Winlogon Notification Library for Windows 7

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| MODIFICATION DATE  CREATOR  FILE NAME  DESCRIPTION  VERSION HISTORY  COMPANY | 1/15/2013  Isabel Lachin  Winlogon Notification Library Specification  Winlogon Notification Library implements all Windows events and selects what applications should  be triggered within each event  1.0  Panasonic Software Solutions |

Project Summary

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| This library is intended to mimic the Winlogon Notification Packages from Windows XP and earlier and implement those targeting Windows 7 and higher. The objective is to be able to eventually specify which application should be triggered and executed within each event of Notification Packages.  A major architectural change was made after Windows XP. Starting from vista and above, not only are Winlogon Notification Packages are gone, but also services run in a separate session all to themselves. In Windows XP, Windows Server 2003, and earlier versions of Windows, all services ran in Session 0 along with applications, which resulted in a security risk. In Windows Vista, Windows Server 2008, and later versions of Windows, the operating system isolates services in Session 0 and runs applications in other sessions, so services are protected from attacks that originate in application code. In order to accomplish this, the application services and driver services needed to be modified to run in later versions of Windows.  The events included in Winlogon Notification Packages are:   |  |  | | --- | --- | | **Lock** | This event occurs when the user locks the workstation. | | **Logoff** | This event occurs when a user logs off from the system. The **Logoff** event is performed synchronously, even if the notification package's registry settings indicate that it can handle events asynchronously. This event occurs when a user logs on the system. | | **Logon** | Note that the **Logon** event occurs before the user's network connections are restored. If your event handler requires access to the user's network connections, it should handle the **StartShell** event instead of the **Logon** event. | | **Shutdown** | This event occurs just before the system shuts down. | | **StartScreenSaver** | This event occurs when the screen saver has started. Typically, this happens after a user has been inactive for a set period of time. Functions handling this event should not display a user interface. **StartScreenSaver** event notification is intended for informational purposes only. | | **StartShell** | This event occurs after the user has logged onto the system, network connections have been established, and the user-specified shell program (usually Windows Explorer) has been started. | | **Startup** | This event occurs when the system is started or restarted. | | **StopScreenSaver** | This event occurs when the screen saver has stopped. Typically this happens when there is keyboard or mouse activity. Functions handling this event should not display a user interface. **StopScreenSaver** event notification is intended for informational purposes only. | | **Unlock** | This event occurs when the user unlocks the workstation or when a system administrator overrides the lock and logs the user off. | |

**Helpful Links**  [http://msdn.microsoft.com/en-us/library/windows/hardware/gg463353.aspx](http://msdn.microsoft.com/en-us/library/windows/hardware/gg463353.aspx%20)

<http://support.microsoft.com/kb/925519>

<http://technet.microsoft.com/en-us/library/cc721961%28v=ws.10%29.aspx>

**New Supported Events**

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| **Events** | **Before Windows 7** | **New Event** |
| **Lock** | WLEventDisplaywinlogon | HandlerEx WTS\_SESSION\_LOCK event. Or SENS: ISensLogon:DisplayLock |
| **Logoff** | WLEventDisplaywinlogon | HandlerEx WTS\_SESSION\_LOGOFF event. Or SENS: ISensLogon:Logoff OR a group policy logon script |
| **Logon** | WLEventSetRunState | HandlerEx WTS\_SESSION\_LOGON event. Or SENS: ISensLogon:Logon. Or a group policy logon script |
| **Shutdown** | WLEventTermDefault | HandlerEx SERVICE\_CONTROL\_SHUTDOWN event. Or a group policy computer shutdown script |
| **StartShell** | WLEventDefaultDesktop | SENS: ISensLogon:StartShell |
| **Startup** | WLEventDisplaywinlogon | Create a service that starts when the system starts up, and handle this event when your service is initialized. Or a group policy computer startup script |
| **Unlock** | WLEventSetRunState | HandlerEx WTS\_SESSION\_UNLOCK event or SENS: ISensLogon:DisplayUnlock |

**Requirements:**

1. .NET 3.5 or higher
2. Compatibility on Windows 7 and higher
3. Programming language used: C#
4. ClickOnce deployment which Installs under Program Files\ folder for easy download and install

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| Screen: Blank Desktop | Interactions  The installed application is stored under Program Files.  The user will use the UI interface to subscribe to different events as well as selecting the executable application they would like to see being triggered.  For demoing purpose, a small executable with two buttons has been demonstrated below in Test and Example section. |
| Screen: Desktop Settings   |  | | --- | |  | | Interactions  **1** Confirm changes immediately and closes the Settings dialog going back to Blank Desktop.  **2** Selection takes it to Screen: Dialog Prelogin  **3** Selection takes it to Screen: Dialog Postlogin  **4** Selection takes it to Screen: Registry Setup |

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| Screen: Dialog Prelogin | Interactions  **Browse to the executable application.**  **3** Selection takes it back to Screen: Desktop Settings  **4** Selection takes it back to Screen: Desktop Settings |
| Screen: Dialog Postlogin | Interactions  **Browse to the executable application.**  **3** Selection takes it back to Screen: Desktop Settings  **4** Selection takes it back to Screen: Desktop Settings |
| Screen: Registry Setup | Interactions  **Browse to the executable application stored in registry.**  **3** Selection takes it back to Screen: Desktop Settings  **4** Selection takes it back to Screen: Desktop Settings |

Screen: Example Logon Event

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Screen: Test Ctrl Alt Del

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| |  | | --- | | Screen: Ctrl Alt Del | | Interactions  **1** Ctrl-Alt-Del will take users to Screen: Ctrl Alt Del and the application if subscribed will appear. |

Screen: Test Lockup Event

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| |  | | --- | | Screen: Lockup Event | | Interactions  **1** Locking the computer will take users to Screen: Test Lockup Event and the application if subscribed will appear on the locked screen. |  |