

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No. 1)\*

Name of Issuer - Applied Materials, Inc.

Title or Class of Securities - Common Stock

CUSIP Number - 038222105

Check the following box if a fee is being paid with this statement [ ].

Cusip No. 038222105

Page 2 of 10 Pages

1. Name of Reporting Person (S.S. or I.R.S. Identification No. of above person)

American Century Companies, Inc. - 43-1325032 (formerly known as Twentieth Century Companies, Inc.)

2. Check the appropriate box if a member of a group\* - N/A

3. SEC Use Only

4. Citizenship or place of organization

Delaware

5. Sole voting power

N/A

6. Shared voting power

N/A

7. Sole dispositive power

N/A

8. Shared dispositive power

N/A

9. Aggregate amount beneficially owned by each reporting person

N/A

10. Check box if the aggregate amount in Row (9) excludes certain shares -

N/A

11. Percent of class represented by amount in Row 9

N/A

12. Type of reporting person\*

HC

1. Name of Reporting Person (S.S. or I.R.S. Identification No. of above person)

American Century Investment Management - 44-0640487 (formerly known as Investors Research Corporation)

2. Check the appropriate box if a member of a group\* - N/A

3. SEC Use Only

4. Citizenship or place of organization

Delaware

5. Sole voting power

N/A

6. Shared voting power

N/A

7. Sole dispositive power

N/A

8. Shared dispositive power

N/A

9. Aggregate amount beneficially owned by each reporting person

N/A

10. Check box if the aggregate amount in Row (9) excludes certain shares

N/A

11. Percent of class represented by amount in Row 9

N/A

12. Type of reporting person\*

IA

1. Name of Reporting Person (S.S. or I.R.S. Identification No. of above person)

American Century Mutual Funds, Inc. - 44-6006315 (formerly known as Twentieth Century Investors, Inc.)

2. Check the appropriate box if a member of a group\* - N/A

3. SEC Use Only

4. Citizenship or place of organization

Maryland

5. Sole voting power

N/A

6. Shared voting power

N/A

7. Sole dispositive power

N/A

8. Shared dispositive power

N/A

9. Aggregate amount beneficially owned by each reporting person

N/A

10. Check box if the aggregate amount in Row (9) excludes certain shares

N/A

11. Percent of class represented by amount in Row 9

N/A

12. Type of reporting person\*

IV

1. Name of Reporting Person (S.S. or I.R.S. Identification No. of above person)

James E. Stowers, Jr. - ###-##-####

2. Check the appropriate box if a member of a group\* - N/A

3. SEC Use Only

4. Citizenship or place of organization

United States

5. Sole voting power

N/A

6. Shared voting power

N/A

7. Sole dispositive power

N/A

8. Shared dispositive power

N/A

9. Aggregate amount beneficially owned by each reporting person

N/A

10. Check box if the aggregate amount in Row (9) excludes certain shares

N/A

11. Percent of class represented by amount in Row 9

N/A

12. Type of reporting person\*

IN

SCHEDULE 13G

Item 1(a). NAME OF ISSUER

Applied Materials, Inc.

Item 1(b). ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES

3050 Bowers Avenue  
Santa Clara, CA 95054-3299

Item 2(a). NAME OF PERSONS FILING

American Century Companies, Inc., on its behalf and on behalf of:

American Century Investment Management, Inc.  
American Century Mutual Funds, Inc.  
James E. Stowers, Jr.

Item 2(b). ADDRESS OF PRINCIPAL BUSINESS OFFICE OR, IF NONE, RESIDENCE

4500 Main Street, P.O. Box 418210, Kansas City, MO 64141-9210  
Attn: David H. Reinmiller

Item 2(c). CITIZENSHIP

Delaware

Item 2(d). TITLE OF CLASS OF SECURITIES

Common Stock

Item 2(e). CUSIP NO.

038222105

Item 3. IF THIS STATEMENT IS FILED PURSUANT TO RULES 13d-1(b) OR 13d-2(b), CHECK WHETHER THE PERSON FILING IS A

(g)  Parent Holding Company, in accordance with Rule 13d-1(b)(ii)(G) (Note: See Item 7).

Item 4. OWNERSHIP

(a) Aggregate amount beneficially owned:

N/A

(b) Percent of class:

N/A

(c) Number of shares as to which such person has:

(i) sole power to vote or to direct the vote:

N/A

(ii) shared power to vote or to direct the vote:

N/A

(iii) sole power to dispose or to direct the disposition of:

N/A

(iv) shared power to dispose or to direct the disposition of:

N/A

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 [X].

Item 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON

American Century Investment Management, Inc. (formerly Investors Research Corporation), a registered investment adviser and a wholly-owned subsidiary of American Century Companies, Inc. (formerly Twentieth Century Companies, Inc.), manages, pursuant to management agreements, the investments of six registered investment companies, American Century Mutual Funds, Inc., American Century World Mutual Funds, Inc., American Century Capital Portfolios, Inc., American Century Premium Reserves, Inc., TCI Portfolios, Inc., and American Century Strategic Asset Allocations, Inc. It also manages the assets of institutional investor accounts. The securities that are the subject of this report are owned by and held for such investment companies and separate institutional investor accounts. Any dividends received from such securities, or the proceeds of any sale of such securities, are for the benefit of, and are held for such investment companies and separate institutional investor accounts.

For further information regarding the ownership of the securities that are the subject of this report, see Exhibit A attached hereto.

Item 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY

See attached Exhibits A and B.

Item 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP

N/A

Item 9. NOTICE OF DISSOLUTION OF GROUP

N/A

Item 10. CERTIFICATION

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 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.

February 10, 1997  
Date

AMERICAN CENTURY COMPANIES, INC.

By: /s/ William M. Lyons  
William M. Lyons  
Executive Vice President

EXHIBIT A

IDENTITY AND ITEM 3 CLASSIFICATION OF A SUBSIDIARY OF  
PARENT HOLDING COMPANIES

This Schedule 13G is being filed by American Century Companies, Inc. ("ACC"). American Century Investment Management, Inc. ("ACIM"), an investment advisor registered under Section 203 of the Investment Advisors Act of 1940, is a wholly-owned subsidiary of ACC. Mr. James E. Stowers, Jr., controls ACC by virtue of his beneficial ownership of a majority of the voting stock of ACC.

As a result of its status as investment advisor to six investment companies registered under Section 8 of the Investment Company Act and to several institutional investors, ACIM is deemed to be the beneficial owner of and has the sole authority to dispose of and vote certain shares (the "Shares") of the outstanding common stock of Applied Materials, Inc. (the "Issuer").

ACC, as a result of its control of ACIM, and Mr. Stowers, as a result of his control of ACC, are also deemed to beneficially own all such shares deemed to be beneficially owned by ACIM. Mr. Stowers, ACC and ACIM all disclaim beneficial ownership of the Shares.

The ownership of one investment company client of ACIM, American Century Mutual Funds, Inc. ("ACMF"), formerly totalled more than 5% of a class of securities of the Issuer.

This Schedule 13G is being filed by ACC on behalf of ACC, ACIM, ACMF and Mr. Stowers.

EXHIBIT B

Rule 13d-1(f)(1)(iii) Agreement

Each of the undersigned hereby agrees and consents to the execution and joint filing on its or his behalf by American Century Companies, Inc. of this Schedule 13G respecting the beneficial ownership of the common stock of Applied Materials, Inc. at December 31, 1996.

Dated this 10th day of February, 1997.

American Century Companies, Inc.

By: /s/ William M. Lyons

William M. Lyons  
Executive Vice President

American Century Investment Management, Inc.

By: /s/ William M. Lyons

William M. Lyons  
Executive Vice President

American Century Mutual Funds, Inc.

By: /s/ William M. Lyons

William M. Lyons  
Executive Vice President

James E. Stowers, Jr.

By: /s/ William M. Lyons, Attorney-in-fact

William M. Lyons  
Under Power of Attorney dated 2/3/97  
on file with Schedule 13G for  
U.S. Robotics, Inc. filed 2/3/97