Updated on December 12th 2009

Note: The changes and updates in version 2.1 are not yet incorporated into the snowFlaKe manual.
A new online HTML reference for snowFlaKe will be available soon, and will become the new point of reference for the collection.

New Nodes and Updates

Nodes / Tools with file names ending in _vue8.mnd will only work properly in Vue 8. It is still possible to use the nodes in Vue 7 and 7.5, but necessary control groups will not be available / shown.

v2.1 Includes:
For Vue 8 users
>   7 New tools
>   4 Tools Updated / Upgraded

For Vue 7 – 7.5 users
>   1 New tool
>   3 Tools Updated / Upgraded

Dual Axis Constraint: (Vue 8+)

Replaces the following snowFlaKe nodes for Vue version 7, now as and all in one node:
(x y) [Z]
(x [Y] z)
[X] (y z)

Input 0 – Top Vector input
Input 1 – Used as the constraint. The chosen axis will be used instead of the axis from Input 0, axis can be chosen under "Use Input 1 to control."

Bypass Constraint:
Will use only Input 0 (default) or Input 1 if chosen. Bypassed must be checked to use this option.

Combine inputs is the combination mode of Input 0 and Input 1 if the constraint is bypassed. Blend is the default to only use 0 or 1, if a combine mode is set, "Use Input 1" needs to be checked to enable the vector.

Normal Map Direction: (Vue 8+)

Inverts the controlled direction of an inputted normal map. Used to setup normal mapping, has a built in RGB to normal conversion, connect to any normal texture map. Connect the vector output to the following material outputs: Normal Mapping | Displace Direction.

[Normal Direction]
Invert X (Red)
Invert Y (Green)
Invert Z (Blue)
Swap Y & Z (Y up)

[Intensity]
Amount – Increases the intensity of the normal map.
If the "reduce" check-box is ticked the intensity slider will reduce the intensity of the normal map.

3x3 Vector Lock: (Vue 8+)

Vue 8 replacement for Vector Lock – 3x3.
Locks three vectors.
Uses manual or input values. Manual values locked.
No longer uses internal unit correction, full vector inputs should be entered.

On - Off: (Vue 8+)

Swaps between 2 inputs, uses one or the other using a check-box to switch.   Great for comparison, metanode development, and other such uses.

Distance Controller: (Vue 8+)

Controls a numeric range dependent on the internal distance input. Default control is camera distance, you can edit the metanode to change the control input type.
Designed to be used as the controller for the ratio combiner>blender node.

Switch Distance
  The distance from the camera that the input switches, or the start of the blend.
Transition Distance
  The scope or range of the transition or distance of the blend.
Add Distance (check-box)
  Causes the transition to start at the "Switch Distance" and extend further. With this option off, the transition will subtract from the switch distance.
Control number
  These numbers control the final output, if connecting to the ratio of a blender, check the clip out of range values option in the blender. Also can be used to limit the total transition, by reducing the high number and raising the low number. Setting the high to 0 and low to 1 will reverse the control and swap the inputs being controlled, allowing you to change a blender without having to change the inputs connected to the blender(if used).
  These values also allow the direct control over any controllable numeric value.

Fractal – Terrain Mixer

Updated to v1.1

Now uses the Mixer Dependent node, instead of needing to use NGOC for every output. Dependent uses 2 external dependencies instead of v1.0 needing 5.

Outputs:
[] Mixer Dependent 1   [] Mixer Dependent 2

Mixer Dependent

Dependent of Fractal – Terrain Mixer

Inputs:
[] Mixer Dependent 1   [] Mixer Dependent 2

Outputs:
Output 0   Output 1   Output 2   Output 3   Output 4

Top n' Bottom   (Includes 2 versions, one for Vue 7 - 7.5, and a version for Vue 8.)

Created to control and display correct bump maps on leaves. Can be used for any number output not just bump. Also works with color controls.
Note: Only works correctly with object mapping modes.

Two Number inputs:
Top – What will show on the top of the leaf
Bottom - What will show on the bottom on the leaf

Two Color Inputs:
Top – What will show on the top of the leaf
Bottom - What will show on the bottom on the leaf

Auto Mode:
The auto mode uses the "Top" input only. It will automatically correct any bump maps showing incorrectly.
The auto mode does not work with the color controls.

Why is this node useful:
Vue plants often display leafs on one side of the plant upside down, this can dramatically decrease the realism of plants. Alternative methods require mixed materials, which in turn, destroy the openGL plant display, and can cause other issues and increase material design time.
With this metanode you can auto-correct maps/noises or define custom maps/noises/color for each polygon normal.

Note: making any connection between leaf texture maps and the color or transparency output, will break the openGL display. With the exception to the color blending and filters available in the material editor.

Camera Orbiter – New Dependent Nodes

Note to Vue 8 users: The Vue Camera Controls under the render preview will **not** break the camera in Vue 8. Feel free to use these controls without worry.

CO - Reverse Controller

Camera Orbiter
Pitch Zoom: Reverse
Control the reverse with the size of an object (sphere).

Inputs: Sphere Position (external dependency)

Outputs: Pitch Zoom - Reverse
[] Reverse Dependent (External)

Controls:
Unit Conversion: Scene Internal Unit

 Controller Range:

Min Size	How small the object(sphere) can get.
	When sphere is this size: output = Pitch Zoom: Reverse (0)
Total Size Change	How much size change from Min size to = Pitch Zoom: Reverse (1)

Total Size Change + Min Size = Pitch Zoom: Reverse (1)

Example: internal unit .1   Length Unit: Meters
Min Size = 3 (meters)
Total Size Change = 5 (meters)

When sphere is scaled to (x) = output
3 Meters = 0 Pitch Zoom Normal
8 Meters = 1 Pitch Zoom Reversed

Example: internal unit .1   Length Unit: Meters
Min Size = 1 (meters)
Total Size Change = 1 (meters)

When sphere is scaled to (x) = output
1 Meters = 0 Pitch Zoom Normal
2 Meters = 1 Pitch Zoom Reversed

CO - Reverse Dependent

Constrains the size of the sphere to the settings in the CO – Reverse Controller.
Position is the cameras projected pivot.

Create Random Vector (Vue 8+)

Generates a random vector. Click the generate random button to create a random vector.
Useful as a seed or origin control.

Create Random Offset (Vue 8+)

Generates a random vector to be used as an offset. Similar to the create random vector node, but allows you to connect within a vector link, rather than controlling the extracted input of a vector based node.

NGCC – Numeric Graph Compatibility Correction (Vue 8+)

Vue 7 to 8 compatibility function. All numeric outputs from graphs are changed (fixed) in Vue 8.
This node is necessary in preserving the look of scenes created in Vue 7 when any materials or graphs contain connections to numeric external dependencies. If e-on material presets or infinite terrains were used in the creation of a Vue 7 scene, or you prefer the look of the Vue 7 version, this node is a must.

To use, insert this node just before the main custom dependency output node. Will automatically correct every connection in the scene.

If NGOC was used in the Vue 7 scene, you can delete the node from the numeric chain. If NGOS was used, no changes are needed.

Terrain Previewer – Camera Controller (Vue 8 Version available v1.5)
Changes: External Dependencies are once again incorporated into the tool. Note: To maintain real-time openGL refinement and adjustments external dependencies must be outside the node (Vue 8 build 47776 and all previous.) The ability to plug in the position and size vectors are available, if needed.   To use the inputs, check "Use input dependents" and add two external dependency input nodes into the function/graph. Camera orientation is now extractable and controllable, although changing this vector is normally not needed. Terrain type is now a check-box, procedural if checked, standard if left unchecked. This tool is now unlocked so changes can be made internally. This node is extremely powerful when used in combination with normal mapping and camera projection.

Vue 8 Node Specific Notes

NGOS and NGOC
No longer needed to preserve the output of numeric data. NGOS however, is still useful for outputting multiple numbers. If NGOC was used in the Vue 7 scene, you will need to delete the node from the numeric chain to keep the same appearance.

(x y) [Z]   (x [Y] z)   [X] (y z) Constraints
Replaced by the new Dual Axis Constraint, previous constraints are still usable for simplistic operations.

Camera Orbiter
The Vue Camera Controls under the render preview will **not** break the camera in Vue 8. Feel free to use these controls without worry.

The default internal unit
Vue 8's defualt internal unit is now 1 and no longer .1

Matte Painter Nodes
Vue 8 will display camera projection in the openGL, but not when using the snowFlaKe Matte Painter Nodes.

Installation

Upgrading from 2.0 to 2.1 – Update can be downloaded from your asileFX account by re-downloading the product.
If purchased as part of a DVD bundle, please contact asileFX to have your account updated to include the download version.

New nodes can be added to your existing installation and can be found in the following directory:
\ Installation \ versionUpdates_Archive \ v2.1
The 2.0 folder containts previous versions of updated nodes.
The primary installation folders also contain all new nodes and updates.
See table on the following page for recommended installation locations, and clean install locations.

New Users
Please refer to the snowFlaKe v2 PDF manual for installation instructions.

Additional information

The snowFlaKe.mtn host node is not suggested for users with older systems, as it may be slower to access. The speed of the host node has greatly improved in Vue 8, as have all nodes and tools.

Note to Vue 7.5 Users:
Copy and paste of metanodes is currently bugged in 7.5. Instead of using the host node, it is suggested that one of the additonal two installation methods is used.

Installation and Node Access Locations

Host File Locations

Note:
The host file does not include updates from version 2.1
This is due to a Vue limitation in the current version. Once updates to Vue are made, the host node will be updated.

Content Install Locations

3 x 3 Vector Lock	Dynamics
CO – Reverse Controller	Dynamics
CO – Reverse Dependent	Input
Distance Controller	Dynamics
Dual – Axis Contstraint	Dynamics
Mixer Dependent	Combiner
NGCC	Input
Normal Map Direction	Texture Map
On – Off	Combiner
Create Random Offset	Math
Create Random Vector	Math
Top n Bottom	Combiner