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**pygame**<sub>sdl2</sub>*Documentation*

***Release latest***

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There isn't much pygame\_sdl2-specific documentation at the moment. Since pygame\_sdl2 tries to follow pygame as closely as possible, the best reference is the pygame documentation:

<http://www.pygame.org/docs/>

The list of what has been implemented can be found in the README:

[https://github.com/renpy/pygame\\_sdl2](https://github.com/renpy/pygame_sdl2)

An Android packaging example can be found at:

<https://github.com/renpytom/rapt-pygame-example>

There have been a few additions to the Pygame API, documented below.



# CHAPTER 1

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## Importing as pygame

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```
import pygame_sdl2
pygame_sdl2.import_as_pygame()
```

Will modify `sys.modules` so that `pygame_sdl2` modules are used instead of their `pygame` equivalents. For example, after running the code above, the code:

```
import pygame.image
img = pygame.image.load("logo.png")
```

will use `pygame_sdl2` to load the image, instead of `pygame`. (This is intended to allow code to run on `pygame_sdl2` or `pygame`.)





Pygame\_sdl2 exposes the SDL2 application lifecycle events, which are used to pause and resume the application on mobile platforms. The most useful events are:

**APP\_WILLENTERBACKGROUND** Generated when the app will enter the background. The app should immediately stop drawing the screen and playing sounds. It should save its state, as the application may be killed at any time after this event has been handled.

**APP\_DIDENTERFOREGROUND** Generated when the app will enter the foreground. The app should delete the saved state (as it is no longer needed), and resume drawing the screen and playing sounds.

In addition, the set of keycodes now include the SDL2 application control keyboard codes. Most notably, `pygame_sdl2.K_AC_BACK` is the code for the Android back button.



Several functions have been added to allow more complex text input.

`pygame_sdl2.key.start_text_input ()`

Starts text input. If an on-screen keyboard is supported, it is shown.

`pygame_sdl2.key.stop_text_input ()`

Stops text input and hides the on-screen keyboard.

`pygame_sdl2.key.set_text_input_rect (rect)`

Sets the text input rectangle. This is used by input methods and, on some platforms, to ensure the text is not blocked by an on-screen keyboard.

`pygame_sdl2.key.has_screen_keyboard_support ()`

Returns true if the platform supports an on-screen keyboard.

`pygame_sdl2.key.is_screen_keyboard_shown (Window window=None)`

Returns true if the on-screen keyboard is shown.

During text input, the `unicode` field of the `KEYDOWN` object is not set. Instead, two new events are generated:

**TEXTINPUT** Generated when text has been added.

*text* The text that has been added.

**TEXTEDITING** Used when text is being edited by an input method (IME).

*text* The text that is being edited. This is usually displayed underlined.

*start, length* Used by IMEs to display text being actively edited. This is generally displayed with a thicker underline.



`pygame.event.set_mousewheel_buttons(flag)`

When *flag* is true (the default), the vertical mousewheel is mapped to buttons 4 and 5, with mousebuttons 4 and greater being offset by 2.

When *flag* is false, the mousebuttons retain their numbers, and MOUSEWHEEL events are generated.

`pygame.event.get_mousewheel_buttons()`

Returns the mousewheel buttons flag.

**MOUSEWHEEL** Generated by mousewheel motion.

*x* The amount of motion of the mousewheel in the x axis.

*y* The amount of motion of the mousewheel in the y axis.



## CHAPTER 5

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### Multiple Mice

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The mouse events (`MOUSEBUTTONDOWN`, `MOUSEMOTION`, `MOUSEBUTTONUP`, and `MOUSEWHEEL`) have a *which* field that identifies the mouse that generated the event. When equal to `pygame_sdl2.TOUCH_MOUSEID`, the event was generated by a touch of the screen.





## CHAPTER 6

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### HighDPI/Retina

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When the `pygame.WINDOW_ALLOW_HIGHDPI` flag is passed to `pygame.display.set_mode`, opengl surfaces can be created in HighDPI/Retina mode. When this occurs, the drawable size of a window will be larger than the size of the window.

`pygame.display.get_drawable_size()`

Gets the drawable size of the window created with `pygame.display.set_mode()`



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