Алгоритмы и Алгоритмические Языки

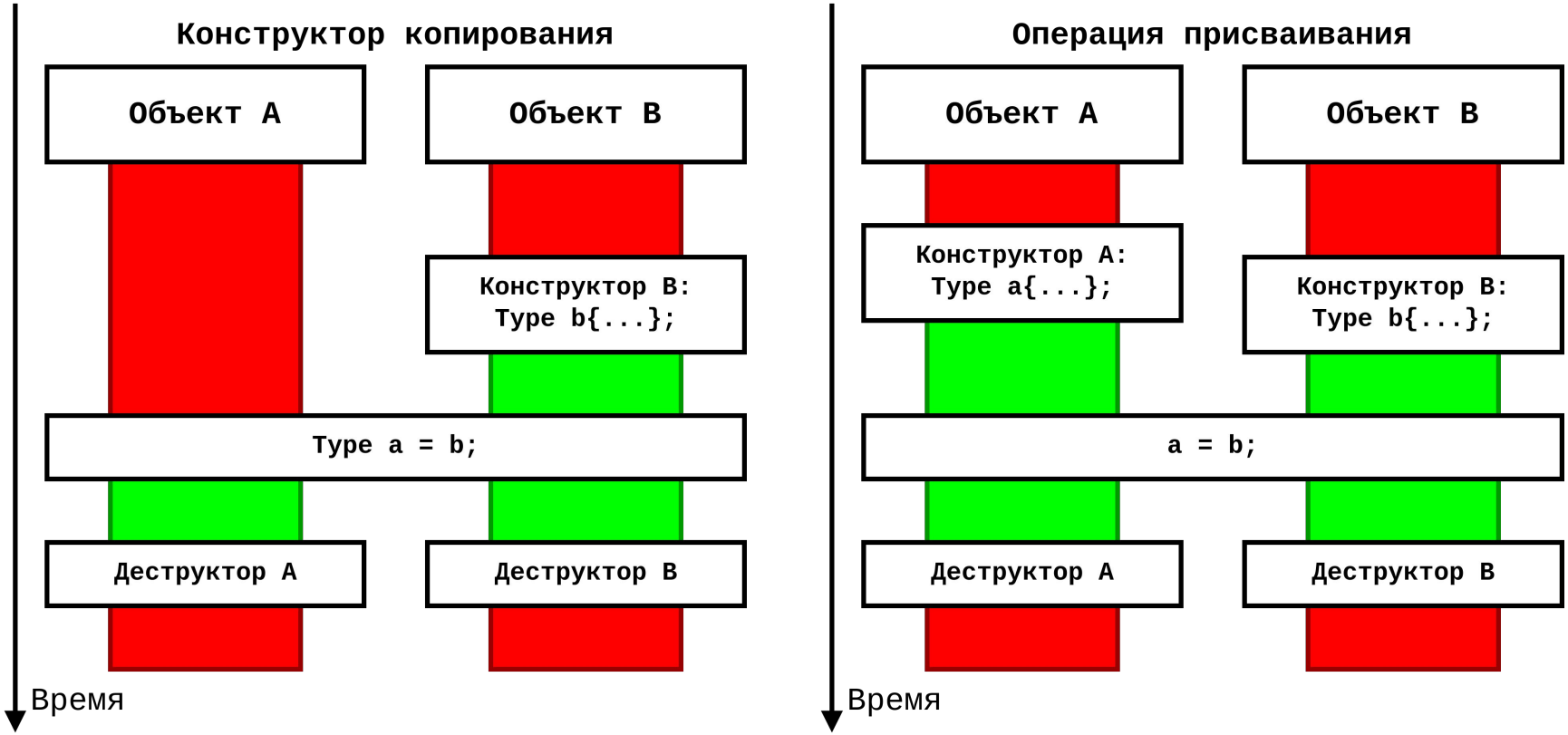
Семинар #22:

1. Семантика перемещения.
2. Пример тестовой системы.
3. Умные указатели: `std::unique_ptr` и `std::shared_ptr`.

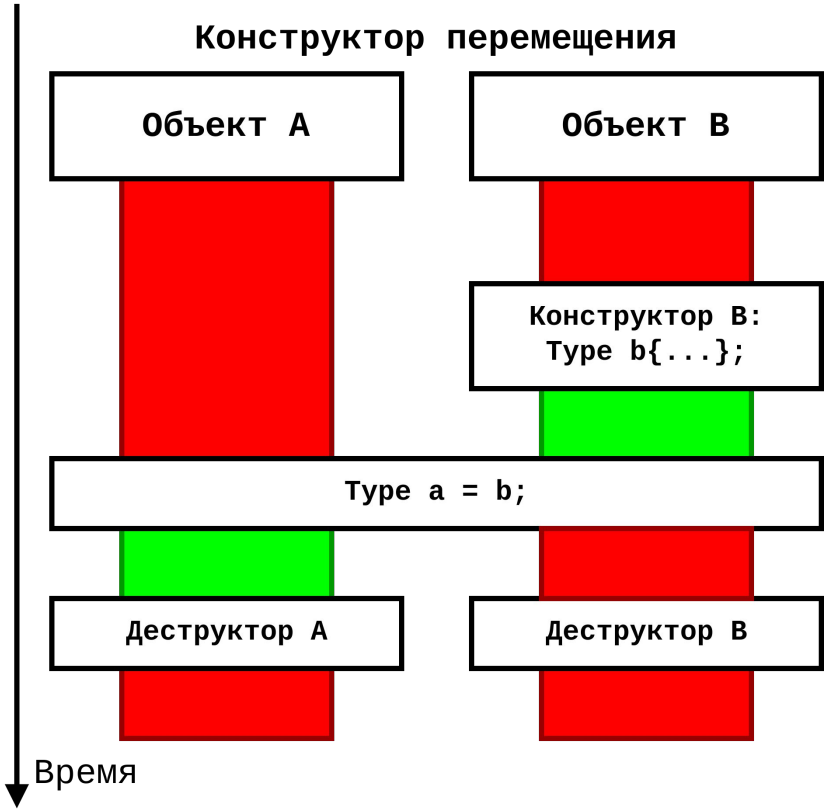
07.02.2025

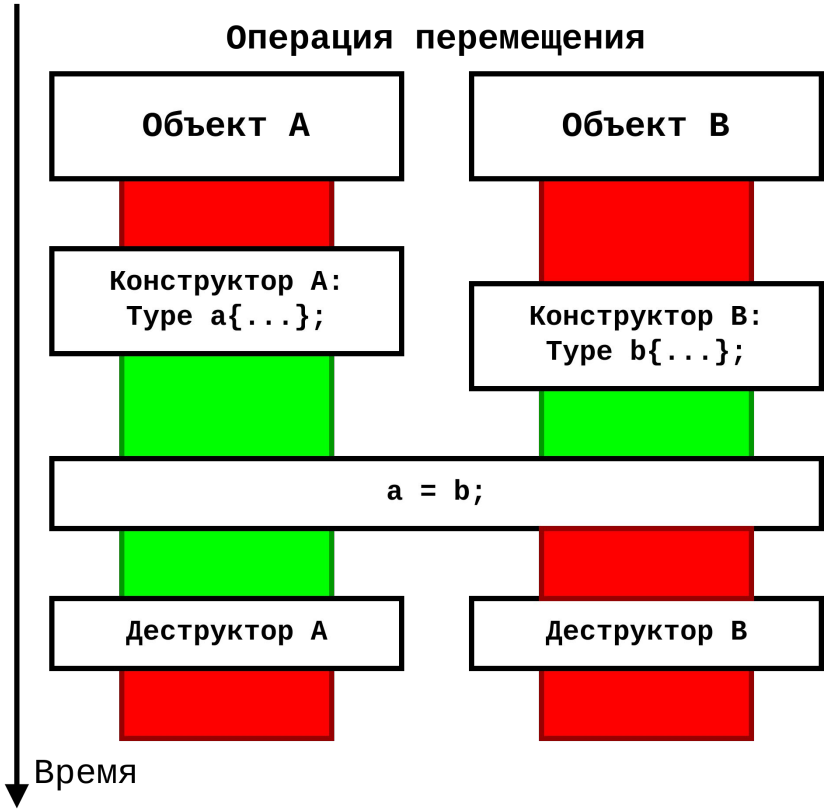
Семантика перемещения

Семантика копирования



Семантика перемещения





Пример тестовой системы

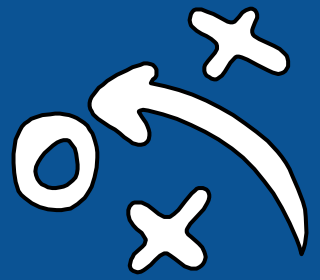
Пример тестовой системы

```
❯ make run
Running executable
Test Vector operations
Running test          constructor: [OK]
Running test     copy-constructor: [OK]
Running test     move-constructor: [OK]
Running test      copy-assignment: [OK]
Running test      move-assignment: [OK]
Running test             addition: [OK]
Test smart pointer operations
Running test      unique-ptr-copy: [OK]
Running test      shared-ptr-copy: [OK]
```

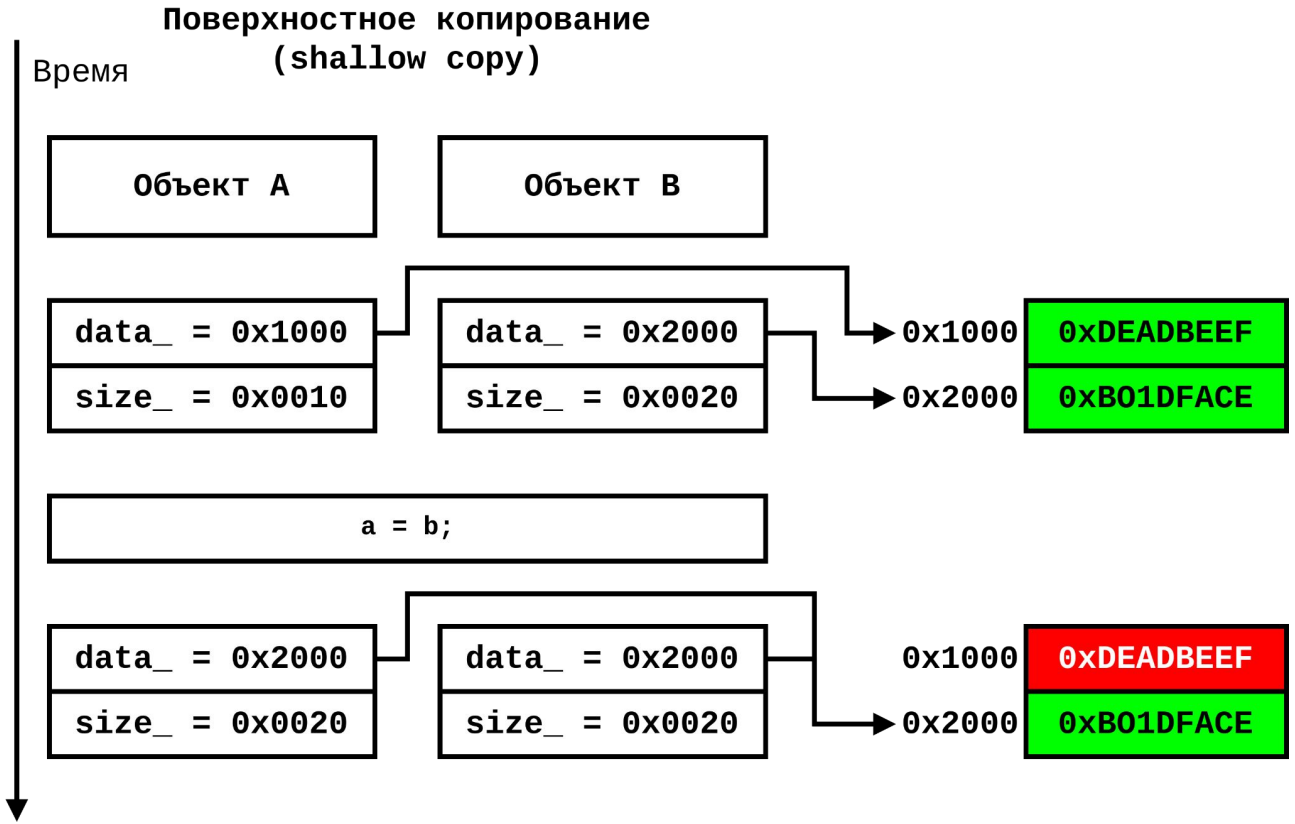
```
Running executable
Test Vector operations
Running test          constructor: [OK]
Running test     copy-constructor: [OK]
Running test     move-constructor: [OK]
Running test      copy-assignment: [OK]
Running test      move-assignment: [OK]
Running test             addition: [OK]
Test smart pointer operations
Running test      unique-ptr-copy: [OK]
Running test      shared-ptr-copy: [FAIL]
```

```
❯ make run
Running executable
Test Vector operations
Running test          constructor: [OK]
Running test     copy-constructor: [OK]
Running test     move-constructor: [OK]
Running test      copy-assignment: [OK]
Running test      move-assignment: [OK]
Running test             addition: [OK]
Test smart pointer operations
Running test      unique-ptr-copy: [OK]
Running test      shared-ptr-copy: [ERROR] (killed by signal 11)
```

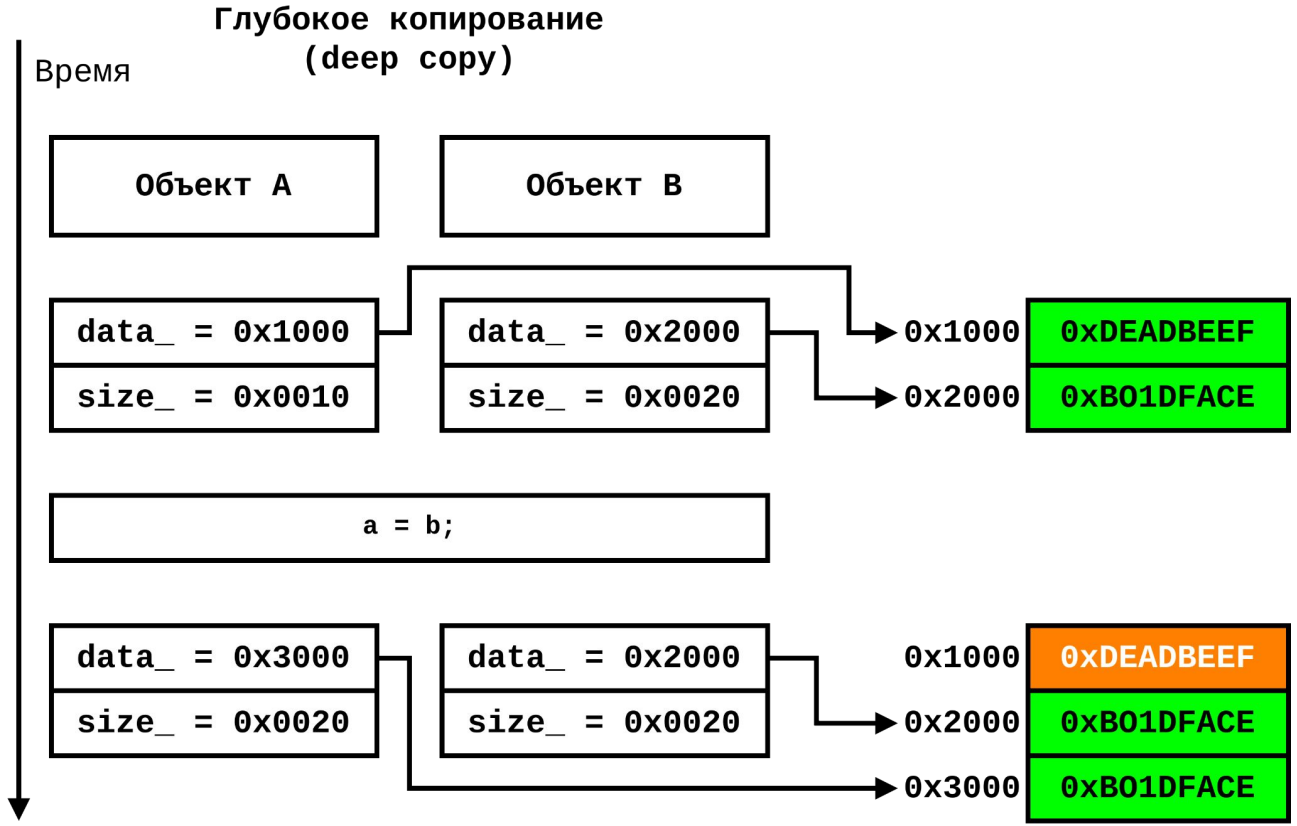
Умные указатели shared_ptr и unique_ptr



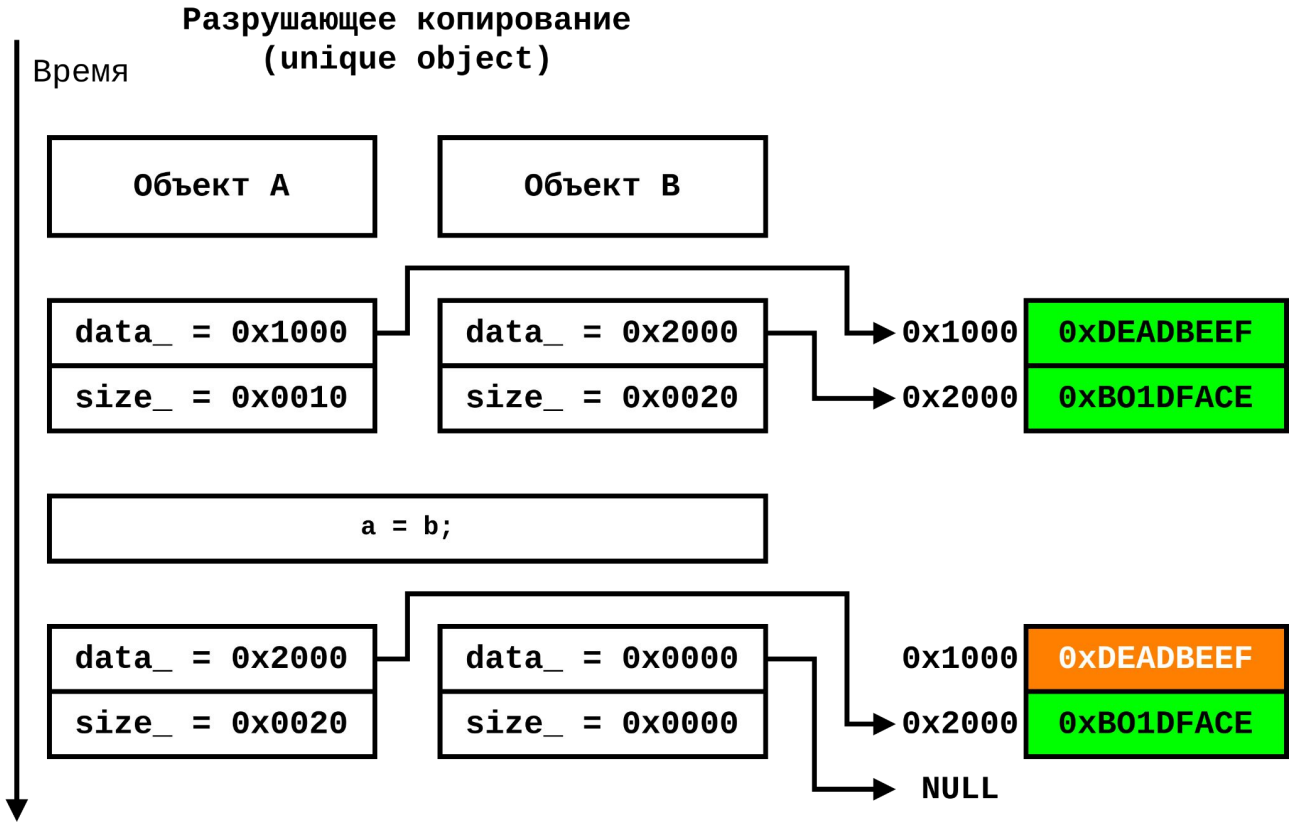
Поверхностное копирование



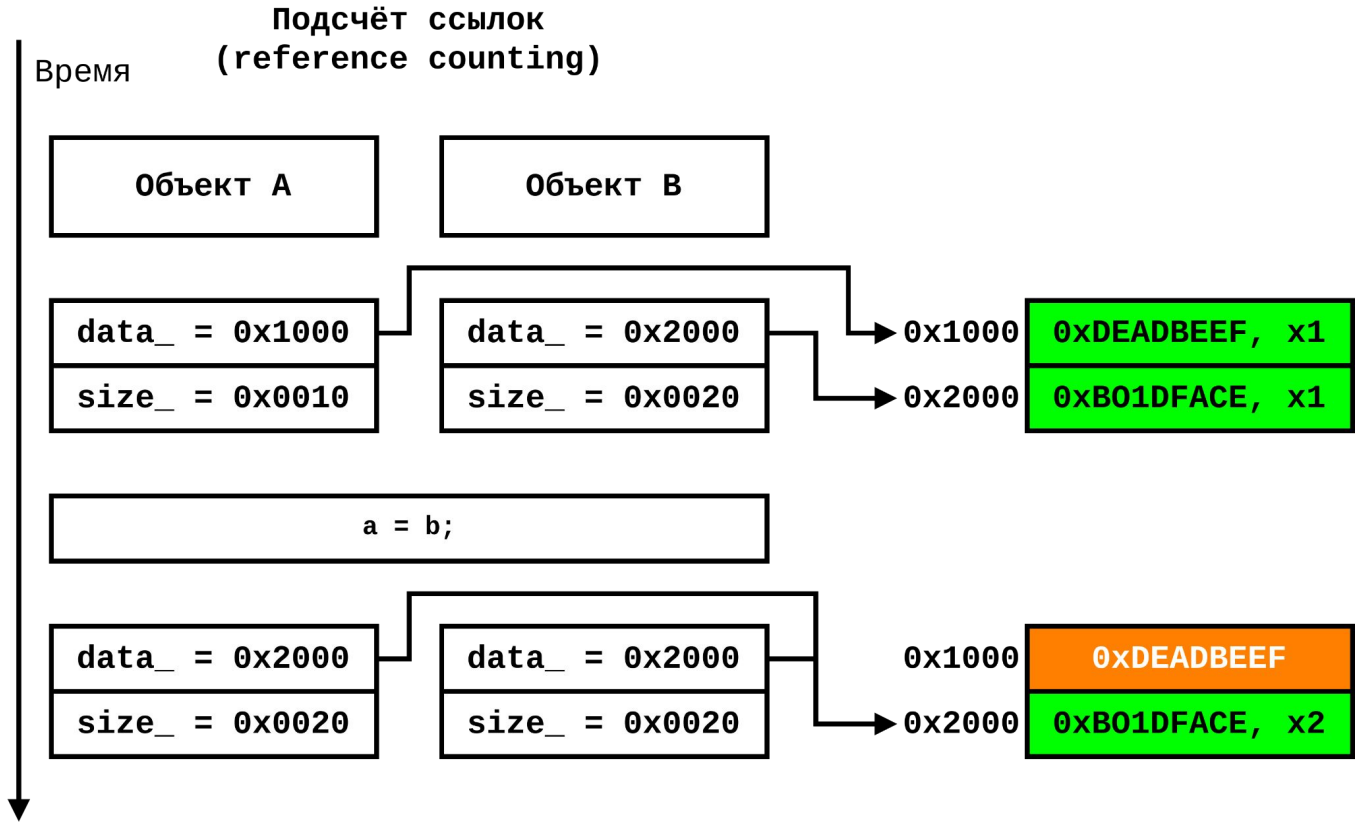
Глубокое копирование



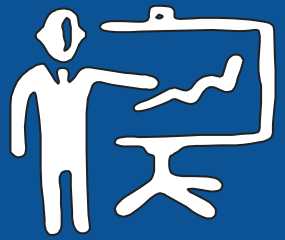
Уникальный объект



Подсчёт ссылок



Вопросы?



Красивые иконки взяты с сайта handdrawngoods.com