

The Electronic Media Review

Electronic Media Group

Volume Three 2015

Papers presented at the Electronic Media Group session of the 41st AIC Annual Meeting, Indianapolis, Indiana, 2013, and the 42nd AIC Annual Meeting, San Francisco, California, 2014.

Jeffery Warda and Briana Feston-Brunet, Managing Editors

Edited by Helen Bailey, Briana Feston-Brunet, Karen Pavelka, and Jeffrey Warda

Volume Three Copyright © 2015
Electronic Media Group
American Institute for Conservation of Historic and Artistic Works
All rights reserved by the individual authors

Layout by Amber Hares
(Original design by Jon Rosenthal, JonRosenthalDesign.com)
Typeset in Trade Gothic LT and Myriad Pro

American Institute for Conservation of Historic and Artistic Works
Washington DC

The Electronic Media Review was published once every two years in print format by the Electronic Media Group (EMG), a specialty group of the American Institute for Conservation of Historic and Artistic Works (AIC), until 2013 and published online only thereafter. *The Electronic Media Review* is distributed as a benefit to members of EMG who held membership during the year of the issue. Additional copies or back issues are available from AIC. All correspondence concerning subscriptions, membership, back issues, and address changes should be addressed to:

American Institute for Conservation of Historic and Artistic Works
727 15th Street NW, Ste. 500
Washington, DC 20005
info@conservation-us.org
<http://www.conservation-us.org>

The Electronic Media Review is a non-juried publication. Papers presented at the EMG session of the AIC Annual Meeting are selected by committee based on abstracts. After presentation, authors have the opportunity to revise their papers before submitting them for publication in *The Electronic Media Review*. There is no further selection review of these papers. Independent submissions are published at the discretion of the EMG Publications Committee. Authors are responsible for the content and accuracy of their submissions and for the methods and materials they present. Publication in *The Electronic Media Review* does not constitute official statements or endorsement by the EMG or by the AIC.



TECHNICAL DOCUMENTATION OF SOURCE CODE AT THE MUSEUM OF MODERN ART

DEENA ENGEL AND GLENN WHARTON

ABSTRACT

As part of its program to conserve software-based artworks, the Museum of Modern Art, New York, undertook a risk analysis of thirteen works that use a variety of software programs, programming languages, and libraries. Eleven artists and two programmers were interviewed as part of this project. They were asked about the software, the hardware dependencies, and their concerns for future presentation of the artworks. Risks assessed in this study include the potential impact from changes and upgrades to hardware, operating systems, programming languages and/or software applications used to create the artwork that would render the software or any associated multimedia files obsolete, thus jeopardizing future exhibition. It became evident from this analysis that acquisition and technical documentation of source code is key to preserving these works. The Museum of Modern Art partnered with the Computer Science Department at New York University's Courant Institute of Mathematics to perform a pilot study to document the source code of four artworks. The project used standard software engineering methods to analyze the code and create textual documentation for future programmers who may need to recompile or re-write it for new operating environments. The documentation will also aid future researchers in better understanding the principles behind the work. Technical documentation of code is standard in the software and business industries, but it is new for museums. Due to artist concerns for public experience of their work, stan-

standard methods in the software industry must be adapted for museum collections. In this presentation, the authors describe their collaboration to document the source code of these artworks. The focus is on documenting how aesthetic properties such as color, movement, and sound are determined in the source code.

Aspects of this paper were published in two separate publications:

Engel, D. and G. Wharton. 2014. Source code documentation as a conservation strategy for software-based art. *Studies in Conservation* 59 (6): 404–415.

Engel, D. and G. Wharton. 2015. Source code analysis as technical art history. *Journal of the American Institute for Conservation* 54 (2): 91–101.

Deena Engel
Associate Director of Undergraduate Studies
Department of Computer Science
Courant Institute of Mathematical Sciences
New York University
251 Mercer Street, Room 422
New York, NY 10012
deena.engel@nyu.edu

Glenn Wharton
Clinical Associate Professor
Museum Studies
New York University
240 Greene St. Suite 406
New York, NY 10003
glenn.wharton@nyu.edu