



Image Processing Automation  
Doc Rev 3

## What is Loki

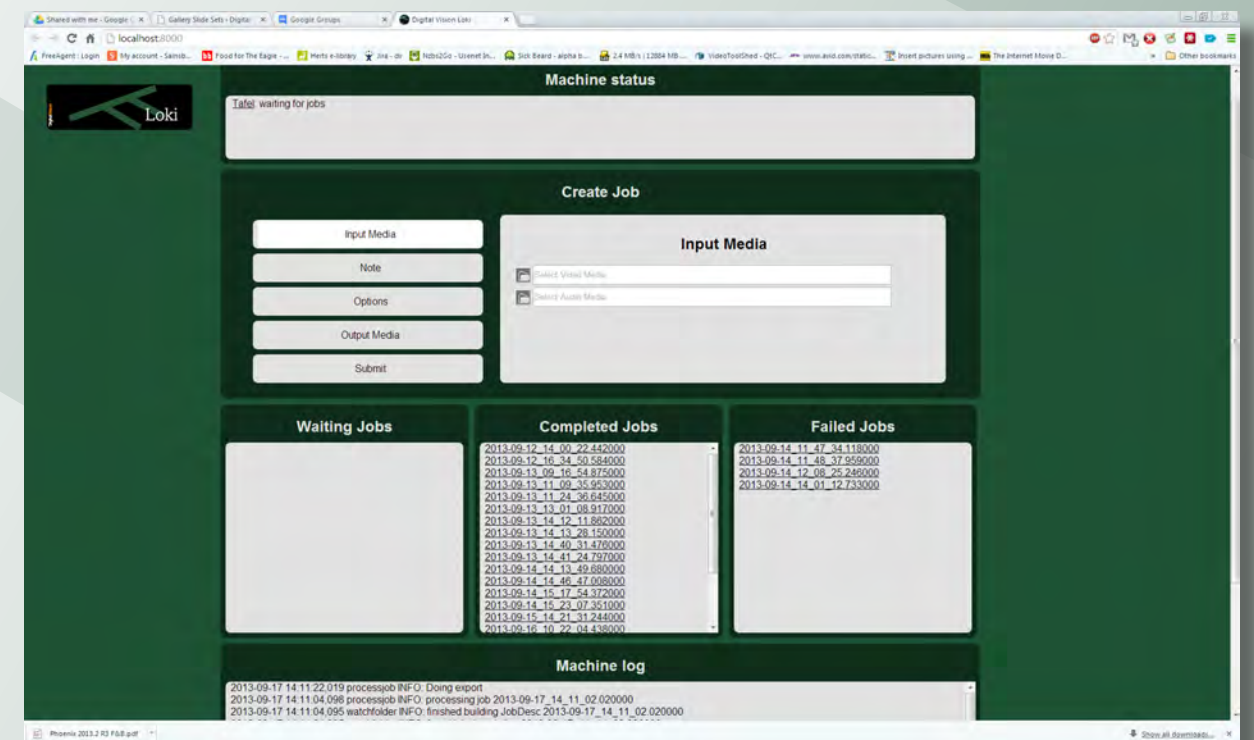
- Loki is a 'Front End' for Digital Vision's image processing software.
- There are two components to Loki :
  - An application to serve as a render node and create presets such as Nucoda, Phoenix or Loki Create
  - Loki Server
- Loki Create is a version of our software that will allow users to create custom notes for use in projects created on the Loki Server. It also serves as a render node.
- Loki Server is a web based front end for creating and tracking jobs. It is written in HTML and Python and can be extended, modified and customised by users. These modifications can be shared between users.
- It uses standard Nucoda or Phoenix presets(.note files)  
It requires either Loki Create or a Nucoda or Phoenix license with the relevant licenses to function. Functionality is dependant the available licenses.
- Loki Server is written in HTML and Python.It is a gateway to using the tools, and easy access to the command line functionality. Basic access and examples are provided and users can create what they need.
- Full support for Thor hardware accelerator via render nodes.  
For more information on Thor please check [www.digitalvision.tv](http://www.digitalvision.tv)
- Is scalable from one to many semi-autonomous render nodes

## Costs and Licensing

- If you own Nucoda or Phoenix - Loki Server is included in the installer -  
You can use Phoenix or Nucoda to set up notes and and use your Nucoda or Phoenix license as the renderer - while being used for rendering, the Nucoda or Phoenix license will be unavailable for normal use.
- Standalone - buy Loki Create and the DVO Tools of choice  
Loki Server is included in the installer.

## How does it work?

- Loki Server is a web based application that runs in the system tray.  
  
The web server allows for processing tasks to be created and queued from the job creation pane as well as monitoring the progress across all Loki render clients.  
  
This easy to use interface requires little operational knowledge and can be accessed from anywhere on your network.
- Loki scans a predetermined watch folder for new job specification files  
The specification file contains:
  - o input (source) media path
  - o processing preset (this is a Nucoda or Phoenix .note file)
  - o output (export) media path
  - o export specification (resolution, file type codec etc.)
- It checks that no other client has started the same task (via central log files)
- Opens DV Render engine (Nucoda or Phoenix applications are also compatible)
- Imports source media and applies preset
- Exports processed media
- Starts new job on completion

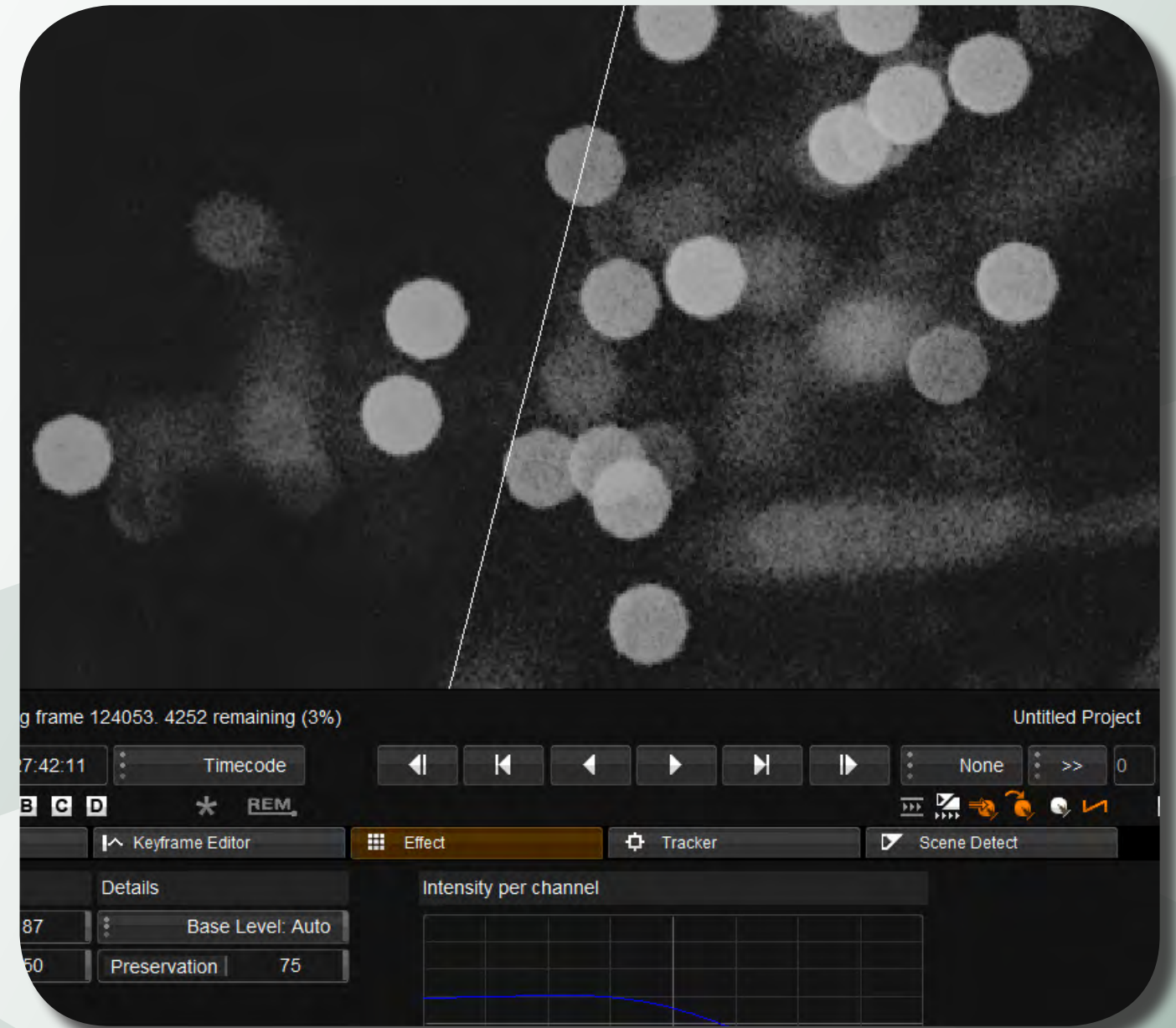




## Loki Processing Example (DVO Upscale):



Original image on the left (SD PAL) and the DVO upscaled image on the right



Original image on the right and the DVO Clarity image on the right

## Example Loki applications:

- Automated restoration of film and video assets (e.g. dust, scratches, drop-out, composite cross colour...)
- Transcoding engine with preprocessing (DVO Clarity noise reduction / low pass filtering)
- Stereo geometry and colour matching
- Rushes creation from digital camera files
- Advanced colourspace conversion via 3D LUTs, matrices and ACES ODTs
- Motion compensated frame rate conversion (DVO Twister)
- DVO Upscale
- Deliverables in multiple resolutions / frame rates and formats
- Nucoda & Phoenix project management and preparation

Loki is a web based monitoring and control interface to facilitate the creation and management of automated image processing tasks.

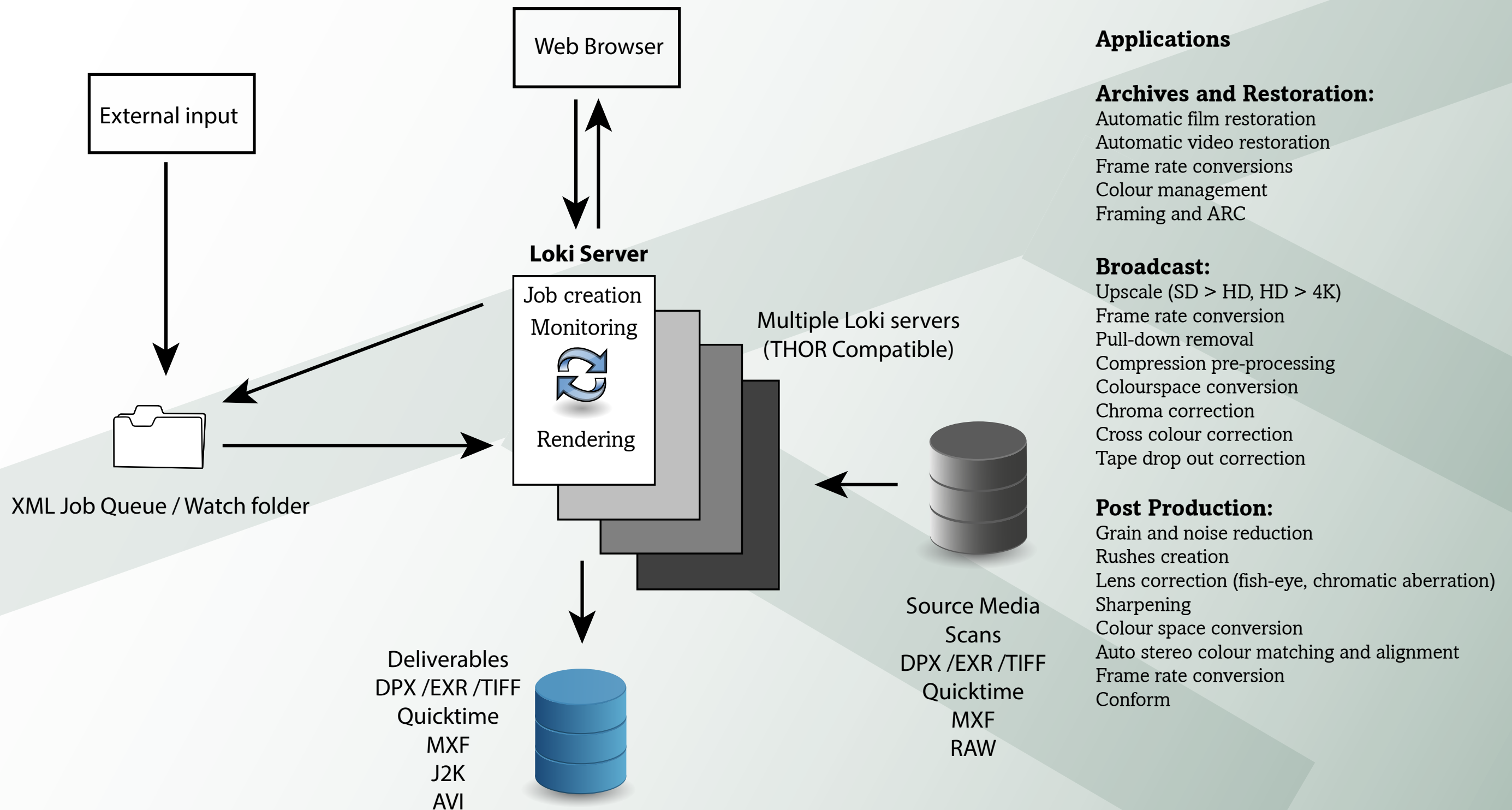


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