



## Buffer overflow occurs though the ability of PC is satisfactory!



~ Information 002: How to stop the Automatic Disk Defragmentation function. ~

July 1st, 2016 Akiyama Manufacturing

\*Note: The "Information xxx" is the document which provides information about the important item that we can't do description easily in FAQ in many questions which we got from the customers.

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### [Introduction]

Windows OS is multi-task OS. However, Windows OS is not real-time OS.

Therefore, we set up the following precaution of operation so that the Serial Port Monitor and Analyzer (Model AKM-RSM-100) can be actuated by the high precision.

- \* Shut other applications when AKM-RSM-100 is actuated and when AKM-RSM-100 is operated.

However, the following 3 kinds of programs are often forgotten.

- (1) Virus Check Program
- (2) Automatic Backup Program
- (3) Automatic Disk Defragmentation Program

When the following behavior occurred while the Line Monitor or the Support of Debugging function of the Serial Port Monitor and Analyzer (Model AKM-RSM-100) are being executed, adjust the condition of your PC in accordance with this Information.

### Behavior:

Though the throughput and resource of PC are sufficient...

- (1) Line Monitor (or Support of Debugging function) is **sometimes sluggish**.
- (2) **Buffer Overflow occurs** after several minutes from the start.

When you met with such behavior, do the following actions first.

**Action 1:** If the Virus Check Program was being actuated of Update or of Schedule Scan, stop it temporarily.

**Action 2:** If the Automatic Backup Program was being actuated, stop it temporarily.

**When you couldn't solve this behavior by the above actions, try to stop the Automatic Disk Defragmentation function.**

## **[How to stop the Automatic Disk Defragmentation function]**

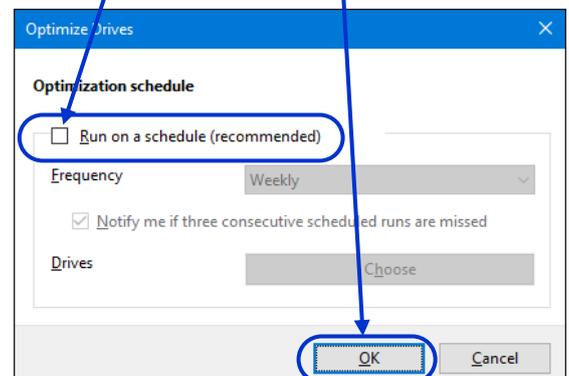
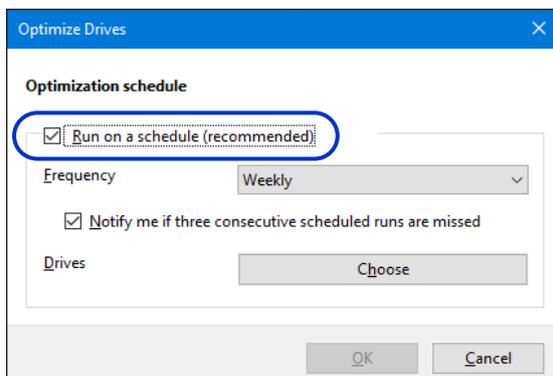
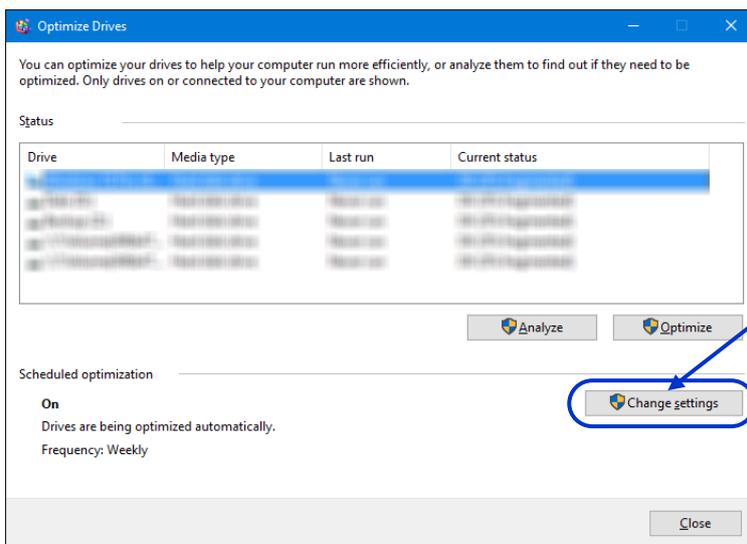
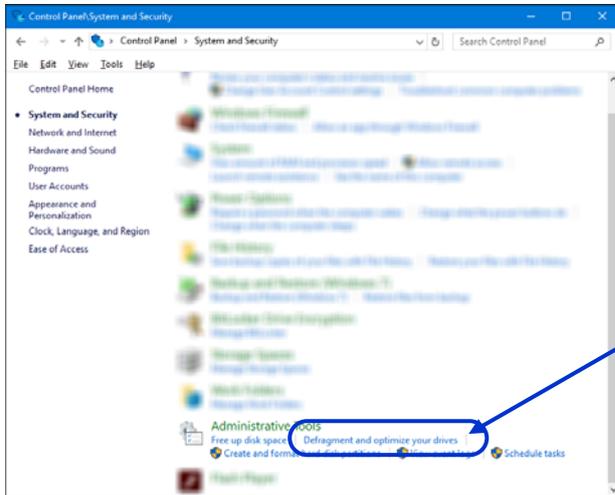
The description of "How to stop the Automatic Disk Defragmentation" of each Windows OS is following.

- \*Note: The Automatic Disk Defragmentation function is a typically useful function. Even if this behavior could be solved due to the stop of Automatic Disk Defragmentation function, when the Line Monitor (or the Support of Debugging function) isn't being actuated, the "Automatic Disk Defragmentation function" should be set up in so that it may be actuated.
- \*Note: When all the storage of PC being used is the Memory (SSD, and so on), the Automatic Disk Defragmentation function won't be actuated by control of Windows OS. In the case of such a PC, the stop of the Automatic Disk Defragmentation function can't be expected of the solution of this behavior.
  - Just in case, it is important to confirm how the Automatic Disk Defragmentation function is being set up.

# [Windows 10, Windows 8.1, Windows 8]

\*Note: The images in this page are images of Windows 10. But, the operation of Windows 8 and Windows 8.1 is almost the same.

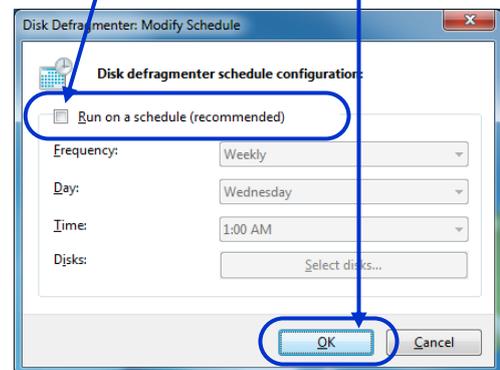
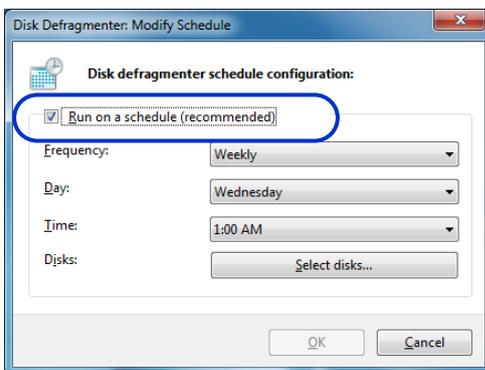
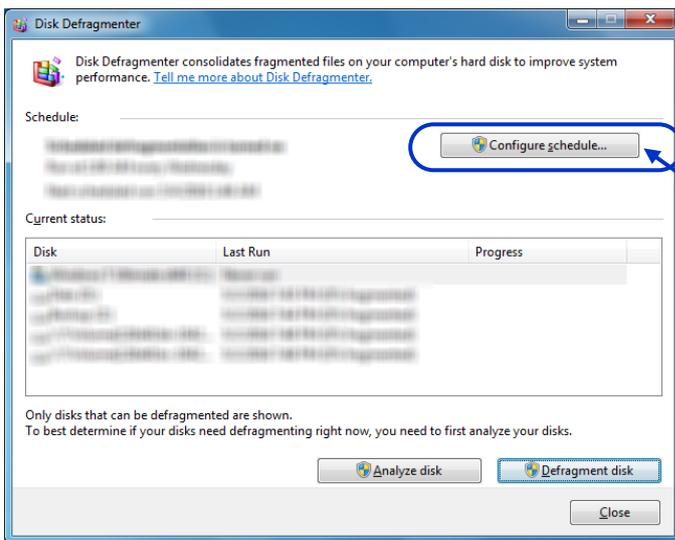
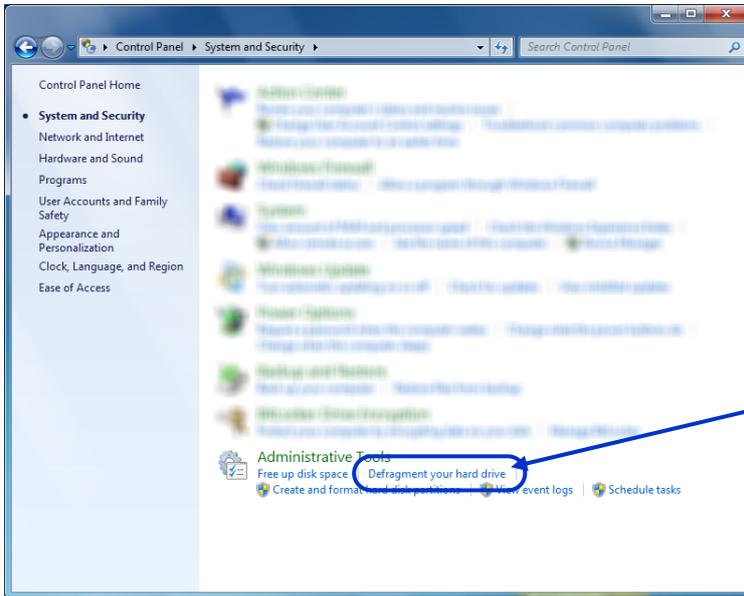
Do login with the Administrator authorization. Then, open [System and Security] from [Control Panel]. After that, the Automatic Disk Defragmentation function is stopped by the following procedure.



After the above, click on "Close" of [Optimize Drives]. Then, close the [Control Panel].

## [Windows 7]

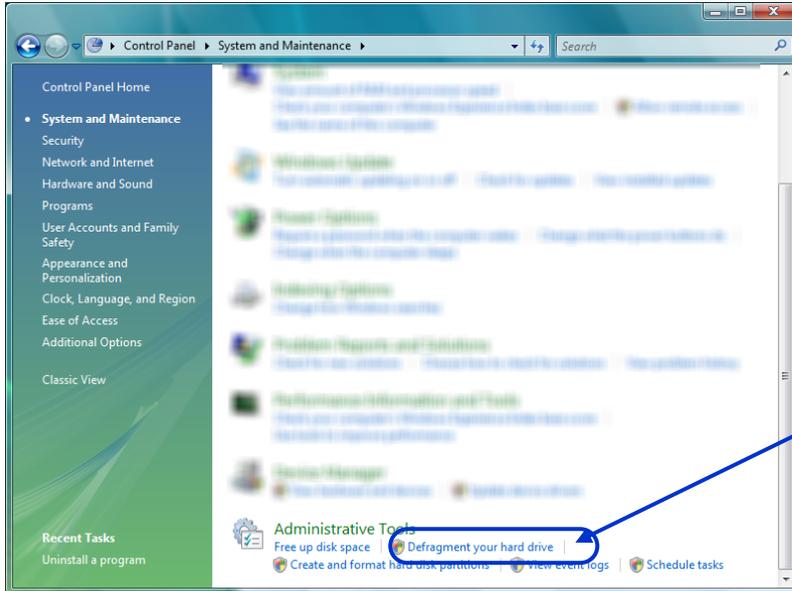
Do login with the Administrator authorization. Then, open [System and Security] from [Control Panel]. After that, the Automatic Disk Defragmentation function is stopped by the following procedure.



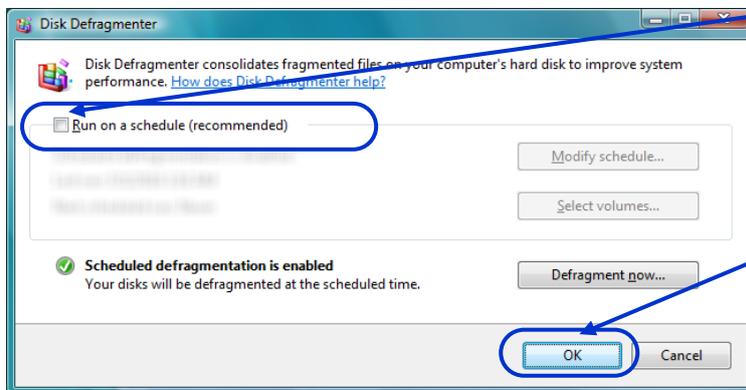
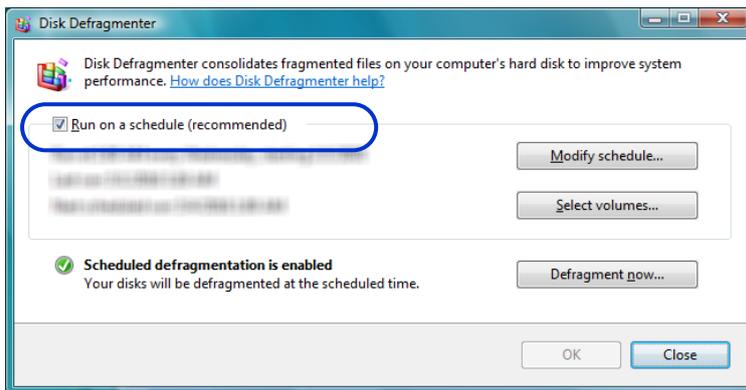
After the above, click on "Close" of [Disk Defragmenter]. Then, close the [Control Panel].

# [Windows Vista]

Do login with the Administrator authorization. Then, open [System and Security] from [Control Panel]. After that, the Automatic Disk Defragmentation function is stopped by the following procedure.



Click on [Defragment your hard drive] of the [Administrative Tools]



Remove the check of [Run on a schedule].

Then, click on [OK].

After the above, close the [Control Panel].

## [Windows XP]

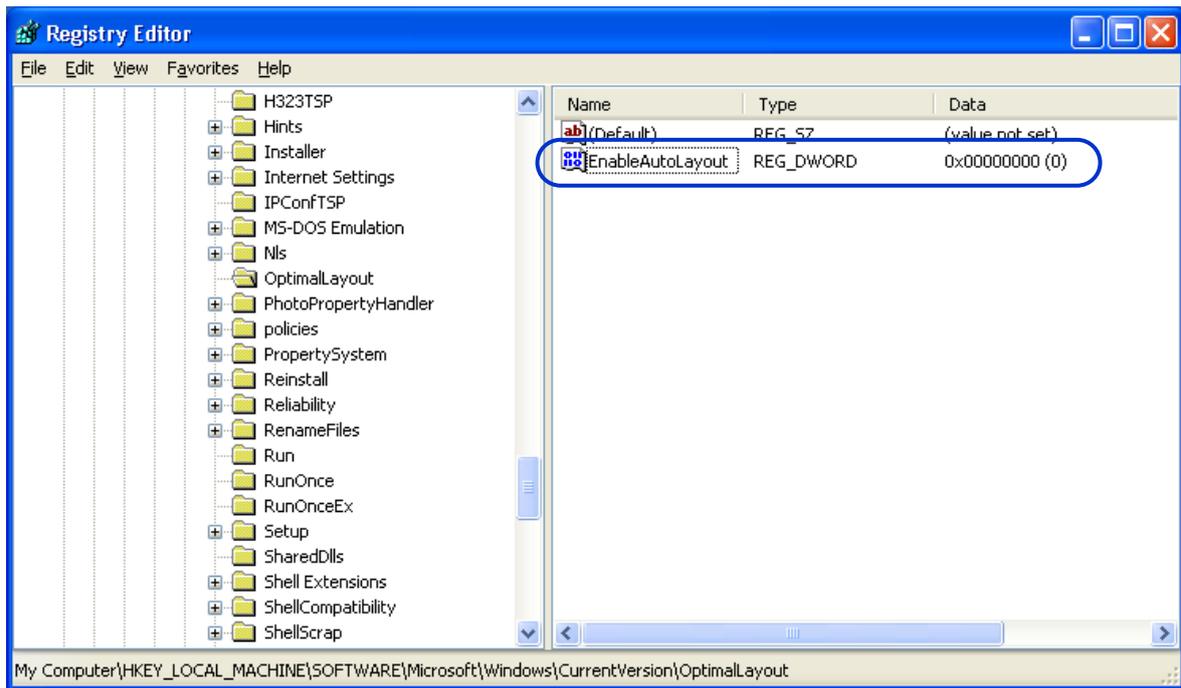
*\*Note: In the case of Windows XP, you must modify Windows Registry. Do this modification carefully.*

Do login with the Administrator authorization. Next, click on [Run] menu in the Start Menu. Then, input "regedit32" to the text box, and click on [OK].

Registry Editor will be executed. After that, open the following key.

My Computer \ HKEY\_LOCAL\_MACHINE \ SOFTWARE \ Microsoft \ Windows \   
 └─ CurrentVersion \ OptimalLayout

Right click on [OptimalLayout] key. Then, click [Add Key] on the Edit menu. And, make new DWORD value [EnableAutoLayout]. Set up 0 as its value. Then, click on [OK].



Shut Registry Editor down. Then, restart Windows

- End -