



FABRICENGINE®

It's Time For Real-Time



Splice Introduction

Splice is KL integrated

- KL as a powerful language for *3D*
- Can be used for other computation too (like image processing and filters)
- Tools built with Splice are *portable*
- Tools built with Splice can be *obfuscated* (distributed without source code)



Splice in Maya – Basic Example

File reference: 04_splice/01_basic_node.ma

- The *spliceMayaNode* is a generic node.
- It comes with a minimalistic IDE user interface.
- The UI provides an interface to setup *ports*, which refer to KL data within the node. The Splice plugin layer performs the conversion between DCC (Maya) specific data and KL data.
- Splice can access all shipped KL data types based on the *FABRIC_RT_PATH* environment variable.
- The available KL types are listed in the documentation.



Custom Constraint

File reference: 04_splice/02_constraint.ma

- Splice can act as a custom node for kinematics.
- Any standard DCC data can be used for input and output ports.
- Splice has access to all KL Math types and thus provides a rich math library.



Stateful Data – Simulation

File reference: 04_splice/03_spring.ma

- Splice nodes can contain internal data, which is not reflected in the DCC.
- *IO* ports can be written to and read from at the same time, so they can be used for *simulation*.



Custom drawing

File reference: 04_splice/04_custom_drawing.ma

- KL types can draw directly to the DCC viewport. For that a special KL method, called *drawOpenGL* has to be implemented.
- Currently the *InlineDrawing* can support direct drawing.
- The *InlineDrawing* can also be used to draw visual cues and 3D debug information on the screen.



Custom manipulation

File reference: 04_splice/05_manipulation.ma

- KL types can also provide custom manipulation facilities. For this they need to implement a series of methods, which for example are implemented on the *ScalarSliderManipulator* or the *PositionManipulator*.
- Manipulatable KL types can be used with a special tool, which is implemented in each DCC supported by Splice. This way users can build data which can be interacted with directly in 3D.

