Ray Tracing Optimization

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1 Profiling

2 Pipeline

3 Optimization

4 Future tasks

Rendering time

- original code: $45 \frac{sec}{Frame}$
- simple C-Code adaptions: $43 \frac{sec}{Frame}$
- replaced fix_mul16 by ci_mul looped functions: $36 \frac{sec}{Frame}$
- fix_mul16 calls ci_mul: $17 \frac{sec}{Frame}$

$\rightarrow$ Transition looped functions from SW to HW to achieve target speed

Algorithm

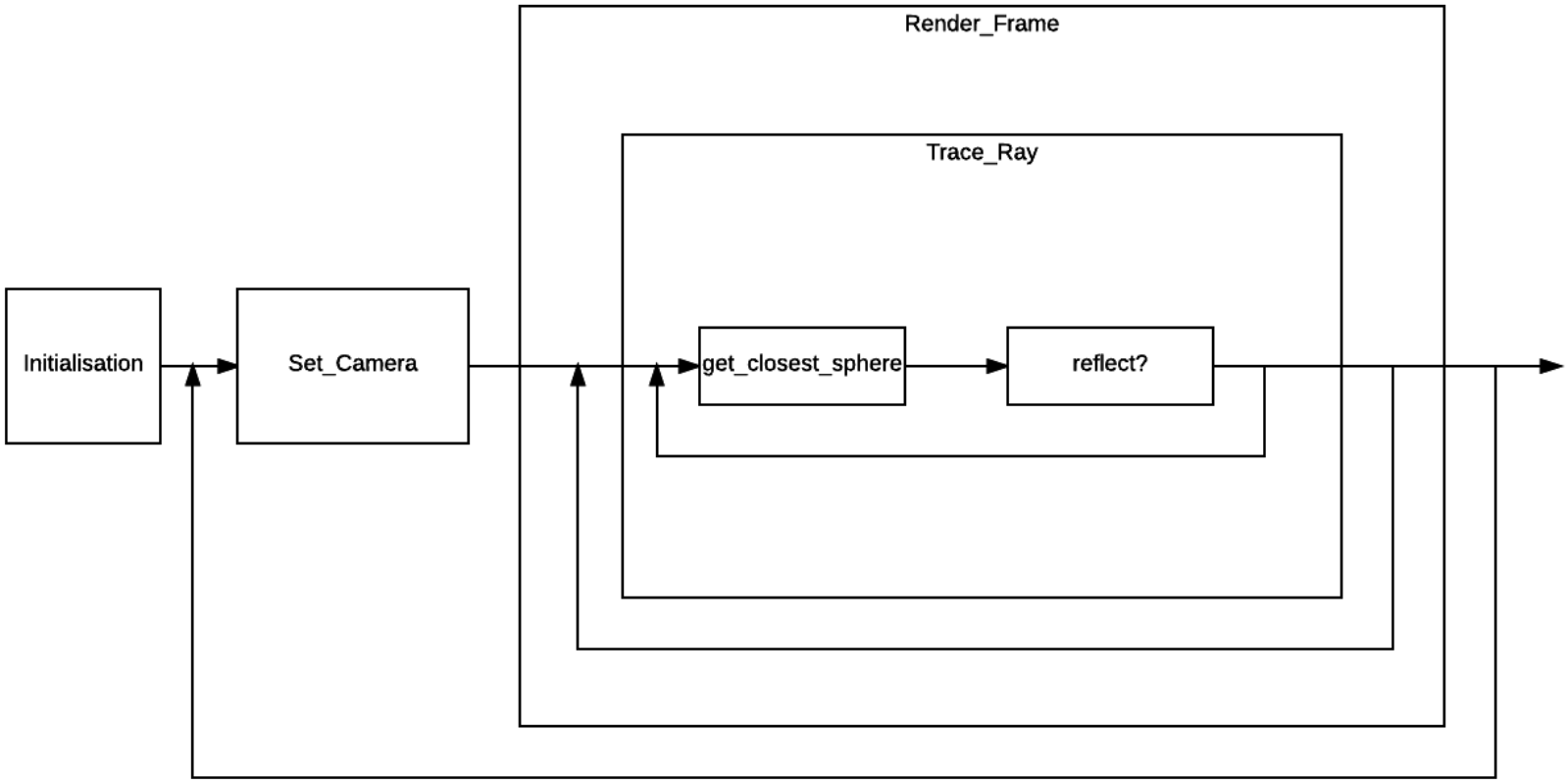

Figure: Schematic of the algorithm

Functions

- Initialisation: once in entire algorithm
- SetCamera: once every frame
- GetClosestSphere: up to REFLECT times per ray
- Reflect: up to REFLECT times per ray

Outline

Idea: automate entire frame-rendering

Overview

Lorem ipsum

Details

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Details

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