Virtual Gallery
Software Review

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Technology in the Arts is a series of services from the Center for Arts Management and Technology (CAMT), an applied research center at Carnegie Mellon University exploring ways in which arts managers can employ online technologies to more effectively meet their organizational goals and engage audiences.

Thanks!

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INTRODUCTION

The idea of 3D virtual space on the Internet existed before the 1990s, but it was a difficult concept to implement. Development of 3D virtual space was impeded by numerous factors, including limited hardware capabilities, slow Internet connections, and a lack of standards for 3D technology. Over the past decade there have been significant advancements in 3D virtual technology and its application in online games and virtual worlds.

In the visual arts community, 3D virtual technology can be a tool to provide an alternative experience for audiences who cannot physically access artists' or organizations' live exhibitions. Yet the process of creating 3D virtual galleries or exhibitions is often both daunting and costly for artists and organizations. Despite the introduction of software to facilitate the development of 3D virtual environments for conferences, commercial expos, and education, software solutions for creating virtual art exhibitions have been scarce.

To assist artists and arts organizations interested in creating 3D virtual exhibitions, the Center for Arts Management and Technology (CAMT) released this report comparing existing software systems designed to meet the needs of artists and art galleries. This research was initiated by the CUE Art Foundation which sought to find an existing software system that will allow artists to create and display virtual exhibitions easily. For this reason, two of the most important criteria for evaluation were ease of use and user-friendly design. The primacy of these criteria prompted CAMT to exclude Second Life from the analysis due to its steep learning curve for environment creation. Keeping these criteria in mind, CAMT evaluated three specific software solutions - Virtual Galleries, Image Armada, and SceneCaster/3D Scenes - that also contain the following attributes:

- The tool is currently available for commercial use.
- The tool's creators provided a demo version with the researchers could test.
- The tool includes the necessary elements that artists and arts organizations will need to create a virtual exhibit online.

While there are other technologies that meet the latter two requirements, many of them are still in the prototype stage and not ready for commercial usage.

We began our research by creating a list of features necessary to make a 3D virtual gallery application useful for artists and arts organizations. The most important requirements are as follows:

Ease of creating exhibition

We sought software that could be used, without coding or programming, to create a virtual art exhibition. The process of creating an exhibition could include a variety of elements, such as creating a 3D gallery space, modifying the walls, uploading and altering image files, adding images to the walls, and more. Our testing focused on the ease with which a new user could undertake the process from start to finish.

We also evaluated features that enhance user-friendliness and ease of use, such as drag-and-drop, auto scaling of images, intuitive menus and function keys, as well as the availability of instructions.

Quality of images
The quality of images in the 3D space is more critical in virtual art exhibitions than other commercial applications. The software should preserve the original image quality even if users resize the images after uploading.

Flexibility of creating exhibition
The experience of creating an exhibition virtually should be analogous to doing so in the real world. Some of the evaluated software tools have lighting options, frame options, wall color options, and the ability to add furniture, doors and windows in the gallery space. Such features enhance users' experience and the realism of virtual exhibitions.

Ease of navigation in the 3D space
Navigating in 3D spaces is not always intuitive. The tools must provide easy and intuitive ways of navigating within the virtual gallery.

Ease of publishing or distributing the gallery
Once finished creating an exhibition, users should be able to publish it on their website or distribute it via email and social networking sites. Viewers should not have to install any software to access the published exhibition.

virtual gallerie   [http://virtualgallerie.com]

Virtual Gallerie has two components: Virtual Gallerie Curator and Virtual Gallerie Walkthrough. VG Curator is the tool for creating a gallery space and adding works, and VG Walkthrough is the free tool for viewing the gallery created by VG Curator. CAMT tested the demo versions of VG Curator and VG Walkthrough.

To run either tool within a Web browser, users must install the Pulse Player plug-in which can be downloaded for free from the Virtual Gallerie website. Installation of the plug-in is both quick and seamless.

Creating a 3D space with images:

CAMT could not test the features that are not available in the Demo (or "Lite") Version of VG Curator. These features include creating a gallery space from scratch, the Advanced Version ability to import AutoCAD[1] files to generate 3D gallery space, and others explained in the Versions & Prices table on page 6. CAMT was, however, able to test many other useful features of VG Curator.

Adding image files to the walls from within the system is easy. Users simply drag and drop the image to any place on any wall. Users can change the width, height, and depth (for sculptures) of the work by selecting an image and typing new dimensions. Users can scale an image so that both width and height change as they drag it in or out (this feature is unavailable in the "Lite" version).

Figure 1 Virtual Gallerie Curator screen shot

VG Curator provides many features to customize the gallery space and environment. For example, users can set up new partitions in an existing gallery space and change the colors of walls. Users can also select a frame and matte size and color for each artwork.

In addition to 2D images, VG Curator has the pability of adding 3D works such as sculpture, although to do so users must either pay Virtual Gallerie to create 3D models of artworks or create the models themselves by using 3DS Max[2] , Maya[3] , or AutoCAD. (This feature is only available in the Advanced Version.) If choosing the latter, Virtual Gallerie charges a minimal fee to import those files. With 3D artwork, users can choose among pedestal options for individual sculptures and rotate the sculpture to a customized position.

Navigating in 3D space:

Using the free tool VG Walkthrough, users can navigate within the gallery space created with VG Curator. Unfortunately, gallery presentation and navigation were less user-friendly than gallery creation. Viewers must use both a mouse and arrow keys in order to navigate in all possible ways. The quality of image is determined by the original resolution of the imported image, therfore users should make sure their image files have a high resolution images to retain quality after importing.

By clicking on a piece of artwork, viewers can see detailed information for the item. There were options for individual audio and video guides for each piece, and an option for a museum store, but CAMT was unable to use these. Presumably these features are available in higher-end versions of the product.

While CAMT found that VG Curator provides the most useful features for creating art exhibitions among programs tested, it may take a while for creators to become truly comfortable with VG Curator due to its less user-friendly and intuitive interface.

The most important difference between the basic version and the advanced version is the capability of importing AutoCAD files.

This price estimate is based on an assumption that clients will host all user-created exhibitions on their own server. There is an additional hosting charge for Virtual Gallerie to host the exhibitions on its server.

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1 AutoCAD is a CAD (Computer Aided Design or Computer Aided Drafting) software application for 2D and 3D design and drafting, developed and sold by Autodesk, Inc. AutoCAD currently runs exclusively on Microsoft Windows desktop operating systems.

2 Autodesk 3DS Max, formerly 3D Studio MAX, is a modeling, animation and rendering package developed by Autodesk Media and Entertainment.

3 Autodesk Maya is a high-end 3D computer graphics and 3D modeling software package originally developed by Alias Systems Corporation, but now owned by Autodesk as part of the Media and Entertainment division.

technical requirements

	Windows PC	Mac
Operating System	98 / ME / NT 4.0 SP6 / 2000 / XP / Vista	OS X
Web Browser	Internet Explorer 6.x Firefox 2.x	Firefox 2.x Safari 3.x
Software	QuickTime Player/ Windows Media	QuickTime Player
Hardware Requirements	Pentium 233 Mhz, 32MB RAM	Mac G3/350MHz, 128MB RAM
Resolution	1024 x 768 Resolution (can be designed for 800 x 600 as well)	
Supported 3D hardware Acceleration	Direct3D	OpenGL v1.2 3D
Ideal Settings	1280 x 1024 Resolution 3D Graphics Card 64MB Video RAM	