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sadmlib_std_demo.py v2.9 - Library v2.17
User Var. that affect SADMIN behavior  Description                      This System Result
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[001] ins.ver	Get/Set Script Version Number	: .2.9.
[002] ins.pn	Get script name	: .sadmlib_std_demo.py.
[003] ins.inst	Get script name without extension	: .sadmlib_std_demo.
[004] ins.username	Get current user name	: .root.
[005] ins.tpid	Get Current Process ID	: .18216.
[006] ins.multiple_exec	Get/Set Allow running multiple copy	: .N.
[007] ins.use_rch	Get/Set Gen. entry in .rch file	: .False.
[008] ins.dbsilent	When DBerror, No ErrMsg (Just ErrNo)	: .False.
[009] ins.usedb	Set Script need Database ?	: .True.
[010] ins.log_type	Set Output to [S]creen [L]og [B]oth	: .B.
[011] ins.log_append	Get/Set Append Log or Create New One	: .True.
[012] ins.log_header	Get/Set Generate Header in log	: .False.
[013] ins.log_footer	Get/Set Generate Footer in log	: .False.
[014] ins.log_footer	Get/Set Generate Footer in log	: .False.
[015] ins.exit_code	Get/Set Script Exit Return Code	: .0.

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SADMIN Python specific functions  Description                      This System Result
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[001] ins.silentremove('file')	Silent File Del, No Err if not exist	: .None.
[002] ins.writelog(msg,'nonl'   'bold')	Write Msg to Log or Screen or Both	: .None.

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ccode,cstdout,cstderr = ins.oscommand("%s" % (wcommand))

ins.trimfile (file, maxline=500)

pathname = ins.locate_command(wcommand)

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Calling Functions                  Description                      This System Result
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[001] ins.get_release()	SADMIN Release Number (XX.XX)	: .0.86.
[002] ins.get_ostype()	OS Type (Uppercase,LINUX,AIX,DARWIN)	: .LINUX.
[003] ins.get_osversion()	Return O/S Version (Ex: 7.2, 6.5)	: .7.5.1804.
[004] ins.get_osmajorversion()	Return O/S Major Version (Ex 7, 6)	: .7.

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[005] ins.get_osminorversion()      Return O/S Minor Version (Ex 2, 3) : .5.
[006] ins.get_osname()             O/S Name (REDHAT,CENTOS,UBUNTU,...) : .CENTOS.
[007] ins.get_oscodename()         O/S Project Code Name             : .CORE.
[008] ins.get_kernel_version()     O/S Running Kernel Version        : .3.10.0-862.
[009] ins.get_kernel_bitmode()     O/S Kernel Bit Mode (32 or 64)    : .64.
[010] ins.hostname                 Current Host Name                   : .holmes.
[011] ins.get_host_ip()            Current Host IP Address            : .192.168.1.12.
[012] ins.get_domainname()         Current Host Domain Name           : .maison.ca.
[013] ins.get_fqdn()              Fully Qualified Domain Host Name  : .holmes.maison.ca.
[014] ins.get_epoch_time()         Get Current Epoch Time            : .1528211498.
[015] ins.epoch_to_date(1528211498) Convert epoch time to date       : .2018.06.05 11:11:38.
      WDATE=2018.06.05 11:11:38
[016] ins.date_to_epoch(WDATE)     Convert Date to epoch time        : .1528211498.
      DATE1=2018.06.30 10:00:44
      DATE2=2018.06.30 10:00:03
[017] ins.elapsed_time(DATE1,DATE2) Elapse Time between two timestamps : .00:00:41.

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Overview of ins.start() & ins.stop() function
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-----
ins = setup_sadmin()
Example : ins = setup_sadmin()      # Setup Var,Load Lib,Create Instance,Call ins.start()
-----
Setup User Var., Load Module, Create Instance, call ins.start() and return instance object
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 ($SADM_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)

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-----
ins.stop()
Example : st.stop(st.exit_code)     # Close SADM Environment
        sys.exit(st.exit_code)     # Exit To O/S
-----

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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] ins.cfg_server	SADMIN SERVER NAME (FQDN)	: .holmes.maison.ca.
[002] ins.cfg_host_type	SADMIN [C]lient or [S]erver	: .S.
[003] ins.cfg_mail_addr	SADMIN Administrator Default Email	: .duplessis.jacques@gmail.com.
[004] ins.cfg_mail_type	0=NoMail 1=OnError 3=OnSuccess 4=All	: .1.
[005] ins.cfg_cie_name	Your Company Name	: .Batcave.
[006] ins.cfg_domain	Server Creation Default Domain	: .maison.ca.
[007] ins.cfg_user	SADMIN User Name	: .sadmin.
[008] ins.cfg_group	SADMIN Group Name	: .sadmin.
[009] ins.cfg_www_user	User that Run Apache Web Server	: .apache.
[010] ins.cfg_www_group	Group that Run Apache Web Server	: .apache.
[011] ins.cfg_dbname	SADMIN Database Name	: .sadmin.
[012] ins.cfg_dbhost	SADMIN Database Host	: .sadmin.maison.ca.
[013] ins.cfg_dbport	SADMIN Database Host TCP Port	: .3306.
[014] ins.cfg_rw_dbuser	SADMIN Database Read/Write User	: .sadmin.
[015] ins.cfg_rw_dbpwd	SADMIN Database Read/Write User Pwd	: .Nimdas17!.
[016] ins.cfg_ro_dbuser	SADMIN Database Read Only User	: .squery.
[017] ins.cfg_ro_dbpwd	SADMIN Database Read Only User Pwd	: .Query18!.
[018] ins.cfg_rrdtool	RRDTOOL Binary Location	: ./bin/rrdtool.
[019] ins.cfg_ssh_port	SSH Port to communicate with client	: .32.
[020] ins.cfg_nmon_keepdays	Nb. of days to keep nmon perf. file	: .60.
[021] ins.cfg_rch_keepdays	Nb. days to keep unmodified rch file	: .60.
[022] ins.cfg_log_keepdays	Nb. days to keep unmodified log file	: .60.
[023] ins.cfg_max_rchline	Trim rch file to this max. of lines	: .125.
[024] ins.cfg_max_logline	Trim log to this maximum of lines	: .2000.

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[025] ins.cfg_network1      Network/Netmask 1 inv. IP/Name/Mac : .192.168.1.0/24.
[026] ins.cfg_network2      Network/Netmask 2 inv. IP/Name/Mac : ..
[027] ins.cfg_network3      Network/Netmask 3 inv. IP/Name/Mac : ..
[028] ins.cfg_network4      Network/Netmask 4 inv. IP/Name/Mac : ..
[029] ins.cfg_network5      Network/Netmask 5 inv. IP/Name/Mac : ..
[030] ins.cfg_mksysb_nfs_server AIX MKSYSB NFS Server IP or Name : .batnfs.maison.ca.
[031] ins.cfg_mksysb_nfs_mount_point AIX MKSYSB NFS Mount Point : ./volume1/mksysb.
[032] ins.cfg_mksysb_backup_to_keep AIX MKSYSB NFS Backup - Nb .to keep : .2.
[033] ins.cfg_rear_nfs_server Rear NFS Server IP or Name : .batnas.maison.ca.
[034] ins.cfg_rear_nfs_mount_point Rear NFS Mount Point : ./volume1/Linux_DR.
[035] ins.cfg_rear_backup_to_keep Rear NFS Backup - Nb. to keep : .3.
[036] ins.cfg_backup_nfs_server NFS Backup IP or Server Name : .batnas.maison.ca.
[037] ins.cfg_backup_nfs_mount_point NFS Backup Mount Point : ./volume1/backup_linux.
[038] ins.cfg_daily_backup_to_keep Daily Backup to Keep : .3.
[039] ins.cfg_weekly_backup_to_keep Weekly Backup to Keep : .3.
[040] ins.cfg_monthly_backup_to_keep Monthly Backup to Keep : .3.
[041] ins.cfg_yearly_backup_to_keep Yearly Backup to keep : .2.
[042] ins.cfg_weekly_backup_day Weekly Backup Day (1=Mon,7=Sun) : .5.
[043] ins.cfg_monthly_backup_date Monthly Backup Date (1-28) : .1.
[044] ins.cfg_yearly_backup_month Yearly Backup Month (1-12) : .12.
[045] ins.cfg_yearly_backup_date Yearly Backup Date (1-31) : .31.
[046] ins.cfg_storix_nfs_server Storix NFS Server IP or Name : .batnas.maison.ca.
[047] ins.cfg_storix_nfs_mount_point Storix NFS Mount Point : ./volume1/storix.
[048] ins.cfg_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] ins.base_dir	SADMIN Root Directory	: ./sadmin.
[002] ins.bin_dir	SADMIN Scripts Directory	: ./sadmin/bin.
[003] ins.tmp_dir	SADMIN Temporary file(s) Directory	: ./sadmin/tmp.
[004] ins.lib_dir	SADMIN Shell & Python Library Dir.	: ./sadmin/lib.
[005] ins.log_dir	SADMIN Script Log Directory	: ./sadmin/log.
[006] ins.cfg_dir	SADMIN Configuration Directory	: ./sadmin/cfg.
[007] ins.sys_dir	Server Startup/Shutdown Script Dir.	: ./sadmin/sys.
[008] ins.doc_dir	SADMIN Documentation Directory	: ./sadmin/doc.
[009] ins.pkg_dir	SADMIN Packages Directory	: ./sadmin/pkg.
[010] ins.dat_dir	Server Data Directory	: ./sadmin/dat.
[011] ins.nmon_dir	Server NMON - Data Collected Dir.	: ./sadmin/dat/nmon.
[012] ins.dr_dir	Server Disaster Recovery Info Dir.	: ./sadmin/dat/dr.
[013] ins.rch_dir	Server Return Code History Dir.	: ./sadmin/dat/rch.
[014] ins.net_dir	Server Network Information Dir.	: ./sadmin/dat/net.

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[015] ins.rpt_dir          SYStem MONitor Report Directory      : ./sadmin/dat/rpt.
[016] ins.dbb_dir          Database Backup Directory       : ./sadmin/dat/dbb.
[017] ins.setup_dir        SADMIN Installation/Update Setup Dir.: ./sadmin/setup.
[018] ins.usr_dir          User/System specific directory   : ./sadmin/usr.
[019] ins.ubin_dir         User/System specific bin/script Dir.: ./sadmin/usr/bin.
[020] ins.ulib_dir         User/System specific library Dir.  : ./sadmin/usr/lib.
[021] ins.udoc_dir         User/System specific documentation : ./sadmin/usr/doc.
[022] ins.umon_dir         User/System specific SysMon Scripts : ./sadmin/usr/mon.

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Server Directories Var. Avail.	Description	This System Result
[001] ins.www_dir	SADMIN Web Site Root Directory	: ./sadmin/www.
[002] ins.www_doc_dir	SADMIN Web Site Root Directory	: ./sadmin/www/doc.
[003] ins.www_dat_dir	SADMIN Web Site Systems Data Dir.	: ./sadmin/www/dat.
[004] ins.www_lib_dir	SADMIN Web Site PHP Library Dir.	: ./sadmin/www/lib.
[005] ins.www_tmp_dir	SADMIN Web Temp Working Directory	: ./sadmin/www/tmp.
[006] ins.www_perf_dir	Web Performance Server Graph Dir.	: ./sadmin/www/tmp/perf.

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SADMIN FILES VARIABLES AVAIL.	Description	This System Result
[001] ins.pid_file	Current script PID file	: ./sadmin/tmp/sadmlib_std_demo.pid.
[002] ins.cfg_file	SADMIN Configuration File	: ./sadmin/cfg/sadmin.cfg.
[003] ins.cfg_hidden	SADMIN Initial Configuration File	: ./sadmin/cfg/.sadmin.cfg.
[004] ins.tmp_file1	User usable Temp Work File 1	: ./sadmin/tmp/sadmlib_std_demo_1.18216.
[005] ins.tmp_file2	User usable Temp Work File 2	: ./sadmin/tmp/sadmlib_std_demo_2.18216.
[006] ins.tmp_file3	User usable Temp Work File 3	: ./sadmin/tmp/sadmlib_std_demo_3.18216.
[007] ins.log_file	Script Log File	: ./sadmin/log/holmes_sadmlib_std_demo.log.
[008] ins.rch_file	Script Return Code History File	: ./sadmin/dat/rch/
holmes_sadmlib_std_demo.rch.		
[009] ins.dbpass_file	SADMIN Database User Password File	: ./sadmin/cfg/.dbpass.
[010] ins.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] ins.lsb_release      Cmd. 'lsb_release', Get O/S Version : ./bin/lsb_release.
[002] ins.dmi decode      Cmd. 'dmi decode', Get model & type : ./sbin/dmi decode.
[003] ins.facter          Cmd. 'facter', Get System Info : ./bin/facter.
[004] ins.bc              Cmd. 'bc', Do some Math. : ./bin/bc.
[005] ins.fdisk           Cmd. 'fdisk', Get Partition Info : ./sbin/fdisk.
[006] ins.which           Cmd. 'which', Get Command location : ./bin/which.
[007] ins.perl            Cmd. 'perl', epoch time Calc. : ./bin/perl.
[008] ins.mail            Cmd. 'mail', Send SysAdmin Email : ./bin/mail.
[009] ins.lscpu           Cmd. 'lscpu', Socket & thread info : ./bin/lscpu.
[010] ins.nmon            Cmd. 'nmon', Collect Perf Statistic : ./bin/nmon.
[011] ins.parted          Cmd. 'parted', Get Disk Real Size : ./sbin/parted.
[012] ins.ethhtool        Cmd. 'ethhtool', Get System IP Info : ./sbin/ethhtool.
[013] ins.ssh             Cmd. 'ssh', SSH to SADMIN client : ./bin/ssh.
[014] ins.ssh_cmd         Cmd. 'ssh', SSH to Connect to client: ./bin/ssh -qnp 32 .
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Database Connection Test      Description      This System Result
=====
2018.06.05 11:11:38 - Database connection succeeded
2018.06.05 11:11:38 -
2018.06.05 11:11:38 - Closing Database connection
2018.06.05 11:11:38 -

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