

MERCURY COMPUTER SYSTEMS INC
 Form 4/A
 October 31, 2005

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 *
BERTELLI JAMES R

2. Issuer Name and Ticker or Trading Symbol
MERCURY COMPUTER SYSTEMS INC [MRCY]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)
34 POWERS ROAD
 (Street)

3. Date of Earliest Transaction (Month/Day/Year)
10/27/2005

____ Director _____ 10% Owner
 Officer (give title below) _____ Other (specify below)
President, CEO & Chairman

HOLLIS, NH 03049
 (City) (State) (Zip)

4. If Amendment, Date Original Filed(Month/Day/Year)
10/31/2005

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 Indirect Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|--|--|
| | | | | (A) or (D) | Price | | |
| Common Stock | 10/27/2005 | | M | 15,708 | A \$ 14.5 | 736,604 ⁽¹⁾ | D |
| Common Stock | 10/27/2005 | | M | 86,249 | A \$ 16.45 | 822,853 ⁽¹⁾ | 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 Security (Instr. 3 and 4) |
|--|--|--------------------------------------|--|--------------------------------|---|--|---|
| Exercise of Non-Qualified Stock Option | \$ 14.5 | 10/27/2005 | | M | 15,708 | 09/13/2003 09/13/2009 | Common 15 |
| Exercise of Non-Qualified Stock Option | \$ 16.45 | 10/27/2005 | | M | 86,249 | 08/05/2005 08/05/2012 | Common 86 |

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|--|---------------|-----------|---------------------------|-------|
| | Director | 10% Owner | Officer | Other |
| BERTELLI JAMES R 34 POWERS ROAD HOLLIS, NH 03049 | | | President, CEO & Chairman | |

Signatures

Alex Braverman,
Attorney-in-fact

10/31/2005

__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) Includes 12,400 shares held by Mr. Bertelli's spouse.

(2) Field N/A to this transaction but was completed to allow for electronic filing only.

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.