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# dtactions Documentation

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## **CONTENTS:**

<b>1</b>	<b>Modules</b>	<b>3</b>
1.1	natlinkclipboard . . . . .	3
1.2	sendkeys . . . . .	6
1.3	monitorfunctions . . . . .	6
1.4	messagefunctions . . . . .	6
<b>2</b>	<b>Project</b>	<b>7</b>
2.1	Documentation . . . . .	7
<b>3</b>	<b>Indices and tables</b>	<b>9</b>
<b>Index</b>		<b>11</b>



This branch has not been published yet via pip, is still in development.



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**CHAPTER  
ONE**

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**MODULES**

This section includes the available modules in DT actions.

## 1.1 natlinkclipboard

The `natlinkclipboard` module offers easy access to and manipulation of the Windows clipboard. The `Clipboard` class forms the core of this module. Each instance of this class is a container with a structure similar to the system clipboard, mapping content formats to content data.

### 1.1.1 Clipboard class

```
class Clipboard(contents=None, text=None, from_system=False, save_clear=False, debug=None)
```

Clipboard class, manages getting and setting the windows clipboard

```
classmethod Get_clipboard_formats()
```

returns a list of format types of current clipboard

This is mainly meant for debugging purposes.

```
classmethod Get_folderinfo(waiting_time=0.05)
```

returns a tuple of file/folder info of selected files or folders

As alias use `Get_folderinfo`, `Get_hdrop` or `get_system_hdrop`

`win32con.CF_HDROP` is the parameter for calling this type of clipboard data

```
classmethod Get_hdrop(waiting_time=0.05)
```

returns a tuple of file/folder info of selected files or folders

As alias use `Get_folderinfo`, `Get_hdrop` or `get_system_hdrop`

`win32con.CF_HDROP` is the parameter for calling this type of clipboard data

```
classmethod Get_text()
```

get text from the clipboard

from `natlinkclipboard` import `Clipboard`

simply call: `text = Clipboard.get_system_text()`

as alias also `Get_text` can be used, so: `text = Clipboard.Get_text()`

```
classmethod Set_text(content)
```

set text to the clipboard

First the clipboard is emptied.

This method fails when not in elevated mode.

As alias, you can also call: Clipboard.Set\_text("abacadabra")

**Set\_text\_and\_paste(*t*)**

a one shot function to past text back into the application

**clear\_clipboard()**

Empty the clipboard and clear the internal clipboard data

assume the clipboard is open

this will be done at init phase with save\_clear == True

**copy\_from\_system(*formats=None, save\_clear=False, waiting\_interval=None, waiting\_iterations=None*)**

Copy the Windows system clipboard contents into this instance.

**Arguments:**

- *formats* (iterable, default: None) – if not None, only the given content formats will be retrieved. If None, all available formats will be retrieved.
- *save\_clear* (boolean, default: False) – if true, the Windows system clipboard will be saved in self.\_backup, and cleared after its contents have been retrieved. Will be restored from self.\_backup when the instance is destroyed. If false contents are retrieved in self.\_contents

**copy\_to\_system(*data=None, clear=True*)**

Copy the contents of this instance to the Windows clipboard

Arguments: - *data*: text or dict of clipboard items (format, content) pairs

- *clear* (boolean, default: True) – if true, the Windows system clipboard will be cleared before this instance's contents are transferred.

**get\_folderinfo(*waiting\_interval=None, waiting\_iterations=None*)**

Retrieve this instance's folderinfo (also hdrop)

do a copy\_from\_system automatically

This should be a tuple of valid paths. The paths are not checked.

If no valid info, return None

**get\_format(*format*)**

Retrieved this instance's content for the given *format*.

**Arguments:**

- *format* (int) – the clipboard format to retrieve.

If the given *format* is not available, a *ValueError* is raised.

**get\_hdrop(*waiting\_interval=None, waiting\_iterations=None*)**

Retrieve this instance's folderinfo (also hdrop)

do a copy\_from\_system automatically

This should be a tuple of valid paths. The paths are not checked.

If no valid info, return None

**classmethod get\_system\_folderinfo(*waiting\_time=0.05*)**

returns a tuple of file/folder info of selected files or folders

As alias use Get\_folderinfo, Get\_hdrop or get\_system\_hdrop

win32con.CF\_HDROP is the parameter for calling this type of clipboard data

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**classmethod get\_system\_hdrop(*waiting\_time*=0.05)**  
 returns a tuple of file/folder info of selected files or folders  
 As alias use Get\_folderinfo, Get\_hdrop or get\_system\_hdrop  
 win32con.CF\_HDROP is the parameter for calling this type of clipboard data

**classmethod get\_system\_text()**  
 get text from the clipboard  
 from natlinkclipboard import Clipboard  
 simply call: text = Clipboard.get\_system\_text()  
 as alias also Get\_text can be used, so: text = Clipboard.Get\_text()

**get\_text(*waiting\_interval*=None, *waiting\_iterations*=None, *replaceNullChar*=True)**  
 get the text (mostly unicode) contents of the clipboard  
 This method first does a copy from system.  
 If no text content available, return ""

**has\_format(*format*)**  
 Determine whether this instance has content for the given format

**Arguments:**

- *format* (int) – the clipboard format to look for.

**has\_text(*waiting\_interval*=None, *waiting\_iterations*=None)**  
 Determine whether this instance has text content.

**restore()**  
 restore the \_backup to the system clipboard

**save\_sequence\_number()**  
 get the Clipboard Sequence Number and store in instance  
 It is set in self.current\_sequence\_number, no return

**classmethod set\_system\_text(*content*)**  
 set text to the clipboard  
 First the clipboard is emptied.  
 This method fails when not in elevated mode.  
 As alias, you can also call: Clipboard.Set\_text("abacadabra")

## 1.1.2 Utility functions

**OpenClipboardCautious(*nToTry*=4, *waiting\_time*=0.1)**  
 sometimes, wait a little before you can open the clipboard...

## 1.2 sendkeys

The `sendkeys` function sends keystrokes to the foreground window.

The format that is used in Unimacro and Vocola is translated into Dragonfly format, and the `dragonfly.actions.action_key.Key` class performs the actions.

This replaces the `natlink.playString` function of Natlink and the `SendInput` of Vocola.

At top of module insert:

```
from dtactions.sendkeys import sendkeys
```

And then in the appropriate place in the code:

```
sendkeys("keystrokes")
```

### 1.2.1 sendkeys module

## 1.3 monitorfunctions

The `monitorfunctions` module provides various functions related to monitors and windows. Windows can be positioned and resized on a monitor, or be moved to another monitor.

Windows only.

## 1.4 messagefunctions

The `messagefunctions` module provides various functions that can identify the foreground handle of an open application.

Windows only.

## 2.1 Documentation

The documentation for DT Actions is written in [reStructuredText format](#). ReStructuredText is similar to the Markdown format. If you are unfamiliar with the format, the [reStructuredText primer](#) might be a good starting point.

The [Sphinx documentation engine](#) and [Read the Docs](#) are used to generate documentation from the `.rst` files in the `documentation/` folder. Docstrings in the source code are included in a semi-automatic way through use of the `sphinx.ext.autodoc` extension.

To build the documentation locally, install Sphinx and any other documentation requirements:

```
$ cd documentation  
$ pip install -r requirements.txt
```

Then run the following command on Windows to build the documentation:

```
$ make.bat html
```

Or use the Makefile on other systems:

```
$ make html
```

If there were no errors during the build process, open the `_build/html/index.html` file in a web browser. Make changes, rebuild the documentation and reload the doc page(s) in your browser as you go.



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CHAPTER  
**THREE**

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## **INDICES AND TABLES**

- genindex
- modindex
- search



# INDEX

## C

`clear_clipboard()` (*Clipboard method*), 4  
`Clipboard` (*class in dtactions.natlinkclipboard*), 3  
`copy_from_system()` (*Clipboard method*), 4  
`copy_to_system()` (*Clipboard method*), 4

## G

`Get_clipboard_formats()` (*Clipboard class method*),  
    3  
`Get_folderinfo()` (*Clipboard class method*), 3  
`get_folderinfo()` (*Clipboard method*), 4  
`get_format()` (*Clipboard method*), 4  
`Get_hdrop()` (*Clipboard class method*), 3  
`get_hdrop()` (*Clipboard method*), 4  
`get_system_folderinfo()` (*Clipboard class method*),  
    4  
`get_system_hdrop()` (*Clipboard class method*), 4  
`get_system_text()` (*Clipboard class method*), 5  
`Get_text()` (*Clipboard class method*), 3  
`get_text()` (*Clipboard method*), 5

## H

`has_format()` (*Clipboard method*), 5  
`has_text()` (*Clipboard method*), 5

## O

`OpenClipboardCautious()` (*in module dtac-*  
*tions.natlinkclipboard*), 5

## R

`restore()` (*Clipboard method*), 5

## S

`save_sequence_number()` (*Clipboard method*), 5  
`set_system_text()` (*Clipboard class method*), 5  
`Set_text()` (*Clipboard class method*), 3  
`Set_text_and_paste()` (*Clipboard method*), 4