

SystemHealth Kit Release Notes

Table of Contents

Supplies	2
Supported	2
Functions	4
About SystemHealth	6
Change history.....	6
Folder Configuration	9
Cautions	12

Supplies

The SystemHealth Kit supplies the following items:

- ◆ ST-7000 SystemHealth
- ◆ ST-A20 SystemHealth
- ◆ ST-B10 SystemHealth
- ◆ ST-B20 SystemHealth
- ◆ ST-C10 SystemHealth
- ◆ ST-M30 SystemHealth

Supported

Operating Systems

OS Hardware	Windows XP Professional SP2	Windows XP Professional SP3	WEPOS1.1	Windows Embedded POSReady 2009	Windows 7 Professional SP1 (32bits)
ST-7000	✓		✓	✓	
ST-A20		✓	✓	✓	
ST-B10		✓	✓	✓	
ST-B20		✓	✓	✓	
ST-C10		✓	✓	✓	✓
ST-M30		✓	✓	✓	✓

OS Hardware	Windows 7 Professional SP1 (64bits)	POSReady 7 (32bits)	POSReady 7 (64bits)
ST-7000			
ST-A20			
ST-B10			
ST-B20			
ST-C10		✓	
ST-M30	✓	✓	✓

✓ - means the OS is supported on the POS models platform

Functions

Functions about SNMP TRAP

Function	Event ID	ST-7000	ST-A20	ST-B10	ST-B20	ST-C10	ST-M30
CPU Temperature	1	A	A	A	A	A	A
CPU Fan Spins	2	A	A	N.A.	A	N.A.	A
5V power voltage status	3	A	A	A	A	A	N.A.
12V power voltage status	4	A	A	A	A	A	A
CPU fan failure	5	A	A	N.A.	A	N.A.	A
Cooling fan failure	6	A	N.A.	N.A.	N.A.	N.A.	A
NIC (Network Interface Card) status	7	A	A	A	A	A	A
HDD Read or Write error	*(1)	A	A	A	A	A	A
Abnormal shutdown	*(1)	A	A	A	A	A	A
Battery Temperature	21	N.A.	N.A.	N.A.	N.A.	A	N.A.
Power Temperature	23	N.A.	N.A.	N.A.	N.A.	N.A.	A
3.3V power voltage status	24	N.A.	N.A.	N.A.	N.A.	N.A.	A
VDimm power voltage status	25	N.A.	N.A.	N.A.	N.A.	N.A.	A
VCmosBatt power voltage status	26	N.A.	N.A.	N.A.	N.A.	N.A.	A
VCore power voltage status	27	N.A.	N.A.	N.A.	N.A.	N.A.	A

*(1) → Please refer “SystemHealth_Specification.pdf “ > “2.3.14 HDD read or write error monitoring” and “2.3.15 Abnormal shutdown of Windows monitoring function”.

Functions about SMS

Function	Event ID	ST-7000	ST-A20	ST-B10	ST-B20	ST-C10	ST-M30
BIOS Version	8	A	A	A	A	A	A
ECC error log	9	A	N.A.	N.A.	N.A.	N.A.	N.A.
HDD Boot Error Log	10	A	A	A	A	A	A
Serial No	11	A	A	A	A	A	A
Case Temper	12	A	A	A	A	A	A
Memory errors	13	A	N.A.	N.A.	N.A.	N.A.	N.A.
Device disconnected from USB	14	A	A	A	A	A	A
S.M.A.R.T	15	A	A	A	A	A	A
System Battery 1 capacity	16	N.A.	N.A.	N.A.	N.A.	A	N.A.
System Battery 2 capacity	17	N.A.	N.A.	N.A.	N.A.	A	N.A.
Printer Battery 1 capacity	18	N.A.	N.A.	N.A.	N.A.	A	N.A.
Printer Battery 2 capacity	19	N.A.	N.A.	N.A.	N.A.	A	N.A.
Battery Temperature	20	N.A.	N.A.	N.A.	N.A.	A	N.A.
Power Temperature	22	N.A.	N.A.	N.A.	N.A.	N.A.	A

Functions about 7SEG LED(Only ST-B20)

When SystemHealth output the specific EventLog, SystemHealth outputs the specific mark on "7SEG LED". The following is a combination of EventLog and 7SEG LED mark.

EventLog	EventID	7SEG LED mark
(1)CPU temperature	1	H
(3)5V power voltage status	3	P
(4)12V power voltage status	4	P
(5)CPU fan failure	5	F
HDD Read or Write Error	-	d

About SystemHealth

The SystemHealth program monitors the hardware state of the system, reports the error to the event log in the event of an error, and allows external systems to monitor the hardware information of the system using SMS or SNMP TRAP notification.

Change history

Rev. No	Date	Description
V001.000		New Release.
V001.001	31 Mar 2009	Support Silent install (ST-7000, ST-B20). Support 7SEG LED function. - Only ST-B20 SystemHealth supports 7SEG LED function.
V001.002	8 th Jan 2010	Support ST-A20. Installer Bug fix (ST-7000 and ST-B20) - V001.001 Installer could not install RTC Driver. Fix installer bug to install RTC Driver.
V001.003	18 th Feb 2010	Support ST-B10 <u>Release new installer</u> TEC ST-B10 SystemHealth Information.exe (V1.00) Fault correction of the "HDD boot error", "ECC error" and "Memory error" function - GarherSysInf outputs the upper error logs only when the value changes. But before correction, it output the logs every time it starts. Modified it to output error logs only when the value changes. <u>Update installer</u> TEC ST-7000 SystemHealth Information.exe (V1.02->V1.03) TEC ST-A20 SystemHealth Information.exe (V1.00->V1.01) TEC ST-B20 SystemHealth Information.exe (V1.02->V1.03)
V001.004	29 th Mar 2010	Fault correction of the Memory leak - GarherSysInf.exe and SysInfAGT.exe had problems of memory leak. Fixed the Bugs. - The fault correction of bug that exception occurs at shutdown. - The fault correction of bug that CPU usage becomes

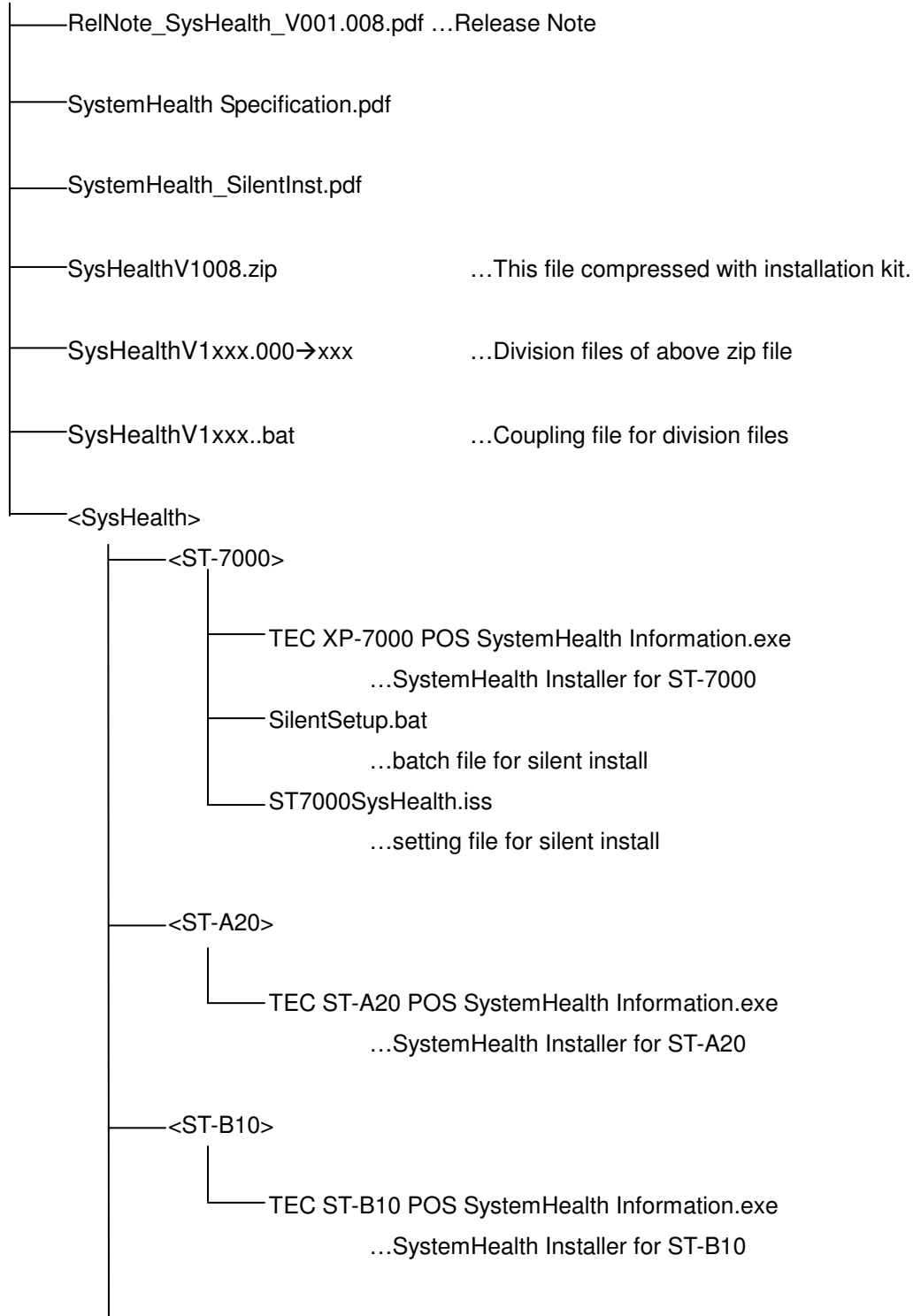
		<p>100% when NicLinkDown occurs.</p> <ul style="list-style-type: none"> - The fault correction of the reset after NicLinkDown's report event. <p><u>Update installer</u></p> <p>TEC ST-7000 SystemHealth Information.exe (V1.03->V1.04)</p> <p>TEC ST-A20 SystemHealth Information.exe (V1.01->V1.02)</p> <p>TEC ST-B10 SystemHealth Information.exe (V1.00->V1.01)</p> <p>TEC ST-B20 SystemHealth Information.exe (V1.03->V1.04)</p>
V001.005	5 th Aug 2011	<p>Support ST-C10</p> <p><u>Release new installer</u></p> <p>TEC ST-C10 SystemHealth Information.exe (V1.00)</p> <ul style="list-style-type: none"> - GatherSysInf having problem to obtain serial number through standard DMI. Modify the function getting back serial number using win32API. - GatherSysInf having problem to obtain the BIOS version on Window 7 using current memory mapping method, change the code using Microsoft standard API to obtain the firmware table. - Add Battery Support for SMS and SNMP Trap
V001.006	16 th Feb 2012	<p>Support ST-M30</p> <p><u>Release new installer</u></p> <p>TEC ST-M30 SystemHealth Information_x86.exe(V1.00)</p> <p>TEC ST-M30 SystemHealth Information_x64.exe(V1.00)</p> <ul style="list-style-type: none"> - Modify GatherSysInf function for getting back BIOS version using win32API. This is support on ST-M30 as the BIOS version exist in SMBIOS for newly design BIOS. - Adding new feature under CPUSensor for new hardware sensor monitoring. - Provided 64bits SystemHealth installer for ST-M30.
V001.007	30 th May 2012	<p>Update the SystemHealth Specification</p> <ul style="list-style-type: none"> - Adding conditions for SystemHealth <p>Add explanation for the SMS server setting for each POS terminal.</p>
V001.008	28 th Sept 2012	<p>Fix SMART reading on ST-M30</p> <ul style="list-style-type: none"> - On ST-M30, when the SATA configuration in BIOS is set to IDE, the SMART reading will failed on older version of

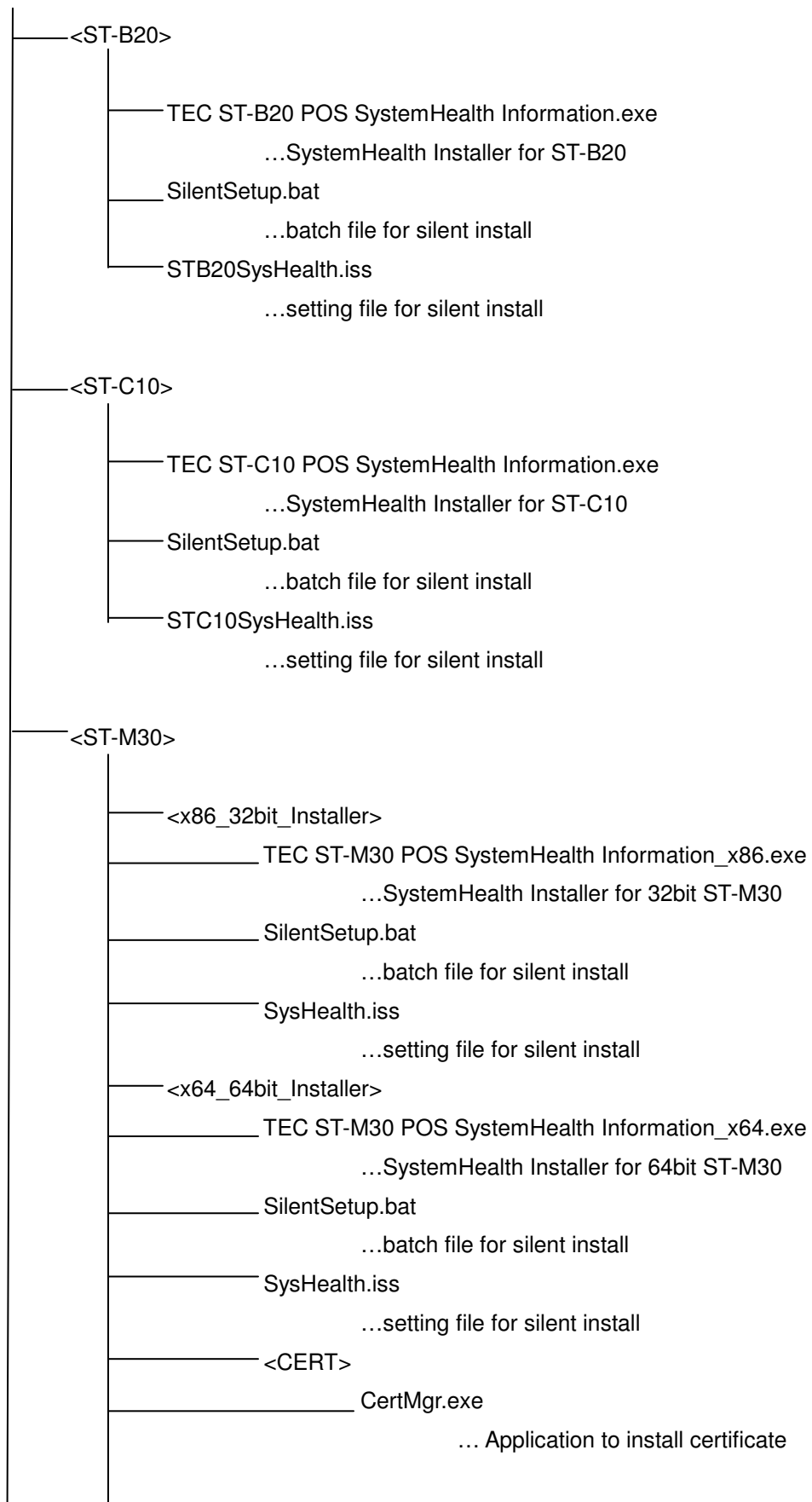
		<p>OS (window XP, WEPOS, and POSReady 2009). Modify the GatherSysInf source code to use another method to obtain SMART information.</p> <p><u>Update Installer</u></p> <p>TEC ST-M30 SystemHealth Information_x86.exe (V1.00→V1.01)</p> <p>TEC ST-M30 SystemHealth Information_x64.exe (V1.00→V1.01)</p>
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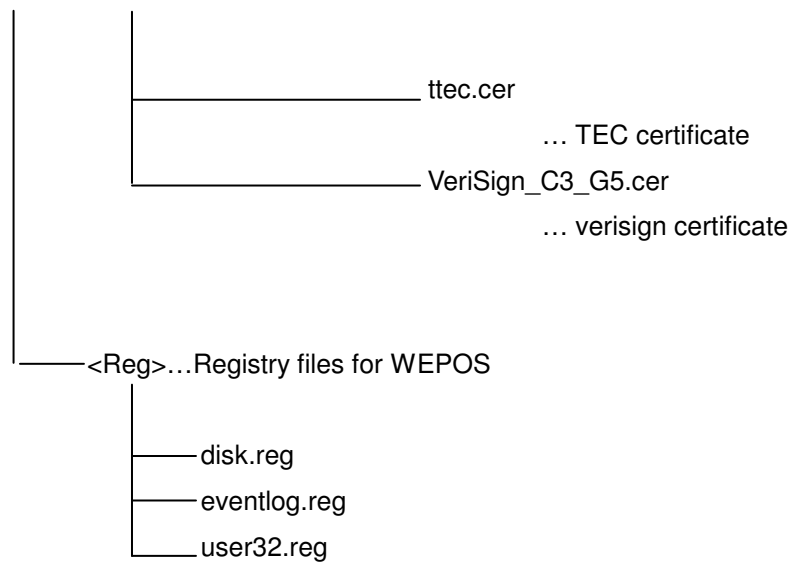
Folder Configuration

The Folder Configuration is as follows:

<ROOT>







Cautions

NOTE0: For restoring the divided file, save the following file in the same folder of HDD.

ex) When a version is V001.xxx

SysHealthV1xxx.000

SysHealthV1xxx.001

SysHealthV1xxx.002

SysHealthV1xxx.003

SysHealthV1xxx.004

SysHealthV1xxx.005

SysHealthV1xxx.006

SysHealthV1xxx.bat

Execution of "SysHealthV1xxx.bat" restores "SysHealthV1xxx.zip" to the same place as "SysHealthV1xxx.bat".

NOTE1: About ST-B10 and ST-B20 SystemHealth, the installer doesn't include Sensor driver. Please install Sensor driver from each driver Kit.

NOTE2: As compared to Windows XP, WEPOS lacks some registry information about EventLog. The lack may cause some problems. To work normally, install the following REG files which are in the "Reg" folder in this Kit.

disk.reg

eventlog.reg

user32.reg

NOTE3: When using SMS functions, the terminal has to participate in the domain. SMS and SNMP Trap only will function when POS client connect to the network.

NOTE4: Values of the “GatherSysInf.ini” file in “C:\WINDOWS\system32” folder are temporary. Please change values by referring to the following H/W support values.

<ST-7000>

CPUFanSpins : 3,600
CPUTemperature : 0°C (Low) 75°C(High)
PowerVol12 : 12V±10%
PowerVol5 : 5V±10%

<ST-A20 and ST-B20>

CPUFanSpins : 5,300
CPUTemperature : 0°C (Low) 95°C(High)
PowerVol12 : 12V±10%
PowerVol5 : 5V±10%

<ST-B10 >

CPUTemperature : 0°C (Low) 95°C(High)
PowerVol12 : 12V±10%
PowerVol5 : 5V±10%

< ST-C10>

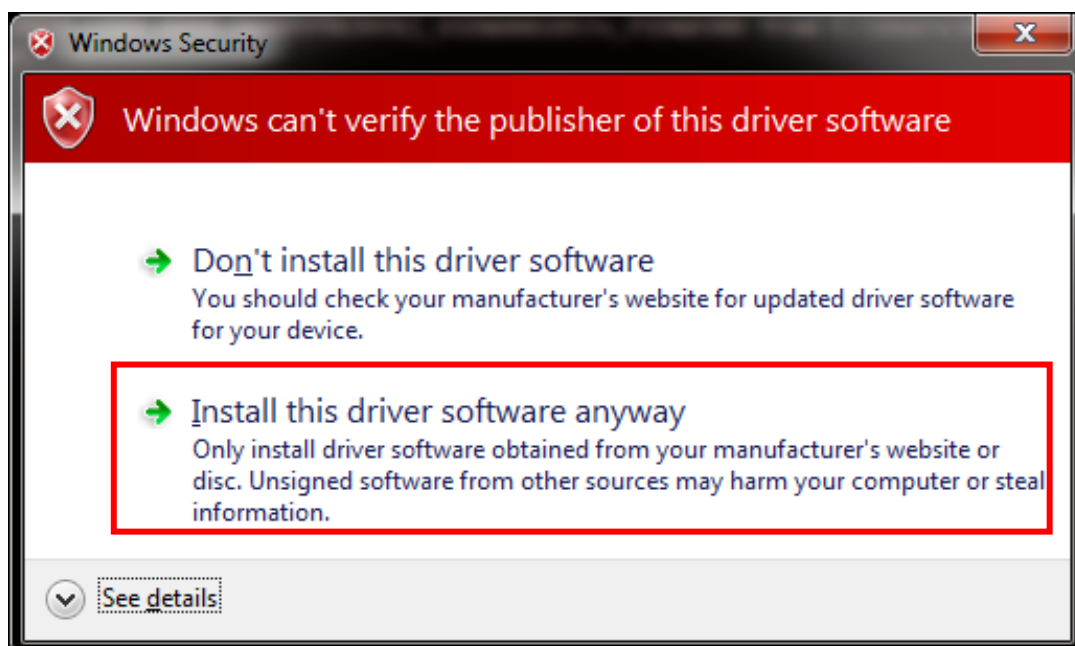
CPUTemperature : 0°C (Low) 90°C(High)
BatteryTemperature : -25°C (Low) 60°C(High)
PowerVol12 : 12V±5%
PowerVol5 : 5V±5%

< ST-M30>

CPUTemperature : 0°C (Low) 100°C(High)
PWRTemperature : 0°C (Low) 65°C(High)
PowerVol12 : 12V±5%
PowerVol33 : 3.3V±5%
PowerVolBat : 2V ~ 3.47V
PowerVolDimm : 1.5V±5%
PowerVolCore : 0.25V ~ 1.52V
CPU Fan : 750 ~ 3515 rpm

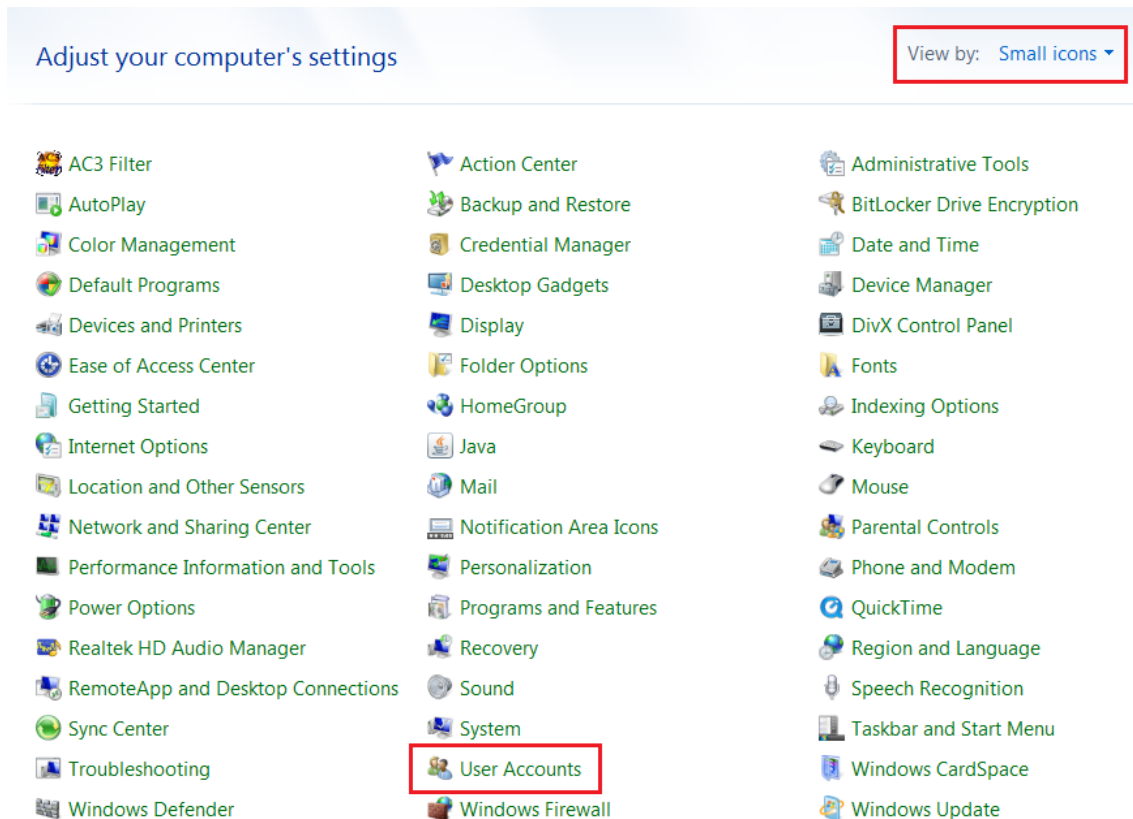
NOTE5: Only ST-7000, ST-B20, ST-C10 and ST-M30 installer supports silent installation. If you do silent installation, refer to the “SystemHealth_SilentInst.pdf” file in this Kit.

NOTE6: On Windows 7 (32bit) and POSReady 7 (32-bit), in order to complete the silent install, user needs to manually accept the Unsigned Driver Installation Dialog Prompt.

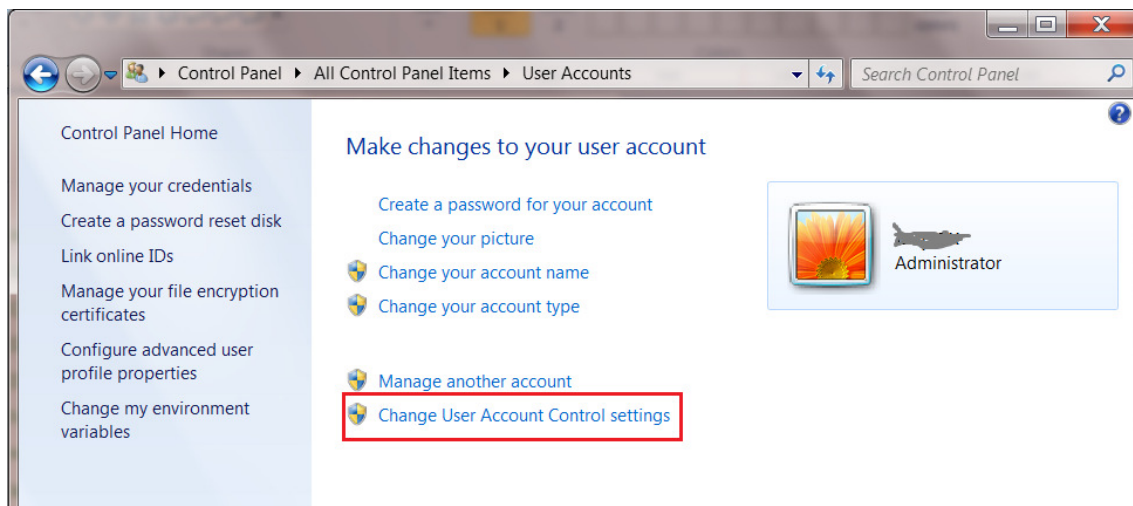


NOTE7: On newer version of window (window 7, POSReady 7), it is required to turn off the User Account Control in order to complete the silent installation.

1. Go to Control Panel, select View by: Small icons to display all features, then click User Accounts.



2. Click Change User Account Control Settings.



3. Move the slider to 'Never notify' position. Click 'OK'. A system reboot is required in order to make the UAC changes taking effect.

