

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

(AMENDMENT NO.)*

MERCURY COMPUTER SYSTEMS INC

(Name of Issuer)

Common

(Title of Class of Securities)

589378108

(CUSIP Number)

Check the following box if a fee is being paid with this statement []. (A fee is not required only if the filing person: (1) has a previous statement on file reporting beneficial ownership of more than five percent of the class of securities described in Item 1; and (2) has filed no amendment subsequent thereto reporting beneficial ownership of five percent or less of such class.) (See Rule 13d-7.)

*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).

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CUSIP No. 589378108

13G

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

Massachusetts Mutual Life Insurance Company
04-1590850

2 CHECK THE APPROPRIATE BOX IF MEMBER OF A GROUP
(A) _____

(B) _____

3 SEC USE ONLY

4 CITIZENSHIP OF PLACE OF ORGANIZATION

Commonwealth of Massachusetts

5 SOLE VOTING POWER
NUMBER OF SHARES 393,750

6 SHARED VOTING POWER
BENEFICIALLY OWNED BY

EACH		not applicable
REPORTING PERSON WITH	7	SOLE DISPOSITIVE POWER 393,750
	8	SHARED DISPOSITIVE POWER not applicable
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 393,750	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES * not applicable	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 4.0%	
12	TYPE OF REPORTING PERSON * IC (insurance company)	

* SEE INSTRUCTION BEFORE FILLING OUT!

Page 2 of 2 pages

CUSIP No. 589378108

13G

1	NAME OF REPORTING PERSON S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON MassMutual Corporate Investors 04-2483041	
2	CHECK THE APPROPRIATE BOX IF MEMBER OF A GROUP (A) _____ (B) <input checked="" type="checkbox"/> _____	
3	SEC USE ONLY	
4	CITIZENSHIP OF PLACE OF ORGANIZATION Commonwealth of Massachusetts	
NUMBER OF SHARES	5	SOLE VOTING POWER 393,750
BENEFICIALLY OWNED BY EACH	6	SHARED VOTING POWER not applicable
REPORTING PERSON WITH	7	SOLE DISPOSITIVE POWER 393,750
	8	SHARED DISPOSITIVE POWER not applicable
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 393,750	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES * not applicable	

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

4.0%

12 TYPE OF REPORTING PERSON *

IV (investment company)

* SEE INSTRUCTION BEFORE FILLING OUT!

ITEM 1(a). Name of Issuer: Mercury Computer Systems, Inc.

ITEM 1(b). Address of Issuer's Principal Executive Offices:

199 Riverneck Road
Chelmsford, MA 01824

ITEM 2(a). Name of Person Filing:

This statement is filed on behalf of Massachusetts Mutual Life Insurance Company and MassMutual Corporate Investors, which together may be regarded as a group for the purpose of this statement. This statement is signed on behalf of both the aforementioned parties, and therefore it does not include a separate agreement providing for a joint filing.

ITEM 2(b). Address of Principal Business Office:

MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY
1295 State Street
Springfield, Massachusetts 01111

MASSMUTUAL CORPORATE INVESTORS
1295 State Street
Springfield, Massachusetts 01111

ITEM 2(c). Citizenship

MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY is organized under the laws of the Commonwealth of Massachusetts

MASSMUTUAL CORPORATE INVESTORS is organized under the laws of the Commonwealth of Massachusetts

ITEM 2(d). Title of Class of Securities: Common Stock

ITEM 2(e). CUSIP NUMBER: 589378108

ITEM 3. This statement is filed pursuant to Rule 13d-1(b) by Massachusetts Mutual Life Insurance Company, an insurance company as defined in Section 3(a)(19), and MassMutual Corporate Investors, an investment company registered under Section 8 of the Investment Company Act of 1940, which together may be regarded as a group pursuant to Rule 13d-1(b) (ii) (H).

ITEM 4. Ownership:

This statement is filed to report information as of January 29, 1998.

(a) Amount Beneficially Owned:

Massachusetts Mutual Life Insurance Company, and MassMutual Corporate Investors each own 393,750 shares of common stock.

Total shares of common stock owned directly and indirectly: 787,500.

The filing of this statement shall not be construed as an admission that Massachusetts Mutual Life Insurance Company and MassMutual Corporate Investors, Investors, are for the purposes of sections 13(d) and 13(g) of the Securities Exchange Act of 1934, the

beneficial owners of any common stock of the issuer.

(b) Percent of Class:

Percentage of ownership is calculated as follows:

787,500 (shs held) / 9,868,223 (shares outstanding) = 8.0%

(c) Powers:

Massachusetts Mutual Life Insurance Company and MassMutual Corporate Investors, each have sole power to vote or dispose of 393,750 shares of common stock.

ITEM 5. Ownership of Five Percent or Less of a Class:

Not Applicable

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:

Note applicable

ITEM 8. Identification and Classification of Members of the Group:

not applicable

ITEM 9. Notice of Dissolution of the Group:

Not applicable

ITEM 10. Certification:

By signing below, MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY and MASSMUTUAL CORPORATE INVESTORS certify to the best of their knowledge and belief, the securities referred to above were acquired in the ordinary course of business and were not acquired for the purpose of and do not have the effect of changing or influencing the control of the issuer of such securities and were not acquired in connection with or as a participant in any transaction having such purpose or effect.

Signature -----

After reasonable inquiry and to the best of knowledge and belief, MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY and MASSMUTUAL CORPORATE INVESTORS, INVESTORS, certify that the information set forth in this statement is true, complete and correct.

February 9, 1998

February 9, 1998

Date

Date

MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY

MASSMUTUAL CORPORATE INVESTORS

By: signature

By: signature

Richard C. Morrison
Managing Director

Richard C. Morrison
Vice President

(Print Name and Title of Person Signing)

(Print Name and Title of Person Signing)