

# Sprint Retrospective Document

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Project acronym: GRT

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## Sprint 5 summary

| Item ID<br>(from the<br>previous<br>retrospect<br>ive doc) | Workpackage<br>ID (from the<br>Kick-off doc) | Status      | Group's comments  |
|--|--|-------------|---|
| 6  | WP4  | In Progress | A specific algorithm (AABB tree) is decided and the implementation has started. |
| 7  | WP4  | In Progress | Will be done once we have completed the Task #6.                                |
| 8  | WP4  | In Progress | Implementation will start after Task #6 and #7 are completed.                   |
| 9  | WP4  | In Progress | Some research is made about how to merge BVH structure with CUDA.               |

## Sprint 6 plan

| Item ID | Workpackage ID<br>(from the Kick-off<br>doc) | Description                                    | Status                      |
|---------|--|--|-----------------------------|
| 6       | WP4  | Building the volume hierarchy tree.            | Leftover<br>from<br>Sprint4 |
| 7       | WP4  | Implementation of the ray-volume intersection. | Leftover<br>from<br>Sprint4 |

|    |     |  |                       |
|----|-----|--|-----------------------|
| 8  | WP4 | Implementation of a complete Bounding Volume Hierarchy (BVH) structure.          | Leftover from Sprint5 |
| 9  | WP4 | Integrating BVH structure into our CUDA ray tracer.                              | Leftover from Sprint5 |
| 10 | WP4 | Accessing the memory of GPU in Unity and passing the g-buffer addresses to CUDA. | New                   |
| 11 | WP4 | Implementation of a Masking Algorithm to increase the performance.               | New                   |
| 12 | WP4 | Integrating CUDA ray tracer API with Unity.                                      | New                   |

## Overall progress

|      | Sprint 1 | Sprint 2 | Sprint 3 | Sprint 4 | Sprint 5 | Sprint 6 | Sprint 7 | Sprint 8 | Sprint 9 |
|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| MF1  | 0%       | 10%      | 10%      | 50%      | 50%      |          |          |          |          |
| MF2  | 0%       | 50%      | 70%      | 70%      | 70%      |          |          |          |          |
| MF3  | 0%       | 0%       | 0%       | 0%       | 0%       |          |          |          |          |
| MF4  | 0%       | 0%       | 0%       | 0%       | 0%       |          |          |          |          |
| MF5  | 0%       | 0%       | 0%       | 30%      | 35%      |          |          |          |          |
| MF6  | 0%       | 0%       | 0%       | 0%       | 0%       |          |          |          |          |
| MF7  | 0%       | 0%       | 0%       | 0%       | 0%       |          |          |          |          |
| MF8  | 0%       | 0%       | 0%       | 0%       | 0%       |          |          |          |          |
| MF9  | 0%       | 0%       | 0%       | 0%       | 0%       |          |          |          |          |
| MF10 | 0%       | 0%       | 10%      | 90%      | 90%      |          |          |          |          |
| MF11 | 0%       | 10%      | 20%      | 30%      | 30%      |          |          |          |          |