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1 =====
2 sadmlib_std_demo.py v3.10 - Library v3.09
3 User Var. that affect SADMIN behavior  Description                      This System Result
4 =====
5 [001] st.ver          Get/Set Script Version Number      : 3.10
6 [002] st.pn          Get script name                     : sadmlib_std_demo.py
7 [003] st.inst        Get script name without extension   : sadmlib_std_demo
8 [004] st.username    Get current user name               : root
9 [005] st.tpid        Get Current Process ID              : 23658
10 [006] st.multiple_exec Get/Set Allow running multiple copy : Y
11 [007] st.use_rch     Get/Set Gen. entry in .rch file     : False
12 [008] st.log_type    Set Output to [S]creen [L]og [B]oth : B
13 [009] st.log_append  Get/Set Append Log or Create New One: False
14 [010] st.log_header  Get/Set Generate Header in log     : False
15 [011] st.log_footer  Get/Set Generate Footer in log     : False
16 [012] st.exit_code   Get/Set Script Exit Return Code    : 0

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20 =====
21 sadmlib_std_demo.py v3.10 - Library v3.09
22 Calling Functions      Description                      This System Result
23 =====
24 [001] st.get_release() SADMIN Release Number (XX.XX)      : 1.2.0
25 [002] st.get_ostype()  OS Type (Uppercase,LINUX,AIX,DARWIN): LINUX
26 [003] st.get_osversion() Return O/S Version (Ex: 7.2, 6.5)  : 7.7.1908
27 [004] st.get_osmajorversion() Return O/S Major Version (Ex 7, 6) : 7
28 [005] st.get_osminorversion() Return O/S Minor Version (Ex 2, 3) : 7
29 [006] st.get_osname()  O/S Name (REDHAT,CENTOS,UBUNTU,...) : CENTOS
30 [007] st.get_oscodename() O/S Project Code Name              : CORE
31 [008] st.get_kernel_version() O/S Running Kernel Version        : 3.10.0-1062
32 [009] st.get_kernel_bitmode() O/S Kernel Bit Mode (32 or 64)    : 64
33 [010] st.hostname      Current Host Name                   : holmes
34 [011] st.get_host_ip() Current Host IP Address              : 192.168.1.12
35 [012] st.get_domainname() Current Host Domain Name            : maison.ca
36 [013] st.get_fqdn()    Fully Qualified Domain Host Name   : holmes.maison.ca
37 [014] st.get_epoch_time() Get Current Epoch Time              : 1574606667
38 [015] st.epoch_to_date(1574606667) Convert epoch time to date          : 2019.11.24 09:44:27

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39      WDATE=2019.11.24 09:44:27
40 [016] st.date_to_epoch(WDATE)          Convert Date to epoch time          : 1574606667
41      DATE1=2018.06.30 10:00:44
42      DATE2=2018.06.30 10:00:03
43 [017] st.elapsed_time(DATE1,DATE2)    Elapse Time between two timestamps : 00:00:41
44 [018] st.get_packagetype()            Get package type (rpm,deb,aix,dmg)  : rpm
45 [019] st.get_arch()                   Get system architecture              : x86_64
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49 =====
50 sadmlib_std_demo.py v3.10 - Library v3.09
51 SADMIN PYTHON SPECIFIC FUNCTIONS      Description                          This System Result
52 =====
53 [001] st.dbsilent                      When DBerror, No ErrMsg (Just ErrNo): False
54 [002] st.usedb                         Script need (Open/Close) Database ? : True
55 [003] st.silentremove('file')         Silent File Del, No Err if not exist: None
56 [004] st.writelog(msg,'nonl'|'bold')  Write Log (nonl=NoNewLine)          : None
57
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60 =====
61 sadmlib_std_demo.py v3.10 - Library v3.09
62 Overview of st.start() & st.stop() function
63 =====
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65 -----
66 st = setup_sadmin()
67 Example : st = setup_sadmin()    # Setup Var, Load Libr, Create instance, call st.start()
68 -----
69     Setup User Var., Load Module, Create Instance, call st.start() and return instance object
70     It make sure the SADMIN Environment variable is set to proper dir.
71     The module 'setup_sadmin()', need to be called when your script is starting.
72     What this function will do for us :
73         1) Make sure all directories & sub-directories exist and have proper permissions.
74         2) Make sure log file exist with proper permission (st.log_file)
75         3) Make sure Return Code History (.rch) exist and have the right permission
76         4) If PID file exist, show error message and abort.

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77         Unless user allow more than one copy to run simultaneously (st.multiple_exec = 'Y')
78         5) Add line in the [R]eturn [C]ode [H]istory file stating script is started (Code 2)
79         6) Write HostName - Script name and version - O/S Name and version to the Log file (st.log_file)
80
81 -----
82 st.stop()
83 Example : st.stop(st.exit_code)  # Close SADM Environment
84           sys.exit(st.exit_code) # Exit To O/S
85 -----
86     Accept one parameter - Either 0 (Successful) or non-zero (Error Encountered)
87     Please call this function just before your script end.
88     What this function do.
89     1) If Exit Code is not zero, change it to 1.
90     2) Get Actual Time and Calculate the Execution Time.
91     3) Writing the Script Footer in the Log (Script Return code, Execution Time, ...)
92     4) Update the RCH File (Start/End/Elapse Time and the Result Code)
93     5) Trim The RCH File Based on User choice in sadmin.cfg
94     6) Trim the Log based on user selection in sadmin.cfg
95     7) Delete the PID File of the script (st.pid_file)
96     8) Delete the User 3 TMP Files (st.tmp_file1, st.tmp_file2, st.tmp_file3)
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101 =====
102 sadmlib_std_demo.py v3.10 - Library v3.09
103 SADMIN CONFIG FILE VARIABLES          Description                      This System Result
104 =====
105 [001] st.cfg_server                    SADMIN SERVER NAME (FQDN)       : holmes.maison.ca
106 [002] st.cfg_host_type                 SADMIN [C]lient or [S]erver     : S
107 [003] st.cfg_mail_addr                 SADMIN Administrator Default Email : duplessis.jacques@gmail.com
108 [004] st.cfg_alert_type                0=NoMail 1=OnError 3=OnSuccess 4=All: 1
109 [005] st.cfg_alert_group               Default Alert Group              : default
110 [006] st.cfg_alert_repeat              Seconds to wait before repeat alert : 0
111 [007] st.cfg_textbelt_key              TextBelt.com API Key           :
112 [008] st.cfg_textbelt_url              TextBelt.com API URL           : https://textbelt.com/text
113 [009] st.cfg_cie_name                   Your Company Name                 : Your Cie Name
114 [010] st.cfg_domain                     Server Creation Default Domain    : maison.ca

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115 [011] st.cfg_user          SADMIN User Name          : sadmin
116 [012] st.cfg_group        SADMIN Group Name         : sadmin
117 [013] st.cfg_www_user     User that Run Apache Web Server : apache
118 [014] st.cfg_www_group    Group that Run Apache Web Server : apache
119 [015] st.cfg_dbname       SADMIN Database Name      : sadmin
120 [016] st.cfg_dbhost      SADMIN Database Host      : sadmin.maison.ca
121 [017] st.cfg_dbport      SADMIN Database Host TCP Port : 3306
122 [018] st.cfg_rw_dbuser   SADMIN Database Read/Write User : sadmin
123 [019] st.cfg_rw_dbpwd    SADMIN Database Read/Write User Pwd :
124 [020] st.cfg_ro_dbuser   SADMIN Database Read Only User : squery
125 [021] st.cfg_ro_dbpwd    SADMIN Database Read Only User Pwd :
126 [022] st.cfg_rrdtool     RRDTOOL Binary Location   : /bin/rrdtool
127 [023] st.cfg_ssh_port    SSH Port to communicate with client : 32
128 [024] st.cfg_nmon_keepdays Nb. of days to keep nmon perf. file : 40
129 [025] st.cfg_rch_keepdays Nb. days to keep unmodified rch file: 40
130 [026] st.cfg_log_keepdays Nb. days to keep unmodified log file: 40
131 [027] st.cfg_max_rchline Trim rch file to this max. of lines : 35
132 [028] st.cfg_max_logline Trim log to this maximum of lines   : 500
133 [029] st.cfg_network1    Network/Netmask 1 inv. IP/Name/Mac : 192.168.1.0/24
134 [030] st.cfg_network2    Network/Netmask 2 inv. IP/Name/Mac :
135 [031] st.cfg_network3    Network/Netmask 3 inv. IP/Name/Mac :
136 [032] st.cfg_network4    Network/Netmask 4 inv. IP/Name/Mac :
137 [033] st.cfg_network5    Network/Netmask 5 inv. IP/Name/Mac :
138 [034] st.cfg_mkysyb_nfs_server AIX MKSYSB NFS Server IP or Name : batnfs.maison.ca
139 [035] st.cfg_mkysyb_nfs_mount_point AIX MKSYSB NFS Mount Point : /volume1/mkysyb
140 [036] st.cfg_mkysyb_backup_to_keep AIX MKSYSB NFS Backup - Nb .to keep : 2
141 [037] st.cfg_rear_nfs_server Rear NFS Server IP or Name : batnas.maison.ca
142 [038] st.cfg_rear_nfs_mount_point Rear NFS Mount Point : /volume1/Linux_DR
143 [039] st.cfg_rear_backup_to_keep Rear NFS Backup - Nb. to keep : 3
144 [040] st.cfg_backup_nfs_server NFS Backup IP or Server Name : batnas.maison.ca
145 [041] st.cfg_backup_nfs_mount_point NFS Backup Mount Point : /volume1/backup_linux
146 [042] st.cfg_daily_backup_to_keep Daily Backup to Keep : 4
147 [043] st.cfg_weekly_backup_to_keep Weekly Backup to Keep : 4
148 [044] st.cfg_monthly_backup_to_keep Monthly Backup to Keep : 4
149 [045] st.cfg_yearly_backup_to_keep Yearly Backup to keep : 2
150 [046] st.cfg_weekly_backup_day Weekly Backup Day (1=Mon,7=Sun) : 5
151 [047] st.cfg_monthly_backup_date Monthly Backup Date (1-28) : 1
152 [048] st.cfg_yearly_backup_month Yearly Backup Month (1-12) : 12

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153 [049] st.cfg_yearly_backup_date Yearly Backup Date (1-31) : 31

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158 sadmlib_std_demo.py v3.10 - Library v3.09

159 Client Directories Var. Avail.	Description	This System Result
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160 =====

161 [001] st.base_dir	SADMIN Root Directory	: /sadmin
162 [002] st.bin_dir	SADMIN Scripts Directory	: /sadmin/bin
163 [003] st.tmp_dir	SADMIN Temporary file(s) Directory	: /sadmin/tmp
164 [004] st.lib_dir	SADMIN Shell & Python Library Dir.	: /sadmin/lib
165 [005] st.log_dir	SADMIN Script Log Directory	: /sadmin/log
166 [006] st.cfg_dir	SADMIN Configuration Directory	: /sadmin/cfg
167 [007] st.sys_dir	Server Startup/Shutdown Script Dir.	: /sadmin/sys
168 [008] st.doc_dir	SADMIN Documentation Directory	: /sadmin/doc
169 [009] st.pkg_dir	SADMIN Packages Directory	: /sadmin/pkg
170 [010] st.dat_dir	Server Data Directory	: /sadmin/dat
171 [011] st.nmon_dir	Server NMON - Data Collected Dir.	: /sadmin/dat/nmon
172 [012] st.dr_dir	Server Disaster Recovery Info Dir.	: /sadmin/dat/dr
173 [013] st.rch_dir	Server Return Code History Dir.	: /sadmin/dat/rch
174 [014] st.net_dir	Server Network Information Dir.	: /sadmin/dat/net
175 [015] st.rpt_dir	SYSTEM MONITOR Report Directory	: /sadmin/dat/rpt
176 [016] st.dbb_dir	Database Backup Directory	: /sadmin/dat/dbb
177 [017] st.setup_dir	SADMIN Setup Directory.	: /sadmin/setup
178 [018] st.usr_dir	User/System specific directory	: /sadmin/usr
179 [019] st.ubin_dir	User/System specific bin/script Dir.:	/sadmin/usr/bin
180 [020] st.ulib_dir	User/System specific library Dir.	: /sadmin/usr/lib
181 [021] st.udoc_dir	User/System specific documentation	: /sadmin/usr/doc
182 [022] st.umon_dir	User/System specific SysMon Scripts	: /sadmin/usr/mon

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187 sadmlib_std_demo.py v3.10 - Library v3.09

188 Server Directories Var. Avail.	Description	This System Result
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190 [001] st.www_dir	SADMIN Web Site Root Directory	: /sadmin/www
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191 [002] st.www_doc_dir          SADMIN Web Site Root Directory      : /sadmin/www/doc
192 [003] st.www_dat_dir          SADMIN Web Site Systems Data Dir.   : /sadmin/www/dat
193 [004] st.www_lib_dir          SADMIN Web Site PHP Library Dir.    : /sadmin/www/lib
194 [005] st.www_tmp_dir          SADMIN Web Temp Working Directory   : /sadmin/www/tmp
195 [006] st.www_perf_dir         Web Performance Server Graph Dir.   : /sadmin/www/tmp/perf
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199 =====
200 sadmlib_std_demo.py v3.10 - Library v3.09
201 SADMIN FILES VARIABLES AVAIL.      Description                          This System Result
202 =====
203 [001] st.pid_file             Current script PID file              : /sadmin/tmp/sadmlib_std_demo.pid
204 [002] st.cfg_file             SADMIN Configuration File            : /sadmin/cfg/sadmin.cfg
205 [003] st.cfg_hidden          SADMIN Initial Configuration File    : /sadmin/cfg/.sadmin.cfg
206 [004] st.alert_file          Alert Group Definition File Name     : /sadmin/cfg/alert_group.cfg
207 [005] st.alert_init          Alert Group Initial File (Template)  : /sadmin/cfg/.alert_group.cfg
208 [006] st.slack_file           Alert - Slack Channel File           : /sadmin/cfg/alert_slack.cfg
209 [007] st.slack_init          Alert - Slack Channel (Template)     : /sadmin/cfg/.alert_slack.cfg
210 [008] st.alert_hist          Alert - History File                 : /sadmin/cfg/alert_history.cfg
211 [009] st.alert_hini          Alert - History Initial File         : /sadmin/cfg/.alert_history.cfg
212 [010] st.tmp_file1           User usable Temp Work File 1        : /sadmin/tmp/sadmlib_std_demo_1.23658
213 [011] st.tmp_file2           User usable Temp Work File 2        : /sadmin/tmp/sadmlib_std_demo_2.23658
214 [012] st.tmp_file3           User usable Temp Work File 3        : /sadmin/tmp/sadmlib_std_demo_3.23658
215 [013] st.log_file            Script Log File                       : /sadmin/log/holmes_sadmlib_std_demo.log
216 [014] st.rch_file            Script Return Code History File      : /sadmin/dat/rch/
- holmes_sadmlib_std_demo.rch
217 [015] st.dbpass_file         SADMIN Database User Password File   : /sadmin/cfg/.dbpass
218 [016] st.rpt_file            SYStem MONitor report file          : /sadmin/dat/rpt/holmes.rpt
219 [017] st.backup_list         Backup List File Name                : /sadmin/cfg/backup_list.txt
220 [018] st.backup_list_init    Initial Backup List (Template)       : /sadmin/cfg/.backup_list.txt
221 [019] st.backup_exclude      Backup Exclude List File Name        : /sadmin/cfg/backup_exclude.txt
222 [020] st.backup_exclude_init  Initial Backup Exclude (Template)    : /sadmin/cfg/.backup_exclude.txt
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226 =====
227 sadmlib_std_demo.py v3.10 - Library v3.09

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228 COMMAND PATH USE BY SADMIN STD. LIBR. Description This System Result
229 =====
230 [001] st.lsb_release Cmd. 'lsb_release', Get O/S Version : /bin/lsb_release
231 [002] st.dmidcode Cmd. 'dmidcode', Get model & type : /sbin/dmidcode
232 [003] st.bc Cmd. 'bc', Do some Math. : /bin/bc
233 [004] st.fdisk Cmd. 'fdisk', Get Partition Info : /sbin/fdisk
234 [005] st.which Cmd. 'which', Get Command location : /bin/which
235 [006] st.perl Cmd. 'perl', epoch time Calc. : /bin/perl
236 [007] st.mail Cmd. 'mail', Send SysAdmin Email : /bin/mail
237 [008] st.mutt Cmd. 'mutt', Used to Send Email : /bin/mutt
238 [009] st.curl Cmd. 'curl', To send alert to Slack : /bin/curl
239 [010] st.lscpu Cmd. 'lscpu', Socket & thread info : /bin/lscpu
240 [011] st.nmon Cmd. 'nmon', Collect Perf Statistic : /bin/nmon
241 [012] st.parted Cmd. 'parted', Get Disk Real Size : /sbin/parted
242 [013] st.ethtool Cmd. 'ethtool', Get System IP Info : /sbin/ethtool
243 [014] st.ssh Cmd. 'ssh', SSH to SADMIN client : /bin/ssh
244 [015] st.ssh_cmd Cmd. 'ssh', SSH to Connect to client: /bin/ssh -qnp 32
245
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248 =====
249 sadmlib_std_demo.py v3.10 - Library v3.09
250 Database Information Description This System Result
251 =====
252 [001] st.dbsilent When DBerror, No ErrMsg (Just ErrNo): False
253 [002] st.usedb Script need (Open/Close) Database ? : True
254 Database connection succeeded
255
256
257 Show SADMIN Tables:
258 +-----+
259 | Tables_in_sadmin |
260 +-----+
261 | server |
262 | server_category |
263 | server_group |
264 | server_network |
265 +-----+

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268 Category Table:

Field	Type	Null	Key	Default	Extra
cat_id	int(11)	NO	PRI	NULL	auto_increment
cat_code	varchar(10)	NO	UNI	NULL	
cat_desc	varchar(25)	NO		NULL	
cat_active	tinyint(1)	NO		1	
cat_date	timestamp	NO		0000-00-00 00:00:00	on update CURRENT_TIMESTAMP
cat_default	tinyint(1)	NO		0	

cat_id	cat_code	cat_desc	cat_active	cat_date	cat_default
2	Legacy	Legacy Unsupported Server	1	2019-01-21 11:36:23	0
3	Dev	Development Environment	1	2019-08-17 11:01:47	1
5	Poc	Proof Of Concept env.	1	2019-01-21 11:24:25	0
6	Prod	Production Environment	1	2017-11-07 00:00:00	0
11	Temporary	Temporary Server	1	2017-12-06 11:23:26	0

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290 Group Table:

Field	Type	Null	Key	Default	Extra
grp_id	int(11)	NO	PRI	NULL	auto_increment
grp_code	varchar(10)	NO	UNI	NULL	
grp_desc	varchar(25)	NO		NULL	
grp_active	tinyint(1)	NO		1	
grp_date	timestamp	NO		CURRENT_TIMESTAMP	on update CURRENT_TIMESTAMP
grp_default	tinyint(1)	NO		0	

grp_id	grp_code	grp_desc	grp_active	grp_date	grp_default
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304	2	Cluster	Clustered Server	1	2017-11-22 11:55:50	0
305	3	Service	Infrastructure Service	1	2017-11-07 00:00:00	0
306	4	Retired	Server not in use	1	2017-11-07 00:00:00	0
307	5	Raspberry	Raspberry Pi	1	2019-03-17 14:38:24	0
308	6	Regular	Normal App. Server	1	2019-01-21 11:36:43	1
309	7	Temporary	Temporaly in service	1	2017-11-07 00:00:00	0
310	8	Laptop	Linux Laptop	1	2017-11-07 00:00:00	0

311 +-----+-----+-----+-----+-----+-----+-----+

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314 Server Table:

315	+-----+-----+-----+-----+-----+-----+-----+					
316	Field	Type	Null	Key	Default	Extra
317	+-----+-----+-----+-----+-----+-----+-----+					
318	srv_id	int(11)	NO	PRI	NULL	auto_increment
319	srv_name	varchar(15)	NO	UNI	NULL	
320	srv_domain	varchar(30)	NO		NULL	
321	srv_desc	varchar(30)	NO		NULL	
322	srv_tag	varchar(15)	NO		NULL	
323	srv_note	varchar(30)	NO		NULL	
324	srv_active	tinyint(1)	NO		1	
325	srv_sporadic	tinyint(1)	NO		0	
326	srv_monitor	tinyint(1)	NO		1	
327	srv_alert_group	varchar(15)	NO		default	
328	srv_graph	tinyint(1)	NO		1	
329	srv_cat	varchar(10)	NO		NULL	
330	srv_group	varchar(10)	NO		NULL	
331	srv_vm	tinyint(1)	NO		0	
332	srv_osname	varchar(15)	YES		NULL	
333	srv_ostype	varchar(10)	NO		linux	
334	srv_oscodename	text	NO		NULL	
335	srv_osversion	varchar(12)	NO		NULL	
336	srv_osver_major	varchar(10)	NO		NULL	
337	srv_date_creation	datetime	YES		0000-00-00 00:00:00	
338	srv_date_edit	datetime	YES		0000-00-00 00:00:00	
339	srv_date_update	datetime	YES		0000-00-00 00:00:00	
340	srv_date_osupdate	datetime	YES		0000-00-00 00:00:00	
341	srv_kernel_version	varchar(30)	NO		NULL	

380		srv_img_hour		smallint(6)		NO				4			
381		srv_img_minute		smallint(6)		NO				0			
382		srv_uptime		varchar(20)		NO				NULL			
383		srv_arch		varchar(12)		NO				NULL			

384 +-----+-----+-----+-----+-----+-----+

385 Closing Database connection

386