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Diagnostics of errors and problems on computers and servers

The solution CUSTOMER MONITOR is an important assistant at solving problems with computers and servers. It helps to define, verify, exclude sources of origin of many error states and thereby significantly shortens the time needed for the repair. Below we present examples, where exactly can CM be used. The final verdict on the error usually depends on the Technician and he definitely has to consider the chronology of events, information from different parts of CM and other sources.

List of examples for diagnostics with the help of CM:

Slow Running Computer
Long booting of computer
Slow response when browsing websites
Decaying connection with LAN server or in Cloud
Computer freezes
Defective drive
Overheating
Defective source (in servers only)
Defective RAM (in servers only)
Outage of Internet connection
Spontaneous restarts
An error causing a record in Eventlog
An error causing a change of a file
Blue screen (BSOD)

Slow running computer

- <u>defining TOP processes exploiting CPU, RAM and loading of drives, network adapters, on the basis of Online information</u> [1]
- defining TOP processes exploiting drives on the basis of System information (so far available on PC only)
- loading events in the Eventlog (selection of those, which may relate with the slowdown).
- finding useless elements of browsers (add-ons) and programs after launch, using the utility Hijack This [4]
- check of drive status through SMART (a defective drive reduces PC performance) [5]
- verification whether the logged users had admin authorization, resp. activated UAC [6]
- <u>verification whether there has been an internal overheating and activation of performance reduction</u> [7]
- prevention by removing Temp directories [8]
- prevention by scheduled launching of defragmentation [9]

Long computer booting

- check of programs after launch according to the zone Launched at start [10]
- check of launched programs from the linked utility Hijack This [4]
- launching of defragmentation [9]

Slow response at browsing websites -

check of the above, as described in "Slow running computer" with emphasis on Hijack This



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output [4]

- check of response and packet loss on internet connection (resp. towards the server) [11]
- guick check of internet connection speed using FTP [12]

Decaying connection with LAN server or in Cloud

- quick check of connection through Online connection with the CM server, [13]
- check of response and packet loss on an internet connection (or towards a server), [11]
- quick check of internet connection speed using FTP. [12]
- check of connection speed with LAN server or in VPN. [14]

Computer freezing

- detection of outages [15]
- exclusion of HW failure [16] (including the reason of overload, overheat, drive failure, ...)
- <u>detection of an event in Eventlog</u> [3] (which you suppose to be related with the freeze)

Defective drive

- detection of <u>failure of drives in common computers</u> [5]
- drives in selected types of servers [17]
- We're preparing a remote SMART test activated from the CM portal (without SW installation on the PC).

Overheating

- monitoring of temperature in common PC [18]
- monitoring of overheating in servers [17]
- monitoring of temperature of the outside environment [19]

Defective source (in servers only)

• monitoring of source outage in servers [17]

Defective memory (in servers only)

• monitoring of a faulty RAM in servers [17] (common PC do not have "self" diagnosis and are tested by a separate test, of which there are many on the internet)

Outage of Internet connection

- detection of outages of connection with CM Server [15]
- status of connection from Online information, based on http communication [20]
- status of connection from Online information, based on Ping PL, RTT [21]
- detailed tests of Ping PL, RTT with long history via Watches [11]

Spontaneous restarts

- exact detection of repeated starts [22]
- information about uptime in every mail from the detection of outages [23]



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An error causing a record in the Eventlog

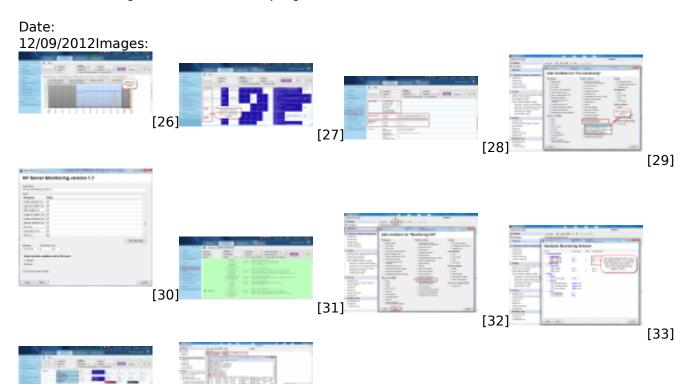
progress of its detection and of automated sending to Operator [3]

An error causing a change of a file

way of detection and sending of the change in a file to Operator [24]

Blue screen (BSOD)

• The circumstances of occurence of the Blue screen (BSOD – Blue Screen Of Death) may be solved using C-Monitor functionalities, if you already have a hypothesis of its occurence. For instance, you need to confirm or exclude a certain system configuration/operation. The actual archivation is not solved in CM, as there are free programs available for their accessing, one of them is the program BlueScreenView [25].



Links

 $[1] \ https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/load-overload-servers-and-computers/view-load-overload$

[35]

- [2] https://www.customermonitor.eu/how-cm-works-0/components-and-architecture-cm/c-monitor-windows-client/c-monitorconsole/system-info
- [3] https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/events-eventlog
- [4] https://www.customermonitor.eu/node/527/#2

[34]

- [5] https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/free-space-and-health-drives/s-m-r-t-health-disks
- [6] https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/user-authorizations
- [7] https://www.customermonitor.eu/node/667/#Hardware Monitoring
- [8] https://www.customermonitor.eu/node/527/#3
- [9] https://www.customermonitor.eu/node/527/#1
- [10] https://www.customermonitor.sk/ako-funguje-cm/softverovy-audit-zoznamy-



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softveru/nefiltrovany-zoznam-sw-z-konfiguracie-pocitaca/spus

- [11] https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/outages-and-quality-internet-connections/ping-pl-rtt-0
- [12] https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/outages-and-quality-internet-connections/ftp-speed-through
- [13] https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/monitoring-server-availablility/signalization-connection
- [14] https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/outages-and-quality-lan-connections
- [15] https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/monitoring-server-availability
- [16] https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/diagnosis-defective-hw
- [17] https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/diagnostic-defective-hw/monitoring-servers-status-through
- [18] https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/diagnostic-defective-hw/monitoring-insides-pc-nb
- [19] https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/monitoring-environment-t-h-watt-triggers
- [20] https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/monitoring-server-availablility/indirect-methods
- [21] https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/outages-and-quality-internet-connections/ping-pl-rtt
- [22] https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/start/restart-computer
- [23] https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/monitoring-server-availablility/signalization-connection#sposoby oznamovania vypadkov
- [24] https://www.customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/monitoring-file-changes/sending-added-log-file-content
- [25] http://www.nirsoft.net/utils/blue screen view.html
- [26] https://www.customermonitor.eu/sites/default/files/graf%20vypadku 0.png
- [27] https://www.customermonitor.eu/sites/default/files/tabulka%20vypadok 0.png
- [28] https://www.customermonitor.eu/sites/default/files/online%20onfo_1.png
- [29] https://www.customermonitor.eu/sites/default/files/hw%20monitoring%20serverov 1.png
- [30] https://www.customermonitor.eu/sites/default/files/server%20mon 1.png
- [31] https://www.customermonitor.eu/sites/default/files/watch%20servery%20v%20cm 1 0.png
- $[32] \ https://www.customermonitor.eu/sites/default/files/pridanie\%20watchu\%20na\%20hw\%20monitoring_1.png$
- [33] https://www.customermonitor.eu/sites/default/files/pridanie%20watchu%20na%20hw%20monitoring2 1.png
- [34] https://www.customermonitor.eu/sites/default/files/smart.jpg
- [35] https://www.customermonitor.eu/sites/default/files/system%20info 0.png