory or add files there. It will UAC prompt me, but then it still won't do what I asked. I have a couple of programs that don't come with an installer that I normally stick under the program files dir and then just put a shortcut into the start menu. If there was an easy way for me to run windows explorer in admin mode (with the UAC prompt at the start) I would probably turn UAC back on.

I frequently do work on peoples computers and sometimes when their computer won't boot they want to get some of their files off the disk. I have an external enclosure for this sort of thing, but windows will tell me that I don't have sufficient privileges to open their profile directory on the external drive. It prompts me for elevated privileges, but no matter how many times I click the continue button it still won't let me through. As soon as I disable UAC I don't have a problem anymore.

Thursday, October 09, 2008 3:41 AM by [caleb.vear](#)

re: User Account Control

This was meant to go on the bottom of the previous comment, but apparently the comments have a max length.

The following paragraphs detail some thoughts I have had on things that could improve my experience with UAC and make it more practical for me to have it on all the time.

Another feature that could be cool is if you could automatically raise a specific piece of software to admin privileges while it was running from the task manager. For example sometimes I need admin privileges to work with some projects in Visual Studio, but I forgot to open it as admin so I have to close everything and then open it again.

Also as has already been mentioned it would be nice if even when you're running with UAC turned off you could set some programs (such as IE) to run with only basic user privileges.

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx

Go

SEP OCT DEC

10

2007 2008 2009

92 captures

10 Oct 2008 - 28 Sep 2019

About this capture

Thursday, October 09, 2008 3:42 AM by [caleb.vear](#)

re: User Account Control

Thanks for the blog on the UAC. I had a pretty good understanding before, but it's helpful to have detailed information.

I like the idea behind UAC. Anything that helps stability is appreciated. I must say though, that I ended up turning it off because of the constant bombardment of popping up windows while trying to work. I found that it was very distracting and I stopped reading or caring what it was about or what it said. I would simply click to get it off the screen.

Another annoyance was that my father would call me several times a day, would read what it said to me and ask for my advise on whether he should allow or not. Needless to say the next time I flew back into town, disabling the UAC was the first thing I did.

So again, I like the idea behind it, but this is a incredibly annoying implementation that feels more like a band-aid over a large problem of how easy it is to get down into the core of windows and mess something up.

I don't know what the answer is, but I just felt like this was a huge step in the wrong direction in the user experience field.

Thursday, October 09, 2008 3:43 AM by [martinIsMe](#)

re: User Account Control

"Run as" would be a very nice addition. Also please notice the way Linux distros prompt for administrator credentials when trying to run system level or maintenance programs.

Run as combined with administrator credentials would be very useful in cases where you want to enable/disable some features for a standard user account. (shouldn't appear in an admin account)

Personally I hope UAC is gonna get better in Windows 7 and be less obtrusive and more of an adviser.

Thursday, October 09, 2008 3:53 AM by [twentytwokhz](#)

re: User Account Control

When installing a new app, I get a UAC prompt but I would like a way to control the amount of access that the app gets on my system. e.g. If I were to install a system-level utility, I can give it full access to the system. If I'm installing a text editor or a game, I want to be able to limit its access to its folder in Program Files and any special folders it wants to add in My Documents. I would also like UAC to tell me if an app tries to go beyond app-level access. At the moment, there is not enough granularity so the UAC prompt to install a text editor is the same as what a system-level utility would require. Essentially, I want UAC to have the same customisability as a good firewall.

Also, since I try a lot of software that don't even have their own installers, I put them in a separate folder. By not using Program Files, am I lessening my security? Wouldn't these programs try to save settings to their own folders, so they would actually fail if they ran in Program Files?

Can we have the app isolation of App-V become part of standard Windows?

Thursday, October 09, 2008 4:14 AM by [mark_ms](#)

re: User Account Control

I like the principle of least privilege and I believe it makes software more secure and less destructive in case of failure. I support extending UAC and building it deeper into the architecture, while making it less annoying.

I have the following proposals for UAC:

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx

Go

SEP OCT DEC

10

2007 2008 2009

92 captures

10 Oct 2008 - 28 Sep 2019

About this capture

privileges, only affecting the current user.

An application wants to write its own folder (ex. program update)? Give it access to its files only. The layering could also happen for application classes: trusted ones getting automatic elevation, while recently downloaded programs not.

By no means do I think that this can be done without any architectural changes. However, building up a new security-minded architecture could prove beneficial in the long run.

- make prompts meaningful (as read in the blog) = no "Unknown Publisher" or worse, empty prompts

Thursday, October 09, 2008 4:24 AM by [mludwig](#)

re: User Account Control

As a software professional I was heavily involved in getting our applications to work without the need for admin privileges under Vista. Four key changes that could be made in Windows 7 to reduce UAC dialogs and simplify the development of well-behaved software:

1. Allow processes to have write access to the folder containing the initial executable file of the process, and to sub-folders of that folder. This will avoid the need for admin privileges for programs that keep data files in their installation folder (a common reason for needing admin privileges), without compromising security.
2. Have a catalog of permitted automatic elevations by permitted signed apps when the user is an administrator.
3. Before raising a UAC dialog, determine whether the request was initiated by a "known good" user action in a "known good" program - such as a user drag of a file in Windows Explorer - when the user is an administrator.
4. Allow an already-running process to temporarily automatically elevate to admin privileges (with UAC verification), rather than requiring a separate process or out-of-proc COM object.

Thursday, October 09, 2008 4:37 AM by [agwizard](#)

User Account Control and Fearmongering

Does this mean that you keep the Vista kernel eventually? The same hybrid in name but anyway big, over-blown monster? I am probably wrong but UAC seems to me something that is should be handled in core level.

I really like this blog but what I miss is feedback from you. Details of Windows 7. I guess you want to make it a big surprise just don't make it a big shock. This time you have to live up to the expectations. And not just on UI and User Interaction level, but also on core level.

Maybe these are just my fears, but I really would not like to be disappointed as I did in Vista.

Actually I would like if you implement a proper Administrator and User accounts. In Administrator account everything goes without prompting. In user account you should be asked for administrative credentials to change sensitive things.

At first run the user should be asked to create an admin account and a user account as well. And the the user should be encouraged to use the user account most of the time. IMHO

Thursday, October 09, 2008 5:11 AM by [lyesmith](#)

UAC is useless

I always disable UAC because in it's current state it's useless.

My current gripes are:

1
f
p

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx

Go

SEP

OCT

DEC

10

2007

2008

2009

92 captures

10 Oct 2008 - 28 Sep 2019

About this capture

2) Don't ask me ALL the time. Implement a feature to "don't ask me next time", like security software has. Next time an application asks and I already answered, Windows should be able to remember it!

3) Security first - make a whitelist. Find safe programs and allow Windows to actually recommend if to allow or deny it, because frankly, half of the time we don't know what a program is doing and don't know if we should approve or not.

4) The default permissions are probably wrong. Then inability to extract and unpack files using compression utilities anywhere is a common need, but it requires admin privileges! This usually results in running the program as admin.

Don't get me wrong - the ability to monitor and approve changes to the system on-the-fly is a very good idea, and I already have security software that takes care of this simply because UAC is so useless. If UAC were to be as good as these software, then there would be no need to disable it and use 3rd party software!

Thursday, October 09, 2008 6:33 AM by [Aleria](#)

re: User Account Control

Why not make it optional to enable UAC when you make a new user account?

"Do you want to enable User Account Control on this account? UAC can be useful for kid's accounts bla bla bla.. Read more about UAC".

Personally, I like the idea with UAC, but I don't use it. I've been tired of looking at those UAC overlays, which does not provide enough information about the program to use it as an user who doesn't has much knowlegde about computers and software.

Give the user more information in the UAC popups, reduce the number of popups.

Thursday, October 09, 2008 6:38 AM by [eliassorensen](#)

re: User Account Control

I'm afraid I'm no big fan of UAC. I do get the idea of it but it fails quite badly in achieving it's goal.

Firstly I am tempted to ask what the security of my computer has to do with Microsoft. If I want to have a really secure computer then surely I would but security programs and not an OS. If it is to be integrated at the core level then it should be optional. MY computer is my computer... if I wish to run it like a school boy without a clue then the software should allow that. I don't like being nannied.

Secondly, why was the administrator account hidden in vista? I can understand ensuring that the user is most strongly warned about switching off security features but disabling it and forcing people to use command lines etc? A little extreme.

Personally I found the best solution was to have an admin and normal user account but then you have to know pre-emptively that you'll need full admin rights before you log in or sit there logging in and out. If I were to design a revamp for the UAC it would not be based upon single actions but rather a more literal interpretation of being able to elevate the user rights to admin rights. Basically the user logs in with a standard account. When asked or upon command they can raise the security level to that of an admin whilst in session. This elevation lasts for a user set period of time (possibly 30 seconds or so as default).

Now this may produce some instances where someone elevates their privaledges and then manages to get a virus because they went on a dodgy internet site within the 30 seconds but I'm afraid you can't stop people pouring water into their computer and this should be treated the same. At some point the human being has to take responsibility otherwise you'll just frustrate those who do know what their doing as happened with Vista's UAC.

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx

Go

SEP

OCT

DEC

10

2007

2008

2009

92 captures

10 Oct 2008 - 28 Sep 2019

About this capture

On that reminds me... please also fix the backwards compatability. Battlefield requiring administrator priviledges to run without crashing was irritating.

Thanks.

Thursday, October 09, 2008 6:51 AM by [Xini](#)

re: User Account Control

I am another person who has disabled UAC. Why? Well, to be perfectly honest I found it more annoying then helpful. Sure I appreciated to thought and objective, but the implementation was driving me up the wall.

My preference would be to only have it appear when a chance is made to core system files. I am regularly testing programs, accessing files created on my dual boot XP drive (which I rarely use these days)and running software which keeps giving me the popup.

I will be paying close attention to this topic and the responses from MS.

Thursday, October 09, 2008 7:41 AM by [Unknown2](#)

A cue from Linux

I think that the ideas behind the implementation of UAC are fundamentally sound, although, there's a way to go before the technology has really reached a state that casual computer users and professionals are fully accepting of it.

However, one idea I really think you should consider would be something that various Unix operating systems have implemented; the ability to temporarily supress requests for superuser access for a period of time. For example, this may be done on a Unix system when doing a bunch of system-level configuration changes through the GUI, that would otherwise result in numerous confirmation prompts.

Something similar for UAC would definitely have its uses, as there are situations that will occur where several UAC prompts can be expected over a short period of time. For example, a fresh installation of Windows while installing numerous hardware drivers and software that requires specific kernel additions, such as virus scanners, firewalls, virtual CD/DVD drivers, and so on. The current solution of disabling UAC (reboot), do the task, enable UAC (reboot), does to me seem a little clumsy and far from ideal.

Of course, how such a feature is implemented at the UI level could vary, there are many possibilities, but the core functionality that could be provided I suspect many power users would really value.

Thursday, October 09, 2008 7:49 AM by [ralish](#)

re: User Account Control

sounds to me like you guys are well aware how much we all hate the way UAC is currently implemented - it's no exaggeration to say that everyone i know who actually uses Vista (very few people) have it turned off

the theory and concept behind it is indeed noble, it's the realisation that's made it a complete dog.

as a side note, i know it drives Microsoft mad that Vista gets such bad word-of-mouth reviews between peers. fixing UAC would eliminate half this problem

Thursday, October 09, 2008 8:13 AM by [thecolonel](#)

re: User Account Control

Good to see that introducing UAC actually made software developers change their software to be able to work w/o needing admin privileges, maybe this way, windows' "limited" users will have a purpose too, never used them under XP cause everything needed admin privileges anyway.

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx Go SEP OCT DEC 10 2007 2008 2009 92 captures 10 Oct 2008 - 28 Sep 2019 About this capture

Thursday, October 09, 2008 8:23 AM by [soukyuu](#)
re: User Account Control

There could be two solutions:

- "Don't require UAC prompt for this application"

This can be hairy, since this base must be protected well.

- "Don't require UAC prompt for this session".

That would be very nice, especially for admins.

Current (???) M3 W7 builds "UAC aggressiveness" slider seems not very friendly, and described poorly.

Thursday, October 09, 2008 8:36 AM by [Tihy](#)
re: User Account Control

I am glad to see that the number of software requiring admin access is being reduced - which helps security.

I really cannot stand the UAC. I find it really annoying. I click to do an action and it asks me if I am sure I want to pursue this action. As a power user, I don't want to be bugged by silly prompts every time I want to do something. I appreciate the purpose of the UAC and understand it is reducing security threats however to me - a power user that knows what hes doing, I shouldn't have to be bugged which is why I have disabled the UAC. I tried to get used to it but even after 9 months of trying, it simply did my head in.

What annoys me even more is now that I have disabled it, every time I start up my laptop, I am introduced with a lovely popup from the notification area telling me to enable it again and it won't stop - adding to the frustration.

Thursday, October 09, 2008 8:37 AM by [Laith](#)
re: User Account Control

I have to agree with commenter Tihy on this one.

I only get peeved with UAC when I'm doing a lot of "work" on the pc. I wouldn't mind being prompted once and have the option to allow for session.

Thursday, October 09, 2008 8:55 AM by [peterfnet](#)
re: User Account Control

@Daniel Smith

"Slightly OT but I'd like to remove the dialog box that pops up when you move something to the recycle bin asking if I'm sure I want to do this. I understand why you do this but I'd like the option to turn this off."

You can turn it off. (1) open the recycle bin. (2) click "organize / properties" from the menu bar. (3) uncheck "display delete confirmation box."

Heck, you can have things delete immediately if you want. You've been able to set these options since long before vista. You just need to dig around.

Thursday, October 09, 2008 9:05 AM by [quillaja](#)
re: User Account Control

I don't think you should attach too much importance to the data that so many admins approve the UAC prompt quickly, and don't remember what the prompt actually said. For me, it's the timing of

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx Go SEP OCT DEC 10 2007 2008 2009 92 captures 10 Oct 2008 - 28 Sep 2019 About this capture

the UAC prompt appears at an unexpected moment. On those occasions, I definitely stop, read the prompt, and think about my decision.

This might mean there's a "window of opportunity" for malware to get my approval when I think I'm approving something else, but I still feel safer than when there was no UAC.

Thursday, October 09, 2008 9:11 AM by [martinparry](#)

re: User Account Control

The idea of the UAC is right, but you need to work in options like "I Trust in this software" so the UAC don't display every time the popup.... and please avoid duplicate popup, i receive in some circumstances three popup for one operation ???

Thursday, October 09, 2008 9:24 AM by [CRMMario](#)

re: User Account Control

I'm using Windows Live OneCare and have chosen to manually allow software to access the internet. When a new software wants to access the internet, I'll get 3 prompts on Vista. First OneCare asking to allow this, then UAC asking to allow OneCare to allow this, and then again OneCare asking the same question again. Please make your own software work better with UAC. This task should be only one click. If it's UAC or OneCare asking doesn't matter. But it should be only one click.

I don't know if this has been fixed in SP1 as I've not tried it again. When I tried to sort my start menu programs on Vista (without SP1) by moving, deleting and renaming the shortcuts, I've got for every single action and shortcut an UAC prompt. I simply gave up sorting my start menu (the nice Vista menu with search box helps a lot with an unsorted menu).

Sometimes the UAC prompt starts minimized or in the background. I see only the flashing button in the taskbar and I have to click it to bring it into the foreground. An unexperienced user may miss this and never see the prompt and wonder why the action he wants to start doesn't work.

I want a feature that I can disable UAC prompts for a specific action (e.g. a checkbox in the UAC dialog "Never ask me for this action again"). So I can partially disable UAC for often used programs or actions. This could work similarly like a firewall. As soon as the program changes (filesize/hash/location), the UAC prompt will return.

Thursday, October 09, 2008 9:32 AM by [divinglog](#)

re: User Account Control

I think I caught the basic idea of UAC already in the first Vista beta. But as a so called 'Poweruser' I tend to turn the whole thing off, as soon as the installation is finished.

so, instead of controlling ALL of my action, or rather respond to always the same action, it would be great if the UAC had some sort of Training Mode..

You see that in Firewalls a lot, where the software 'tries to get an idea' of how people use the network, Ports etc...

(or at least that you would have some kind of option, that UAC remembers the choice I've made...).

Thursday, October 09, 2008 9:44 AM by [yogee](#)

re: User Account Control

I think it would be good to have some visual cue (like an alternatively colored title-bar or maybe a small icon), that makes clear that a program runs in elevated mode.

On a side note: I'm wondering how people are using their client-systems when the UAC-prompt is such a huge cause of annoyance. Although I consider myself a power user, I don't see many prompts as there's no need to change system-settings (or install software) on a daily basis.

Thursday, October 09, 2008 10:00 AM by [elmarj](#)

SEP OCT DEC

92 captures

10 Oct 2008 - 28 Sep 2019

2007 2008 2009

▼ About this capture

Thursday, October 09, 2008 10:10 AM by [simmans](#)

re: **User Account Control**

One thing that I don't know why more people don't complain about is UAC and networking. Other than the "ipconfig /renew" not working without running cmd with Run as... UAC and networking is my next most frustrating issue. For example, you are trying to run an application install off the network. Now in order to correctly install the software you are asked to "Run with higher rights" that of a local admin account. In a domain that local admin account does not have access to the files needing to be installed so the whole installation fails. Now some of you smarty pants might say well you should have been using group policy using msi's to deploy the software anyways!. There are still a lot of vendors that do not provide an MSI and sometimes I have seen where if the program itself does automatic updates like Adobe reader group policy sometimes kicks back in and tries to re-install the application which then completely renders the program useless. What I propose that Microsoft first an foremost is make their OS have the ability to have a regular user have a UAC type prompt that asks them for permission of the administrator. So many programs break if the user isn't an administrator. Although I hate to say it Linux and Mac OS do such a better job at this then compared with Windows. If the UAC gave the option to check off a box and then be able to specify an admin like "administrator@domain.local" that would really help us out. UAC is great for home users... terrible for Domains...

Thursday, October 09, 2008 10:18 AM by [jheinrichs79](#)

Can you talk about WGA?

I'm waiting a post about WGA. I hope you are able to provide a good protection against privacy for Windows. I don't why a big company like you unable to win against a small team of hackers. Or, maybe you deliberately giving chance to piracy in order to widespread Windows usage in third world countries which most of users unable or unwilling to buy a freaking expensive license of Windows. If what I'm saying is not right, I guess you know what you have to day. I'll keep viewing this blog and hope you will make a good post to explain your view on piracy and your anti-piracy strategy. Hope you'll have a good implementation too.

~babylon~

Thursday, October 09, 2008 10:38 AM by [babylon2233](#)

re: **User Account Control**

The problem with UAC is that it's not just the UAC prompts. Turning UAC off stops file and registry virtualisation, knacker up user settings and configurations in many programs (especially if you only have UAC on intermittently). Likewise this works in reverse. With UAC turned on, why is the DRM registry files around htcaccess hidden (even with "view hidden files" turned on)? - users sadly need to get there quite a bit to delete those files as the DRM registry is so prone to corruption, and if they do they have no idea that they're failing to do so unless they're running with UAC turned off - this forces three reboots for a task that should only take one.

WHY!!! It's baffling. UAC being on or off should control UAC only. It shouldn't randomly be changing file permissions and virtualisation at it's whim.

Thursday, October 09, 2008 10:55 AM by [The Phazer](#)

re: **User Account Control**

I simply hate the UAC prompts. I'd prefer to get a plain old "Access denied" message. You already have the "Run as Administrator" option on right-click on all applications. I can even put that as a default if I wish. A bit better "sudo" support would be great.

The problem is that if I run as a normal user with UAC turned off a lot of stuff just failes silently (especially registering ActiveX's with regsvr32.exe during install of apps). The application seemingly was installed fine, but when I start it up it failes due to missing ActiveX components.

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx

Go

SEP

OCT

DEC

10

2007

2008

2009

92 captures

10 Oct 2008 - 28 Sep 2019

About this capture

As a developer, most of time I am forced to create a do-nothing service simply for giving auto-elevation to my application. An Unix-like SUID feature will eliminate the need for creating services in such kind of scenario and reduce the number of services running on the system.

On Windows, one can set the flag "Run As Administrator" on an executable file. But Windows would prompt for credential when starting such file. I **really** hate this.

Thursday, October 09, 2008 12:03 PM by [AndrewWen](#)

re: User Account Control

My thoughts on UAC:

As an IT professional, I keep a good idea of what's going on for my system at all times, so UAC was an extreme annoyance for me. I'll admit I took the time to find the settings and disable it. I do appreciate Microsoft biting the bullet though and forcing the lazy application developers out there to actually think about what kind of access their programs really need. The side benefit we noticed is that it's been a lot easier to secure our Terminal Services farms now because a lot of the applications aren't fussy about requiring local administrator group privileges (this used to be a huge pain).

Overall I like the direction Microsoft is taking, as they've let the developer community be too lazy for too long, but keep this blog going, as I think every time you guys can explain why you're doing things with Windows Vista and Windows 7 in a particular way, you'll help us understand, and you'll get better buy-in from us in the IT pro community.

Thursday, October 09, 2008 12:44 PM by [Itfields](#)

re: User Account Control

In general, I actually really like UAC. So much so that I enable the 'Administrator' account in Vista and set my personal account to be a 'Standard User'. So not only do I get a UAC prompt, I have to type a different password in to allow that change. I like to think of it as similar to the security on a Mac or Ubuntu machine.

As many others, I'm sure, I do have my gripe with UAC, though, and the Windows 7 team seems to know about them already:

The Double Prompt. This one is the worst -- I'm getting a dialogue box telling me that I'm going to get another dialogue box? Seriously? This should never happen -- ANY UAC prompt should go STRAIGHT to the secure desktop. There a user can Continue or Cancel (or be required to enter a password) and that is that. I'm glad to hear that this is an area of change for Windows 7.

Thanks for the informative post!

Thursday, October 09, 2008 12:51 PM by [jrronimo](#)

re: User Account Control

As someone who uses Macs and Linux, the prompts are nothing new to me, I don't mind them at all.

It's kind of like asking people to wear seatbelts. It's a pain, and slightly uncomfortable - but in the grand scheme of things it's utterly justifiable.

What does concern me is specific flaws are being found that can escalate code to Admin privileges (a recent GDI+ flaw springs to mind).

Thursday, October 09, 2008 2:56 PM by [manicmarc](#)

re: User Account Control

I don't mind the prompts for installing software at all, my main problem is when I'm prompted for Windows operations. For example, when ever I start up my computer the first thing I do is start up task manager and I like to view all of the processes. Without UAC selecting the check box once keeps it checked for all future sessions, while with UAC I am prompted everytime I log on and check the

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx

Go

SEP

OCT

DEC

10

2007

2008

2009

About this capture

not remembered throughout that instance of IE. For example if I open a bunch of tabs from my art inbox on deviantART I have to renavigate from the My Pictures folder each time I save from a different tab instead of remembering the subfolder that I save to.

Thursday, October 09, 2008 3:08 PM by [Ravewulf](#)

re: User Account Control

There have been a few questions about the percentage of customers that disable UAC. Our data is showing that about 92% of people run with UAC enabled.

The interesting point to consider is the data about how many popups happen early in the usage of a new PC--this might cause an enthusiast to disable UAC early on and then decide not to enable it or neglect to enable it after the initial flurry of elevation requests. That is perhaps why this number, 8% disabled, might seem a tad bit higher than expected.

--Steven

Thursday, October 09, 2008 3:25 PM by [steven_sinofsky](#)

re: User Account Control

when there is new process (like application or something) run in the system, there is created new unique directory in Program Files. Process will have access into it - there will be "virtual" Program Files, Windows, Documents and Settings created there. Process will have created own Registry file, system will have some central Registry too and processes will see it as part of own (part in read only and part in read write mode - for example info about drivers and extensions assignment). Uninstalling application will be connected with removing "virtual" directory from Program Files, removing process registry file and things put into central Registry by process.

All processes will be working this way - Explorer, IE, etc. Some default apps will be able for more from box (like RegEdit) - info about this will be saved in Windows directory. It will be possible to give more privileges to each process too.

UAC will be visible only when application will try to add driver or when network connection will be set. It will be possible to select "always allow for it" and after giving password avoid question again.

Thursday, October 09, 2008 4:04 PM by [marcinw](#)

re: User Account Control

It seems to me that Windows core must be looked at first, before looking at the security issues, and UAC in particular.

How does malware infect computers? Which Windows components are typically compromised by malware the most? By now, information collected by UAC must have allowed to collect information about the actions that users usually reject. That would be a good place to start the analysis.

What can be done to reduce the number of UAC dialogs by changing such concepts as how the Registry is used, for example? Which legacy components can be dropped or replaced with virtual machine hosting processes? The idea is to encourage users to run legacy applications within Virtual Machines that simulate system boot-up from standby (instant VM).

What can be done to find which Windows components are broken? It is very hard to find holes in the Registry - too much data that is often meaningless even to advanced users. What can be moved out of the registry? SysInternals tools are very useful, but sometimes it still takes hours to find the source of an infection.

System Restore must be reviewed. Restoring system back to a restore point does not recover enough data. Very often, OS remains infected with malware. Therefore, System Restore is often useless.

One more thing that can be implemented is to run OS session in the "transaction" mode. Then, when a Windows shutdown or a user log-off is initiated, file system changes can be committed. And, if the

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx

Go

SEP

OCT

DEC

10

2007

2008

2009

92 captures

10 Oct 2008 - 28 Sep 2019

About this capture

Thursday, October 09, 2008 4:19 PM by [RuslanUrban](#)

re: User Account Control

I agree that "Run As" option I think is a must. UAC messages can be displayed in the active window as a modal dialog if the actions are initiated by a process that has an active window. It would eliminate some user frustration. Sometimes, it is hard to determine which program caused a UAC pop-up, and whether the action was expected.

User should be able to put applications into the list of trusted applications and permit or disable most common operations that are can be blocked by UAC. User should be able to remember settings for such operations when a UAC dialogs are displayed (add a checkbox or another button). And, developers should be able to incorporate UAC presets into the installation packages so the user would be able to accept recommended settings at once.

I somewhat agree with users that recommend suspending UAC messages for an application or even all applications for the duration of the session. Security can be compromised, unless running session in "transaction" mode when the changes to the file system are not committed.

Thursday, October 09, 2008 4:19 PM by [RuslanUrban](#)

re: User Account Control

- > I'm waiting a post about WGA. I hope you
- > are able to provide a good protection against
- > privacy for Windows.

well, it would be good to know, why does alternative method of checking genuine software (downloading application + copying code) connect to Microsoft server and exchange some data. Is it privacy ?

- > I don't why a big company
- > like you unable to win against
- > a small team of hackers

what man created, man can hack

Thursday, October 09, 2008 4:25 PM by [marcinw](#)

re: User Account Control

- > It seems to me that Windows core
- > must be looked at first, before looking
- > at the security issues, and UAC in particular.

YES, YES & YES. There must be changed some things on low level and we can speak about things on high level. Microsoft is already loosing some market (because of vista). He can't built new system on exactly the same solutions. Speaking about bells and whistles and "wow" will be not enough, there is required engineering knowledge and hard work.

Separating components must be done. Not total, because we will loose some functionality. But much bigger than in Vista. When architecture will be correct, we will not need to use so often System Restore, UAC and other.

Thursday, October 09, 2008 4:34 PM by [marcinw](#)

re: User Account Control

- > It seems to me that Windows core

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx Go SEP OCT DEC 10 2007 2008 2009 92 captures 10 Oct 2008 - 28 Sep 2019 About this capture

high level. Microsoft is already losing some market (because of Vista). He can't build new system on exactly the same solutions. Speaking about bells and whistles and "wow" will be not enough, there is required engineering knowledge and hard work.

Separating components must be done. Not total, because we will lose some functionality. But much bigger than in Vista. When architecture will be correct, we will not need to use so often System Restore, UAC and other.

Microsoft must hear customers, not only listen.

Thursday, October 09, 2008 4:35 PM by [marcinw](#)
re: User Account Control

In my opinion, the whole idea of the prompts is flawed at its core, and the model of users is not a reflection of how a real system should be.

An administrator should have the ability to perform administrative tasks, and it should be assumed that they know what they are doing = they don't need the popups asking them if they are sure.

A normal user should not have the ability to perform administrative tasks EVER, NEVER EVER!! Don't ask them if they want to - if they are not an administrator, they aren't allowed to do administrative things.

If a regular user account sincerely needs to perform an administrator action, then you should have to authenticate as an admin/superuser ... can you tell what I'm getting at - sudo - Unix/Linux/MacOSX - that's how they work.

Thursday, October 09, 2008 5:57 PM by [Dan.F](#)
re: User Account Control

In my opinion for an IT Admin or a power-user the UAC is a real annoyance and productivity killer. As many have already said before me I know exactly why I want to do changes to the Registry or delete files or folders in Program Files or Windows.

If UAC is a must for Windows 7 I would like to have the following choices (probably anyone who installs and configures Windows for a living will appreciate it):

- have the choice during initial Windows setup process to Enable or permanently disable UAC
- if I choose to Enable UAC please let me select if I want it enabled right away or after x minutes after the first log on
- if I create a new user and I grant it Admin rights I want those rights to be indeed full Admin rights not a slimmed down version
- allow for the UAC to be tweaked so it will show additional prompts only to the events I choose to monitor
- make UAC manageable through GPOs at the domain level
- as other users mentioned before create a distinction between actions made by an actual user and actions made by software

Probably I can think a dozen more features I would like to see in the UAC but I know that if I would get half of what I listed already I could consider myself lucky.

Finally, UAC was my main reason why I stayed away from Vista... even with UAC disabled there were times when I felt that my user with full admin privileges was not actually in full control over the system... we the IT people like to feel in control!

Thanks!

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx

Go

SEP

OCT

DEC

10

2007

2008

2009

92 captures

10 Oct 2008 - 28 Sep 2019

About this capture

Thursday, October 09, 2008 6:48 PM by [spacejumper](#)

re: **User Account Control**

@Daniel Smith

<<Slightly OT but I'd like to remove the dialog box that pops up when you move something to the recycle bin asking if I'm sure I want to do this. I understand why you do this but I'd like the option to turn this off.>>

The delete confirmation can easily be disabled. Right click the Recycle Bin desktop icon, select properties. Remove the check mark from the 'Display delete confirmation dialog.

Thursday, October 09, 2008 7:13 PM by [RonV](#)

re: **User Account Control**

I approve totally the UAC.

I don't understand why poeple are so upset about it.

True that most of basic users don't read the prompt and don't know why it's important.

One day I made a an experiment: I created a message box telling "Your hard disk will be completely erased. Do you want to continue?" and some poeple clicked "yes".

One shortfall of UAC is that it doesn't intercept certain attempts to modify the system.

I have seen two softwares which tried to modify the system settings or registry and simply produced nothing or an error from these program without UAC popping up.

What happens is that some programs don't work because the system is protected but UAC fails to inform you or to let you accept the changes.

Thursday, October 09, 2008 7:45 PM by [Fredledingue](#)

re: **User Account Control**

I disagree with UAC.

I've been using computers for over 6 years, running both windows and Linux and honestly I know what to do. The very first thing I do when ever I reinstall my O.S is disable UAC. I understand it's purpose. It's for dumb people who do stupid things on computers. It's probably the main reason why windows will always be held back. Always coding so many extra things for dumb users. I love my Linux machine because it doesn't always ask me if I'm sure I wanted to click on things, yes I do want to click on it, that's why I clicked it.

Windows is great, but fails because of Grandma and dumb people. Make two versions of windows, and 2 versions only. Call them:

Windows: Are you retarded?

Windows: Pwns the Noobs

Pretty simple, make the retarded one just have 30 UAC controls and actually disable the internet because after being a tech for awhile most of humanity just shouldn't be allowed to go on there, and stop downloading Limewire!!!

Pwns the Noobs version is the ultimate version basically, I run Vista64, oh and another thing start making all windows 64 isn't it about time this happen? Seriously. I love my Vista64 does everything I want it to do, and honestly I disable all the things that pop up on every machine that I have, I'm tired of you telling me things, I just don't care with what you have to say windows. Seriously, some people out there actually know how to use a computer, let them.

T
A

http://blogs.msdn.com/e7/archive/2008/10/08/user-account-control.aspx

Go

SEP

OCT

DEC

◀




10



▶

2007

2008

2009





92 captures

10 Oct 2008 - 28 Sep 2019

▼ About this capture

© 2008 Microsoft Corporation. All rights reserved. [Terms of Use](#) | [Trademarks](#) | [Privacy Statement](#)