

PySI

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# Chapter 1

## Namespace Index

### 1.1 Packages

Here are the packages with brief descriptions (if available):

<a href="#">SIEffect</a>	Documentation for this module / class . . . . .	9
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## Chapter 2

# Hierarchical Index

### 2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

PySIEffect	
SIEffect.SIEffect . . . . .	<a href="#">11</a>





## Chapter 3

# Class Index

### 3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

<a href="#">SIEffect.SIEffect</a>	
Super Class from which all subsequent plugins are derived . . . . .	11



## Chapter 4

# File Index

### 4.1 File List

Here is a list of all files with brief descriptions:

<a href="#">SIEffect.py</a>	.....	31
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## Chapter 5

# Namespace Documentation

### 5.1 SIEffect Namespace Reference

Documentation for this module / class.

#### Classes

- class [SIEffect](#)  
*Super Class from which all subsequent plugins are derived.*

#### 5.1.1 Detailed Description

Documentation for this module / class.

Used as central entry point for all SIGRun plugins



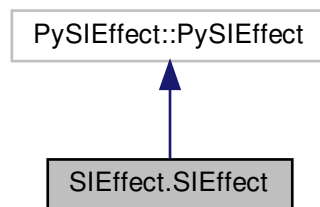
## Chapter 6

# Class Documentation

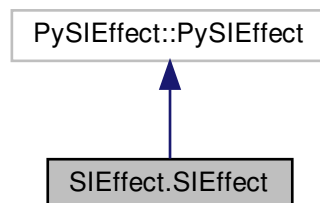
### 6.1 SIEffect.SIEffect Class Reference

Super Class from which all subsequent plugins are derived.

Inheritance diagram for SIEffect.SIEffect:



Collaboration diagram for SIEffect.SIEffect:



## Public Member Functions

- `def __init__ (self, shape=PySIEffect.PointVector(), aabb=PySIEffect.PointVector(), uuid="", texture_path="", kwargs={})`  
*constructor*
- `def set_position_from_position (self, rel_x, rel_y, abs_x, abs_y)`  
*member function for setting the position of a region based on the positional data of another region.*
- `def on_move_enter_recv (self, cursor_id, link_attrib)`  
*member function for receiving data from the PySIEffect.MOVE capability for the PySIEffect.ON\_ENTER collision event*
- `def on_move_continuous_recv (self)`  
*member function for the PySIEffect.MOVE capability for the PySIEffect.ON\_CONTINUOUS collision event*
- `def on_move_leave_recv (self, cursor_id, link_attrib)`  
*member function for receiving data from the PySIEffect.MOVE capability for the PySIEffect.ON\_LEAVE collision event*
- `def enable_effect (self, capability, is_emit, on_enter, on_continuous, on_leave)`  
*member function for enabling the emission or reception of an effect*
- `def override_effect (self, capability, is_emit, on_enter, on_continuous, on_leave)`  
*member function for overriding the emission or reception of an effect*
- `def disable_effect (self, capability, is_emit)`  
*member function for disabling the emission or reception of an effect*
- `def enable_link_emission (self, emission_capability, emission_function)`  
*member function for enabling the emission of data in the context of a link event*
- `def enable_link_reception (self, emission_capability, reception_capability, reception_function)`  
*member function for enabling the emission of data in the context of a link event*
- `def disable_link_emission (self, emission_capability)`  
*member function for disabling the emission of data in the context of a link event*
- `def disable_link_reception (self, emission_capability, reception_capability="")`  
*member function for disabling the reception of data in the context of a link event*
- `def create_link (self, sender_uuid, sender_attribute, receiver_uuid, receiver_attribute)`  
*member function for establishing a specified link between two regions according to given attributes*
- `def remove_link (self, sender_uuid, sender_attribute, receiver_uuid, receiver_attribute)`  
*member function for removing a specified link between two regions according to given attributes*
- `def add_QML_data (self, key, value, datatype)`  
*member function for setting data in the associated qml file of a region effect*
- `def register_shape_change (self, with_resampling=True)`  
*member function for signaling that the shape of a region has changed*
- `def add_point_to_region_drawing (self, x, y, cursor_id)`  
*member function for adding a point to a region drawing based on a cursor id.*
- `def register_region_from_drawing (self, cursor_id)`  
*member function for registering a region drawing according to a cursor id*
- `def start_standard_application (self, file_uuid, file_path)`  
*member function for starting the standard application of a file given its uuid as a region and its path in the filesystem*
- `def close_standard_application (self, file_uuid)`  
*member function for closing the standard application of a file given its uuid as a region and its path in the filesystem*
- `def display_folder_contents_page (self, page, source_uuid, with_buttons=True)`  
*member function for displaying the contents of a folder in the filesystem as pages of other filesystem entries*



## Public Attributes

- [shape](#)  
*member attribute variable containing the shape (contour) of a drawn region as a `PySIEffect.PointVector`*
- [aabb](#)  
*member attribute variable containing the axis-aligned bounding-box (aabb) of a drawn region as a `PySIEffect.PointVector`*
- [name](#)  
*member attribute variable containing the name of a drawn region as a `str`*
- [region\\_type](#)  
*member attribute variable containing the type of effect of a drawn region as a `PySIEffect.EffectType`*
- [source](#)  
*member attribute variable containing the source of effect of a drawn region as a `str`*
- [qml\\_path](#)  
*member attribute variable containing the path to a QML file for styling of a drawn region as a `str`*
- [delta\\_x](#)  
*member attribute variable containing the last relative movement of the region according to the x axis as a `float`*
- [delta\\_y](#)  
*member attribute variable containing the last relative movement of the region according to the y axis as a `float`*
- [last\\_x](#)  
*member attribute variable containing the last absolute x coordinate as a `float`*
- [last\\_y](#)  
*member attribute variable containing the last absolute y coordinate as a `float`*
- [color](#)  
*member attribute variable containing the fill color of a region in RGBA as a `PySIEffect.Color`*
- [is\\_under\\_user\\_control](#)  
*member attribute variable which is true when an user directly controls the region (e.g.*
- [width](#)  
*member attribute variable storing the width of a region drawing as a `float`*
- [height](#)  
*member attribute variable storing the width of a region drawing as a `float`*
- [texture\\_width](#)  
*member attribute variable storing the width of a texture of a region drawing as a `float`*
- [texture\\_height](#)  
*member attribute variable storing the height of a texture of a region drawing as a `float`*
- [cap\\_emit](#)  
*member attribute variable storing keys to functions which are called when collision events occur for emitting data to receiving regions*
- [cap\\_recv](#)  
*member attribute variable storing keys to functions which are called when collision events occur for receiving data from emitting regions*
- [cap\\_link\\_emit](#)  
*member attribute variable storing keys to functions which are called when linking events occur for emitting data to receiving regions*
- [cap\\_link\\_recv](#)  
*member attribute variable storing keys to functions which are called when linking events occur for emitting data to receiving regions*
- [last\\_delta\\_x](#)
- [last\\_delta\\_y](#)

## Static Public Attributes

- bool `EMISSION` = True  
*member constant to mark an effect or link emittable*
- bool `RECEPTION` = False  
*static member attribute to mark an effect or link receivable*
- string `TEXTURE_PATH_NONE` = ""  
*static member attribute to signal that it's associated effect does not display an icon (texture) when drawn as a region*
- bool `RESAMPLING` = True  
*static member attribute to notify SIGRun to resample a region's shape when changed from PySI*
- bool `NO_RESAMPLING` = False  
*static member attribute to notify SIGRun to not resample a region's shape when changed from PySI Use with caution! May lead to unexpected / barely debugable behaviour!*

### 6.1.1 Detailed Description

Super Class from which all subsequent plugins are derived.

This Class itself is derived from PySIEffect written in C++ which is documented separately within SIGRun

Definition at line 13 of file SIEffect.py.

### 6.1.2 Constructor & Destructor Documentation

#### 6.1.2.1 `__init__()`

```
def SIEffect.SIEffect.__init__ (
    self,
    shape = PySIEffect.PointVector(),
    aabb = PySIEffect.PointVector(),
    uuid = "",
    texture_path = "",
    kwargs = {} )
```

constructor

Constructs a new `SIEffect` object based on the given arguments.

#### Parameters

<i>self</i>	the object pointer
<i>shape</i>	the contour of the drawn region (PySIEffect.PointVector)
<i>aabb</i>	the axis-aligned bounding-box of the drawn region (PySIEffect.PointVector)
<i>uuid</i>	the universally unique identifier of the drawn region (str)
<i>texture_path</i>	the path to an image intended to be used as an icon for the drawn region (str)
<i>kwargs</i>	keyworded arguments which may necessary for more specific implementations of region effects (dict)

Definition at line 42 of file SIEffect.py.

### 6.1.3 Member Function Documentation

#### 6.1.3.1 add\_point\_to\_region\_drawing()

```
def SIEffect.SIEffect.add_point_to_region_drawing (
    self,
    x,
    y,
    cursor_id )
```

member function for adding a point to a region drawing based on a cursor id.

##### Parameters

<i>self</i>	the object pointer
<i>x</i>	the x coordinate of the cursor (float)
<i>y</i>	the y coordinate of the cursor (float)
<i>cursor↔ _id</i>	the id of cursor currently drawing (str)

This function is specific to effects of PySIEffect.EffectType.SI\_CANVAS. Therefore, this function does nothing when called with other effect types.

This function uses self.\_\_partial\_regions\_\_ (c++-bindings)

Definition at line 379 of file SIEffect.py.

#### 6.1.3.2 add\_QML\_data()

```
def SIEffect.SIEffect.add_QML_data (
    self,
    key,
    value,
    datatype )
```

member function for setting data in the associated qml file of a region effect

##### Parameters

<i>self</i>	the object pointer
<i>key</i>	the variable specified in the qml file (str)
<i>value</i>	the value to set in the variable in the qml file (variant)
<i>datatype</i>	the data type of the value (PySIEffect.INT, PySIEffect.FLOAT, ...) (int)

Calls the function **add\_data** (c++-bindings)

Definition at line 354 of file SIEffect.py.

#### 6.1.3.3 close\_standard\_application()

```
def SIEffect.SIEffect.close_standard_application (
    self,
    file_uuid )
```

member function for closing the standard application of a file given its uuid as a region and its path in the filesystem

##### Parameters

<i>self</i>	the object pointer
<i>file_uuid</i>	the uuid of the region associated to a file icon representing a file of the filesystem (str)

This function calls `self.__destroy_embedded_window__` (c++-bindings)

Definition at line 415 of file SIEffect.py.

#### 6.1.3.4 create\_link()

```
def SIEffect.SIEffect.create_link (
    self,
    sender_uuid,
    sender_attribute,
    receiver_uuid,
    receiver_attribute )
```

member function for establishing a specified link between two regions according to given attributes

##### Parameters

<i>self</i>	the object pointer
<i>sender_uuid</i>	the uuid of the emitting region (str)
<i>sender_attribute</i>	the attribute to be linked by the emitting region (str)
<i>receiver_uuid</i>	the uuid of the receiving region (str)
<i>receiver_attribute</i>	the attribute to be linked by the receiving region (str)

Definition at line 328 of file SIEffect.py.

#### 6.1.3.5 disable\_effect()

```
def SIEffect.SIEffect.disable_effect (
    self,
    capability,
    is_emit )
```

member function for disabling the emission or reception of an effect

##### Parameters

<i>self</i>	the object pointer
<i>capability</i>	the capability of the collision event (str)
<i>is_emit</i>	the variable depicting if a region emits (True) or receives (False) an effect (bool)

Definition at line 273 of file SIEffect.py.

#### 6.1.3.6 disable\_link\_emission()

```
def SIEffect.SIEffect.disable_link_emission (
    self,
    emission_capability )
```

member function for disabling the emission of data in the context of a link event

##### Parameters

<i>self</i>	the object pointer
<i>emission_capability</i>	the capability of the linking event used by the emitting region (str)

Definition at line 300 of file SIEffect.py.

#### 6.1.3.7 disable\_link\_reception()

```
def SIEffect.SIEffect.disable_link_reception (
    self,
    emission_capability,
    reception_capability = "" )
```

member function for disabling the reception of data in the context of a link event

##### Parameters

<i>self</i>	the object pointer
<i>emission_capability</i>	the capability of the linking event used by the emitting region (str)
<i>reception_capability</i>	the capability of the linking event of a receiving region with default value "" (str)

If no `reception_capability` is specified, the `emission_capability` is deleted from `self.cap_link_rcv`. If `reception_capability` is specified and present in `self.cap_link_rcv`, the specified relation is deleted from `emission_capability`.

See also

`self.cap_link_rcv`

Definition at line 312 of file `SIEffect.py`.

#### 6.1.3.8 `display_folder_contents_page()`

```
def SIEffect.SIEffect.display_folder_contents_page (
    self,
    page,
    source_uuid,
    with_buttons = True )
```

member function for displaying the contents of a folder in the filesystem as pages of other filesystem entries

##### Parameters

<i>self</i>	the object pointer
<i>source_uuid</i>	the uuid of the region associated to a folder icon representing a folder of the filesystem (str)
<i>with_buttons</i>	a flag depicting whether buttons for browsing pages is wanted (True) or not (False) (bool)

This function calls `self.__show_folder_contents_page__` (c++-bindings)

Definition at line 425 of file `SIEffect.py`.

#### 6.1.3.9 `enable_effect()`

```
def SIEffect.SIEffect.enable_effect (
    self,
    capability,
    is_emit,
    on_enter,
    on_continuous,
    on_leave )
```

member function for enabling the emission or reception of an effect

##### Parameters

<i>self</i>	the object pointer
<i>capability</i>	the capability of the collision event (str)
<i>is_emit</i>	the variable depicting if a region emits (True) or receives (False) an effect (bool)
<i>on_enter</i>	the function to be called for the collision event <code>PySIEffect.ON_ENTER</code>
<i>on_continuous</i>	the function to be called for the collision event <code>PySIEffect.ON_CONTINUOUS</code>
<i>on_leave</i>	the function to be called for the collision event <code>PySIEffect.ON_LEAVE</code>

Definition at line 248 of file SIEffect.py.

#### 6.1.3.10 enable\_link\_emission()

```
def SIEffect.SIEffect.enable_link_emission (
    self,
    emission_capability,
    emission_function )
```

member function for enabling the emission of data in the context of a link event

##### Parameters

<i>self</i>	the object pointer
<i>emission_capability</i>	the capability of the linking event (str)
<i>emission_function</i>	the function to be called for emitting data

Definition at line 284 of file SIEffect.py.

#### 6.1.3.11 enable\_link\_reception()

```
def SIEffect.SIEffect.enable_link_reception (
    self,
    emission_capability,
    reception_capability,
    reception_function )
```

member function for enabling the emission of data in the context of a link event

##### Parameters

<i>self</i>	the object pointer
<i>emission_capability</i>	the capability of the linking event used by the emitting region (str)
<i>reception_capability</i>	the capability of the linking event of a receiving region (str)
<i>reception_function</i>	the function to be called for receiving data

Definition at line 293 of file SIEffect.py.

#### 6.1.3.12 on\_move\_continuous\_recv()

```
def SIEffect.SIEffect.on_move_continuous_recv (
    self )
```

member function for the PySIEffect.MOVE capability for the PySIEffect.ON\_CONTINUOUS collision event

**Parameters**

<i>self</i>	the object pointer
-------------	--------------------

Definition at line 220 of file SIEffect.py.

**6.1.3.13 on\_move\_enter\_rcv()**

```
def SIEffect.SIEffect.on_move_enter_rcv (
    self,
    cursor_id,
    link_attrib )
```

member function for receiving data from the PySIEffect.MOVE capability for the PySIEffect.ON\_ENTER collision event

**Parameters**

<i>self</i>	the object pointer
<i>cursor_id</i>	the cursor which is intended to move the region (str)
<i>link_attribute</i>	the linking attribute defining how the cursor and the region are intended to be linked (str)

Definition at line 212 of file SIEffect.py.

**6.1.3.14 on\_move\_leave\_rcv()**

```
def SIEffect.SIEffect.on_move_leave_rcv (
    self,
    cursor_id,
    link_attrib )
```

member function for receiving data from the PySIEffect.MOVE capability for the PySIEffect.ON\_LEAVE collision event

**Parameters**

<i>self</i>	the object pointer
<i>cursor_id</i>	the cursor which is intended to move the region (str)
<i>link_attribute</i>	the linking attribute defining how the cursor and the region are intended to be linked (str)

Definition at line 228 of file SIEffect.py.



## 6.1.3.15 override\_effect()

```
def SIEffect.SIEffect.override_effect (
    self,
    capability,
    is_emit,
    on_enter,
    on_continuous,
    on_leave )
```

member function for overriding the emission or reception of an effect

## Parameters

<i>self</i>	the object pointer
<i>capability</i>	the capability of the collision event (str)
<i>is_emit</i>	the variable depicting if a region emits (True) or receives (False) an effect (bool)
<i>on_enter</i>	the function to be called for the collision event PySIEffect.ON_ENTER
<i>on_continuous</i>	the function to be called for the collision event PySIEffect.ON_CONTINUOUS
<i>on_leave</i>	the function to be called for the collision event PySIEffect.ON_LEAVE

This function then calls `self.enable_effect(capability, is_emit, on_enter, on_continuous, on_leave)`

## See also

`self.enable_effect(capability, is_emit, on_enter, on_continuous, on_leave)`

Definition at line 265 of file SIEffect.py.

## 6.1.3.16 register\_region\_from\_drawing()

```
def SIEffect.SIEffect.register_region_from_drawing (
    self,
    cursor_id )
```

member function for registering a region drawing according to a cursor id

## Parameters

<i>self</i>	the object pointer
<i>cursor↔ _id</i>	the id of the cursor which is currently drawing (str)

This function is specific to effects of `PySIEffect.EffectType.SI_CANVAS`. Therefore, this function does nothing when called with other effect types.

This function uses `self.__registered_regions__` (c++-bindings)

Definition at line 395 of file SIEffect.py.

### 6.1.3.17 register\_shape\_change()

```
def SIEffect.SIEffect.register_shape_change (
    self,
    with_resampling = True )
```

member function for signaling that the shape of a region has changed

#### Parameters

<i>self</i>	the object pointer
<i>with_resampling</i>	a flag depicting whether SIGRun shall resample the newly specified shape (bool)

This function should be used cautiously, especially when resampling is intended, for saving performance and user experience. If this function is not called after changing the shape of a region, SIGRun will IGNORE that change. Therefore, this may lead to breaking mental models of end-users and unexpected behaviour.

Definition at line 365 of file SIEffect.py.

### 6.1.3.18 remove\_link()

```
def SIEffect.SIEffect.remove_link (
    self,
    sender_uuid,
    sender_attribute,
    receiver_uuid,
    receiver_attribute )
```

member function for removing a specified link between two regions according to given attributes

#### Parameters

<i>self</i>	the object pointer
<i>sender_uuid</i>	the uuid of the emitting region (str)
<i>sender_attribute</i>	the attribute to be linked by the emitting region (str)
<i>receiver_uuid</i>	the uuid of the receiving region (str)
<i>receiver_attribute</i>	the attribute to be linked by the receiving region (str)

Definition at line 339 of file SIEffect.py.

### 6.1.3.19 set\_position\_from\_position()

```
def SIEffect.SIEffect.set_position_from_position (
    self,
    rel_x,
    rel_y,
```

```

        abs_x,
        abs_y )

```

member function for setting the position of a region based on the positional data of another region.

This function is used as a reception function for linking events where positional data is emitted by another region and applied to the position of a region.

#### Parameters

<i>self</i>	the object pointer
<i>rel_x</i>	the relative positional change on the x axis (float)
<i>rel_y</i>	the relative positional change on the y axis (float)
<i>abs_x</i>	the absolute position on the x axis (float)
<i>abs_y</i>	the absolute position on the y axis (float)

Definition at line 200 of file SIEffect.py.

#### 6.1.3.20 start\_standard\_application()

```

def SIEffect.SIEffect.start_standard_application (
    self,
    file_uuid,
    file_path )

```

member function for starting the standard application of a file given its uuid as a region and its path in the filesystem

#### Parameters

<i>self</i>	the object pointer
<i>file_uuid</i>	the uuid of the region associated to a file icon representing a file of the filesystem (str)
<i>file_path</i>	the path of the file in the filesystem (str)

This function calls self.\_\_embed\_file\_standard\_appliation\_into\_context\_\_ (c++-bindings)

Definition at line 406 of file SIEffect.py.

### 6.1.4 Member Data Documentation

#### 6.1.4.1 aabb

```
SIEffect.SIEffect.aabb
```

member attribute variable containing the axis-aligned bounding-box (aabb) of a drawn region as a PySIEffect.↔  
PointVector

Definition at line 49 of file SIEffect.py.

#### 6.1.4.2 cap\_emit

`SIEffect.SIEffect.cap_emit`

member attribute variable storing keys to functions which are called when collision events occur for emitting data to receiving regions

This variable is a PySIEffect.String2\_String2FunctionMap\_Map (c++-bindings) and uses capabilities (str) as keys to the inner String2FunctionMap. The inner String2FunctionMap uses collision event names (PySIEffect.ON\_ENTER ("on\_enter"), PySIEffect.ON\_CONTINUOUS ("on\_continuous"), PySIEffect.ON\_LEAVE ("on\_leave")) as keys to their corresponding functions as values

Example:

```
self.cap_emit["CAPABILITY"] = {PySIEffect.ON_ENTER: self.<function_enter>, PySIEffect.ON_CONTINUOUS: self.<function_continuous>, PySIEffect.ON_LEAVE: self.<function_leave>}
```

Therefore, this example allows a region to emit an effect of CAPABILITY once a collision event occurred

Definition at line 140 of file SIEffect.py.

#### 6.1.4.3 cap\_link\_emit

`SIEffect.SIEffect.cap_link_emit`

member attribute variable storing keys to functions which are called when linking events occur for emitting data to receiving regions

This variable is a String2FunctionMap (c++-bindings) containing capabilities (str) as keys and functions as values

Example with SI-integrated linking of positions for emission case: `self.cap_link_emit[PySIEffect.POSITION] = self.<function_position_emit>` Therefore, this example emits the positional data of the region to a linked region.

Definition at line 165 of file SIEffect.py.

#### 6.1.4.4 cap\_link\_rcv

```
SIEffect.SIEffect.cap_link_rcv
```

member attribute variable storing keys to functions which are called when linking events occur for emitting data to receiving regions

This variable is a PySIEffect.String2\_String2FunctionMap\_Map (c++-bindings) and uses linking event capability names (str) as keys to the inner String2FunctionMap. The inner String2FunctionMap uses linking event capability names (PySIEffect.POSITION, <own name="" as="" str="">) as keys to their corresponding functions as values. The outer key corresponds to the emission capability. The inner key corresponds to the reception capability of the targeted region and points towards the function which is to be called during the linking event. Therefore, it is possible to map e.g. incoming positional data to the color of the receiving region.

Example with SI-integrated linking of positions for reception case: self.cap\_link\_rcv[PySIEffect.POSITION][PySIEffect.POSITION] = self.<function\_position\_emit> self.cap\_link\_rcv[PySIEffect.POSITION][PySIEffect.COLOR] = self.<function\_color\_emit> Therefore, this example receives the positional data of a linked region and can apply this data to other categories of data according to the linking relationship.

Definition at line 184 of file SIEffect.py.

#### 6.1.4.5 cap\_rcv

```
SIEffect.SIEffect.cap_rcv
```

member attribute variable storing keys to functions which are called when collision events occur for receiving data from emitting regions

This variable is a PySIEffect.String2\_String2FunctionMap\_Map (c++-bindings) and uses capabilities (str) as keys to the inner String2FunctionMap. The inner String2FunctionMap uses collision event names (PySIEffect.ON\_ENTER ("on\_enter"), PySIEffect.ON\_CONTINUOUS ("on\_continuous"), PySIEffect.ON\_LEAVE ("on\_leave")) as keys to their corresponding functions as values

Example:

```
self.cap_rcv["CAPABILITY"] = {PySIEffect.ON_ENTER: self.<function_enter>, PySIEffect.ON_CONTINUOUS: self.<function_continuous>, PySIEffect.ON_LEAVE: self.<function_leave>}
```

Therefore, this example allows a region to receive an effect of CAPABILITY once a collision event occurred

Definition at line 152 of file SIEffect.py.

#### 6.1.4.6 color

```
SIEffect.SIEffect.color
```

member attribute variable containing the fill color of a region in RGBA as a PySIEffect.Color

Definition at line 87 of file SIEffect.py.

#### 6.1.4.7 `delta_x`

```
SIEffect.SIEffect.delta_x
```

member attribute variable containing the last relative movement of the region according to the x axis as a float

Definition at line 75 of file SIEffect.py.

#### 6.1.4.8 `delta_y`

```
SIEffect.SIEffect.delta_y
```

member attribute variable containing the last relative movement of the region according to the y axis as a float

Definition at line 78 of file SIEffect.py.

#### 6.1.4.9 `EMISSION`

```
bool SIEffect.SIEffect.EMISSION = True [static]
```

member constant to mark an effect or link emittable

Definition at line 16 of file SIEffect.py.

#### 6.1.4.10 `height`

```
SIEffect.SIEffect.height
```

member attribute variable storing the width of a region drawing as a float

Default is 0! Has to be set manually to `self.aabb[1].y - self.aabb[0].y`!

Definition at line 105 of file SIEffect.py.

#### 6.1.4.11 `is_under_user_control`

```
SIEffect.SIEffect.is_under_user_control
```

member attribute variable which is true when an user directly controls the region (e.g.

moving it around) as a bool

Definition at line 90 of file SIEffect.py.

#### 6.1.4.12 last\_delta\_x

`SIEffect.SIEffect.last_delta_x`

Definition at line 204 of file SIEffect.py.

#### 6.1.4.13 last\_delta\_y

`SIEffect.SIEffect.last_delta_y`

Definition at line 205 of file SIEffect.py.

#### 6.1.4.14 last\_x

`SIEffect.SIEffect.last_x`

member attribute variable containing the last absolute x coordinate as a float

Definition at line 81 of file SIEffect.py.

#### 6.1.4.15 last\_y

`SIEffect.SIEffect.last_y`

member attribute variable containing the last absolute y coordinate as a float

Definition at line 84 of file SIEffect.py.

#### 6.1.4.16 name

`SIEffect.SIEffect.name`

member attribute variable containing the name of a drawn region as a str

Definition at line 55 of file SIEffect.py.

#### 6.1.4.17 NO\_RESAMPLING

```
bool SIEffect.SIEffect.NO_RESAMPLING = False [static]
```

static member attribute to notify SIGRun to not resample a region's shape when changed from PySI Use with caution! May lead to unexpected / barely debugable behaviour!

Definition at line 30 of file SIEffect.py.

#### 6.1.4.18 qml\_path

```
SIEffect.SIEffect.qml_path
```

member attribute variable containing the path to a QML file for styling of a drawn region as a str

This value can be left empty if no visualization of the region is intended (e.g. Container-Regions for External Applications or MouseCursor)

#### See also

- Container
- MouseCursor

Definition at line 72 of file SIEffect.py.

#### 6.1.4.19 RECEPTION

```
bool SIEffect.SIEffect.RECEPTION = False [static]
```

static member attribute to mark an effect or link receivable

Definition at line 19 of file SIEffect.py.

#### 6.1.4.20 region\_type

```
SIEffect.SIEffect.region_type
```

member attribute variable containing the type of effect of a drawn region as a PySIEffect.EffectType

Effect implementation which are currently not part of the Standard Environment Library of SIGRun are required to be of type SI\_CUSTOM

Definition at line 60 of file SIEffect.py.



#### 6.1.4.21 RESAMPLING

```
bool SIEffect.SIEffect.RESAMPLING = True [static]
```

static member attribute to notify SIGRun to resample a region's shape when changed from PySI

Definition at line 25 of file SIEffect.py.

#### 6.1.4.22 shape

```
SIEffect.SIEffect.shape
```

member attribute variable containing the shape (contour) of a drawn region as a PySIEffect.PointVector

Definition at line 46 of file SIEffect.py.

#### 6.1.4.23 source

```
SIEffect.SIEffect.source
```

member attribute variable containing the source of effect of a drawn region as a str

Effect implementation which are currently not part of the Standard Environment Library of SIGRun are encouraged to not start with "libStdSI"

Definition at line 65 of file SIEffect.py.

#### 6.1.4.24 texture\_height

```
SIEffect.SIEffect.texture_height
```

member attribute variable storing the height of a texture of a region drawing as a float

This value is only set if texture\_path is a valid path

Definition at line 117 of file SIEffect.py.

#### 6.1.4.25 TEXTURE\_PATH\_NONE

```
string SIEffect.SIEffect.TEXTURE_PATH_NONE = "" [static]
```

static member attribute to signal that it's associated effect does not display an icon (texture) when drawn as a region

Definition at line 22 of file SIEffect.py.

#### 6.1.4.26 texture\_width

`SIEffect.SIEffect.texture_width`

member attribute variable storing the width of a texture of a region drawing as a float

This value is only set if texture\_path is a valid path

Definition at line 112 of file SIEffect.py.

#### 6.1.4.27 width

`SIEffect.SIEffect.width`

member attribute variable storing the width of a region drawing as a float

Default is 0! Has to be set manually to `self.aabb[3].x - self.aabb[0].x`!

Definition at line 99 of file SIEffect.py.

The documentation for this class was generated from the following file:

- [SIEffect.py](#)

## Chapter 7

# File Documentation

### 7.1 SIEffect.py File Reference

#### Classes

- class [SIEffect.SIEffect](#)  
*Super Class from which all subsequent plugins are derived.*

#### Namespaces

- [SIEffect](#)  
*Documentation for this module / class.*



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