

IMAGE SENSING SYSTEMS INC  
 Form 4  
 December 28, 2007

**FORM 4**

UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
 Washington, D.C. 20549

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
 MARXE AUSTIN W &  
 GREENHOUSE DAVID M

(Last) (First) (Middle)

C/O SPECIAL SITUATIONS  
 FUNDS, 527 MADISON AVENUE,  
 SUITE 2600

(Street)

NEW YORK, NY 10022

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol  
 IMAGE SENSING SYSTEMS INC  
 [ISNS]

3. Date of Earliest Transaction  
 (Month/Day/Year)  
 12/27/2007

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer  
 (Check all applicable)

\_\_\_ Director \_\_\_X\_\_\_ 10% Owner  
 \_\_\_ Officer (give title below) \_\_\_ Other (specify below)

6. Individual or Joint/Group Filing(Check Applicable Line)  
 \_X\_ Form filed by One Reporting Person  
 \_\_\_ Form filed by More than One Reporting Person

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	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 Ownership (Instr. 4)
				(A) or (D) Code V Amount (D) Price			
Common Stock	12/27/2007		P	1,129 (1) A \$ 16.3287	806,753 (1)	I (1)	By Limited Partnerships (1)

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474  
 (9-02)

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned**  
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Nu Deriv Secur Bene Own Follo Repor Trans (Instr
				Code V (A) (D)		Date Exercisable Expiration Date	Title Number of Shares		

## Reporting Owners

**Reporting Owner Name / Address**

**Relationships**

Director 10% Owner Officer Other

MARXE AUSTIN W & GREENHOUSE DAVID M  
C/O SPECIAL SITUATIONS FUNDS  
527 MADISON AVENUE, SUITE 2600  
NEW YORK, NY 10022

X

## Signatures

Austin W.  
Marxe 12/28/2007  
\_\_Signature of Date  
Reporting Person

David M.  
Greenhouse 12/28/2007  
\_\_Signature of Date  
Reporting Person

## 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 is a joint filing by Austin W. Marxe (Marxe) and David M. Greenhouse (Greenhouse). They share voting and investment control over all securities owned by Special Situations Fund III QP, L.P. (QP), Special Situations Cayman Fund, L.P. (Cayman), Special Situations Technology Fund, L.P. (Tech) and Special Situations Technology II, L.P. (Tech II), respectively. 353,772 shares of Common Stock are held by QP, 100,450 shares of Common Stock are held by Cayman, 63,049 shares of Common Stock are held by Tech and 289,482 shares of Common Stock are held by Tech II. The interest of Marxe and Greenhouse in the shares of Common Stock owned by QP, Cayman, Tech, and Tech II is limited to the extent of his pecuniary interest.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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