

opsi-winst / opsi-script reference card
(4.12.0.x)



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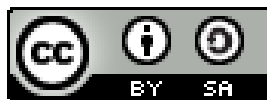
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Chapter 1

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Chapter 2

Global text constants

2.1 System directories

2.1.1 System directories [W]:

`%ProgramFilesDir%`: *c:\program files*
`%ProgramFiles32Dir%`: *c:\Program Files (x86)* //since 4.10.8
`%ProgramFiles64Dir%`: *c:\program files* //since 4.10.8
`%ProgramFilesSysnativeDir%`: *c:\program files* //since 4.10.8
`%Systemroot%`: *c:\windows*
`%System%`: *c:\windows\system32*
`%Systemdrive%`: *c:*
`%ProfileDir%`:
NT5: *c:\Documents and Settings*
NT6: *C:\users*

2.2 Common (AllUsers) directories [W]:

`%AllUsersProfileDir%` or `%CommonProfileDir%`:
NT5: *c:\Documents and Settings\All Users*
NT6: *C:\Users\Public*
`%CommonStartMenuPath%` or `%CommonStartmenuDir%`:
NT5: *c:\Documents and Settings\All Users\Startmenu*
NT6: *C:\ProgramData\Microsoft\Windows\Start Menu*
`%CommonAppdataDir%`:
NT5: *c:\Documents and Settings\All Users\Application Data*
NT6: *C:\ProgramData*
`%CommonDesktopDir%`
NT5: *c:\Documents and Settings\All Users\Desktop*
NT6: *C:\Users\Public\Desktop*
`%CommonStartupDir%`
NT5: *c:\Documents and Settings\All Users\Autostart*
NT6: *C:\ProgramData\Microsoft\Windows\Start Menu\Programs\StartUp*
`%CommonProgramsDir%`

2.3 Default User directories [W]:

`%DefaultUserProfileDir%` //since 4.11.1.1

2.4 Current user directories [W]:

User is the logged in user or given by `/usercontext`.

`%AppdataDir%` or `%CurrentAppdataDir%` : //since 4.10.8.13

NT5: `c:\Documents and Settings\%USERNAME%\Application Data` NT6: `c:\users\%USERNAME%\Appdata\Roaming`

`%CurrentStartmenuDir%` //since 4.10.8.13

`%CurrentDesktopDir%` //since 4.10.8.13

`%CurrentStartupDir%` //since 4.10.8.13

`%CurrentProgramsDir%` //since 4.10.8.13

`%CurrentSendToDir%` //since 4.10.8.13

`%CurrentProfileDir%` //since 4.11.2.1

2.5 /AllNtUserProfiles directory constants [W]:

`%UserProfileDir%`

or

`%CurrentProfileDir%` // since 4.11.2.1

NT5: `c:\Documents and Settings\%USERNAME%`

NT6: `c:\users\%USERNAME%`

2.6 opsi-winst Path and Directories [W/L]:

`%ScriptPath%` or `%ScriptDir%`

`%ScriptDrive%`

`%WinstDir%`

`%WinstVersion%` //4.10.8.3

`%Logfile%`

`%opsiScriptHelperPath%` `%ProgramFiles32Dir%\opsi.org\opsiScriptHelper\lib` // since 4.11.3.2

`%opsiTmpDir%` : `c:\opsi.org\tmp` // since 4.11.4.3

`%opsiLogDir%` : `c:\opsi.org\log` // since 4.11.4.3

`%opsidata%` : `c:\opsi.org\data` // since 4.12.0.12

`%opsiapplog%` : `c:\opsi.org\applog` // since 4.12.0.12

2.7 Network informations [W/L]:

%Host% : value of environment variable HOST.

%PCName%: value of environment variable PCNAME, or if absent of COMPUTERNAME.

%Username% : Name of actual user.

%IPName% : The dns name of the pc. Usually identical with the netbios name and therefore with **%PCName%** besides that the netbios names uses to be uppercase.

%IPAddress% : may be the IP-Address of the machine. Use funktion `GetMyIpByTarget()` instead.

2.8 Service Data [W/L]

%HostID% : FQDN of the client

%opsiserviceURL%

%opsiServer%

%opsiDepotId% //since 4.11.4

%opsiserviceUser% FQDN used for the connection to the opsi-config-server

%opsiservicePassword%

%installingProdName%: productid //since 4.10.8

%installingProdVersion%: product version //since 4.10.8

%installingProduct% : productid (deprecated)

Chapter 3

In Primary Sections

3.1 Kinds of Primary Sections [W/L]:

```
[Initial]
[Actions]
[sub<identifier>]
sub <file name>
[ProfileActions] [W]
```

3.2 Winst control [W/L]:

encoding=<encoding> // (default is system encoding) since 4.11.4.2

LogLevel (deprecated)

SetLogLevel = <number> or SetLogLevel = <string> // (default=6)

```
SetLogLevel = 7
SetLogLevel = "7"
```

ExitOnError = <boolean value> // (default=false)

ScriptErrorMessages = <boolean value> // (default=true)

FatalOnSyntaxError = <boolean value> // (default=true) since 4.11.3.2

FatalOnRuntimeError = <boolean value> // (default=false) since 4.11.3.2

AutoActivityDisplay = <boolean value> // (default=false); if true shows a marquee (endless) progressbar while winbatch/dosbatch sections are . //since 4.11.4.7

Message <string> or Message = <const string>

ShowMessageFile <string>

ShowBitMap [<file name>] [<sub title>]

comment <string> or comment = <const string>

LogError <string> or LogError = <const string>

LogWarning <string> or LogWarning = <const string>

includelog <file name> <tail size> //since 4.11.2.1 [W/L]

includelog <file name> <tail size> [<encoding>] //since 4.11.4.1 [W/L]


```
includelog "%Scriptpath%\test-files\10lines.txt" "5"
```

```
SetConfidential <secret string> //since 4.11.3.5 [W/L]
asConfidential( <secret string expression> ) //since 4.12.0.16 [W/L]
Pause <string> or Pause = <const string>
Stop <string> or stop = <const string>
include_insert <file name> // since 4.11.3
include_append <file name> // since 4.11.3
NormalizeWinst // (set normal window state) since 4.11.3
IconizeWinst // (set minimized window state)
MaximizeWinst // (set maximized window state) // since 4.11.5.1
RestoreWinst // (restore last window state)
SetSkinDirectory <path to skin.ini> // since 4.11.3.5
```

3.3 Variables [W/L]:

3.3.1 Strings

```
DefVar <variable name>
Set <variable name> = <value>
```

3.3.2 Stringlists

```
DefstringList <variable name>
```

3.4 Functions

3.4.1 String functions

3.4.1.1 Important

```
GetOS // Linux or Windows_NT [W/L]
getLinuxDistroType // debian or redhat or suse (see getLinuxVersionMap) [L]
GetMsVersionInfo //Windows Version Information [W]
GetSystemType //OS Architecture ("64 Bit System" or "x86 System") [W/L]
getRegistryValue(<keystr>, <varstr> [, <access str>]) : string //since 4.12.0.16 [W]
<access str> = one of 32bit, 64bit, sysnative ; default sysnative
GetRegistrystringvalue ("[key] var") [W]
GetRegistryStringValue32 ("[key] var") //since 4.10.8 [W]
GetRegistryStringValue64 ("[key] var") //since 4.10.8 [W]
GetRegistryStringValueSysNative ("[key] var") //since 4.10.8 [W]
GetValueFromInifile ( file, section, key, default value ) [W/L]
```

```
GetValueFromInifile("myfile","mysec","mykey","")
```

```
GetProductProperty (<PropertyName>, <DefaultValue> ) [W/L]
GetConfidentialProductProperty ( <PropertyName>, <DefaultValue>) //since 4.11.5.2 [W/L]
trim(<string>) [W/L]
lower(<string>) [W/L]
upper(<string>) [W/L]
unquote(<string>,<quote-string>) //since 4.11.2.1 [W/L]
unquote2(<string>,<quote-string>) //since 4.11.5.2 [W/L]
stringReplace(<string>, <oldPattern>, <newPattern>) //since 4.11.3 [W/L]
strLength(<string>) //since 4.11.3 [W/L]
strPos(<string>, <sub string>) //since 4.11.3 [W/L]
strPart(<string>, <start pos>, <number of chars>) //since 4.11.3 [W/L]
getValue(<key string>, <hash string list> ) [W/L]
getValueBySeparator(<key string>,<separator string>,<hash string list> ) //since 4.11.2.1 [W/L]
getValueFromFile(<key string>, <file name>) //since 4.11.4.4 [W/L]
getValueFromFileBySeparator(<key string>,<separator string>,<file name>) //since 4.11.4.4 [W/L]
getLastExitCode : string (exitcode) [W/L]
```

3.4.1.2 Special: License Management

```
DemandLicenseKey( poolId [, productId [,windowsSoftwareId]] )
```

```
set $mykey$ = DemandLicenseKey ("", "office2007")
```

```
FreeLicense (`poolId [, productId [,windowsSoftwareId]]`)
```

```
set $result$ = FreeLicense("", "office2007")
```

3.4.1.3 Special: Usercontext / loginscripts [W]:

```
GetUserSID(<Windows Username>)
```

```
GetLoggedInUser //since 4.11.1.2
```

```
GetUsercontext //since 4.11.1.2
```

```
GetScriptMode possible values Machine,Login //since 4.11.2.1
```

```
saveVersionToProfile - save productversion-packageversion to local profile //since 4.11.2.1
```

```
readVersionFromProfile : string - read productversion-packageversion from local profile //since 4.11.2.1
```

```
scriptWasExecutedBefore : boolean - is true if saved and running productversion-packageversion are identical //since 4.11.2.1
```

3.4.1.4 Other

GetHostsName (<hostaddress>) [W/L]
 GetHostsAddr (<hostname>) [W/L]
 ExtractFilePath (<path>) [W/L]
 calculate(<arithmetic string expression>) // since 4.11.3.5 : knows: +-*/() [W/L]
 DecStrToHexStr (<decstring>, <hexlength>) [W/L]
 HexStrToDecStr (<hexstring>) [W/L]
 base64EncodeStr(<string>) [W/L]
 base64DecodeStr(<string>) [W/L]
 convert2Jsonstr(<string>) //since 4.10.8.3
 RandomStr [W/L]
 CompareDotSeparatedStrings(<string1>, <string2>) : string [W/L]
 CompareDotSeparatedNumbers(<string1>, <string2>) : string [W/L]
 EnvVar (<environment variable>) [W/L]
 ParamStr [W/L]
 getDiffTimeSec (Time in seconds since last marktime) //since 4.11.3 [W/L]
 SidToName(<well known sid>) //since 4.11.3: gives localized name of the sid [W]
 GetMyIpByTarget(<target ip addr>) : string //since 4.11.3.2 /4.11.6 [W/L]
 GetIpByName(<ip addr / ip name>) //since 4.11.3.2 [W/L]
 reencodestr(<str>, <from>, <to>) //since 4.11.4.2 [W/L]
 strLoadTextFile (<filename>) //since 4.11.4.6 [W/L]
 strLoadTextFileWithEncoding (<filename>, <encoding>) //since 4.11.4.6 [W/L]
 GetShortWinPathName(<longpath string>) //since 4.11.5.2 [W]

3.4.1.5 Deprecated

GetNtVersion Deprecated - please use GetMsVersionInfo [W]
 IniVar (<key>) : (deprecated; use GetProductProperty) [W]
 SubstringBefore (<string1>, <string2>) (deprecated; use splitString / takestring) [W/L]

3.4.2 String list functions

3.4.2.1 Important

splitString (<string1>, <string2>) [W/L]

```
set $list1$ = splitString ("\\server\share\dir", "\")
```

splitStringOnWhiteSpace (<string>) [W/L]

loadTextFile (<file name>) [W/L]

loadUnicodeTextFile (<file name>) [W]

loadTextFileWithEncoding (<file name>, <encoding>) //since 4.11.5 [W/L]

composeString (<string list>, <Link>) [W/L]

takeString (<index>, <list>) [W/L]

setStringInListAtIndex(<newstring>,<list>,<indexstr>) : stringlist //since 4.11.6 [W/L]

takeFirstStringContaining(<list>,<search string>) [W/L]

getOutputStreamFromSection (<dos section name>) [W/L]

```
set $list$= getOutputStreamFromSection ('DosInAnIcon_try')
```

shellCall (<command string>) : stringlist (output) //since 4.11.4.2 [W/L]

```
set $list$= shellCall('net start')
```

getReturnListFromSection (<xml section name>) [W/L]

getListContaining(<list>,<search string>) [W/L]

getListContainingList(<list1>,<list2>) //since 4.11.3.7 [W/L]

count (<list>) [W/L]

emptylist (<list>) //since 4.11.3.7 [W/L]

for %<identifier>% in <list> do <one statement | sub section> [W/L]

```
for %s% in $list1$ do sub_test_string
```

GetProcessList //since 4.11.1.2; gives list of exename;pid;dom/user [W/L]

getProductPropertyList(<propname>,<default value>) //since 4.11.3 [W/L]

getRegistryKeyList32(<regkey>) //since 4.11.3 [W]

getRegistryKeyList64(<regkey>) //since 4.11.3 [W]

getRegistryKeyListSysnative(<regkey>) //since 4.11.3 [W]

getRegistryVarList32(<regkey>) //since 4.11.3 [W]

getRegistryVarList64(<regkey>) //since 4.11.3 [W]

getRegistryVarListSysnative(<regkey>) //since 4.11.3 [W]

getProfilesDirList //since 4.11.3.2 [W/L]

3.4.2.2 Infomaps

GetLocaleInfoMap [W]

GetMSVersionMap [W]

getLinuxVersionMap //since 4.11.4 [L]

keys are (example):

```
Distributor ID=Ubuntu
Description=Ubuntu 12.04.2 LTS
Release=12.04
Codename=precise
kernel name=Linux
node name=detlefm05
kernel release=3.2.0-40-generic-pae
kernel version=#64-Ubuntu SMP Mon Mar 25 21:44:41 UTC 2013
machine=i686
processor=athlon
hardware platform=i386
operating system=GNU/Linux
```

`getFileInfoMap(<file name>) [W]`

`getProductMap // since 4.11.2.4 [W/L]`

keys are: id, name, description, advice, productversion, packageversion, priority, installationstate, lastactionrequest, lastactionresult, installedversion, installedpackage, installedmodificationtime,actionrequest

`getRegistryVarMap32(<regkey>) //since 4.11.3 [W]`

`getRegistryVarMap64(<regkey>) //since 4.11.3 [W]`

`getRegistryVarMapSysnative(<regkey>) //since 4.11.3 [W]`

`getHWBiosInfoMap //since 4.11.4 [W/L]`

3.4.2.3 Other

`createStringList (<string0>, <string1> ,...) [W/L]`

```
set $list1$ = createStringList ('a','b')
```

`reverse (<list>) [W/L]`

`getSectionNames(<ini-file>) [W/L]`

`retrieveSection (<section name>) [W/L]`

`getSubList (<start index> : <end index>, <list>) [W/L]`

`getSubListByMatch (<search string>, <target list>) :stringlist //since 4.12.0.14 [W/L]`

`getSubListByMatch (<search list>, <target list>) :stringlist //since 4.12.0.14 [W/L]`

`getSubListByContaining (<search string>, <target list>) :stringlist //since 4.12.0.14 [W/L]`

`getSubListByContaining (<search list>, <target list>) :stringlist //since 4.12.0.14 [W/L]`

`getSubListByKey (<search string>, <target list>) :stringlist //since 4.12.0.14 [W/L]`

`getSubListByKey (<search list>, <target list>) :stringlist //since 4.12.0.14 [W/L]`

`getKeyList (<list>) :stringlist //since 4.12.0.14 [W/L]`

`addtoList(<list>, <string>) //since 4.10.8 [W/L]`

`addListToList(<dest list>, <src list>) //since 4.10.8 [W/L]`

`reencodestrlist(<list>, <from>, <to>) //since 4.11.4.2 [W/L]`

`removeFromListByContaining(<search string>, <target list>) : stringlist //since 4.11.5.1 [W/L]`

`removeFromListByContaining(<search list>, <target list>) : stringlist //since 4.11.5.1 [W/L]`

`removeFromListByMatch(<searchstring>, <target list>) : stringlist //since 4.11.6 [W/L]`

3.4.3 Boolean operators and functions

`<string1> = <string2> [W/L]`

`<bool1> AND <bool2> [W/L]`

`<bool1> OR <bool2> [W/L]`

`NOT(<bool3>) [W/L]`

`FileExists (<file name>) [W/L]`

`FileExists32 (<file name>) [W]`

`FileExists64 (<file name>) [W]`

FileExistsSysNative (<file name>) [W]

LineExistsIn (<string>, <file name>) [W/L]

LineBeginning_ExistsIn (<string>, <file name>) [W/L]

LineContaining_ExistsIn (<string>, <file name>) //since 4.11.4.10: true: if a in <file name> contains <string> [W/L]

XMLAddNamespace(<XMLfilename>, <XMLelementname>, <XMLnamespace>) [W]

XMLRemoveNamespace(<XMLfilename>, <XMLelementname>, <XMLnamespace>) [W]

HasMinimumSpace (<drive letter>, <capacity>) [W]

Example:

```
if not (HasMinimumSpace ("%SYSTEMDRIVE%", "500 MB"))
  LogError "Required free space of 500 MB not available on %SYSTEMDRIVE%"
  isFatalError
endif
```

opsiLicenseManagementEnabled [W/L]

runningAsAdmin //since 4.11.1.1 [W/L]

isLoginScript //since 4.11.2.1 [W]

contains(<str>, <substr>) : bool //since 4.11.3: true if <substr> in <str> [W/L]

isNumber(<str>) //since 4.11.3: true if <str> represents an integer [W/L]

runningOnUefi //since 4.11.4.3: true: if the running OS was booted in UEFI mode [W]

runningInPE //since 4.12.0.13: true: if the running OS is a Windows PE [W/L]

isDriveReady(<drive letter>) //since 4.11.4.4: true: if the drive can be accessed [W]

saveTextFile(<list>, < filename>) //since 4.11.4.4: true: if list is succesfully written to file [W/L]

saveTextFileWithEncoding(<list>, < filename>, <encoding>) : bool //since 4.11.6.4: true: if list is succesfully written to file [W/L]

CompareDotSeparatedNumbers(<str1>,<relation str>,<str2>) //since 4.11.5.2: [W/L]

CompareDotSeparatedStrings(<str1>,<relation str>,<str2>) //since 4.11.5.2: [W/L]

RegKeyExists(<regkey>[,<access str>]) : bool //since 4.12.0.16 [W]

<access str> = one of 32bit, 64bit, sysnative ; default sysnative

RegVarExists(<regkey>, <var str> [,<access str>]) : bool //since 4.12.0.16 [W]

<access str> = one of 32bit, 64bit, sysnative ; default sysnative

3.4.4 Misc functions

Killtask <process name> [W/L]

requiredWinstVersion <relation operator> <version> [W/L]

```
requiredWinstVersion >= "4.10"
```

UpdateEnvironment //since 4.11.5 [W]:

Subsequent calls of winbatch with the parameter /RunElevated will see the changed Environment (NT6 only).

3.4.5 Flow control

if - else - endif [W/L]

Syntax:

```
if <condition>
;statement(s)
[else
;statement(s)]
endif
```

Example:

```
Set $NTVer$ = GetMsVersionInfo
if ( $NTVer$ >= "6" )
    sub_install_win7
else
    if ( $NTVer$ = "5.1" )
        sub_install_winXP
    else
        stop "not a supported OS-Version"
    endif
endif
```

for - to - do Statement //since 4.11.5 [W/L]

for %<temporary string variable>% = <start string> to <end string> do <one statement>

Example:

```
for %s% = "1" to "5" do sub_iteration_test
```

Switch / Case Statement //since 4.11.5 [W/L]

Syntax:

```
Switch <string expression>
    Case <string const>
        <statement(s)>
    EndCase
    [DefaultCase
        <statement(s)>
    EndCase]
EndSwitch
```

Example:

```
set $ConstTest$ = "5"
Switch $ConstTest$
    Case "1"
        set $CompValue$ = "1"
    EndCase
    Case "2"
        set $CompValue$ = "2"
    EndCase
    DefaultCase
        set $CompValue$ = "notexisting"
    EndCase
EndSwitch
```

`isFatalError` [W/L]
`isFatalError` <string> //since 4.11.3.2 [W/L]
`isSuccess` //since 4.11.3.7 [W/L]
`isSuspended` //since 4.11.4.1 [W/L]
`noUpdateScript` //since 4.11.3.7 [W/L]
`ExitWindows` /Reboot [W/L]
`ExitWindows` /ImmediateReboot [W/L]
`ExitWindows` /ImmediateLogout [W]
`ExitWindows` /ShutdownWanted [W]
`ExitWindows` /RebootWanted (deprecated, acts like /Reboot) [W]
`sleepSeconds` <Integer> or <string> : noresult [W/L]
`ChangeDirectory` <directory> //since 4.11.2.6 [W/L]

Chapter 4

Secondary Sections

4.1 Winbatch [W/L]

Function: execute programs via operating system API

[WinBatch<identifier>]

Modifier:

/LetThemGo

/WaitForProcessEnding "<program.exe>"

/TimeoutSeconds <seconds>

/WaitForWindowAppearing <window title> (*does not work with 64 Bit programs*) [W]

/WaitForWindowVanish <window title> (*does not work with 64 Bit programs*) [W]

/RunElevated // since 4.11.3: only at >= NT6 ; no network access [W]

/RunAsLoggedOnUser // since 4.11.3.5 ; works only inside *userLoginScripts* [W]

/32Bit //since 4.11.3.5 [W]

/64Bit //since 4.11.3.5 [W]

/SysNative //since 4.11.3.5 [W]

4.2 DosBatch and DosInAnIcon (ShellBatch and ShellInAnIcon) [W/L]

Function: Execute section via cmd.exe

[DosBatch<identifier>] <optional parameters> <winst <modifier>>

[DosInAnIcon<identifier>] <optional parameters> <winst <modifier>>

[ShellBatch<identifier>] <optional parameters> <winst <modifier>>

[ShellInAnIcon<identifier>] <optional parameters> <winst <modifier>>

Modifier: //since 4.11.1.1

/32Bit [W]

/64Bit [W]

/SysNative [W]

/showoutput [W/L] // since 4.11.4.7

The modifiers has to be seperated by *winst* from the parameters.

```
DosInAnIcon_do_64bit_stuff winst /64Bit
```

Commands: see manual

4.3 ExecWith [W/L]

Function: Execute section via any interpreter

[ExecWith<identifier>] <path to interpreter>

Modifier:

/LetThemGo

/EscapeStrings

/32Bit //since 4.11.3.5 [W]

/64Bit //since 4.11.3.5 [W]

/SysNative //since 4.11.3.5 [W]

The modifiers has to be seperated by *winst* from the parameters. The following example call the 64Bit version of the powershell.exe.

```
ExecWith_do_64bit_stuff "%System%\WindowsPowerShell\v1.0\powershell.exe" winst /64Bit
```

Commands: see manual

4.4 Files [W/L]

Function: File Operations

[Files<identifier>]

Modifier [W]:

/AllNTUserProfiles

/AllNTUserSendTo [W]

/32Bit //since 4.10.8 [W]

/64Bit //since 4.10.8 [W]

/SysNative //since 4.10.8 [W]

Commands:

checkTargetPath = <destination directory> [W/L]

copy [Options] <source file(s)> <destination directory> [W/L]

some options:

-s recursive [W/L]

-V version control against targetdir [W]

-v version control against targetdir, %systemroot% and %system% (**do not use it**) [W]

-c continue without reboot even if it is needed [W]

-d date check [W]

-u update [W]

-x extract [W]
-w weak (do not overwrite protected files) [W]
-n no overwrite [W]
-r copy read only attribute [W]
-h follow symlinks [L] //since 4.11.6.14
delete [Options] <path[/mask>] // [W/L]
 some options: **-s** rekursiv **-f** force
 Example (**do not forget the trailing Backslash**):
delete -sf c:\delete_this_dir
del [Options] <path[/mask>] //since 4.11.2.1 [W/L]
 Works like **delete** but on
del -s -f c:\not-exists
 if **c:\not-exists** not exists it do not search complete **c:** for **not-exists**
 Example (**you may forget the trailing Backslash**):
del -sf c:\delete_this_dir
chmod <mask> <path> //since 4.11.4.1 [L]
hardlink <existing file> <new file> // since 4.11.5 [W/L]
symlink <existing file> <new file> // since 4.11.5 [W/L]
 At Windows **symlink** is only available at NT6 and up.
rename <old filename> <new filename> // since 4.11.5 [W/L]
move <old filename> <new filename> // since 4.11.5 [W/L]

4.5 Registry [W]

Function: edit Registry

Standard method call:

[Registry<identifier>]

works with the specified section.

Alternative method call:

Registry loadUnicodeTextFile(<.reg file>) /regedit

import the specified <.reg file>.

Alternative method call (deprecated):

Registry loadUnicodeTextFile(<.addreg file>) /addreg

import the specified <.addreg file>.

Modifier:

/AllNTUserDats

/32Bit //since 4.10.8

/64Bit //since 4.10.8

/SysNative //since 4.10.8

Commands:

OpenKey <Key>

openkey [HKLM\Software\opsi.org]

Set <varname> = <registry type>:<value>

Add <varname> = <registry type>:<value>

Examples for registry types:

```
set "var1" = "my string"
set "var2" = REG_SZ:"my string"
set "var3" = REG_EXPAND_SZ:"%ProgramFiles%"
set "var4" = REG_DWORD:123      (Decimal)
set "var5" = REG_DWORD:0x7b    (Hexadecimal)
set "var6" = REG_BINARY:00 01 02 0F 10
set "var7" = REG_MULTI_SZ:"A|BC|de"
```

Supp <varname> <list char> <supplement>

```
supp "Path" ; "C:\utils; %JAVABIN%"
```

GetMultiSZFromFile <varname> <file name>

SaveValueToFile <varname> <file name>

DeleteVar <varname>

DeleteKey <registry key> (does since 4.11.2.1 also work with /AllNTUserDats)

4.6 Patches [W/L]

Function: edit Ini-files

[Patches<identifier>] <file name>

Modifier:

/AllNTUserProfiles //since 4.11.3 [W]

Commands:

add [<section name>] <variable1> = <value1>

set [<section name>] <variable1> = <value1>

addnew [<section name>] <variable1> = <value1>

change [<section name>] <variable1> = <value1>

del [<section name>] <variable1> = <value1>

del [<section name>] <variable1>

delsec [<section name>]

replace <variable1>=<value1> <variable2>=<value2>

4.7 PatchTextFile [W/L]

Function: edit text files

[PatchTextFile<identifier>] <file name>

Modifier:

/AllNTUserProfiles //since 4.11.3.4 [W]

Commands:

Set_Mozilla_Pref ("**<preference type>**", "**<preference key>**", "**<preference value>**")

preference types are usually:

pref, user_pref, lock_pref

AddStringListElement_To_Mozilla_Pref ("**<preference type>**", "**<preference key>**", "**<add value>**")

Set_Netscape_User_Pref ("**<key>**", "**<value>**") (*deprecated*)

AddstringListElement_To_Netscape_User_Pref (*deprecated*)

FindLine <search string>

FindLine_StartingWith <search string>

FindLine_Containing <search string>

GoToTop

AdvanceLine [<number of lines>]

GoToBottom

DeleteTheLine

AddLine_ <line> or Add_Line_ <line>

InsertLine <line> or Insert_Line_ <line>

AppendLine <line> or Append_Line <line>

Append_File <file name>

Subtract_File <file name>

SaveToFile <file name>

Sorted

setKeyValueSeparator <separator char> //since 4.11.4.4 [W/L]

setValueByKey <keystr> <valuestr> //since 4.11.4.4 [W/L]

4.8 LinkFolder [W/L]

Function: Startmenu + Desktop Icons

[LinkFolder<identifier>]

Commands:

set_basefolder <system folder>

set_subfolder <folder path> (at Linux set always "")

```

set_link
  name:           <link name>
  target:        <path and name of the program>
  parameters:    [command line arguments]
  working_dir:   [working directory]
  icon_file:     [path and name of icon file , default=target]
  icon_index:    [number of icon in icon file , default=0] [W]
  shortcut:      [keyboard shortcut for calling the target] [W]
  link_categories: [list of categories] [L]
end_link

```

`delete_element` <link name>

`delete_subfolder` <folder path> [W]

The predefined virtual system folders which can be used are at Windows:

`desktop`, `sendto`, `startmenu`, `startup`, `programs`, `desktopdirectory`,
`common_startmenu`, `common_programs`, `common_startup`, `common_desktopdirectory`
 and at Linux:

`common_programs`, `common_startup`, `desktop`, `startup`

Predefined `link_categories` for Linux:

AudioVideo, Audio, Video, Development, Education, Game, Graphics, Network, Office, Settings, System, Utility

Examples

```
set_basefolder common_desktopdirectory
set_subfolder ""
set_link
  name: opsi-winst
  target: "%ProgramFiles32Dir%\opsi.org\opsi-client-agent\opsi-winst\winst32.exe"
end_link
```

```
[LinkFolder_configed_lin]
set_basefolder common_programs
set_subfolder ""

set_link
  name: opsi-configed-Local
  target: java
  parameters: $parameter$
  icon_file: "$InstallDir$/opsi.png"
  link_categories: System;Utility;
end_link
```

The predefined virtual system folders:

`desktop`, `sendto`, `startmenu`, `startup`, `programs`, `desktopdirectory`

are pointing to the folders of the user that the script is running. If you use it in a `userLoginScript` with the opsi *User Profile Management* extension these virtual folders point to the folder of the user that just had logged in.

`shortcut` defaults to empty. // since 4.11.6.7

`shortcut` may be a combination of [*shift,alt,ctrl*] (not case sensitiv) divided by ' , ' -, + an a *Key* or a *Virtual Key Code*.

The *Key* is a letter (*A - Z*) or a numeral (*0 - 9*). All other *Keys* must be given by there *Virtual Key Code* identifier.

To get these identifier (as well as the allowed combinations) just use the following helper program:

<http://download.uib.de/opsi4.0/helper/showkeys.exe>

4.9 OpsIServiceCall [W/L]

Function: opsi-Service access

[OpsIServiceCall<identifier>]

Commands: see manual

4.10 PatchHosts [W/L]

Function: hosts-files bearbeiten

[PatchHosts<identifier>]

Commands:

setaddr <hostname> <IPaddress>

setname <IPaddress> <hostname>

setalias <hostname> <alias>

setalias <IPadresse> <alias>

delalias <hostname> <alias>

delalias <IPaddress> <alias>

delhost <hostname>

delhost <ipadresse>

setComment <ident> <comment>

4.11 XMLPatch [W]

Function: edit XML files

[XMLPatch<identifier>]

Commands: see manual

4.12 ExecPython [W/L]

Function: Execute section via python interpreter

[ExecPython<identifier>]

Commands: see manual

4.13 LdapSearch [W]

Function: read from LDAP

[LdapSearch<identifier>]

Commands: see manual

Chapter 5

By Topic

5.1 Compare related functions [W/L]

```
CompareDotSeparatedStrings(<string1>, <string2>) : string [W/L]
CompareDotSeparatedStrings(<str1>,<relation str>,<str2>) : bool //since 4.11.5.2: [W/L]
CompareDotSeparatedNumbers(<string1>, <string2>) : string [W/L]
CompareDotSeparatedNumbers(<str1>,<relation str>,<str2>) : bool //since 4.11.5.2: [W/L]
boolToString(<boolean expression>) : bool string (true/false) // since 4.12.0.0 [W/L]
stringToBool(<string expression: true/false>) : boolean // since 4.12.0.0 [W/L]
```

5.2 Crypt / Hash related functions [W/L]

```
DecStrToHexStr (<decstring>, <hexlength>) : string [W/L]
HexStrToDecStr (<hexstring>) : string [W/L]
base64EncodeStr(<string>) : string [W/L]
base64DecodeStr(<string>) : string [W/L]
RandomStr : string [W/L]
encryptStringBlow(<keystring>,<datastring>) : string [W/L]
decryptStringBlow(<keystring>,<datastring>) : string [W/L]
md5sumFromFile(<path to file>) : string [W/L]
```

5.3 Defined Functions and Libraries [W/L]

since 4.12.0.0

Definition

```
DefFunc <func name>([calltype parameter ptype][,[ calltype parameter ptype]]) : ftype
<function body>
endfunc
```

Where:

- `DefFunc` is the keyword used to start defining a local function..
- `<func name>` is the freely chosen name of the function.
- `calltype` is the call type of the parameter [`val` | `ref`]. `val`=*Call by Value*, `ref`=*Call by Reference*. Default: `val`
- `parameter` is the free selected name of the call parameter which is available as a local variable within the function under the aforementioned name.
- `ptype` is the type of data of the parameter wether `string` or `stringlist`.
- `ftype` is the type of data of the function wether `string`, `stringlist` or `void`. `void` declares that no result is returned.
- `<function body>`: is the body of the function which opsi-script syntax must suffice.
- `endfunc` is the keyword used to end defining a local function..

`importLib <string expr> ; import library // since 4.12.0.0`

`<string expr> : <file name>[.<file extension>][::<function name>]`

If no `.<file extension>` is given `.opsiscript` is used as default.

If no `::<function name>` is given, all function from the given file will be imported.

`<file name>` is:

- A complete path to an existing file. [W/L]
- A existing file in `%ScriptPath%` [W/L]
- A file in `%opsiScriptHelperPath%\lib` [W]
Is equivalent to: `%ProgramFiles32Dir%\opsi.org\opsiScriptHelper\lib`
- A existing file in `%ScriptPath%/../lib` [W/L]
- A existing file in `%WinstDir%\lib` [W] or `/usr/share/opsi-script/lib` [L]

The tests for the location of the `<file name>` are done in the order above. *opsi-script* uses the first file it finds that has a matching name.

5.4 Encoding related functions [W/L]

`encoding=<encoding> // (default is system encoding) since 4.11.4.2`

`getLocaleInfoMap : stringlist` [W]

`reencodestr(<str>, <from>, <to>) : string` //since 4.11.4.2 [W/L]

`reencodestrlist(<list>, <from>, <to>) : stringlist` //since 4.11.4.2 [W/L]

`loadUnicodeTextFile (<file name>) : stringlist` [W]

`loadTextFileWithEncoding (<file name> , <encoding>) : stringlist` //since 4.11.5 [W/L]

`strLoadTextFileWithEncoding (<filename> , <encoding>) : string` //since 4.11.4.6 [W/L]

`saveTextFileWithEncoding(<list>, <filename>, <encoding>) : bool` //since 4.11.6.4: true: if list is successfully written to file [W/L]

`includeLog <file name> <tail size> [<encoding>] ` : noresult` //since 4.11.4.1 [W/L]`

5.5 Error / Warning related functions [W/L]

```
ExitOnError = <boolean value> // (default=false)
ScriptErrorMessages = <boolean value> // (default=true)
FatalOnSyntaxError = <boolean value> // (default=true) since 4.11.3.2
FatalOnRuntimeError = <boolean value> // (default=false) since 4.11.3.2
LogError <string> or LogError = <const string>
LogWarning <string> or LogWarning = <const string>
isFatalError [W/L]
isFatalError <string> //since 4.11.3.2 [W/L]
markErrorNumber
errorsOccurredSinceMark <relation> <integer> : boolean
```

```
markErrorNumber
comment "log error and thereby increase the error counter"
if errorsOccurredSinceMark > 0
    comment "There was an error ..."
endif
```

```
getLastExitCode : string (exitcode) [W/L]
shellCall (<command string>) : string (exitcode) //since 4.11.6.1 [W/L]
processCall(<string>) : string (exitcode) //since 4.11.6.1 [W/L]
getLastServiceErrorClass : string
getLastServiceErrorMessage : string
```

5.6 File related functions [W/L]

```
strLoadTextFile (<file name>) : string [W/L]
strLoadTextFileWithEncoding (<filename> , <encoding>) : string //since 4.11.4.6 [W/L]
loadTextFile (<file name>) : stringlist [W/L]
loadUnicodeTextFile (<file name>) : stringlist [W]
loadTextFileWithEncoding( <file name> , <encoding>) : stringlist //since 4.11.5 [W/L]
FileExists (<file name>) : bool [W/L]
FileExists32 (<file name>) : bool [W]
FileExists64 (<file name>) : bool [W]
FileExistsSysNative (<file name>) : bool [W]
LineExistsIn (<string>, <file name>) : bool [W/L]
LineBeginning_ExistsIn (<string>, <file name>) : bool [W/L]
LineContaining_ExistsIn (<string>, <file name> ) : bool //since 4.11.4.10: true: if a in <file name> contains
<string> [W/L]
saveTextFile(<list>, < filename>) : bool //since 4.11.4.4: true: if list is succesfully written to file [W/L]
saveTextFileWithEncoding(<list>, < filename>, <encoding>) : bool //since 4.11.6.4: true: if list is succesfully
written to file [W/L]
```

```

getFileInfoMap( <file name> ) : stringlist [W]
getFileInfoMap32( <file name> ) : stringlist //since 4.11.6.6 [W]
getFileInfoMap64( <file name> ) : stringlist //since 4.11.6.6 [W]
getFileInfoMapSysnative( <file name> ) : stringlist //since 4.11.6.6 [W]
ExtractFilePath (<path>) : string [W/L]
see also: Section 4.4
see also: Section 4.7

```

5.7 Ini file related functions [W/L]

```
GetValueFromInifile ( file, section, key, default value ) : string [W/L]
```

```
GetValueFromInifile("myfile","mysec","mykey","")
```

```

getSectionNames(<ini-file>) : stringlist [W/L]
retrieveSection (<section name>) : stringlist [W/L]
getValue(<key string>, <hash string list> ) : string [W/L]
getValueBySeparator(<key string>,<separator string>,<hash string list> ) : string //since 4.11.2.1 [W/L]
getValueFromFile(<key string>, <file name>) : string //since 4.11.4.4 [W/L]
getValueFromFileBySeparator(<key string>,<separator string>,<file name>) : string //since 4.11.4.4 [W/L]
see also: Section 4.6

```

5.8 Interaction [W/L]

```

Pause <string> or Pause = <const string>
Stop <string> or stop = <const string>
setActionProgress <string> : noresult //since 4.11.3 [W/L]
Message <string> or Message = <const string>
ShowMessageFile <string>
ShowBitMap [<file name>] [<sub title>]

```

5.9 License Management related functions [W/L]

```
DemandLicenseKey( poolId [, productId [,windowsSoftwareId]] ) : string
```

```
set $mykey$ = DemandLicenseKey ("", "office2007")
```

```
FreeLicense ( `poolId [, productId [,windowsSoftwareId]] ) : string`
```

```
set $result$ = FreeLicense("", "office2007")
```

```

getLastServiceErrorClass : string
getLastServiceErrorMessage : string

• opsiLicenseManagementEnabled : bool

```

5.10 Logging related functions [W/L]

SetLogLevel = <number> or SetLogLevel = <string> // (default=6)

```
SetLogLevel = 7
SetLogLevel = "7"
```

Message <string> or Message = <const string>

comment <string> or comment = <const string>

LogError <string> or LogError = <const string>

LogWarning <string> or LogWarning = <const string>

includelog <file name> <tail size> //since 4.11.2.1 [W/L]

includelog <file name> <tail size> [<encoding>] //since 4.11.4.1 [W/L]

```
includelog "%Scriptpath%\test-files\10lines.txt" "5"
```

SetConfidential <secret string> //since 4.11.3.5 [W/L]

asConfidential(<secret string expression>) //since 4.12.0.16 [W/L]

opsi-configs

opsi-script.global.debug_prog : boolean ; if false: only Warnings and Errors from program logging; default: false

opsi-script.global.debug_lib : boolean ; if false: only Warnings and Errors from library logging; default: false

opsi-script.global.default_loglevel : intstr ; set the default log level; default: 6

opsi-script.global.force_min_loglevel : intstr ; set the minimal loglevel; default: 0

opsi-script.global.ScriptErrorMessages : boolean ; overwrites the opsi-script internal default; default: false

opsi-script.global.AutoActivityDisplay : boolean ; overwrites the opsi-script internal default; default: true

5.11 Network related functions [W/L]

GetHostsName (<hostaddress>) : string [W/L]

GetHostsAddr (<hostname>) : string [W/L]

GetMyIpByTarget(<target ip addr>) : string //since 4.11.3.2 /4.11.6 [W/L]

GetIpByName(<ip addr / ip name>) : string //since 4.11.3.2 [W/L]

5.12 Number related functions [W/L]

isNumber(<str>) : bool //since 4.11.3: true if <str> represents an integer [W/L]

CompareDotSeparatedNumbers(<str1>,<relation str>,<str2>) : bool //since 4.11.5.2: [W/L]

CompareDotSeparatedNumbers(<string1>, <string2>) : string [W/L]

calculate(<arithmetic string expression>) : string (number) // since 4.11.3.5 : knows: +-*/() [W/L]

DecStrToHexStr (<decstring>, <hexlength>) : string [W/L]

HexStrToDecStr (<hexstring>) : string [W/L]

5.13 Operating System related functions [W/L]

GetOS : string // *Linux* or *Windows_NT* [W/L]
 getLinuxDistroType : string // *debian* or *redhat* or *suse* (see `getLinuxVersionMap`) [L]
 GetMsVersionInfo : string // Windows Version Information [W]
 GetMSVersionMap : stringlist [W]
 getLinuxVersionMap : stringlist //since 4.11.4 [L]
 GetSystemType : string // OS Architecture ("64 Bit System" or "x86 System") [W/L]
 EnvVar (<environment variable>) : string [W/L]
 getProfilesDirList : stringlist //since 4.11.3.2 [W/L]
 runningAsAdmin //since 4.11.1.1 [W/L]
 runningOnUefi //since 4.11.4.3: true: if the running OS was booted in UEFI mode [W]
 runningInPE //since 4.12.0.13: true: if the running OS is a Windows PE [W/L]
 isDriveReady(<drive letter>) //since 4.11.4.4: true: if the drive can be accessed [W]

5.14 opservicecall and json Related functions [W/L]

jsonIsValid(<jsonstr>) : boolean //since 4.11.6: [W/L]
 jsonIsArray(<jsonstr>) : boolean //since 4.11.6: [W/L]
 jsonIsObject(<jsonstr>) : boolean //since 4.11.6: [W/L]
 jsonAsObjectHasKey(<jsonstr>,<keystr>) : boolean //since 4.11.6: [W/L]
 jsonAsArrayCountElements(<jsonstr>) : intstr //since 4.11.6: [W/L]
 jsonAsObjectCountElements(<jsonstr>) : intstr //since 4.11.6: [W/L]
 jsonAsArrayGetElementByIndex(<jsonstr>, <indexstr>) : jsonstring //since 4.11.6: [W/L]
 jsonAsObjectGetValueByKey(<jsonstr>, <keystr>) : valuestring //since 4.11.6: [W/L]
 jsonAsObjectSetValueByKey(<jsonstr>, <keystr>,<valuestring>) : jsonstring //since 4.11.6: [W/L]
 jsonAsObjectSetStringtypeValueByKey(<jsonstr>, <keystr>,<valuestring>) : jsonstring //since 4.11.6: [W/L]
 jsonAsObjectDeleteByKey(<jsonstr>, <keystr>) : jsonstring //since 4.11.6.4: [W/L]
 jsonAsArrayPutObjectByIndex(<jsonstr>, <indexstr>, <objectstr>) : jsonstring //since 4.11.6: [W/L]
 jsonAsArrayDeleteObjectByIndex(<jsonstr>, <indexstr>) : jsonstring //since 4.11.6.4: [W/L]
 jsonAsArrayToStringList(<jsonstr>) : stringlist //since 4.11.6: [W/L]
 jsonAsObjectGetKeyList(<jsonstr>) : stringlist //since 4.11.6: [W/L]
 jsonStringListToJsonArray(<strlist>) : jsonstr //since 4.11.6: [W/L]
 convert2Jsonstr(<string>) //since 4.10.8.3
 see also: `OpsiServiceCall` Section [4.9](#)

5.15 opsi related functions [W/L]

`getProductMap` : `stringlist` // since 4.11.2.4 [W/L]

keys are: id, name, description, advice, productversion, packageversion, priority, installationstate, lastactionrequest, lastactionresult, installedversion, installedpackage, installedmodificationtime,actionrequest

`getProductPropertyList(<propname>,<default value>)` : `stringlist` //since 4.11.3 [W/L]

`GetProductProperty (<PropertyName>, <DefaultValue>)` : `string` [W/L]

`GetConfidentialProductProperty (<PropertyName>, <DefaultValue>)` : `string` //since 4.11.5.2 [W/L]

`setActionProgress <string>` : `noresult` //since 4.11.3 [W/L]

5.16 Process and Script Related functions [W/L]

`Killtask <process name> `` : `noresult`` [W/L]

`ChangeDirectory <directory> `` : `noresult`` //since 4.11.2.6 [W/L]

`GetProcessList` : `stringlist` //since 4.11.1.2; gives list of exename;pid;dom/user [W/L]

`processIsRunning(<process name>)` : `boolean` //since 4.11.6.1 [W/L]

`shellCall (<command string>)` : `stringlist (output)` //since 4.11.4.2 [W/L]

```
set $list$= shellCall('net start')
```

`shellCall (<command string>)` : `noresult` //since 4.11.6.1 [W/L]

`shellCall (<command string>)` : `string (exitcode)` //since 4.11.6.1 [W/L]

`powershellcall (<commandstr> [,<access str>=sysnative [,<policy bool str>=true]])` : `stringlist (output)` //since 4.12.0.16 [W]

`powershellcall (<commandstr> [,<access str>=sysnative [,<policy bool str>=true]])` : `noresult` //since 4.12.0.16 [W]

`powershellcall (<commandstr> [,<access str>=sysnative [,<policy bool str>=true]])` : `string (exitcode)` //since 4.12.0.16 [W]

`getOutputStreamFromSection (<dos section name>)` : `stringlist (output)` [W/L]

```
set $list$= getOutputStreamFromSection ('DosInAnIcon_try')
```

`processCall(<string>)` : `string (exitcode)` //since 4.11.6.1 [W/L]

`getLastExitCode` : `string (exitcode)` [W/L]

`includelog <file name> <tail size>` : `noresult` //since 4.11.2.1 [W/L]

`includelog <file name> <tail size> [<encoding>]` : `noresult` //since 4.11.4.1 [W/L]

`waitForPackageLock(<seconds timeout string>,<bool should we kill>)` : `bool` //since 4.11.6.1 [L]

see also: ExecWith sections Section [4.3](#)

see also: ShellBatch sections Section [4.2](#)

see also: Winbatch sections Section [4.1](#)

5.17 Registry related functions [W]

`getRegistryValue(<keystr>, <varstr> [, <access str>])` : string //since 4.12.0.16 [W]
 <access str> = one of 32bit, 64bit, sysnative ; default sysnative

`GetRegistrystringValue("[key] var")` : string [W]

`GetRegistryStringValue32 ("[key] var")` : string //since 4.10.8 [W]

`GetRegistryStringValue64 ("[key] var")` : string //since 4.10.8 [W]

`GetRegistryStringValueSysNative ("[key] var")` : string //since 4.10.8 [W]

`getRegistryKeyList32(<regkey>)` : stringlist //since 4.11.3 [W]

`getRegistryKeyList64(<regkey>)` : stringlist //since 4.11.3 [W]

`getRegistryKeyListSysnative(<regkey>)` : stringlist //since 4.11.3 [W]

`getRegistryVarList32(<regkey>)` : stringlist //since 4.11.3 [W]

`getRegistryVarList64(<regkey>)` : stringlist //since 4.11.3 [W]

`getRegistryVarListSysnative(<regkey>)` : stringlist //since 4.11.3 [W]

`getRegistryVarMap32(<regkey>)` : stringlist //since 4.11.3 [W]

`getRegistryVarMap64(<regkey>)` : stringlist //since 4.11.3 [W]

`getRegistryVarMapSysnative(<regkey>)` : stringlist //since 4.11.3 [W]

`RegKeyExists(<regkey>[,<access str>])` : bool //since 4.12.0.16 [W]

<access str> = one of 32bit, 64bit, sysnative ; default sysnative

`RegVarExists(<regkey>, <var str> [,<access str>])` : bool //since 4.12.0.16 [W]

<access str> = one of 32bit, 64bit, sysnative ; default sysnative

see also: Section [4.5](#)

5.18 String handling functions [W/L]

`splitString (<string1>, <string2>)` : stringlist [W/L]

```
set $list1$ = splitString ("\\server\share\dir", "\")
```

`splitStringOnWhiteSpace (<string>)` : stringlist [W/L]

`composeString (<string list>, <Link>)` : string [W/L]

`takeString (<index>, <list>)` : string [W/L]

`setStringInListAtIndex(<newstring>,<list>,<indexstr>)` : stringlist //since 4.11.6 [W/L]

`takeFirstStringContaining(<list>,<search string>)` : string [W/L]

`getIndexFromListByContaining(<list> : stringlist,<search string> : string)`` : <number> : string //since 4.12.0.13 [W/L]

`contains(<str>, <substr>)` : bool //since 4.11.3: true if <substr> in <str> [W/L]

`isNumber(<str>)` : bool //since 4.11.3: true if <str> represents an integer [W/L]

`trim(<string>)` : string [W/L]

`lower(<string>)` : string [W/L]

`upper(<string>)` [W/L]

`unquote(<string>,<quote-string>)` : string //since 4.11.2.1 [W/L]

```

unquote2(<string>,<quote-string>) : string //since 4.11.5.2 [W/L]
stringReplace(<string>, <oldPattern>, <newPattern>) : string //since 4.11.3 [W/L]
strLength(<string>) : string (number) //since 4.11.3 [W/L]
strPos(<string>, <sub string>) : string (number) //since 4.11.3 [W/L]
strPart(<string>, <start pos>, <number of chars>) : string //since 4.11.3 [W/L]
getValue(<key string>, <hash string list> ) : string [W/L]
getValueBySeparator(<key string>,<separator string>,<hash string list> ) : string //since 4.11.2.1 [W/L]
getValueFromFile(<key string>, <file name>) : string //since 4.11.4.4 [W/L]
getValueFromFileBySeparator(<key string>,<separator string>,<file name>) : string //since 4.11.4.4 [W/L]
EscapeString: <sequence of characters> : string// [W/L]

```

5.19 Stringlist handling functions [W/L]

```

getListContaining(<list>,<search string>) : stringlist [W/L]
getListContainingList(<list1>,<list2>) : stringlist //since 4.11.3.7 [W/L]
getIndexFromListByContaining(<list> : stringlist,<search string> : string`) : <number> : string //since 4.12.0.13 [W/L]
count (<list>) : string (number) [W/L]
emptylist (<list>) : stringlist //since 4.11.3.7 [W/L]
for %<identifier>% in <list> do <one statement | sub section> [W/L]

```

```
for %s% in $list1$ do sub_test_string
```

```
createStringList (<string0>, <string1> ,... ) : stringlist [W/L]
```

```
set $list1$ = createStringList ('a','b')
```

```

reverse (<list>) : stringlist [W/L]
getSubList (<start index> : <end index>, <list>) : stringlist [W/L]
getSubListByMatch (<search string>, <target list>) :stringlist //since 4.12.0.14 [W/L]
getSubListByMatch (<search list>, <target list>) :stringlist //since 4.12.0.14 [W/L]
getSubListByContaining (<search string>, <target list>) :stringlist //since 4.12.0.14 [W/L]
getSubListByContaining (<search list>, <target list>) :stringlist //since 4.12.0.14 [W/L]
getSubListByKey (<search string>, <target list>) :stringlist //since 4.12.0.14 [W/L]
getSubListByKey (<search list>, <target list>) :stringlist //since 4.12.0.14 [W/L]
getKeyList (<list>) :stringlist //since 4.12.0.14 [W/L]
addtoList(<list>,<string>) : stringlist //since 4.10.8 [W/L]
addListToList(<dest list>,<src list>) : stringlist //since 4.10.8 [W/L]
reencodestrlist(<list>, <from>, <to>) : stringlist //since 4.11.4.2 [W/L]
removeFromListByContaining(<search string>, <target list>) : stringlist //since 4.11.5.1 [W/L]
removeFromListByContaining(<search list>, <target list>) : stringlist //since 4.11.5.1 [W/L]
removeFromListByMatch(<searchstring>,<target list>) : stringlist //since 4.11.6 [W/L]

```


takeString (<index>, <list>) : string [W/L]
 takeFirstStringContaining(<list>,<search string>) : string [W/L]
 setStringInListAtIndex(<newstring>,<list>,<indexstr>) : stringlist //since 4.11.6 [W/L]
 jsonAsArrayToStringList(<jsonstr>) : stringlist //since 4.11.6: [W/L]
 jsonStringListToJsonArray(<strlist>) : jsonstr //since 4.11.6: [W/L]
 jsonAsObjectGetKeyList(<jsonstr>) : stringlist //since 4.11.6: [W/L]
 splitString(<string1>, <string2>) : stringlist [W/L]

```
set $list1$ = splitString ("\\server\share\dir","\")
```

splitStringOnWhiteSpace (<string>) : stringlist [W/L]
 composeString(<string list>, <Link>) : string [W/L]
 getValue(<key string>, <hash string list>) : string [W/L]
 getValueBySeparator(<key string>,<separator string>,<hash string list>) : string //since 4.11.2.1 [W/L]

5.20 Time / Date related functions [W/L]

sleepSeconds <Integer> or <string> : noresult [W/L]
 breaks the program execution for <string> seconds. <string> has to represent an Integer Value

markTime : noresult
 sets a time stamp for the current system time and logs it.

getDiffTimeSec : string (Time in seconds since last marktime) //since 4.11.3 [W/L]
 timeStampAsFloatStr : string (Floating Number - format: *days.decimal days*) //since 4.11.6 [W/L]

5.21 Usercontext / loginscripts related functions [W]:

GetUserSID(<Windows Username>) : string
 GetLoggedInUser : string //since 4.11.1.2
 GetUsercontext : string //since 4.11.1.2
 GetScriptMode : string possible values *Machine,Login* //since 4.11.2.1
 saveVersionToProfile : noresult - save productversion-packageversion to local profile //since 4.11.2.1
 readVersionFromProfile : string - read productversion-packageversion from local profile //since 4.11.2.1
 scriptWasExecutedBefore : boolean - is true if saved and running productversion-packageversion are identical //since 4.11.2.1