Exporting NSI Files

All 3Delight plug-ins can export NSI files. These files can be rendered either locally or the cloud. Sequences of NSI files can be exported as well, with some plug-ins (such as 3Delight for Houdini) having the ability to *factor out* static geometries from the animation into a separate NSI file to drastically reduce the required storage.

Environment Variables

When exporting files that must be used on different operating systems, it is very useful to use environment variables to point to a location in the file system. This is is especially useful in mixed environments where textures and other resources do not have the same path on different platforms.

3Delight offers two features for environment variables:

1. The traditional environment substitution using the ${ENVVAR} syntax.
2. Path prefix variable *insertion* during export. In this case, 3Delight will substitute (during NSI export) any path beginning with an NSI_PATH_*XXXX* environment variable (where XXXX can be anything) by that environment variable name. Just the fact of declaring those variables in your system will enable automatic substitution for concerned paths.

Let's go through an example: let's say you declared the following environment variables on your system or inside your 3D application:

Environment Variable	Value
NSI_PATH_TEXTURE	C:\textures
NSI_PATH_IMAGES	C:\images
PROJECT	Devoir1

Then, during the NSI export, the following paths will be substituted as such in the NSI file:

Original Path	Exported Path (in NSI file)
C:\textures\JoshuaLeatherJacket.jpg	${NSI_PATH_TEXTURES}\JoshuaLeatherJacket.jpg
C:\images\output\render.exr	${NSI_PATH_TEXTURES}\output\render.exr
C:\images\${PROJECT}\grid.exr	${NSI_PATH_TEXTURES\${PROJECT}\grid.exr

The resulting NSI file can then be rendered on another system with appropriately set environment variables.