



Agent Procedure
Identifies USB External Storage
For Exclusion in Creating Alarms

Guide

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USB Storage Exclusion For Low Disk Alarms (Ver A)

The Ver A labeled solution defines a monitor set that will test Windows OS % free space for drive letters C: - I:. Import the monitor set and agent procedure included in this solution package.

Import all items from System – Import Center. The File to import is PS__USB_Storage_Alarm_Exclusion.xml.

In the Agent Procedure Module in the Shared – Import Center folder:

- PS-External USB Drives Exclusion (Rev A)
- PS-USB Flash Drive Exclusion (Rev B)

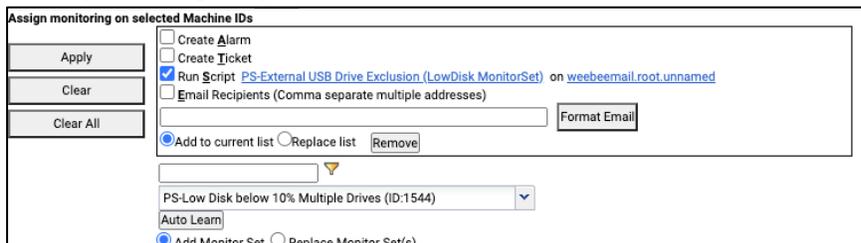
In the Monitor Module in the AutoExchange – PS-LowDisk folder:

- PS-Low Disk less than 10% (Ver A. Multiple Drives)
- PS-Low Disk less than 10% (Ver B. All Drives)

Ver A will exclude all USB storage devices. This includes USB Flash Drives and USB External Hard Drives.

Monitor Set

Assign imported Monitor Set to Windows OS endpoint. Set alarm notification to Run Script and point to the imported agent procedure.



Monitor Set will check for drive letters C: through I: for % Free Space less than 10%. Modify the alarm threshold or add new drive letter instance if necessary.



USB Storage Exclusion For Low Disk Alarms

Monitor Set Name: PS-Low Disk below 10% Multiple Drives

Monitor Set Description: Low Disk Monitor set for drives C - I with threshold set at 10% free

Enable Matching

Group Alarm Column Name: Low Disk

| Object | Counter | Instance | Counter Name | Description | Collection Operator | Collection Threshold | Sample Interval | Alarm Operator | Alarm Threshold | Duration | Re-Arm Alarm | Warning% | Trend Activated? | Trending Window | Re-Arm Trending | allConfigId |
|-------------|--------------|----------|--------------|-------------|---------------------|----------------------|-----------------|----------------|-----------------|----------|--------------|----------|------------------------------|-----------------|-----------------|-------------|
| LogicalDisk | % Free Space | C: | LogicalDisk | C | Under | 50 | 4 hrs | Under | 10 | 25 sec | 7 days | 10 | No - Trending is not need... | 14 days | 1 hrs | |
| LogicalDisk | % Free Space | D: | LogicalDisk | D | Under | 50 | 4 hrs | Under | 10 | 25 sec | 7 days | 10 | No - Trending is not need... | 14 days | 1 hrs | |
| LogicalDisk | % Free Space | E: | LogicalDisk | E | Under | 50 | 4 hrs | Under | 10 | 25 sec | 7 days | 10 | No - Trending is not need... | 14 days | 1 hrs | |
| LogicalDisk | % Free Space | F: | LogicalDisk | F | Under | 50 | 4 hrs | Under | 10 | 25 sec | 7 days | 10 | No - Trending is not need... | 14 days | 1 hrs | |
| LogicalDisk | % Free Space | G: | LogicalDisk | G | Under | 50 | 4 hrs | Under | 10 | 25 sec | 7 days | 10 | No - Trending is not need... | 14 days | 1 hrs | |

Agent Procedure

The agent procedure leverages variables from the Alarm. The alarm properties allows to check individual alarms, whether the drive letter is a USB storage then act accordingly.

The PowerShell script to test whether a drive is a USB storage device.

```
try {(Get-Partition -ErrorAction SilentlyContinue -DiskNumber (Get-Disk | Where-Object -FilterScript {$_.Bustype -Eq 'USB'}).Number).DriveLetter} catch {'NO USB DRIVE DETECTED'}
```

USB Storage Exclusion For Low Disk Alarms (Ver B)

Monitor Set

Ver B will monitor *ALL drive letters with the prerequisite that an **Update List by Scan** was performed at the endpoint. The Enable Matching option will leverage the drive letter instances discovered.

Define Monitor Sets

Monitor Set Name: PS-Low Disk less than 10% (Ver B, All Drives)

Monitor Set Description:

Enable Matching

Group Alarm Column Name: Low Disk

| Object | Counter | Instance | Counter Name | Description | Collection Operator | Collection Threshold | Sample Interval | Alarm Operator | Alarm Threshold | Duration | Re-Arm Alarm | Warning% | Trend Activated? | Trending Window | Re-Arm Trending | allConfigId |
|-------------|--------------|----------|--------------|-------------|---------------------|----------------------|-----------------|----------------|-----------------|----------|--------------|----------|------------------|-----------------|-----------------|-------------|
| LogicalDisk | % Free Space | *ALL | LogicalDisk | | Under | 50 | 2 hrs | Under | 10 | 25 sec | 7 days | 10 | | 14 days | 1 hrs | |

Agent Procedure

Agent Procedure checks for each drive letter for each alarm instance. Without an **Update List by Scan** the LogObject name will be blank. It will cause the logic to check for the drive letter to fail.

USB Storage Exclusion For Low Disk Alarms

```
1   getVariable ("Agent Working Directory Path", " ", "wkdir", "All Windows Operating Systems", "Halt on Fail")
2   getVariable ("Constant Value", "#ln#", "global:logobject", "All Windows Operating Systems", "Halt on Fail")
3   getVariable ("Constant Value", "#lo#", "global:logobjecttype", "All Windows Operating Systems", "Halt on Fail")
4   getVariable ("Constant Value", "#mn#", "global:monitorsetname", "All Windows Operating Systems", "Halt on Fail")
5   getVariable ("Constant Value", "#lv#", "global:monitorlogvalue", "All Windows Operating Systems", "Halt on Fail")
6   getVariable ("Constant Value", "#id#", "global:idname", "All Windows Operating Systems", "Halt on Fail")
7   getVariable ("Constant Value", "#ao#", "global:alarmoperator", "All Windows Operating Systems", "Halt on Fail")
8   getVariable ("Constant Value", "#av#", "global:alarmthreshold", "All Windows Operating Systems", "Halt on Fail")
9   getVariable ("Constant Value", "#at#", "global:attime", "All Windows Operating Systems", "Halt on Fail")
10  getVariable ("Constant Value", "#body#", "global:alarmbody", "All Windows Operating Systems", "Halt on Fail")
11  getVariable ("Constant Value", "#subject#", "global:alarmsubject", "All Windows Operating Systems", "Halt on Fail")
12  getVariable ("Constant Value", "none", "global:driveletter", "All Operating Systems", "Halt on Fail")
13  [ if checkVar ("#global:logobject#") Contains "LogicalDisk % Free Space C:"
14      getVariable ("Constant Value", "C:", "global:driveletter", "All Operating Systems", "Halt on Fail")
15  [ if checkVar ("#global:logobject#") Contains "LogicalDisk % Free Space D:"
16      getVariable ("Constant Value", "D:", "global:driveletter", "All Operating Systems", "Halt on Fail")
17  [ if checkVar ("#global:logobject#") Contains "LogicalDisk % Free Space E:"
18      getVariable ("Constant Value", "E:", "global:driveletter", "All Operating Systems", "Halt on Fail")
19  [ if checkVar ("#global:logobject#") Contains "LogicalDisk % Free Space F:"
20      getVariable ("Constant Value", "F:", "global:driveletter", "All Operating Systems", "Halt on Fail")
21  [ if checkVar ("#global:logobject#") Contains "LogicalDisk % Free Space G:"
22      getVariable ("Constant Value", "G:", "global:driveletter", "All Operating Systems", "Halt on Fail")
23  [ if checkVar ("#global:logobject#") Contains "LogicalDisk % Free Space H:"
24      getVariable ("Constant Value", "H:", "global:driveletter", "All Operating Systems", "Halt on Fail")
25  [ if checkVar ("#global:logobject#") Contains "LogicalDisk % Free Space I:"
26      getVariable ("Constant Value", "I:", "global:driveletter", "All Operating Systems", "Halt on Fail")
27  [ if checkVar ("#global:logobject#") Contains "LogicalDisk % Free Space J:"
28      getVariable ("Constant Value", "J:", "global:driveletter", "All Operating Systems", "Halt on Fail")
29  writeProcedureLogEntry ("Check #global:logobject# - wmic logicaldisk get c...", "All Operating Systems", "Halt on Fail")
30  executeShellCommand ("wmic logicaldisk get caption, description, volume...", "Execute as System", "All Windows Operating Systems", "Halt on Fail")
31  getVariable ("File Content", "#wkdir#\disktestresult.txt", "global:results", "All Windows Operating Systems", "Halt on Fail")
32  [ if checkVar ("#global:results#") Contains "Local Fixed Disk"
33  [ if checkVar ("#global:results#") Contains "Recovery"
34      writeProcedureLogEntry ("PS-Alert #global:attime# on #global:idname#, #... ", "All Windows Operating Systems", "Halt on Fail")
35  [ else
36      getVariable ("Constant Value", "#global:logobject# Done Via AP #global:monitor...", "alertSubject", "All Operating Systems", "Halt on Fail")
37      getVariable ("Constant Value", "Done Via AP #global:monitorsetname# #global:a...", "alertBody", "All Operating Systems", "Halt on Fail")
38      getVariable ("Constant Value", "YES", "alertGenerateTicket", "All Operating Systems", "Halt on Fail")
39      sendAlert ("All Windows Operating Systems", "Halt on Fail")
40  [ else
41      writeProcedureLogEntry ("PS-Alert #global:attime# on #global:idname#, #... ", "All Windows Operating Systems", "Halt on Fail")
```

To add more drive letters to the agent procedure, repeat the line 13 and 14 replacing the C: with the next letter.