INTRODUCTION TO LIBRARY USE FOR COURSE DESIGN

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Introduction

This is a reference for people who are interested in designing custom golf courses for Tiger Woods PGA Tour 08. This guide is intended to help beginning designers avoid some of the problems and pitfalls associated with libraries, and to perhaps de-mystify certain troublesome aspects for intermediate level designers. Experienced designers are welcome to recommend additions and corrections to the author.

These instructions assume a basic knowledge of computers, software installation, and file management. This guide is intended to address the essential aspects of TW libraries *as used in course design*. It does not go into detail regarding creating custom libraries; trouble-shooting install, uninstall; or registry errors relating to general custom course downloads.

What is a Library?

A Course Architect Library (filename.tcl) is a set of resources used in course design. A library can contain any or all of the following items to be used as design elements:

- **Textures** (tee, fairway, green, bunker, dirt, rock, water, etc.)
- **Structures** (buildings, bridges, tee markers, walls, benches, etc.)
- **Objects** (trees, bushes, rocks, etc.)
- **Sounds** (birds, water, wind, frogs, etc.)
- **Pano** (panoramic background)

Some libraries have dozens of elements; others have only one, as is typical with the "pano".

Library Installation

In order for a course to be used in a design or be playable in the game, libraries should be installed using programs designed for that purpose. Course Architect and CLsetup can both assist you in tracking the libraries that you have employed in the design of your course.

Course Architect and Tiger Woods PGA Tour 06

It is important to note that Course Architect works hand-in-hand with the TW06 game installation. Course Architect reads the list of available libraries from the TW06 game. Therefore, libraries for use in design work need to be installed into the TW06 game.

Installation for Game Play

All libraries used in a design must be installed into the game version intended for game play.

Note on Library Install / Uninstall: It is important that you use CLsetup or Caddie 0(x) programs to install and uninstall libraries for use with the architect. Manually deleting installed libraries will cause problems, due to the fact that registry entries will make it difficult to re-install the library later.

Software

There are several software programs that will assist you in using and managing libraries in design and game play. Please refer to the help files for each to learn the details of how to use them. Those listed are specific to library use. You will, of course, also need Course Architect and TW06.

- **CLSetup** – This program is indispensable for the designer. Use it to install, uninstall, and manage the libraries that the Course Architect programs uses. This program installs libraries to the TW06 game, which in turn makes them available for use in Course Architect.

- **CLTool** – This program (a.k.a. "**Cloaking Tool**") is a very powerful tool for managing libraries and their relationship to your design. CLTool allows the designer to "hide" selected libraries from the Course Architect so that you only have to sort through the libraries you really want while working on your design. Note that Course Architect has a limitation on the number of libraries used. If the number of libraries is exceeded, the Course Architect will not function. The number in question is around 30-40 libraries, depending on the size of the libraries in question. CLTool has several other useful functions, such as removing "Sticky Libraries". (More on "stickies" later).

> ***Note:*** *It is imperative to your success that you download and install the* **CLTool** *program, and that you take the time to read and understand the included help file.*

- **Library Creator 06** **&** **Library Creator 02** – These programs will allow you to compile original and included content into your own custom libraries. Library Creator 02 is reported to provide structure lighting that is better suited for use with TW08.

- **Caddie 08** – Use this program to install courses and their respective libraries into the to TW08 game for play. Note that a 64-bit version is available if you are using a 64-bit operating system. If you are not designing for TW08, use Caddie versions that correspond to the game release you are using.

Optional Related Software

- GMAX, for creating structures;
- a sound editor, such as Audacity;
- Paint.Net or Abobe Photoshop, or other bitmap editor for creating panos.
- Microsoft Virtual PC (required for Vista and Vista 64 users; see *Virtual Machine Tutorial for Vista* at coursedownloads.com)

Key Concepts

Types of Libraries

There are two basic types of libraries available: Stock and Custom. Stock libraries are libraries included with the original game installation. Custom libraries are created by designers using various software and techniques. For a course design to be used in a particular game release, it must contain at least one library from that release.

Stock Library Installation

In order to design for the TW08 version, you must include at least one TW08 library in your design. First, create a folder to store copies of the 08 libraries in a convenient location. Then locate the library (or libraries) you wish to use in the program folder for TW08, and copy them to your storage folder. Now use Caddie 06 or CLSetup to install the libraries into the TW06 game. Once installed, they should appear in the Course Architect library browser. You may use a similar process for TW07 libraries.

> **Note:** *Be careful not move or delete any of the original stock library files; make sure you copy them.*

Setting the Default Library with CLTool

To set the default library in the Course Architect, use CLTool. Got to the Libraries tab; double-click the library you wish to use, and click on "set as Default". You will then see a warning that the library must contain a fairway texture, a weed rough texture, and a panorama. If the desired library meets these requirements, click OK. If not leave the default library as-is, or select a library that meets the requirements.

Library Selection

When selecting libraries to use for a course design, there are several important considerations that apply. These considerations are not only for the look and feel of the course, but also for the manageability and organization of design. Game version compatibility also comes into play. Keeping the total number of libraries to a reasonable number will also make your design more user-friendly. (Many players will pass over a course download if they think it has too many libraries.)

Choosing Stock Libraries

The first consideration for library selection should be the game version for which the design is intended. All that is required for this is that a stock library from that year be installed. In most instances, designs will be for TW08 for the widest use.

You should take time to play all of the stock courses in the intended TW0(x) version. Make mental or written notes on the characteristics of each, keeping in mind your design intent. You may see more than one stock library you like, which will be an advantage. By using several stock libraries, you can include a wider variety of design elements while keeping download size smaller. Consider the environment or geographic location for the course. Whether you are designing an imaginative fantasy course, a realistic “fictional” course, or an accurate representation of a real course, your libraries should be consistent with your intent. You can use as many stock libraries from the designated game version as you dare. Since these libraries are already present in the game, there will be no need to include them in the download.

Choosing Custom Libraries
Browse the Libraries section of coursedownloads.com; look at the pictures of the libraries on the site. The courses that use the library are listed on the library info page – if you want a good look at a library feature, download and play a course or two that use the library. This may require a bit of close observation, but it can be worth the effort.

There is also a zip file including a large number of Library pics that can be found in the Utilities (2008) section of coursedownloads.com. This file may not include everything up to the moment, but it is a good place to start, especially if you are looking for structures. Download "Library Pics" and extract to a folder, then use a picture viewer to quickly browse the pics.

Be aware that some older libraries will work in more recent game versions better than others. You may get varied results with structure lighting, texture rendering, water reflections, etc. Experimenting with the "Shader Level" in the game display options may yield improved results if the elements do not initially appear as you would like.

Managing Libraries
Every time you use an element from a library in your design, that library becomes associated with your course, and it will be required by both the Course Architect and the game to load the course. If you are not careful, you may end up with many, many libraries "attached" to your course, and probably several that you end up not even needing or wanting. You may use just one insignificant object (like a bunker rake) and have difficulty remembering or locating it later. The same thing can happen with a texture or a single plant, so be careful.

Sometimes, even after deleting every possible element from a particular library within your design, the library will still show up in "Course Properties" (under the file menu in Course Architect) and in the CLSetup listing. This is known as a "Sticky Library". See the section "Fixing Sticky Libraries" below.

One way to avoid the problem of too many libraries is to test libraries in a different course file. Save your design with a new name before experimenting with libraries. Test all you want, make your decisions, and the go back to your main course file to add the chosen libraries. Another way to avoid too many libraries is to use a "library test course".

Texture Considerations

Although this guide will not go into detail on all types of elements found in libraries, the process of selecting of terrain textures is essential enough that it calls for some explanation here. A texture can be defined as an element that is assigned to a land shape in the design. It has properties that affect the ball in play. There are many texture types available in the various stock and custom libraries you have to choose from. Texture properties vary in appearance and the way that they react to ball landings and strokes. The appearance or your design will be affected by the combinations of texture you use, so consider how textures match or contrast with your design intent in mind.

Tee and Green
Of the many textures you may consider using in your design, only two textures types are absolutely required to construct a playable hole: the tee and the green. The game uses these textures to identify the points at which play begins and ends for a hole. In placing the shot paths and pin locations, the game will only recognize points on tee and green textures, respectively.

Fairway
Fairway textures are necessary for realistic game play. Look for the fairway characteristics you desire by playing various courses or testing in your design. Some fairways are on solid color, others have mow patterns.

Rough and Deep Rough
It is likely that wide areas of your course will be covered by rough and deep rough textures. Normally a deep rough texture is chosen for the “base” texture that will cover the plot. Other deep rough or rough textures can be used as “buffer shapes” that surround several holes.

Transition Textures
Fringe and First Cut textures will add realism and make your design play and look better. Fringe is placed around the green, and first cut makes the transition from fairway to rough. Be sure to download and install the TW08X texture library; this library supplies all of the fringe and fist cut textures to match the stock libraries.

Hazard and Other Textures
Many other textures are available to add realism and interest to your design. Bunkers, paths, dirt, water, rock and many more have characteristics that reflect their respective real-world properties. Certain textures’ (dirt, pond, etc) names appear in red in the Course Architect library viewer – these textures are automatically treated as hazard areas in game play.

Water Textures
Regardless of the number of water features in your design, use only one water texture per course. This is due to the limitation that the game will only render reflections and motion for a single water texture on a course.

Potential Problems and Troubleshooting

Analyze Libraries Function in CLTool
In CLTool, go the "projects" tab. Select "New" and give the project a name. Choose the Course Architect (filename.tca) file you wish to fix to associate it with the project. First, double-click the project. This will open a dialog box with several useful tools. Click “Analyze Libraries”. This will display a list of libraries associated with the course. Each library listed can be expanded to show the types of elements in that library actually used in the course.

Fixing Sticky Libraries
A sticky library is a library that has become associated with a course file, even though none of its elements are currently used in the design.

To fix a "sticky" library, use the CLtool program to create a CLTool project as outlined above.

Once you have a saved project, there are several useful tools available. First, double-click the project. This will open a dialog box with several options. Click the "Fix Sticky' button to remove sticky libraries. At this point CLTool may report that no sticky libraries were found. If sticky libraries are found, you will be prompted for a new file name. CLTool will export the fixed file to this new file name. You may then create a new project using the new file and check the course properties to determine if sticky libraries were found and removed.

It is advisable to run a "Fix Sticky" at least once before releasing a course to avoid unnecessary libraries being included in the download. Any library that remains after the "Fix Sticky" process will have at least one element present in the design.

Using CLTool to Strip Objects and Libraries
If your use of objects and their libraries has gotten out of control, and you wish to start over with objects, structures, and plantings, you can use the "Strip" function of CLTool. This will save to a new filename as with "fix Sticky", but the effect is much more drastic, removing all library elements from the course except the textures.

Placeholder Libraries
When a library that is included in a design is uninstalled, deleted, moved, or otherwise made unrecognizable to the Course Architect, Course Architect generates a “placeholder library.” The placeholder library will appear in the Course Architect course properties and the CLTool with the name **“!!!placeholder library – do not delete!!!”**. A placeholder library may appear in place of a missing library that may or may not have elements used in the design.

Avoiding Placeholder Libraries
Placeholder libraries can be a problem, and it should be noted that with careful use and tracking of the libraries utilized in your design, they can be entirely avoided. Maintain a list of libraries you have used. Check the course properties in Course Architect while working and CL tool regularly to monitor changes to libraries. If you feel the need to uninstall, cloak, delete, or move libraries, take the time to check the library list first. The fixes for placeholder libraries can be cumbersome, so it is very worthwhile to make an effort to avoid creating them.

Fixing Placeholder Libraries
If you do discover a placeholder library, there are several things you can do to correct them. Use the CLTool project functions to find and Try them in this order:

1. ***Sticky placeholder:***
    a. If there is nothing from the placeholder library in the design, it is probably just a sticky library, and can be removed with the "Fix Sticky" function in CLTool.

2. ***Placeholders with elements in the design*:**
    a. Restore recently changed libraries. Retrace your recent library actions, and re-install, uncloak or undo any changes to libraries that may be the cause of the placeholders.
    b. If there are textures from the placeholder library in the design, chances are they will stand out and be relatively easy to identify. Replace the textures, and run "Fix Sticky" in CLTool.
    c. If there are objects in the design, they may be quite difficult to locate and delete. If you cannot find them, you may have to use the "Strip Course" function in CLTool to take care of the problem. This will remove all objects other than textures, and you will have to start over with placing objects and plantings.
    d. Revert to an earlier saved version that is free of placeholders.

If you have previously found placeholder libraries -- and then eliminated them by restoring the proper libraries, you may want to go through your design and try to locate any instances of textures, objects, etc. that you do not really want in your final design. Use the CLTool to analyze the library details. You may see that only one or two elements from a library are present, and you can also determine what type (texture, sound, object, etc.) you need to look for.

It is possible sometimes to simply delete the placeholder libraries using CLTool, but often they will just be replaced by another placeholder. This is not recommended, but it has been reported to work.