*GameEngine.js Documentation*

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GameEngine

# Properties

***static*** canvas – The canvas of the game engine.  
***static*** background – The background of the game.

# Methods

## **static** initialize(time, width, height)

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| Number | time | 20 | The time between frame draws in milliseconds. |
| Number | width | 1000 | The width of the canvas |
| Number | height | 500 | The height of the canvas |

**Description:** Start the game.

## **static** setBackground(back)

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| GameObject | back | none | The background object. (Normally a Rectangle) |

**Description:** Set the background of the game

## **static** disable(clearScreen)

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| boolean | clearScreen | false | If the screen should be cleared on disable. |

**Description:** Set the background of the game

GameObjects

# Properties

***static*** gameObjectList – The list of game objects. **LAPI – Should not be used.**

# Methods

## **~~static~~** ~~addGameObject(obj)~~

**Deprecated – Use GameObject.add() instead.**

**Description:** Add an object.

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| GameObject | obj | none | The object to add. |

## **static** add(obj)

**Description:** Add an object to be rendered.

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| GameObject | obj | none | The object to add |

## **static** remove(obj)

**Description:** Remove an object from being rendered.

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| GameObject | obj | none | The object to be removed. |

## **static** removeType(type)

**Description:** Remove an object from being rendered based on the object type. For Example: Rectangle

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| GameObject | type | none | The type to remove. |

## **static** getGameObjects(obj)

**Description:** Get the list of game objects.

**Returns:** The list of game objects.

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| None | | | |

Rectangle

# Properties

**All properties are considered LAPI and should not be used. Use the getters and setters instead.**

scaleX – The scale of the object in the x direction.  
scaleY – The scale of the object in the y direction.  
color – The color of the object.  
posX – The x position of the object.  
posY – The y position of the object.

# Constructor

**Parameters:** None

# Methods

## setScale(sx, sy)

**Description:** Set the scale of the object.  
**Returns:** The instance of the object. (this)

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| Number | sx | none | The x value |
| Number | sy | None | The y value |

## setPosition(x, y)

**Description:** Set the position of the object. [**Note:** (0,0) is at the top left corner of the screen]  
**Returns:** The instance of the object. (this)

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| Number | x | none | The x value |
| Number | y | None | The y value |

## setColor(c)

**Description:** Set the color of the Rectangle.  
**Returns:** The instance of the object. (this)

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| String | c | none | The color value. (Uses valid CSS colors) |

## getPosition()

**Description:** Get the position of the Rectangle.  
**Returns:** The Vector position.

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| No Parameters | | | |

## getScale()

**Description:** Get the scale of the Rectangle.  
**Returns:** The Vector scale.

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| No Parameters | | | |

## getColor()

**Description:** Get the color of the Rectangle.  
**Returns:** The color of the Rectangle.

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| No Parameters | | | |

## translateBy(x, y)

**Description:** Change the position by the x, y values.

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| Number | x | none | The value to change x by. |
| Number | y | none | The value to change y by. |

## draw()

**This is considered LAPI and should not be called.  
Description:** Draws the rectangle.

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| No Parameters | | | |

Ellipse

# Properties

**All properties are considered LAPI and should not be used. Use the getters and setters instead.**

posX – The x position  
posY – The y position  
radiusX – The x radius of the Ellipse.  
radiusY – The y radius of the Ellipse  
color – The color of the Ellipse.

# Constructor

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| Number | x | 0 | The x position |
| Number | y | 0 | The y position |
| Number | rX | 5 | The x radius |
| Number | rY | 5 | The y radius |
| String | c | black | The color value (Uses CSS values) |

# Methods

## setPosition(x, y)

**Description:** Set the position of the object. [**Note:** (0,0) is at the top left corner of the screen]  
**Returns:** The instance of the object. (this)

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| Number | x | none | The x value |
| Number | y | None | The y value |

## setRadius(x, y)

**Description:** Set the radius of the Ellipse.  
**Returns:** The instance of the object. (this)

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| Number | x | none | The x value |
| Number | y | None | The y value |

## setColor(c)

**Description:** Set the color of the Ellipse.  
**Returns:** The instance of the object. (this)

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| String | c | none | The color value (Uses valid CSS colors) |

## getPosition()

**Description:** Get the position of the Ellipse.  
**Returns:** The Vector position.

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| No Parameters | | | |

## getRadius()

**Description:** Get the radius of the Ellipse.  
**Returns:** The Vector radius.

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| No Parameters | | | |

## getColor()

**Description:** Get the color of the Ellipse.  
**Returns:** The color of the Rectangle.

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| No Parameters | | | |

## translateBy(x, y)

**Description:** Change the position by the x, y values.

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| Number | x | none | The value to change x by. |
| Number | y | none | The value to change y by. |

## getScale()

**This is considered LAPI and should not be called.  
Description:** Internal Use Only  
**Returns:** Internal Use Only

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| No Parameters | | | |

## draw()

**This is considered LAPI and should not be called.  
Description:** Draws the rectangle.

**Parameters:**

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Name | Default Value | Description |
| No Parameters | | | |