

Feasibility of Internal Object Pools for Reduced Memory Management

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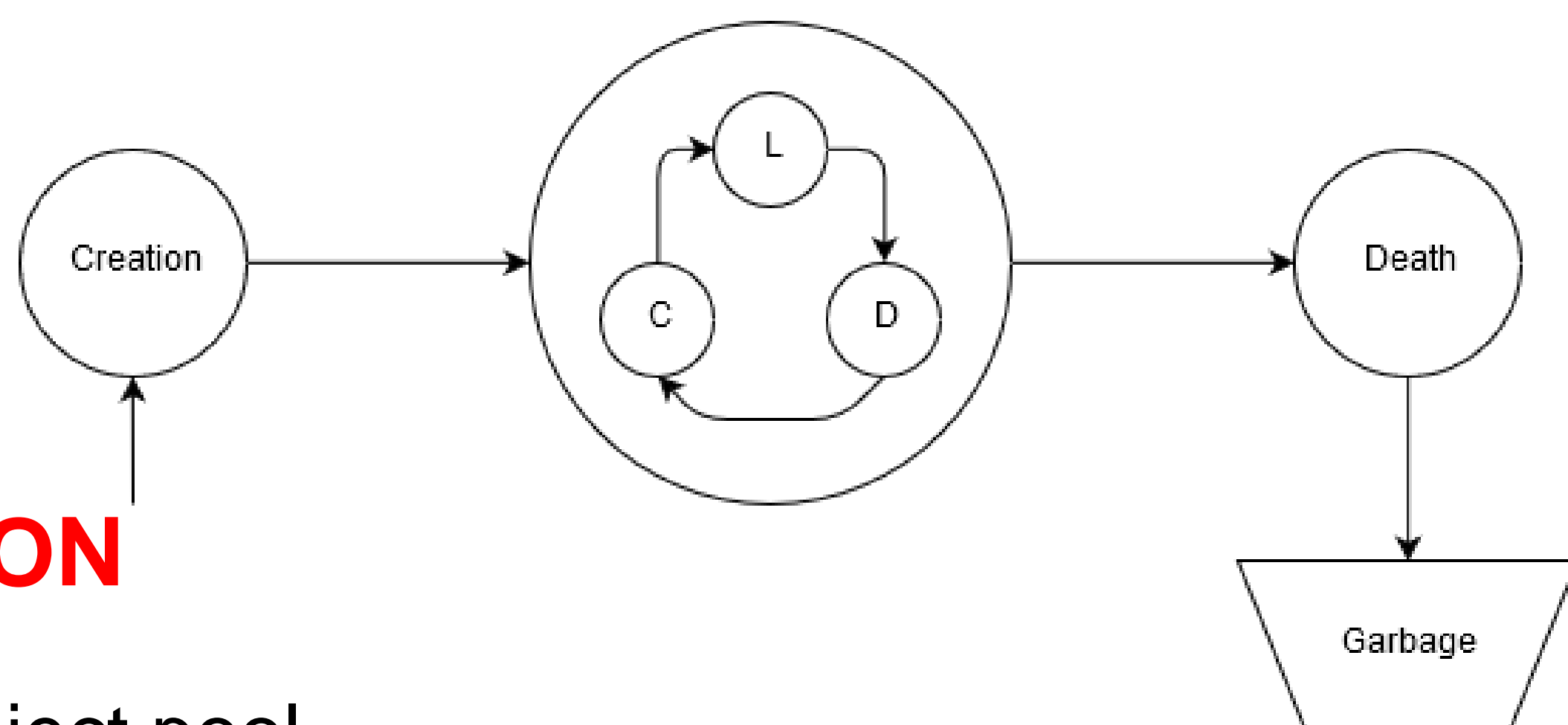
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ABSTRACT

Many heap objects are created, live, and are collected by the GC very rapidly. They fill up the heap and cause frequent collections. Using an automatic pool pattern on certain classes means reusing objects may reduce the number of collections, thus speeding up execution

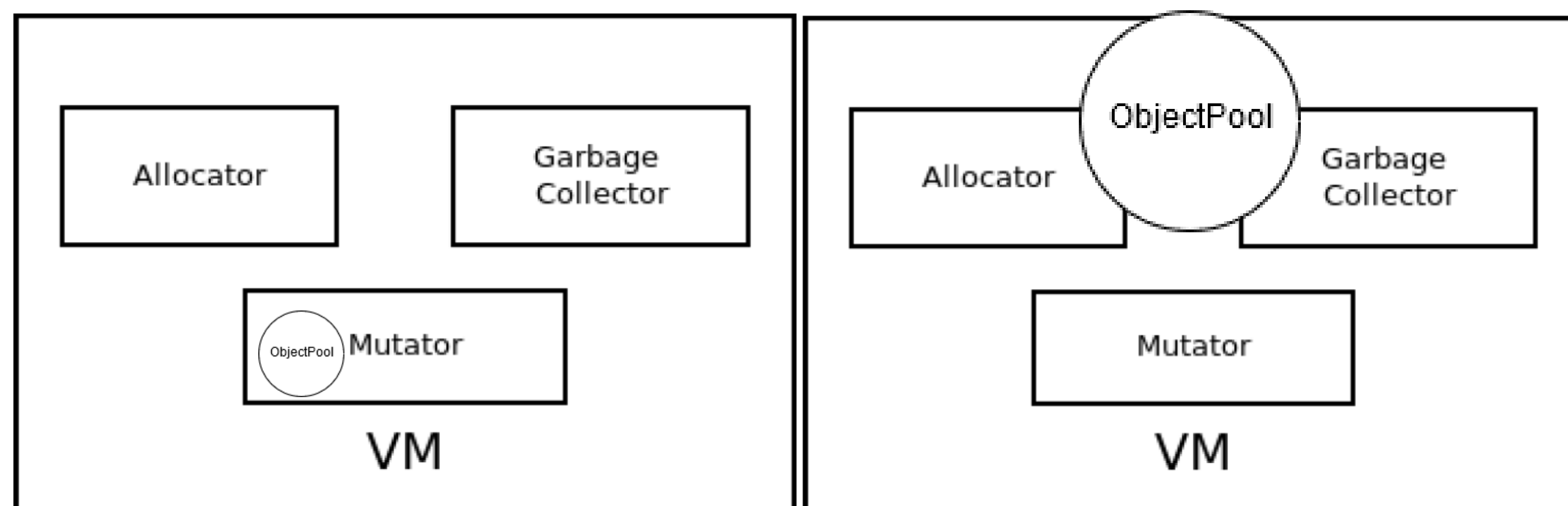
INTRODUCTION

- Object pool pattern used to introduce manual memory management
- Ideally lower number of GCs
- Providing the benefits automatically would decrease the number of memory management pitfalls for developers



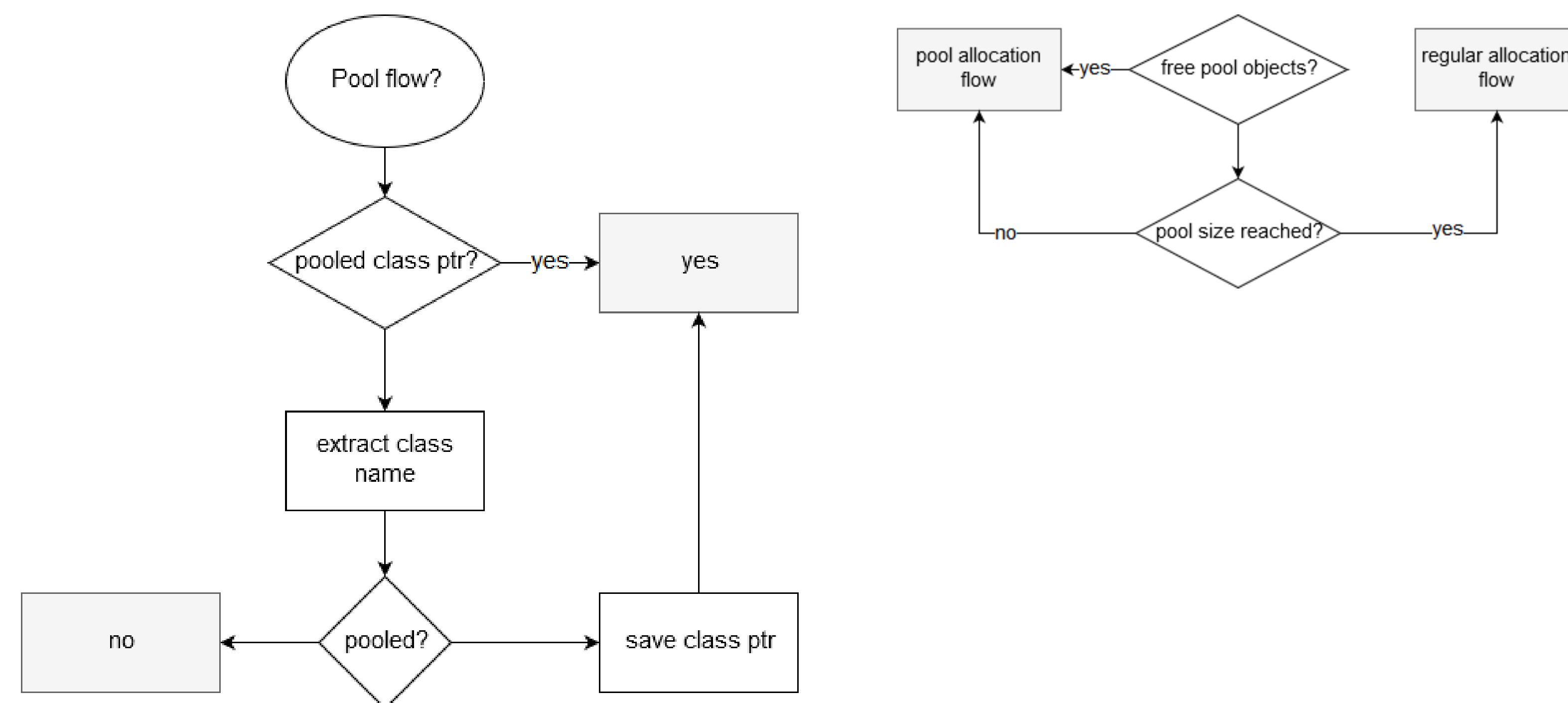
MOTIVATION

- Internal object pool
- Reusable objects without allocation
- Dynamic pool growth



APPROACH

- Change existing GC, Allocators and VM startup to offer object pools
 - GenCon
 - Balanced GC



RESULTS

