**RESEARCH ETHICS**

*Proportionate Review Form*

The Proportionate Review process may be used where the proposed research raises only minimal ethical risk. This research must: focus on minimally sensitive topics; entail minimal intrusion or disruption to others; and involve participants who would not be considered vulnerable in the context of the research.

**PART A: TO BE COMPLETED BY THE RESEARCHER**

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| Name of Researcher: | **Cassette Costen** |
| School: | **Digital, Technology, Innovation and Business** |

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| **Student/Course Details (If Applicable)** | | |
| Student ID Number: | | **23025180** |
| Name of Supervisor(s)/Module Tutor: | | **Kieran Osborne** |
| PhD/MPhil project: |  | |
| Taught Postgraduate  Project/Assignment: | Award Title: | **BSc (Hons) Computer Games Programming** |
| Undergraduate  Project/Assignment | Module Title: | **GDEV60001 Games Development Project** |

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| Project Title: | **Comparison of Voxel Meshing Techniques using Marching Tetrahedra** | | |
| Project Outline: | **The project tests several techniques/variations of the marching tetrahedra algorithm for isosurface extraction, to determine the relative visual and performance benefits of each. Literature research will be conducted to determine the background and implementation of these techniques, then several will be implemented. Two different tessellation methods and three different vertex clustering methods will be compared for perceived visual quality and computational performance; a variety of different voxel resolutions will have their performance analysed; the mean triangle aspect ratio and triangle area standard deviation will be analysed for both tessellation methods and all vertex clustering methods.** | | |
| Give a brief description of participants and procedure (methods, tests etc.) | **Participants will be selected by volunteer sampling. Participants will be asked to complete a short digital questionnaire, consisting of around 12 questions, where each question shows the participant a pair of images (or short animations) and asks for a preference between the two. Questions will not explain the specific technical differences between the two samples, to reduce potential bias.** | | |
| Expected Start Date: | **13/10/2025** | Expected Date: | **17/02/2026** |

Relevant professional body ethical guidelines should be consulted when completing this form.

Please seek guidance from the School Ethics Coordinator if you are uncertain about any ethical issues arising from this application.

There is an obligation on the researcher and supervisor (where applicable) to bring to the attention of the School Ethics Coordinator any issues with ethical implications not identified by this form.

**Researcher Declaration**

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| I consider that this project has no significant ethical implications requiring full ethical review |  |

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| **I confirm that:** | | | |
| 1. | The research will **NOT** involve members of vulnerable groups.  Vulnerable groups include but are not limited to: children and young people (under 18 years of age), those with a learning disability or cognitive impairment, patients, people in custody, people engaged in illegal activities (e.g. drug taking), or individuals in a dependent or unequal relationship. | |  |
| 2. | This research will **NOT** involve sensitive topics.  Sensitive topics include, but are not limited to: participants’ sexual behaviour, their illegal or political behaviour, their experience of violence, their abuse or exploitation, their mental health, their gender or ethnic status. The research must not involve groups where permission of a gatekeeper is normally required for initial access to members, for example, ethnic or cultural groups, native peoples or indigenous communities. | |  |
| 3. | The research will **NOT** deliberately mislead participants in any way. | |  |
| 4. | The research will **NOT** involve access to records of personal or confidential information, including genetic or other biological information, concerning identifiable individuals. | |  |
| 5. | The research with **NOT** induce psychological stress, anxiety or humiliation, cause more than minimal pain, or involve intrusive interventions.  This includes, but is not limited to: the administration of drugs or other substances, vigorous physical exercise, or techniques such as hypnotherapy which may cause participants to reveal information which could cause concern, in the course of their everyday life. | |  |
| 6. | The research **WILL** be conducted with Participants’ full and informed consent at the time the study is carried out: | | YES |
| * The main procedure will be explained to the participants in advance, so that they are informed about what to expect. |  |  |
| * Participants will be told their involvement in the research is voluntary. |  | N/A |
| * Written consent will be obtained from participants. *(This is not required for self-completion questionnaires as submission of the completed questionnaire implies consent to participate).* |  |  |
| * Participants will be informed about how they may withdraw from the research at any time and for any reason. |  |  |
| * For questionnaires and interviews: Participants will be given the option of omitting questions they do not want to answer. |  |  |
| * Participants will be told that their data will be treated with full confidentiality and that, if published, every effort will be made to ensure it will not be identifiable as theirs. |  |  |
| * Participants will be given the opportunity to be debriefed i.e. to find out more about the study and its results. |  |
| 7. | A risk assessment has been completed for this research project | | YES    N/A |

If you are unable to confirm any of the above statements, please complete a **Full Ethical Review Form**. If the research will include participants that are **patients**, please complete the Independent Peer Review process.

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| 8. Information and Data  Please provide answers to the following questions regarding the handling and storage of information and data: |
| 1. How will research data be stored (manually or electronically)?   Questionnaire results will be stored electronically within Microsoft Forms. At the point of analysis, responses to questions will be transferred to Microsoft Excel and anonymised, in order to perform statistical analysis. This documentation will be stored in the University Onedrive. |
| 1. How is protection given to the participants (e.g. by being made anonymous through coding and with a participant identifier code being kept separately and securely)?   Participants will be anonymised with the use of a securely stored identifier; the data will be made anonymous during analysis via being combined into whole-cohort averages. |
| 1. What assurance will be given to the participant about the confidentiality of this data and the security of its storage?  Participants will be assured that data will be stored in accordance with University policy inside the Microsoft suite, protected by a secure password and 2FA. Data will be anonymised during analysis, and original data will be erased after the research is completed. |
| 1. Is assurance given to the participant that they cannot be identified from any publication or dissemination of the results of the project?   Yes |
| 1. Who will have access to this data, and for what purposes?   Only I (the researcher) will have access, for the purpose of conducting statistical analysis, along with all staff and IT maintainers at the University, and Microsoft itself, which I have no control over. |
| 1. How will the data be stored, for how long, and how will it be discarded?  The data will be stored only until the end of the research project, at which point it will be deleted permanently according to the abilities of the Microsoft suite. I have no control over Microsoft locally retaining that data. |

**Supporting Documentation**

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| All key documents e.g. consent form, information sheet, questionnaire/interview schedule are appended to this application. |  |

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| Signature of Researcher: | Cassette Costen | Date: | 10/10/2025 |

**NB**: If the research departs from the protocol which provides the basis for this proportionate review, then further review will be required and the applicant and supervisor(s) should consider whether or not the proportionate review remains appropriate. If it is no longer appropriate a full ethical review form **MUST** be submitted for consideration by the School Ethics Coordinator.

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| **Next Step:**    STUDENTS: Please submit this form (and supporting documentation) for consideration by your Supervisor/Module Tutor.  STAFF: Please submit this form to your Head of Department or a Senior Researcher in your School. Once they have reviewed the form, this should be forwarded to the Research Administration in RIIS ([ethics@staffs.ac.uk](mailto:ethics@staffs.ac.uk)) who will arrange for it to be considered by an independent member of the School’s College of Reviewers. |

**PART B: TO BE COMPLETED BY SUPERVISOR/MODULE TUTOR (if student) or HEAD OF DEPARTMENT/SENIOR RESEARCHER (if staff)**

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| I consider that this project has no significant ethical implications requiring full ethical review by the School Research Ethics Committee. |  |
| I have checked and approved the key documents required for this proposal (e.g. consent form, information sheet, questionnaire, interview schedule). |  |

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| Signature of Supervisor/  Head of Department/  Senior Researcher: |  | Date: |  |

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| **Next Step:** Please forward this form to the Research Administrators in RIIS ([ethics@staffs.ac.uk](mailto:ethics@staffs.ac.uk)) who will arrange for it to be considered by an independent member of the School’s College of Ethical Reviewers, having no direct connection with the researcher or his/her programme of study. |

**PART C: TO BE COMPLETED BY A MEMBER OF THE SCHOOL’S COLLEGE OF ETHICAL REVIWERS**

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| This research proposal has been considered using agreed University Procedures and is now approved.  **Or**  This research proposal has not been approved due to the reasons given below.  **Recommendation (delete as appropriate)**: Approve / Amendments required / Reject |  |

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| Name of Reviewer: |  | Date: |  |
| Signature: |  |

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| Signed (School Ethical Coordinator) |  | Date: |  |