Login VSI 4.0
Workload Language Reference Guide
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1 Introduction

This document describes the Login VSI Meta language for benchmarking 1.0 used by Login VSI 4.0. This language has been designed keeping in mind best practices to do performance tests and allows for easy customization of existing workloads as well as creating new workloads from scratch. All Login VSI Pro licenses can customize and build workloads. The Login VSI Express version of Login VSI does not support customization of the workloads.
2 Philosophy

The default workloads shipped with Login VSI 4.0 are designed to stress and performance test a system in a realistic way not only during the project phase of a VDI or SBC implementation but also to safeguard and improve the performance in an existing environment. To do this a few design choices have been made, it’s not mandatory to obey these design decisions but it is strongly recommended when building workloads from scratch or extending/changing a large part of them.

- A Workload should take 48 minutes
  - A 48 minute workload should be divided in 4 segments
  - Every segment ends with 2 minutes idle buffer
    - As the workload slows down because of degradation of performance the buffer will be smaller to keep the segments 12 minutes in time
  - Segments reflect user activities, for example the medium workload consists of a segment that does:
    - Multimedia & Relaxation
    - Productivity
    - Consuming information (Reading PDF’s, Word docs etc.)
  - Every segment contains 3 timers
    - When a timer is initiated no other instance of Microsoft Word is running
- Workloads should be compatible with all operating systems more recent than XP
  - In both 32 bit and 64 bit versions
- Workloads should be compatible with all office versions more recent than 2003
- Workloads should be able to run in loops/continuously
  - Make sure documents that are created are being cleaned up
  - Make sure all applications are closed at the end of a workload
- Applications should be started using a document and their File Type Association when possible
- The first timer executed by a user will be ignored

When testing the segment and loop length of your newly created workloads it is recommended to use a machine with at least 2vCPU’s and 1GB of memory as these days that’s the industry standard for VDI environments.
3 Language options

Login VSI workloads can be designed so that they can work on operating systems and applications that are multi-language. Before execution the engine will parse the workload in the language configured for the test. It will replace everything between the `lang:` .. `lang` tags. For example `lang:Outlook:lang` will result in "Inbox" when English is selected, but it will return "Postvak" when Dutch is selected as language in the Management console.

Login VSI uses a dictionary file to provide the engine with the replacements needed for every specific language the workload has to support. The dictionary file can be found in the VSishare at `\server\VSshare\_VSI_Configuration\_CurrentTest\LanguageSettings.csv`

Example LanguageSettings.csv

<table>
<thead>
<tr>
<th>ID</th>
<th>English</th>
<th>Dutch</th>
<th>Japanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Print</td>
<td>Print</td>
<td>Afdrukken</td>
<td>印刷</td>
</tr>
<tr>
<td>ExcelGoto</td>
<td>Go To</td>
<td>Ga Naar</td>
<td>ジャンプ</td>
</tr>
</tbody>
</table>

The language file can be extended to 200 languages (columns) and a virtually unlimited amount of items (rows).
# Predefined variables

The Login VSI workload files support the use of Predefined variables. These variables make the workloads easier to use on different platforms and by different users as values are automatically updated to reflect the current environment.

Replacements supported by the Login VSI 4.0.2 engine relevant for the meta language:

<table>
<thead>
<tr>
<th>All standard Windows environment variables</th>
<th>%APPDATA%, %USERNAME%, etc. See <a href="http://ss64.com/nt/syntax-variables.html">http://ss64.com/nt/syntax-variables.html</a> for more.</th>
</tr>
</thead>
<tbody>
<tr>
<td>%VSI_Share%</td>
<td>Path to VSIshare</td>
</tr>
<tr>
<td>%VSI_Random_Recipient%</td>
<td>A random email recipient chosen from a predetermined pool. The predetermined pool cannot be changed.</td>
</tr>
<tr>
<td>%VSI_Random_Name%</td>
<td>A random name chosen from a predetermined pool. The predetermined pool cannot be changed.</td>
</tr>
<tr>
<td>%VSI_Random_doc%</td>
<td>A random Microsoft Word document chosen from the content pool.</td>
</tr>
<tr>
<td>%VSI_Random_docx%</td>
<td>A random Microsoft Word (docx format) document chosen from the content pool.</td>
</tr>
<tr>
<td>%VSI_Random_jpg%</td>
<td>A random JPG file chosen from the content pool.</td>
</tr>
<tr>
<td>%VSI_Random_mm%</td>
<td>A random Freemind MindMap document chosen from the content pool.</td>
</tr>
<tr>
<td>%VSI_Random_pdf%</td>
<td>A random PDF file chosen from the content pool.</td>
</tr>
<tr>
<td>%VSI_Random_ppt%</td>
<td>A random Microsoft Powerpoint document chosen from the content pool.</td>
</tr>
<tr>
<td>%VSI_Random_pptx%</td>
<td>A random Microsoft Powerpoint (pptx format) document chosen from the content pool.</td>
</tr>
<tr>
<td>%VSI_Random_pst%</td>
<td>A random PST file chosen from the content pool.</td>
</tr>
<tr>
<td>%VSI_Random_txt%</td>
<td>A random text file chosen from the content pool.</td>
</tr>
<tr>
<td>%VSI_Random_xlsx%</td>
<td>A random Microsoft Excel worksheet (xlsx format) chosen from the content pool.</td>
</tr>
<tr>
<td>%VSI_DataLocation%</td>
<td>The path to the content share used by this user.</td>
</tr>
<tr>
<td>%VSI_WebLocation%</td>
<td>The path to the websites used by this user.</td>
</tr>
<tr>
<td>%VSI_Web_BBC%</td>
<td>The number of versions available for the BBC website in the web content pool.</td>
</tr>
<tr>
<td>%VSI_Web_Engadget%</td>
<td>The number of versions available for the Engadget website in the web content pool.</td>
</tr>
<tr>
<td>%VSI_Web_Pinterest%</td>
<td>The number of versions available for the Pinterest website in the web content pool.</td>
</tr>
<tr>
<td>Environment</td>
<td>Description</td>
</tr>
<tr>
<td>----------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>%VSI_Web_Player%</td>
<td>The number of versions available for the video content in the web content pool. Please note that VSI currently does not distinguish between different formats of the content (480p, 720p, 1080p).</td>
</tr>
<tr>
<td>%VSI_Web_TheVerge%</td>
<td>The number of versions available for the Verge website in the web content pool.</td>
</tr>
<tr>
<td>%VSI_Web_Wired%</td>
<td>The number of versions available for the Wired website in the web content pool.</td>
</tr>
<tr>
<td>%VSI_GroupDrive%</td>
<td>The path to the VSI group drive.</td>
</tr>
<tr>
<td>%VSI_UserHome%</td>
<td>The path to the VSI home drive.</td>
</tr>
<tr>
<td>%VSI_Workload_Language%</td>
<td>The language chosen for the workload.</td>
</tr>
</tbody>
</table>

**Code Example**

This code example shows how variables can be used to open a document with a variable name e.g. the username and automatically adjust it for every user.

```csharp
App_Start("Logname", "c:\windows\system32", "notepad.exe", "Title", "Notepad", "", "%VSI_UserHome%\%USERNAME%.txt")
```
Adding an application to a workload

If you are thinking about extending the workload with an extra application follow these steps to add it to the workload. In this example you can see how to add a simple application to the workload, to load a document, read and manipulate the document and also close the document.

```plaintext
# Open a document. The default FileType Association (FTA) will open it in the application associated with that file type.
App_Start("MyCustomApplication", %VSI_Share%, "MyFileType.fta", "Title", "FTA editor", ",", ",")

# Wait for the window to appear and make sure it is maximized
App_Focus("MyCustomApplication", "Title", "FTA editor", ",", "Maximize")

# Edit the newly opened document
VSI_Type_Time("MyCustomApplication", 25)

# Save the newly created document
VSI_Type_Fixed("MyCustomApplication", ",^s")

# Close the saved document
App_Close("MyCustomApplication", "Title", "FTA editor")
```

Below is an example of adding an application to the workload without using file type association.

```plaintext
# Open new instance of Chrome and browse to gmail.
App_Start("Gmail", "C:\Program Files (x86)\Google\Chrome\Application\", "chrome.exe", "Title", "Inbox", ",", "mail.google.com")

# Wait for the window to appear and make sure it is maximized
App_Focus("Gmail", "Title", "Inbox", ",", "Maximize")

# Browse messages in Gmail
VSI_Type_Fixed("Gmail", ",{down}{enter}"

# Wait for the actual email to be loaded. Please note that this mailbox was prepared to have only emails starting VSIMAIL.
App_Focus("Gmail", "Title", "VSIMAIL", ",", "Maximize")

VSI_Browse("Gmail", 24, 22, 10, 5, 6000, 10000, 2500)

# Move back to inbox
VSI_Type_Fixed("Gmail", ",{left}{enter}"

App_Focus("Gmail", "Title", "Inbox", ",", "Maximize")

# Close Chrome
App_Close("Gmail", "Title", "Gmail")
```
6 Removing an application from the workload

If you want to remove an application that is part to one of our default workloads simply follow the steps below to remove it.

- Note the logname of the application you want to remove, the logname is always the first parameter of every function in the workload language e.g. Outlook
- Identify all lines that contain this logname and remove them
- Save the workload
- Run a test
7 Functions

App_Start

The App_Start function can start applications and open documents leveraging the shell execute capabilities of the operating system. When you want to start an application it's recommended to use the file type association this way a document will automatically be opened and application virtualization techniques are supported out of the box.

Syntax

App_Start("Logname ", " Working directory", " Executable or full path", " Window search mode", " Window title ", ["Window content "], ["Command line parameters"])

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logname</td>
<td>String</td>
</tr>
<tr>
<td>Working directory</td>
<td>String</td>
</tr>
<tr>
<td>Executable or full path</td>
<td>String</td>
</tr>
<tr>
<td>Window search mode</td>
<td>Selection <em>Title,Class</em></td>
</tr>
<tr>
<td>Window title</td>
<td>String</td>
</tr>
<tr>
<td>[Window content]</td>
<td>String</td>
</tr>
<tr>
<td>[Command line parameters]</td>
<td>String</td>
</tr>
</tbody>
</table>

Code Example

App_Start("Logname ", "c:\windows\system32", "notepad.exe", "Title", "Notepad", "Some text found in the document or app", "H:\document.txt")

Related functions

App_Close, App_Focus
App_Close
This function closes applications or windows

Syntax
App_Close("Logname", "Searchmode", "Searchstring", ["SearchContent"])

Parameters
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logname</td>
<td>String</td>
<td></td>
</tr>
<tr>
<td>Searchmode</td>
<td>Selection</td>
<td>Title,Class</td>
</tr>
<tr>
<td>Searchstring</td>
<td>String</td>
<td></td>
</tr>
<tr>
<td>[SearchContent]</td>
<td>String</td>
<td></td>
</tr>
</tbody>
</table>

Code Example
App_Close("MyLogName", "Title", "Notepad", "Text in document or app")

Related functions
App_Start, App_Focus
**App_Focus**

This function makes sure an application window is on top but can also be used to minimize or maximize an application. If an application window is already on top it will be ignored.

**Syntax**

App_Focus("Logname", "Searchmode", "Searchstring", ["SearchContent"], ["Maximize")

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logname</td>
<td>String</td>
<td></td>
</tr>
<tr>
<td>Searchmode</td>
<td>Selection</td>
<td>Title, Class</td>
</tr>
<tr>
<td>Searchstring</td>
<td>String</td>
<td></td>
</tr>
<tr>
<td>[SearchContent]</td>
<td>String</td>
<td></td>
</tr>
<tr>
<td>[Action]</td>
<td>Selection</td>
<td>Maximize, Minimize</td>
</tr>
</tbody>
</table>

**Code Example**

```plaintext
App_Focus("MyLogName", "Title", "Notepad", "Text in document or app", "Maximize")
```

**Related functions**

App_Start, App_Close
**PDF_Print**

Will start a print action on the currently active window and generate a PDF file using DoroPDF writer. When “Office” is used in the Logname the print sequence will automatically be adapted to the correct office version.

**Syntax**

Normal:

PDF_Print("PDFWriter", “PDF Printer Winodowname”, [“Filename”])

From a Microsoft Office application:

PDF_Print("PDFWriterOffice", “PDF Printer Winodowname”, [“Filename”])

**Parameters**

<table>
<thead>
<tr>
<th>Logname</th>
<th>String</th>
<th>Description</th>
</tr>
</thead>
</table>
| PDF Printer Winodowname  | String       | “Doro PDF Writer” 
Do not use a different printer window name. This parameter is in preparation for supporting other PDF printers |
| Filename                 | String       | Optional, prints to the specified file name. If this parameter is not specified it will default to “%VSI_UserHome%\Output\PDFPrint.pdf” |

**Code Example**

```
PDF_Print("PDFWriter", "Doro PDF Writer", 
"%VSI_Userhome%\Output\PWP1Print.pdf")
```

**Related functions**

*App_Focus*
Segment
Will split the workload in an extra segment. A typical segment is 12 minutes in length of which 10 minutes are active and 2 minutes are idle users initiating their Login VSI test will automatically be assigned the segment they start in therefore load balancing application usage.

Syntax
Segment("Logname",Segment ID)

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logname</td>
<td>String</td>
</tr>
<tr>
<td>Segment ID</td>
<td>Integer</td>
</tr>
</tbody>
</table>

Code Example
Segment("workload",1)

Related functions
VSI_Buffer
**VSI_Buffer**

As it’s recommended to make segments 10 minutes long finishing with a 2 minute idle, this function can make sure that when a segment is to short or executed too slow it is stretched or shortened to fit back in the 12 minutes timeframe. The goal of this buffer is to smooth the test results and allow for easier analysis of the data.

**Syntax**

Buffer("Logname",Minimum wait)

**Parameters**

<table>
<thead>
<tr>
<th>Logname</th>
<th>String</th>
<th>Minimum wait</th>
<th>Integer</th>
<th>Minimum time to wait in seconds</th>
</tr>
</thead>
</table>

**Code Example**

Buffer("workload",30)

**Related functions**

Segment
Set_DefaultPrinter

The Set_DefaultPrinter function can be used to change the default printer within a test session.

Syntax

Set_DefaultPrinter("LogName", "Printername")

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logname</td>
<td>String</td>
</tr>
<tr>
<td>Printername</td>
<td>String</td>
</tr>
</tbody>
</table>

Code Example

Set_DefaultPrinter("LogName", "DoroPDF Writer")

Related functions

PDF_Print
Web_Start

Starts a new instance of Microsoft Internet Explorer and navigates to the defined URL

Syntax

Web_Start("logname","URL")

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logname</td>
<td>String</td>
</tr>
<tr>
<td>URL</td>
<td>String</td>
</tr>
</tbody>
</table>

Code Example

```
Web_Start("Internet","http://www.LoginVSI.com")
```

Notes

Please note that every instance of Internet Explorer opened through Web_Start should also be closed by Web_Quit. Failure to do so may cause unexpected results.

Related functions

Web_Quit, Web_GoTo
**VSI_Browse**

Browses "scrolls" through the currently active window acting as a real user.

**Syntax**

\[ \text{VSI\_Browse("LogName", Time, Maxdown, AmountDown, Upamount, ReadInterval, DownInterval)} \]

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logname</td>
<td>String</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Integer</td>
<td>Time in seconds to scroll through the currently active window.</td>
</tr>
<tr>
<td>MaxDown</td>
<td>Integer</td>
<td>How many times the down key can be pressed before the end of the document is reached.</td>
</tr>
<tr>
<td>AmountDown</td>
<td>Integer</td>
<td>How many times the down key should be pressed per scroll operation.</td>
</tr>
<tr>
<td>UpAmount</td>
<td>Integer</td>
<td>How many times the up key should be pressed per scroll operation.</td>
</tr>
<tr>
<td>ReadInterval</td>
<td>Integer</td>
<td>How long to pause between scroll operations.</td>
</tr>
<tr>
<td>DownInterval</td>
<td>Integer</td>
<td>How much time in milliseconds between down keystrokes.</td>
</tr>
<tr>
<td>UpInterval</td>
<td>Integer</td>
<td>How much time in milliseconds between up keystrokes.</td>
</tr>
</tbody>
</table>
| Direction   | Selection | 1, 2, 3, 4  
1: Up/Down  
2: Right/Left  
3: Down / up  
4: Left / Right |

**Code Example**

\[ \text{VSI\_Browse("Internet", 120, 90, 8, 4, 3000, 500)} \]

**Related functions**

[VSI\_Type\_Fixed, VSI\_Type\_Time]
Web_Quit
Closes the defined browser instance using the Logname provided when starting Internet Explorer

Syntax
Web_Quit("logname")

Parameters

<table>
<thead>
<tr>
<th>Logname</th>
<th>String</th>
</tr>
</thead>
</table>

Code Example

```
Web_Quit("Internet")
```

Related functions
Web_Start, Web_GoTo
**Web_GoTo**

Navigate an existing Internet Explorer instance to another website

**Syntax**

```
Web_GoTo("logname","URL")
```

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logname</td>
<td>String</td>
</tr>
<tr>
<td>URL</td>
<td>String</td>
</tr>
</tbody>
</table>

**Code Example**

```
Web_Goto("Internet", "http://www.loginvsi.nl")
```

**Related functions**

*Web_Quit, Web_Start*
**VSI_Type_fixed**

Type the defined text

**Syntax**

\[\text{VSI_Type_fixed("Logname","Text",SendKeyDelay)}\]

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logname</td>
<td>String</td>
<td></td>
</tr>
<tr>
<td>Text</td>
<td>String</td>
<td></td>
</tr>
<tr>
<td>[SendKeyDelay]</td>
<td>Integer</td>
<td>The delay in milliseconds between keystrokes.</td>
</tr>
</tbody>
</table>

**Code Example**

```
VSI_Type_fixed("Logname","Text to type",150)
```

**Related functions**

*VSI_Type_Time*
**VSI_Type_Time**

Types random text from the input file limited by a number of seconds

**Syntax**

VSI_TYPE_Time("Logname","Time",[SendKeyDelay])

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logname</td>
<td>String</td>
<td>String</td>
</tr>
<tr>
<td>Time</td>
<td>Integer</td>
<td>seconds</td>
</tr>
<tr>
<td>[SendKeyDelay]</td>
<td>Integer</td>
<td>The delay in milliseconds between keystrokes.</td>
</tr>
</tbody>
</table>

**Code Example**

VSI_Type_Time("Logname",60,150)

**Related functions**

VSI_Type_Fixed
**VSI_File_Copy**

Copy a file from source to target.

**Syntax**

VSI_File_Copy("logname","Source","Target")

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logname</td>
<td>String</td>
</tr>
<tr>
<td>Source</td>
<td>String</td>
</tr>
<tr>
<td>Target</td>
<td>String</td>
</tr>
</tbody>
</table>

**Code Example**

```
VSI_File_Copy("logname","c:\temp\document.doc","c:\temp\document2.doc")
```

**Related functions**

VSI_File_Delete, VSI_Random_File_Copy
**VSI_Random_File_Copy**

Copy a random file from the file library to specified location

**Syntax**

VSI_Random_File_Copy("logname","Filetype","Target")

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logname</td>
<td>String</td>
</tr>
<tr>
<td>Filetype</td>
<td>String</td>
</tr>
<tr>
<td>Target</td>
<td>String</td>
</tr>
</tbody>
</table>

**Code Example**

```
VSI_Random_File_Copy("logname","doc","h:\document.doc")
```

**Related functions**

[VSI_File_Delete, VSI_Random_File_Copy]
**VSI_File_Delete**

Deletes the specified file

**Syntax**

VSI_File_Delete("logname","FilePath")

**Parameters**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Logname</td>
<td>String</td>
</tr>
<tr>
<td>FilePath</td>
<td>String</td>
</tr>
</tbody>
</table>

**Code Example**

VSI_File_Delete("logname","c:\temp\document.doc")

**Related functions**

VSI_File_Copy
**VSI_Reg_Write**

Write a registry value

**Syntax**

```
vsi_regwrite("Logname","KeyName","ValueName","Type")
```

**Parameters**

<table>
<thead>
<tr>
<th>Logname</th>
<th>String</th>
</tr>
</thead>
<tbody>
<tr>
<td>KeyName</td>
<td>String</td>
</tr>
<tr>
<td>ValueName</td>
<td>String</td>
</tr>
<tr>
<td>Type</td>
<td>Selection</td>
</tr>
</tbody>
</table>

- "REG_SZ"
- "REG_MULTI_SZ"
- "REG_EXPAND_SZ"
- "REG_DWORD"
- "REG_QWORD"
- "REG_BINARY"

**Code Example**

```
vsi_regwrite("Appname","HKEY_CURRENT_USER\Software","VSI","REG_SZ","VSI40TEST")
```

**Related functions**

[VSI_RegDelete](#)
VSI_RegDelete
Delete a registry value

Syntax
VSI_Regdelete("Logname","KeyName","[ValueName"]")

Parameters

<table>
<thead>
<tr>
<th>Logname</th>
<th>String</th>
</tr>
</thead>
<tbody>
<tr>
<td>KeyName</td>
<td>String</td>
</tr>
<tr>
<td>[ValueName]</td>
<td>String</td>
</tr>
</tbody>
</table>

Code Example
VSI_Regdelete("AppName","HKEY_CURRENT_USER\Software","VSI")

Related functions
VSI_Reg_Write
**VSI_Sleep**

Wait for specified number of seconds before continuing next action

**Syntax**

VSI_Sleep(Time)

**Parameters**

<table>
<thead>
<tr>
<th>Time</th>
<th>Integer</th>
<th>In seconds</th>
</tr>
</thead>
</table>

**Code Example**

VSI_Sleep(30)

**Related functions**

Workload Idle, Workload RandomIdle
Workload_Idle

Wait for specified number of seconds before continuing next action and allows the user to specify a message that will be shown on screen during the idle time.

Syntax

Workload_IDLE("Logname", Time, "Message")

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logname</td>
<td>String</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Integer</td>
<td>In seconds</td>
</tr>
<tr>
<td>Message</td>
<td>String</td>
<td></td>
</tr>
</tbody>
</table>

Code Example

```
workload_IDLE("Workload", 30, "%USERNAME% is IDLE")
```

Related functions

VSI_Sleep, Workload_RandomIdle
Workload_RandomIdle

Wait for random amount of time within the timeframes specified before continuing next action and allows the user to specify a message that will be shown on screen during the idle time.

Syntax

Workload_RandomIdle("Logname", MinIdle, MaxIdle, "Message")

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logname</td>
<td>String</td>
<td></td>
</tr>
<tr>
<td>MinIdle</td>
<td>Integer</td>
<td>In seconds</td>
</tr>
<tr>
<td>MaxIdle</td>
<td>Integer</td>
<td>In seconds</td>
</tr>
<tr>
<td>Message</td>
<td>String</td>
<td></td>
</tr>
</tbody>
</table>

Code Example

```
Workload_RandomIdle("Logname", 5, 15, "User is on the phone")
```

Related functions

VSI_Sleep, Workload_Idle
**VSI_ShellExecute**

Perform a shelleexecute action.

**Syntax**

VSI_ShellExecute("Logname", "filename", "parameters", "workingdir", "verb", "showflag")

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logname</td>
<td>String</td>
</tr>
<tr>
<td>Filename</td>
<td>String</td>
</tr>
<tr>
<td>Parameters</td>
<td>String</td>
</tr>
<tr>
<td>Workingdir</td>
<td>String</td>
</tr>
<tr>
<td>Verb</td>
<td>String</td>
</tr>
<tr>
<td>Showflag</td>
<td>Selection</td>
</tr>
</tbody>
</table>

**Code Example**

VSI_ShellExecute("MyApp", "c:\temp\document.txt", ",", ",", "" Maximize")

**Related functions**

VSI_ShellExecuteWait
VSI_ShellExecuteWait

Perform a shellexecute action and wait for it to complete before continuing the workload. This function is meant to replace the way Login VSI 3 handled customization. Please note that if the action never finishes than the workload will be paused forever.

Syntax

VSI_ShellExecuteWait("Logname", "filename", "parameters", "workingdir", "verb", "showflag")

Parameters

<table>
<thead>
<tr>
<th>Logname</th>
<th>Filename</th>
<th>Parameters</th>
<th>Workingdir</th>
<th>Verb</th>
<th>Showflag</th>
</tr>
</thead>
<tbody>
<tr>
<td>String</td>
<td>String</td>
<td>String</td>
<td>String</td>
<td>String</td>
<td>Selection</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimize/Maximize</td>
</tr>
</tbody>
</table>

Code Example

VSI_ShellExecuteWait("MyApp", "%VSI_Share\MyCustomApp.exe", "", "", "", "Maximize")

Related functions

VSI_ShellExecute
**VSI_FileWriteToLine**

Write text to a file

**Syntax**

```plaintext
VSI_FileWriteToLine("Logname", "filename", [line number], ["text"])
```

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logname</td>
<td>String</td>
</tr>
<tr>
<td>Filename</td>
<td>String</td>
</tr>
<tr>
<td>Line Number</td>
<td>Integer</td>
</tr>
<tr>
<td>Text</td>
<td>String</td>
</tr>
</tbody>
</table>

**Code Example**

```plaintext
VSI_FileWriteToLine("Logname", "c:\temp\example.txt", 1, "Hello world")
```

**Related functions**

-
**VSI_Timer**

Perform a timer event. The timer event will perform the response time measurements required for the VSI analyzer to be able to determine if the environment is saturated.

**Syntax**

\[ \text{VSI\_Timer()} \]

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Code Example**

\[ \text{VSI\_Timer()} \]

**Related functions**

-