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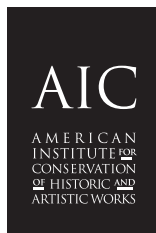
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TECHNICAL DOCUMENTATION OF SOURCE CODE AT THE MUSEUM OF MODERN ART

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-

dard 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.

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