System Managers Guide

# ABC-Restart V1.2.2

help users restart Windows

Simple as your first ABC
Flexible as an alphabet

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ABC-Deploy.Com

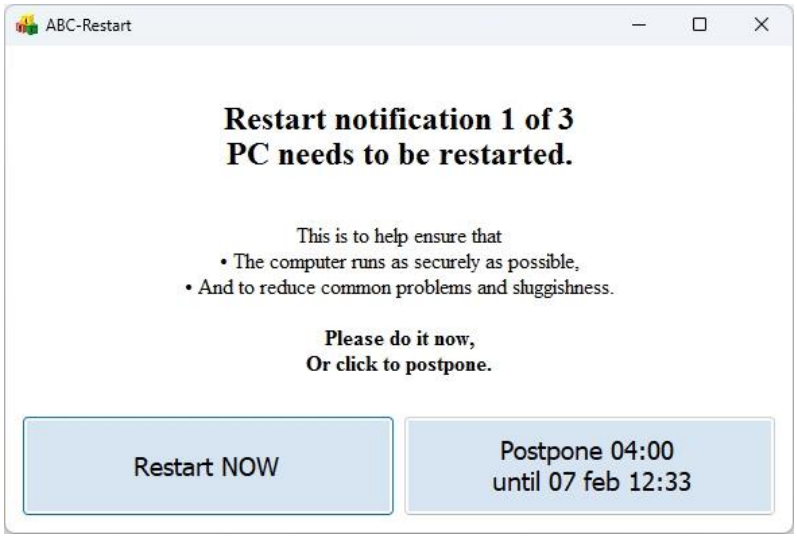
# Table of Contents

## What it is, and why you might like it

ABC-Restart is a tool to monitor if a restart is required, and help users get that done in a convenient time.

The tool is highly configurable, and can be set to not intervene when users have certain programs active. To the end user this means that we avoid interrupting Teams or PowerPoint sessions, and other inappropriate disturbances, and still get the restarts done.

All dialogs and buttons can be customized or even translated.
The restart information is HTML which means you can display almost anything you want, maybe phone number for IT support, or a link to company IT security policy.




### Requirements

Tested with all Windows versions since Windows 2008 / XP
.Net Framework V4.0 or higher are required.

### Downloads

The tool: Https://abc-deploy.com/abc-restart
This Guide: Https://abc-restart.com/files/ABC-Restart.pdf

### GDPR

ABC-Restart do not collect or store any GDPR relevant information anywhere.

### Feedback

Your personal feedback, positive, negative and your ideas to improve the product are always welcomed.
Pls. write to ABC-Restart@ABC-Deploy.Com

## Why restart

Restarting Windows after applying updates is a crucial practice for maintaining the security and integrity of the operating system. From a security perspective, this routine action is essential to address various aspects that contribute to the overall health and protection of the system.

Firstly, updates often involve the installation of patches designed to fix vulnerabilities in the operating system or installed software. These vulnerabilities could potentially be exploited by malicious entities. To fully implement these security measures, a system restart is required. Until then, the updates may not be fully integrated, leaving the system exposed.

Certain updates, particularly those related to critical system components or the kernel, necessitate a restart to replace in-use files. Restarting the system ensures that these updates take effect from the beginning of the boot process, providing a comprehensive refresh of essential system elements.

Beyond security considerations, regular system restarts contribute to overall stability and performance. Accumulated updates and changes over time can lead to system glitches or slowdowns. Restarting allows the system to start afresh, often resolving these issues and maintaining optimal performance.

In enterprise environments, user authentication and authorization mechanisms may be affected by certain security updates. Restarting the system is necessary to ensure that users log in with the most up-to-date security configurations, aligning with the organization's security policies.

In summary, the act of restarting Windows after updates is not merely a procedural step; it is a critical component of maintaining a secure, stable, and well-performing computing environment. It is an integral part of the ongoing effort to safeguard against security threats, implement vital updates, and ensure the smooth operation of the operating system.

## Fast-Boot

Fast Startup has become a default feature in Windows operating systems, providing users with a faster way to resume their systems while maintaining the appearance of a complete shutdown.

However – With Fast Boot the current system state is saved to a hibernation file during shutdown. Using Fast Boot on a computer, while convenient for quicker system resumption, does come with certain security considerations. Here are some points to be aware of:

- Some updates, especially security updates, may not take full effect until a traditional restart. Relying solely on Fast Boot might delay the application of critical updates, leaving the system exposed to vulnerabilities.
- In a persisted state, malware or security threats that were present before the shutdown might still be active when the system resumes. This could potentially expose the system to security risks.

## Preservation of State, But at a Cost:

While Fast Boot is designed to balance speed and convenience, it's important to consider the security implications.
In essence, the decision to rely on fast boot needs to be balanced against the broader health and performance of the system. While the speed of resuming operations is undoubtedly convenient, users must weigh this against potential long-term consequences such as system fragmentation, unresolved issues, and delayed application of critical updates.

## Turn off Fast-Boot ?

With ABC-Restart, you have the option to retain Fast Boot functionality while ensuring optimal protection, because ABC-Restart assists users in initiating a full reboot when necessary.
In cases where users neglect the reboot recommendations, a forced reboot will be implemented when needed.

Fast Boot can be deactivated using group policies, Intune policies, or other methods within a Windows domain, if the administrator chooses to do so.

To disable Fast startup using a GPO to alter registry, set this:

> HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\Power.
> HiberbootEnabled (DWORD (32 bit))
> HiberbootEnabled 0

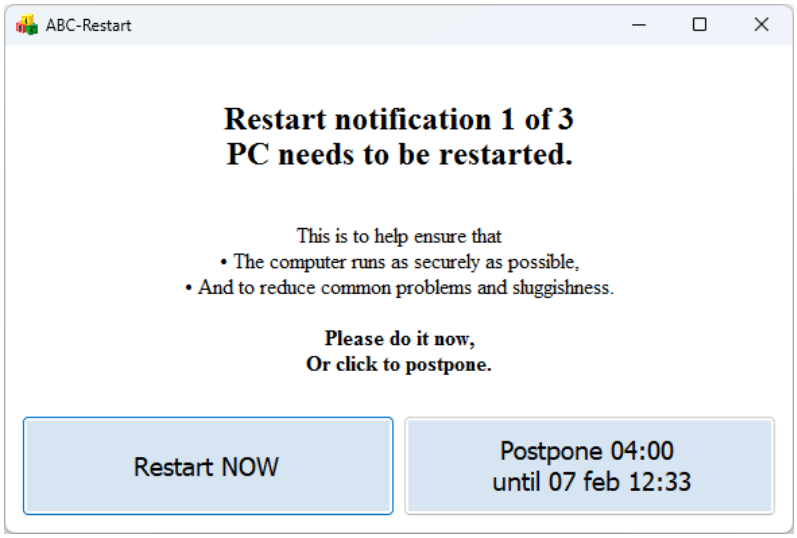
## User experience

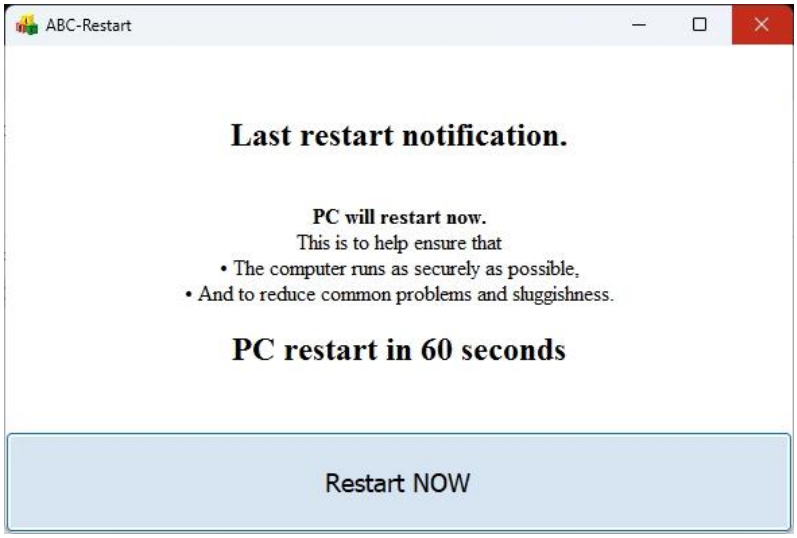
Users are informed when a restart is pending, and given the opportunity to postpone the restart a number of times. Only when max restart warnings are reached then a restart is forced.

Because we want to help users, and make the restarts as little annoying as possible, ABC-Restart protect selected programs from being interrupted by restart requests. Default is to not interrupt Teams or PowerPoint when these programs are running in the foreground.

When one of the protected programs is no longer in the foreground (User close program, or switches to something else). Then there is a delay (default 3 minutes) before ABC-Restart will display any notifications.

As we have protected programs, we also have protected users – names of users who will never get a notification message. You should really not use this, but in case of super hysterical managers it might be a life saver 😊



# Installation

When you download ABC-Restart it comes in the form of a Windows Installer .MSI package that should be distributed to the clients you want to protect.  Software is available here: https://abc-restart.com

The purchased version contains the license key, company name, and number of licensed pc's.

The trial version is valid for 30 days, and can be deployed for testing to any number of pc's.
When trial has expired the software is automatically removed after an additional 30 days. This makes it easy for you as a sysadmin to test ABC-Restart with many pc's, because you will not need to bother to uninstall the trial manually.
If you later decide to purchase the software, then you get a new MSI with the license key embedded, and instructions for how to update.

## Install by GPO

GPO software deployment is a simple and easy way to deploy smaller and uncomplicated software packages, and well suited for ABC-Restart.

1. Create a New GPO:
   Open the Group Policy Management Console (GPMC) on a Windows Server computer.
   Create a new Group Policy Object (GPO) or use an existing one.
2. Edit the GPO:
   Right-click on the GPO and choose "Edit" to open the Group Policy Management Editor.
3. Navigate to Software Installation:
   Under Computer Configuration, expand Policies, then Software Settings.
   Right-click on Software Installation and select New > Package.
4. Select the MSI Package:
   Browse to the network location where the MSI package is stored.
   Select the MSI file and click Open.
5. Set installation method
   In the Deploy Software dialog box, select the deployment method. Choose "Assigned" for automatic installation.
6. Finish Configuration
   Click OK again to close the Deploy Software dialog box.

Force Group Policy Update:
On target computers, open a command prompt and run `C:\> Gpupdate /force`
This command forces the Group Policy to be applied immediately.

Alternatively wait until next time pc's are restarted, they will then have ABC-Restart installed and working.

## Install using PsExec

It is also possible to push install over the network using PsExec.
PsExec is a command-line tool that allows system administrators to execute processes on other systems, remotely. The tool is available here: https://learn.microsoft.com/en-us/sysinternals/downloads/psexec

PsExec enables administrators to run programs or commands on remote computers, providing a way to manage systems and perform administrative tasks without physically being present at each machine. It is particularly useful for tasks such as running scripts, installing software, and troubleshooting issues on remote computers.

It's important to note that PsExec uses the Windows SMB (Server Message Block) protocol for communication, and it requires administrative credentials on the remote machine to execute commands. Additionally, antivirus software may sometimes flag PsExec as a potential security risk because of its ability to execute commands remotely.

- Example:
  Make a file containing the computernames you want to deploy ABC-Restart to.
  Example: *computers.txt*
- Logged in as a domain admin, issue this command

```
C:\> PsExec.exe @computers.txt -c -f -s ABC-Restart.msi /i
```

Explanation:
This command uses PsExec to copy the MSI file to the remote machine's temporary directory and then execute it with the specified parameters. Adjust the paths and filenames according to your environment.

`-c`: Copy the specified program to the remote system for execution.
`-f`: Copy the program even if the target file already exists on the remote system.
`-s`: Run the process with the System account (equivalent to running as administrator).
`/i REINSTALL=ALL INSTALLMODE=vamus` Install the software ignoring if it is there already.

## Install by SW deployment tool

Your preferred SW deployment tool should simply make a .MSI installation.

```
MsiExec.exe ABC-Restart.msi /i
```

Customizations will be in the form of registry changes, and most easy to apply a .reg file that software distribution tool will push to target machines.

## Customize the installation

It is possible to tweak how the program works, and how it presents itself to end users.
You might even rewrite the user dialogs in your own language (default is English).
This is done by setting parameters in registry on end users machines.

Tweaks:

- Protected_Programs  Default is “ABC-Update”
  List of process titles that if present will hold back and silence all ABC-Restart operations. Separate names with “;”
  .MSI Property is PROTECTEDPROGRAMS
- Protected_ForeGround_Programs  Default is “POWERPNT;TEAMS;WEBEX;ZOOM”
  List of process titles that if running in the users foreground will hold back and silence all ABC-Restart operations. Separate names with “;”
  .MSI Property is PROTECTEDFOREGROUNDPROGRAMS
- ProtectedUsers  Default is “none”
  List of usernames who will not get the restart warnings, and when logged on PC will not restart. Separate names with “;”
  .MSI Property is PROTECTEDUSERS
- Protected_Seconds  Default is 180
  Time to wait if a protected program or a protected user is holding back restart operations.
  .MSI Property is PROTECTEDSECONDS
- CountDown_Seconds  Default is 60
  Timeout for forced restart.
  .MSI Property is COUNTDOWNSECONDS
- Wait_Minutes  Default is 60
  If a restart is pending – Minutes to wait before asking users to restart.
  .MSI Property is WAITMINUTES
- Postpone_Minutes  Default is 180
  If a restart is pending – how many minutes users can postpone.
  .MSI Property is POSTPONEMINUTES
- Postpone_Count  Default is 3
  If a restart is pending – how many times users are allowed to postpone
  .MSI Property is POSTPONECOUNT
- Uptime_Max_Minutes  Default is 8640 – 6 days
  Mark the system for restart if system has been running longer.
  .MSI Property is UPTIMEMAXMINUTES
- AutoUpdate  Default is Yes
  If you want software to autoupdate from https://abc-deploy.com
  .MSI Property is AUTOUPDATE

Tree ways to customize

- Change the information inside the .MSI
  Use Orca or any other MSI editing tool, and change properties as described above.
- Or apply parameters to the MSI installer
  Ie: msiexec.exe /I ABC-Restart.msi POSTPONECOUNT=4
- Or distribute a .reg file after installation
  Easy way to do this, is to change the values in the registry, then export to a .reg file, and distribute to the clients who need it.
  Reg files can be distributed by use of GPO, PsExec or any mature software distribution tool.

## Logging

Operations of the background loop are logged in %AppData% of the local system.
In a typical Windows installation you will find the logfile at this location:

C:\Windows\Temp\ABC-Deploy\ABC-Restart

Operations related to dialog  with the end user is logged in the %AppData% directory of said user.
This log will normally be found here:

C:\Users*"UserName"*\AppData\Roaming\ABC-Restart

Logfiles are maintained automatically to not grow beyond one Mbyte.