# Assignment 4 : Global illumination using path tracing

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## 1 INTRODUCTION

### 1.1 Environment

For this assignment, I use CMake 3.16.0-rc1 to generate the project and use Visual Studio 2019 to compile.

### 1.2 Overview

In this assignment, I have implemented the requirements, including:

· Volume Preprocessing
· Interpolator
· Classifier
· Compositor
· Renderer (including Sampler)
· Volumetric Shadow Implementation

## 2 IMPLEMENTATION DETAILS

### 2.1 Volume Preprocessing

### 2.2 Interpolator

### 2.3 Classifier

### 2.4 Compositor

### 2.5 Renderer (including Sampler)

### 2.6 Volumetric Shadow Implementation
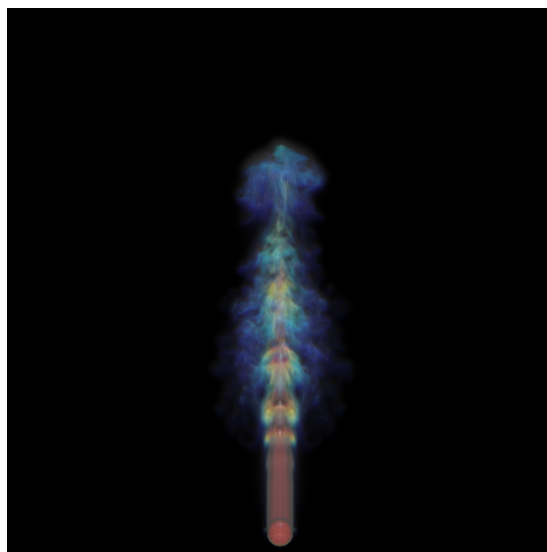
## 3 RESULTS

### 3.1 Effect of sampling times



Fig. 1. PLACEHOLDER