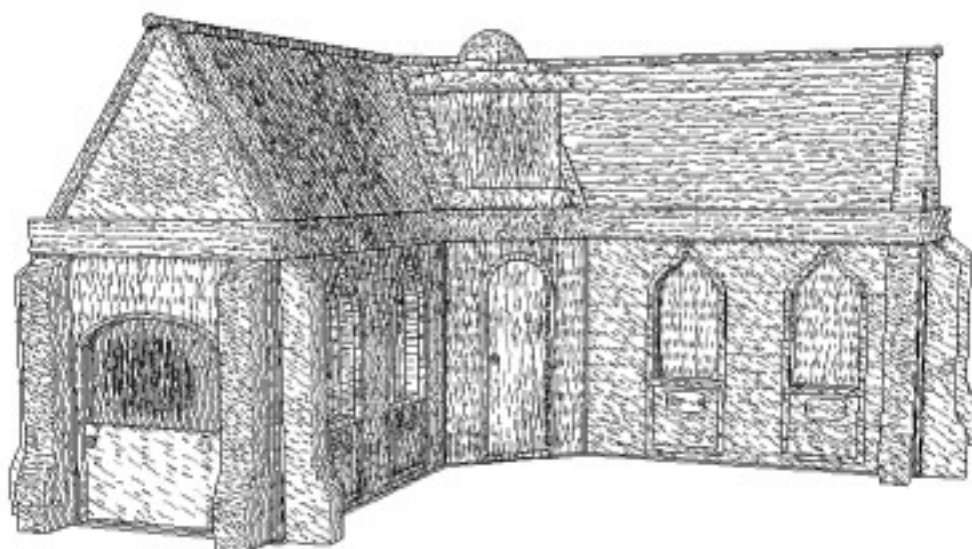


# Ink Render Plugin

User Manual



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## **Introduction**

The Ink Render Plugin is a non-realistic render engine for Daz|Studio.

With the Ink Render Plugin you can create in automatic "pen&ink"-style images, using various options to change the final effect.

The plugin features an advanced edge-drawing algorithm to reach the best results even with complex images and a pen-filling algorithm that heavily use the 3D structure of the model: rendering from a flat image would not give the same results.

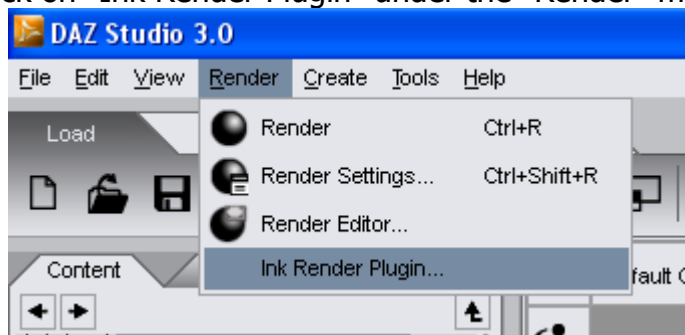
## **Requirements**

Ink Render plugin requires DAZ|Studio 3.0 installed and Windows operating system.

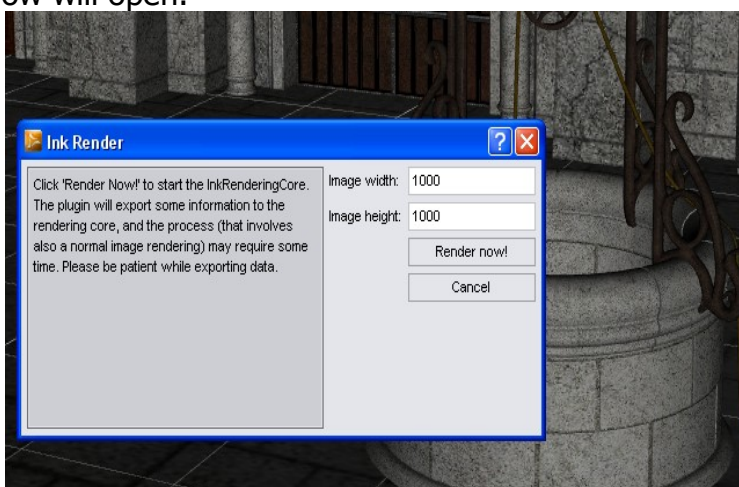
It is not available under MacOS at the moment.

## Starting the plugin

From DAZ|Studio, click on "Ink Render Plugin" under the "Render" menu.



The following window will open:

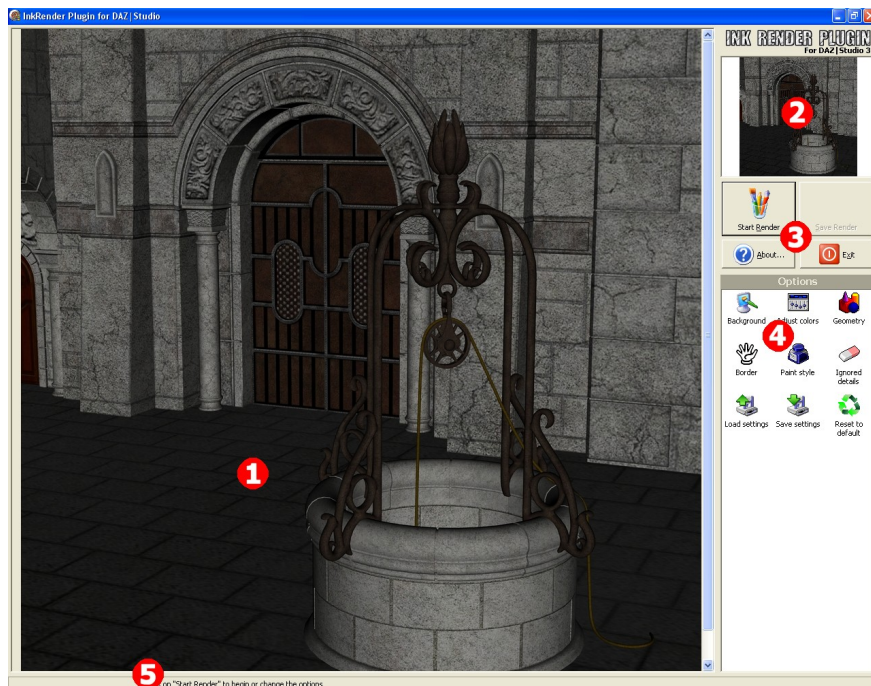


From this window you need to specify the resolution of the final image: it is not possible to change it later because a base (reference) image is needed and must be rendered in the usual way by DAZ|Studio before the plugin can start.

When you are ready, press on the "Render now!" button to start exporting the information to the plugin core.

The operation may require some time: please be patient while DAZ|Studio first exports the geometry and then render a base image.

# Render window



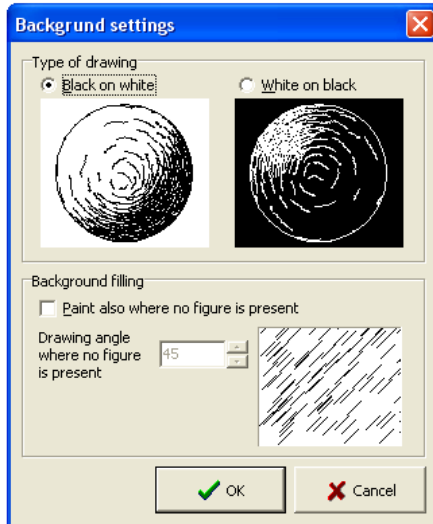
The main plugin window is divided in the following sections:

1. preview panel, where you can see the rendering in progress
2. original image miniature
3. main buttons (for start&stop rendering, save the rendered images, the about screen and exit)
4. options panel: double click on the icons to change the settings
5. status bar at the bottom, where you can see messages and the rendering progress.

# Options



## Background

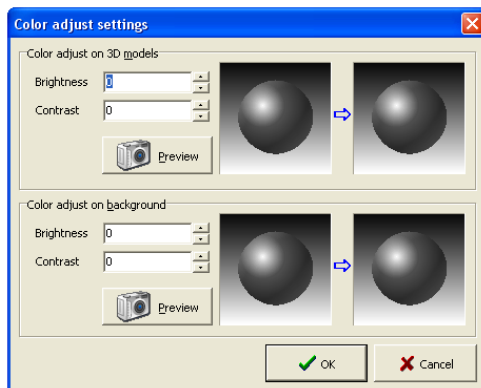


With the background setting you can choose to render black on white (the most dark areas will have more black lines) or white on black (the most light areas will have more white lines).

The second options group allow you to draw also on the background, where no figure is present: you can specify the angle of the lines.



## Adjust color

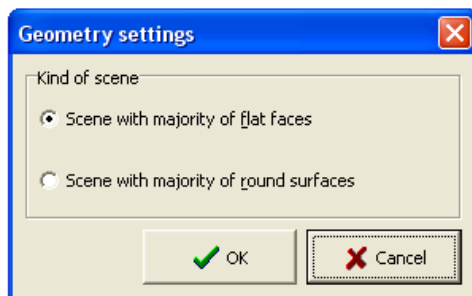


Use the controls to change brightness and contrast of the image before the rendering process.

You can adjust differently the zones where 3D models are present and in the background. Use the preview buttons to see the results on the real image.



## Geometry



This settings influences the way the 3D normals are calculated.

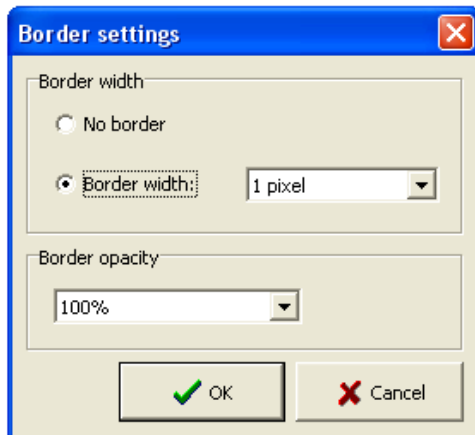
The first choice is well suited for all scenes, especially for buildings, interiors or other scenes with important flat faces. Results on curved surfaces are good anyway.

The second option gives better results on curved surfaces (people, clothing and so on) but can show some artifacts on flat surfaces.

If you are unsure, use the first choice.



## Border



This window let you specify how to draw border. You can choose the width and opacity of the lines.

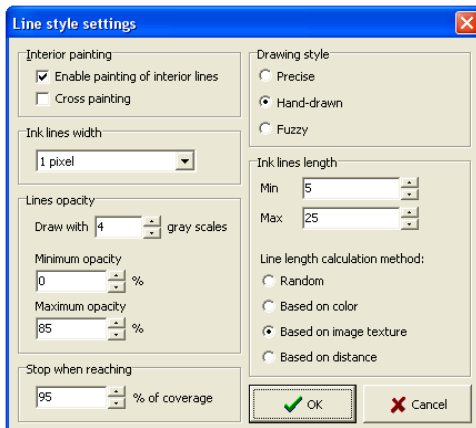
The color of the line will depend on the background chosen: on a white background a 100% opacity will result in a completely black line, while 20% in a very light line.

On the other side, on a black background a 100% opacity will result in a completely white line, while 20% in a very dark line.

If you don't want any border drawn, choose "no border".



## Paint style



The most important settings of the rendering engine are there.

In the "Interior painting" group you can disable the filling lines (useful if you want only the borders) and you can enable the drawing of "cross painting" (will render also lines perpendicular to the normal ones to form a "crossed" result).

In the "Ink lines width" you can choose the width of the lines drawn.

The "Lines opacity" group allows you to specify the number of colors (shades of gray) to use (you can select even only one) and the minimum and maximum opacity.

In the next group you can specify when to stop the filling process: the rendering core will stop when it evaluates that the resulting image has reached the specified density in respect with the reference image.

In the "Drawing style" group you can choose three steps of randomness added when drawing lines: none (precise), some (hand-drawn), or very much (fuzzy).

The "Ink lines length" group let you choose how long should the ink lines be.

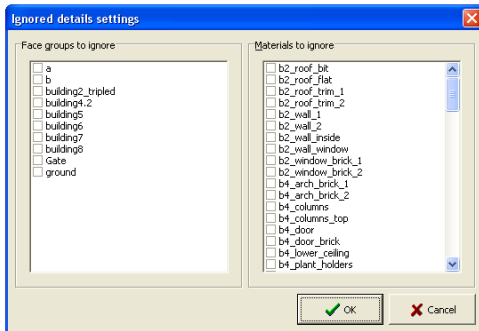
Between the minimum and maximum specified, you can choose the method of length calculation:

- Random (chosen in a random way)
- Based on color (on white background, light areas will have longer lines; on black

- background it's the opposite).
- Based on image texture (areas with greater changes of luminance will have shorter lines)
- Based on distance (distant areas will have shorter lines)



## Ignored details



In this window you can choose what details should not be considered while rendering.

This is often useful with transparent materials, like eyelashes, where the border drawing process can extract too many details.



## Load settings

Use this to load previously saved options.



## Save settings

Use this to save the current options to file. A window will open to choose where to save.



## Reset to default

This command will reset all the settings to their defaults.