

# UNTITLED PROJECT: A CROSS-DISCIPLINARY INVESTIGATION OF JODI'S *UNTITLED GAME*

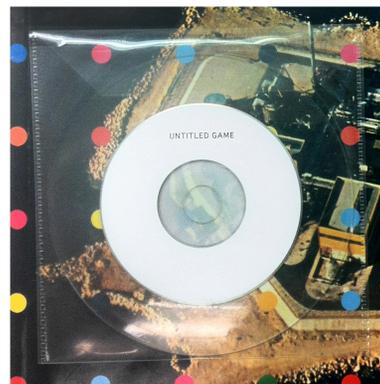
## 1. INTRODUCTION

*Untitled Game* (1996 – 2011) is an artwork comprised of fourteen small software programs with an accompanying website, [untitled-game.org](http://untitled-game.org). These programs were developed in the mid to late-1990s and released on cd-rom in 2001 by the Belgian-Dutch artist duo JODI. The website, also launched in 2001, houses the *Untitled Game* program files for download and additionally serves to document the underlying code of the software, as well as its file and directory structure. Each *Untitled Game* program is a different modification or “mod” of the commercial software *Quake 1* (1996), a hugely popular video game that helped establish long-standing conventions for the first-person shooter game genre. The fourteen mods each abstract the experience and graphics of *Quake* through unique manipulations of the original code.

The present “Untitled Project” study frames *Untitled Game* as a case example with which to test an expanded approach to conservation documentation that incorporates the investigative frameworks of digital preservation, media archaeology, material culture, software studies and conservation. These approaches provide the tools to enable close observation of the artwork for the purpose of documentation, as well as the means to analyze the circumstances, methods and intention behind the work’s creation to inform future conservation strategies. This study attempts to address *Untitled Game* as it occurred historically, and also record contemporary interactions with the artwork through the present-day access strategy of software emulation.

	mac OS9	pc-win
Untitled Game	36.3mb	38.1mb
A-X		2.9mb
arena	2.7mb	2.7mb
ctrl-F6	2.4mb	2.5mb
ctrl-9	2.9mb	3.1mb
ctrl-space	2.9mb	2.8mb
EIMIAP	1.4mb	1.4mb
G-R	2.3mb	2.4mb
I-N	1.1mb	1.0mb
M-W	2.4mb	2.6mb
O-O	2.3mb	2.3mb
Q-L	6.9mb	6.2mb
slipgate	3.5mb	3.5mb
spawn	2.9mb	2.8mb
v-Y	2.3mb	2.4mb

Main page of [untitled-game.org](http://untitled-game.org)



Original *Untitled Game* disk from 2001 with Mute magazine

```
void() movetarget_f=
{
    if (!self.targetname)
        objerror ("monster_movetarget: no target-
name");
    self.solid = SOLID_TRIGGER;
    self.touch = t_movetarget;
    setsize (self, '-8 -8 -8', '8 8 8');
};

/*UNTITLED-GAME/D path_corner (0.5 0.3 0) (-8 -8 -8) (8 8
8)
Monsters will continue walking towards the next target
corner.
*/

void() path_corner=
{
    movetarget_f ();
};

/*
=====
t_movetarget
Something has bumped into a movetarget. If it is a mon-
ster
moving towards it, change the next destination and contin-
ue.
=====
*/

void() t_movetarget=
{
    local entity temp;
    if (other.movetarget != self)
        return;
    if (other.enemy)
        return; // fighting, not following
    a path
        temp = self;
        self = other;
        other = temp;
    if (self.classname == "monster_ogre")
        sound (self, CHAN_VOICE, "ogre/ogdrag.
wav", 1, ATTN_IDLE); // play chainsaw drag sound
    //dprint ("t_movetarget\n");
    self.goalentity = self.movetarget = find (world,
targetname, other.target);
    self.ideal_yaw = vectoyaw(self.goalentity.origin -
self.origin);
    if (!self.movetarget)
    {
        self.pausetime = time + 999999;
        self.th_stand ();
        return;
    }
};
```

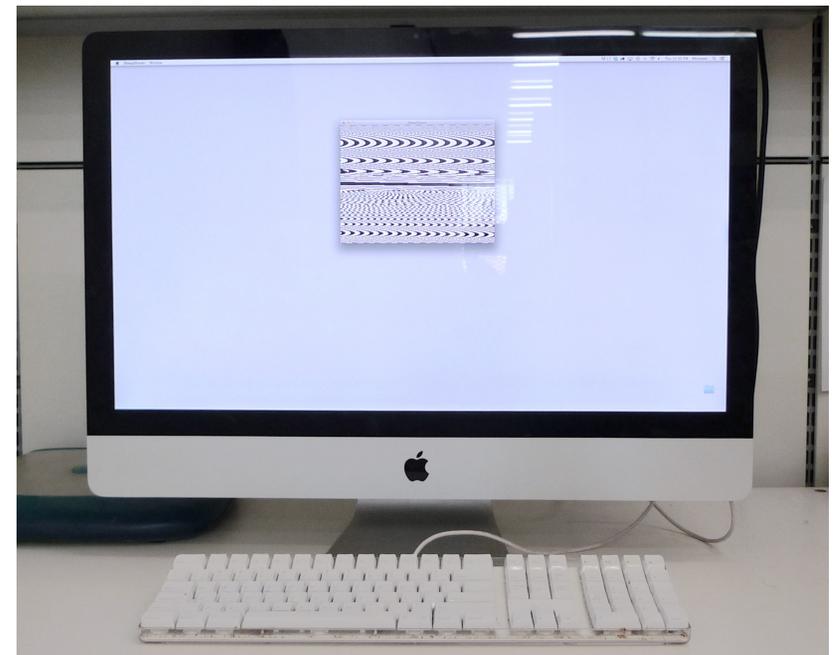
Section of *Untitled Game* code at [untitled-game.org/progs/aicg.html](http://untitled-game.org/progs/aicg.html)

## 2. METHOD

*Untitled Game* was widely distributed through the website and by cd-rom and would have been historically viewed with varying combinations of operating systems and hardware components. The possible computer configurations, however, would have been limited by the fact that *Untitled Game* is configured to run on a restricted range of operating systems. Thus, despite the multiplicity of possible viewer experiences, *Untitled Game* contains a fixed temporal link that introduces an opportunity for technological obsolescence to affect access to the artwork. One compatible operating system, *Mac OS9* (1999 – 2001), was used in this study to observe and interact with *Untitled Game*. This older operating system was run through emulation software on a modern “host” computer, and the settings of the emulator were used to recreate the environment of an Apple iBook (1999-2000), a computer contemporary to the artwork.

This study looks at the file and directory structure of *Untitled Game*—with and without emulation software—comparing these observations to the structure of the same documented on the *Untitled Game* website. It also utilizes online programming documentation of the original *Quake* game<sup>1,2</sup> to understand the function of key lines of code in *Untitled Game* that were altered by JODI. By comparing the lines of altered code and their function within the software to the experience of each mod in active gameplay, this investigation offers a method for understanding the artwork at a cursory technical level for non-programmers. It also provides insight into JODI’s process of creation. To the later aim, “Untitled Project” also incorporates testimony gathered through interview with the artists. This testimony weaves through the study to provide support for the research methodology and findings.

1. “The Quake Wiki,” accessed June 2013, [http://quakewiki.org/wiki/Main\\_Page](http://quakewiki.org/wiki/Main_Page)  
2. “The Console Commands List,” University of Delaware: Electrical and Computer Engineering and Computer and Information Sciences Department, accessed July 2013, <http://www.eecis.udel.edu/~portnoi/quake/quakecom.html>



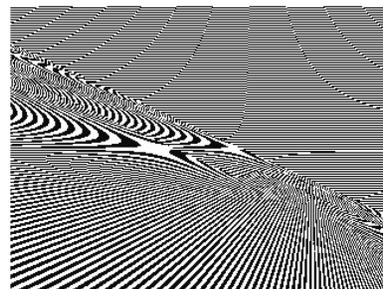
*Untitled Game* running inside emulation software on a iMac computer

## 3. RESULTS

Prior documentation of *Untitled Game* conforms to a “screen-essentialist” paradigm that largely ignores the code of the artwork and the way it functions.<sup>1</sup> JODI’s alterations to *Quake* were created in a “trial-and-error” manner,<sup>2</sup> and the graphical and experiential abstractions created by the artists directly reflect their programming methodology. Furthermore, the artists use multiple strategies to draw the attention of the viewer beyond the interactive experience of the running software, creating unique moments for viewers to interact with the code, and file and directory structure of the software. These strategies include: the full documentation of the code on [untitled-game.org](http://untitled-game.org) in plain text; the inclusion of comments by the artists within the code; the alteration of the applications’ file icons so that they become curiously invisible when viewed within an operating system; and the visual exposure of the code in the interactive software experience of *Untitled Game*.

1. For example: Alexander R. Galloway, *Gaming: Essays on Algorithmic Culture*, Minneapolis: University of Minnesota Press, 2006.  
2. Lisa Adang, Field notes from interview with Joan Heemsckerk and Dirk Paesmans, May 30, 2013, Dordrecht, Netherlands.

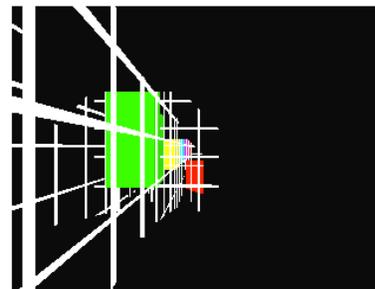
THIS STUDY PLACES JODI’S *QUAKE* MODIFICATIONS INTO THE FOLLOWING FORMAL CATEGORIES:



Screenshot of the *Ctrl-Space* mod as seen in emulator



Screenshot of the *EIMIAP* mod as seen in emulator



Screenshot of the *Slipgate* mod as seen in emulator

### OP MODS

As viewers move through the game space of the “Op Mods,” they experience scintillating moiré patterns across the screen. JODI assigned the colors black and white to alternate rows of pixels in these mods so that the scanline rendering technique, where one pixel row is drawn at a time, creates a rippling effect. The Z-buffering system that maps pixels to 3D polygon shapes in *Quake* recursively attempts to render the complex patterns on screen, which results in temporal aliasing.<sup>1</sup>

1. “Scanline Rendering,” Princeton, accessed July 2013, [www.princeton.edu/~achaney/tmve/wiki100k/docs/scanline\\_rendering.html](http://www.princeton.edu/~achaney/tmve/wiki100k/docs/scanline_rendering.html)

### ALTERED MOVEMENT MODS

The “Altered Movement Mods” maintain the original textures, colors and lighting effects of the *Quake* environment, but present a highly disorienting viewer perspective through manipulation of camera angle. By altering elements of the code, such as the value assigned to the appropriately named “c\_l\_rolangle” function, JODI causes the camera angle to spin erratically.<sup>1</sup> This serves to confuse the implied first-person viewpoint of the game.

1. “The Console Commands List,” University of Delaware: Electrical and Computer Engineering and Computer and Information Sciences Department, accessed July 2013, <http://www.eecis.udel.edu/~portnoi/quake/quakecom.html>

### COLOR BLOCK MODS

Lastly, the “Color Block Mods” consist of entirely flat planes of color with no texture or lighting effects. JODI created these mods by manipulating the “r\_fullbright” function, which eliminates highlights and shadows. The artists also affected the “r\_drawflat” function to eliminate textures mapped to the spatial environment (walls and floor) and moving entities within the mods.<sup>1</sup> The “Color Block Mods” also uniquely retain moving entities from *Quake*, whereas all other mods leave only the game’s static environmental elements.

1. “The Console Commands List,” University of Delaware: Electrical and Computer Engineering and Computer and Information Sciences Department, accessed July 2013, <http://www.eecis.udel.edu/~portnoi/quake/quakecom.html>

## 4. CONCLUSION

This study finds that a combination of tools and methods pulled from multiple disciplines offers a robust framework to document and interpret software-based works of art. In particular, the cross-disciplinary framework allows for a more complete documentation of *Untitled Game* by using digital preservation and media archaeological methodology to observe multiple facets of the work, such as the code, file and directory structure, and interactive software experience. Ethnographic methods culled from conservation and material culture practices also allow for a deeper understanding of the way *Untitled Game* functions both technically and artistically. Direct observation of the artwork combined with testimony from the artists reveals the reciprocity between the technical, experiential and conceptual elements of *Untitled Game*.

Emulation, the strategy for access implemented in this study, changes the experience of *Untitled Game* from historic instances where this extended access strategy was not required; it adds an additional technical and visual frame around the software. However, the “Untitled Project” study finds this change to be consistent with the multiplicity of historic instances of *Untitled Game* that relied on diverse participant-side configurations of hardware and software, as well as the lineage of change and adaptation of the artwork established by the artists. In fact, the practice of emulation requires more interaction between the viewer and the files of *Untitled Game*, which may serve to deepen the viewer’s awareness of aspects of the artwork beyond the interactive software experience. As exemplified by the unique features of *Untitled Game*, this is in-line with the efforts of JODI to call attention to the elements of software often overlooked as mediums of artistic expression and means of shaping experience. In this way, the “Untitled Project” study forwards the artwork’s artistic intention through active technical engagement.

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RHIZOME

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