

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



uib gmbh
Bonifaziusplatz 1b
55118 Mainz
Tel.: +49 6131 275610
www.uib.de
info@uib.de

Contents

1	Copyright	1
2	Global text constants	2
2.1	System directories	2
2.1.1	System directories [W]:	2
2.2	Common (AllUsers) directories [W]:	2
2.3	Default User directories [W]:	3
2.4	Current user directories [W]:	3
2.5	/AllNtUserProfiles directory constants [W]:	3
2.6	opsi-winst Path and Directories [W/L]:	3
2.7	Network informations [W/L]:	3
2.8	Service Data [W/L]	4
3	In Primary Sections	5
3.1	Kinds of Primary Sections [W/L]:	5
3.2	Winst control [W/L]:	5
3.3	Variables [W/L]:	6
3.3.1	Strings	6
3.3.2	Stringlists	6
3.4	Functions	6
3.4.1	String functions	6
3.4.1.1	Important	6
3.4.1.2	Special: License Management	7
3.4.1.3	Special: Usercontext / loginscripts [W]:	7
3.4.1.4	Other	7
3.4.1.5	Deprecated	8
3.4.2	String list functions	8
3.4.2.1	Important	8
3.4.2.2	Infomaps	9
3.4.2.3	Other	10
3.4.3	Boolean operators and functions	10
3.4.4	Misc functions	11
3.4.5	Flow control	11

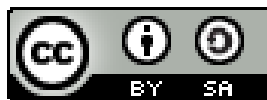
4	Secondary Sections	13
4.1	Winbatch [W/L]	13
4.2	DosBatch and DosInAnIcon (ShellBatch and ShellInAnIcon) [W/L]	13
4.3	ExecWith [W/L]	14
4.4	Files [W/L]	14
4.5	Registry [W]	15
4.6	Patches [W/L]	16
4.7	PatchTextFile [W/L]	16
4.8	LinkFolder [W/L]	17
4.9	OpsiServiceCall [W/L]	18
4.10	PatchHosts [W/L]	18
4.11	XMLPatch [W]	19
4.12	ExecPython [W/L]	19
4.13	LdapSearch [W]	19
5	By Topic	20
5.1	opiservicecall and json Related functions [W/L]	20
5.2	Process and Script Related functions [W/L]	20
5.3	Compare related functions [W/L]	21
5.4	String handling functions [W/L]	21
5.5	Stringlist handling functions [W/L]	22
5.6	Registry related functions [W]	23
5.7	File related functions [W/L]	23
5.8	Ini file related functions [W/L]	24
5.9	Crypt / Hash related functions [W/L]	24
5.10	Number related functions [W/L]	24
5.11	Operating System related functions [W/L]	24
5.12	Network related functions [W/L]	25
5.13	Encoding related functions [W/L]	25
5.14	opsi related functions [W/L]	25
5.15	Usercontext / loginscripts related functions [W]:	25
5.16	License Management related functions [W/L]	26
5.17	Time / Date related functions [W/L]	26
5.18	Logging related functions [W/L]	26
5.19	Error / Warning related functions [W/L]	27
5.20	Interaction [W/L]	27

Chapter 1

Copyright

The Copyright of this manual is held by uib gmbh in Mainz, Germany.

This manual is published under the creative commons license
Attribution - ShareAlike (by-sa).



A German description can be found here:
<http://creativecommons.org/licenses/by-sa/3.0/de/>

The legally binding German license can be found here:
<http://creativecommons.org/licenses/by-sa/3.0/de/legalcode>

The English description can be found here: <http://creativecommons.org/licenses/by-sa/3.0/>

The English license can be found here: <http://creativecommons.org/licenses/by-sa/3.0/legalcode>

Most parts of the opsi software are open source.

The parts of opsi that are not open source are still under a co-funded development. Information about these parts can be found here: http://uib.de/en/opsi_cofunding/index.html

All the open source code is published under the GPLv3 and is moved to AGPLv3 while releasing opsi 4.0.3:



The legally binding GPLv3 license can be found here: <http://www.gnu.org/licenses/gpl.html>



The legally binding AGPLv3 license can be found here: <http://www.gnu.org/licenses/agpl-3.0-standalone.html>

Some information around the AGPL: <http://www.gnu.org/licenses/agpl-3.0.en.html>

For licenses to use opsi in the context of closed software please contact the uib gmbh.

The names *opsi*, *opsi.org*, *open pc server integration* and the opsi logo are registered trade marks of uib gmbh.

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]
 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 rekursiv [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]
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-exits
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 usally:
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: Startmenue + 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]
  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.

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 opsiservicecall 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]
jsonAsArrayPutObjectByIndex(<jsonstr>, <indexstr>, <objectstr>) :jsonstring //since 4.11.6: [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')
```

```
startProcess(<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]
```

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]
 getFileInfoMap(<file name>) :stringlist [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]
 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]

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]

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]
 startProcess(<string>) :string (exitcode) //since 4.11.6.1 [W/L]
 getLastServiceErrorClass : string
 getLastServiceErrorMessage : string

5.20 Interaction [W/L]

showbitmap