TRIMBLE Form 4 May 23, 200 FORN Check th if no lon subject to Section Form 4 Form 5 obligation may cor <i>See</i> Instri 1(b).	A 4 UNITED his box to 16. or Filed pur Section 17(STATES MENT OI rsuant to S (a) of the l	Wa F CHAN Section Public U	Ashington NGES IN SECUI 16(a) of th Jtility Hol	, D.C. 20 BENEF RITIES ne Securi ding Con	1CIAL O ties Exchat	COMMISSION WNERSHIP OF nge Act of 1934, of 1935 or Secti 940	N OMB Number: Expires: Estimated burden hou response.	urs per
(Print or Type	Responses)								
	Address of Reporting ON BRADFORD		Symbol TRIMI	er Name an BLE NAV ΓRMB]		c	5. Relationship (Issuer (Che	of Reporting Per eck all applicabl	
	(First) (LE NAVIGATIO N MARY AVE	Middle) N		of Earliest T Day/Year) 2005	ransaction		X Director Officer (giv below)		% Owner her (specify
	(Street)			endment, D onth/Day/Yea	-	ıl	6. Individual or Applicable Line) _X_ Form filed by	One Reporting P	erson
SUNNYVA	ALE, CA 94085						Person	More than One R	eporting
(City)	(State)	(Zip)	Tał	ole I - Non-J	Derivative	Securities A	cquired, Disposed	of, or Beneficia	lly Owned
1.Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)		Date, if	3. Transactio Code (Instr. 8) Code V	4. Securit nAcquired Disposed (Instr. 3, -	(A) or of (D) 4 and 5) (A) or	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
Reminder: Re	port on a separate line	e for each cl	ass of sec	urities bene	ficially ow	ned directly of	or indirectly.		
					inforr requi	nation cont red to respo ays a curre	spond to the colle ained in this forn ond unless the fo ntly valid OMB co	n are not rm	SEC 1474 (9-02)
	Tab				-	posed of, or convertible	Beneficially Owner securities)	d	

1. Title of	2.	3. Transaction Date	3A. Deemed	4. 5. Number	6. Date Exercisable and	7. Title and Amount of	8. I
Derivative	Conversion	(Month/Day/Year)	Execution Date, if	Transaction of Derivativ	e Expiration Date	Underlying Securities	Der

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Security (Instr. 3)	or Exercise Price of Derivative Security		any (Month/Day/Year)	Code (Instr. 8)	Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)		Ɗay/Ƴ	rear)	(Instr. 3 and	4)	S (1
				Code V	(A) (A	D) Date Exercisa		Expiration Date	Title	Amount or Number of Shares	
Stock Option	\$ 39.23	05/19/2005		А	7,500	(1)) -	05/19/2015	Common Stock	7,500	

Reporting Owners

Relationships				
Director	10% Owner	Officer	Other	
Х				
05/23/2	005			
	X	Director 10% Owner	Director 10% Owner Officer	

**Signature of Reporting Person

Date

Explanation of Responses:

* If the form is filed by more than one reporting person, see Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) This option is exercisable at a rate of 1/36th per month.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number. TD>Fair value \$20,225,015\$22,556,209

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NOTE 3 - PARTICIPATION AND BENEFITS

Participant contributions - Participants may elect to have the Company contribute up to 25% of their eligible pre-tax compensation to the Plan. In addition, eligible participants can make catchup contributions, up to the maximum allowed under current tax regulations. Participants who elect to have the Company contribute a portion of their eligible compensation to the Plan agree to accept an equivalent reduction in taxable compensation. Contributions withheld are invested in accordance with the participant]s direction.

Participants are also allowed to make rollover contributions of amounts received from other

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tax-qualified employer-sponsored retirement plans. Such contributions are deposited in the appropriate investment funds in accordance with the participant[s direction and the Plan]s provisions.

Employer contributions - The Company is allowed to make discretionary matching contributions as defined in the Plan and as approved by the Board of Directors. In 2006 and 2005, the Company contributed an amount equal to 50% of each eligible participant[]s contribution, not to exceed \$1,000 per participant per Plan year.

Prior to July 1, 2006, the Plan also allowed for a discretionary profit sharing contribution each calendar quarter as determined by the Board of Directors. The Company did not make any discretionary profit sharing contributions during the years ended June 30, 2006 and 2005.

Vesting - Participants are immediately vested in their contributions and the Company smatching and discretionary profit sharing contributions, at all times.

Participant accounts - Each participant s account is credited with the participant s contribution, Plan earnings or losses and an allocation of the Company s contributions, if any. Allocation of the Company s discretionary matching and profit sharing contributions are based on eligible participant contributions or eligible compensation, as defined in the Plan.

Payment of benefits - Upon termination, the participants or beneficiaries may elect to leave their account balance in the Plan, or receive their total benefits in a lump sum amount. Upon termination of employment, the Plan provides for automatic lump sum distribution of account balances of \$1,000 or less, and for an automatic rollover to an IRA on account balances greater than \$1,000 but not greater than \$5,000.

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Loans to participants - Participants may borrow not less than \$1,000 and up to the lesser of \$50,000 or 50% of their account balance. The loans are secured by the participant shalance, bear interest at the available market financing rates and must be repaid within a five-year period, unless the loan is used for the purchase of a principal residence in which case the maximum repayment period is fifteen years. The specific terms and conditions of such loans are established by the Committee. Outstanding loans at June 30, 2006 carry interest rates ranging from 6% to 11.5%.

NOTE 4 - INVESTMENTS

The following table includes the fair values of investments and investment funds that represent 5% or more of the Plan s net assets at June 30:

	2006	2005
Washington Mutual Investors Fund A	\$ 57,808,714	\$ 56,744,011
PIMCO Total Return Fund I	24,500,120	24,562,797
Growth Fund of America A	77,865,272	64,783,016
New Perspective Fund A	34,849,741	30,218,378
Income Fund of America A		34,702,061
American Funds Income Fund of America	34,786,017	
Fremont Institutional U.S. Micro Cap Fund	21,343,525	20,923,086

Explanation of Responses:

Fidelity Diversified International Fund	52,575,389	33,783,743
Fidelity Mid Cap Stock Fund	41,371,826	26,854,105
Fidelity Managed Income II Portfolio	36,656,745	33,757,246
Fidelity Spartan U.S. Equity Index Fund	30,386,273	27,923,994
KLA-Tencor Stock	20,225,015	22,556,209
Other funds individually less than 5%		
of net assets	45,152,578	38,795,795
Assets held for investment purposes	\$ 477,521,215	\$ 415,604,441

The Plan's investments (including gains and losses on investments bought and sold, as well as held during the year) appreciated (depreciated) in value as follows for the years ended June 30:

	2006	2005
Mutual funds	\$ 33,365,999	\$ 17,262,833
Common stock	(352,711)	(2,816,993)
	\$ 33,013,288	\$ 14,445,840

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NOTE 5 - PLAN TERMINATION OR MODIFICATION

The Company intends to continue the Plan indefinitely for the benefit of its participants; however, it reserves the right to terminate or modify the Plan at any time and for any reason, subject to the provisions of ERISA.

NOTE 6 - SUBSEQUENT EVENTS

Effective July 1, 2006, the Board of Directors approved an increase in the matching contribution to a maximum of \$3,000 per Plan year.

Effective September 28, 2006, participants are no longer allowed to purchase any Company common stock under the Plan until further notice. Participants may continue to sell their shares held in Company common stock under the Plan.

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SUPPLEMENTAL SCHEDULE

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KLA-TENCOR 401(k) PLAN

EIN: 04-2564110

PLAN #001

SCHEDULE H, LINE 4i - SCHEDULE OF ASSETS (HELD AT END OF YEAR) JUNE 30, 2006

ldentity of issue, borrower,	Description of investment including maturity date, rate of interest, collateral,	Current
lessor or similar party	par or maturity value	value
Fidelity Management Trust		
Company:		
Washington Mutual		
Investors Fund A	Mutual fund	\$ 57,808,714
PIMCO Total Return Fund		
I	Mutual fund	24,500,120
Growth Fund of America A	Mutual fund	77,865,272

	New Perspective Fund A	Mutual fund	34,849,741
	Columbia International	- Tutuar Tuna	01,010,711
	Value Fund A	Mutual fund	8,936,732
	American Funds Income		
	Fund of America	Mutual fund	34,786,017
	Artisan Small Cap Value	Mutual fund	6,669,534
	Fremont Institutional U.S.		
	Micro Cap Fund	Mutual fund	21,343,525
	Fidelity Diversified		
*	International Fund	Mutual fund	52,575,389
	Fidelity Mid Cap Stock		
*	Fund	Mutual fund	41,371,826
	Fidelity Managed Income II		
*	Portfolio	Common/Collective Trust	36,656,745
	Fidelity Spartan U.S.		
*	Equity Index Fund	Mutual fund	30,386,273
	Fidelity Select Electronics		
*	Fund	Mutual fund	23,331,468
*	KLA-Tencor Stock	Common stock	20,225,015
*	Cash	Cash	3,396
		Interest rates ranging from 6% to	
*	Participant loans	11.5%	6,211,448
			\$ 477,521,215

* Party-in-interest