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sadmlib_std_demo.sh v2.9 - Library v2.23
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| Calling Functions  | Description                          | Result                            |
|--|--------------------------------------|-----------------------------------|
| [001] \$(sadm_get_release)   | SADMIN Release Number (XX.XX)        | : .0.86.                          |
| [002] \$(sadm_get_ostype)  | OS Type (Uppercase,LINUX,AIX,DARWIN) | : .LINUX.                         |
| [003] \$(sadm_get_osversion)   | Return O/S Version (Ex: 7.2, 6.5)    | : .7.5.1804.                      |
| [004] \$(sadm_get_osmajorversion)  | Return O/S Major Version (Ex 7, 6)   | : .7.                             |
| [005] \$(sadm_get_osminorversion)  | Return O/S Minor Version (Ex 2, 3)   | : .5.                             |
| [006] \$(sadm_get_osname)  | O/S Name (REDHAT,CENTOS,UBUNTU,...)  | : .CENTOS.                        |
| [007] \$(sadm_get_oscodename)  | O/S Project Code Name                | : .Core.                          |
| [008] \$(sadm_get_kernel_version)  | O/S Running Kernel Version           | : .3.10.0-862.                    |
| [009] \$(sadm_get_kernel_bitmode)  | O/S Kernel Bit Mode (32 or 64)       | : .64.                            |
| [010] \$(sadm_get_hostname)  | Current Host Name                    | : .holmes.                        |
| [011] \$(sadm_get_host_ip)   | Current Host IP Address              | : .192.168.1.12.                  |
| [012] \$(sadm_get_domainname)  | Current Host Domain Name             | : .maison.ca.                     |
| [013] \$(sadm_get_fqdn)  | Fully Qualified Domain Host Name     | : .holmes.maison.ca.              |
| [014] \$(sadm_get_epoch_time)  | Get Current Epoch Time               | : .1527279203.                    |
| [015] \$(sadm_epoch_to_date 1527279203)  | Convert epoch time to date           | : .2018.05.25 16:13:23.           |
| [016] \$(sadm_date_to_epoch "\$WDATE")   | Convert Date to epoch time           | : .1527279203.                    |
| WDATE='2018.05.25 16:13:23'  |                                      |                                   |
| DATE1='2016.01.30 10:00:44'  |                                      |                                   |
| DATE2='2016.01.30 10:00:03'  |                                      |                                   |
| [017] \$(sadm_elapse "\$DATE1" "\$DATE2")  | Elapse Time between two timestamps   | : .00:00:41.                      |
| [018] \$(sadm_server_type)   | Host is Physical or Virtual (P/V)    | : .P.                             |
| [019] \$(sadm_server_model)  | Server model (Ex: HP ProLiant DL580) | : .OptiPlex 7020.                 |
| [020] \$(sadm_server_serial)   | Server serial number (Ex: 4S7GYF1)   | : .BJSV942.                       |
| [021] \$(sadm_server_memory)   | Server total memory in MB (Ex: 3790) | : .7730.                          |
| [022] \$(sadm_server_hardware_bitmode)   | CPU Hardware capable of 32/64 bits   | : .64.                            |
| [023] \$(sadm_server_nb_logical_cpu)   | Number of Logical CPU on server      | : .4.                             |
| [024] \$(sadm_server_nb_cpu)   | Number of Physical CPU on server     | : .1.                             |
| [025] \$(sadm_server_nb_socket)  | Number of socket on server           | : .1.                             |
| [026] \$(sadm_server_core_per_socket)  | Number of Core per Socket            | : .4.                             |
| [027] \$(sadm_server_thread_per_core)  | Number of Thread per Core            | : .1.                             |
| [028] \$(sadm_server_cpu_speed)  | Server CPU Speed in MHz              | : .3387.                          |
| [029] \$(sadm_server_disks)  | Disks list(MB) (DISKNAME SIZE,...)   | : .sda 512000,sdb 1024000.        |
| [030] \$(sadm_server_vg)   | VG list(MB) (VGNAME SIZE USED FREE)  | : .rootvg 476426 374999 101427.   |
| [031] \$(sadm_server_ips)  | Network IP(Name IP Netmask MAC)      | : .em1 192.168.1.12 255.255.255.0 |
| 98:90:96:b7:64:a2,em1:1 192.168.1.20 255.255.255.0 98:90:96:b7:64:a2,em1:2 192.168.1.68 255.255.255.0  |                                      |                                   |
| 98:90:96:b7:64:a2,em1:3 192.168.1.13 255.255.255.0 98:90:96:b7:64:a2,em1:4 192.168.1.6 255.255.255.0   |                                      |                                   |
| 98:90:96:b7:64:a2,em1:5 192.168.1.23 255.255.255.0 98:90:96:b7:64:a2,em1:6 192.168.1.126 255.255.255.0 |                                      |                                   |
| 98:90:96:b7:64:a2,em1:7 192.168.1.28 255.255.255.0 98:90:96:b7:64:a2.                                  |                                      |                                   |
| [032] sadm_toupper string  | Return string uppercase              | : .STRING.                        |
| [033] sadm_tolower STRING  | Return string lowercase              | : .string.                        |

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Overview of sadm_start and sadm_stop function of sadmin standard
library
=====
sadm_start
Start and initialize sadm environment - Accept no Parameter
If SADMIN root directory is not /sadmin, make sure the SADMIN Env. variable is set to proper dir.
Please call this function when your script is starting
What this function will do for us :
    1) Make sure all directories & sub-directories exist and have proper permissions.
    2) Make sure log file exist with proper permission (/sadmin/log/holmes_sadmlib_std_demo.log)
    3) Make sure Return Code History (.rch) exist and have the right permission
    4) If PID file exist, show error message and abort.
        Unless user allow more than one copy to run simultaneously (SADM_MULTIPLE_EXEC='Y')
    5) Add line in the [R]eturn [C]ode [H]istory file stating script is started (Code 2)
    6) Write HostName - Script name and version - O/S Name and version to the Log file (SADM_LOG)

sadm_stop
Accept one parameter - Either 0 (Successfull) or non-zero (Error Encountered)
Please call this function just before your script end
What this function do.
    1) If Exit Code is not zero, change it to 1.
    2) Get Actual Time and Calculate the Execution Time.
    3) Writing the Script Footer in the Log (Script Return code, Execution Time, ...)
    4) Update the RCH File (Start/End/Elapse Time and the Result Code)
    5) Trim The RCH File Based on User choice in sadmin.cfg
    6) Write to Log the user mail alerting type choose by user (sadmin.cfg)
    7) Trim the Log based on user selection in sadmin.cfg
    8) Send Email to sysadmin (if user selected that option in sadmin.cfg)
    9) Delete the PID File of the script (SADM_PID_FILE)
    10) Delete the User 3 TMP Files (SADM_TMP_FILE1, SADM_TMP_FILE2, SADM_TMP_FILE3)

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SADMIN CONFIG FILE VARIABLES      Description      Result
=====
[001] $SADM_SERVER                SADMIN SERVER NAME (FQDN)      : .holmes.maison.ca.
[002] $SADM_HOST_TYPE              SADMIN [C]lient or [S]erver    : .S.

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[003] $SADM_MAIL_ADDR      SADMIN Administrator Default Email : .duplessis.jacques@gmail.com.
[004] $SADM_MAIL_TYPE      0=NoMail 1=OnError 3=OnSuccess 4=All: .1.
[005] $SADM_CIE_NAME       Your Company Name : .Batcave.
[006] $SADM_DOMAIN         Server Creation Default Domain : .maison.ca.
[007] $SADM_USER           SADMIN User Name : .sadmin.
[008] $SADM_GROUP          SADMIN Group Name : .sadmin.
[009] $SADM_WWW_USER       User that Run Apache Web Server : .apache.
[010] $SADM_WWW_GROUP      Group that Run Apache Web Server : .apache.
[011] $SADM_DBNAME         SADMIN Database Name : .sadmin.
[012] $SADM_DBHOST         SADMIN Database Host : .sadmin.maison.ca.
[013] $SADM_DBPORT         SADMIN Database Host TCP Port : .3306.
[014] $SADM_RW_DBUSER      SADMIN Database Read/Write User : .sadmin.
[015] $SADM_RW_DBPWD       SADMIN Database Read/Write User Pwd : .Nimdas17!.
[016] $SADM_RO_DBUSER      SADMIN Database Read Only User : .squery.
[017] $SADM_RO_DBPWD       SADMIN Database Read Only User Pwd : .Query18!.
[018] $SADM_RRDTOOL        RRDTOOL Binary Location : ./bin/rrdtool.
[019] $SADM_SSH_PORT       SSH Port to communicate with client : .32.
[020] $SADM_NMON_KEEPDAYS  Nb. of days to keep nmon perf. file : .60.
[021] $SADM_RCH_KEEPDAYS   Nb. days to keep unmodified rch file: .60.
[022] $SADM_LOG_KEEPDAYS   Nb. days to keep unmodified log file: .60.
[023] $SADM_MAX_RCLINE     Trim rch file to this max. of lines : .125.
[024] $SADM_MAX_LOGLINE    Trim log to this maximum of lines : .2000.
[025] $SADM_NETWORK1       Network/Netmask 1 inv. IP/Name/Mac : .192.168.1.0/24.
[026] $SADM_NETWORK2       Network/Netmask 2 inv. IP/Name/Mac : ..
[027] $SADM_NETWORK3       Network/Netmask 3 inv. IP/Name/Mac : ..
[028] $SADM_NETWORK4       Network/Netmask 4 inv. IP/Name/Mac : ..
[029] $SADM_NETWORK5       Network/Netmask 5 inv. IP/Name/Mac : ..
[030] $SADM_MKSYB_NFS_SERVER AIX MKSYB NFS Server IP or Name : .batnfs.maison.ca.
[031] $SADM_MKSYB_NFS_MOUNT_POINT AIX MKSYB NFS Mount Point : ./volume1/mksysb.
[032] $SADM_MKSYB_BACKUP_TO_KEEP AIX MKSYB NFS Backup - Nb. to keep : .2.
[033] $SADM_REAR_NFS_SERVER  Rear NFS Server IP or Name : .batnas.maison.ca.
[034] $SADM_REAR_NFS_MOUNT_POINT Rear NFS Mount Point : ./volume1/Linux_DR.
[035] $SADM_REAR_BACKUP_TO_KEEP Rear NFS Backup - Nb. to keep : .3.
[036] $SADM_BACKUP_NFS_SERVER NFS Backup IP or Server Name : .batnas.maison.ca.
[037] $SADM_BACKUP_NFS_MOUNT_POINT NFS Backup Mount Point : ./volume1/linux.
[038] $SADM_BACKUP_NFS_TO_KEEP NFS Backup - Nb. to keep : .3.
[039] $SADM_STORIX_NFS_SERVER Storix NFS Server IP or Name : .batnas.maison.ca.
[040] $SADM_STORIX_NFS_MOUNT_POINT Storix NFS Mount Point : ./volume1/storix.
[041] $SADM_STORIX_BACKUP_TO_KEEP Storix NFS Backup - Nb. to Keep : .3.

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Directories Variable Avail.

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Description

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Result

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=====
[001] $SADM_BASE_DIR          SADMIN Root Directory          : ./sadmin.
[002] $SADM_BIN_DIR           SADMIN Scripts Directory       : ./sadmin/bin.
[003] $SADM_TMP_DIR           SADMIN Temporary file(s) Directory : ./sadmin/tmp.
[004] $SADM_LIB_DIR           SADMIN Shell & Python Library Dir. : ./sadmin/lib.
[005] $SADM_LOG_DIR           SADMIN Script Log Directory      : ./sadmin/log.
[006] $SADM_CFG_DIR           SADMIN Configuration Directory     : ./sadmin/cfg.
[007] $SADM_SYS_DIR           Server Startup/Shutdown Script Dir. : ./sadmin/sys.
[008] $SADM_DAT_DIR           Server Data Directory                : ./sadmin/dat.
[009] $SADM_PKG_DIR           SADMIN Packages Directory            : ./sadmin/pkg.
[010] $SADM_NMON_DIR          Server NMON - Data Collected Dir.   : ./sadmin/dat/nmon.
[011] $SADM_DR_DIR            Server Disaster Recovery Info Dir.   : ./sadmin/dat/dr.
[012] $SADM_RCH_DIR           Server Return Code History Dir.     : ./sadmin/dat/rch.
[013] $SADM_NET_DIR           Server Network Info Dir.             : ./sadmin/dat/net.
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| Server Directories Var. Avail. | Description                       | Result              |
|--------------------------------|-----------------------------------|---------------------|
| [001] \$SADM_WWW_DIR           | SADMIN Web Site Root Directory    | : ./sadmin/www.     |
| [002] \$SADM_WWW_DOC_DIR       | SADMIN Web Documentation Dir.     | : ./sadmin/www/doc. |
| [003] \$SADM_WWW_DAT_DIR       | SADMIN Web Site Systems Data Dir. | : ./sadmin/www/dat. |
| [004] \$SADM_WWW_LIB_DIR       | SADMIN Web Site PHP Library Dir.  | : ./sadmin/www/lib. |
| [005] \$SADM_WWW_TMP_DIR       | SADMIN Web Temp Working Directory | : ./sadmin/www/tmp. |

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| SADMIN FILES VARIABLES AVAIL. | Description                        | Result                                      |
|-------------------------------|------------------------------------|---|
| [001] \$SADM_PID_FILE         | Current script PID file            | : ./sadmin/tmp/sadmlib_std_demo.pid.        |
| [002] \$SADM_CFG_FILE         | SADMIN Configuration File          | : ./sadmin/cfg/sadmin.cfg.                  |
| [003] \$SADM_CFG_HIDDEN       | SADMIN Initial Configuration File  | : ./sadmin/cfg/.sadmin.cfg.                 |
| [004] \$SADM_TMP_FILE1        | User usable Temp Work File 1       | : ./sadmin/tmp/sadmlib_std_demo_1.5164.     |
| [005] \$SADM_TMP_FILE2        | User usable Temp Work File 2       | : ./sadmin/tmp/sadmlib_std_demo_2.5164.     |
| [006] \$SADM_TMP_FILE3        | User usable Temp Work File 3       | : ./sadmin/tmp/sadmlib_std_demo_3.5164.     |
| [007] \$SADM_LOG              | Script Log File                    | : ./sadmin/log/holmes_sadmlib_std_demo.log. |
| [008] \$SADM_RCHLOG           | Script Return Code History File    | : ./sadmin/dat/rch/                         |
| holmes_sadmlib_std_demo.rch.  |                                    |   |
| [009] \$DBPASSFILE            | SADMIN Database User Password File | : ./sadmin/cfg/.dbpass.                     |

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sadmlib\_std\_demo.sh v2.9 - Library v2.23

COMMAND PATH USE BY SADMIN STD. LIBR. Description

Result

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=====
[001] $SADM_LSB_RELEASE      Cmd. 'lsb_release', Get O/S Version : ./bin/lsb_release.
[002] $SADM_DMIDECODE        Cmd. 'dmidecode', Get model & type : ./sbin/dmidecode.
[003] $SADM_FACTER           Cmd. 'facter', Get System Info : ./bin/facter.
[004] $SADM_BC               Cmd. 'bc', Do some Math. : ./bin/bc.
[005] $SADM_FDISK            Cmd. 'fdisk', Get Partition Info : ./sbin/fdisk.
[006] $SADM_WHICH            Cmd. 'which', Get Command location : ./bin/which.
[007] $SADM_PERL             Cmd. 'perl', epoch time Calc. : ./bin/perl.
[008] $SADM_MAIL             Cmd. 'mail', Send SysAdmin Email : ./bin/mail.
[009] $SADM_LSCPU            Cmd. 'lscpu', Socket & thread info : ./bin/lscpu.
[010] $SADM_NMON             Cmd. 'nmon', Collect Perf Statistic : ./bin/nmon.
[011] $SADM_PARTED           Cmd. 'parted', Get Disk Real Size : ./sbin/parted.
[012] $SADM_ETHTOOL          Cmd. 'ethtool', Get System IP Info : ./sbin/ethtool.
[013] $SADM_SSH              Cmd. 'ssh', SSH to SADMIN client : ./bin/ssh.
[014] $SADM_SSH_CMD          Cmd. 'ssh', SSH to Connect to client: ./bin/ssh -qnp32.
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