FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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OMB APPROVAL	
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Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

or Section 30(h) of the Investment Company Act of 1940 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) 2. Issuer Name and Ticker or Trading Symbol 1. Name and Address of Reporting Person MERCURY COMPUTER SYSTEMS INC STEELE LEE C Director 10% Owner [MRCY] Officer (give title Other (specify below) below) (Last) (First) (Middle) 3. Date of Earliest Transaction (Month/Day/Year) 201 RIVERNECK ROAD 10/21/2011 4. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check Applicable (Street) Line) 01844 CHELMSFORD MA Form filed by One Reporting Person Form filed by More than One Reporting Person (City) (State) (Zip) Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 1. Title of Security (Instr. 3) 2. Transaction 2A. Deemed 5. Amount of 6. Ownership 7. Nature Transaction **Execution Date** Securities Form: Direct of Indirect (Month/Day/Year) Code (Instr. 8) (D) or Indirect Beneficially Beneficial (Month/Day/Year) Owned Following Ownership (I) (Instr. 4) Reported (Instr. 4) (A) or (D) Transaction(s) Code Amount Price (Instr. 3 and 4) 10/21/2011 Common Stock $7.210^{(1)}$ Α \$0.00 29,876 D Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) 9. Number of 1. Title of 3. Transaction 3A. Deemed 5. Number 6. Date Exercisable and 7. Title and 8. Price of 10. 11. Nature Derivative Security Conversion Execution Date Transaction Expiration Date (Month/Day/Year) Amount of derivative Ownership Date (Month/Day/Year) Derivative or Exercise if any Code (Instr. Securities Security Securities Form: Beneficial (Instr. 3) Price of (Month/Day/Year) Securities Underlying (Instr. 5) Beneficially Direct (D) Ownership (Instr. 4) Derivative Acquired Derivative Owned or Indirect (A) or Disposed (I) (Instr. 4) Security Security (Instr. 3 Following and 4) Reported of (D) Transaction(s) (Instr. 3, 4 and 5) (Instr. 4) Amount Number Date Expiration

Exercisable

Date

Title

Explanation of Responses:

1. These shares of restricted stock vest in two equal installments on each of October 21, 2011 and 2012.

<u>Charles A. Speicher, Attorney-in-fact</u>

Shares

10/24/2011

** Signature of Reporting Person

Date

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

- * 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).

Code

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

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 Number.

(A) (D)