
 OMB APPROVAL

OMB Number 3235-0287
 Expires: December 31, 2001
 Estimated average burden
 hours per response 0.5

U.S. SECURITIES AND EXCHANGE COMMISSION
 Washington, D.C. 20549

FORM 4

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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(f) of the Investment Company Act of 1940

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

=====

1. Name and Address of Reporting Person

Bertelli, James

 (Last) (First) (Middle)

34 Powers Road

 (Street)

Hollis, NH 03049

 (City) (State) (Zip)

=====

2. Issuer Name and Ticker or Trading Symbol

Mercury Computer Systems, Inc. ("MRCY")

=====

3. IRS or Social Security Number of Reporting Person (Voluntary)

=====

4. Statement for Month/Year

January 2001

=====

5. If Amendment, Date of Original (Month/Year)

=====

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

[X] Director [] 10% Owner
 [X] Officer (give title below) [] Other (specify below)

President and Chief Executive Officer

=====

7. 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 (mm/dd/yy)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned at End of Month (Instr. 3 and 4)	6. Owner- ship Form: Direct (D) or Indirect (I) (Instr.4)	7. Nature of Beneficial Ownership (Instr. 4)
			Amount	or (D)	Price			
Common Stock	1/30/01	S	10,000	D	\$52.125	843,620 (1)	D(1)	
Common Stock	1/31/01	S	4,000	D	\$54.125	843,620 (1)	D(1)	
Common Stock	1/31/01	S	6,000	D	\$54.0625	843,620 (1)	D(1)	

=====
(1) Includes 12,400 shares held by Mr. Bertelli's wife.

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

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. Conver- sion of Exer- cise Price Deriv- ative Secur- ity	3. Trans- action Date (Month/ Day/ Year)	4. Trans- action Code (Instr. 8) Code V	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) (A) (D)	6. Date Exercisable and Expiration Date (Month/Day/Year) Date Expira- tion Date	7. Title and Amount of Underlying Securities (Instr. 3 and 4) ----- Amount or Number of Shares Title	8. Price of Deriv- ative Secur- ity (Instr. 5)	9. Number of Deriv- ative Secur- ities Bene- ficially Owned at End Month (Instr. 4)	10. Owner- ship of Deriv- ative Secur- ity: Direct (D) or In- direct (I) (Instr. 4)	11. Nature of In- direct Owner- ship (Instr. 4)

Explanation of Responses:

/s/James R. Bertelli _____ February 6, 2001 _____
 **Signature of Reporting Person Date

** 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 provided is insufficient, see Instruction 6 for procedures.

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.