

# To-do list

The pipeline is hungry. We must feed it our effort.

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# Pipeline - To do - The hard stuff

Here's a list of longer, more difficult tasks that would be great additions to our pipeline.

## A proper USD workflow

Our USD workflows suck enormously. We pretty much just use it as a file format and use none of the cool features that it was designed for, like having all departments working in one USD environment. We have no composition rules which makes our scene graphs messy and none of it is well integrated with the rest of our ShotGrid workflows. Changing this would be epic, but it's an enormous task.

## Improving texture workflows

Our texture workflows could use some love. Right now we essentially just yeet all the texture maps into one folder and publish that folder so a simple script in Houdini can load them in and create a material. Things like file names aren't standardized and we have no metadata on which maps have been published. It would be cool if this could all be totally revamped so future years can texture without having to worry about map names and stuff.

## Creating a new Substance Painter integration

We're currently using a ShotGrid engine made by some guy online who abandoned it years ago and it no longer works in new Substance Painter versions. What we're using now is based on the deprecated and pretty terrible JavaScript (aahhhh) API. There's a new Python API in Substance these days which would be great to switch to, but as a result a whole new ShotGrid engine will have to be developed for it.

## A proper caching solution for Houdini

Right now we have a simple SGTK caching node that automatically fills in a file path, but nobody uses it because it's literally just that and it has no other features. A new, more advanced caching node would be really neat.

## Adding 3dequalizer to our pipeline

3dequalizer kinda sucks to integrate properly, so nobody here has done it yet. I've seen some ShotGrid integrations floating around online but haven't gotten any to work. If we could load in footage, track and solve it and publish cameras in a seamless way that would be the dream.



# Pipeline - To do - Medium difficulty

This right here is a list of pipeline tasks that should be relatively doable.

## Being able to ingest extra plates in Hiero

Right now we can only ingest one plate per shot in Hiero. This shot will then have a Nuke template created, a preview rendered etc. It would be handy if we could ingest several plates per shot, like a clean plate, and have it end up in the same Nuke file. Right now we have to do this manually.

## Version control notifications

It would be nice if an artist got a pop up when they open a file which has publishes loaded in that have newer versions available. For example that somebody opens Nuke and gets a popup that says "new CG is available for read node ..." or something. The same would be nice for frame ranges, which sometimes change and artists forget to update.

## Rendering tk-multi-reviewsubmission2 videos on the farm

Right now tk-multi-reviewsubmission2 opens Nuke locally and renders the preview .MOV, having this on the farm would greatly speed up our Maya and Houdini playblasts.

# Pipeline - To do - Easy jobs

These are tasks that are pretty simple but consequently also kinda boring, which is why they haven't been done yet.

## Configuring RV so it automatically selects the correct colorspace

Right now when we're doing a review session in our viewing space we have to select the correct colorspace again everytime we switch the version we're looking at. Super annoying.

## Deadline software checkers

Some of our workstations don't have all the correct versions of software installed, which makes them not render properly on the farm. Right now it's a process of trial and error and checking crash logs to figure out which PCs don't have a certain software installed, but this information can be parsed from the crash reports. A little script that added those PCs to a JSON file or something would be nice.

## Nuke/Houdini local file checkers before farm submission

It would be cool if a script would check if there are files used in the Nuke/Houdini file that are stored on the local drive of the submitter before farm submission. This would prevent some errors on the farm. E.g. for when someone has a stock image stored in their downloads folder, not on the Storage server.

## Fixing the Nuke "has no attribute get" error

Sometimes when a review version is sent to render on Deadline the ShotGrid context is not sent along properly. The problem seems to be that sometimes a Nuke session loses its ShotGrid context. Restarting Nuke and publishing again always fixes the problem, but this still needs some investigating.