UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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505 GAMES, ACTIVISION, CAPCOM, DISNEY, ELECTRONIC ARTS, NAMCO BANDAI, RIOT GAMES, SONY, SQUARE ENIX, TAKE-TWO, AND UBISOFT
Petitioners

v.

BABBAGE HOLDINGS, INC.
Patent Owner

Case No. TBD
U.S. Patent No. 5,561,811
Title: METHOD AND APPARATUS FOR PER-USER CUSTOMIZATION OF APPLICATIONS SHARED BY A PLURALITY OF USERS ON A SINGLE DISPLAY

DECLARATION OF STEPHEN C. HAYNE, Ph.D.

I, Stephen C. Hayne, Ph.D., hereby declare and state as follows:

I. BACKGROUND AND EDUCATION

1. I am currently a Full Professor of Computer Information Systems at Colorado State University (tenured). I teach Graduate courses (50% of my time) and conduct research (40% time) and serve on various University committees (10% time).

2. I received my PhD in Management Information Systems in 1990, Bachelor of Commerce in 1986 and an Associate Degree in Music in 1983.

3. From July 1990 to December 1994, I was Assistant Professor at University of Calgary, from January 1995 to June 2000, I was at Arizona State University (Assistant Professor until promoted to Associate Professor in July 1999) and from July 2000 to present I am at Colorado State University (Associate Professor until promoted to Full Professor in May 2006). .

4. Further, I have authored more than 60 peer-reviewed articles in leading journals and conferences and received more than $3M in research grants. Most relevantly, I conducted research into the implementation and performance of "gesturing" across multiple platforms (Hayne, Pendergast & Greenberg, 1994), the experiences gained from building several different collaboration systems (Hayne, 1990; Hayne & Pendergast, 1995) and recently the design and empirical research

associated with shared whiteboards for information fusion (Hayne, Troup & McComb, 2011).

5. In the area of collaborative software, I have been involved in the development of theories and have experience with implementing tools to assist groups in communication and decision-making, i.e. shared cognition, collaborative drawing, group brainstorming, concurrent issue surfacing or consolidation, consensus building, choice, pattern recognition and team bidding in auctions as summarized in the articles above. In 1988, as one of many Management Information Systems PhD students at University of Arizona, I began research into collaboration systems with a "business" or decision-making focus, specifically an emerging area called Group Decision Support Systems (now referred to as GSS). A parallel stream with more of a "human factors" and technical focus from Computer Science is called Computer Supported Collaborative Work (CSCW). GSS and CSCW systems are typically implemented in a distributed personal computer environment, communicating over a network and accessing shared data on a server. I have built software which supports "same time, same place" collaboration, implementing relaxed WYSIWIS (What You See Is What I See). In my systems, different kinds of "objects" are created, shared and controlled across multiple computers in near real time. I have proposed an interaction model, Team

Recognition Primed Decision-Making, and empirically tested it using the software I built or designed.

6. I have also started a research stream into group or team bidding in auctions, and participated in a patent application (US 20020156715 A1) for auctioning, canceling and reissuing tickets.

7. In sum, I have over 25 years of experience in the field of collaborative software as a researcher, developer, inventor, and consultant.

8. A copy of my curriculum vitae is attached hereto as Appendix A.

II. ASSIGNMENT AND MATERIALS REVIEWED

9. I submit this declaration to offer my independent expert opinion in support of this petition for *inter partes* review ("Petition") of U.S. Patent No. 5,561,811 ("the '811 patent"). My compensation is not based on the substance of the opinions rendered here. As part of my work in connection with this matter, I have studied the '811 patent [**Exhibit 1001**], including the respective written descriptions, figures, claims, and file history [**Exhibit 1007**]. In addition, I have reviewed the Petition and have also considered the following references:

- U.S. Patent No. 5,548,304 to Yoshino et al., filed on August 16, 1990 and issued on August 20, 1996 ("Yoshino") **[Exhibit 1002]**
- U.S. Patent No. 5,157,384 to Greanias et al., filed on April 28, 1989 and issued on October 20, 1992 ("Greanias") **[Exhibit 1003]**
- "Idea Management In a Shared Drawing Tool," Proceedings of the Second European Conference in Computer-Supported Cooperative

Work, Iva M. Lu and Marilyn M. Mantei, published on or about September 25-27, 1991 ("Lu") **[Exhibit 1004]**

III. OVERVIEW OF THE '811 PATENT

10. This overview is not meant to describe my full understanding of the '811 Patent, but is only used to generally describe the functionalities of the '811 Patent.

11. I have been informed that the filing date of the '811 Patent is November 10, 1992. I have also been informed that the filing date is referred to as the priority date.

12. Generally speaking, the '811 Patent describes a collaborative environment in which multiple users simultaneously interact with an application running on a single computer. **Ex. 1001**, *'811 Patent* at Abstract. Each user controls a separate input device and the response to these multiple inputs is reflected in a single shared view of the application. *Id*. Fig. 1 of the '811 Patent illustrates the basic architecture disclosed for implementing the described collaborative system:

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