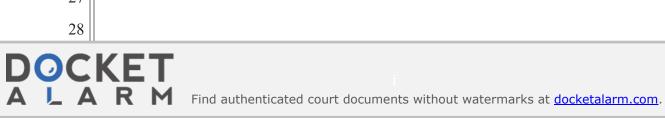
GENTEX CORPORATION and INDIGO TECHNOLOGIES, LLC, Plaintiffs, THALES VISIONIX, INC., Involuntary Plaintiff, v. META PLATFORMS, INC. and META PLATFORMS TECHNOLOGIES, LLC,	Case No.: 4:22-cv-03892-YGR DEFENDANTS META PLATFORMS, INC. AND META PLATFORMS TECHNOLOGIES, LLC'S SECOND SUPPLEMENTAL INVALIDITY CONTENTIONS JURY TRIAL DEMANDED
TECHNOLOGIES, LLC, Plaintiffs, THALES VISIONIX, INC., Involuntary Plaintiff,	DEFENDANTS META PLATFORMS, INC. AND META PLATFORMS TECHNOLOGIES, LLC'S SECOND SUPPLEMENTAL INVALIDITY
TECHNOLOGIES, LLC, Plaintiffs, THALES VISIONIX, INC.,	DEFENDANTS META PLATFORMS, INC. AND META PLATFORMS
TECHNOLOGIES, LLC, Plaintiffs,	DEFENDANTS META PLATFORMS
TECHNOLOGIES, LLC,	Case No.: 4:22-cv-03892-YGR
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UAKLAN	
FOR THE NORTHERN I	DISTRICT COURT DISTRICT OF CALIFORNIA ND DIVISION
IN THE UNITED STA	ATES DISTRICT COURT
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 in the art would have understood at the times of the alleged inventions. Defendants reserve the right to rely upon additional prior art, information, and/or knowledge to demonstrate what one of ordinary skill would have understood at any time prior to the date of alleged invention of the Asserted Claims.

B. Claim Charts

Pursuant to the local rules, the claim charts attached in Appendix A as Exhibits A-1 through A-29 identify where each limitation of the Asserted Claims of the '068 Patent is found in the prior art.

C. Identification of the Prior Art

Based on Plaintiffs' October 12, 2021 Preliminary Infringement Contentions, December 22, 2021 Amended Infringement Contentions, and October 21, 2022 Infringement Contentions, Defendants identify prior art below and in Appendix A as Exhibits A-1 through A-29, which contains charts disclosing the identity of each item of prior art that anticipates each claim and/or renders it obvious. As shown in Appendix A as Exhibits A-1 through A-29 and below, Defendants have identified each prior art reference by its number, country of origin, author, and date of issue (where applicable). Defendants note that it has applied the prior art in accordance with Plaintiffs' improper assertions of infringement and improper applications of the claims. Defendants do not agree with Plaintiffs' application of the claims and deny infringement.

Defendants further contend that all claims that are anticipated by a particular reference are also rendered obvious by that same reference alone, in combination with the other references, and/or in combination with the knowledge of a person of ordinary skill in the art. Defendants reserve the right to rely upon any combination of the charted prior art under 35 U.S.C. § 103, yet Defendants have also identified exemplary obviousness combination in Section III.E, *infra*.

'068 Patent Prior Art Patents/Patent Applications				
Ex. No.	Patent / Publication No.	Country of Origin	Filing Date	Date of Issue / Publication
Ex. A-1	6,388,657 ("Natoli")	U.S.	Dec. 31, 1998	May 14, 2002
Ex. A-2	5,386,308 ("Michel")	U.S.	June 3, 1994	Jan. 31, 1995
Ex. A-3	5,850,201 ("Lasko-Harvill")	U.S.	Oct. 6, 1994	Dec. 15, 1998
Ex. A-4	5,615,132 ("Horton")	U.S.	Jan. 21, 1994	Mar. 25, 1997



'068 Patent Prior Art Patents/Patent Applications				
Ex. No.	Patent / Publication No.	Country of Origin	Filing Date	Date of Issue / Publication
Ex. A-5	5,803,738 ("Latham")	U.S.	Aug. 5, 1996	Sept. 8, 1998
Ex. A-6	6,771,294 ("Pulli")	U.S.	Dec. 29, 1999	Aug. 3, 2004
Ex. A-8	19830359 ("Helge")	DE	July 7, 1998	Jan. 20, 2000
Ex. A-29	5,592,401 ("Kramer")	U.S.	Feb. 28, 1995	Jan. 7, 1997

'068 Patent Prior Art Publications				
Ex. No.	Title	Date of Publication	Author	Publisher
Ex. A-7	A Wireless Link to Six Degree of Freedom Inertial Tracker ("Rodkin")	Jan. 1996	John J. Rodkin	Massachusetts Inst. of Tech.
Ex. A-9	Egocentric Object Manipulation in Virtual Environments: Empirical Evaluation of Interaction Techniques ("Poupyrev")	1998	I. Poupyrev, et al.	Eurographics Assoc. & Blackwell Pubs.
Ex. A-10	Spatial Information Displays on a Wearable Computer ("Billinghurst")	Nov./Dec. 1998	Mark Billinghurst, et al.	IEEE
Ex. A-11	Miniature 6-DOF Inertial System for Tracking HMDs ("Foxlin Article")	Apr. 1998	Foxlin, et al.	SPIE
Ex. A-13	Inertial Proprioceptive Devices: Self-motion Sensing Toys and Tools ("Verplaetse")	1996	C. Verplaetse	IBM
Ex. A-22	Dynamic Registration Correction in Augmented- Reality Systems ("Bajura")	1995	M. Bajura	IEEE
Ex. A-22	Shared Space: An Augmented Reality Approach for Computer Supported Collaborative Work ("Billinghurst 1998")	1998	Mark Billinghurst	Springer
Ex. A-22	Application of Inertial Sensors and Flux-Gate Magnetometer to Real-Time Human Body Motion Capture ("Frey")	Sept. 1996	William Frey III	Naval Postgraduate School
Ex. A-22	Free-Hand Pointer by Use of an Active Stereo Vision System ("Hung")	1998	Hung	IEEE



	'068 Patent Prior Art Publications			
Ex. No.	Title	Date of Publication	Author	Publisher
Ex. A-22	Moving Objects in Space: Exploiting Proprioception in Virtual-Environment Interaction ("Mine-I")	1997	Mark R. Mine, et al.	ACM
Ex. A-22	Virtual Environment Interaction Techniques ("Mine-II")	May 1995	Mark R. Mine	UNC Chapel Hill
Ex. A-22	Virtual Reality on a WIM: Interactive Worlds in Miniature ("Stoakley")	1995	Richard Stoakley et al.	ACM
Ex. A-23	Autocalibration for Virtual Environments Tracking Hardware ("Gottschalk")	1993	S. Gottschalk, et a.	ACM
Ex. A-24	The Science of Virtual Reality and Virtual Environments ("Kalawsky")	1993	Roy S. Kalawsky	MIT

'068 Patent Prior Art Products			
Ex. No.	Product Name	Public Availability Date	
Ex. A-12	Nintendo Virtual Boy ("Nintendo")	1995	
Ex. A-14	Virtual Vision Head Mounted Displays ("Virtual Vision")	1999	
Ex. A-15	InterSense IS-300	1996	
Ex. A-15	InterSense IS-300 Pro	1996	
Ex. A-15	InterSense IS-300 Precision Motion Tracker ²	1996	
Ex. A-16	InterSense IS-600 ("IS-600")	1996	
Ex. A-17	Pegasus FreeD ("Pegasus")	1997	
Ex. A-18	Sega Products	1993	
Ex. A-19	InterTrax and InterTrax 2 ("InterTrax")	1998	
Ex. A-20	Forte VFX1	1995	
Ex. A-21	VPL Products	1989	
Ex. A-25	VuMan	1999	
Ex. A-25	Private Eye	1990	
Ex. A-25	Navigator 2	1995	
Ex. A-26	Virtual Research VR4 ("VR4")	1994	
Ex. A-27	Boeing TriSen ("TriSen")	1997	

InterSense IS-300, IS-300 Pro, and IS-300 Precision Motion Tracker are referred to collectively, herein, as "IS-300."



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'068 Patent Prior Art Products			
Ex. No.	Product Name	Public Availability Date	
Ex. A-28	Polhemus 6DOF Sensors ("Polhemus")	1997	

Exemplary Background Art

David R. Pratt, Insertion of an Articulated Human into a Networked Virtual Environment, Univ. of Florida (1994) ("Pratt")

E. R. Bachmann, et al., Orientation Tracking for Humans and Robots Using Inertial Sensors, Int'l Symposium on Computation Intelligence in Robotics & Automation (1999) ("Bachmann")

Mel Slater, The Virtual Treadmill: A Naturalistic Metaphor for Navigation in Immersive Virtual Environments, Springer (1995) ("Slater")

Randy Pausch et al., Quantifying Immersion in Virtual Reality, SIGGRAPH97: 24TH INT'L CONFERENCE AND EXHIBITION ON COMPUT. GRAPHICS AND INTERACTIVE TECHNIQUES, ACM (1997) ("Pausch")

Lawrence Rosenblum, The Virtual Reality Responsive Workbench: Applications and Experiences, Naval Research Lab. (1997) ("Rosenblum")

Grigore Burdea et al., Multimodal Virtual Reality: Input-Output Devices, System Integration, and Human Factors, Taylor and Francis Ltd. (1996) ("Burdea")

R. T. Azuma, Improving Static and Dynamic Registration in an Optical See-through HMD, UNC Chapel Hill (1994) ("Improving Static")

Steve Mann, Smart Clothing: The Wearable Computer and WearCam, PERSONAL TECHNOLOGIES (1997), Vol. 1, pp. 21-27 ("Mann")

Len Bass et al., The Design of a Wearable Computer, CHI '97 MOSAIC OF CREATIVITY: CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS (March 1997), pp. 22-27 ("Bass")

Barfield et al., Fundamentals of Wearable Computers and Augmented Reality (Mar. 2001) ("Barfield")

The exemplary background art, and any other background art, is evidence of the knowledge of a person of ordinary skill in the art.

Furthermore, with respect to the '068 Patent, under 35 U.S.C. § 102(f), Defendants identify the activities of entities involved in inertial orientation and position tracking as referenced in Provisional Application No. 60/178,797, to which Plaintiffs claim priority. See, e.g., Prov. App. No. 60/178,797 at 3.

Furthermore, with respect to the '068 Patent, under 35 U.S.C. §§ 102(a), (b), and (g)(2), Defendants identify multiple prior art systems developed prior to January 28, 2000, including, for example, the Virtual Vision HMDs, InterSense IS-300, IS-300 Pro, InterSense IS-300 Precision Motion Tracker, InterSense-600, Pegasus, Sega, InterTrax and InterTrax 2, Forte VFX1, VPL



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