

MERCURY COMPUTER SYSTEMS INC  
 Form 4  
 December 16, 2004

**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 \*  
 THIBAUD DIDIER M C

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)  
 2, PLACE DE PADOUE  
 (Street)

3. Date of Earliest Transaction (Month/Day/Year)  
 12/15/2004

\_\_\_\_ Director \_\_\_\_\_ 10% Owner  
 Officer (give title below) \_\_\_\_\_ Other (specify below)  
 VP & GM Medical Business Group

BRIIS SOU 91640

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

(City) (State) (Zip)

**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)
			Code	V Amount (A) or (D) Price			
Common Stock	12/15/2004		M	4,000 A \$ 7.625	4,000	D	
Common Stock	12/15/2004		S	2,284 D \$ 30.55	1,716	D	
Common Stock	12/15/2004		S	300 D \$ 30.56	1,416	D	
Common Stock	12/15/2004		S	200 D \$ 30.57	1,216	D	
Common Stock	12/15/2004		S	420 D \$ 30.61	796	D	

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Common Stock	12/15/2004	S	96	D	\$ 30.62	700	D
Common Stock	12/15/2004	S	200	D	\$ 30.65	500	D
Common Stock	12/15/2004	S	500	D	\$ 30.66	0	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.**

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(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 (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. Amount or Number of Shares
Exercise of ISO Stock Option	\$ 7.625	12/15/2004		M	4,000	09/28/2003 09/28/2008	Common	4,000

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
THIBAUD DIDIER M C 2, PLACE DE PADOUE BRIIS SOU 91640			VP & GM Medical Business Group	

## Signatures

Didier M C  
Thibaud  
12/15/2004  
Date

\*\*Signature of Reporting Person

## 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) 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.

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