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opsi-winst / opsi-script reference card  
(4.11.6)



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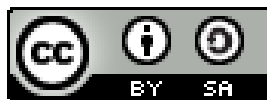
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# Chapter 1

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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

## 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 running. //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]  
 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]  
 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]  
 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]  
 strlen(<string>) //since 4.11.3 [W/L]  
 strpos(<string>, <sub string>) //since 4.11.3 [W/L]  
 strposPart(<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=detlefv05
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]
```

```
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 "Neede 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]  
 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]

### 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
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 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

```

### 5.2 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]

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](#)

### 5.3 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]

### 5.4 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]

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]

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 (numner) //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]

```

## 5.5 Stringlist handling functions [W/L]

```

getListContaining(<list>,<search string>) :stringlist [W/L]
getListContainingList(<list1>,<list2>) :stringlist //since 4.11.3.7 [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]
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]
jsonToArrayToStringList(<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]

```

## 5.6 Registry related functions [W]

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]

see also: Section [4.5](#)

## 5.7 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](#)

## 5.8 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](#)

## 5.9 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]

## 5.10 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]

## 5.11 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]

## 5.12 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]

## 5.13 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 succesfully written to file [W/L]  
 includelog <file name> <tail size> [<encoding>] ` : noresult` //since 4.11.4.1 [W/L]

## 5.14 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]

## 5.15 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

## 5.16 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

## 5.17 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]

## 5.18 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]

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

## 5.19 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

## 5.20 Defined Functions and Libraries [W/L]

since 4.12.0.0

### Definition

```
DefFunc <func name>([calltype parameter type][,[calltype parameter type]]) : type
<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.
- `type` is the type of data of the parameter concretely the function whether `string` or `stringlist`;
- `<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]

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.

## 5.21 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>]
```