

Blender-aid v0.1 user manual

Blender-aid v0.1 (released on Blender conference 2009)

User manual

this document is part of a GPLv3 license.

Table of Contents

Introduction.....	3
What is Blender-aid?.....	3
What can you do with it?.....	3
How does it work?.....	3
When do you use it?.....	3
Features.....	4
Visibility.....	4
Refactoring.....	4
Installation.....	5
Configuration of settings.....	5
Technical dependencies.....	5
De-installation.....	5
Functionality – web base.....	6
First configuration.....	6
Production-view.....	9
Production-view Files tab.....	9
Production-view Scenes tab.....	10
Production-view Missing links tab.....	11
File-view.....	12
File-view Local link.....	13
File-view Rename file.....	14
File-view Move file.....	16
File-view Basic tab.....	17
File-view Elements tab.....	19
File-view References tab.....	22
File-view Dependency viewer tab.....	23

Introduction

Blender is a 3d content creation suite. It enables user to model, animate, shade and do post productions (composing) on 3d content. With Blender it is possible to create 3d games, 2.5d animations and 3d animations.

What is Blender-aid?

Blender-aid is a tool that helps you manage Blender productions. Blender focuses on the creation of content. Blender-aid focuses on managing the content of a production.

Big Buck Bunny consists of a lot of 3d content. This content is located in many files. Using Blender to manage content across files is difficult, especially when the content is not part of a single scene (= technical representation of a movie script).

What can you do with it?

The 2 main features of blender-aid are visibility and refactoring.

Visibility presents technical data of a production in different ways, like the links between files or the output settings of files. Presenting the data in a useful way lets you see where and why a file is used. With this information it is possible to answer questions like: "What scenes needs to be re-rendered when you modify a file or a part of a file?".

During the creation of a production changes happen. Blender-aid can perform complex refactoring tasks like renaming a file or moving a file to another folder location. Blender-aid will assure that the structure of the production stays intact.

How does it work?

Using Blender-aid is very simple. Just configure where your production is located on your computer. Blender-aid will inspect the files in the given location. With your web browser you can navigate through your production and perform refactoring tasks.

When do you use it?

Blender-aid has been designed for small teams working on blender animations or series. But feel free to use it and see what it can do for you. By using modern web and data warehousing techniques it enables you to quickly inspect and control your production.

Features

This section explains the main (functional) features of the tool.

Visibility

Blender-aid shows different aspects of the technical data of your production. Details are described below:

- View render settings of all production files
- View all production files used by a production file
- View all production files that uses a production file
- View all direct neighbours (users and used) production files
- View missing links in a production
- View list of elements from a blend file
- View filtered references and dependencies (table and graphic)

Refactoring

Refactoring is the ability to change the structure of a production.

- Rename production file
- Rename element of blend file
- Move production file

Installation

1. Download blender-aid package what can be found at <http://code.google.com/p/blender-aid/downloads/>
2. Unzip the downloaded file into a directory
3. Optional: Configure the settings (see configuration). This is only necessary when
 1. using windows or
 2. if one would like to use different settings.
4. Run the application in command line by typing: `python server.pyc` or `./server.pyc`

Make sure the user has read & write privileges to the database location (default `"/var/tmp/`).`sql.bin`).

Configuration of settings

Currently only the web server listening port and the database location can be configured. The web server listens default to port 8080 on localhost. The default database location is `/var/tmp/sql.bin`. Windows users should change the default location of the database.

1. Open the file `settings.py`
2. Change whatever you like
3. Save the settings
4. Restart the `server.pyc`

Technical dependencies

Blender-aid depends on the following software:

- Optional PIL (Python Imaging Library) for thumbnail generation
- Python 2.6 or
- Python 2.5 with [simplejson](#) module installed

De-installation

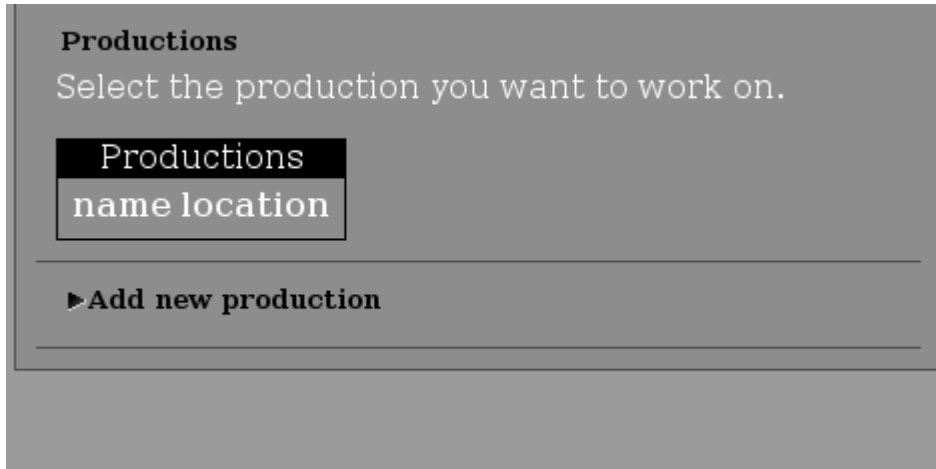
To remove Blender-aid just delete the directory where it is installed. The only created file is `/var/tmp/sql.bin` (or otherwise when changed in `settings.py`)

Functionality – web base

First configuration

When the server is started. You can start a browser and browse to “<http://localhost:8080>”. This can be different when configured otherwise.

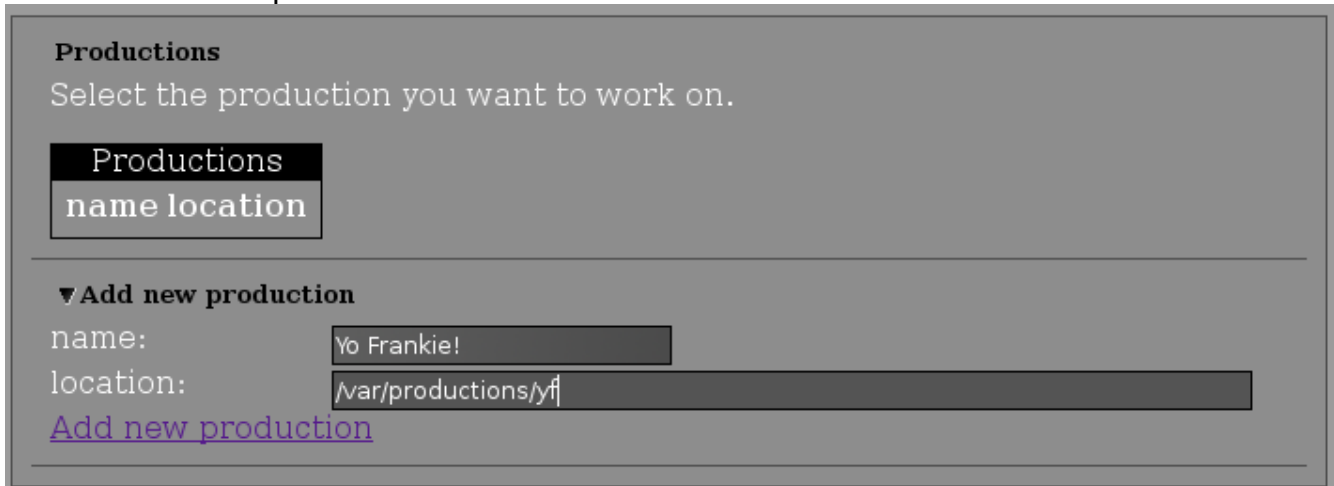
After the splash screen you will be on the next page



The screenshot shows a web interface titled "Productions". Below the title is the instruction "Select the production you want to work on." There is a table with two columns: "Productions" and "name location". Below the table is a button labeled "Add new production".

First we need to add our production location to the tool. For the next example I've downloaded Yo Frankie! And unzipped it to /var/productions/yf

Click on “Add new production” and enter the next values



The screenshot shows the same web interface as before, but with the "Add new production" button expanded. It now shows input fields for "name:" and "location:". The "name:" field contains "Yo Frankie!" and the "location:" field contains "/var/productions/yf". Below these fields is a link labeled "Add new production".

After clicking on the link “Add new production”. The production location is defined.

Productions
 Select the production you want to work on.

Productions	
name	location
Yo Frankie!	/var/productions/yf

▼ Add new production
 name:
 location:
[Add new production](#)

What has happened:

The location of the production “Yo Frankie!” on the location “/var/productions/yf” is not known by Blender-aid. Blender-aid will extract the technical data from this location and be able to display it to you.

Now press in the table named productions on “Yo Frankie!” A new screen will be displayed.

Production
 name:
 location:

[↑ Productions](#)

[Files](#)
[Scenes](#)
[Missing links](#)

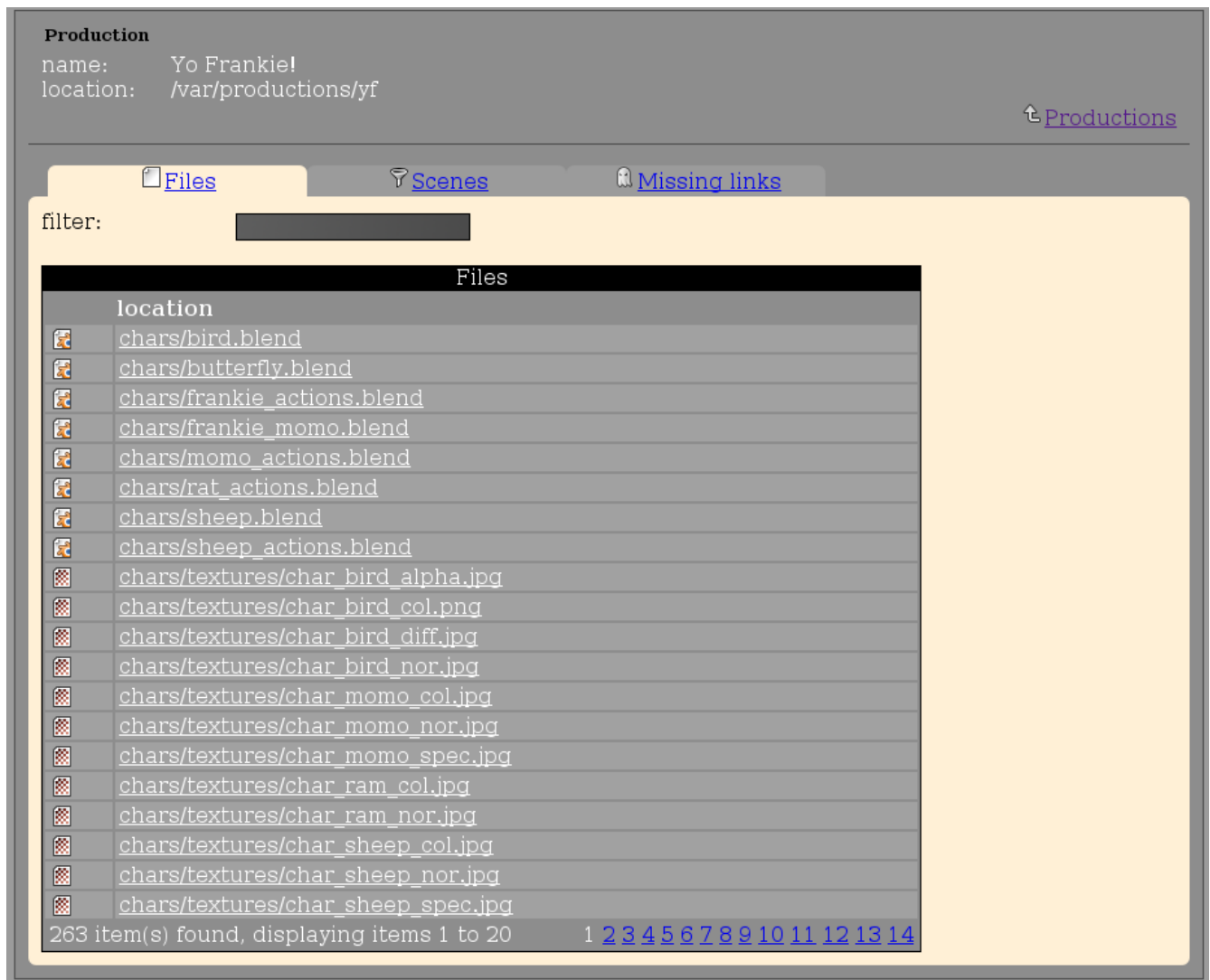
filter:

Files
 location
 Please wait while retrieving content...

We have to wait for halve a minute or so, depending on the speed of your computer. Blender-aid inspects all production files and will store this information in a database. This process is called indexing. Indexing normally takes up to a few seconds, but when a lot of changes happen, it can take longer.

When indexing is done the screen will look like this:

Blender-aid v0.1 user manual



Now you are ready to use the tool.

Production-view

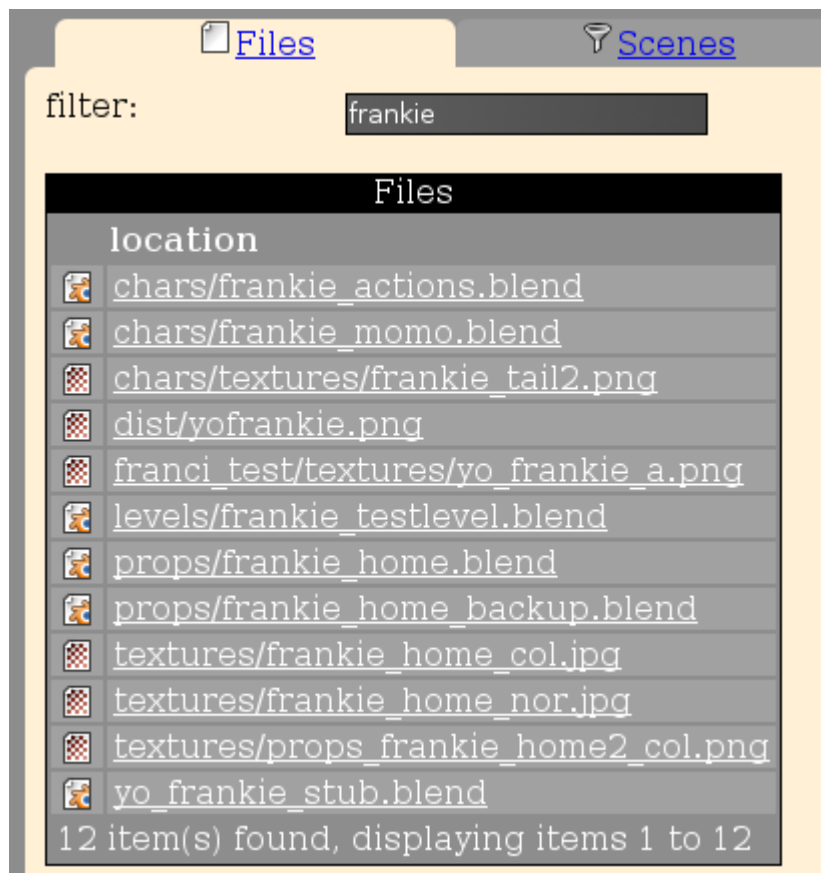
The production view is the screen as displayed above. It contains information of the selected production. The view contains 3 tabs.

- Files – displays a list of production files. It has a filter for quick finding of a specific production file.
- Scenes – display a list of all scenes in the production. It can be used to find and align render settings.
- Missing links – display a list of all missing links between files.

When pressing on a link in a tab you will be show detailed information of the file. This will be described in the File-view section

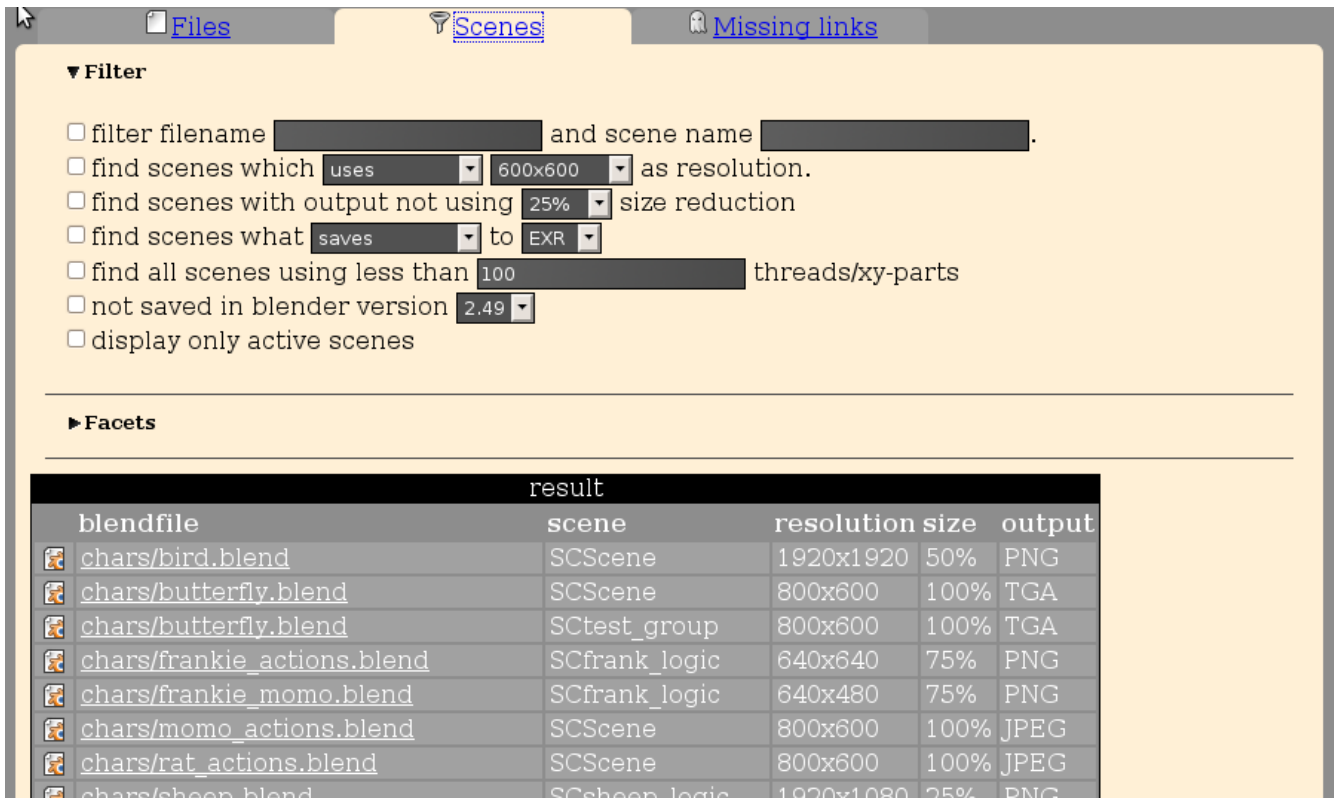
Production-view Files tab

The files tab displays files from the selected production.



The filter can be used to search for a specific file. In the screenshot above only files containing “frankie” will be displayed.

Production-view Scenes tab



Filter

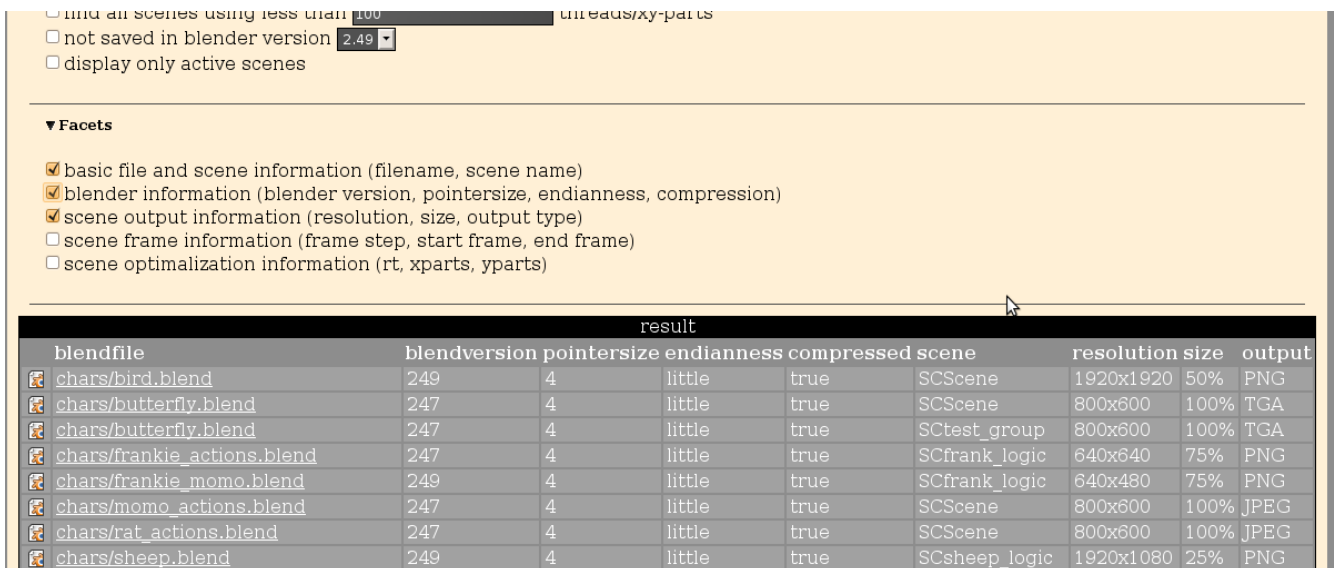
- ☐ filter filename and scene name .
- ☐ find scenes which uses 600x600 as resolution.
- ☐ find scenes with output not using 25% size reduction
- ☐ find scenes what saves to EXR
- ☐ find all scenes using less than 100 threads/xy-parts
- ☐ not saved in blender version 2.49
- ☐ display only active scenes

Facets

result				
blendfile	scene	resolution	size	output
chars/bird.blend	SCScene	1920x1920	50%	PNG
chars/butterfly.blend	SCScene	800x600	100%	TGA
chars/butterfly.blend	SCtest_group	800x600	100%	TGA
chars/frankie_actions.blend	SCfrank_logic	640x640	75%	PNG
chars/frankie_momo.blend	SCfrank_logic	640x480	75%	PNG
chars/momo_actions.blend	SCScene	800x600	100%	JPEG
chars/rat_actions.blend	SCScene	800x600	100%	JPEG
chars/sheep.blend	SCsheep_logic	1920x1080	25%	PNG

The scenes tab has a advanced filter. You can match every files to criteria.

When clicking on Facets, you'll be able to view additional information of the scene.



☐ find all scenes using less than 100 threads/xy-parts

☐ not saved in blender version 2.49

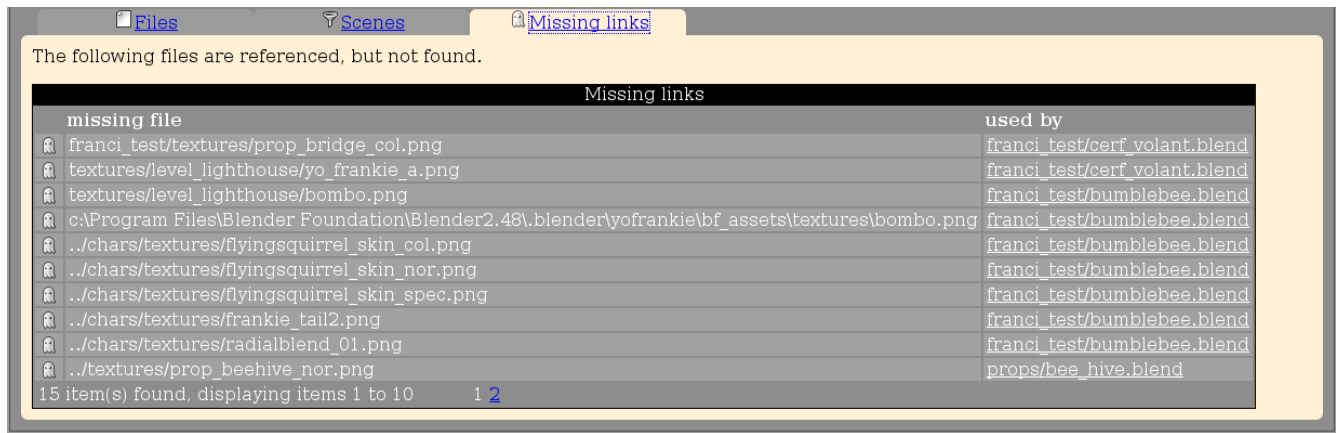
☐ display only active scenes

Facets

- ☒ basic file and scene information (filename, scene name)
- ☒ blender information (blender version, pointersize, endianness, compression)
- ☒ scene output information (resolution, size, output type)
- ☐ scene frame information (frame step, start frame, end frame)
- ☐ scene optimization information (rt, xparts, yparts)

result								
blendfile	blendversion	pointersize	endianness	compressed	scene	resolution	size	output
chars/bird.blend	249	4	little	true	SCScene	1920x1920	50%	PNG
chars/butterfly.blend	247	4	little	true	SCScene	800x600	100%	TGA
chars/butterfly.blend	247	4	little	true	SCtest_group	800x600	100%	TGA
chars/frankie_actions.blend	247	4	little	true	SCfrank_logic	640x640	75%	PNG
chars/frankie_momo.blend	249	4	little	true	SCfrank_logic	640x480	75%	PNG
chars/momo_actions.blend	247	4	little	true	SCScene	800x600	100%	JPEG
chars/rat_actions.blend	247	4	little	true	SCScene	800x600	100%	JPEG
chars/sheep.blend	249	4	little	true	SCsheep_logic	1920x1080	25%	PNG

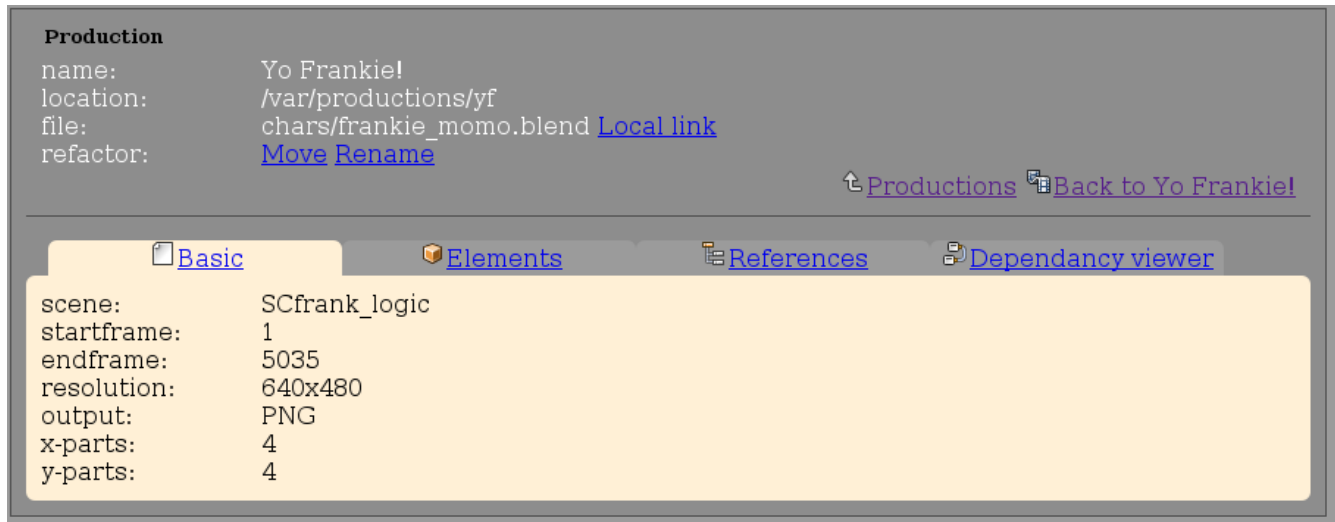
Production-view Missing links tab



When viewing the missing links tab you'll be shown a table with all missing links in the production. At the moment these links are only missing file links. In the future this can be enhanced with missing elements.

File-view

When clicking on a file in the production view you will get information about the file. This section describes this.



A file is show together with

- Local link – location to the file on the local file system for quick opening of the file
- Rename – Rename the file.
- Move – Move a file to another location in the production

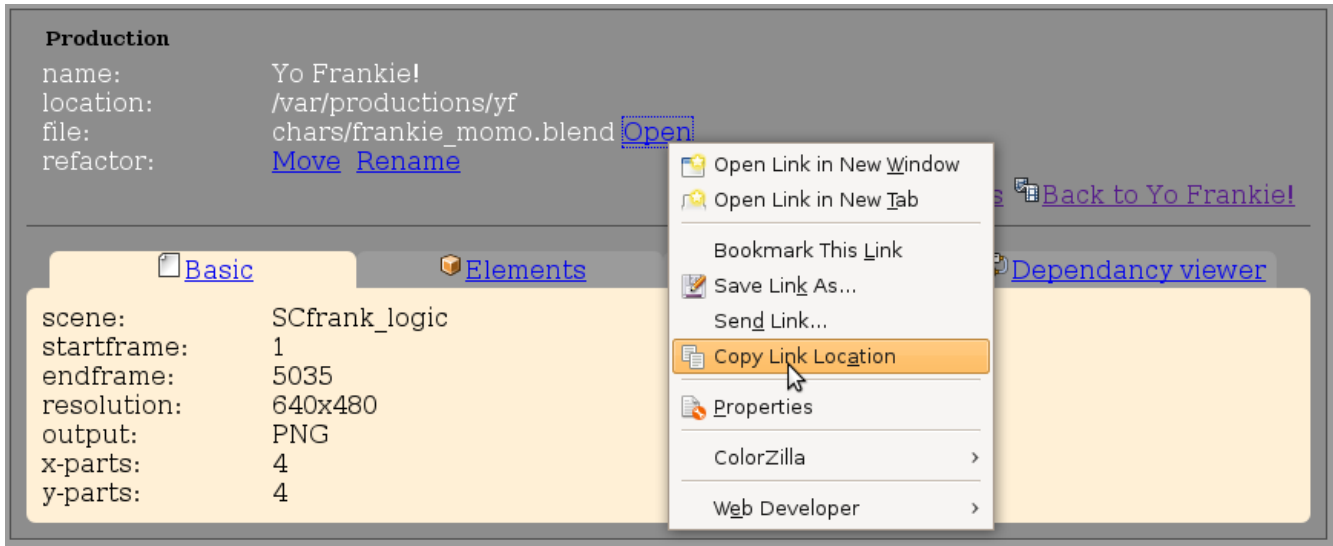
Next to this information 4 tabs are displayed:

- Basic – some basic information about the file.
- Elements – the elements inside a blender file
- References – references between files
- Dependency viewer – advanced production reference viewer

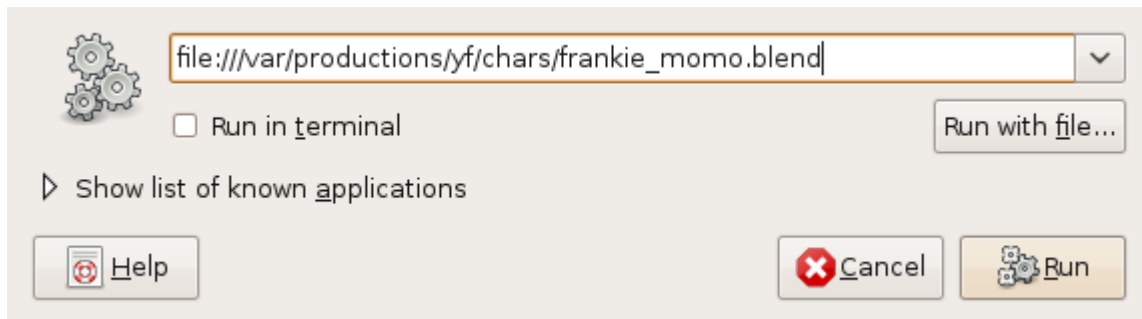
File-view Local link

With local link it is possible to quickly open the file on your system. Due to security reasons this has to be done using the following steps.

1. Press other mouse button on the link and choose Copy Link Location.



2. Depending on your OS start the run command (Alt-f2 on Ubuntu)

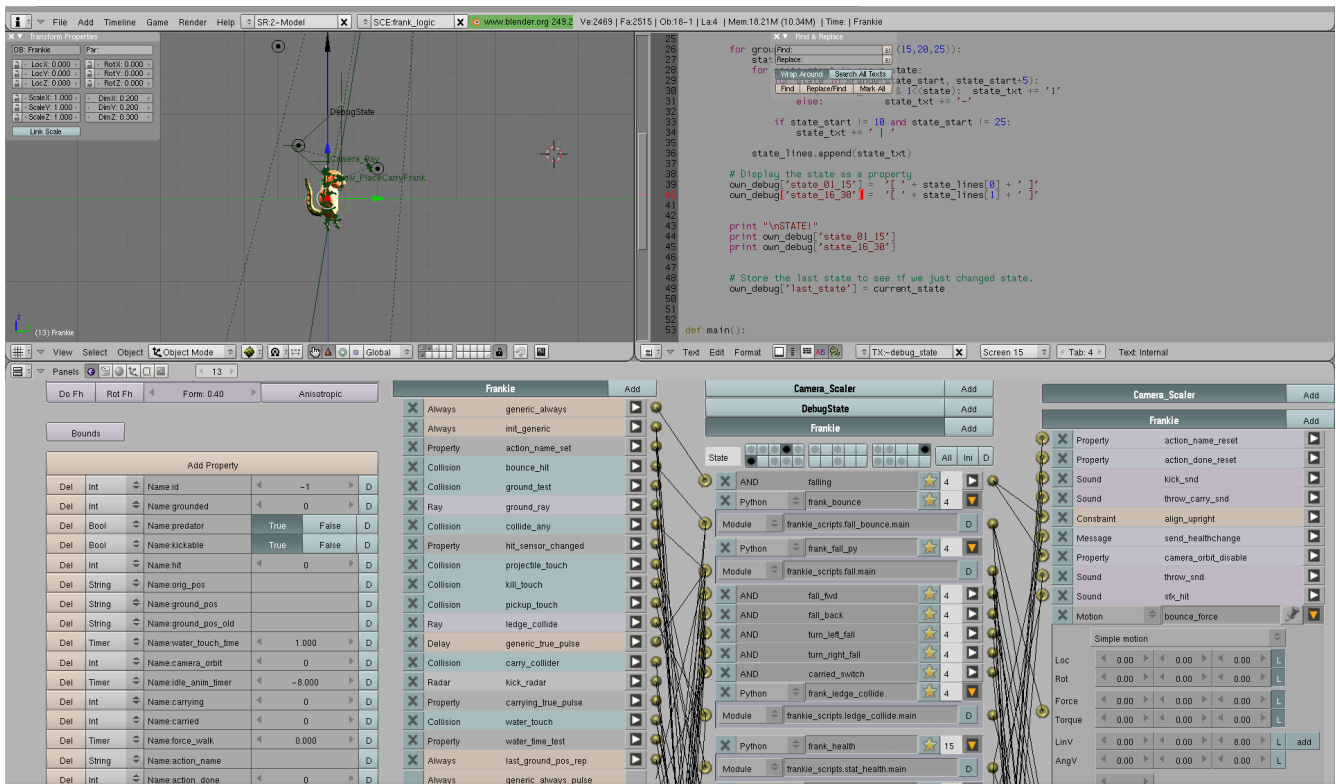


3. Press Paste

4. Press Run

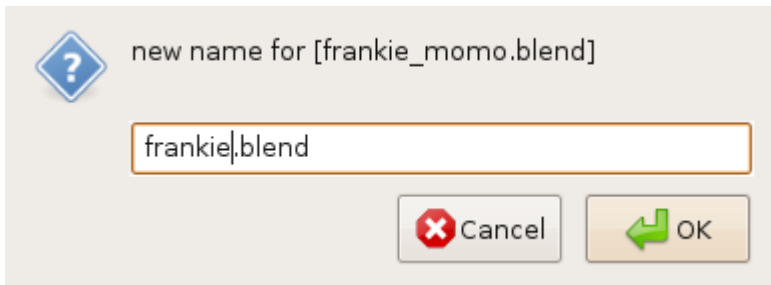
blender will be started with the file depending on the configuration of your machine.

Blender-aid v0.1 user manual



File-view Rename file

When pressing on rename file a popup will be shown asking you to enter the new filename



Enter new name and press OK. A screen will be displayed showing you what will be done

Blender-aid v0.1 user manual

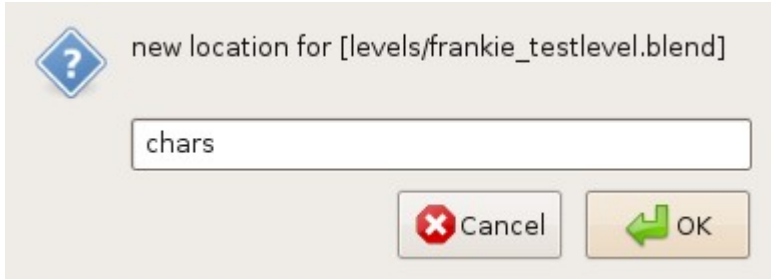
Tasks		
file	description	state
⊗ chars/frankie_momo.blend	Backup [chars/frankie_momo.blend]	Created
⊗ franci_test/cerf_volant.blend	Backup [franci_test/cerf_volant.blend]	Created
⊗ franci_test/cerf_volant.blend	Change library reference [frankie_momo.blend] to [frankie.blend]	Created
⊗ levels/level_nut.blend	Backup [levels/level_nut.blend]	Created
⊗ levels/level_nut.blend	Change library reference [frankie_momo.blend] to [frankie.blend]	Created
⊗ levels/minilevel_release_Demo.blend	Backup [levels/minilevel_release_Demo.blend]	Created
⊗ levels/minilevel_release_Demo.blend	Change library reference [frankie_momo.blend] to [frankie.blend]	Created
⊗ levels/level_1_home.blend	Backup [levels/level_1_home.blend]	Created
⊗ levels/level_1_home.blend	Change library reference [frankie_momo.blend] to [frankie.blend]	Created
⊗ levels/library.blend	Backup [levels/library.blend]	Created
⊗ levels/library.blend	Change library reference [frankie_momo.blend] to [frankie.blend]	Created
⊗ levels/minilevel_the_Arena.blend	Backup [levels/minilevel_the_Arena.blend]	Created
⊗ levels/minilevel_the_Arena.blend	Change library reference [frankie_momo.blend] to [frankie.blend]	Created
⊗ levels/minilevel_ratpack.blend	Backup [levels/minilevel_ratpack.blend]	Created
⊗ levels/minilevel_ratpack.blend	Change library reference [frankie_momo.blend] to [frankie.blend]	Created
⊗ levels/minilevel_demo_arena3.blend	Backup [levels/minilevel_demo_arena3.blend]	Created
⊗ levels/minilevel_demo_arena3.blend	Change library reference [frankie_momo.blend] to [frankie.blend]	Created
⊗ levels/minilevel_lava_Falls.blend	Backup [levels/minilevel_lava_Falls.blend]	Created
⊗ levels/minilevel_lava_Falls.blend	Change library reference [frankie_momo.blend] to [frankie.blend]	Created
⊗ levels/level_selector.blend	Backup [levels/level_selector.blend]	Created
⊗ levels/level_selector.blend	Change library reference [frankie_momo.blend] to [frankie.blend]	Created
⊗ levels/level_selector_other.blend	Backup [levels/level_selector_other.blend]	Created
⊗ levels/level_selector_other.blend	Change library reference [frankie_momo.blend] to [frankie.blend]	Created
⊗ levels/level_underworld.blend	Backup [levels/level_underworld.blend]	Created
⊗ levels/level_underworld.blend	Change library reference [frankie_momo.blend] to [frankie.blend]	Created
⊗ levels/level_lighthouse.blend	Backup [levels/level_lighthouse.blend]	Created
⊗ levels/level_lighthouse.blend	Change library reference [frankie_momo.blend] to [frankie.blend]	Created
⊗ levels/frankie_testlevel.blend	Backup [levels/frankie_testlevel.blend]	Created
⊗ levels/frankie_testlevel.blend	Change library reference [frankie_momo.blend] to [frankie.blend]	Created
⊗ levels/start_menu.blend	Backup [levels/start_menu.blend]	Created
⊗ levels/start_menu.blend	Change library reference [frankie_momo.blend] to [frankie.blend]	Created
⊗ chars/momo_actions.blend	Backup [chars/momo_actions.blend]	Created
⊗ chars/momo_actions.blend	Change library reference [frankie_momo.blend] to [frankie.blend]	Created
⊗ chars/frankie_actions.blend	Backup [chars/frankie_actions.blend]	Created
⊗ chars/frankie_actions.blend	Change library reference [frankie_momo.blend] to [frankie.blend]	Created
⊗ chars/frankie_momo.blend	Rename [frankie_momo.blend] to [frankie.blend]	Created
36 item(s) found		
Cancel Continue (perform tasks)		

Press continue to perform these tasks or press cancel to return to the file-view

After continue the tasks will be performed and you will be asked to rollback or commit the changes. Before you continue, please test the result of the rename. After a commit or rollback you will be show the production-view

File-view Move file

When pressing on move file a popup will be shown asking you to enter the new location



Enter new location and press OK. A screen will be displayed showing you what will be done



Press continue to perform these tasks or press cancel to return to the file-view

After continue the tasks will be performed and you will be asked to rollback or commit the changes. Before you continue, please test the result of the rename. After a commit or rollback you will be show the production-view

File-view Basic tab


The basic tab will display some basic information of the file. When the file is a texture a thumbnail will be displayed. For a blend file render information of the active scene will be shown.

Blender-aid v0.1 user manual

Production

name: Yo Frankie!
location: /var/productions/yf
file: hud/hudsheet.png [Local link](#)
refactor: [Move](#) [Rename](#)

[↑ Productions](#) [📁 Back to Yo Frankie!](#)

 [Basic](#)

 [References](#)

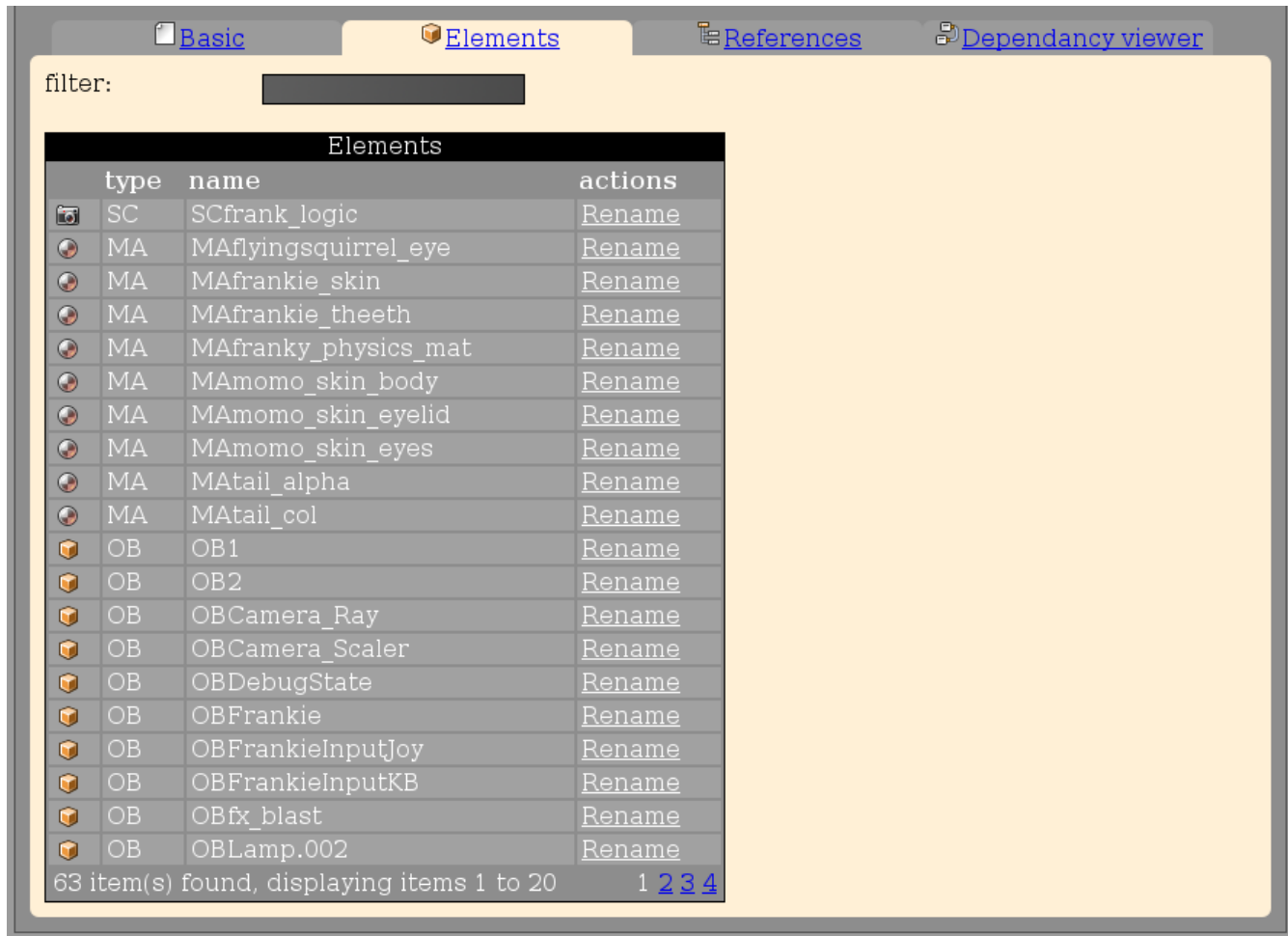
 [Dependancy viewer](#)



When clicking on the image, the image will be downloaded or opened in your browser depending your browser-settings.

File-view Elements tab

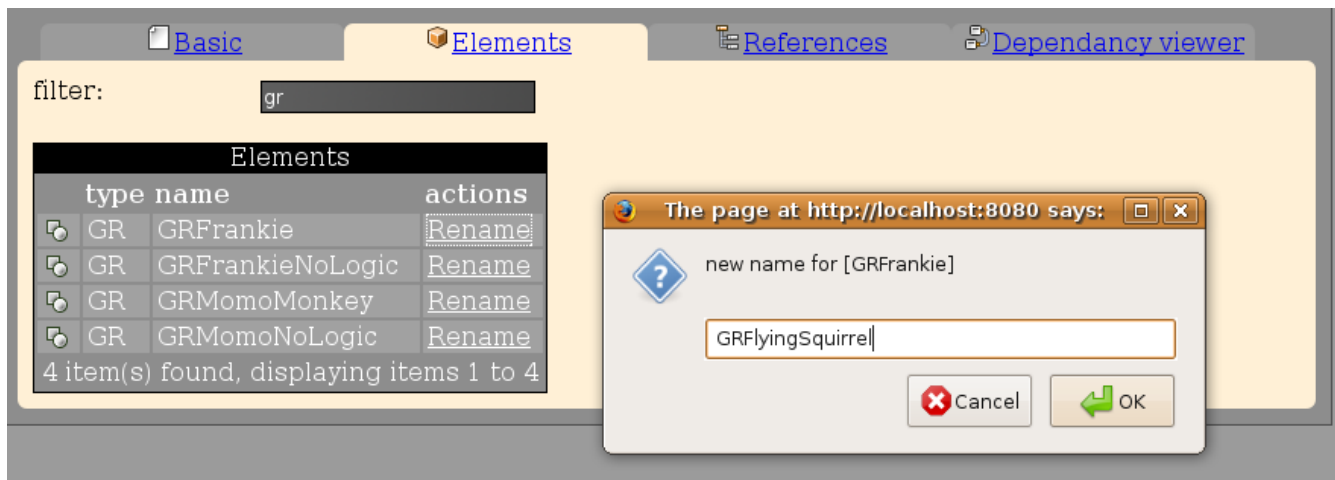
The elements tab is only visible for blend files. It shows blender elements inside the file



It has a filter to quickly find a specific element in the file. And the possibility to rename an element

When rename is clicked a popup will appear asking for a new name

Blender-aid v0.1 user manual



Enter new location and press OK. A screen will be displayed showing you what will be done

Tasks		
file	description	state
chars/frankie.blend	Backup [chars/frankie.blend]	Created
franci_test/cerf_volant.blend	Backup [franci_test/cerf_volant.blend]	Created
franci_test/cerf_volant.blend	Change element reference [GRFrankie] to [GRFlyingSquirrel]	Created
levels/level_nut.blend	Backup [levels/level_nut.blend]	Created
levels/level_nut.blend	Change element reference [GRFrankie] to [GRFlyingSquirrel]	Created
levels/minilevel_release_Demo.blend	Backup [levels/minilevel_release_Demo.blend]	Created
levels/minilevel_release_Demo.blend	Change element reference [GRFrankie] to [GRFlyingSquirrel]	Created
levels/level_1_home.blend	Backup [levels/level_1_home.blend]	Created
levels/level_1_home.blend	Change element reference [GRFrankie] to [GRFlyingSquirrel]	Created
levels/library.blend	Backup [levels/library.blend]	Created
levels/library.blend	Change element reference [GRFrankie] to [GRFlyingSquirrel]	Created
levels/minilevel_the_Arena.blend	Backup [levels/minilevel_the_Arena.blend]	Created
levels/minilevel_the_Arena.blend	Change element reference [GRFrankie] to [GRFlyingSquirrel]	Created
levels/minilevel_ratpack.blend	Backup [levels/minilevel_ratpack.blend]	Created
levels/minilevel_ratpack.blend	Change element reference [GRFrankie] to [GRFlyingSquirrel]	Created
levels/minilevel_demo_arena3.blend	Backup [levels/minilevel_demo_arena3.blend]	Created
levels/minilevel_demo_arena3.blend	Change element reference [GRFrankie] to [GRFlyingSquirrel]	Created
levels/minilevel_lava_Falls.blend	Backup [levels/minilevel_lava_Falls.blend]	Created
levels/minilevel_lava_Falls.blend	Change element reference [GRFrankie] to [GRFlyingSquirrel]	Created
levels/level_selector.blend	Backup [levels/level_selector.blend]	Created
levels/level_selector.blend	Change element reference [GRFrankie] to [GRFlyingSquirrel]	Created
levels/level_selector_other.blend	Backup [levels/level_selector_other.blend]	Created
levels/level_selector_other.blend	Change element reference [GRFrankie] to [GRFlyingSquirrel]	Created
levels/level_underworld.blend	Backup [levels/level_underworld.blend]	Created
levels/level_underworld.blend	Change element reference [GRFrankie] to [GRFlyingSquirrel]	Created
levels/level_lighthouse.blend	Backup [levels/level_lighthouse.blend]	Created
levels/level_lighthouse.blend	Change element reference [GRFrankie] to [GRFlyingSquirrel]	Created
chars/frankie_testlevel.blend	Backup [chars/frankie_testlevel.blend]	Created
chars/frankie_testlevel.blend	Change element reference [GRFrankie] to [GRFlyingSquirrel]	Created
chars/frankie.blend	Rename element [GRFrankie] to [GRFlyingSquirrel]	Created
30 item(s) found		
Cancel Continue (perform tasks)		

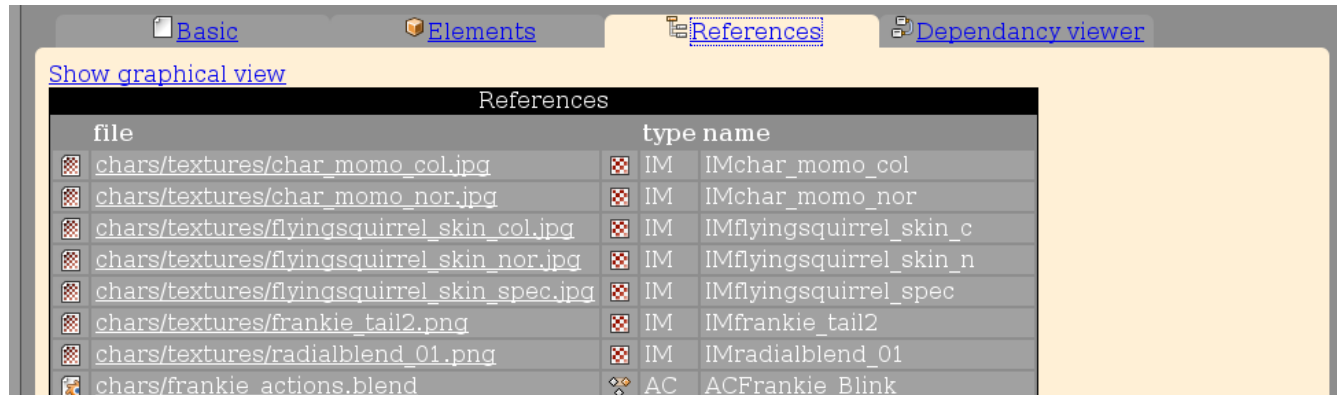
Blender-aid v0.1 user manual

Press continue to perform these tasks or press cancel to return to the file-view

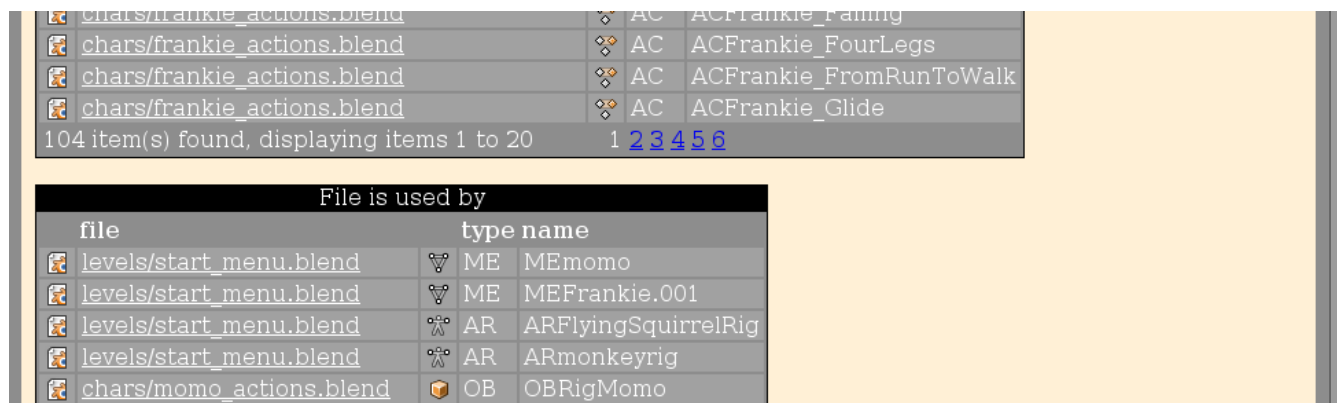
After continue the tasks will be performed and you will be asked to rollback or commit the changes. Before you continue, please test the result of the rename. After a commit or rollback you will be show the production-view

File-view References tab

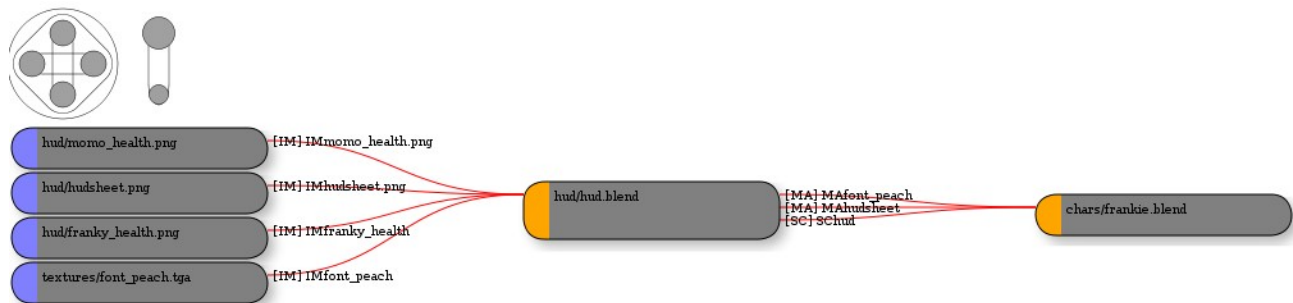
The reference tab shows all links to other files and all links that other files have to the current selected file



Skipped a part...



It also has the ability to show a graphical display of the file in with their direct neighbour files.



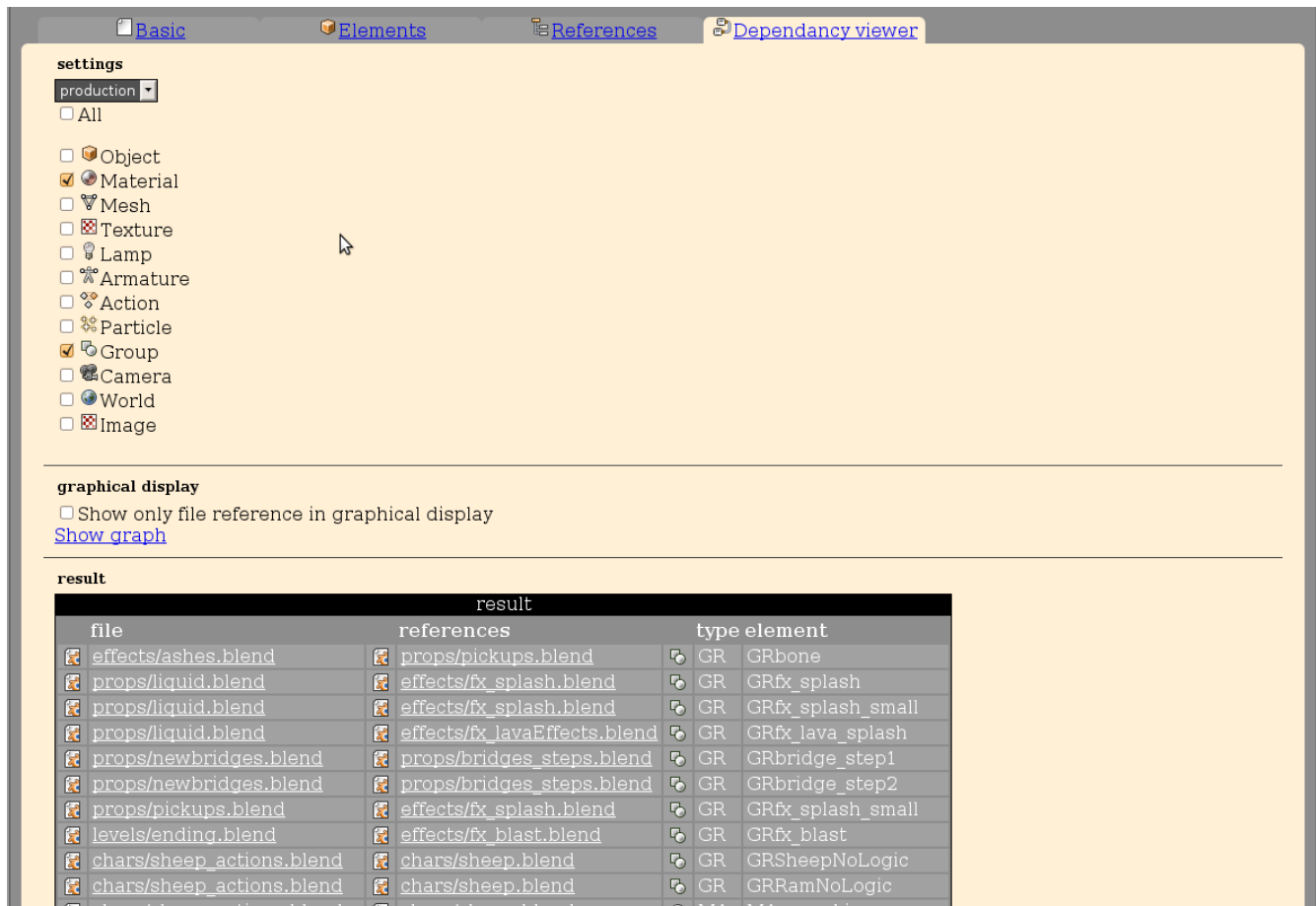
The buttons on the top-left enable you to move and to zoom the graphical display.

TODO: how to read the graphical display.

File-view Dependency viewer tab

The dependency viewer tab is an advanced version of the references tab.

It has filter options of certain blender elements (show only groups, or groups and materials) and it has the ability to look broader than only direct linked files. It also has a function to view all references in the total production.



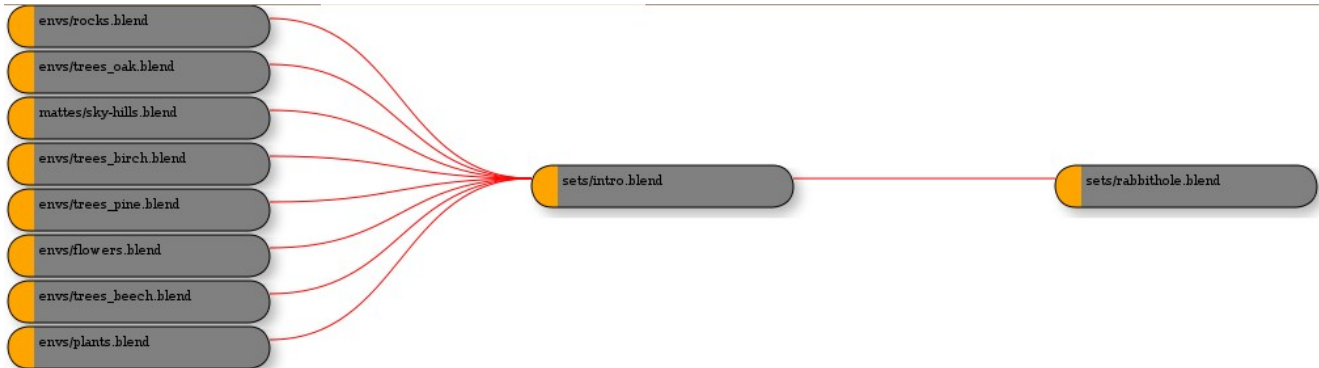
the dropdown list has 4 options. (neighbour, uses, used, production)

Neighbour	Shows only direct relations to and from the selected file. (example: texture, character, scene, when character is selected)
Uses	Will show all relations (and files) the selected file depends on. (example: texture, character, when character is selected)
Used	Will show all relations (and files) what depends on the selected file (example: character, scene, when character is selected)

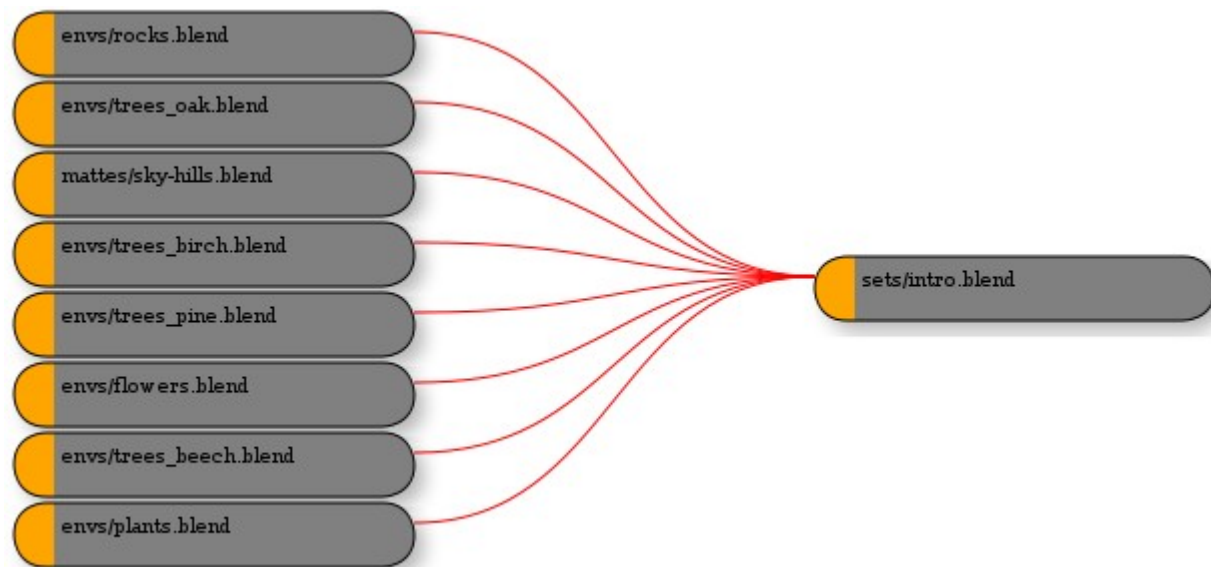
Blender-aid v0.1 user manual

Production

Show all relations between all files from the production.



Neighbours of “sets/intro.blend”



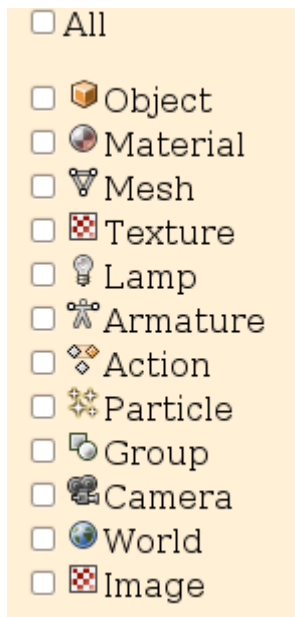
All uses of “sets/intro.blend”

4



25/26

Blender-aid v0.1 user manual



When all is selected the other selections are not shown.