EH! DEVELOPER IS LYING – THE BUG IS REPRODUCIBLE

For Automation Geeks| By Bharat Kakkar

$\mathcal{M}$any a times we come across some issues which we call as machine specific issue or a

developer says it's not reproducible.

These issues are often not reproducible on other than the computer we are working with. Often these are just because of different settings within the operating system which we generally neglect and keep on struggling to reproduce the issue on other machines. Such issues rarely turn out to be an application specific, rather most of the times they come across as operating system or because of user specific settings within the operating system.

Programing is creativity, respect the creativity and give programmers the credit for basic intelligence and thought implementation.

> **Note:** If a developer says "it's not reproducible", there may be following two possible reasons:
> ✓ Either this is really a machine specific issue.
> ✓ Or you have not provided enough information to reproduce the issue.

The intent of this article is to deal with machine specific issues and create a check list to run through before declaring a bug in AUT (Application under Test).

1. **User Account Control and windows Security options:** One of the very common scenarios is when the user doesn't have the rights or privileges to perform the actions implemented within the application.

   Following are the scenarios were you may check the security settings before (Applicable, if you are working with Windows Vista or above.)
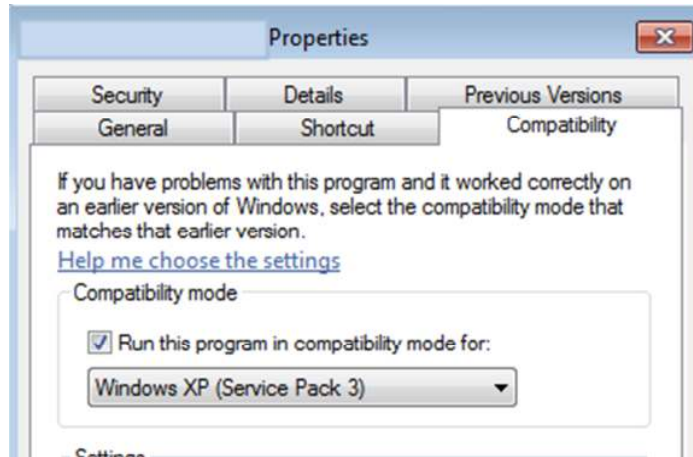
   - Application crashes when you try to save some settings.
   - Application crashes when you launch an instance.
   - Application hangs upon launching.
   - Application runs on a specific machine and it seems all.
   - Application fails to install, stating "permission denied".

   > **Note**: If you are a developer please read the MSDN article "http://msdn.microsoft.com/en-us/magazine/cc163486.aspx" to Teach Your Apps to play nicely with user account control.
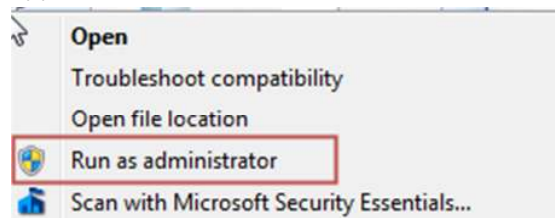
   If you fall under one of the aforesaid scenarios, you must check windows security options to see if that's the reason your application failing or it's really a bug. Let us see how to check the root cause:

   - **Try turning off the User Account Control** – Navigate to control panel and search for "User Account control" and disable the option (you would have to restart windows to get this implemented.
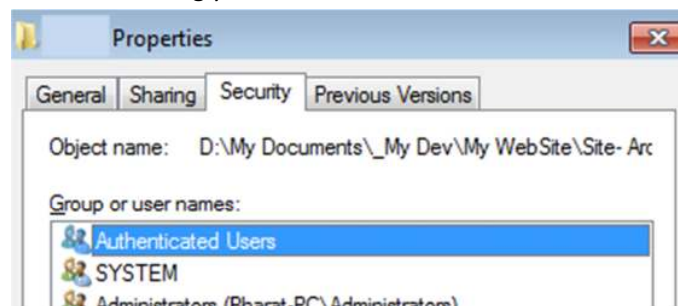
- **Try executing the program in compatibility mode** – Right click the application Icon, navigate to the properties, select the compatibility tab and chose the compatibility mode to be Windows XP or XP SP3

- **Try executing the application with admin permissions** – Right click the application and run it as an administrator.
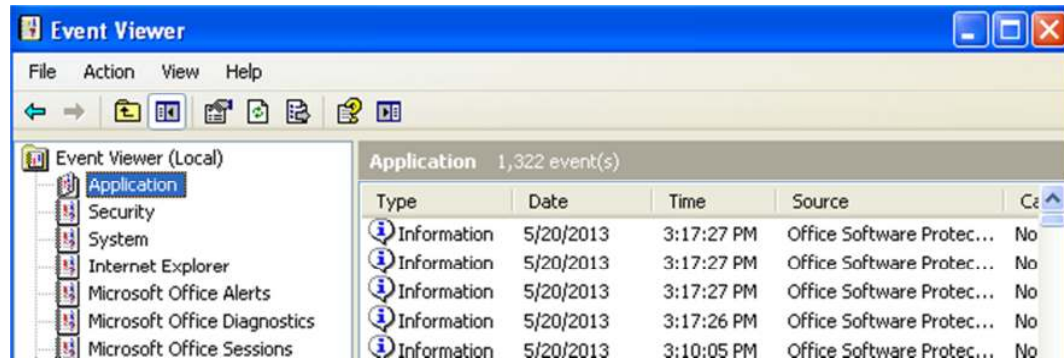

- **Try giving the admin privileges to the installation folder of the application** – Right click the application's installation folder, navigate to the properties page and select security tab and add yourself with full permission or if you are working on one of the systems within a specific domain add "Domain user" instead of adding your username.
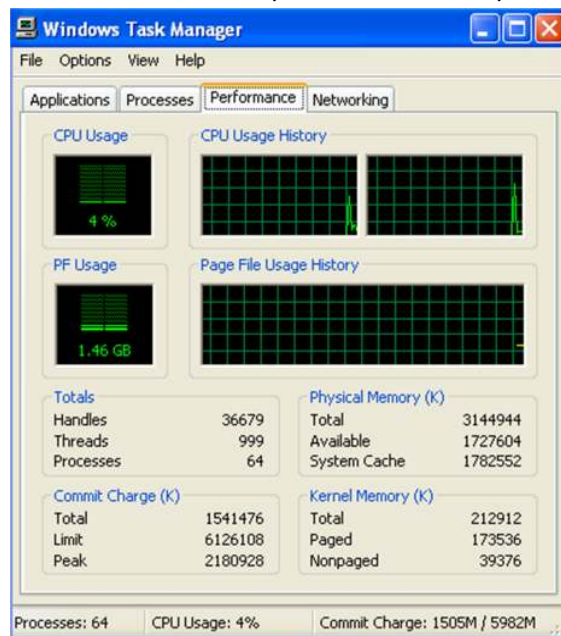

Note: If this step solves your issue do let your developer know that user privileges are creating issues executing the application.

2. **Use Event Viewer**: If step one doesn't help you anyways, please check windows error log to see if you may find a possible reason for failure.
Administrative Tools > Event Viewer

3. **System Resources:** Check your system resources like CPU usage/virtual and physical memory available for use. Low system resources may cause AUT to fail.

4. **AUT's Prerequisites:** Make sure the prerequisite of the application (AUT) is installed and is not corrupted. For an example
   - An application developed on java platform would require JVM (Java Virtual Machine) to be installed on your system.
   - An application developed in Visual studio would require a specific version of .Net to be installed on the system.
5. **Could that be compatibility issue rather than an error in the code?** Since the evolution in Windows operating system there is always something new related to security in every new version of Windows. The issue you might be facing could be because of one of these security

features, if your AUT has been designed for XP users or been updated to be compatible with Windows Vista/ Windows 7 and above, it is quite possible that the error you have encountered is because of these new features. Let us see what are the most common "compatibility issues" encountered on Windows Vista and above.

Remember developer is your friend; do check for these and remind your friends that these issues could be cause of the failures.

- **Windows Resource Protection (WRP):** This feature enables to safeguard programs and files that was originally shipped with OS to be overridden, thus to protect applications from any impact of other applications. If your application's installer replaces any such file with some added features in the library, OS will replace the library with the original file shipped. Overriding such files would require this feature to be turned off.
- **Windows Session:** If your application is windows service based and your login is different from the session on which the service is running, try running the application service within your session and see if it was service communication issue within different sessions.
- **Internet Explorer Protected Mode**: If your application is a web based application remember that by default IE7 and above works in protected mode to safe user from network based attacks and hence disables features like ActiveX executions.
- **Special folders:** Windows special folders like "my documents" and windows installation folders are created differently of different OS; make sure developer has not hardcoded any such folder.