

SYMULATOR UKŁADU AUTOMATYCZNEJ REGULACJI

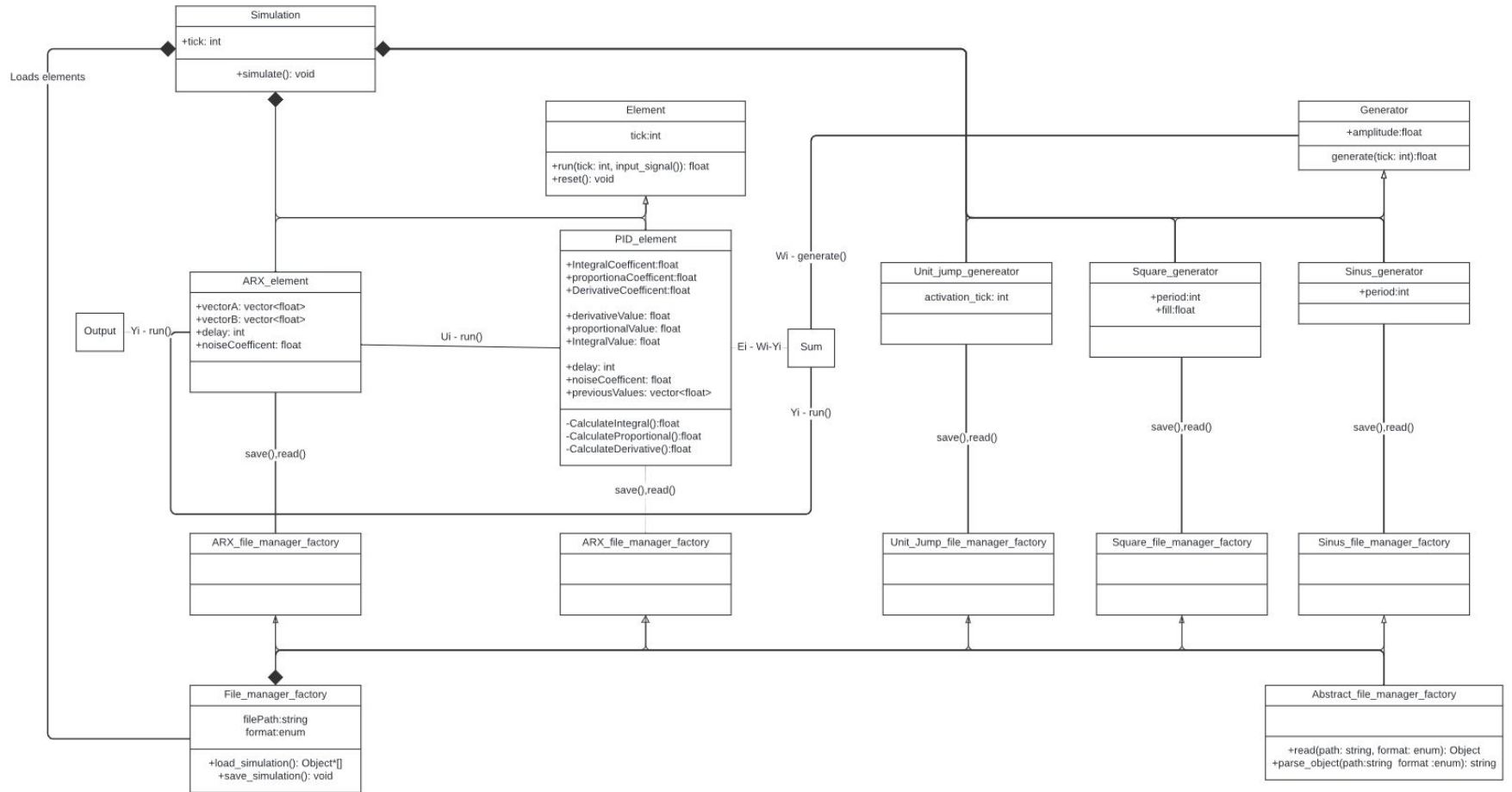
Regulatix

Rok akademicki: 2024/2025

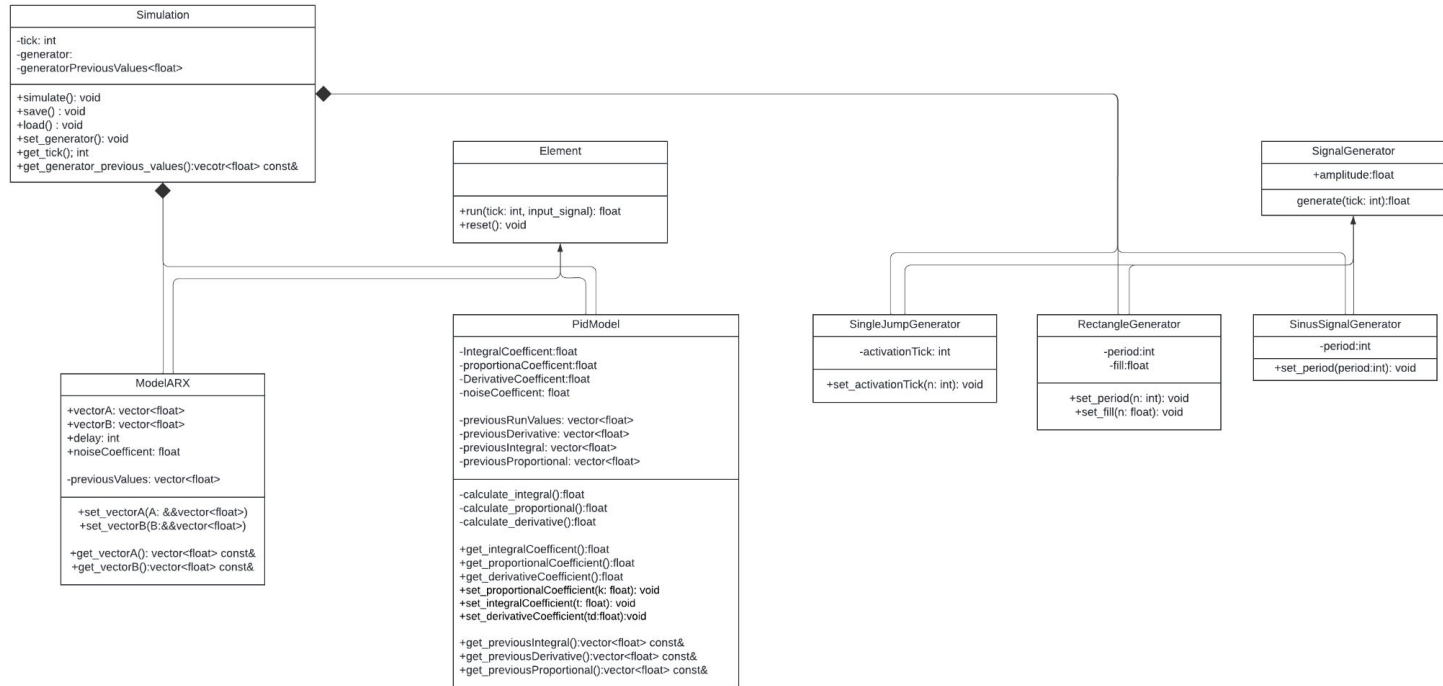
II spotkanie seminaryjne



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Architektura projektu



początek

```
int main(){
    Simulation simulation(
        SinusSignalGenerator(1.0f, 10),
        PidModel(0.5f, 0.0f, 0.0f),
        ModelARX({0.5f, 0.5f}, {0.5f, 0.5f}, 0.0f, 0.0f)

    );

    constexpr std::size_t ITERATIONS = 100;
    for (int i = 0; i < ITERATIONS; i++)
        simulation.run();
}
```

Problemy z generatorem

```
Class Simulation{  
    ??? generator;  
    ModelPid pid;  
    ModelARX arx;  
};
```

Problemy z generatorem

```
Class Simulation{  
    void* generator;  
    std::type_info generator_type;  
    ModelPid pid;  
    ModelARX arx;  
};
```

Problemy z generatorem

```
Class Simulation{  
    std::variant<RectangleSignalGenerator,  
                SinusSignalGenerator,  
                SingleJumpGenerator> generator;  
  
    ModelPid pid;  
    ModelARX arx;  
};
```

Problemy z generatorem

```
Class Simulation{
    std::variant<RectangleSignalGenerator,
                SinusSignalGenerator,
                SingleJumpGenerator> generator;

    ModelPid pid;
    ModelARX arx;

    float get_generator_value() {
        return std::visit([this](auto&& arg){
            return arg.generate(this->tick)
        }, this->generator)
    };
};
```


Satysfakcja

Wszystko działa

