

Virtual Clay Modeling

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- Project 4
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Introduction

- 3D modeling
- Free-form modeling
- Using cellular automata



Virtual Clay Modeling

- Initial mass distribution
- Transitions of every cell
- Clay deformation

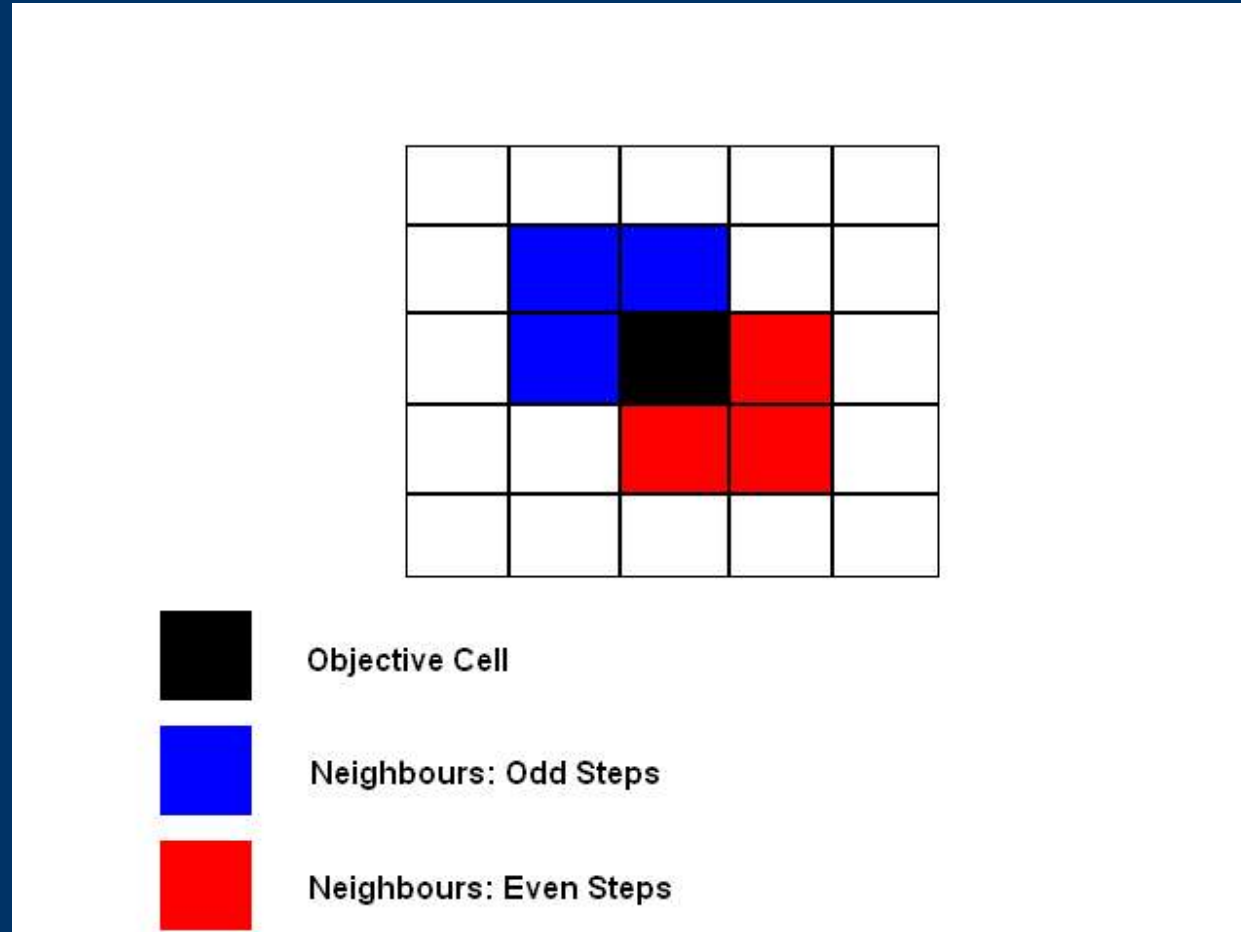


Margolus Neighbourhood

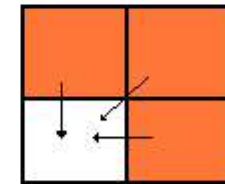
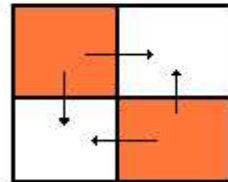
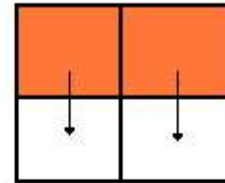
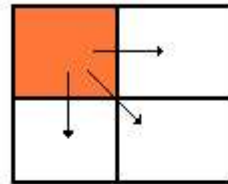
- Two different steps
- Block of four cells
- Boundaries
- Repartition rule applied



Comparison of Odd and Even Steps



Repartition Rule

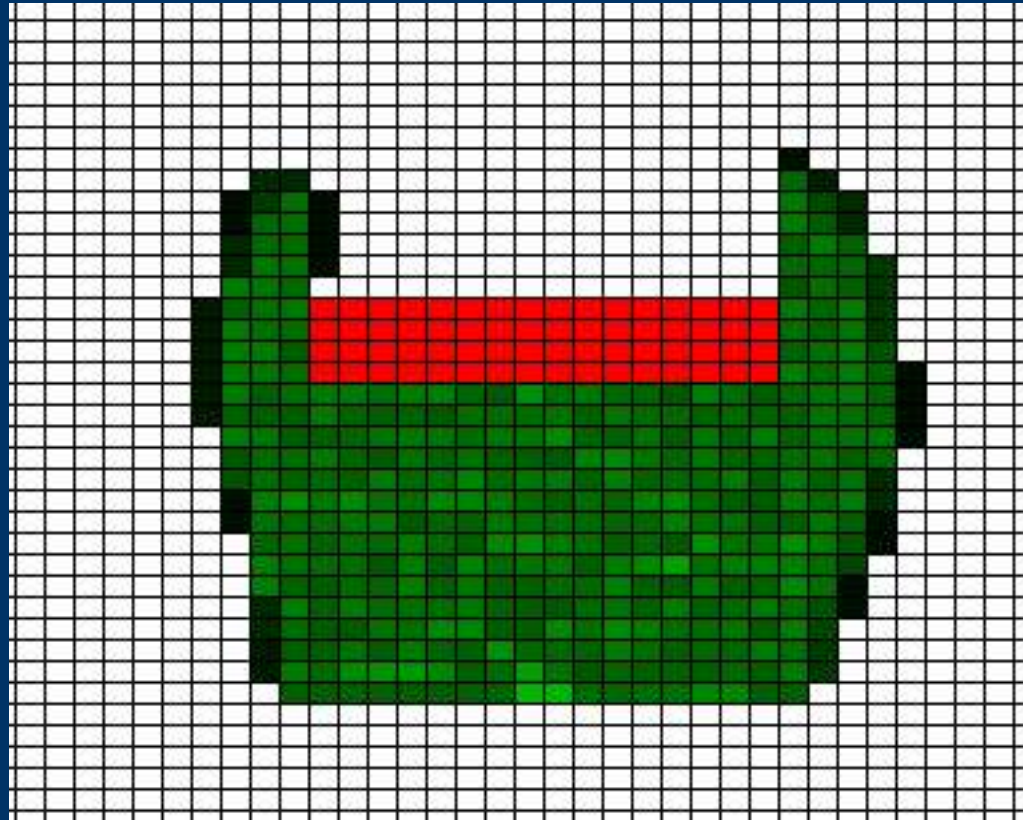


Implementation

- Data storage
- Time complexity
- Initial configuration
- Deformation phase



Clay deformation



Testing

- Two types of test were considered
- Big block of clay
- Small block of clay

Conclusion

- Improvements
- Real time computation

