

ManFriday's Render Queue

Overview

ManFriday's Render Queue is a new plugin for Daz Studio 4.10 and 4.11. It allows you to render many scenes in sequence without having to sit next to your computer all night to start the next render when the previous is done.

What is different from other batch render scripts you may know?

1. This restarts Daz after every render to make sure you don't run out of memory after many scenes. It is thus possible to feed dozens of scenes to the Render Queue.

(If there are any scenes left to render in the queue when Daz Studio starts up, the Render Queue plugin brings up a big progress window which gives you 60 seconds to cancel queue processing. If you do nothing, the plugin will render the next scene in the queue. You will only see that window if there's something left in the queue.)
2. The plugin waits ten seconds after loading each scene before starting the render to allow the scene to settle, e. g. for smoothing modifiers. (You can change the number of seconds in the settings.)
3. You can open and close the queue dialog as many times as you would like before starting the renders, adding more scenes and changing the order in which scenes will be processed.
4. For each scene in the queue, you can set the target filename of the rendered image *before* the queue is processed.
5. By default, each scene will be rendered with the camera that was active when you saved the scene. Alternatively, you can automatically render through *all* visible cameras of a scene: hide the cameras you don't want to create renders for, save the scene, and this will create *multiple* renders for the scene, with the camera name appended to the target file name you have specified for the scene.
6. You can add the currently open scene to the queue. This allows for a new workflow: work on your scene, save the scene file where you normally save your scenes, then open the render queue dialog, press "Add current scene". Save and close the queue dialog without starting the queue, and open the next scene. Then, when all the scenes have been saved and added to the queue, start the queue.
7. You can cancel each render if you think it has enough iterations, and the render queue will still keep going (unless you cancel the entire render queue in its progress window as well).
8. There is a progress window while the queue is being processed to show you what's going on and how far you are along in the queue.
9. After rendering each scene, the scene is kept in the queue but marked "Rendered" with the time it took to render each camera so you can look up what happened hours later, when all the scenes and cameras have been processed.
10. You can optionally have the plugin shut down your computer after the entire queue has been processed.

NOTE 1: At this time, the plugin works on Windows only.

NOTE 2: This is Iray only.

Installation

The plugin is best installed using DIM, the Daz Install Manager. If you must install it manually, here is some additional information:

The plugin consists of a single DLL that you need to copy to your Daz Studio's "plugins" directory, e.g. `C:\Program Files\DAZ 3D\DAZstudio4\plugins\`. (You probably have to be a Windows administrator to copy the file there.)

In the worst case, if everything breaks, you can delete the DLL again and all should be OK.

After copying, restart Daz Studio.

There are three ways to enable the plugin's functionality:

- If you're lucky, Daz has added a new menu item for "ManFriday's Render Queue" to the "Render" menu automatically after detecting the plugin. This doesn't always work though.
- To add the menu item manually, go to "Window" → "Workspace" → "Customize" (F3 hotkey by default) to bring up Daz Studio's actions and menu customization.

In the tree on the left, you should see a new item "ManFriday's Render Queue" with an action of the same name under it. (If not, maybe the plugin probably wasn't loaded correctly; check "Help" → "About Installed Plugins" for whether "ManFriday's Render Queue" is in the list.)

In the right half of the window, click on the "Menus" tab and expand the "Main Menu Bar" item at the top. You should see the items for File, Edit, Create, Render, etc. Drag the "ManFriday's Render Queue..." sub-item from the left into a menu of your choice to the right (e.g. "Render"), press "Apply" and "Accept", and you should have that action in Daz Studio's menu.

- Alternatively, in the main menu, select "Window" → "Workspace" → "Update and merge menus". On my system that added "ManFriday's Render Queue" to the "Render" menu, but I'm not sure that works everywhere.

This variant might destroy your other custom menu items if you have any.

Usage

After the menu item has been added, you can select "Render" → "ManFriday's Render Queue", and the Render Queue dialog should pop up. Here you can add and remove scenes for rendering and select the directory where the rendered PNG files should be written to.

For each scene, you can also set whether there should be one render for its active camera, or multiple renders for all visible cameras (see introduction above).

The Render Queue will suggest a default target file name for each scene that you have added, but you can override that default for each scene individually. Note that the name of the camera through which the image was rendered will always be added to the file name listed here.

When you press “OK” at the bottom right, the Render Queue will start loading the first scene file from the queue and render it, then restart Daz Studio, then the second, and so on.

For scenes with “All visible cameras” mode, it will restart Daz Studio after each camera's render.

Note: Test loading your scenes first before adding them to the queue. If Daz reports errors during scene load (e.g. because assets are missing or because of a “duplicate formula”), there is no way for the Render Queue to detect the error message dialog, and the Render Queue will stall until the dialog is dismissed manually.

Hope you like!

ManFriday

Options

Version 1.1.0 comes with a new “Options” dialog that is available from the main Render Queue window. Using that dialog you can adjust four different delays to your liking. You can also change the method how Daz Studio is restarted as a last resort (see below).

Troubleshooting

- If Daz Studio shows an error box on restart saying that it “could not establish a valid connection”, then you probably have Daz Connect active and “Automatically log in” enabled. The error occurs because after the plugin tries to restart Daz Studio after rendering a scene, the main window disappears, but the process might still be running in the background for a while. When the new instance of Daz Studio starts, it tries to connect to the store, but is refused because the old copy still has a connection active.

To fix this, select “Connect” → “Work offline”, and then again “Connect” → “Login” and disable the “Automatically login” checkbox. Alternatively, use the “Options” dialog to increase the last delay setting (“Delay in batch script..”).

- If Daz Studio crashes after the plugin tries to restart it, this may be due to another plugin crashing in the process exit list. There have been a couple reports about this.

You can try to selectively disable plugins in “Help” → “About installed plugins” to find which one causes the crash. You can use the Options dialog to change the “Method to restart Daz Studio” to “Kill process”, but this is really only intended as a last resort.

Ideas for future versions

- Have automatic options for output filenames, like date & time of render.
- Render animations.

Change log

Version 1.1.0 (Apr 9, 2019)

- Add a separate “Options” configuration dialog to configure four delays in case of timing problems.

- In that dialog, also add an option to kill the Daz Studio process instead of shutting it down politely in case there are crashes in the process exit list which would prevent the Render Queue from progressing.
- Update this README.

Version 1.0.0 (Mar 22, 2019): First version in the Daz store.

- Add a 32-bit Windows DLL.
- Cosmetic fixes to queue layout in dialog.
- Version bump to 1.0.0.

Version 0.7.0 (Mar 15, 2019)

- Add the option to render all visible cameras for a scene.
- Change the Daz restart code to use an external batch file to give Daz Studio more time to shut down.
- Add a “Clear all” button to the queue dialog.

Version 0.6.3 (Mar 13, 2019)

- Add a warning when adding a scene file and the default output directory was not set yet (which would try to render to the root directory).
- Add missing tooltips for two buttons in the queue configure dialog.

Version 0.6.2 (Mar 13, 2019): private build.

Version 0.6.1 (Mar 12, 2019)

- Fix a Unicode conversion problem with scene file names.
- Add “Reset state” button to queue config dialog.

Version 0.6.0 (Feb 19, 2019)

- Add checkbox to shut down computer after queue has been processed.
- Remember config dialog window position.
- Fix crash in render progress dialog when closed while scene was being opened.
- Fix crash in config dialog when removing all queue items at once.

Version 0.5.0 (Feb 14, 2019)

- Fix a bug in that smoothing modifiers were never applied before rendering started.
- Keep scenes in the queue after rendering and set their state to “Rendered” with the time it took to render (for inspection after the dialog is done).
- Add “Set target file” button to config dialog to allow for changing each image target file from the auto-suggested name before the queue is processed.
- Change “Apply” button to “Save” and disable it if there is nothing to save.
- Also rename “Cancel” to “Close” in that case.

- Add an “Open scene” button to the config dialog to allow for opening a scene file from the queue in Daz Studio.
- Added confirmation before processing the queue if the currently opened scene has unsaved changes.

Version 0.4.0 (Feb 12, 2019)

- Add “Add current scene” button to scenes list dialog.
- Fixed wrong picture size when active camera in scene had “local dimensions” enabled.
- Remember last directory in “add scene” file picker.
- Added target output file to each scene in the queue, allowing for saving each scene's render in different directories.
- Add status column to scenes list dialog. (For future use.)
- Add “skip” button to scene settle down phase in queue status window.
- Add “restart daz” phase in queue status window with delay and cancel button.
- Added a check whether the currently open scene needs saving before processing the queue from the scenes list dialog.

Version 0.3.0 (Feb 10, 2019)

- Lots of GUI polish, added fly-over help everywhere, made things prettier.
- Made the “settle down” period after scene loading configurable in the seconds (was five seconds, default is now 10 seconds, can go up to 60).