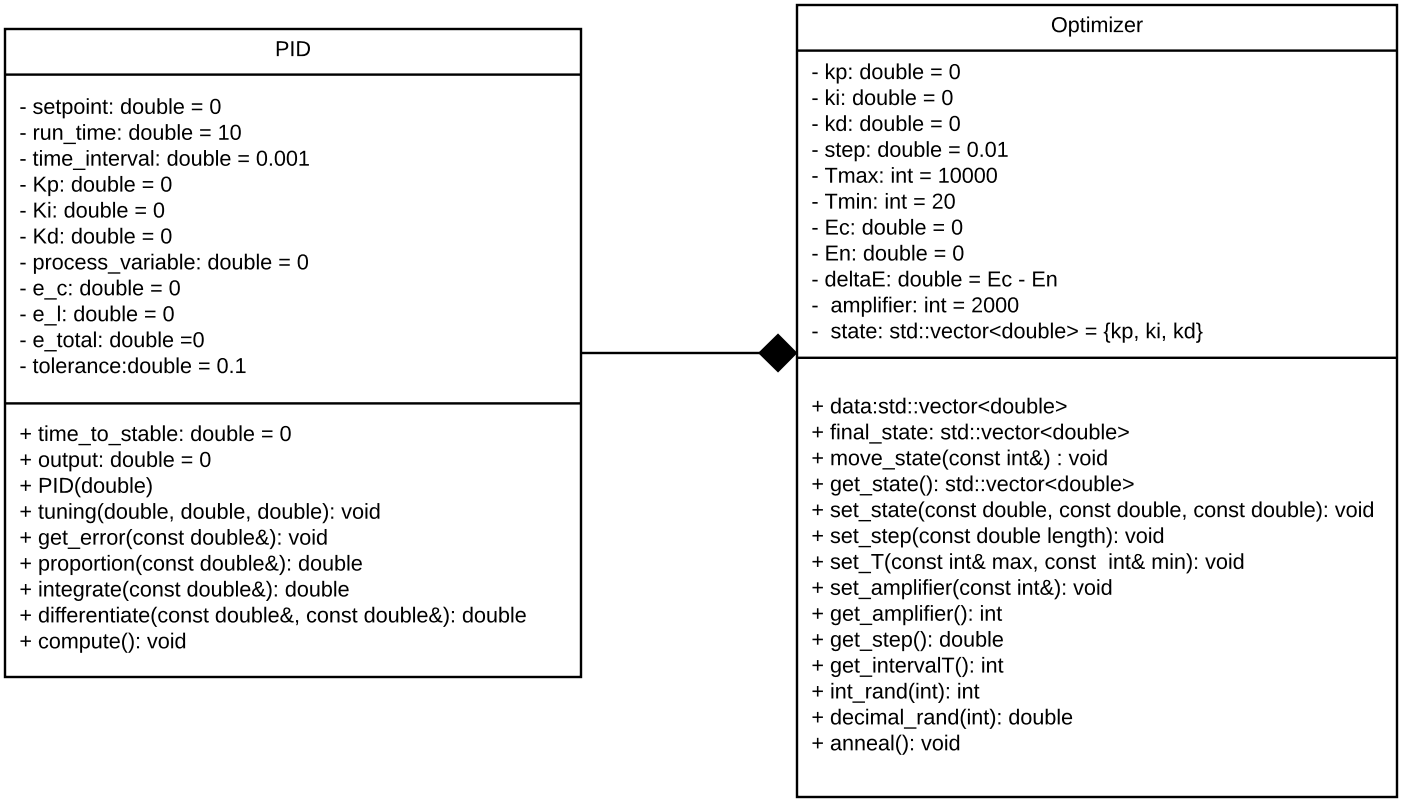
PID
- setpoint: double = 0
- run_time: double = 10
- time_interval: double = 0.001
- Kp: double = 0
- Ki: double = 0
- Kd: double = 0
- process_variable: double = 0
- e_c: double = 0
- e_l: double = 0
- e_total: double =0
- tolerance:double = 0.1
+ time_to_stable: double = 0
+ output: double = 0
+ PID(double)
+ tuning(double, double, double): void
+ get_error(const double&): void
+ proportion(const double&): double
+ integrate(const double&): double
+ differentiate(const double&, const double&): double
+ compute(): void
Optimizer
- kp: double = 0
- ki: double = 0
- kd: double = 0
- step: double = 0.01
- Tmax: int = 10000
- Tmin: int = 20
- Ec: double = 0
- En: double = 0
- deltaE: double = Ec - En
- amplifier: int = 2000
- state: std::vector<double> = {kp, ki, kd}
+ data:std::vector<double>
+ final_state: std::vector<double>
+ move_state(const int&) : void
+ get_state(): std::vector<double>
+ set_state(const double, const double, const double): void
+ set_step(const double length): void
+ set_T(const int& max, const int& min): void
+ set_amplifier(const int&): void
+ get_amplifier(): int
+ get_step(): double
+ get_intervalT(): int
+ int_rand(int): int
+ decimal_rand(int): double
+ anneal(): void