Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
Loren Shih	01/27/2000
Walter A. Aviles	01/20/2000
Thomas H. Massie	01/27/2000
Walter C. Shannon III	01/27/2000

RECEIVING PARTY DATA

Name:	SensAble Technologies, Inc.
Street Address:	215 First Street
City:	Cambridge
State/Country:	MASSACHUSETTS
Postal Code:	02142

PROPERTY NUMBERS Total: 2

Property Type	Number	
Application Number:	10844257	
Patent Number:	6831640	

CORRESPONDENCE DATA

Fax Number: (617)523-1231

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 617-570-1013

Email: whaulbrook@goodwinprocter.com

Correspondent Name: William R. Haulbrook
Address Line 1: Exchange Place

Address Line 4: Boston, MASSACHUSETTS 02109

NAME OF SUBMITTER: William R. Haulbrook

Total Attachments: 12

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PATENT REEL: 016050 FRAME: 0544 00 1084

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PATENT REEL: 016050 FRAME: 0545



WHEREAS, We, Loren Shih, Walter A. Aviles, Thomas H. Massie and Walter C. Shannon III have invented one or more improvements in:

SYSTEMS AND METHODS FOR SCULPTING VIRTUAL OBJECTS IN A HAPTIC VIRTUAL REALITY ENVIRONMENT

herewith and a	identified by Attorney Docket No. SNS-006CP1, and/or executed by us of even dat bout to be filed in the United States Patent Office;	e
nerewith and a	Dour to be fried in the Ornica States Patent Office,	

described in an application (or provisional application) for Letters Patent of the United States:

Serial No. 09/347.637 filed in the United States Patent Office on July 6, 1999; and

WHEREAS, SensAble Technologies, Inc. (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the State of Delaware, and having a usual place of business at 215 First Street, Cambridge, MA 02142 desires to acquire an interest therein, in accordance with agreements duly entered into with us:

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, our entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the inventions described in said application, together with our entire right, title and interest in and to said application and such Letters Patent as may issue thereon or claim priority under international convention. including but not limited to continuations, divisionals, reissues, and reexaminations of said application of such Letters Patent; said inventions, applications and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all of our rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of our entire right, title and interest in and to said inventions, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all Letters Patent to ASSIGNEE for its own name as assignee of our entire right, title and interest therein.

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including: the execution of applications for patents in foreign countries; the execution of substitution, reissue, divisional or continuation applications: and preliminary or other statements or the giving of testimony in any interference or other proceeding in which said inventions or any application or patent directed thereto may be involved; and



we further hereby authorize ASSIGNEE or its attorneys or agents to insert the correct serial number and filing date into this assignment, if none is indicated on that date of our execution of this assignment;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREO	F, we ha	ve hereunto set ou	r hands and affixed our s	eals the date se
forth below.			ſ	
		_	1	/I
		Inventor:		I
		inventor:	Loren Shih	73
			Loren Snin	
Commonwealth of Massachusetts	1		I	
County of Middle sex) 88			
J-Huare Sex	,			
Subscribed and sworn to befo	re me, b	y the above-named	Loren Shih this 27th	iay of
•		.1	. S. D. Brech	
		<u> /2/</u>	ruice M. Andrews	
		Notary Public	Expires: <u>June 11, 2</u>	
		My Commission	Expires: June 11, 2	1000
		inventor:		
		mventor.	Walter A. Aviles	
			waiter A. Avlies	
Commonwealth of Massachusetts)			
County of) ss			
•	,			
Subscribed and sworn to before 1999.	re me, by	y the above-named	Walter A. Aviles this	day of
		Notary Public		
		My Commission	Expires:	
840051				
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PATENT



		Inventor:		
		•	Thomas H. Massie	
Commonwealth of Massachusetts County of)) ss			
Subscribed and sworn to before, 1999.	re me, by	the above-named	Thomas H. Massie this	_ day of
		Notary Public My Commission	Expires:	
		Inventor:		
			Walter C. Shannon III	
Commonwealth of Massachusetts County of)) ss			
Subscribed and sworn to befo	re me, by	the above-named	Walter C. Shannon III this _	day of
		Notary Public My Commission	n Expires:	÷.

450JSS7268/10.840051-1



WHEREAS, We. Loren Shih, Walter A. Aviles, Thomas H. Massie and Walter C. Shannon III have invented one or more improvements in:

SYSTEMS AND METHODS FOR SCULPTING VIRTUAL OBJECTS IN A HAPTIC VIRTUAL REALITY ENVIRONMENT

described in	an application (or provisional application) for Letters Patent of the United States:
herewith and	identified by Attorney Docket No. SNS-006CP1, and/or executed by us of even date about to be filed in the United States Patent Office;
	Serial No. 09/347,637 filed in the United States Patent Office on July 6, 1999; and
WH	EREAS, SensAble Technologies, Inc. (hereinafter "ASSIGNEE"), a corporation organiz

WHEREAS, SensAble Technologies, Inc. (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the State of Delaware, and having a usual place of business at 215 First Street, Cambridge, MA 02142 desires to acquire an interest therein, in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, our entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the inventions described in said application, together with our entire right, title and interest in and to said application and such Letters Patent as may issue thereon or claim priority under international convention, including but not limited to continuations, divisionals, reissues, and reexaminations of said application of such Letters Patent: said inventions, applications and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all of our rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of our entire right, title and interest in and to said inventions, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all Letters Patent to ASSIGNEE for its own name as assignee of our entire right, title and interest therein.

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including: the execution of applications for patents in foreign countries; the execution of substitution, reissue, divisional or continuation applications; and preliminary or other statements or the giving of testimony in any interference or other proceeding in which said inventions or any application or patent directed thereto may be involved; and

PATENT



we further hereby authorize ASSIGNEE or its attorneys or agents to insert the correct serial number and filing date into this assignment, if none is indicated on that date of our execution of this assignment;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

		Inventor:
		Loren Shih
Commonwealth of Massachusetts County of)) ss	
Subscribed and sworn to befor, 1999.	e me, b	y the above-named Loren Shih this day of
		Notary Public My Commission Expires:
		Inventor:
State of California		Walter A. Aviles
State of California Commonwealth of Massachusetts County of San Diego)) ss	
Subscribed and sworn to before	e me, by	Notary Public My Commission Expires: V64. 2000
		My Continssion Expires: FOD 12000
R-I(105) OFFICIAL TERESA HA NOTARY PUBLIC COMM. NO. SAN DIEGO	RTMAN CALIFORN 1066334	

PATENT



		Inventor:		
			Thomas H. Massie	
Commonwealth of Massachusetts)			
County of) ss			
Subscribed and sworn to befor	e me, by	the above-named	Thomas H. Massie this	_ day of
		Notary Public		
		My Commission	Expires:	
		7		
		Inventor:	Walter C. Shannon III	
Commonwealth of Massachusetts)			
County of) 88			
Subscribed and sworn to before, 1999.	re me, by	the above-named	Walter C. Shannon III this	day of
		Notary Public		
			Expires:	

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PATENT



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		Inventor:	Loren Shih
Commonwealth of Massachusetts County of)) ss		
Subscribed and sworn to before, 1999.	re me, by	y the above-name	d Loren Shih this day of
		Notary Public My Commissio	on Expires:
		Inventor:	Walter A. Aviles
Commonwealth of Massachusetts County of)) ss		
Subscribed and sworn to before 1999.	re me, by	the above-name	d Walter A. Aviles this day of
		Notary Public My Commissio	on Expires:
840051			

PATENT



Inventor: Massie

Thomas H. Massie

County of Massachusetts)) ss				
Subscribed and sworn to before 1999 Jaco	re me, by	the above-named Thomas H. Massie this 27 day of			
		Notary Public My Commission Expires:	NOBERT A ROTTLER Notary Public Communication of Managerhuse My Communication Expires November \$4, 2008		
		Inventor: Walter C. She	annon III		
Commonwealth of Massachusetts County of)) ss				
Subscribed and sworn to befo	re me, by	y the above-named Walter C. Sha	nnon III this day of		
		Notary Public My Commission Expires:			

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840051

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	Inventor:		
		Loren Shih	
)) ss			
e me, by	y the above-named	Loren Shih this	day of
	Notary Public My Commission	Expires:	
	Inventor:		
		Walter A. Aviles	
)) ss			
e me, by	the above-named	Walter A. Aviles this	day of
	e me, by)) ss re me, by the above-named Notary Public My Commission Inventor:)) ss	Notary Public My Commission Expires: Inventor: Walter A. Aviles

PATENT REEL: 016050 FRAME: 0556



		Inventor:
		Thomas H. Massie
Commonwealth of Massachusetts County of Madlesex)) ss	
Subscribed and sworn to before	re me, by	the above-named Thomas H. Massie this 27th day of
•		Burnie M. andrus
		Notary Public
		My Commission Expires: June 11, 2004
		Inventor: Walter C. Shannon III
Commonwealth of Massachusetts County of Maddlesex)) ss	
Subscribed and sworn to befo	re me, by	y the above-named Walter C. Shannon III this <u>27</u> ⁴⁴ day of
		Notary Public
		Mr. Commission Funitary 700 11 2001
		My Commission Expires: <u>Tune 11, 2004</u>

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RECORDED: 05/23/2005

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