

SFML

Biblioteka programistyczna

Patryk Sroczyński

Politechnika Śląska
Gliwice

Czym jest SFML?



SFML to akronim **Simple and Fast Multimedia Library**

Jest to wieloplatformowa biblioteka programistyczna ułatwiająca tworzenie gier oraz programów multimedialnych.

Główne właściwości



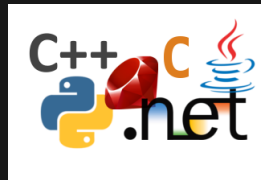
Multi-media

Zawiera 5
modułów: system,
window, graphics,
audio i network



Multi-platform

Można uruchomić
oraz skompilować
na Windowsie,
Linuxie, macOS



Multi-language

Głównym językiem
jest C++, ale
można również
zbindować np.:
Java, Ruby,
Python

Moduły

1. System – obsługuje czas i wątki
2. Window – obsługuje okna i interakcję z użytkownikiem
3. Graphics – umożliwia renderowanie grafiki
4. Audio – dostarcza interfejsu do odtwarzania muzyki i dźwięków
5. Network – odpowiedzialny za komunikację sieciową

Program tworzący puste okno

```
1  #include <SFML/Graphics.hpp>
2
3  int main() {
4      sf::RenderWindow window(sf::VideoMode(800,
5      600), "Tytuł");
6
7      while (window.isOpen()) {
8          sf::Event event;
9          while (window.pollEvent(event)) {
10             if (event.type == sf::Event::Closed)
11                 window.close();
12             }
13             window.clear();
14             window.display();
15         }
16     }
```

Functions

Definition of a Function

A **function** f is rule that assigns to each element x in a set D exactly one element, called $f(x)$, in a set E .

Set D is called the _____ of the function.

Set E is called the _____ of the function.

Functions

Definition of a Function

A **function** f is rule that assigns to each element x in a set D exactly one element, called $f(x)$, in a set E .

Set D is called the **domain** of the function.

Set E is called the _____ of the function.

Functions

Definition of a Function

A **function** f is rule that assigns to each element x in a set D exactly one element, called $f(x)$, in a set E .

Set D is called the _____ of the function.

Set E is called the **range** of the function.

Parent Functions

You should be able to identify by name and sketch a graph of each of the following parent functions.

1. $y = x$

2. $y = |x|$

3. $y = x^2$

4. $y = x^3$

5. $y = x^b$

6. $y = \sqrt{x}$

7. $y = \sqrt[3]{x}$

8. $y = \frac{1}{x}$

9. $y = 2^x$

10. $y = e^x$

11. $y = \ln(x)$

12. $y = \frac{1}{1+e^{-x}}$

13. $y = \sin x$

14. $y = \cos x$

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Dziękuję za uwagę!

Bibliografia:

<https://www.sfml-dev.org/>

https://en.wikipedia.org/wiki/Simple_and_Fast_Multimedia_Library