

SCHEDULE 13G

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Type of Filing: Amendment

Amendment No.: 1

Name of Issuer: Mercury Computer Systems Inc

Title of Class of Securities: Common

CUSIP Number: 589378108

Is a fee being paid with this statement: () Yes (X) No

1) Name of Reporting Person: Scudder Kemper Investments, Inc.

1a) S.S. or I.R.S. Identification No. of above person: 13 3241232

2) Check the appropriate box if member of a group: () a () b

3) SEC Use Only:

4) Citizenship or Place of Organization: Delaware

Number of shares beneficially owned by each reporting person with:

5) Sole Voting Power: 1,336,600

6) Shared Voting Power: 47,100

7) Sole Dispositive Power: 2,010,100

8) Shared Dispositive Power: inapplicable

9) Aggregate amount beneficially owned by each reporting person: 2,010,100

10) Does aggregate amount (Item #9) exclude certain shares: () Yes (X) No

11) Percent of Class represented by amount in Item No. 9: 9.4

12) Type of Reporting Person: IA

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Item 1a) Name of Issuer: Mercury Computer Systems Inc

Item 1b) Address of Issuer's Principal Executive Offices:

199 Riverneck Rd. Chelmsford, MA 01824

Item 2a) Name of Person Filing: Scudder Kemper Investments, Inc.

Item 2b) Address of Principal Business Office or, if none, Residence:

345 Park Avenue, New York, New York 10154

Item 2c) Citizenship: Delaware

Item 2d) Title of Class of Securities: Common

Item 2e) CUSIP Number: 589378108

Item 3) If this statement is filed pursuant to Rules 13d-1(b), or 13d-2(b), check whether the person filing is a:

(a) ___ Broker of Dealer registered under Section 15 of the Act

(b) ___ Bank as defined in Section 3(a)(6) of the Act

(c) ___ Insurance Company as defined in Section 3(a)(19) of the Act

(d) ___ Investment Company registered under Section 8 of the Investment Company Act

(e) XX Investment Adviser registered under Section 203 of the Investment Advisers Act of 1940

(f) ___ Employee Benefit Plan, Pension Fund which is subject to the provisions of the Employee Retirement Income Security Act of 1974 or Endowment Fund; see 240.13d-1(b)(1)(ii)(F)

(g) ___ Parent Holding Company, in accordance with 240.13d-1(b)(1)(ii)(G) (Note: See Item 7)

(h) ___ Group, in accordance with 240.13d-1(b)(1)(ii)(H)

Item 4) OWNERSHIP: If the percent of the class owned, as of December 31 of the year covered by the statement, or as of the last day of any month described in Rule 13d-1(b)(2), if applicable, exceeds five percent, provide the following information as of the date and identify those shares which there is a right to acquire.

- a) Amount Beneficially Owned: 2,010,100
- b) Percent of Class: 9.4
- c) Number of shares as to which each person has:
 - Sole power to vote or to direct the vote: 1,336,600
 - Shared power to vote or to direct the vote: 47,100
 - Sole power to dispose or to direct the disposition of: 2,010,100
 - Shared power to dispose or to direct the disposition of: inapplicable

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 ()Yes (X)No

Item 6) OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON: If any other person is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, such securities, a statement to the effect should be included in response to this item and, if such interest relates to more than five percent of the class, such person should be identified. A listing of the shareholders of an Investment Company registered under the Investment Company Act of 1940 or the beneficiaries of any employee benefit plan, pension fund or endowment fund is not required.

Item 7) IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY: If a parent holding company has filed this schedule, pursuant to Rule 13d1(b)(ii)(G), so indicate under Item 3(g) and attach an exhibit stating the identity and the Item 3 classification of the relevant subsidiary. If a parent holding company has filed this schedule pursuant to Rule 13d-1(c), attach an exhibit stating the identification of the relevant subsidiary.

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Item 8) IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP: If a group has filed this schedule pursuant to Rule 13d-1(b)(ii)(H), so indicate under Item 3(h) and attach an exhibit stating the identity and Item 3 classification of each member of the group. If a group has filed this schedule pursuant to Rule 13d1(c), attach an exhibit stating the identity of each member of the group.

inapplicable

Item 9) NOTICE OF DISSOLUTION OF GROUP: Notice of dissolution of a group may be furnished as an exhibit stating the date of the dissolution and that all further filings with respect to transactions in the security reported on will be filed, if required, by members of the group, in their individual capacity.

inapplicable

Item 10) CERTIFICATION: The following certification shall be included if the statement is filed pursuant to Rule 13d-1(b):

By signing below I certify that, to the best of my 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 purposes 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.

DATE: February 12, 2001

SIGNATURE:

NAME/TITLE: Robert A. Rudell, Chief Operating Officer

