Blender Projects

Geometry Nodes and the Melting Iceberg

Dalai Felinto, January 2021
The Eight Step Process of Successful Change

1. Create a Sense of Urgency
2. Pull Together the Guiding Team
3. Develop the Change Vision and Strategy
4. Communicate for Understanding and Buy In
5. Empower Others to Act
6. Produce Short-Term Wins
7. Don’t Let Up
8. Create a New Culture
1. Create a Sense of Urgency

- Everything nodes development on hold!
- Workshop in September 2020
2. Pull Together the Guiding Team

- **Lead Developer**: Jacques Lucke
- **Developers**: Hans Goudey, Sebastian
- **Product Owner/Manager**: Dalai Felinto
- **Designer Tester/UI**: Pablo Vazquez
- **Designer Features**: Simon Thommes
- **Scrum Master/Senior Developer**: Jeroen Bakker

- **Stakeholders**: Ton Roosendaal, Brecht Van Lommel
3. Develop the Change Vision and Strategy

- What would the studio love/need the most?
- Set dressing
- “Customer Need Pivot”

User Story-ish

Andy
All-around artist, did VFX with Blender for the most recent open movies:
- Sheep hair for Cosmos Laundromat
- Breath puffing for Spring
- Monolith sparkling in Spring

He is mostly excited about static particle scattering:
- Grass
- Branches
- Trees
- Leaves
- Plants

Limitations of current (scattering) system:
- Objects have to be rotated 90 degrees, which makes it hard to add procedural movement on top of it
- Rotating leaves
- Waving grasses
- There is no way of fine tuning individual elements

For hair he uses all but the smooth tools. One thing that would be a life changer would be a volume brush, as oppose to the existing projection brush.
4. Communicate for Understanding and Buy In
5. Empower Others to Act

Contributor reaching out to be involved in the project.

Multi Input Sockets patch by Fabian Schempp

Patches contributions by multiple community members
6. Produce Short-Term Wins

All the nodes that will be part of 2.92.

Documentation of the nodes.
Early work by the community.

Faaaaarck! @faaaaarck  ·  Jan 23
#b3d #geometrynodes #crowdsim  ·  Performance is really good - frame took 1 minute to render. Fireflies have to go... some armatures rotate slightly “uncanny”, i animated things in the geometrynode-tree, overall i am happy. Lets get some more random people. #cgi #history #Salute

Faaaaarck! @faaaaarck  ·  Jan 17
#crowdsim #geometrynodes #b3d

Show this thread

eric schubert @3d_eric  ·  Dec 30, 2020
#geometryNodes
Could not find a way to get the attribute color ramp of #geometryNodes in the shader. But random colors per object work on the instances. I just mapped these to a gradient ramp.
6. Produce Short-Term Wins

Andy Goralczyk 25 January 2021

(...) I also switched the leaf setup on the bushes from particles to geo nodes 🍀

Sprite Fright production repository log.
7. Don’t Let Up

- Polishing
  - Instance objects
  - Modifiers integration
  - ... 

- “Debugging”
  - Spreadsheet
  - Socket inspector
  - Viewport overlay
  - Mesh preview

- Studio core requirements
  - Moss on trees
  - Tree leaves
  - Viewport/render quality

- User interface
  - Node Groups and Layers
  - Attribute search

- Everything nodes design
- ¿Attribute painting?
7. Don’t Let Up

Modeling

Tools
Hair
Rigging

Dynamic Particles

Fluids

perceived value

risk
8. Create a New Culture

What We Learned

- Close collaboration between designers, engineers and users
- Robust demos for testing and also validation
- Communication and quick iteration cycles saves time
- Design can easily become the bottleneck
- Focus and shared priorities are essential for team work
- Product over process – improvise, cut sprints short, ...
- Overcoming distance with collaboration tools
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1. Define the problem and set the time
2. Assemble a complete team
3. Solve the design first
4. Document and communicate
5. Community involvement
6. Build incrementally / use cases
7. Polishing and wrap up
8. Project retrospective
Thank you
The Eight Step Process of Successful Change

Set the Stage
1. Create a Sense of Urgency.
Help others see the need for change and the importance of acting immediately.

2. Pull Together the Guiding Team.
Make sure there is a powerful group guiding the change—one with leadership skills, credibility, communications ability, authority, analytical skills, and a sense of urgency.

Decide What to Do
3. Develop the Change Vision and Strategy.
Clarify how the future will be different from the past, and how you can make that future a reality.

Make it Happen
4. Communicate for Understanding and Buy In.
Make sure as many others as possible understand and accept the vision and the strategy.

5. Empower Others to Act.
Remove as many barriers as possible so that those who want to make the vision a reality can do so.

6. Produce Short-Term Wins.
Create some visible, unambiguous successes as soon as possible.

Press harder and faster after the first successes. Be relentless with initiating change after change until the vision is a reality.

Make it Stick
8. Create a New Culture.
Hold on to the new ways of behaving, and make sure they succeed, until they become strong enough to replace old traditions.

Our Iceberg is Melting excerpt by Holger Rathgeber and John Kotter