# **Contents**

Visual Catalog is a simple utility program that allows you to organize and integrate the different kinds of resources that make up various rendering projects. This allows you to more easily review and reuse previously created elements in future projects.

**Overview** 

Creating and Organizing Catalog Files

Loading Catalog Files into Visual Catalog

Selecting Resources to Load into Visual Reality Applications

Loading Resources into Visual Reality Applications

Menu Bar Command Summary

## Overview

Visual Catalog is based on the same EYE project file format that is used by Renderize Live, so any project created in Renderize Live can be loaded into Visual Catalog.

Visual Catalog displays view, object, material and image resources. These project resources can be dragged and dropped into Renderize Live, Visual Model and Visual Image as desired, assuming that the application supports the resource type. For example, you can only drop an image resource into Visual Image, as it only works with bitmaps and doesn't load objects, materials, etc.

The resource types supported by Visual Catalog are as follows:

**Images**: Digital pictures, or bitmaps, including seamless (repeating) textures, background images, etc. Images can be loaded from Visual Catalog into Renderize Live and Visual Image.

**Materials**: A set of characteristics that are rendered onto object surfaces. A material describes the color, texture, shininess, reflectivity and opacity of the surfaces that make up an object. Materials often include images as part of their makeup. Materials can only be loaded from Visual Catalog into Renderize Live. When you load a material, any images associated with that material are also loaded.

**Objects**: 3D polygonal geometry saved in the GED file format. Object files in other formats must be imported into Renderize (File, Load Object) and saved as part of a project file to convert them to GED. Objects are the entities that are rendered with material characteristics. Objects often have materials associated with them. Objects can only be loaded from Visual Catalog into Renderize Live or Visual Model. When you load an object into Renderize Live, any materials associated with that object are also loaded.

**Views**: These are usually complete "ready-to-render" scenes consisting of a 3D "space" populated with a camera, objects and lights. Views can only be loaded from Visual Catalog into Renderize Live. When you load a view, any objects in that view are also loaded. Even though lights are not listed in Visual Catalog as separate resources (it makes no sense to have a library of lights independent of placement in 3D space), they are included in views.

# **Creating and Organizing Catalog Files**

Catalog files are the same as Renderize Live project files. That is, a project created and saved in Renderize Live can be loaded into Visual Catalog. Visual Catalog will display all of the view, object, light, material and image resources that exist in that project, and you can transfer these resources among the Visual Reality applications as desired.

Visual Reality includes a file CATALOG.EYE in the EYES\TUTOR directory that displays all of the view, object, material and image resources that are used in the Renderize Live tutorials. In addition, catalog files are included with the Simply Scenes datasets to facilitate the use of these resource-rich scenes. Simply Scenes datasets are sold separately from Visual Reality.

Beyond the EYE files supplied with Visual Reality and Simply Scenes, you may wish to create catalog files containing your own views, objects, materials and images. In doing so you are building a database of re-usable resources each time you work on a project. For example, if you create a nice copper material in one project, Visual Catalog gives you the ability to re-use that material in subsequent projects rather than re-creating it. And by organizing your catalog files as you see fit, these reusable resources are that much more accessible.

**Creating Catalog Files** 

Organizing Catalog Files

**Anatomy of Catalog Files** 

# **Creating Catalog Files**

Catalog files are the same as Renderize Live project files. Any project you save in Renderize Live can be loaded into Visual Catalog.

Catalog files can also be created using Visual Image. Using the File, Export commands you can generate an EYE file that references all of the images used in the current Visual Image project. In addition, Visual Image includes a file browser that allows you to construct a catalog of images by picking the desired files from a list of files on disk.

# **Organizing Catalog Files**

What makes a catalog useful is the way information is broken up into manageable chunks. If you simply use your Renderize Live project files as catalog files, that's fine, but rather than organizing your catalogs according to the way resources were used for a single rendering project, it might be more useful to organize catalog files according to other criteria, such as material types or categories of objects.

Use Renderize Live to organize project resources into catalogs. The File, Open Project command allows you to load project from disk and merge them with any project information that may currently exist in Renderize Live. By merging your rendering projects in Renderize Live and editing them to remove redundant or unwanted resources you can create a "superset" project file that contains those resources that you may wish to re-use in future projects.

As your library of views, objects materials and resources grows, you may wish to break the information down into multiple project files to facilitate the loading and use of these files.

Note that a single project resource may be included in multiple catalog files. For example, you may have a catalog file of building textures that includes a seamless brick texture. In addition you may also have a catalog file of objects that includes a brick wall, on which the same brick texture is mapped. Duplicating resources among catalog files does not have a significant detrimental impact on the amount of space required to save catalog files, since those resources that take up disk space are shared among catalog files.

# **Anatomy of Catalog Files**

The EYE project file used by Visual Catalog is in fact only one of many interrelated files necessary for the proper operation of the software. The EYE file can be thought of as a master file which describes all of the resources in a project. Material, light and view resources are defined completely by their description in the EYE file. However, image and object resources actually exist as separate files, and they are described in the EYE file in terms of the drive, directory and filename where the resource file is stored. In addition, an ICN file exists for each eye file: this ICN file is not required to load a project into Renderize Live, but it does contain all of the postage-stamp images of the different resources, and Visual Catalog requires that this file in order to display available resources.

Note the EYE files are normal text files. You can load them using an ASCII text editor to modify resource names or the referenced paths for image and object files.

## **Image Resources**

Images are "shared" resources in a project. Each image exists as its own separate file, and it is referred to in the project, or EYE file, which indicates where that image file can be found of disk by storing the drive, directory and filename of that image. Therefore the location of an image file on disk is very important. If you move or delete an image file, that image file is no longer available to any projects that refer to it.

### **Object Resources**

Objects are also stored separately from EYE files, but referred to in the EYE file with a drive, directory and filename. When you create a project in Renderize Live, objects are saved out to the GED file format in a directory of the same name as the project EYE file. For example, if you save a project called BUILDING.EYE, all of the objects in that project are stored as GED files in a subdirectory called BUILDING. This subdirectory is located in the same directory as the BUILDING.EYE file.

Renderize Live does not treat objects as "shared" resources. When you save an EYE file, new object GED files are created in the project-specific subdirectory as described above. You can share a single object file in multiple EYE files; however, to do so you must edit the EYE file with a text editor to change the drive, directory and filename reference that describes the object file's location.

# **Loading Catalog Files into Visual Catalog**

Before you can use Visual Catalog to view and select resources to load into Renderize Live, Visual Model or Visual Image, you must load a catalog file.

Catalog files are loaded using the File, Open command. When you open a catalog file, any existing information in Visual Catalog is cleared to make room for the incoming information. If you want to view the contents of multiple catalog files at the same time, use the File, Merge command.

Note that Visual Catalog currently does not allow you to edit and save catalog files. If you wish to modify a catalog file, or merge several catalog files together permanently, load the into Renderize Live for modification (the File, Open Project command in Renderize Live loads projects from disk without removing project information that currently exists in the interface).

# Selecting Resources to Load into Visual Reality Applications

The purpose of Visual Catalog is to select view, object, materials and/or image resources and transfer them into Renderize Live, Visual Model or Visual Image.

### **Displaying Resources**

Visual Catalog lists 4 different resource types: views, materials, images and objects. Only one resource type can be viewed at a time. To select among resource types, use the pop-down that appears directly above the resource name list on the left side of the Visual Catalog interface.

You can also select among resource types using the Resources pop-down menu in the Menu Bar.

When you change the selected resource type, Visual Catalog changes to display the icons that represent those resources. The resource list on the left side of the interface updates as well to display the names of the resources that are currently being viewed.

### **Selecting Resources**

There are several ways to select resources to load into Renderize Live, Visual Model or Visual Image. You can select resources from the list, or you can pick them by selecting on the desired icons, or you can pick them by typing in the appropriate resource names. Before selecting a resource, you must select the desired resource type, as described above.

You can pick as many resources as you wish, and then load them all into the desired application. Or, if you only wish to work with one resource at a time, you can select and load that resource in one step by pointing to the desired resource icon in Visual Catalog, then dragging it and dropping it over the application in which you want that resource to be loaded.

### Selecting Resources from the List

To pick a resource from the list on the left side of the Visual Catalog interface, point to the desired resource name and select: that resource name is now highlighted, and the corresponding resource icon appears with its name written across it, indicating that it has been selected.

When you select a resource from the list, any resources previously selected on that list are deselected. If you wish to select multiple resources, hold down the Control key while selecting on additional resource names on the list: this selects the desired resource without deselecting any previously selected resources.

To select a group of resources together, you can drag the mouse pointer over the range of resource names in the list that you wish to select. Or, select the first resource, then move to the last resource, hold down the Shift key and select: this selects all of the resources in-between.

#### Selecting Resources from the Icons

You can also pick resources by pointing to the desired icon and selecting: that icon is now indented and the resource name is displayed over it, indicating that it has been selected.

Each time you select on a resource, you are adding that to the selected group of resources: selecting on an icon does not deselect any previously selected resources.

To deselect a previously selected resource simply point to that resource icon and select.

## Selecting Resources Using a Type-in

Select Control, Type-in from the Visual Catalog Menu Bar to display a window in which you can select resources by typing in their desired names. You can enter multiple resources in the type-in, leaving a space between each resource name.

After typing in one or more resource names, press Accept to update the display to show those resources as selected. Continue typing in resource names as desired, and press Done to close the type-in window and show those resources as selected.

## **Deselecting Resources**

You can deselect previously selected resources by:

- \* Pointing to the icon of a selected resource and clicking on it to deselect that resource only;
- \* Pointing to a name in the Resource List and clicking to select that resource, at the same time deselecting all previously selected resources of the same type;
- \* Selecting Control, Reset to deselect all previously selected resources, even those that are not of the same resource type.

# **Copying Resources into Visual Reality Applications**

Once one or more resources have been selected in Visual Catalog, they can be copied into an application. However, before you copy a resource into one of the applications (Renderize Live, Visual Model or Visual Image), you must launch the application that is to receive the resource.

Resource can be copied from Visual Catalog to the other Visual Reality application by dragging and dropping, or by using the File, Copy commands from the Visual Catalog Menu Bar.

The simplest way to copy a resource is to drag and drop. Point to the desired resource icon in the Visual Catalog interface, then hold down the left mouse button and drag that resource icon until. it is positioned over the desired application, then release the mouse button to drop that resource into that application. You can only load one resource at a time using this drag-and-drop method.

If you have selected more than one resource, use the **File**, **Copy** commands to load all of the selected resources into the desired application.

For example if you have selected more than one image resource, you can use File, Copy Visual Image to load all of those resources into Visual Image at once.

Copying Resources into Renderize Live

Copying Resources into Visual Image

Copying Resources into Visual Model

# Copying Resources into Renderize Live

Any and all resource types supported by Visual Catalog are compatible with Renderize Live.

When you load a view resource from Visual Catalog into Renderize Live, the camera view and all the objects and lights in that view are loaded; all of the materials that are associated with the objects are loaded; and all of the images that are associated with those materials, as well as a view background image, if any, are loaded.

When you load an object resource from Visual Catalog into Renderize Live, that object and all the materials that are assigned to parts of that object are loaded; and all of the images that are associated with those materials are loaded. If the object in question is a "parent" object, any children of this object are loaded as well.

When you load a material resource from Visual Catalog into Renderize Live, that material and any images associated with that material are loaded.

When you load an image resource from Visual Catalog into Renderize Live, only that specific image is loaded.

If you copy resources into Renderize Live using the File, Copy Renderize Live command on the Visual Catalog Menu Bar, those resources are copied into the current project, but not added to the viewport. If you drag and drop a resource from Visual Catalog to Renderize Live, the location in which you drop a resource in Renderize Live determines how that resource is loaded:

If you drop a view resource over the viewport (or the View Well) that view will become the current view. If you drop it over the Edit Well, that view is loaded into the View Designer window. If you drop it elsewhere over the Renderize Live interface it is loaded into the current project but not made current.

If you drop an object resource over the viewport (or the View Well) that object is added to the current view; if no view currently exists in the viewport, a view is created and the object is centered in that view. If you drop it over the Edit Well, that object is loaded into the Object Designer window. If you drop it elsewhere over the Renderize Live interface it is added to the project but not assigned to a view.

If you drop a material resource over the Edit Well, that material is loaded into the Material Designer. If you drop it elsewhere over the Renderize Live interface it is simply added to the project.

If you drop an image resource over the viewport (or the View Well) that image is added as a background in the current view; if no view currently exists in the viewport, the image is simply added to the project. If you drop an image resource over the Edit Well, that image is loaded into the Image Designer. If you drop it elsewhere over the Renderize Live interface it is simply added to the project.

# **Copying Resources into Visual Image**

Only image resources can be loaded into Visual Image. Images can be dragged and dropped from Visual Catalog to Visual Image, or they can be copied using the File, Copy Visual Image command on the Visual Catalog Menu Bar. These images are added to the current project: if Visual Image is in Image Mode, a copied image is used as the current active image in the Visual Image viewport. If Visual Image is in Object Mode, the copied images are added to the Visual Image resource list, but they are not added to the scene in the viewport.

# **Copying Resources into Visual Model**

Only object resources can be loaded into Visual Model. Objects can be dragged and dropped from Visual Catalog to Visual Model, or they can be copied using the File, Copy Visual Model command on the Visual Catalog Menu Bar. When an object is copied into Visual Model, it replaces any work that currently existed in Visual Model. In addition, you can only load one object into Visual Model at a time: therefore it doesn't make sense to select more than one object to copy at a time.

# The Visual Catalog Menu Bar Commands

The Menu Bar commands are described briefly below. The use of these commands is detailed in the appropriate sections of this chapter.

#### **File Commands**

New: Clear the current catalog file and re-initialize the software.

Open: Load a new catalog file, replacing any current catalog information.

**Merge**: Load a new catalog file to add to the currently displayed catalog information.

Copy Renderize: Copy all selected resources to Renderize Live.

**Copy Visual Image**: Copy all selected image resources to Visual Image. **Copy Visual Model**: Copy all selected object resources to Visual Model.

**Exit**: Exit the Visual Catalog software.

#### **Control Commands**

**Reset**: Deselect all previously selected resources

**Type-in**: Display a window in which resource names can be typed in.

#### **Resources Commands**

Change the resource type that is displayed. This is the same as using the pop-down that appears directly above the resource list on the left side of the interface.

#### **Help Commands**

These common Windows options are self-explanatory.

For Help on Help, Press F1