```
================================================================================
sadmlib_std_demo.py v3.1 - Library v2.23
User Var. that affect SADMIN behavior  Description                    This System Result
================================================================================
[001] st.ver                    Get/Set Script Version Number     : 3.1
[002] st.pn                     Get script name                   : sadmlib_std_demo.py
[003] st.inst                   Get script name without extension : sadmlib_std_demo
[004] st.username               Get current user name             : root
[005] st.tpid                   Get Current Process ID            : 8153
[006] st.multiple_exec          Get/Set Allow running multiple copy : N
[007] st.use_rch                Get/Set Gen. entry in .rch file   : False
[008] st.log_type               Set Output to [S]creen [L]og [B]oth : B
[009] st.log_append             Get/Set Append Log or Create New One: True
[010] st.log_header             Get/Set Generate Header in log    : False
[011] st.log_footer             Get/Set Generate Footer in  log   : False
[012] st.exit_code              Get/Set Script Exit Return Code   : 0


================================================================================
sadmlib_std_demo.py v3.1 - Library v2.23
Calling Functions              Description                    This System Result
================================================================================
[001] st.get_release()          SADMIN Release Number (XX.XX)     : 0.94.0
[002] st.get_ostype()           OS Type (Uppercase,LINUX,AIX,DARWIN): LINUX
[003] st.get_osversion()        Return O/S Version (Ex: 7.2, 6.5) : 7.6.1810
[004] st.get_osmajorversion()   Return O/S Major Version (Ex 7, 6) : 7
[005] st.get_osminorversion()   Return O/S Minor Version (Ex 2, 3) : 6
[006] st.get_osname()           O/S Name (REDHAT,CENTOS,UBUNTU,...) : CENTOS
[007] st.get_oscodename()       O/S Project Code Name             : CORE
[008] st.get_kernel_version()   O/S Running Kernel Version        : 3.10.0-957
[009] st.get_kernel_bitmode()   O/S Kernel Bit Mode (32 or 64)    : 64
[010] st.hostname               Current Host Name                 : holmes
[011] st.get_host_ip()          Current Host IP Address           : 192.168.1.12
[012] st.get_domainname()       Current Host Domain Name          : maison.ca
[013] st.get_fqdn()             Fully Qualified Domain Host Name   : holmes.maison.ca
[014] st.get_epoch_time()       Get Current Epoch Time            : 1547923527
[015] st.epoch_to_date(1547923527)  Convert epoch time to date    : 2019.01.19 13:45:27
      WDATE=2019.01.19 13:45:27
[016] st.date_to_epoch(WDATE)   Convert Date to epoch time        : 1547923527
      DATE1=2018.06.30 10:00:44
      DATE2=2018.06.30 10:00:03
[017] st.elapse_time(DATE1,DATE2)  Elapse Time between two timestamps : 00:00:41


================================================================================
sadmlib_std_demo.py v3.1 - Library v2.23
SADMIN PYTHON SPECIFIC FUNCTIONS   Description                    This System Result
================================================================================
```

```
[001] st.dbsilent                      When DBerror, No ErrMsg (Just ErrNo): False
[002] st.usedb                         Script need (Open/Close) Database ? : True
[003] st.silentremove('file')          Silent File Del, No Err if not exist: None
[004] st.writelog(msg,'nonl'|'bold')   Write Log (nonl=NoNewLine)           : None
```

```
================================================================================================
sadmlib_std_demo.py v3.1 - Library v2.23
Overview of st.start() & st.stop() function
================================================================================================


----------
st = setup_sadmin()
Example : st = setup_sadmin()    # Setup Var, Load Libr, Create instance, call st.start()
----------
    Setup User Var., Load Module, Create Instance, call st.start() and return instance object
    It make sure the SADMIN Environment variable is set to proper dir.
    The module 'setup_sadmin()', need to be called  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 (st.log_file)
        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 (st.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 (st.log_file)


----------
st.stop()
Example : st.stop(st.exit_code)   # Close SADM Environment
          sys.exit(st.exit_code)  # Exit To O/S
----------
    Accept one parameter - Either 0 (Successful) 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) Trim the Log based on user selection in sadmin.cfg
        7) Delete the PID File of the script (st.pid_file)
        8) Delete the User 3 TMP Files (st.tmp_file1, st.tmp_file2, st.tmp_file3)



================================================================================================
sadmlib_std_demo.py v3.1 - Library v2.23
```

```
SADMIN CONFIG FILE VARIABLES        Description                        This System Result
==================================================================================================
[001] st.cfg_server                 SADMIN SERVER NAME (FQDN)           : holmes.maison.ca
[002] st.cfg_host_type              SADMIN [C]lient or [S]erver         : S
[003] st.cfg_mail_addr              SADMIN Administrator Default Email  : duplessis.jacques@gmail.com
[004] st.cfg_alert_type             0=NoMail 1=OnError 3=OnSuccess 4=All: 1
[005] st.cfg_alert_group            Default Alert Group                 : default
[006] st.cfg_cie_name               Your Company Name                   : Your Cie Name
[007] st.cfg_domain                 Server Creation Default Domain      : maison.ca
[008] st.cfg_user                   SADMIN User Name                    : sadmin
[009] st.cfg_group                  SADMIN Group Name                   : sadmin
[010] st.cfg_www_user               User that Run Apache Web Server      : apache
[011] st.cfg_www_group              Group that Run Apache Web Server     : apache
[012] st.cfg_dbname                 SADMIN Database Name                : sadmin
[013] st.cfg_dbhost                 SADMIN Database Host                : sadmin.maison.ca
[014] st.cfg_dbport                 SADMIN Database Host TCP Port        : 3306
[015] st.cfg_rw_dbuser              SADMIN Database Read/Write User      : sadmin
[016] st.cfg_rw_dbpwd               SADMIN Database Read/Write User Pwd : Nimdas17!
[017] st.cfg_ro_dbuser              SADMIN Database Read Only User       : squery
[018] st.cfg_ro_dbpwd               SADMIN Database Read Only User Pwd  : Query18!
[019] st.cfg_rrdtool                RRDTOOL Binary Location             : /bin/rrdtool
[020] st.cfg_ssh_port               SSH Port to communicate with client : 32
[021] st.cfg_nmon_keepdays          Nb. of days to keep nmon perf. file : 40
[022] st.cfg_rch_keepdays           Nb. days to keep unmodified rch file: 35
[023] st.cfg_log_keepdays           Nb. days to keep unmodified log file: 35
[024] st.cfg_max_rchline            Trim rch file to this max. of lines : 125
[025] st.cfg_max_logline            Trim log to this maximum of lines   : 2000
[026] st.cfg_network1               Network/Netmask 1 inv. IP/Name/Mac  : 192.168.1.0/24
[027] st.cfg_network2               Network/Netmask 2 inv. IP/Name/Mac  :
[028] st.cfg_network3               Network/Netmask 3 inv. IP/Name/Mac  :
[029] st.cfg_network4               Network/Netmask 4 inv. IP/Name/Mac  :
[030] st.cfg_network5               Network/Netmask 5 inv. IP/Name/Mac  :
[031] st.cfg_mksysb_nfs_server      AIX MKSYSB NFS Server IP or Name    : batnfs.maison.ca
[032] st.cfg_mksysb_nfs_mount_point AIX MKSYSB NFS Mount Point          : /volume1/mksysb
[033] st.cfg_mksysb_backup_to_keep  AIX MKSYSB NFS Backup - Nb .to keep : 2
[034] st.cfg_rear_nfs_server        Rear NFS Server IP or Name          : batnas.maison.ca
[035] st.cfg_rear_nfs_mount_point   Rear NFS Mount Point                : /volume1/Linux_DR
[036] st.cfg_rear_backup_to_keep    Rear NFS Backup - Nb. to keep       : 3
[037] st.cfg_backup_nfs_server      NFS Backup IP or Server Name        : batnas.maison.ca
[038] st.cfg_backup_nfs_mount_point NFS Backup Mount Point              : /volume1/backup_linux
[039] st.cfg_daily_backup_to_keep   Daily Backup to Keep                : 4
[040] st.cfg_weekly_backup_to_keep  Weekly Backup to Keep               : 4
[041] st.cfg_monthly_backup_to_keep Monthly Backup to Keep              : 4
[042] st.cfg_yearly_backup_to_keep  Yearly Backup to keep               : 2
[043] st.cfg_weekly_backup_day      Weekly Backup Day (1=Mon,7=Sun)     : 5
[044] st.cfg_monthly_backup_date    Monthly Backup Date (1-28)          : 1
[045] st.cfg_yearly_backup_month    Yearly Backup Month (1-12)          : 12
[046] st.cfg_yearly_backup_date     Yearly Backup Date (1-31)           : 31
[047] st.cfg_storix_nfs_server      Storix NFS Server IP or Name        : batnas.maison.ca
[048] st.cfg_storix_nfs_mount_point Storix NFS Mount Point              : /volume1/storix
```

```
[049] st.cfg_storix_backup_to_keep      Storix NFS Backup - Nb. to Keep     : 3


=================================================================================
sadmlib_std_demo.py v3.1 - Library v2.23
Client Directories Var. Avail.          Description                 This System Result
=================================================================================
[001] st.base_dir                       SADMIN Root Directory           : /sadmin
[002] st.bin_dir                        SADMIN Scripts Directory        : /sadmin/bin
[003] st.tmp_dir                        SADMIN Temporary file(s) Directory : /sadmin/tmp
[004] st.lib_dir                        SADMIN Shell & Python Library Dir.  : /sadmin/lib
[005] st.log_dir                        SADMIN Script Log Directory     : /sadmin/log
[006] st.cfg_dir                        SADMIN Configuration Directory  : /sadmin/cfg
[007] st.sys_dir                        Server Startup/Shutdown Script Dir. : /sadmin/sys
[008] st.doc_dir                        SADMIN Documentation Directory  : /sadmin/doc
[009] st.pkg_dir                        SADMIN Packages Directory       : /sadmin/pkg
[010] st.dat_dir                        Server Data Directory           : /sadmin/dat
[011] st.nmon_dir                       Server NMON - Data Collected Dir.   : /sadmin/dat/nmon
[012] st.dr_dir                         Server Disaster Recovery Info Dir.  : /sadmin/dat/dr
[013] st.rch_dir                        Server Return Code History Dir.     : /sadmin/dat/rch
[014] st.net_dir                        Server Network Information Dir.     : /sadmin/dat/net
[015] st.rpt_dir                        SYStem MONitor Report Directory     : /sadmin/dat/rpt
[016] st.dbb_dir                        Database Backup Directory       : /sadmin/dat/dbb
[017] st.setup_dir                      SADMIN Installation/Update Setup Dir.: /sadmin/setup
[018] st.usr_dir                        User/System specific directory      : /sadmin/usr
[019] st.ubin_dir                       User/System specific bin/script Dir.: /sadmin/usr/bin
[020] st.ulib_dir                       User/System specific library Dir.   : /sadmin/usr/lib
[021] st.udoc_dir                       User/System specific documentation  : /sadmin/usr/doc
[022] st.umon_dir                       User/System specific SysMon Scripts : /sadmin/usr/mon


=================================================================================
sadmlib_std_demo.py v3.1 - Library v2.23
Server Directories Var. Avail.          Description                 This System Result
=================================================================================
[001] st.www_dir                        SADMIN Web Site Root Directory      : /sadmin/www
[002] st.www_doc_dir                    SADMIN Web Site Root Directory      : /sadmin/www/doc
[003] st.www_dat_dir                    SADMIN Web Site Systems Data Dir.   : /sadmin/www/dat
[004] st.www_lib_dir                    SADMIN Web Site PHP Library Dir.    : /sadmin/www/lib
[005] st.www_tmp_dir                    SADMIN Web Temp Working Directory   : /sadmin/www/tmp
[006] st.www_perf_dir                   Web Performance Server Graph Dir.   : /sadmin/www/tmp/perf


=================================================================================
sadmlib_std_demo.py v3.1 - Library v2.23
SADMIN FILES VARIABLES AVAIL.           Description                 This System Result
=================================================================================
```

```
[001] st.pid_file                Current script PID file       : /sadmin/tmp/sadmlib_std_demo.pid
[002] st.cfg_file                SADMIN Configuration File     : /sadmin/cfg/sadmin.cfg
[003] st.cfg_hidden              SADMIN Initial Configuration File : /sadmin/cfg/.sadmin.cfg
[004] st.alert_file              Alert Group Definition File Name : /sadmin/cfg/alert_group.cfg
[005] st.alert_init              Alert Group Initial File (Template) : /sadmin/cfg/.alert_group.cfg
[006] st.slack_file              Alert - Slack Channel File    : /sadmin/cfg/alert_slack.cfg
[007] st.slack_init              Alert - Slack Channel (Template) : /sadmin/cfg/.alert_slack.cfg
[008] st.alert_hist              Alert - History File          : /sadmin/cfg/alert_history.cfg
[009] st.alert_hini              Alert - History Initial File  : /sadmin/cfg/.alert_history.cfg
[010] st.alert_seq               Alert - Reference Counter     : /sadmin/cfg/alert_history.seq
[011] st.tmp_file1               User usable Temp Work File 1  : /sadmin/tmp/sadmlib_std_demo_1.8153
[012] st.tmp_file2               User usable Temp Work File 2  : /sadmin/tmp/sadmlib_std_demo_2.8153
[013] st.tmp_file3               User usable Temp Work File 3  : /sadmin/tmp/sadmlib_std_demo_3.8153
[014] st.log_file                Script Log File               : /sadmin/log/holmes_sadmlib_std_demo.log
[015] st.rch_file                Script Return Code History File : /sadmin/dat/rch/holmes_sadmlib_std_demo.rch
[016] st.dbpass_file             SADMIN Database User Password File : /sadmin/cfg/.dbpass
[017] st.rpt_file                SYStem MONitor report file    : /sadmin/dat/rpt/holmes.rpt
[018] st.backup_list             Backup List File Name         : /sadmin/cfg/backup_list.txt
[019] st.backup_list_init        Initial Backup List (Template) : /sadmin/cfg/.backup_list.txt
[020] st.backup_exclude          Backup Exclude List File Name : /sadmin/cfg/backup_exclude.txt
[021] st.backup_exclude_init     Initial Backup Exclude (Template) : /sadmin/cfg/.backup_exclude.txt


=====================================================================================================
sadmlib_std_demo.py v3.1 - Library v2.23
COMMAND PATH USE BY SADMIN STD. LIBR.  Description                         This System Result
=====================================================================================================

[001] st.lsb_release             Cmd. 'lsb_release', Get O/S Version : /bin/lsb_release
[002] st.dmidecode               Cmd. 'dmidecode', Get model & type  : /sbin/dmidecode
[003] st.facter                  Cmd. 'facter', Get System Info      : /bin/facter
[004] st.bc                      Cmd. 'bc', Do some Math.            : /bin/bc
[005] st.fdisk                   Cmd. 'fdisk', Get Partition Info    : /sbin/fdisk
[006] st.which                   Cmd. 'which', Get Command location  : /bin/which
[007] st.perl                    Cmd. 'perl', epoch time Calc.       : /bin/perl
[008] st.mail                    Cmd. 'mail', Send SysAdmin Email    : /bin/mail
[009] st.mutt                    Cmd. 'mutt', Used to Send Email     : /bin/mutt
[010] st.curl                    Cmd. 'curl', To send alert to Slack : /bin/curl
[011] st.lscpu                   Cmd. 'lscpu', Socket & thread info  : /bin/lscpu
[012] st.nmon                    Cmd. 'nmon', Collect Perf Statistic : /bin/nmon
[013] st.parted                  Cmd. 'parted', Get Disk Real Size   : /sbin/parted
[014] st.ethtool                 Cmd. 'ethtool', Get System IP Info  : /sbin/ethtool
[015] st.ssh                     Cmd. 'ssh', SSH to SADMIN client    : /bin/ssh
[016] st.ssh_cmd                 Cmd. 'ssh', SSH to Connect to client: /bin/ssh -qnp 32


=====================================================================================================
sadmlib_std_demo.py v3.1 - Library v2.23
Database Information                    Description                         This System Result
```

```
=====================================================================================
[001] st.dbsilent                        When DBerror, No ErrMsg (Just ErrNo): False
[002] st.usedb                           Script need (Open/Close) Database ? : True
Database connection succeeded
Closing Database connection
```