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 OMB APPROVAL  
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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).

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1. Name and Address of Reporting Person

Sallen Melvin J.

(Last) (First) (Middle)

790 Boylston Street, Apt. 21H

(Street)

Boston MA 02199

(City) (State) (Zip)

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2. Issuer Name and Ticker or Trading Symbol

MERCURY COMPUTER SYSTEMS, INC. (MRCY)

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

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4. Statement for Month/Year

February 2000

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

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

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

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7. Individual or Joint/Group Filing  
 (Check applicable line)

[ X ] Form filed by One Reporting Person  
 [ ] Form filed by More than One Reporting Person

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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) V	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 Indirect Beneficial Ownership (Instr. 4)	
			Amount	Price				
Common Stock	02/16/00		1,600	D	\$44.3824	4,000	I	Note 1
Common Stock						36,500	D	

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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)

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1. Title of Derivative Security (Instr. 3)	2. Conver- sion of Exer- cise Price of 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 Exer- tion cisable Date		7. Title and Amount of Underlying Securities (Instr. 3 and 4) ----- Amount or Number of Shares	8. Price of Deriv- ative Secur- ity (Instr. 5)	9. Number of Deriv- ative Secur- ities Bene- ficially Owned at End of Month (Instr. 4)	10. Owner- ship of Deriv- ative Secur- ity: Direct (D) or In- direct (I) (Instr. 4)	11. Nature of In- direct Bene- ficial Owner- ship (Instr. 4)	
Stock Option (Right to Buy)	2.00	7/30/96	A	3,624	Cur- rently	7/30/06	Common	3,624	2.00	3,624	D	
Stock Option (Right to Buy)	2.00	9/30/96	A	2,362	Cur- rently	9/30/06	Common	2,362	2.00	2,362	D	
Stock Option (Right to Buy)	4.00	10/20/97	A	4,812	Cur- rently	10/20/07	Common	4,812	4.00	4,812	D	
Stock Option (Right to Buy)	7.813	9/30/98	A	9,974	Note 2	9/30/08	Common	9,974	7.813	9,974	D	
Stock Option (Right to Buy)	17.00	9/30/99	A	2,844	Note 3	9/30/09	Common	2,844	17.00	2,844	D	

Explanation of Responses:

Note 1: Shares owned by the Lois S. Sallen Trust, of which the Reporting Person is a co-trustee and beneficiary.

Note 2: The option is exercisable in three equal installments, beginning on September 30, 1999.

Note 3: The option is exercisable in three equal installments, beginning on September 30, 2000.

/s/Melvin J. Sallen

February 29, 2000

\*\*\*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.