

MERCURY COMPUTER SYSTEMS INC  
Form SC 13G  
February 05, 2007

OMB APPROVAL
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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**SCHEDULE 13G**

**Under the Securities Exchange Act of 1934  
(Amendment No. )**

MERCURY COMPUTER SYSTEMS, INC

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(Name of Issuer)

Common Stock

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(Title of Class of Securities)

589378108

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(CUSIP Number)

December 31, 2006

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(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

Rule 13d-1(b)

Rule 13d-1(c)

Rule 13d-1(d)

The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the

disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be 'filed' for the purpose of Section 18 of the Securities Exchange Act of 1934 ('Act') or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 589378108

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**Person 1**

**Item 1.**

- (a) Name of Issuer  
MERCURY COMPUTER SYSTEMS, INC
- (b) Address of Issuer's Principal Executive Offices  
199 RIVERNECK ROAD, CHELMSFORD, MA 01824

**Item 2.**

- (a) Name of Person Filing  
Wells Fargo & Company
- (b) Address of Principal Business Office or, if none, Residence 420 Montgomery Street, San Francisco, CA 94104
- (c) Citizenship  
Delaware
- (d) Title of Class of Securities  
Common Stock
- (e) CUSIP Number  
589378108

**Item 3. If this statement is filed pursuant to 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:**

- (a)  Broker or dealer registered under section 15 of the Act (15 U.S.C. 78c).
- (b)  Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c)  Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d)  Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C 80a-8).
- (e)  An investment adviser in accordance with 240.13d-1(b)(1)(ii)(E);
- (f)  An employee benefit plan or endowment fund in accordance with 240.13d-1(b)(1)(ii)(F);
- (g)  A parent holding company or control person in accordance with 240.13d-1(b)(1)(ii)(G);

- (h)  A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i)  A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j)  Group, in accordance with 240.13d-1(b)(1)(ii)(J).

**Item 4. Ownership.**

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

- (a) Amount beneficially owned: 1,945,817
- (b) Percent of class: 8.79%
- (c) Number of shares as to which the person has:
  - (i) Sole power to vote or to direct the vote 1,675,758
  - (ii) Shared power to vote or to direct the vote 0
  - (iii) Sole power to dispose or to direct the disposition of 1,940,867
  - (iv) Shared power to dispose or to direct the disposition of 0

**Person 2**

**Item 1.**

- (a) Name of Issuer  
MERCURY COMPUTER SYSTEMS, INC
- (b) Address of Issuer's Principal Executive Offices  
199 RIVERNECK ROAD, CHELMSFORD, MA 01824

**Item 2.**

- (a) Name of Person Filing  
Wells Fargo Funds Management, LLC
- (b) Address of Principal Business Office or, if none, Residence 525 Market Street, San Francisco, CA 94105
- (c) Citizenship  
Delaware
- (d) Title of Class of Securities  
Common Stock
- (e) CUSIP Number  
589378108

**Item 3. If this statement is filed pursuant to 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:**

- (a)  Broker or dealer registered under section 15 of the Act (15 U.S.C. 78c).
- (b)  Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c)  Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d)  Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C 80a-8).
- (e)  An investment adviser in accordance with 240.13d-1(b)(1)(ii)(E);
- (f)  An employee benefit plan or endowment fund in accordance with 240.13d-1(b)(1)(ii)(F);
- (g)  A parent holding company or control person in accordance with 240.13d-1(b)(1)(ii)(G);
- (h)  A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i)  A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j)  Group, in accordance with 240.13d-1(b)(1)(ii)(J).

**Item 4. Ownership.**

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

- (a) Amount beneficially owned: 1,153,423
- (b) Percent of class: 5.21%
- (c) Number of shares as to which the person has:
  - (i) Sole power to vote or to direct the vote 1,153,423
  - (ii) Shared power to vote or to direct the vote 0
  - (iii) Sole power to dispose or to direct the disposition of 2,075
  - (iv) Shared power to dispose or to direct the disposition of 0

**Item 5. Ownership of Five Percent or Less of a Class**

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following.[ ] .

**Item 6. Ownership of More than Five Percent on Behalf of Another Person.**

Not applicable

**Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person.**

See Exhibit B

**Item 8. Identification and Classification of Members of the Group**

Not applicable.

**Item 9. Notice of Dissolution of Group**

Not applicable.

**Item 10. Certification**

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

**SIGNATURE**

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

January 29, 2007

Date

/s/ Mark B. Kraske

Signature

Mark B. Kraske, VP Trust Operations Management  
Support Services

Name/Title

**Exhibit A**

**Attention: Intentional misstatements or omissions of fact constitute Federal criminal violations  
(See 18 U.S.C. 1001)**