

APPLIED SIGNAL TECHNOLOGY INC
 Form 4
 September 27, 2006

FORM 4

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

OMB APPROVAL

OMB Number: 3235-0287
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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 *
 Leonelli Joseph N

2. Issuer Name and Ticker or Trading Symbol
 APPLIED SIGNAL TECHNOLOGY INC [APSG]

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

(Last) (First) (Middle)
 400 W. CALIFORNIA AVE
 (Street)

3. Date of Earliest Transaction (Month/Day/Year)
 09/26/2006

____ Director _____ 10% Owner
 Officer (give title below) _____ Other (specify below)
 Vice President Homeland Defens

SUNNYVALE, CA 94086
 (City) (State) (Zip)

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

6. Individual or Joint/Group Filing(Check Applicable Line)
 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)	Price		
Common Stock	09/26/2006		P	91	\$ 14.57	3,600.157	D

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

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

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 Repo Trans (Instr
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Date Exercisable	Expiration Date	Title	Amount or Number of Shares
Code V	(A) (D)		

Reporting Owners

Reporting Owner Name / Address

Relationships

Director 10% Owner Officer Other

Leonelli Joseph N
 400 W. CALIFORNIA AVE
 SUNNYVALE, CA 94086

Vice President Homeland Defens

Signatures

Joseph N
 Leonelli 09/27/2006

**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).

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.