	FORM PTO-1619A Expires 06/30/99 OMB 0651-0027			Ċ			.30-2001		U.S. Department of Commerce Patent and Trademark Office PATENT	
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	TO: The	Commissio	oner of Paten	ts anc	ITIOIKS:	\  : P	Please record the attached original document(s) or copy(les).			
	Submission Type  New					Conveyance Type  ☑ Assignment ☐ Security Agreement				
	Resubmission (Non-Recordation)						☐ License ☐ Change of Name			
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	Conve	ying Par	ty(ies)				☐ Mark if additional names of conveying parties attached			
4	Name (line 1) Thomas W. Stone								Execution Date  Month Day Year  02 20 2001	
	Nar	me (line 2)								
4	Second Party								Execution Date Month Day Year	
•	Name (line 1)								World Day real	
\	Name (line 2)									
r	Receiving Party						☐ Mark if additional names of receiving parties attached			
	Nar	me (line 1)	Wavefror	Wavefront Research, Inc.						
	Name (line 2) a corporation organized Pennsylvania				rganized in	n the Commonwealth of			is an assignment and the receiving party is not domiciled in the United States an appointment of a domestic	
	Address (line 1) 616 West Broad Street								representative is attached. (Designation must be a separate document from	
	Addre	ss (line 2)				Assignment.)				
	Address (line 3) Bethlehem			Pennsylvania/USA				18018		
	Domestic Representative Name and						State/Country		Zip Code	
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Mail documents to be recorded with required cover sheet(s) information to: Commissioner of Patents and Trademarks, Box Assignments , Washington, D.C. 20231

PATENT REEL: 011625 FRAME: 0217

FORM PTO-1619 Expires 06/30/99 OMB 0651-0027	В	Page 2	U.S. Department of Commerce Patent and Trademark Office PATENT								
Correspondent Name and Address Area Code and Telephone Number 617-854-4000											
Name	Jerry Cohen										
Address (line 1) Perkins, Smith & Cohen, LLP											
Address (line 2)											
Address (line 3)		· · · · · · · · · · · · · · · · · · ·									
Address (line 4)	Boston, MA 02108										
Pages  Enter the total number of pages of the attached conveyance document including any attachments  # 2											
Application Number(s)											
Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).  Patent Application Number(s) Patent Number(s)											
09/587,661	Application Number(s)		atent Number(s)								
If this document is being filed together with a <u>new Patent Application</u> , enter the date the patent application was signed by the first named executing inventor.    Month   Day   Year											
Patent Cooperat	tion Treaty (PCT)										
	T application number U.S. Application	PCT PCT	PCT								
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Number of Properties  Enter the total number of properties involved. # 1											
Fee Amount	Fee Amoun	t for Properties Listed (37 CFR 3.41)	: \$ 40.00								
Method of F Deposit Ac	-	nclosed 🛛 Deposit Account 🗌									
•		itional fees can be charged to the account.)									
	Deposit Ac	count Number:	# 03-2410, Order No. 06536-121								
	Authorizati	on to charge additional fees:	Yes 🛛 No 🗌								
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. Charges to deposit account are authorized, as indicated herein.											
Jacob N. Erlich		Sulthrong	3-12-2001								
Name of Perso	n Signing	Signature	Date								

PATENT REEL: 011625 FRAME: 0218

## **ASSIGNMENT**

WHEREAS, I, Thomas W. Stone, residing at Hellertown, PA 18055, (hereinafter referred to as "Assignor") have made an invention entitled OPTICAL SYSTEMS USING SWITCHED MIRRORS, for which an application for a United States Patent was filed on June 5, 2000 and accorded Serial Number 09/587,661.

WHEREAS, Wavefront Research, Inc., a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, having its principal place of business at 616 West Broad Street, Bethlehem, PA 18018 (hereinafter referred to as "Assignee"), is desirous of acquiring right, title and interest in said invention.

NOW, THEREFORE, in consideration of One Dollar (\$1.00), and other good and valuable consideration, the receipt of which is hereby acknowledged, Assignor by these presents, does sell, assign and transfer to Assignee, Assignor's entire right, title and interest, for the United States of America and its possessions and territories and for all foreign countries, in and to said invention, including all rights of priority created and conferred by any treaty or international convention which is available in connection with said invention, including the right to apply for patent rights, U.S. or foreign, and in any continuations, divisions, substitutes, renewals, reissues or other applications filed in the U.S. or abroad (including multinational filing arrangements of all kinds), and in any U.S. or foreign patents issued on any such applications and reissues, extensions and renewals thereof, to be held and enjoyed by Assignee, for its own use and behalf and for its successors and assigns, to the full ends of the terms or extended terms for which any Letters Patents or the like may be granted, as fully and entirely as the same would have been held by Assignor had this sale, assignment and transfer not been made.

Assignor hereby authorizes and requests the Commissioner of Patents of the United States, and any official of any country or countries (including multinational filing arrangements of all kinds), whose duty it is to receive and/or examine applications for patents or similar industrial property, issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to Assignee, its successors and assigns, in accordance with the terms of this instrument.

Assignor covenants with Assignee, its successors, assigns, and legal representatives that Assignor has full right to convey the entire interest herein assigned, and that Assignor has not executed any agreement in conflict herewith

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and will not execute any agreement or conveyance in conflict herewith.

Assignor further covenants and agrees to communicate to Assignee, its successors, legal representatives and assigns, any facts known to Assignor respecting said invention, and testify in any legal proceeding, sign all lawful papers, including, without limitation, application papers, assignments, powers of attorney, declarations, and other instruments, execute all divisional, continuing, substitute, reissue, renewal and foreign applications, make all truthful oaths, declarations and statements, and generally do everything reasonably requested of Assignor by Assignee, or its successors or assigns to aid Assignee, its successors or assigns, to obtain, enforce and /or exploit said invention.

Executed this 20th day of PARUARY, 2001.

County of // //

6. Stone

Before me appeared ~ this 20 day of Felrum 2001, who signed this Assignment document, and who acknowledges that he signed it as a free act on his behalf.

My commission expirateryne, BEZEMES, NOTARY PUBLIC MY COMMISSION EXPIRED MARCH 80, 2001

SEAL

6536-121-Assignment