APA OPTICS INC /MN/ Form SC 13G/A February 13, 2004

> OMB APPROVAL OMB Number...3235-0145 Expires:.August 31, 1999 Estimated average burden hours per response 14.90

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, DC 20549

#### SCHEDULE 13G

Under The Securities Exchange Act of 1934

(AMENDMENT NO. 1)\*

APA Optics Inc.

\_\_\_\_\_

(Name of Issuer)

Common Stock

(Title of Class of Securities)

001853100

(CUSIP Number)

December 31, 2003

(Date of Event which requires filing of this statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- $x \in Rule 13d-1(b)$
- \ \ Rule 13d-1(c)
- $\$  Rule 13d-1(d)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

1

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

Page 1 of 7 Pages

CUSIP No. 001853100 13G Page 2 of 7 Pages \_\_\_\_\_ \_\_\_\_\_ 1 NAME OF REPORTING PERSON S.S. OR I.R.S. IDENTIFICATION NO OF ABOVE PERSON Kern Capital Management, LLC 13-3958232 \_\_\_\_\_ 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\* (a) / / (b) / / \_\_\_\_\_ 3 SEC USE ONLY \_\_\_\_\_ 4 CITIZENSHIP OR PLACE OF ORGANIZATION Delaware 5 SOLE VOTING POWER 492,500 NUMBER OF \_\_\_\_\_ SHARES BENEFICIALLY 6 SHARED VOTING POWER OWNED BY EACH REPORTING \_\_\_\_\_

Edgar Filing: APA OPTICS INC /MN/ - Form SC 13G/A					
	PERSON WITH	7	SOLE DISPOSITIVE POWE	R	
			492,500		
		8	SHARED DISPOSITIVE POWER		
9			LLY OWNED BY EACH REPORTI		
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*				
11	PERCENT OF CLASS	REPRESENT	ED BY AMOUNT IN ROW 9		
			4.1%		
	TYPE OF REPORTING				
			IA		
CUSIP	No. 001853100		13G	Page 3 of 7 Pages	
 1	NAME OF REPORTING S.S. OR I.R.S. II	DENTIFICAT	ION NO OF ABOVE PERSON ert E Kern Jr.		
2	CHECK THE APPROPI	RIATE BOX	IF A MEMBER OF A GROUP*	(c) / / (d) / /	
3	SEC USE ON				
4	CITIZENSHIP OR PI	LACE OF OR	GANIZATION		

# 

	U.S.A.
	5 SOLE VOTING POWER
NUMBER OF	_
SHARES BENEFICIALLY OWNED BY	6 SHARED VOTING POWER
EACH REPORTING PERSON WITH	492,500 - (See Schedule Item 4 incorporated by reference)
	7 SOLE DISPOSITIVE POWER
	-
	8 SHARED DISPOSITIVE POWER
	492,500 - (See Schedule Item 4 incorporated by reference)
9 AGGREGATE AMOUN	BENEFICIALLY OWNED BY EACH REPORTING PERSON
	492,500 - (See Schedule Item 4 incorporated by reference)
10 CHECK IF THE AG	GREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*
	-
11 PERCENT OF CLAS	S REPRESENTED BY AMOUNT IN ROW 9
	4.1%
12 TYPE OF REPORTI	IG PERSON*
	IN
*S	EE INSTRUCTION BEFORE FILLING OUT!
CUSIP No. 001853100	13G Page 4 of 7 Pages
1 NAME OF REPORTI S.S. OR I.R.S.	NG PERSON IDENTIFICATION NO OF ABOVE PERSON David G. Kern

# 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\* (e) / / (f) / / \_\_\_\_\_

# Edgar Filing: APA OPTICS INC /MN/ - Form SC 13G/A

3	SEC USE ONLY			
4	CITIZENSHIP OR	PLACE OF	ORGANIZATION	
		U.S.A.		
		5	SOLE VOTING POWER	
NUMBER (	BENEFICIALLY BY ING		-	
OWNED B		6	SHARED VOTING POWER	
EACH REPORTII PERSON N			492,500 - (See Schedule Item 4 incorporated by reference)	
		7	SOLE DISPOSITIVE POWER	
			-	
		8	SHARED DISPOSITIVE POWER	
			492,500 - (See Schedule Item 4 incorporated by reference)	
9	AGGREGATE AMOUN	JT BENEFIC	CIALLY OWNED BY EACH REPORTING PERSON	
			492,500 - (See Schedule Item 4 incorporated by reference)	
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*			
			-	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9			
			4.1%	
12	TYPE OF REPORTI	ING PERSOI	N*	
			IN	
	*s	SEE INSTRU	UCTION BEFORE FILLING OUT!	

SCHEDULE 13G Page 5 of 7 Pages CUSIP NO. 001853100

ITEM 1 (a). NAME OF ISSUER: APA Optics, Inc

ITEM 1 (b). ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES: 2950 N.E. 84th Lane Blaine, MN 55449

ITEM 2 (c). NAME OF PERSON FILING: Kern Capital Management, LLC ("KCM"), Robert E. Kern Jr. (R. Kern) and David G. Kern (D. Kern). R. Kern, D. Kern are Principals and controlling members of KCM.

ITEM 2 (b). ADDRESS OR PRINCIPAL BUSINESS OFFICE OR, IF NONE, RESIDENCE: The address of the principal business office of each reporting person is: 114 West 47th Street, Suite 1926, New York, NY 10036.

- ITEM 2 (c). CITIZENSHIP: Reference is made to Item 4 of each of the cover page of this Schedule, which Items are incorporated by reference herein.
- TITLE OF CLASS OF SECURITIES: ITEM 2 (d). Common Stock
- ITEM 2 (e). CUSIP NUMBER: 001853100
- THE PERSONS FILING THIS SCHEDULE, PURSUANT TO ITEM 3 (e) PARAGRAPH 240.13d-1(b) ARE A: (X) Investment Advisor registered under section 203 of the Investment Advisors Act of 1940.
- ITEM 4. OWNERSHIP: Reference is made to Items 5-9 and 11 of cover pages which Items are incorporated by reference herein.

R. Kern and D. Kern as controlling members of KCM may be deemed the beneficial owner of the securities of the company owned by KCM as of December 31, 2003 in that they might be deemed to share the power to direct the voting or disposition of the securities. Neither the filing of this Schedule nor any of its contents shall be deemed to constitute an admission that either R. Kern or D. Kern is, for any purpose, the beneficial owner of any such securities to which this Schedule relates, and such beneficial ownership is expressly denied.

CUSIP NO. 001853100

SCHEDULE 13G Page 6 of 7 Pages

ITEM 5. OWNERSHIP OF MORE THAN FIVE PERCENT OR LESS OF A CLASS:

If this statement is being filed to report the fact that as of the date here of the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following /X/.

- ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON: The shares reported are held in institutional accounts for the economic benefit of the beneficiaries of those accounts.
- ITEM 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY:

Not applicable.

- ITEM 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP: Not applicable.
- ITEM 9. NOTICE OF DISSOLUTION OF GROUP: Not applicable.
- ITEM 10. CERTIFICATION: BY SIGNING BELOW I CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE SECURITIES REFERRED TO ABOVE WERE ACQUIRED AND ARE HELD IN THE ORDINARY COURSE OF BUSINESS AND WERE NOT ACQUIRED AND ARE NOT HELD FOR THE PURPOSE OF OR WITH THE EFFECT OF CHANGING OR INFLUENCING THE CONTROL OF THE ISSUER OF SUCH THE SECURITIES AND WERE NOT ACQUIRED AND ARE NOT HELD IN CONNECTION WITH OR AS A PARTICIPANT IN ANY TRANSACTION HAVING SUCH PURPOSES OR EFFECT.

SIGNATURE: AFTER REASONABLE INQUIRY AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, I CERTIFY THAT THE INFORMATION SET FORTH IN THIS STATEMENT IS TRUE, COMPLETE AND CORRECT.

February	13, 2004	By:	/s/ John J. Crimmins
	DATED		John J. Crimmins Senior Vice President Chief Financial & Operations Officer Kern Capital Management LLC
		Drre	/s/ Robert E. Kern Jr.
		Ву:	Robert E. Kern Jr.
		Deer	/s/ David G. Kern
		Ву:	David G. Kern

Page 7 of 7 Pages

#### EXHIBIT 1

#### AGREEMENT AS TO JOINT FILING OF SCHEDULE 13G

This agreement is made pursuant to Rule 13d-1(f)(1) under the Securities and Exchange Act of 1934, as amended (the "Act"), by and among the parties listed below, each referred to herein as "Joint Filer". The Joint Filers agree that a statement of beneficial ownership as required by Section 13(d) of the Act and the Rules thereunder may be filed on each of their behalf on Schedule 13G and that said joint filing may thereafter be amended by further joint filings. The Joint Filers state that they each satisfy the requirements for making a joint filing under rule 13d-1.

February 13, 2004	D	/s/ John J. Crimmins	
DATED	Ву:	John J. Crimmins Senior Vice President Chief Financial & Operations Officer Kern Capital Management LLC	
	By:	/s/ Robert E. Kern Jr.	
	By.	Robert E. Kern Jr.	
	D	/s/ David G. Kern	
	By:	David G. Kern	