



Archemy™ Showcase Solution

Dynamic Multimedia Site Generator

A Coexistence Solution to Modernize Legacy Multimedia Websites

Business Context

The Cadillac-LaSalle Club Museum & Research Center (CLCMRC) is an organization dedicated to protecting, promoting and sharing the history of early Cadillac and LaSalle cars. The Cadillac Database® is a non-commercial, non-profit, ad-free virtual book for owners and enthusiasts. With separate, hand-built static pages for each topic, the website had become onerous to manage. The CLCMRC needed a better way to operate and manage the site.

Initial State

Contributors to the site had to navigate a manual process, which was prone to error. There were no common style sheets and changes to the site format had to be made for each page independently. As the content on the site grew, the problems were exacerbated.

Archemy™ Solution

The Cadillac Database® virtual book site was transformed in a series of steps. First, a generic page analysis capability was developed to scan all the pages on the site section by section. Specific scripts were generated from a common script template for each section of the original database to extract the existing content and repurpose it. Next, content management was implemented on top of a mainstream database-driven web framework and a commercial grade gallery management system was integrated into the new website. The website remained fully available during the transformation process, which is still ongoing. The old website sections that have not been modernized coexist with the new website. In the process of migrating the old site thousands of broken links were identified and repaired programmatically. Finally, the site has been rebuilt so that contributors have a standardized semi-automated process to follow to add content to the site. The resulting solution that Archemy™ created to transform the Cadillac Database® virtual book site is a generic multimedia site generator that may be used to modernize or re-purpose any legacy website that hosts multimedia content.

Technology Employed

Website Framework: Django, Bootstrap
Galleries Management: Jalbum
Image Scaling: Zoomify
Broken Links Detection: Xenu Link Sleuth
Languages: Python, HTML5, JavaScript, CSS3
Database Systems: MySQL
IDEs: Eclipse Oxygen PHP

End State

The CLCMRC now has a dynamic New Cadillac Database® virtual book website (The [New Cadillac Database®](#)) that is much more maintainable than the original version. It is capable of segregating and presenting unlimited classes of content. There is a GUI interface to support users adding content to the site. The new site is free of broken links and contributors can follow a standardized semi-automated process to add content to the site, which is as simple as emailing pictures and text content.

Reusable Components

The dynamic multimedia site generator solution that was developed by Archemy™ for The New Cadillac Database® may now be used to modernize or re-purpose any legacy Web-site that hosts multimedia content. The following components of the solution are also reusable individually:

- The implementation skeleton based on Django, Jalbum and Zoomify image presentation tools may be employed to present all kinds of content, whether textual, graphic, video or audio. The gallery management software has been integrated in Django templates in such a way as to make it possible to synchronize multiple content types, such as images and related text. The underlying database-driven, web framework automatically updates the site navigation as new pages are generated.
- The site migration and generation components are reusable individually to help modernize or re-purpose any legacy Web-site that hosts multimedia content.

The galleries or software solutions to business problems that are made available on the Archemy™'s website are built using reusable components that are part of the Dynamic Multimedia Site Generator solution being described here.