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sadmlib_std_demo.sh v3.4 - Library v2.27
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User Var. that affect SADMIN behavior	Description	This System Result
[001] \$SADM_VER	Script Version Number	: .3.4.
[002] \$SADM_PN	Script Name	: .sadmlib_std_demo.sh.
[003] \$SADM_INST	Script Name Without Extension	: .sadmlib_std_demo.
[004] \$SADM_USERNAME	Current User Name	: .root.
[005] \$SADM_TPID	Current Process ID	: .20613.
[006] \$SADM_MULTIPLE_EXEC	Allow running multiple copy	: .Y.
[007] \$SADM_USE_RCH	Gen. entry in .rch file	: .N.
[008] \$SADM_LOG_TYPE	Set Output to [S]creen [L]og [B]oth	: .B.
[009] \$SADM_LOG_APPEND	Append Log or Create New One	: .N.
[010] \$SADM_LOG_HEADER	Generate Header in log	: .N.
[011] \$SADM_LOG_FOOTER	Generate Footer in log	: .N.
[012] \$SADM_EXIT_CODE	Script Exit Return Code	: .0.

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Calling Functions	Description	This System 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	: .1528210513.
[015] \$(sadm_epoch_to_date 1528210513)	Convert epoch time to date	: .2018.06.5 10:55:13.
	WDATE='2018.06.5 10:55:13'	
[016] \$(sadm_date_to_epoch "\$WDATE")	Convert Date to epoch time	: .1528210513.
	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.

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SADMIN Bash Shell Specific Functions	Description	This System Result
[001] \$(sadm_server_type)	Host is Physical or Virtual (P/V)	: .P.
[002] \$(sadm_server_model)	Server model (Ex: HP ProLiant DL580)	: .OptiPlex 7020.
[003] \$(sadm_server_serial)	Server serial number (Ex: 4S7GYF1)	: .BJSV942.
[004] \$(sadm_server_memory)	Server total memory in MB (Ex: 3790)	: .7730.
[005] \$(sadm_server_hardware_bitmode)	CPU Hardware capable of 32/64 bits	: .64.
[006] \$(sadm_server_nb_logical_cpu)	Number of Logical CPU on server	: .4.
[007] \$(sadm_server_nb_cpu)	Number of Physical CPU on server	: .1.
[008] \$(sadm_server_nb_socket)	Number of socket on server	: .1.
[009] \$(sadm_server_core_per_socket)	Number of Core per Socket	: .4.
[010] \$(sadm_server_thread_per_core)	Number of Thread per Core	: .1.
[011] \$(sadm_server_cpu_speed)	Server CPU Speed in MHz	: .3356.
[012] \$(sadm_server_disks)	Disks list(MB) (DISKNAME SIZE,...)	: .sda 512000,sdb 1024000.
[013] \$(sadm_server_vg)	VG list(MB) (VGNAME SIZE USED FREE)	: .rootvg 476426 374999 101427.
[014] \$(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.	
[015] sadm_toupper string	Return string uppercase	: .STRING.
[016] sadm_tolower STRING	Return string lowercase	: .string.

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Overview of sadm\_start and sadm\_stop function

Example of utilisation:

```
# sadm_start                                # Init Env Dir & RC/Log File
# if [ $? -ne 0 ] ; then sadm_stop 1 ; exit 1 ;fi  # Exit if Problem
# main_process                                # Main Process
# SADM_EXIT_CODE=?                            # Save Error Code
# sadm_stop $SADM_EXIT_CODE                    # Close SADM Tool & Upd RCH
# exit $SADM_EXIT_CODE                         # Exit With Global Err (0/1)
```

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	This System Result
[001] \$SADM_SERVER	SADMIN SERVER NAME (FQDN)	: .holmes.maison.ca.
[002] \$SADM_HOST_TYPE	SADMIN [C]lient or [S]erver	: .S.
[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!.

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[018] $SADM_RRD00L          RRD00L Binary Location          : ./bin/rrdtool.
[019] $SADM_SSH_PORT        SSH Port to communicate with client : .32.
[020] $SADM_NMON_KEEPPDAYS  Nb. of days to keep nmon perf. file : .60.
[021] $SADM_RCH_KEEPPDAYS  Nb. days to keep unmodified rch file: .60.
[022] $SADM_LOG_KEEPPDAYS  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_MKSYSB_NFS_SERVER AIX MKSYSB NFS Server IP or Name : .batnfs.maison.ca.
[031] $SADM_MKSYSB_NFS_MOUNT_POINT AIX MKSYSB NFS Mount Point : ./volume1/mksysb.
[032] $SADM_MKSYSB_BACKUP_TO_KEEP AIX MKSYSB 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/backup_linux.
[038] $SADM_DAILY_BACKUP_TO_KEEP Nb. of Daily Backup to keep : .3.
[039] $SADM_WEEKLY_BACKUP_TO_KEEP Nb. of Weekly Backup to keep : .3.
[040] $SADM_MONTHLY_BACKUP_TO_KEEP Nb. of Monthly Backup to keep : .3.
[041] $SADM_YEARLY_BACKUP_TO_KEEP Nb. of Yearly Backup to keep : .2.
[042] $SADM_WEEKLY_BACKUP_DAY Weekly Backup Day (1=Mon,...,7=Sun) : .5.
[043] $SADM_MONTHLY_BACKUP_DATE Monthly Backup Date (1-28) : .1.
[044] $SADM_YEARLY_BACKUP_MONTH Month to take Yearly Backup (1-12) : .12.
[045] $SADM_YEARLY_BACKUP_DATE Date to do Yearly Backup(1-DayInMth): .31.
[046] $SADM_STORIX_NFS_SERVER Storix NFS Server IP or Name : .batnas.maison.ca.
[047] $SADM_STORIX_NFS_MOUNT_POINT Storix NFS Mount Point : ./volume1/storix.
[048] $SADM_STORIX_BACKUP_TO_KEEP Storix NFS Backup - Nb. to Keep : .3.

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Client Directories Var. Avail.      Description      This System 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_DOC_DIR        SADMIN Documentation Directory : ./sadmin/doc.

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[009]	\$SADM_PKG_DIR	SADMIN Packages Directory	: ./sadmin/pkg.
[010]	\$SADM_DAT_DIR	Server Data Directory	: ./sadmin/dat.
[011]	\$SADM_NMON_DIR	Server NMON - Data Collected Dir.	: ./sadmin/dat/nmon.
[012]	\$SADM_DR_DIR	Server Disaster Recovery Info Dir.	: ./sadmin/dat/dr.
[013]	\$SADM_RCH_DIR	Server Return Code History Dir.	: ./sadmin/dat/rch.
[014]	\$SADM_NET_DIR	Server Network Info Dir.	: ./sadmin/dat/net.
[015]	\$SADM_RPT_DIR	SYStem MONitor Report Directory	: ./sadmin/dat/rpt.
[016]	\$SADM_DBB_DIR	Database Backup Directory	: ./sadmin/dat/dbb.
[017]	\$SADM_SETUP_DIR	SADMIN Installation/Update Dir.	: ./sadmin/setup.
[018]	\$SADM_USR_DIR	User/System specific directory	: ./sadmin/usr.
[019]	\$SADM_UBIN_DIR	User/System specific bin/script Dir.	: ./sadmin/usr/bin.
[020]	\$SADM_ULIB_DIR	User/System specific library Dir.	: ./sadmin/usr/lib.
[021]	\$SADM_UDOC_DIR	User/System specific documentation	: ./sadmin/usr/doc.
[022]	\$SADM_UMON_DIR	User/System specific SysMon Scripts	: ./sadmin/usr/mon.

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Server Directories Var. Avail.	Description	This System Result
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[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.
[006]	\$SADM_WWW_PERF_DIR	SADMIN Web Performance Graph Dir.	: ./sadmin/www/tmp/perf.

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SADMIN FILES VARIABLES AVAIL.	Description	This System Result
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[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_1.20613.
[005]	\$SADM_TMP_FILE2	User usable Temp Work File 2	: ./sadmin/tmp/sadmlib_std_demo_2.20613.
[006]	\$SADM_TMP_FILE3	User usable Temp Work File 3	: ./sadmin/tmp/sadmlib_std_demo_3.20613.
[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.
[010]	\$SADM_RPT_FILE	SYStem MONitor Report File	: ./sadmin/dat/rpt/holmes.rpt.

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COMMAND PATH USE BY SADMIN STD. LIBR. Description This System 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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