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U.S. DEPARTMENT OF COMMERCE  
U.S. Patent and Trademark Office

To the Honorable Commission

102811435

attached original documents or copy thereof.

## 1. Name of conveying party(ies):

**Inviso, Inc.  
1330 Bordeaux Dr.  
Sunnyvale, CA 94089**

Additional name(s) of conveying party(ies) attached?

0 Yes ☒ No

## 2. Name and address of receiving party(ies)

**Name: Brilliant Corporation**  
**Street Address: 1600 NORTH DESERT DRIVE**  
**City: TEMPE State: AZ Zip: 85281-1230**Additional name(s) & address(es) attached? 0 Yes ☒ No

## 3. Nature of conveyance:

☒ **Assignment** 0 Merger  
0 Security Agreement 0 Change of Name  
0 Other \_\_\_\_\_Execution Date(s): **February 23, 2004**

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution dates of the application is:

A. Patent Application No.(s)

Filed:

B. Patent No.(s)

5,973,845

Additional numbers attached? 0 Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

**RONALD L. CHICHESTER**  
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## 6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41)..... \$40.00

☒ **Authorized to be charged to deposit account:**  
**02-0383**8. Deposit account number: **02-0383 OF BAKER BOTTS L.L.P.**  
(Attach duplicate copy of this page if paying by deposit account)

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## 9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.***RONALD L. CHICHESTER, REG. NO. 36,765**

Name of Person Signing

*Ronald L. Chichester*

Signature

**July 30**  
**March** 2004  
Date

Total number of pages including attachments and documents: Two (2) Sheets

Mail documents to be recorded with required cover sheet information to:

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08/10/2004 LNUELLER 00000027 5973845

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40.00 OP

**PATENT ASSIGNMENT**

WHEREAS, Three-Five Systems, Inc. (hereafter "Assignor"), a New Jersey corporation, having an address at 1600 North Desert Drive, Tempe, Arizona is the owner of the U.S. Patents and Patent Applications listed in Appendix A (hereinafter the "Patent Properties"), attached hereto; and

WHEREAS, Brillian Corporation (hereafter "Assignee") a Delaware corporation, having an address at 1600 North Desert Drive, Tempe, Arizona, desires to acquire all right, title and interest in and to the Patent Properties;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor does hereby sell, assign, transfer and set over to Assignee, all its right, title and interest in and to the Patent Properties, as well as all provisionals, continuations, divisions, and continuations-in-part of said Patent Properties, and all reissues and extensions thereof, the same to be held and enjoyed by Assignee for its own use and benefit, and for the use and benefit of its successors, assigns, or legal representatives, to the end of the term or terms for which any individual patent of the Patent Properties may be granted or reissued, as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment and sale had not been made.

Assignor also assigns to Assignee, all right, title and interest in and to the inventions disclosed in said Patent Properties throughout the world, including the right to file applications and obtain patents, utility models, industrial models and designs for said Patent Properties in its own name throughout the world, including all rights to publish cautionary notices reserving ownership of said inventions and all rights to register said Patent Properties in appropriate registries; and Assignor further agrees to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such right, title and interest in Assignee.

Assignor also assigns unto Assignee all claims for damages by reason of infringement prior to the assignment date of the Patent Properties throughout the world, with the

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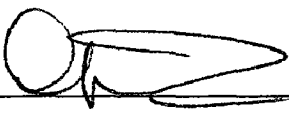
**PATENT**  
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right to sue for and collect the same for its own use and benefit, and for the use and benefit of its successors, assigns and other legal representatives.

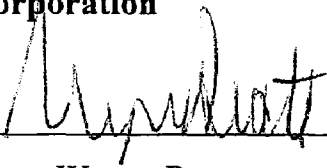
Assignor also will communicate to Assignee any facts known to it respecting any improvements; and, at the expense of Assignee, will testify in any legal proceedings, sign all lawful papers, execute all provisional, divisional, continuation, continuation-in-part, reissue and substitute applications, make lawful oaths and declarations, and generally do everything possible to vest title in Assignee and to aid Assignee to obtain and enforce proper protection for said Patent Properties in all countries.

IN WITNESS WHEREOF, the parties have caused this Patent Assignment to be executed on the dates and in the capacities shown below.

**Three-Five Systems, Inc.**

By:   
Name: George A. Pisaruk  
Title: General Counsel  
Date: February 23, 2004

**Brilliant Corporation**

By:   
Name: Wayne Pratt  
Title: Chief Financial Officer  
Date: February 23, 2004

Case Matter	Client Ref.	Country	Title	Application No.	Filing Date	Patent No.	Issue Date
075115.0103	AU	US	Multitransmitted Frames in a Liquid Crystal Display				
075115.0104		US	System and Method for Actuating a Liquid Crystal Display	09/685834	October 9, 2000		
075115.0105		US	System and Method for Handling the Input Video Stream for a Display	09/912783	July 25, 2001		
075115.0106		US	Minimizing Frame Writing Time of a Liquid Crystal Display	09/827559	April 6, 2001		
075115.0107	2000-02	AU	Aperture Frames for Liquid Crystal-Display Devices	09/709903	November 10, 2000	6414337B1	July 2, 2002
075115.0108		US	Frame Pre-Writing in a Liquid Crystal Display	09/740287	December 18, 2000		
075115.0109		US	Liquid Crystal Display Column Capacitance Charging with a Current Source	09/827558	April 6, 2001		
075115.0110		US	System and Method for Providing Voltages for a Liquid Crystal Display	09/915172	July 25, 2001		
075115.0111	AU	US	Improved Brightness of a Liquid Crystal Display by Changing Write Direction				
075115.0112		US	Apparatus for Reducing Degradation of the Voltage Holding Ratio of a Cell of a Liquid Crystal Display Device				

Case Matter	Client Ref.	Country	Title	Application No.	Filing Date	Patent No.	Issue Date
075115.0113		US	Apparatus for Maintaining a Uniform Cell Gap in a Liquid Crystal Display Device and Method of Making a Microdisplay Device Employing Same				
075115.0114		US	Asymmetric Liquid Crystal Actuation System and Method	09/862075	May 21, 2001		
075115.0115	AU	US	Nonphotolithography Based Simple, Cost Effective, High Volume Manufacturing Methods for ...				
075115.0116	AU	US	High-Density Wire Bond Microdisplay	09/678489	October 3, 2000		
075115.0117		US	LCD Having Internally Formed Spaces	60/069463	December 15, 1997		
075115.0118		US	Method and Apparatus for Fabricating Micro-Display Devices	09/146136	September 3, 1998		
075115.0118 1		US	Method and Apparatus for Fabricating Micro-Display Devices	09/146136	September 3, 1998		
075115.0119	AU	US	Display Compatible with Wide Range of LCD Material	09/607681	June 30, 2000		
075115.0120	AU	US	Micro-Display System Having Flex Circuit				
075115.0121		US	Method and Apparatus for Driving a Display	09/774984	January 31, 2001		
075115.0122		US	Asymmetric Scribe and Break Silicon Wafer	08/957984	October 27, 1997	5963289	October 5, 1999

## Appendix A

Case Matter	Client Ref.	Country	Title	Application No.	Filing Date	Patent No.	Issue Date
075115.0126		US	Micro Display Optical Systems	60/267443	February 8, 2001		
075115.0126 1	AU	US	System and Method for Testing a Display Device	10/072456	February 7, 2002		
075115.0128		US	Liquid Crystal on Silicon Device	09/912754	July 24, 2001	6686977	February 3, 2004
075115.0129	AU	US	System and Method for Providing Voltages for a Liquid Crystal Display	10/123512	April 16, 2002		
075115.0130	AU	US	Image Quality Improvement for Liquid Crystal Displays	09/972746	October 8, 2001		
075115.0131	AU	US	Image Sticking Suppression Using Conductive Openings in the Reflectivity Enhancement Coating Passiv				
075115.0150	AU	US	Method and Algorithm for Fast Measurement of the Electro-Optical Response for Liquid Crystal on Silicon Microdisplays	60/380662	May 15, 2002		
075115.0150 1	AU	US	Testing Liquid Crystal Microdisplays	10/313178	December 6, 2002		
075115.0151		US	Twice Folded Compound Magnified Virtual Image Electronic Display	09/182951	October 29, 1998	6603443B1	August 5, 2003
075115.0152	AU	US	Display Illumination System	09/394014	September 10, 1999	6433935B2	August 13, 2002
075115.0153		US	Portable Transcription Device with Virtual Image Display	09/226845	January 7, 1999		

Case Matter	Client Ref.	Country	Title	Application No.	Filing Date	Patent No.	Issue Date
075115.0154		US	Optical Method Employing Total Internal Reflection	09/237996	January 26, 1999	5959781	September 28, 1999
075115.0155		US	Display System Having Multiple Memory Elements per Pixel with Improved Layout Design	09/311805	May 13, 1999	6140983	October 31, 2000
075115.0156		US	Display System with Local Decoding	09/311804	May 13, 1999		
075115.0157		US	Compact Display System with Two Stage Magnification and Immersed Beam Splitter	08/673894	July 2, 1996	5771124	June 23, 1998
075115.0158		US	Display System Having Multiple Elements per Pixel	09/079684	May 15, 1998	6339417	January 15, 2002
075115.0159		US	Miniature Synthesized Virtual Image Electronic Display	08/775840	December 31, 1996	5838498	November 17, 1998
075115.0160	AU	US	Virtual Image Display with Virtual Keyboard	09/785024	February 15, 2001		
075115.0161	AU	US	Compact Display System Controlled by Eye Position Sensor System	09/372651	August 11, 1999	6055110	April 25, 2000
075115.0162		US	Transcription Method Using Virtual Image Display	09/226738	January 7, 1999		
075115.0163		US	Display System with Multiplexed Pixels	09/369685	August 5, 1999		
075115.0164		US	Compact Compound Magnified Virtual Display with Reflective/Transmissive Optic	09/018259	February 4, 1998	5991084	November 23, 1999

Case Matter	Client Ref.	Country Title	Application No.	Filing Date	Patent No.	Issue Date
075115.0165		US Twice Folded Compound Magnified Virtual Image Electronic Display	08/831106	April 1, 1997	5870068	February 9, 1999
075115.0166		US Twice Folded Compound Magnified Virtual Image Electronic Display	08/441529	May 15, 1995	5684497	November 4, 1997
075115.0167		US Compact Display System with Two Stage Magnification and Immersed Beam Splitter	09/033208	March 2, 1998	5892624	April 6, 1999
075115.0168		US Twice Folded Compound Magnified Virtual Image Electronic Display	08/831371	April 1, 1997	5905478	May 18, 1999
075115.0169		US Head-Mounted Display with Miniature Synthesized Virtual Image Electronic Display	09/018027	February 2, 1998		
075115.0170		US Miniature Synthesized Virtual Image Electronic Display	09/017048	February 2, 1998	6094181	July 25, 2000
075115.0171		US Display Illumination System	09/733774	December 8, 2000	6404557B2	June 11, 2002
075115.0172		US Phone with Ergonomic Virtual Image Display	09/031263	February 26, 1998	6275714B1	August 14, 2001
075115.0174		US Balanced Binary Color Drive Method for Graphical Displays and System Implementing Same	09/727095	November 29, 2000		
075115.0175		US System and Method for Digitally Controlled Waveform Drive Methods for Graphical Displays	09/727132	November 29, 2000		



Case Matter	Client Ref.	Country	Title	Application No.	Filing Date	Patent No.	Issue Date
075115.0176		US	System and Method for Color and Grayscale Drive Methods for Graphical Displays Utilizing Analog Controlled Waveforms	09/737418	December 14, 2000		
075115.0177		US	System and Method for Superframe Dithering in a Liquid Crystal Display	09/792041	February 21, 2001		
075115.0178		US	System and Method for a Liquid Crystal Display Utilizing a High Voltage Bias Mode	09/791888	February 21, 2001		
075115.0179		US	System and Method for a Head-Mounted Computer Display	09/792408	February 21, 2001		
075115.0180	AU	US	Optically Corrective Lenses for a Head-Mounted Computer Display	09/792382	February 21, 2001		
075115.0181	AU	US	S, M for Local Decoding of Digital Bit Seq. For Switching States of Pixel on Time Basis for Controlling Grayscale, Gamma Corr.	09/792133	February 21, 2001		
075115.0182		US	System and Method for a Programmable Color Rich Display Controller	09/792291	February 21, 2001		
075115.0183		US	Miniature Synthesized Virtual Image Electronic Display	08/361035	December 21, 1994	5644323	July 1, 1997
075115.0184		US	Display Illumination System	10/160901	June 3, 2002		

## Appendix A

Case Matter	Client Ref.	Country	Title	Application No.	Filing Date	Patent No.	Issue Date
075115.0185		US	Compact Compound Magnified Virtual Image Electronic Display	08/407102	March 17, 1995	5625372	April 29, 1997
075115.0186		US	Display System Having Multiple Memory Elements Per Pixel with Improved Layout Design	09/999093	November 15, 2001		
075115.0187		US	Miniature Synthesized Virtual Image Electronic Display	09/182952	October 29, 1998	5973845	October 26, 1999
075115.0188	AU	US	Liquid Crystal Display System with Improved Color Depth and Grayscale				
075115.0189	AU	US	Digital Microdisplay System Architecture with Integrated Dither Processing				
075115.0210		US	Display Illumination System	10/217152	August 12, 2002		
075115.0235		US	Method to Eliminate the Disclination Defects Due to Fringe Fields in Vertically Aligned Nematic Reflective LC Displays Without Hurting the Display Contrast	60/450370	February 26, 2003		
075115.0252	2000-04	US	Image Quality Improvement for Liquid Crystal Displays	60/263355	January 22, 2001		
075115.0253	2000-05	US	System and Method for Minimizing Image Degradation in LCD Microdisplays	10/004518	November 2, 2001		

## Appendix A

Case Matter	Client Ref.	Country	Title	Application No.	Filing Date	Patent No.	Issue Date
075115.0262		US	Electrode Border for Spatial Light Modulating Displays	09/520682	March 7, 2000		
075115.0263		US	Method and Apparatus for Independent Control of Brightness and Color Balance in Display and Illumination Systems	09/258512	February 26, 1999	6618031B1	September 9, 2003
075115.0264		US	Micro Liquid Crystal Displays Having a Circular Cover Glass and a Viewing Area Free of Spacers	09/312946	May 17, 1999	6275277B1	August 14, 2001
075115.0265		US	Micro Liquid Crystal Displays	09/872933	May 31, 2001		
075115.0274		US	Display System Having Electrode Modulation to Alter a State of an Electro-Optic Layer	08/920602	August 27, 1997	6104367	August 15, 2000
075115.0275		US	Method and Apparatus for Testing Color Sequential, Near-to-the-Eye, and Similar Display Devices	60/244125	October 27, 2000		
075115.0276		US	Display System Having Electrode Modulation to Alter a State of an Electro-Optic Layer	08/920603	August 27, 1997	6144353	November 7, 2000
075115.0281		US	Low Voltage Frame Buffer for High Contrast LCD Microdisplay and Method Therefor	10/431229	May 6, 2003		
075115.0282		US	Method and Apparatus to Package and Electrically Connect to a Microdisplay	10/043894	November 16, 2001		

Case Matter	Client Ref.	Country	Title	Application No.	Filing Date	Patent No.	Issue Date
075115.0287		US	Display Driver Architecture for a Liquid Crystal Display and Method Therefore	10/644476	August 19, 2003		
075115.0288		US	Liquid Crystal Display Driver Circuit with Optimized Frame Buffering and Method Therefore	10/644151	August 19, 2003		
075115.0289		US	Display System Having Electrode Modulation to Alter a State of an Electro-Optic Layer	08/994033	December 18, 1997	6046716	April 4, 2000
075115.0290		US	Display System Having Electrode Modulation to Alter a State of an Electro-Optic Layer	09/542432	April 4, 2000	6329971B2	December 11, 2001
075115.0293		US	Head-Set for Head Mounted Display	29/102147	March 17, 1999	Des429253	August 8, 2000
075115.0294		US	Controlled Angle Retarder With Liquid Crystal Cell Bias Tuned for a Sequence of Wave Lengths	09/564473	May 3, 2000	6587172B1	July 1, 2003
075115.0295		US	Controlled Angle Retarder With Liquid Crystal Cell Bias Tuned for a Sequence of Wave Lengths	10/452414	May 30, 2003		
075115.0296		US	Wafer Lengths to Protect a Safety Timer to Protect a Display From Fault Conditions	09/311893	May 14, 1999	6448962B1	September 10, 2002
075115.0297		US	Wafer Scale Processing	09/619969	July 20, 2000	6476415B1	November 5, 2002
075115.0298		US	Wafer Scale Processing	10/131452	April 22, 2002		
075115.0300		US	Wide Field of View Eyepiece	09/872073	June 1, 2001	6542307B2	April 1, 2003

Case Matter	Client Ref.	Country	Title	Application No.	Filing Date	Patent No.	Issue Date
075115.0301		US	Method and Apparatus for Adjusted DC Offset Potential in a Liquid Crystal Display (LCD) Device	09/883211	May 21, 2001		
075115.0302		US	Display Head-Set Device	08/904515	August 1, 1997	6034653	March 7, 2000
075115.0303		US	Display Head-Set	29/075082	August 1, 1997	D402651	December 15, 1998
075115.0306		US	Image Generator Having a Miniature Display	09/222230	December 29, 1998		
075115.0307		US	Display Head-Set Having a Miniature Display System	09/311891	May 14, 1999	6326958B1	December 4, 2001
075115.0308		US	Time Sequential Lookup Table Arrangement for a Display	09/989764	November 19, 2001		
075115.0310		US	Image Generator Having an Improved Illumination System	09/912156	July 23, 2001	6488389B2	December 3, 2002
075115.0311		US	Image Generator Having an Improved Illumination System	09/347440	July 2, 1999	6280054B1	August 28, 2001
075115.0313		US	Illumination System for a Micro Display	09/952980	September 14, 2001	6490104B1	December 3, 2002
075115.0314		US	Display System Having Common Electrode Modulation	09/576759	May 23, 2000	6304239B1	October 16, 2001
075115.0315		US	Display System Having Common Electrode Modulation	08/801994	February 18, 1997	6078303	June 20, 2000
075115.0316		US	Display System Having Common Electrode Modulation	08/770233	December 19, 1996	5920298	July 6, 1999
075115.0318		US	Pixel Circuit with Shared Active Regions	09/966310	September 28, 2001		

Case Matter	Client Ref.	Country	Title	Application No.	Filing Date	Patent No.	Issue Date
075115.0320		US	High Contrast LCD Microdisplay	09/966063	September 28, 2001		
075115.0324		US	Controlling Data Dependence and Cross-Talk Between Display Elements	10/016295	October 30, 2001		
075115.0326		US	Compact Wide Field of View Imaging System	09/872111	June 1, 2001	6563648B2	May 13, 2003
075115.0327		US	Wide Field of View Eyepiece	60/242189	October 20, 2000		
075115.0328		US	Display Systems with Pixel Electrodes at Different Distances from a Control Electrode	09/797540	February 28, 2001	6636287B1	October 21, 2003
075115.0329		US	Display Systems with Pixel Electrodes at Different Distances from a Control Electrode	10/658167	September 8, 2003		
075115.0330		US	Display Systems with Pixel Electrodes at Different Distances from a Control Electrode	10/435179	May 9, 2003		
075115.0331		US	Channel to Control Seal Width in Optical Devices	09/872145	June 1, 2001		
075115.0332		US	Liquid Crystal Display Device	09/866038	May 24, 2001		
075115.0335		US	Time Sequential Lookup Table Arrangement for a Display	09/312196	May 14, 1999	6373497B1	April 16, 2002
075115.0123		WO	Methods and Apparatus for a Display Compatible with a Wide Range of Liquid Crystal Materials	US00/18075	June 30, 2000		

Case Matter	Client Ref.	Country	Title	Application No.	Filing Date	Patent No.	Issue Date
075115.0124		WO	Asymmetric Scribe and Break of Silicon Wafers	US98/22691	October 26, 1998		
075115.0125		WO	LCD Having Internally Formed Spacers				
075115.0127		WO	Methods and Apparatus for a Display Compatible with a Wide Range of Liquid Crystal Materials	US01/41236	June 29, 2001		
075115.0132		WO	High-Density Wire Bond Microdisplay	US01/30579	October 1, 2001		
075115.0133		WO	System and Method for Actuating a Liquid Crystal Display	US01/31436	October 9, 2001		
075115.0135	2000-02	WO	Aperture Frames for Liquid Crystal-Display Devices	US01/50906	November 9, 2001		
075115.0136		WO	Asymmetric Liquid Crystal Actuation System and Method	US01/49425	December 19, 2001		
075115.0137		WO	Frame Pre-Writing in a Liquid Crystal Display	US01/48959	December 18, 2001		
075115.0147		WO	Minimizing Frame Writing Time of a Liquid Crystal Display	US02/10194	March 29, 2002		
075115.0148		WO	Liquid Crystal Display Column Capacitance Charging with a Current Source	US02/10126	March 29, 2002		
075115.0173		WO	Compact Display System with Two Stage Magnification and Immersed Beam Splitter	US97/11498	June 30, 1997		

Case Matter	Client Ref.	Country	Title	Application No.	Filing Date	Patent No.	Issue Date
075115.0190		WO	Compact Compound Magnified Virtual Image Electronic Display	US95/16598	December 20, 1995		
075115.0191	AU	WO	Transcription Method Using Virtual Image Display	US00/002226			
075115.0196		WO	Balanced Binary Color Drive Method and Digitally Controlled Waveform Drive Methods for Graphical Displays and System Implementing Same	US01/44919	November 29, 2001		
075115.0197		WO	System and Method for Superframe Dithering in a Liquid Crystal Display	US02/05855	February 20, 2002		
075115.0198		WO	System and Method for a Liquid Crystal Display Utilizing a High Voltage Bias Mode	US02/05358	February 20, 2002		
075115.0199		WO	Optically Corrective Lenses for a Head-Mounted Computer Display	US02/05168	February 20, 2002		
075115.0200		WO	S, M for Local Decoding of Digital Bit Seq. For Switching States of Pixel on Time Basis for Controlling Grayscale, Gamma Corr.	US02/05169	February 20, 2002		
075115.0201		WO	System and Method for Programmable Color Rich Display Controller	US02/05359	February 20, 2002		
075115.0203		WO	Display System Having Multiple Elements per Pixel	US99/10719	May 13, 1999		



Case Matter	Client Ref.	Country	Title	Application No.	Filing Date	Patent No.	Issue Date
075115.0206		WO	Transcription Device with Virtual Image Display	US99/30910	December 23, 1999		
075115.0209		WO	Display Illumination System	US00/23014	August 22, 2000		
075115.0212	2000-02	WO	Aperture Frames for Liquid Crystal-Display Devices	US02/22297	July 11, 2002		
075115.0214		WO	System and Method for Handling the Input Video Stream for a Display	US02/23258	July 23, 2002		
075115.0216		WO	System and Method for Providing Voltages for a Liquid Crystal Display	US02/23260	July 25, 2002		
075115.0236		WO	System and Method for Providing Voltages for a Liquid Crystal Display	US03/11646	April 16, 2003		
075115.0250		WO	Testing Liquid Crystal Microdisplays	US03/15585	May 15, 2003		
075115.0254	2000-05	WO	System and Method for Minimizing Image Degradation in LCD Microdisplays	US02/35108	November 1, 2002		
075115.0267		WO	Micro Liquid Crystal Displays	US00/13470	May 16, 2000		
075115.0272		WO	Display System Having Common Electrode Modulation	US97/21991	December 2, 1997		
075115.0285		WO	Method and Apparatus for Testing Color Sequential, Near-to-the-Eye, and Similar Display Devices	US01/51297	October 26, 2001		
075115.0299		WO	Compact Near-Eye Illumination System	US02/17277	May 29, 2002		

## Appendix A

Case Matter	Client Ref.	Country	Title	Application No.	Filing Date	Patent No.	Issue Date
075115.0305		WO	An Image Generator Having a Miniature Display Device	US98/27833	December 30, 1998		
075115.0312		WO	Time Sequential Lookup Table Arrangement for a Display	US00/12983	May 12, 2000		
075115.0317		WO	Pixel Circuit with Shared Active Regions	US02/27416	August 27, 2002		
075115.0319		WO	High Contrast LCD Microdisplay	US02/28218	August 22, 2002		
075115.0321		WO	Reflective Displays Having Optical Tuning	US02/30339	September 27, 2002		
075115.0322		WO	Display System Having Electrode Modulation to Alter a State of an Electro-Optic Layer	US97/23963	December 19, 1997		
075115.0323		WO	Liquid Crystal Display Device	US02/21009	May 23, 2002		
075115.0325		WO	Controlling Data Dependence and Cross-Talk Between Display Elements	US02/32986	October 15, 2002		

## INTELLECTUAL PROPERTY ASSIGNMENT AGREEMENT

THIS INTELLECTUAL PROPERTY ASSIGNMENT AGREEMENT (the "Agreement"), is effective as of April 25, 2002 by and between **THREE FIVE SYSTEMS, INC.**, a Delaware corporation with its principal place of business at 1600 N. Desert Drive, Tempe, AZ 85281-1230 (hereinafter "TFS"), and **INVISIO CORPORATION**, having a principal place of business at c/o Alfred P. Hildebrand, P.O. Box 51175, Palo Alto, CA 94303 (hereinafter "INVISIO").

### WITNESSETH:

WHEREAS, INVISIO has developed certain INVISIO Technology, hereinafter defined, and owns certain Rights to Technology as hereinafter defined in and to such INVISIO Technology;

WHEREAS, INVISIO and TFS have entered into an Private Sale Agreement (the "PSA"), effective as of April 25, 2002, pursuant to which INVISIO has agreed to assign all the Rights to Technology in and to such INVISIO Technology to TFS;

WHEREAS, TFS is interested in acquiring INVISIO's entire right, title and interest in and to the Rights to Technology; and

WHEREAS, after extensive negotiations, TFS and INVISIO have determined in good faith a price considered by TFS and INVISIO equivalent to the fair value of Rights to Technology;

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants set for the below, TFS and INVISIO agree as follows:

### ARTICLE 1 - Definitions

For the purpose of this Agreement, the following terms shall have the following meanings:

- 1.1 "Rights to Technology" shall mean all rights in copyrights, trademarks (including all trademarks which are still authorized by the United States Patent Office to include, if they exist, Siliscape, InVisio, Optiscape, Optiscape II, Optiscape III, eShades, eCase and ePack), design and collateral files (including but not limited to, those items described on Exhibit A attached hereto) on a worldwide basis now owned or hereafter acquired by INVISIO. TFS and INVISIO acknowledge and agree the Rights to Technology shall not include any "Assets" described in the PSA.

- 1.2 "INVISIO Technology" shall mean the INVISIO trademarks, copyrights, and other intellectual property rights, including the Rights to Technology.

## ARTICLE 2 - Assignment

- 2.1 In exchange for the consideration given to INVISIO by TFS, INVISIO hereby irrevocably assigns, transfers and conveys to TFS, and TFS hereby accepts from INVISIO, INVISIO's entire right, title and interest in the Rights to Technology. INVISIO does not reserve or retain any interest whatsoever in such Rights to Technology.
- 2.2 INVISIO agrees to provide all reasonable assistance and execute any papers reasonably requested by TFS, at TFS' expense, to preserve and acquire TFS' title in and to the Rights to Technology and for the filing and granting of formal applications for attaining available legal protection based on the Rights to Technology.

## ARTICLE 3 - INVISIO's Representations

INVISIO hereby represents to TFS that the following statements are true and correct:

- 3.1 Corporate Status, Power and Authority
- a) INVISIO has all requisite legal and corporate power to execute and deliver this Agreement and to sell and transfer the Rights to Technology and to carry out and perform its obligations hereunder.
  - b) All corporate action on behalf of INVISIO, its directors and shareholders necessary to authorize INVISIO to enter into and perform this Agreement and perform its obligations hereunder has been taken. The execution and delivery of this Agreement by INVISIO has been duly authorized. This Agreement has been duly executed and delivered by INVISIO and constitutes a valid and legally binding agreement of INVISIO subject to laws of general application relating to bankruptcy, insolvency and relief of debtors.
  - c) Neither the execution, delivery, and performance of this Agreement, nor the transfer of Rights to Technology hereunder, will result in or constitute any of the following" (1) a breach of any term or provision of this Agreement; or (2) the violation of any law, judgment, order or decree affecting the business of INVISIO.
  - d) To the knowledge of the management of INVISIO, no authorization, consents, or approvals of any federal, state, county, or local regulatory

body or agency are required to be obtained or given (other than United States export control license or those which are ministerial in nature and which will not delay or invalidate the transactions contemplated herein), and no waiting period is required to expire in order that the transfer of rights contemplated hereunder may be consummated by **INVISIO**.

### 3.2 Existence of Rights to Technology

- a) **INVISIO** has all the rights, title and interest in the Rights to Technology free and clear of any claim, lien encumbrance; and **INVISIO** has not assigned any such rights to any other party. Except as otherwise stated in this Section 3.2, the Rights to Technology are transferred "as is, where is, and with all faults."
- b) To the knowledge of **INVISIO**'s management, there are no pending or threatened lawsuits concerning any aspect of the Rights to Technology transferred hereunder.

### ARTICLE 4 – TFS Representations

TFS represents that TFS is a legal entity duly organized, existing, and in good standing under the laws of Delaware. The execution and delivery of this Agreement and the consummation of the transfer of the Rights to Technology by TFS has been duly authorized, and no further corporate authorization is necessary on the part of TFS.

### ARTICLE 6- [Intentionally omitted]

### ARTICLE 7 – Consideration

Except as otherwise agreed in writing by the parties, the consideration given pursuant to the PSA shall be the sole and exclusive consideration to be given by TFS to **INVISIO** for the transfers contemplated by this Agreement. Neither TFS nor **INVISIO** shall have any right whatsoever to any additional consideration, license fee, or royalty of any kind. **INVISIO** acknowledges that certain income from the licensing of portions of the Rights to Technology shall be paid by TFS to the Secured Parties (as defined in the PSA) pursuant to the PSA and **INVISIO** hereby directs TFS to make such payments for and on their behalf. **INVISIO** acknowledges that it received adequate consideration, including the reduction of indebtedness, for the direction of such income to the Secured Parties and that the direction of such income to the Secured Parties provides a material benefit to **INVISIO**.

## ARTICLE 8 – INVISO's Obligations

At the times specified in the PSA, INVISO shall, unless waived by TFS, have delivered or have caused to be delivered to TFS those documents and releases described in the PSA.

## ARTICLE 9 – General

- 9.1 Notices. Any notice, request or demand required or permitted under this Agreement shall be in writing and may be delivered by hand or by depositing the same either a) with the United States Postal Service, first class mail, postage prepaid, registered or certified, return receipt requested; or b) with one of the generally accepted commercial overnight courier services, charges prepaid; in either event addressed to the addressee at its principal office set forth hereinabove. A party may change its address for the purposes of this Agreement by written notice given in accordance herewith. Other business communications between the parties may be made by facsimile transmission or by use of any commonly accepted electronic mail service to such address or addresses as either party may designate.
- 9.2 Parties in Interest. All the terms and provisions of this Agreement shall be binding upon and inure to the benefit of and be enforceable by the parties hereto.
- 9.3 Entire Agreement. This Agreement, all of its Exhibits, and the PSA constitute the entire agreement between INVISO and TFS with respect to the subject matter hereof, supersedes all prior agreements and understandings, whether written or oral, and may be modified only by an agreement in writing executed by the party to be charged. The section headings contained herein are for convenience only and shall not be used to construe this Agreement. This Agreement may be executed in two or more counterparts, each of which shall constitute an original, but such counterparts together shall constitute one and the same instrument.
- 9.4 Severability. In case any one or more of the provisions contained in this Agreement shall, for any reason, be construed as invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement.
- 9.5 Governing Law. This Agreement shall be governed by the laws of the State of Delaware and of the United States, without giving effect to any of the conflict of laws provisions thereof. In the event of any dispute relating to or concerning this Agreement, the parties will submit exclusively to the jurisdiction of any court of

competent jurisdiction sitting the State of Delaware, and will comply with all requirements necessary to give such court exclusive

- 9.6 Independence. Each of the parties is an independent contractor. Neither party had the authority to bind the other in any respect. Neither party shall claim any right, power, or authority to obligate the other in any manner.
- 9.7 Force Majeure. The performance of either party, required by this Agreement, shall be extended by a reasonable period of time if such performance of the respective party is impeded by an unforeseeable event beyond such party's control, which shall include but not be limited to acts of God, industrial actions, riots, wars, accidents, embargo or requisition (acts of government), so long as the effected party shall promptly notify and furnish the other party in writing with all relevant information regarding such event. Should any such event continue for more than three (3) months, either party shall have the right to terminate this Agreement upon written notice to that effect to the other party.
- 9.8 Controlling Agreement. In the event of any conflict between the provisions of this Agreement and the provisions of any other agreement supplied by one party to the other for use in connection with the performance for this Agreement, the provisions of this Agreement shall control.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement,  
effective as of the date first set forth above.

**THREE FIVE SYSTEMS, INC.**

By: *Jeff Buchanan*  
Name: Jeff Buchanan  
Title: Executive V.P., CEO  
Address: 1600 N. Desert Drive  
Tempe, AZ 85281-1230

**INVISIO CORPORATION**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_



IN WITNESS WHEREOF, the parties hereto have executed this Agreement,  
effective as of the date first set forth above.

**THREE FIVE SYSTEMS, INC.**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: 1600 N. Desert Drive  
Tempe, AZ 85281-1230

**INVISIO CORPORATION**

By: ALP. HILDEBRAND  
Name: ALFRED P. HILDEBRAND  
Title: CHAIRMAN/SECRETARY  
Address: 1555 EDGEWOOD DR.  
PALO ALTO, CA 94303

## SECURED PARTY BILL OF SALE

Date: April 25, 2002

In consideration of the sum of \$  
the parties included on the Schedule of Secured Parties attached hereto as Exhibit A (each, a "Secured Party" and collectively, the "Secured Parties") hereby sell, transfer and assign to THREE-FIVE SYSTEMS, INC., a Delaware corporation ("Buyer"), and Buyer hereby accepts delivery of, all the right, title, and interest of INVISO CORPORATION ("Debtor") in and to the property described on Exhibit B (collectively, the "Assets").

### A. Representations and Warranties of Secured Party.

1. Secured Parties hold valid, perfected and, to the best of Secured Parties knowledge, first priority security interests in the Assets.

2. Debtor is in default of its obligations to Secured Parties and Secured Parties are entitled to sell the Assets under the terms of written agreements between Debtor and Secured Parties, the provisions of the California Commercial Code and other applicable laws.

3. Pursuant to Section 9617 of the UCC, the disposition of the Assets affected by this Secured Party Bill of Sale transfers to Buyer all of the Debtor's rights therein, discharges Secured Party's security interest under which it was made and discharges any junior interest held by a party who has properly filed a UCC-1 with the California Secretary of State (the "Junior Lienholders"). A copy of the UCC search conducted by the Secured Parties is attached hereto as Exhibit C.

4. Upon purchase of the Assets pursuant to this Secured Party Bill of Sale, Buyer will have purchased the Assets free and clear of all state and federal tax liens included on Exhibit C and of all rights and interests of Debtor and Secured Parties and, to the best of Secured Parties knowledge, all claims of other creditors of Debtor with respect to the Assets.

Except for those representations and warranties set forth in paragraphs 1 through 4, Buyer agrees that the Assets are transferred without any warranties or representations of any kind, express or implied, including any warranties as to the merchantability or fitness of the Assets for use or sale. There are no warranties which extend beyond the description of the face hereof and Buyer agrees that the Assets are placed at Buyer's disposal in an "as is" "where is" condition.

The consideration given pursuant to the Private Sale Agreement between the parties shall be the sole and exclusive consideration to be given by Buyer for the transfers contemplated therein. Except as provided in Paragraph 10 of the Private Sale Agreement, in no event shall

Secured Parties have any right whatsoever to any additional consideration, license fee, or royalty of any kind.

Buyer acknowledges that it has inspected and evaluated the Assets and is aware of and relies solely on his own knowledge of its value. Buyer agrees that Secured Parties have made no representation, warranty, statement of fact or expression of opinion to Buyer with regard to the Assets, except as stated herein, and are not now and were not heretofore under any duty to do so. Buyer agrees that Secured Parties have made, with respect to the Assets, no warranty by affirmation of fact, promise, description, model or sample of the Assets.

All representations, warranties and agreements of Secured Parties set forth in this Secured Party Bill of Sale shall be deemed continuing representations, warranties and agreements made by Secured Parties and shall survive the date hereof for a period of six (6) months from the date that the Bill of Sale is delivered to the Buyer.

[Remainder of page left intentionally blank]

Exhibit A  
to  
Bill of Sale

**SCHEDULE OF SECURED PARTIES**

ARCH Venture Fund II, L.P.

Attention Keith Crandell  
8725 W. Higgins Road, Suite 290  
Chicago, IL, 60631  
(773) 380-6600

Associate Venture Investors III, L.P.

Attention Brian Grossi  
One First Street, Suite 2  
Los Altos, CA 94022  
(650) 949-9862

AVI Capital, L.P.

Attention Brian Grossi  
One First Street, Suite 2  
Los Altos, CA 94022  
(650) 949-9862

AVI Partners Growth Fund, II, L.P.

Attention Brian Grossi  
One First Street, Suite 2  
Los Altos, CA 94022  
(650) 949-9862

AVI Silicon Valley Partners, L.P.

Attention Brian Grossi  
One First Street, Suite 2  
Los Altos, CA 94022  
(650) 949-9862

Fred Blalek

200 Winding Way  
Woodside, CA 94062  
(650) 851-7646

Chevron Technology Ventures LLC

Attention: Don Riley  
6001 Bollinger Canyon Road, Bldg. F.  
San Ramon, CA 94583-2324  
(925) 842-2794

Cypress Semiconductor

Attention: Norman Taffe  
195 Champion Court  
San Jose, CA 95134  
(408) 943-2600

MGN Opportunity Group LLC

Attention: Greg Stevenson  
801 Second Avenue, Suite 1300  
Seattle, WA 98104-1581  
(206) 652-8737

Ridgewood Capital Corp.

Ridgewood Inviso, LLC

Attention: Elton Sherwin & Randy  
Holmes  
540 Cowper Street, Suite 200  
Palo Alto, CA 94301  
(650) 208-4015 or (201) 447-9000

Thomas A. Kelley & Associates Profit-  
Sharing Plan

Attention Thomas A. Kelley  
3000 Sand Hill road  
Building 2, Suite 120  
Menlo Park, CA 94025  
(650) 854-3247

William Russell-Shapiro and Alice

Russell-Shapiro, Trustees of the  
Russell-Shapiro Trust w/a/d 10/10/96

William Russell-Shapiro

Alice Russell-Shapiro

R&S Associates

235 Montgomery Street, Suite 824  
San Francisco, CA 94104  
(415) 864-2693

Ivan Sutherland

125 Wadsworth Ave.  
Santa Monica, CA 94045

SUMMARY OF PATENT PORTFOLIO  
FOR  
INVISIO  
[As of January 2002]

**I. ISSUED PATENTS**

Patent Entitled: MINIATURE SYNTHESIZED VIRTUAL IMAGE ELECTRONIC DISPLAY  
Patent No.: 5,644,323  
Issued: July 1, 1997  
Serial No.: 08/361,035  
Filed: December 21, 1994  
Related Case: None  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-701 (SILS 1001)

Patent Entitled: COMPACT COMPOUND MAGNIFIED VIRTUAL IMAGE ELECTRONIC  
DISPLAY  
Patent No.: 5,625,372  
Issued: April 29, 1997  
Serial No.: 08/407,102  
Related Case: WSGR 17542-701 (SILS 1001)  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-705 (SILS 1007)

Patent Entitled: TWICE FOLDED COMPOUND MAGNIFIED VIRTUAL IMAGE  
ELECTRONIC DISPLAY  
Patent No.: 5,684,497  
Issued: November 4, 1997  
Serial No.: 08/441,529  
Filed: May 15, 1995  
Related Case: WSGR 17542-701, 17542-705 (SILS 1001, SILS 1007)  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-706 (SILS 1007 CIP1)

Patent Entitled: COMPACT DISPLAY SYSTEM WITH TWO STAGE MAGNIFICATION  
AND IMMERSER BEAM SPLITTER  
Patent No.: 5,771,124  
Issued: June 23, 1998  
Serial No.: 08/673,894  
Filed: July 2, 1996  
Related Cases: None  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-712 (SILS 4002)

Patent Entitled: MINIATURE SYNTHESIZED VIRTUAL IMAGE ELECTRONIC DISPLAY  
Patent No.: 5,838,498  
Issued: November 17, 1998  
Serial No.: 08/775,840  
Filed: December 31, 1996  
Related Case: WSGR 17542-701 (SILS 1001)  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-718 (SILS 1001 CON1)

Patent Entitled: TWICE FOLDED COMPOUND MAGNIFIED VIRTUAL IMAGE  
ELECTRONIC DISPLAY  
Patent No.: 5,905,478  
Issued: May 18, 1999  
Serial No.: 08/831,371  
Filed: April 1, 1997  
Related Case: WSGR 17542-701, 17542-705, 17542-706 (SILS 1001, SILS 1007, SILS 1007  
CIP1)  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-719 (SILS 1007 CIP1 CON2)

Patent Entitled: TWICE FOLDED COMPOUND MAGNIFIED VIRTUAL IMAGE  
ELECTRONIC DISPLAY  
Patent No.: 5,870,068  
Issued: February 9, 1999  
Serial No.: 08/831,106  
Filed: April 1, 1997  
Related Case: WSGR 17542-706 (SILS 1007 CIP1)  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-720 (SILS 1007 CIP1 CON3)

Patent Entitled: COMPACT COMPOUND MAGNIFIED VIRTUAL DISPLAY WITH  
REFLECTIVE/TRANSMISSIVE OPTIC  
Patent No.: 5,991,084  
Issued: November 23, 1999  
Serial No.: 09/018,259  
Filed: February 4, 1998  
Related Case: None  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-721

Patent Entitled: MINIATURE SYNTHESIZED  
VIRTUAL IMAGE ELECTRONIC DISPLAY  
Patent No.: 6,094,181  
Issued: July 25, 2000  
Serial No.: 09/017,048  
Filed: February 2, 1998  
Related Case: None  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-728

Patent Entitled: VIRTUAL IMAGE DISPLAY SYSTEM UTILIZING  
TOTAL INTERNAL REFLECTION

Patent No.: 5,892,624  
Issued: April 6, 1999.  
Serial No.: 09/033,208  
Filed: March 2, 1998  
Related Case: 17542-712  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No. 17542-732

Patent Entitled: MINIATURE SYNTHESIZED VIRTUAL IMAGE ELECTRONIC DISPLAY

Patent No.: 5,973,845  
Issued: October 26, 1999  
Serial No.: 09/182,952  
Filed: October 29, 1998  
Related Case: WSGR 17542-701, 17542-718, (SILS 1001 CON1, SILS 1001))  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No. 17542-733

Patent Entitled: DISPLAY SYSTEM HAVING MULTIPLE MEMORY ELEMENTS  
PER PIXEL WITH IMPROVED LAYOUT

Patent No.: 6,140,983  
Issue Date: October 31, 2000  
Serial No.: 09/311,805  
Filed: May 13, 1999  
Related Case: WSGR 17542-731; 17542-736; 17542-748  
Inventors: William Quanrud  
Docket No.: 17542-735

Patent Entitled: OPTICAL METHOD EMPLOYING  
TOTAL INTERNAL REFLECTION

Patent No.: 5,595,781  
Issued: September 28, 1999  
Serial No.: 09/237,996  
Filed: January 26, 1999  
Related Case: WSGR 17542-712; 17542-732  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-743

Patent Entitled: COMPACT DISPLAY SYSTEM CONTROLLED  
BY EYE POSITION SENSOR SYSTEM

Patent No.: 6,055,110  
Issued: April 25, 2000  
Serial No.: 09/372,651  
Filed: August 11, 1999  
Related Case: WSGR 17542-712; 17542-732; 17542-743  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-749

Patent Entitled: PHONE WITH ERGONOMIC VIRTUAL IMAGE DISPLAY  
Patent No.: 6,275,714  
Issued: August 14, 2001  
Serial No.: 09/031,263  
Filed: February 26, 1998  
Related Case: None  
Inventors: Gregory Kintz and David Phillips  
Docket No.: 17542-725

Application Entitled: DISPLAY SYSTEM HAVING MULTIPLE ELEMENTS  
PER PIXEL  
Patent No.: 6,339,417  
Issue Date: January 15, 2002  
Serial No.: 09/079,684  
Filed: May 15, 1998  
Related Case: WSGR 17542-735, 17542-736  
Inventors: William Quanrud  
Docket No.: 17542-731

## II. ISSUED INTERNATIONAL PATENT APPLICATIONS

EP Patent Entitled: COMPOUND MAGNIFIED VIRTUAL IMAGE ELECTRONIC DISPLAY  
Patent No.: 0799435  
Patent Issue Date: July 28, 1999  
Publication No.: 0799435  
Publication Date: October 8, 1997  
Serial No.: 95944160.1  
Filed: December 20, 1995  
Related Case: WSGR 17542-715 which is related to WSGR 17542-701, 17542-705, 17542-706  
(SILS 1001, SILS 1007, SILS 1007CIP1)  
Priority Date: December 20, 1995  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-724

AU Patent Entitled: COMPACT DISPLAY SYSTEM WITH TWO STAGE MAGNIFICATION  
AND IMMERSED BEAM SPLITTER  
Patent No.: 721357  
Patent Issue Date: May 9, 2000  
Publication No.: 721357  
Publication Date: June 29, 2000  
Serial No.: 35895/97  
Filed: June 30, 1997  
Related Case: WSGR 17542-726 which is related to WSGR 17542-712 (SILS 4002)  
Priority Date: July 2, 1996  
Inventors: Gregory Kintz and Alfred P. Hildebrand  
Docket No.: 17542-738



JP Application Entitled: COMPOUND MAGNIFIED VIRTUAL IMAGE ELECTRONIC DISPLAY

Patent No.: 3206920

Patent Issue Date: September 10, 2001

Publication No.: 10-511190

Publication Date: October 27, 1998

Serial No.: 8-519,966

Filed: December 20, 1995

Related Cases: WSGR 17542-715 which is related to WSGR 17542-701, 17542-705, 17542-706  
(SILS 1001, SILS 1007, SILS 1007CIP1)

Priority Date: December 20, 1995

Status: Issue fee paid; awaiting further action

Inventors: Alfred P. Hildebrand and Gregory Kintz

Docket No.: 17542-723 (SILS 1007 CIP1 CON1)

### III. PENDING U.S. PATENT APPLICATIONS

Application Entitled: HEAD-MOUNTED DISPLAY WITH MINIATURE SYNTHESIZED  
VIRTUAL IMAGE ELECTRONIC DISPLAY

Serial No.: 09/018,027

Filed: February 2, 1998

Related Case: None

Inventors: Alfred P. Hildebrand and Gregory Kintz

Docket No.: 17542-729

Application Entitled: COMPACT DISPLAY SYSTEM CONTROLLED  
BY EYE POSITION SENSOR SYSTEM

Serial No.: 09/182,951

Filed: October 29, 1998

Related Case: WSGR 17542-701, 17542-705, 17542-706, 17542-720, (SILS 1001, SILS  
1007, SILS 1007 CIP1, CON2, SILS 1007)

Inventors: Alfred P. Hildebrand and Gregory Kintz

Docket No.: 17542-734

Application Entitled: DISPLAY SYSTEM WITH LOCAL DECODING

Serial No.: 09/311,804

Filed: May 13, 1999

Related Case: WSGR 17542-731; 17542-735, 17542-748

Inventors: William Quanrud

Docket No.: 17542-736

Application Entitled: TRANSCRIPTION DEVICE WITH  
VIRTUAL IMAGE DISPLAY

Serial No.: 09/226,845

Filed: January 7, 1999

Related Case: None

Inventors: Alfred P. Hildebrand

Docket No.: 17542-741

Application Entitled: TRANSCRIPTION METHOD USING  
VIRTUAL IMAGE DISPLAY

Serial No.: 09/226,738

Filed: January 7, 1999

Related Case: None

Inventors: Alfred P. Hildebrand

Docket No.: 17542-742

Application Entitled: DISPLAY SYSTEM WITH MULTIPLEXED PIXELS

Serial No.: 09/369,685

Filed: August 5, 1999

Related Case: WSGR 17542-731; 17542-735, 17542-736

Inventors: William Quanrud

Docket No.: 17542-748

Application Entitled: DISPLAY ILLUMINATION SYSTEM

Serial No.: 09/733,774

Filed: December 8, 2000

Related Case: WSGR 17542-745

Inventors: Chih-Li Chuang, Zehn-Wu, Michael J. Curley, Gregory J. Kintz

Docket No.: 17542-765

Application Entitled: VIRTUAL IMAGE DISPLAY WITH VIRTUAL KEYBOARD

Serial No.: 09/785,024

Filed: February 15, 2001

Related Case: Filed Same Day as 17542-754

Inventors: Alfred P. Hildebrand

Docket No.: 17542-751

Application Entitled: VIRTUAL IMAGE DISPLAY UNDER TOUCH PAD CONTROL

Serial No.: 09/785,025

Filed: February 15, 2001

Related Case: Filed Same Day as 17542-751

Inventors: Alfred P. Hildebrand

Docket No.: 17542-754

Application Entitled: DISPLAY ILLUMINATION SYSTEM

Serial No.: 09/394,014

Filed: September 10, 1999

Related Case: None

Inventors:  
Docket No.:

Chih-Li Chuang, Zheng-Wu Li, Gregory Kintz, and Michael Curley  
17542-745

Application Entitled: DISPLAY SYSTEM WITH MULTIPLEXED PIXELS  
Serial No.: 09/369,685  
Filed: August 5, 1999  
Related Case: WSGR 17542-731; 17542-735, 17542-736; 17542-748

Inventors: William Quanrud  
Docket No.: 17542-766

#### IV. PENDING INTERNATIONAL PATENT APPLICATIONS

Application Entitled: COMPOUND MAGNIFIED VIRTUAL IMAGE ELECTRONIC DISPLAY  
Publication No.: WO 96/19746  
Publication Date: June 27, 1996  
Serial No.: PCT/US95/16598 (PCT, European Search)  
Filed: December 20, 1995  
Related Cases: WSGR 17542-701, 17542-705, 17542-706 (SILS 1001, SILS 1007, SILS 1007CIP1)  
Priority Dates: December 21, 1994, March 17, 1995, May 15, 1995

Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No. 17542-715 (SILS 1007 CIP1 WO)

Application Entitled: COMPACT DISPLAY SYSTEM WITH TWO STAGE MAGNIFICATION  
AND IMMERSSED BEAM SPLITTER  
Publication No.: WO98/00747  
Publication Date: January 8, 1998  
Serial No.: PCT/US97/11498 (PCT, European Search)  
Filed: June 30, 1997  
Related Case: WSGR 17542-712 (SILS 4002)  
Priority Date: July 2, 1996

Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No. 17542-726 (SILS 4002 PCT)

EP Application Entitled: COMPACT DISPLAY SYSTEM WITH TWO STAGE MAGNIFICATION  
AND IMMERSSED BEAM SPLITTER

Publication No.: 0909402  
Publication Date: April 21, 1999  
Serial No.: 97932433.2  
Filed: June 30, 1997  
Related Case: WSGR 17542-726 which is related to WSGR 17542-712 (SILS 4002)  
Priority Date: July 2, 1996

Inventors: Gregory Kintz and Alfred P. Hildebrand  
Docket No. 17542-737

**CA Application Entitled: COMPACT DISPLAY SYSTEM WITH TWO STAGE MAGNIFICATION  
AND IMMersed BEAM SPLITTER**

Serial No.: 2,258,094  
Filed: June 30, 1997  
Related Case: WSGR 17542-726 which is related to WSGR 17542-712 (SILS 4002)  
Priority Date: July 2, 1996

Inventors: Gregory Kintz and Alfred P. Hildebrand  
Docket No. 17542-739

**JP Application Entitled: COMPACT DISPLAY SYSTEM WITH TWO STAGE MAGNIFICATION  
AND IMMersed BEAM SPLITTER**

Publication No.: 2000-514204  
Publication Date: October 24, 2000  
Serial No.: 10-504430  
Related Case: WSGR 17542-726 which is related to WSGR 17542-712 (SILS 4002)  
Filed: June 30, 1997  
Priority Date: July 2, 1996

Inventors: Gregory Kintz and Alfred P. Hildebrand  
Docket No. 17542-740

**Application Entitled: DISPLAY SYSTEM HAVING MULTIPLE MEMORY ELEMENTS PER  
PIXEL**

Publication No.: WO99/60557  
Publication Date: November 25, 1999  
Serial No.: PCT/US99/10719 (PCT, European Search)  
Related Cases: WSGR 17542-731  
Filed: May 13, 1999  
Priority Date: May 15, 1998

Inventors: William Quanrud  
Docket No. 17542-746

**Application Entitled: TRANSCRIPTION DEVICE WITH VIRTUAL IMAGE DISPLAY**

Publication No.: WO 00/41025  
Publication Date: July 13, 2000  
Serial No.: PCT/US99/30910  
Filed: December 23, 1999  
Related Cases: WSGR 17542-741  
Priority Date: January 7, 1999

Inventors: Alfred P. Hildebrand  
Docket No. 17542-755

Docket No.

17542-764

**Inviso Filed Patents**

(Liquid Crystal Devices, ICs, Color and Drive Algorithms, Vision)

My Reference No.:Title:

INV1P001

BALANCED BINARY COLOR DRIVE METHOD FOR  
GRAPHICAL DISPLAYS AND SYSTEM IMPLEMENTING  
SAMEInventor(s):

Neil Bergstrom, James R. Huston, Gang Xu

My Reference No.:Title:

INV1P002

SYSTEM AND METHOD FOR DIGITALLY CONTROLLED  
WAVEFORM DRIVE METHODS FOR GRAPHICAL  
DISPLAYSInventor(s):

James R. Huston, Neil Bergstrom, Gang Xu

My Reference No.:Title:

INV1P003

SYSTEM AND METHOD FOR COLOR AND GRAYSCALE  
DRIVE METHODS FOR GRAPHICAL DISPLAYS UTILIZING  
ANALOG CONTROLLED WAVEFORMSInventor(s):

James R. Huston, Jinsuk Kang

My Reference No.:Title:

INV1P004

SYSTEM AND METHOD FOR SUPERFRAME DITHERING IN  
A LIQUID CRYSTAL DISPLAYInventor(s):

Neil Bergstrom, James R. Huston, Gang Xu

My Reference No.:Title:

INV1P005

SYSTEM AND METHOD FOR A LIQUID CRYSTAL DISPLAY  
UTILIZING A HIGH VOLTAGE BIAS MODEInventor(s):

Mark Flynn, Gang Xu, Jinsuk Kang

My Reference No.:Title:

INV1P006

Abandoned

Inviso Confidential

My Reference No.:Title:Inventor(s):

INV1P007

OPTICALLY CORRECTIVE LENSES FOR A HEAD-MOUNTED COMPUTER DISPLAY

James E. Sheedy, Alfred P. Hildebrand, Donald P. Porter

My Reference No.:Title:Inventor(s):

INV1P008

SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR MULTI-LEVEL STOCHASTIC SPATIAL DITHERING FOR DISPLAYS

Louis D. Silverstein, Neil Bergstrom

My Reference No.:Title:Inventor(s):

INV1P009

SYSTEM AND METHOD FOR LOCAL DECODING OF A DIGITAL BIT SEQUENCE FOR SWITCHING STATES OF A PIXEL ON A TIME BASIS FOR CONTROLLING GRAYSCALE AND GAMMA CORRECTION

James R. Huston, Jinsuk Kang, Mike Gunter

My Reference No.:Title:Inventor(s):

INV1P010

SYSTEM AND METHOD FOR A COLOR RICH DISPLAY CONTROLLER

James R. Huston

My Reference No.:Title:Inventor(s):

INV1P011

SYSTEM AND METHOD FOR A LIQUID CRYSTAL DISPLAY UTILIZING FAST BINARY PIXEL SWITCHING

Gang Xu, Mark Flynn, James R. Huston, Neil Bergstrom

Inviso Confidential

\*\* TOTAL PAGE.30 \*\*

PATENT  
REEL: 015667 FRAME: 0508



INTELLECTUAL PROPERTY

**I. ISSUED PATENTS**

Patent Entitled: MINIATURE SYNTHESIZED VIRTUAL IMAGE ELECTRONIC DISPLAY  
Patent No.: 5,644,323  
Issued: July 1, 1997  
Serial No.: 08/361,035  
Filed: December 21, 1994  
Related Case: None  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-701 (SILS 1001)

Patent Entitled: COMPACT COMPOUND MAGNIFIED VIRTUAL IMAGE ELECTRONIC  
DISPLAY  
Patent No.: 5,625,372  
Issued: April 29, 1997  
Serial No.: 08/407,102  
Related Case: WSGR 17542-701 (SILS 1001)  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-705 (SILS 1007)

Patent Entitled: TWICE FOLDED COMPOUND MAGNIFIED VIRTUAL IMAGE  
ELECTRONIC DISPLAY  
Patent No.: 5,684,497  
Issued: November 4, 1997  
Serial No.: 08/441,529  
Filed: May 15, 1995  
Related Case: WSGR 17542-701, 17542-705 (SILS 1001, SILS 1007)  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-706 (SILS 1007 CIP1)

Patent Entitled: COMPACT DISPLAY SYSTEM WITH TWO STAGE MAGNIFICATION  
AND IMMersed BEAM SPLITTER  
Patent No.: 5,771,124  
Issued: June 23, 1998  
Serial No.: 08/673,894  
Filed: July 2, 1996  
Related Cases: None  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-712 (SILS 4002)

Patent Entitled: MINIATURE SYNTHESIZED VIRTUAL IMAGE ELECTRONIC DISPLAY  
Patent No.: 5,838,498  
Issued: November 17, 1998  
Serial No.: 08/775,840  
Filed: December 31, 1996  
Related Case: WSGR 17542-701 (SILS 1001)  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-718 (SILS 1001 CON1)

Patent Entitled: TWICE FOLDED COMPOUND MAGNIFIED VIRTUAL IMAGE  
ELECTRONIC DISPLAY  
Patent No.: 5,905,478  
Issued: May 18, 1999  
Serial No.: 08/831,371  
Filed: April 1, 1997  
Related Case: WSGR 17542-701, 17542-705, 17542-706 (SILS 1001, SILS 1007, SILS 1007  
CIP1)  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-719 (SILS 1007 CIP1 CON2)

Patent Entitled: TWICE FOLDED COMPOUND MAGNIFIED VIRTUAL IMAGE  
ELECTRONIC DISPLAY  
Patent No.: 5,870,068  
Issued: February 9, 1999  
Serial No.: 08/831,106  
Filed: April 1, 1997  
Related Case: WSGR 17542-706 (SILS 1007 CIP1)  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-720 (SILS 1007 CIP1 CON3)

Patent Entitled: COMPACT COMPOUND MAGNIFIED VIRTUAL DISPLAY WITH  
REFLECTIVE/TRANSMISSIVE OPTIC  
Patent No.: 5,991,084  
Issued: November 23, 1999  
Serial No.: 09/018,259  
Filed: February 4, 1998  
Related Case: None  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-721

Patent Entitled: MINIATURE SYNTHESIZED  
VIRTUAL IMAGE ELECTRONIC DISPLAY  
Patent No.: 6,094,181  
Issued: July 25, 2000  
Serial No.: 09/017,048  
Filed: February 2, 1998  
Related Case: None  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-728

Patent Entitled: VIRTUAL IMAGE DISPLAY SYSTEM UTILIZING  
TOTAL INTERNAL REFLECTION  
Patent No.: 5,892,624  
Issued: April 6, 1999  
Serial No.: 09/033,208  
Filed: March 2, 1998  
Related Case: 17542-712  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No. 17542-732

Patent Entitled: MINIATURE SYNTHESIZED VIRTUAL IMAGE ELECTRONIC DISPLAY  
Patent No.: 5,973,845  
Issued: October 26, 1999  
Serial No.: 09/182,952  
Filed: October 29, 1998  
Related Case: WSGR 17542-701, 17542-718, (SILS 1001 CON1, SILS 1001))  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No. 17542-733

Patent Entitled: DISPLAY SYSTEM HAVING MULTIPLE MEMORY ELEMENTS  
PER PIXEL WITH IMPROVED LAYOUT  
Patent No.: 6,140,983  
Issue Date: October 31, 2000  
Serial No.: 09/311,805  
Filed: May 13, 1999  
Related Case: WSGR 17542-731; 17542-736; 17542-748  
Inventors: William Quanrud  
Docket No.: 17542-735

Patent Entitled: OPTICAL METHOD EMPLOYING  
TOTAL INTERNAL REFLECTION  
Patent No.: 5,595,781  
Issued: September 28, 1999  
Serial No.: 09/237,996  
Filed: January 26, 1999  
Related Case: WSGR 17542-712; 17542-732  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-743

Patent Entitled: COMPACT DISPLAY SYSTEM CONTROLLED  
BY EYE POSITION SENSOR SYSTEM  
Patent No.: 6,055,110  
Issued: April 25, 2000  
Serial No.: 09/372,651  
Filed: August 11, 1999  
Related Case: WSGR 17542-712; 17542-732; 17542-743  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-749

Patent Entitled: PHONE WITH ERGONOMIC VIRTUAL IMAGE DISPLAY  
Patent No.: 6,275,714  
Issued: August 14, 2001  
Serial No.: 09/031,263  
Filed: February 26, 1998  
Related Case: None  
Inventors: Gregory Kintz and David Phillips  
Docket No.: 17542-725

Application Entitled: DISPLAY SYSTEM HAVING MULTIPLE ELEMENTS  
PER PIXEL  
Patent No.: 6,339,417  
Issue Date: January 15, 2002  
Serial No.: 09/079,684  
Filed: May 15, 1998  
Related Case: WSGR 17542-735, 17542-736  
Inventors: William Quanrud  
Docket No.: 17542-731

## **II. ISSUED INTERNATIONAL PATENT APPLICATIONS**

EP Patent Entitled: COMPOUND MAGNIFIED VIRTUAL IMAGE ELECTRONIC DISPLAY  
Patent No.: 0799435  
Patent Issue Date: July 28, 1999  
Publication No.: 0799435  
Publication Date: October 8, 1997  
Serial No.: 95944160.1  
Filed: December 20, 1995  
Related Case: WSGR 17542-715 which is related to WSGR 17542-701, 17542-705, 17542-706  
(SILS 1001, SILS 1007, SILS 1007CIP1)  
Priority Date: December 20, 1995  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-724

AU Patent Entitled: COMPACT DISPLAY SYSTEM WITH TWO STAGE MAGNIFICATION  
AND IMMERSSED BEAM SPLITTER  
Patent No.: 721357  
Patent Issue Date: May 9, 2000  
Publication No.: 721357  
Publication Date: June 29, 2000  
Serial No.: 35895/97  
Filed: June 30, 1997  
Related Case: WSGR 17542-726 which is related to WSGR 17542-712 (SILS 4002)  
Priority Date: July 2, 1996  
Inventors: Gregory Kintz and Alfred P. Hildebrand  
Docket No.: 17542-738

JP Application Entitled: COMPOUND MAGNIFIED VIRTUAL IMAGE ELECTRONIC DISPLAY  
Patent No.: 3206920  
Patent Issue Date: September 10, 2001  
Publication No.: 10-511190  
Publication Date: October 27, 1998  
Serial No.: 8-519,966  
Filed: December 20, 1995  
Related Cases: WSGR 17542-715 which is related to WSGR 17542-701, 17542-705, 17542-706  
(SILS 1001, SILS 1007, SILS 1007CIP1)  
Priority Date: December 20, 1995  
Status: Issue fee paid; awaiting further action  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No. 17542-723 (SILS 1007 CIP1 CON1)

### **III. PENDING U.S. PATENT APPLICATIONS**

Application Entitled: HEAD-MOUNTED DISPLAY WITH MINIATURE SYNTHESIZED  
VIRTUAL IMAGE ELECTRONIC DISPLAY  
Serial No.: 09/018,027  
Filed: February 2, 1998  
Related Case: None  
Status: Abandoned Per Client  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-729

Application Entitled: COMPACT DISPLAY SYSTEM CONTROLLED  
BY EYE POSITION SENSOR SYSTEM  
Serial No.: 09/182,951  
Filed: October 29, 1998  
Related Case: WSGR 17542-701, 17542-705, 17542-706, 17542-720, (SILS 1001, SILS  
1007, SILS 1007 CIP1, CON2, SILS 1007)  
Status: Response to Office Action due March 17, 2002  
Inventors: Alfred P. Hildebrand and Gregory Kintz  
Docket No.: 17542-734

Application Entitled: DISPLAY SYSTEM WITH LOCAL DECODING  
Serial No.: 09/311,804  
Filed: May 13, 1999  
Related Case: WSGR 17542-731; 17542-735, 17542-748  
Status: Abandoned Per Client  
Inventors: William Quanrud  
Docket No.: 17542-736

Application Entitled: TRANSCRIPTION DEVICE WITH  
VIRTUAL IMAGE DISPLAY  
Serial No.: 09/226,845

Filed: January 7, 1999  
Related Case: None  
Status: Abandoned Per Client  
Inventors: Alfred P. Hildebrand  
Docket No.: 17542-741

Application Entitled: TRANSCRIPTION METHOD USING  
VIRTUAL IMAGE DISPLAY  
Serial No.: 09/226,738  
Filed: January 7, 1999  
Related Case: None  
Status: Abandoned Per Client  
Inventors: Alfred P. Hildebrand  
Docket No.: 17542-742

Application Entitled: DISPLAY SYSTEM WITH MULTIPLEXED PIXELS  
Serial No.: 09/369,685  
Filed: August 5, 1999  
Related Case: WSGR 17542-731; 17542-735, 17542-736  
Status: Allow this application to go abandoned in favor of Continuation Application 766  
filed on November 15, 2001  
Inventors: William Quanrud  
Docket No.: 17542-748

Application Entitled: DISPLAY ILLUMINATION SYSTEM  
Serial No.: 09/733,774  
Filed: December 8, 2000  
Related Case: WSGR 17542-745  
Status: Filed Request for Continued Examination and Amendment on November 13,  
2001; awaiting Examiner Response  
Inventors: Chih-Li Chuang, Zehn-Wu, Michael J. Curley, Gregory J. Kintz  
Docket No.: 17542-765

Application Entitled: VIRTUAL IMAGE DISPLAY WITH VIRTUAL KEYBOARD  
Serial No.: 09/785,024  
Filed: February 15, 2001  
Related Case: Filed Same Day as 17542-754  
Status: Abandoned Per Client  
Inventors: Alfred P. Hildebrand  
Docket No.: 17542-751

Application Entitled: VIRTUAL IMAGE DISPLAY UNDER TOUCH PAD CONTROL  
Serial No.: 09/785,025  
Filed: February 15, 2001  
Related Case: Filed Same Day as 17542-751  
Status: Abandoned Per Client  
Inventors: Alfred P. Hildebrand  
Docket No.: 17542-754

Application Entitled: DISPLAY ILLUMINATION SYSTEM  
 Serial No.: 09/394,014  
 Filed: September 10, 1999  
 Related Case: None  
 Status: Filed Amendment on November 13, 2001; awaiting response from Examiner  
 Inventors: Chih-Li Chuang, Zheng-Wu Li, Gregory Kintz, and Michael Curley  
 Docket No.: 17542-745

Application Entitled: DISPLAY SYSTEM WITH MULTIPLEXED PIXELS  
 Serial No.: 09/369,685  
 Filed: August 5, 1999  
 Related Case: WSGR 17542-731; 17542-735, 17542-736; 17542-748  
 Status: Awaiting First Action  
 Inventors: William Quanrud  
 Docket No.: 17542-766

#### IV. PENDING INTERNATIONAL PATENT APPLICATIONS

Application Entitled: COMPOUND MAGNIFIED VIRTUAL IMAGE ELECTRONIC DISPLAY  
 Publication No.: WO 96/19746  
 Publication Date: June 27, 1996  
 Serial No.: PCT/US95/16598 (PCT, European Search)  
 Filed: December 20, 1995  
 Related Cases: WSGR 17542-701, 17542-705, 17542-706 (SILS 1001, SILS 1007, SILS 1007CIP1)  
 Priority Dates: December 21, 1994, March 17, 1995, May 15, 1995  
 Status: Nationalized into Japan (17542-723) and Europe (17542-724)  
 Inventors: Alfred P. Hildebrand and Gregory Kintz  
 Docket No.: 17542-715 (SILS 1007 CIP1 WO)

Application Entitled: COMPACT DISPLAY SYSTEM WITH TWO STAGE MAGNIFICATION AND IMMERSSED BEAM SPLITTER  
 Publication No.: WO98/00747  
 Publication Date: January 8, 1998  
 Serial No.: PCT/US97/11498 (PCT, European Search)  
 Filed: June 30, 1997  
 Related Case: WSGR 17542-712 (SILS 4002)  
 Priority Date: July 2, 1996  
 Status: Nationalized into Europe (17542-737), Australia (17542-738), Canada (17542-739), and Japan (17542-740)  
 Inventors: Alfred P. Hildebrand and Gregory Kintz  
 Docket No.: 17542-726 (SILS 4002 PCT)

EP Application Entitled: COMPACT DISPLAY SYSTEM WITH TWO STAGE MAGNIFICATION AND IMMERSSED BEAM SPLITTER  
 Publication No.: 0909402  
 Publication Date: April 21, 1999  
 Serial No.: 97932433.2  
 Filed: June 30, 1997  
 Related Case: WSGR 17542-726 which is related to WSGR 17542-712 (SILS 4002)

Library: Phoenix; Document #: 184674v7

Inventors:  
Docket No.

William Quanrud  
17542-764

Library: Phoenix; Document #: 184674v7



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PAGE 1

State of Delaware

RECEIVED FOR RECORD

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EVELYN T. HARR  
RECORDER**Office of Secretary of State**

I, MICHAEL HARKINS, SECRETARY OF STATE OF THE STATE OF DELAWARE DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF CERTIFICATE OF MERGER OF "THREE-FIVE SYSTEMS, INC." A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, "ELECTRONIC RESEARCH ASSOCIATES, INC." A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF NEW JERSEY, MERGING WITH AND INTO "T F CONSOLIDATION, INC." A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE UNDER THE NAME OF "THREE-FIVE SYSTEMS, INC." AS RECEIVED AND FILED IN THIS OFFICE THE THE THIRTIETH DAY OF APRIL, A.D. 1998, AT 4:38 O'CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE AFORESAID CORPORATION SHALL BE GOVERNED BY THE LAWS OF THE STATE OF DELAWARE.

: : : : : : : :



909118048

Handwritten signature of Michael Harkins.  
Michael Harkins, Secretary of State

AUTHENTICATION: 2638538

DATE: 85/01/1998

3/24244

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**CERTIFICATE OF MERGER  
OF  
ELECTRONIC RESEARCH ASSOCIATES, INC.  
AND THREE-FIVE SYSTEMS, INC.  
INTO  
T F CONSOLIDATION, INC.**

(Under Section 252 of the General  
Corporation Law of the State of Delaware)

T F Consolidation, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware,

**DOES HEREBY CERTIFY:**

**FIRST:** That the names and states of incorporation of each of the constituent corporations of the merger are:

NAME	STATE OF INCORPORATION
Three-Five Systems, Inc.	Delaware
Electronic Research Associates, Inc.	New Jersey
T F Consolidation, Inc.	Delaware

**SECOND:** That an Agreement and Plan of Reorganization (the "Agreement of Merger") has been approved, adopted, certified, executed and acknowledged by Three-Five Systems, Inc., T F Consolidation, Inc. and Electronic Research Associates, Inc. in accordance with the provisions of Section 252 of the General Corporation Law of the State of Delaware.

**THIRD:** That the name of the corporation surviving the merger is T F Consolidation, Inc.

**FOURTH:** That the <sup>restated</sup> certificate of incorporation of T F Consolidation, Inc. shall be the certificate of incorporation of the corporation surviving the merger except, however, effective the effective time of the merger, Article FIRST of the certificate of incorporation of the corporation surviving the merger shall be amended in its entirety to read as follows:

"The name of the corporation is Three-Five Systems, Inc. (the "Corporation")."

**FIFTH:** That the executed Agreement of Merger is on file at the principal place of business of T F Consolidation, Inc. at 10230 South 50th Place, Phoenix, Arizona 85044.

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SIXTH: That a copy of the Agreement of Merger will be furnished by T F Consolidation, Inc., on request and without cost, to any stockholder of Three-Five Systems, Inc., Electronic Research Associates, Inc., or T F Consolidation, Inc.

SEVENTH: That the authorized capital stock of Electronic Research Associates, Inc. is 4,500,000 shares of Common Stock, \$.10 per share, and 500,000 shares of Class A Preferred Stock, par value one dollar per share, of which 10,400 shares have been designated as Class A Preferred Stock, Series A, and 25,766 shares have been designated as Class A Preferred Stock, Series B.

EIGHTH: This merger shall become effective at 12:01 a.m. on May 1, 1990.

T F CONSOLIDATION, INC.

By: David R. Buchanan  
David R. Buchanan, President

ATTEST:

By: Kenneth M. Julien  
Kenneth M. Julien, Secretary

PAGE 1

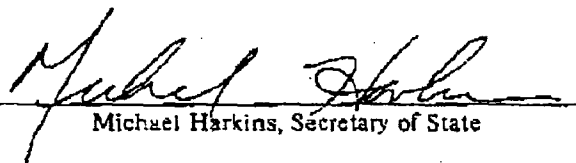
State of Delaware



## Office of Secretary of State

I, MICHAEL HARKINS, SECRETARY OF STATE OF THE STATE OF  
DELAWARE DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT  
COPY OF THE CERTIFICATE OF INCORPORATION OF T F CONSOLIDATION,  
INC. FILED IN THIS OFFICE ON THE THIRTEENTH DAY OF FEBRUARY, A.D.  
1998, AT 10 O'CLOCK A.M.



  
Michael Harkins, Secretary of State

AUTHENTICATION: 12539236

989844146

DATE: 02/13/1998

## CERTIFICATE OF INCORPORATION

OF

T F CONSOLIDATION, INC.

FIRST: The name of the corporation is T F Consolidation, Inc. (the "Corporation").

SECOND: The address of the Corporation's registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, Wilmington, County of New Castle, Delaware 19801. The name of the Corporation's registered agent at that address is The Corporation Trust Company.

THIRD: The nature of the business or purposes to be conducted or promoted by the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware, as it may be amended from time to time (the "GCL").

FOURTH: A. The total number of shares that the Corporation has authority to issue is Six Million Three Hundred Thirty-Seven Thousand Seven Hundred Sixty-Three (6,337,763) shares, which will be divided into the following classes and series:

1. Five Million (5,000,000) shares of Common Stock, par value \$.01 per share;
2. Four Thousand Four Hundred Twenty-Eight (4,428) shares of Class A Preferred Stock, par value \$.01 per share;
3. One (1) share of Class B Preferred Stock, no par value per share;
4. Three Hundred Thirty-Three Thousand Three Hundred Thirty-Four (333,334) shares of Class C Preferred Stock, par value \$.01 per share; and

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