Auto Resolve
Edit   Help

Base Path: c:/tempDir   [Browse]

Resolve: ☑ Caches
          ☑ References
          ☑ Representations
          ☑ Textures

Options: ☑ Copy Files
          c:/tempDir/Files/   [Browse]

          ⦿ Copy & Repath All Files
          ○ Copy & Repath Newly Resolved
          ☐ Delete Original Files

          ☐ Select Files Upon Completion
             ○ Unresolved
             ○ Previously Resolved
             ○ Newly Resolved

[AUTO RESOLVE]   [CANCEL]

If files are getting copied and/or deleted:

Auto Resolve - No Undo
WARNING
Auto-Resolve is about to perform file operations that cannot be undone.
Are you sure you want to continue?

[CONTINUE]   [CANCEL]

OPTIONS MENU
✓ Auto-Update
  Browser Mode: ○ Type
                         ⦿ Relative
                         ○ Absolute

VIEW MENU
✓ Caches
✓ References
✓ Representations
✓ Textures

EDIT MENU
Auto Resolve   >
Repath
Replace String >
Find Files   >

SELECT MENU
Select All
Select All Resolved
Select All Unresolved
Select All Type   > Caches
Select Displayed All   References
Select Displayed Resolved   Representations
Select Displayed Unresolved Textures
Select Displayed Type   > Caches
Select Active All   References
Select Active Resolved   Representations
Select Active Unresolved   Textures
Select Active Type   > Caches
                            References
                            Representations
                            Textures

or

SELECT MENU
Select   > All
Select from Displayed   > By Resolved
Select from Active   > By Unresolve
                            By Type   > Caches
                                         References
                                         Representations
                                         Textures

Window Name
Edit   Options   View   Select   Help

Browse By: ○ Type   ⦿ Relative Path   ○ Absolute Path
Filter: [   ]   Path ▾

Top (32 Resolved, 5 Unresolved)
  C:/Program Files/Autodesk/Maya2013/Gifts/smoke/...
  C:/Users/skienar/Documents/maya/projects/default/...
  Z:/Studio/Show/Lib/Assets/...
     Chars/...
        Biff/Files...
           Models/...
           Rigs/...
           Textures/...
        Randy/Files...
     Props/...
     Sets/...

Selected Status: 2 Resolved, 5 Unresolved

[Auto Resolve]   [Repath]   [Replace String]

RMB MENU
Auto Resolve [ ]
Repath   [ ]
Replace String [ ]
Find Files   [ ]

Select Active
Graph Active in Node Ed
Graph Active in Hypersh

RMB MENU
✓ Caches
✓ References
✓ Representations
✓ Textures

Repath
Edit   Help

New Path: c:/tempDir   [Browse]

☑ Search Recursive Directories

[REPATH]   [CANCEL]

Replace String
Edit   Help

Affected String: Filename ▾

Search String: *randy
Replace String: Randal

☑ Replace Every Instance

☑ Allow Regular Expressions

[SEARCH]   [REPLACE]   [CANCEL]

Node Name
Directory Path
Filename
Directory and Filename
All

File Path Editor Design Spec

1   Introduction

Filepath management in Maya leaves much to be desired. Outside of being told that a file has not loaded, users are left with little recourse other than to either use third party tools, or tools they create themselves. The **File Path Editor (FPE)** hopes to provide users with a solution out of the box for pathing issues in Maya..

Goals of the File Path Editor are to:

- Quickly diagnose unresolved paths in Maya
- Easily repair broken files paths
- Repath multiple files of various types at once
- Allow users to preview changes before committing them
- Support custom file types from Plug-ins

Fig 1.1: Potential Final State of the File Path Editor

The previous version of this document provided a deeply detailed specification of the complete File Path Editor. After discussions with other designers it became apparent that when developing a large new UI tool such a different strategy may not always provide the best end results. As such, this will be Staged Specification of the File Path Editor – one that allows for an initial deployment followed by a planned second stage.

After feedback is received on the initial deployment, the File Path Editor may go in a different direction than initially planned. While it is worthwhile to know a potential end state (See Fig. 1.1), please note that this is merely the current direction. It is not necessarily a final destination.

The File Path Editor will initially only provide support for paths of File (Texture), Image Plane, Audio, and Reference nodes. The list of supported file types will probably expand in the future. As such, the FPE must be developed in such a way that new and different file types can be registered with the FPE. This will allow for the management of file paths of custom file types defined by plugins and custom User code.

2   Stage One: Basic Operations

Stage One of the FPE will enable a basic File Path Editor. When Stage One implementation is complete users will have a simple tool that will provide a complete repathing solution in Maya. To accomplish Stage One there will be the need to create three UIs and one RMB menu. The goals at the end of Stage One are:

- List all File Paths currently being used in Maya
- Diagnose the resolution state of file paths in Maya
- Right Mouse Button menu for various operations
- Repath files by selection in the UI
- Repath multiple files by path-based selection
- Preview pathing changes before committing them

There will be four components to the implementation of Stage One:

- The File Path Editor UI
- The Right Mouse Button Menu for the File Path Editor UI
- The Repathing Options Window
- The Actions Preview Window

While all four of these elements are being lumped together as Stage One of the File Path Editor, as each component is added the usefulness of the File Path Editor will increase, so the FPE can be delivered to customers whenever any element is completed.

2.1 Stage One Implementation Step One: File Path Editor
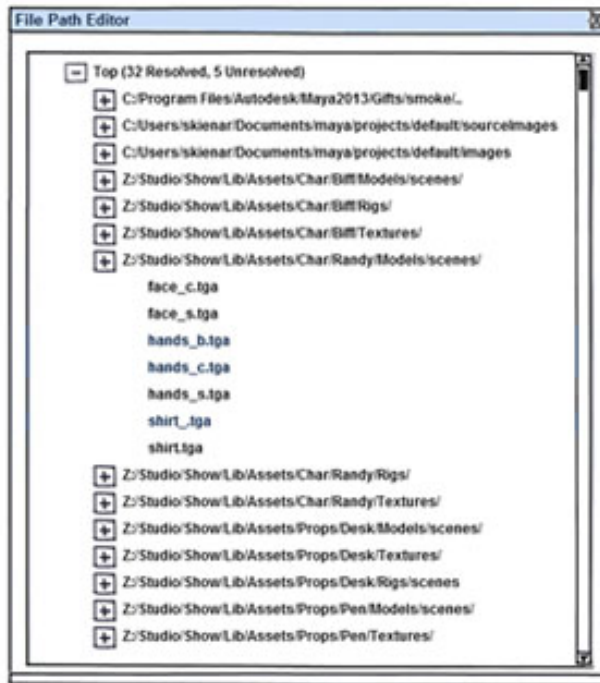
What the FPE will be able to:

- The File Path Editor will be able to list of all of the Paths being used in Maya.
- The Top level of the list will be a line with the number of resolved and unresolved file paths
- Every file path used in Maya will be listed underneath this when the Top level is expanded.
- Each file path can be expanded to list the files under it.
- The list will be multi-selectable.
- When a file is selected in this list, the node for that file is then selected in Maya.
- When a path is selected in the list the nodes for the files that exist in that path are selected in Maya

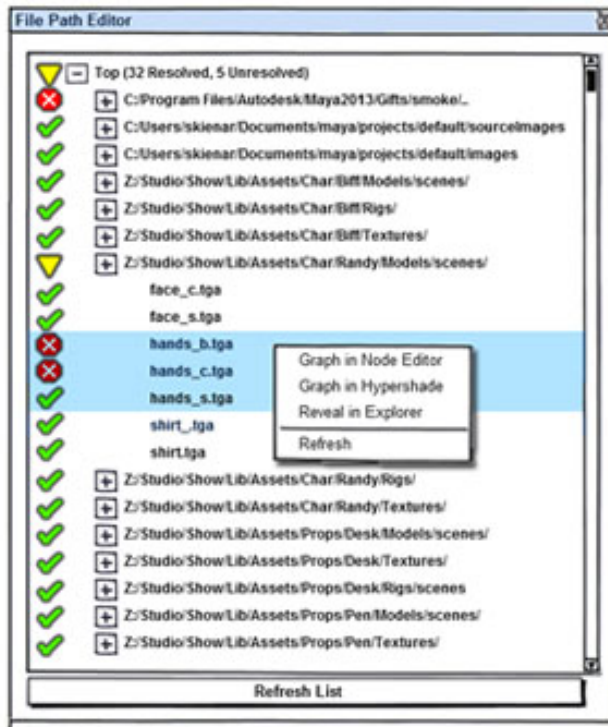## 2.2 Stage One Implementation Step Two: File Path

Features to be added to the FPE:

- Icons that indicate resolution status will be included in the list.
- An Icon will indicate the resolution status of the file elements in Maya for that item and its child elements

  - All Paths Are Unresolved
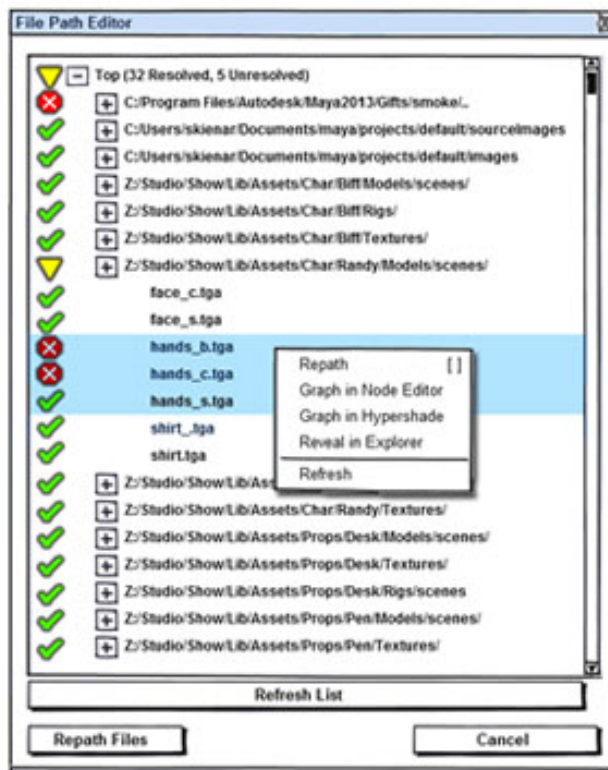
  - Some Paths Are Unresolved

  - No Unresolved Paths

2.3 Stage One Implementation Step Three: File Path Editor

File Path Editor

Top (32 Resolved, 5 Unresolved)
- C:/Program Files/Autodesk/Maya2013/Gifts/smoke/...
- C:/Users/skienar/Documents/maya/projects/default/sourceImages
- C:/Users/skienar/Documents/maya/projects/default/images
- Z:/Studio/Show/Lib/Assets/Char/Biff/Models/scenes/
- Z:/Studio/Show/Lib/Assets/Char/Biff/Rigs/
- Z:/Studio/Show/Lib/Assets/Char/Biff/Textures/
- Z:/Studio/Show/Lib/Assets/Char/Randy/Models/scenes/
  - face_c.tga
  - face_s.tga
  - hands_b.tga
  - hands_c.tga
  - hands_s.tga
  - shirt_.tga
  - shirt.tga
- Z:/Studio/Show/Lib/Assets/Char/Randy/Rigs/
- Z:/Studio/Show/Lib/Assets/Char/Randy/Textures/
- Z:/Studio/Show/Lib/Assets/Props/Desk/Models/scenes/
- Z:/Studio/Show/Lib/Assets/Props/Desk/Textures/
- Z:/Studio/Show/Lib/Assets/Props/Desk/Rigs/scenes
- Z:/Studio/Show/Lib/Assets/Props/Pen/Models/scenes/
- Z:/Studio/Show/Lib/Assets/Props/Pen/Textures/

Context menu:
Graph in Node Editor
Graph in Hypershade
Reveal in Explorer
Refresh

Refresh List

Features to be added to the FPE:

- Refresh Button to update the contents of the list to match the current state of Maya
- Right Mouse Menu for the Path List. This will affect selected files and selected Paths:
  - Graph in Node Editor – This will graph the Node Network of whatever is selected in the File Path Editor UI in an instance of the Node Editor in Maya.
  - Graph in Hypershade – This will graph the Node Network of whatever is selected in the File Path Editor UI in the Hypershade in Maya
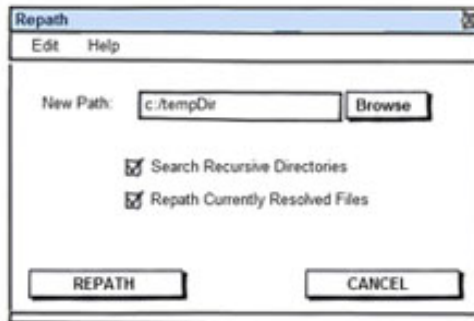 - Refresh – This is the same thing as pressing the "Refresh List" button.

2.4 Stage One Implementation Step Five: File Path Editor

File Path Editor

Top (32 Resolved, 5 Unresolved)
- C:/Program Files/Autodesk/Maya2013/Gifts/smoke/...
- C:/Users/skienar/Documents/maya/projects/default/sourceImages
- C:/Users/skienar/Documents/maya/projects/default/images
- Z:/Studio/Show/Lib/Assets/Char/Biff/Models/scenes/
- Z:/Studio/Show/Lib/Assets/Char/Biff/Rigs/
- Z:/Studio/Show/Lib/Assets/Char/Biff/Textures/
- Z:/Studio/Show/Lib/Assets/Char/Randy/Models/scenes/
  - face_c.tga
  - face_s.tga
  - hands_b.tga
  - hands_c.tga
  - hands_s.tga
  - shirt_.tga
  - shirt.tga
- Z:/Studio/Show/Lib/Ass...
- Z:/Studio/Show/Lib/Assets/Char/Randy/Textures/
- Z:/Studio/Show/Lib/Assets/Props/Desk/Models/scenes/
- Z:/Studio/Show/Lib/Assets/Props/Desk/Textures/
- Z:/Studio/Show/Lib/Assets/Props/Desk/Rigs/scenes
- Z:/Studio/Show/Lib/Assets/Props/Pen/Models/scenes/
- Z:/Studio/Show/Lib/Assets/Props/Pen/Textures/

Context menu:
Repath   [ ]
Graph in Node Editor
Graph in Hypershade
Reveal in Explorer
Refresh

Refresh List

Repath Files   **Cancel**

Features to be added to the FPE:

- Repath Button initiates a repathing operation to the files selected or the files with the selected path by bringing up the Repath Options window (See below).

  Repathing takes the current path for a Maya node that has a filepath associate with it, and changes that attribute to point to a different location

- Right Mouse Menu for the Path List has one added element:
  - Repath – Initiates a repathing operation using the current settings of the Repath Options window. If the Box icon is elected, the Repath Options Window will appear
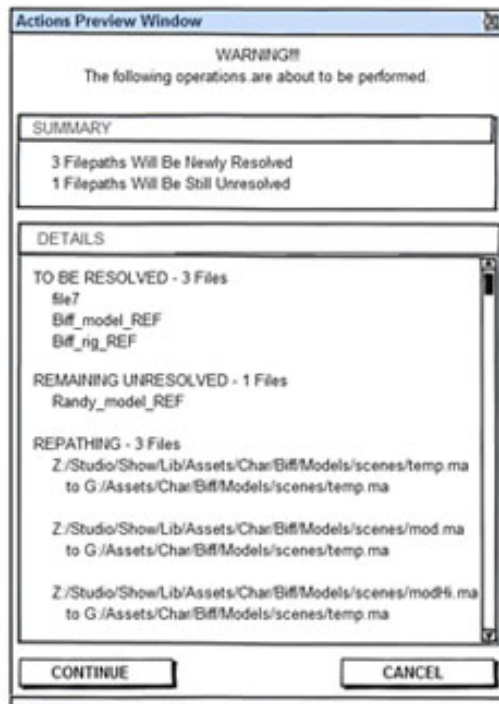
Repathing Options Window

Repath window:
Edit   Help

New Path: `c:/tempDir`   [Browse]

☑ Search Recursive Directories
☑ Repath Currently Resolved Files

[REPATH]   [CANCEL]

New Path - This is the directory where Maya will look for the files that are being repathed. A user can either type a path or use a file browser.

- Search Recursive —Maya will continue searching through sub-directories to the New Path until the file in question has been found, or all sub-directories have been examined.
- Repath Currently Resolved Files - Maya will also try to repath currently resolved files that are selected.
- Repath Button – Begins the Repathing operation..

2.5   Stage One Implementation Step Six: File Path Editor

Actions Preview Window:
WARNING!!
The following operations are about to be performed.

SUMMARY
3 Filepaths Will Be Newly Resolved
1 Filepaths Will Be Still Unresolved

DETAILS
TO BE RESOLVED - 3 Files
file7
Biff_model_REF
Biff_rig_REF

REMAINING UNRESOLVED - 1 Files
Randy_model_REF

REPATHING - 3 Files
Z:/Studio/Show/Lib/Assets/Char/Biff/Models/scenes/temp.ma
to G:/Assets/Char/Biff/Models/scenes/temp.ma

Z:/Studio/Show/Lib/Assets/Char/Biff/Models/scenes/mod.ma
to G:/Assets/Char/Biff/Models/scenes/temp.ma

Z:/Studio/Show/Lib/Assets/Char/Biff/Models/scenes/modHi.ma
to G:/Assets/Char/Biff/Models/scenes/temp.ma

[CONTINUE]   [CANCEL]

Features to be added to the FPE:

Actions Preview Window
When a user performs an operation in the File Path Editor that may make destructive changes to the Maya scene (such as a Repathing operation) the Actions Preview Window will give them an opportunity to preview the results of the operation before they happen. This gives the users a chance to reassess the actions.

Summary – This area is not scrollable. It lists:

- Number of paths that will be newly resolved as a result of the Repathing operation
- Number paths that will be still be unresolved

Details – This area is scrollable. It lists 3 details about the operation that is about to be performed:

- The files that will be resolved as a result of this action
- The Files that will remain unresolved
- The current path and the resulting path

Continue – When this button is pressed, the repathing operation is actually performed and the Actions Preview Window closes.

Cancel – This button closes the Preview Actions Window. The Repathing operation **IS NOT** performed.

At this point, Stage One of implementing the File Path Editor is complete. It is a barebones tool for diagnosing and fixing filepath issues in Maya,

3   Stage Two: Customization

At this point, customers will be evaluating the Stage One implementation of the File Path Editor, and we can start to perform usability testing to ensure the UI is what users want. In Stage Two the plan is to add value through customizing the display of paths for specific uses.   The scope of Stage Two is significantly more limited than that of Stage One.

  As a result of User testing, there will probably be requests for adding/changing features of the FPE. In accordance of with Agile Development, the plan for the File Path Editor will also be to address the feedback.

3.1   Stage Two Implementation Step Seven: File Path Editor

Features to be added to the FPE:

- Type-Based Browsing of filepaths
  Allows users to choose to sort files by the type of node the file is connected to. The same icons are used to show the status of pathed elements of each type.

- There will be a new menu bar with an Options menu and a Help menu.

  o Options Menu
    Allows users to choose the browsing method
  o Help Menu
    Standard Maya Help menu

3.2

3.2 Stage Two Implementation Step Eight: File Path Editor
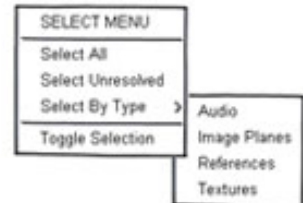

Features to be added to the FPE:

- **File Type Display Filtering**
  Allows users to what file types will be displayed in the File Path Editor. This can be set with the Show menu.

- **Show Menu**
  Allows users to choose what File types the File Path Editor will show

- **Select Menu**
  Provides additional ways to set what is selected in the File Path Editor

4 Beyond Stage Two: Browser Options and Advanced Tools?

While there are designs on the board for features in addition to the ones described. There are designs for advanced browser options, and additional tools their inclusion will be determined by how users like the File Path Editor as it has been designed and developed in Stages One and Two.

While there may be stories entered in Jira that correspond to the features, at this point the feedback of Users will determine the direction beyond Stage two.