Version	Date
API 2.0 for wm 2.7.0.3	Nov 23rd 2014

QUICK PLUGIN API REFERENCE FOR WRITEMONKEY

Writemonkey plugin API is **work in progress**. If you miss a feature, please post a message in wm Google groups @ https://groups.google.com/forum/#!forum/writemonkey. There is a good chance your questions will be answered.

Note that plugins are premium feature and only available to donors (owners of wm.donated key file). Developers that plan to build plugins for broader circle of users can apply for a free key.

The shortest introduction

Plugins are stored in wm/plugins folder. Each sub folder represents a plugin and it needs to contain at least one *plugin_name.js* file. Wm supports Javascript as it's scripting language. It utilizes Jint javascript interpreter for .NET (http://jint.codeplex.com) which currently implements all concepts defined in ECMAScript standard version 3.0. Version 5.0 is not supported at the moment.

Javascript is commonly used for handling web browser's DOM objects but in this case it can interact with:

- .NET 4.0 core functionality – Your scripts can instantiate and use all generic classes and methods. The usage is the same as in C# (.NET flagship language) with some minor differences,
- External .net libraries (dll-s) supplied with a plugin,
- Special "monkey" object (this API reference) that allows you to interact with different aspects of current writemonkey instance. For example:

```
monkey.selectedText = "this text will be inserted at the current caret positi
on";
```

Note that you don't need to use .NET stuff at all. You can just put together simple javascript "macros". **To learn more examine code from existing plugins.**

Individual plugin can be initialized when wm starts or it can be deployed later by using plugin menu. That depends on plugin's nature. Some plugins need to run all the time, other

just do stuff when needed in a single step.

All plugin .js files with names starting with "exe*" will execute at startup. For example: exe_someplugin.js will run and someplugin.js won't. Remove "exe*" part from the file name to disable the plugin.

You can deploy "one step" plugins using plugins menu - CTRL+F10. Run last used plugin with CTRL+ALT+F10. Plugin menu does show "exe" plugins (marked with green icon) but you can't re-run them. Use plugin shortcuts to deploy actions.

If implemented, running plugin can listen for keyboard (and other) events and reacts on them. Since core wm already occupies a big chunk of shortcut space, wm 2.5 adds a new feature that allows plugins to assign shortcuts without interfering with existing combinations. To use this extended shortcut space hit CTRL+E, release, and hit another key. Plugin Quick search, for example, uses CTRL+E,S to open quick search field at the top left corner of the screen. Users can modify this shortcut by editing the plugin file.

Users can disable all plugins in Preverences / Misc.

Monkey properties

monkey.form (System.Windows.Forms.Form)

Access standard .NET proprties and methods of the main Writemonkey form window. More info at Microsoft MSND.

```
Example:
monkey.form.BackColor = System.Drawing.Color.FromName("Red");
```

monkey.richTextBox (System.Windows.Forms.RichTextBox)

Access standard .NET proprties and methods of the main Writemonkey RichTextBox control. More info at Microsoft MSND.

```
Example:
monkey.richTextBox.ReadOnly = true;
```

monkey.text (System.String)

Get or set text currently displayed in the main wm window.

```
Examples:
monkey.text = "This is the text for the main wm window. Old content will be o
verwritten.";
var myVar = monkey.text;
```

monkey.selectedText (System.String)

Get or set currently selected text. If no text is selected, the reference point is the current caret position.

```
Example:
monkey.selectedText = "Insert this text at the current caret position
    + overwrite selected text";
var myVar = monkey.selectedText;
```

monkey.document (System.String)

Get current document text including the repository part. This is the same string that would be written into the file when save command is executed.

```
Example:
var stringToSave = monkey.document;
// do smth with stringToSave
```

monkey.settings[] (System.Collections.Generic.Dictionary<string, object>)

Get current writemonkey settings (read only). **Deprecated! Use methods monkey.GetSettingValue() and monkey.SetSettingValue() instead.**

```
Example:
var newOpacityValue = monkey.settings["_opacity"] - .2;
```

monkey.mainText (System.String)

Get or set main text for the currently opened file. It can also be used in "SCRATCH" mode.

```
Examples:
monkey.mainText = "some text";
var someVar = monkey.mainText;
```

monkey.repositoryText (System.String)

Get or set repository text for the currently opened file. It can also be used in "SCRATCH" mode.

```
Examples:
monkey.repositoryText = "some text";
var someVar = monkey.repositoryText;
```

monkey.applicationStartupPath (System.String)

Get full path of the wm installation folder (the folder that contains WriteMonkey.exe file).

```
Example:
var path = monkey.applicationStartupPath;
```

monkey.userDesktopPath (System.String)

Get full path of the users' Desktop.

```
Example:
var desktopPath = monkey.userDesktopPath;
```

monkey.pluginDirectoryPath (System.String)

Get full path of the current plugin folder:

```
Example:
var pluginPath = monkey.pluginDirectoryPath;
```

monkey.fileHolder (System.String)

Get full path of the currently opened file. "-1" if in "SCRATCH" mode.

```
Example:
var filePath = monkey.fileHolder;
```

monkey.fileDirectoryHolder (System.String)

Get directory path of the currently opened file. "-1" if in "SCRATCH" mode.

```
Example:
var currDir = monkey.fileDirectoryHolder;
```

monkey.fileName (System.String)

Get file name of the currently opened file. Returns "some_file.ext" part of the path. "-1" if in "SCRATCH" mode.

```
Example:
var fileName = monkey.fileName;
```

monkey.customFileName (System.String)

Get or set a custom string representing file name in Info bar and Task bar. It only has effect when monkey.fileHolder is "-1" i.e. the scratch mode is active. If monkey.customFileName is *null* (default) the standard SCRATCH label will be used.

```
Examples:
monkey.customFileName = "Some plugin custom filename";
monkey.customFileName = null; // disable
```

monkey.inkColor (System.Drawing.Color)

Get .net color object of the current text color.

```
Example:
var dotNetColor = monkey.inkColor;
```

monkey.paperColor (System.Drawing.Color)

Get .net color object of the current background color.

```
Example:
var dotNetColor = monkey.paperColor;
```

monkey.dimmedColor (System.Drawing.Color)

Get .net color object of the current dimmedColor.

```
Example:
var dotNetColor = monkey.dimmedColor;
```

monkey.textFont (System.Drawing.Font)

Get .net font object of the current text font.

```
Example:
var dotNetFont = monkey.textFont;
```

monkey.caretPosition or monkey.selectionStart (System.Int32)

Get caret position in the current wm window. If text is selected you get the index of the first selected character.

```
Example:
var caretPos = monkey.caretPosition;
```

monkey.selectionLength (System.Int32)

Get length of the selected text. 0 if no text is selected.

```
Example:
var selLength = monkey.selectionLength;
```

monkey.scrollPosition (System.Int32)

Get scroll position of the current wm text

```
Example:
var scrPos = monkey.scrollPosition;
```

monkey.paragraphUnderCaretStart (System.Int32)

Get index of the first character of the paragraph under the caret

```
Example:
var charPos = monkey.paragraphUnderCaretStart;
```

monkey.paragraphUnderCaretEnd (System.Int32)

Get index of the last character of the paragraph under the caret

```
Example:
var charPos = monkey.paragraphUnderCaretEnd;
```

monkey.wordUnderCaret (System.String)

Get the word under the caret.

```
Example:
var wordString = monkey.wordUnderCaret;
```

monkey.wordUnderCaretStart (System.Int32)

Get index of the first character of the word under the caret

```
Example:
var wordStart = monkey.wordUnderCaretStart;
```

monkey.wordUnderCaretEnd (System.Int32)

Get index of the last character of the word under the caret

```
Example:
var wordEndt = monkey.wordUnderCaretEnd;
```

monkey.words (System.Int32)

Get number of words in the current wm window.

```
Example:
var wordCount = monkey.words;
```

monkey.isSaved (System.Boolean)

Check if file is saved or there are changes not yet saved.

```
Example:
if (!monkey.isSaved) { // do something }
```

monkey.dateTimeNow (System.DateTime)

Get current DateTime .net object.

```
Example:
var now = monkey.dateTime;
```

Monkey Methods

monkey.include(string path) (System.Int32)

Run scripts from separate files in the same plugin context.
Returns 1 if success, -1 if error.
path can be absolute path of the file to be included or just a file name if the file to be included is in the same folder.

```
Examples:
monkey.include("some_file_in_the_same_folder.js");
monkey.include("c:/some_dir/some_file.js");
```

monkey.runScript(string pathOrScript) (System.Int32)

Run scripts in the separate plugin context.
Returns 1 if success, -1 if error.

pathOrScript can be absolute path of the file or script to be executed.

```
Examples:
monkey.runScript("c:/some_dir/some_file.js");
monkey.runScript("monkey.playSound();");
```

monkey.getSettingValue(string settingName) (object)

Get a value of a specific wm setting. The list of all setting names is available *here*. The method will return -1 on error.

```
Example:
var windowOpacity = monkey.getSettingValue("_opacity");
```

monkey.setSettingValue(string settingName, object value) (object)

Set a value of a specific wm setting. The list of all setting names is available *here*. On success the method will return new value and -1 on error.

```
Example:
monkey.setSettingValue("_opacity", 0.5);
```

monkey.saveSettings() (void)

Force save user settings. Usually you don't need to call this method as the settings are saved upon program exit, but sometimes it is necessary to save them earlier.

```
Example:
monkey.saveSettings();
```

monkey.getInstanceFromAssembly(string assemblyPath, string classFullname) (System.Object)

Get object instance from external assembly (dll file) where class constructor doesn't take any parameters. The method will return -1 on error.

```
Example:
var object = monkey.getInstanceFromAssembly("c:/somePath/some.dll", "Namespac
e.ClassName");
object.someProperty = someValue; // use instance as any regular .net object
```

There are 3 overloads for this method (1-3 parameters for the class constructor):

```
monkey.getInstanceFromAssembly(string assemblyPath, string classFullname, obj
ect para1);
monkey.getInstanceFromAssembly(string assemblyPath, string classFullname,
    object para1, object para2);
monkey.getInstanceFromAssembly(string assemblyPath, string classFullname,
    object para1, object para2, object para3);
```

monkey.invokeStaticMethodFromAssembly(string assemblyPath, string classFullname, string methodName) (System.Object)

Get object from the static method in external assembly (dll file) where method doesn't take any parameters. The method will return -1 on error.

```
Example:
monkey.invokeStaticMethodFromAssembly("c:/somePath/some.dll", "Namespace.Clas
sName",
    "SomeMethodName");
```

There are 3 overloads for this method (1-3 parameters for the class constructor):

```
monkey.invokeStaticMethodFromAssembly(string assemblyPath, string classFullna
me,
    string methodName, object para1);
monkey.invokeStaticMethodFromAssembly(string assemblyPath, string classFullna
me,
    string methodName, object para1, object para2);
monkey.invokeStaticMethodFromAssembly(string assemblyPath, string classFullna
me,
    string methodName, object para1, object para2, object para3);
```

monkey.getFieldFromAssembly(string assemblyPath, string classFullname, string fieldName) (System.Object)

Get object (value) from the field in external assembly (dll file). The method will return -1 on error.

```
Example:
monkey.getFieldFromAssembly("c:/somePath/some.dll", "Namespace.ClassName", "S
omeFieldName");
```

monkey.getIonicZipInstance() (IonicZip.ZipFile)

Get ZipFile object that enables you to do all kind of zip magic. See: http://dotnetzip.codeplex.com/documentation for more info.

```
Example:
var zip = monkey.getIonicZipInstance();
zip.AddFile("ReadMe.txt");
zip.Save("Archive.zip");
```

There is an overload for this method. It takes existing file path as a parameter:

```
var zip = monkey.getIonicZipInstance(string filePath) (IonicZip.ZipFile)
```

monkey.getSQLiteConnectionInstance() (System.Data.SQLite.SQLiteConnection)

Get SQLiteConnection object that enables you to to use powerfull text file based SQL database.

```
Example:
var conn = monkey.getSQLiteConnectionInstance
    ("Data Source=" + some_path + "; Version=3; UTF8Encoding=True");
conn.Open();
var query = "SELECT * FROM table_name";
var cmd = conn.CreateCommand();
cmd.CommandText = query;
var reader = cmd.ExecuteReader();
conn.Close();
```

monkey.getMarkdownDeepInstance() (MarkdownDeep.Markdown)

Get Markdown object that enables you to convert any markdown string to an HTML string.

```
Example:
var md = monkey.getMarkdownDeepInstance();
md.ExtraMode = true;
md.SafeMode = false;
var html = md.Transform("## Markdown heading");
```

monkey.getCreoleParserInstance() (Wiki.CreoleParser)

Get CreoleParser object that enables you to convert any wiki string to an HTML string.

```
Example:
var wiki = monkey.getCreoleParserInstance();
var html = wiki.ToHTML("*Some wiki text*");
```

monkey.getTextile(string text) (System.String)

Coverts a Textile string into an HTML string.

```
Example:
var html = monkey.getTextile(".h1 Textile heading");
```

monkey.sendKeys(string keySequence) (void)

Send the sequence of key strokes to wm. Find out how to form valid key sequences.

```
Example:
monkey.sendKeys("+({F8})"); // simulate shift+F8
```

monkey.getPartsFromFile(string fileHolder) (System.String[main, repository])

Get main text / repository parts from the file. Will return array with two values. On error array will be ["-1"]["-1"].

```
Example:
var parts = monkey.getPartsFromFile("c:/someDir/someFile.md");
var main = parts[0];
var repo = parts[1];
```

monkey.openWmFile(string fileHolder) (System.Boolean)

Open the file in wm and return true on success or false on error.

```
Example:
monkey.openWmFile("c:/someDir/someFile.md");
```

monkey.saveWmFile(string pathToSave) (System.Boolean)

Save the currently opened file (or SCRATCH) into the file in specified location. Will return true on success or false on error.

```
Example:
monkey.saveWmFile("c:/someDir/someFile.md");
```

monkey.deleteFile(string filePath) (System.Boolean)

Delete specified file without warning & will not put it in to recycle bin. Will return true on success or false on error.

```
Example:
monkey.deleteFile("c:/someDir/someFile.md");
```

monkey.goFromScratch() (void)

Start new SCRATCH document. User will be asked to save changes in currently opened file (if any).

```
Example:
monkey.goFromScratch();
```

monkey.replaceText(int startIndex, int length, string replacementText, bool selected) (void)

Replace a portion of text with a new string in current wm window. The current scroll and caret positions will be kept. Last parameter tells if replaced text is selected at the end. This method is quite slow so do not use it extensively.

```
Example:
monkey.replaceText(0, 20, "Replacement text", false);
```

monkey.moveCaret(int position) (void)

Move caret to the specified position in current wm window.

```
Example:
monkey.moveCaret(100);
```

monkey.scrollToCaret() (void)

Scroll wm window text to the current caret position (4 lines from the top).

```
Example:
monkey.scrollToCaret();
```

monkey.scrollToPosition(int position) (void)

Scroll wm window text to the specified position (in pixels).

```
Example:
monkey.scrollToPosition(2000);
```

monkey.select(int startIndex, int length) (void)

Select specified text in current wm window.

```
Example:
monkey.select(25, 5);
```

monkey.selectAll() (void)

Select all text in current wm window.

```
Example:
monkey.selectAll();
```

monkey.getWordsFromString(string textToCount) (System.Int32)

Count words in given string.

```
Example:
var numberOfWords = monkey.getWordsFromString(monkey.text);
```

monkey.setReplacement(string trigger, string replacement) (System.Boolean)

Define new trigger / replacement pair. Use {full_plugin_path} as a replacement to trigger plugin files or use {key_sequence} to simulate key strokes. Will return true on success.

```
Example:
monkey.setReplacement("/s", "{^es}"); // will send CTRL+E,S to wm
monkey.setReplacement("/a", "c:/../plugins/some_plugin.js"); // will execute
plugin
```

monkey.performSyntaxColoring() (void)

Perform markup syntax coloring for the whole document. This method is quite slow so do not use it extensively.

```
Example:
monkey.performSyntaxColoring();
```

monkey.showNotice(string noticeText, bool autohide, bool sound) (void)

Show custom notice in info bar.

```
Example:
monkey.showNotice("Notice text", true, false);
```

monkey.playSound(string source) (void)

Play a custom sound from the file. If you use this method without a parameter the default wm double beep sound will be played.

```
Example:
monkey.playSound("c:/someDir/someSoundFile.mp3");
monkey.playSound();
```

monkey.encryptString(string input, string password) (System.String)

Encrypt (128 bit) string using provided password.

```
Example:
var encryptedString = monkey.encryptString("Some text to encrypt", "password"
);
```

monkey.decryptString(string input, string password) (System.String)

Decrypt (128 bit) string using provided password.

```
Example:
var decryptedString = monkey.decryptString("xmH4u3kHAtFW","password");
```

monkey.getBlankPluginForm(int width, int height) (System.Windows.Forms.Form)

Get new blank borderless form and define initial size.

```
Example:
var form = monkey.getBlankPluginForm(400, 300);
form.Show();
```

Predefined monkey Events

extendedShortcutFiredE (System.EventHandler)

Listen for extended keyboard command (ctrl+E,KEY) and perform an action.

```
Example:
monkey.add_extendedShortcutFiredE(function(object, eventargs) {
    if (eventargs.extendedKey == "L") {
        doSomeStuff(object, eventargs);
    }
});
```

beforeOpenE (System.EventHandler)

Fires before new file is opened in wm.

```
Example:
monkey.add_beforeOpenE(function(object, eventargs) { doStuff(); });
```

beforeSaveE (System.EventHandler)

Fires before wm file is saved.

```
Example:
monkey.add_beforeSaveE(function(object, eventargs) { doStuff(); });
```

textChangedE (System.EventHandler)

Fires every time the text is changed in current wm window.

```
Example:
monkey.add_textChangedE(function(object, eventargs) { doStuff(); });
```

selectionChangedE (System.EventHandler)

Fires every time the selection changes in current wm window. That means it also fires when caret moves.

```
Example:
monkey.add_selectionChangedE(function(object, eventargs) { doStuff(); });
```

appLoadedE (System.EventHandler)

Fires when wm is loaded after startup.

```
Example:
monkey.add_appLoadedE(function(object, eventargs) { doStuff(); });
```

appClosingE (System.FormClosingEventHandler)

Fires before wm is about to close.

```
Example:
monkey.add_appClosingE(function(object, eventargs) { doStuff(); });
```

keyUpE (System.KeyEventHandler)

Fires when a keyboard key is released.

```
Example:
monkey.add_keyUpE(function(object, eventargs) {
    if (eventargs.KeyCode == System.Windows.Forms.Keys.Enter) {
        doStuff();
    }
});
```

keyDownE (System.KeyEventHandler)

Fires when a keyboard key is pressed.

```
Example:
monkey.add_keyDownE(function(object, eventargs) {
    if (eventargs.KeyCode == System.Windows.Forms.Keys.L) {
        doStuff();
    }
});
```

mouseUpE (System.MouseEventHandler)

Fires when a mouse key is released.

```
Example:
monkey.add_mouseUpE(function(object, eventargs) {
    if (eventargs.Button == System.Windows.Forms.MouseButtons.Right) {
        doStuff();
    }
});
```

mouseDownE (System.MouseEventHandler)

Fires when a mouse key is pressed.

```
Example:
monkey.add_mouseDownE(function(object, eventargs) {
    if (eventargs.Button == System.Windows.Forms.MouseButtons.Right) {
        doStuff();
    }
});
```

mouseMoveE (System.MouseEventHandler)

Fires when a mouse is moved.

```
Example:
monkey.add_mouseMoveE(function(object, eventargs) {
    doStuff();
});
```