

AUGUST TECHNOLOGY CORP  
Form SC 13G  
January 25, 2006

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

SCHEDULE 13G  
UNDER THE SECURITIES EXCHANGE ACT OF 1934

AUGUST TECHNOLOGY CORPORATION  
(Name of Issuer)

COMMON STOCK, NO PAR VALUE  
(Title of Class of Securities)

05106U105  
(CUSIP NUMBER)

DECEMBER 31, 2005  
(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).

Page 1 of 9 Pages

CUSIP No. 05106U105

13G

Page 2 of 9 Pages

- 1. NAME OF REPORTING PERSONS  
I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)

Millenco, L.P.  
13-3532932

- 2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\*

(a)   
(b)

- 3. SEC USE ONLY

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-----  
4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

-----  
NUMBER OF 5. SOLE VOTING POWER  
SHARES -0-

-----  
BENEFICIALLY 6. SHARED VOTING POWER

OWNED BY 1,415,151

-----  
EACH 7. SOLE DISPOSITIVE POWER

REPORTING -0-

-----  
PERSON 8. SHARED DISPOSITIVE POWER

WITH 1,415,151

-----  
9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,415,151

-----  
10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES\*

|\_ |

-----  
11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

7.7%

-----  
12. TYPE OF REPORTING PERSON\*

PN, BD

-----  
\*SEE INSTRUCTIONS BEFORE FILLING OUT!

CUSIP No. 05106U105

13G

Page 3 of 9 Pages

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1. NAME OF REPORTING PERSONS  
I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)

Millennium Management, L.L.C.  
13-3804139

-----  
2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\*

(a) |X|  
(b) |\_ |

-----  
3. SEC USE ONLY

-----  
4. CITIZENSHIP OR PLACE OF ORGANIZATION

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Delaware

-----  
NUMBER OF 5. SOLE VOTING POWER  
SHARES -0-  
-----  
BENEFICIALLY 6. SHARED VOTING POWER  
OWNED BY 1,415,151  
-----  
EACH 7. SOLE DISPOSITIVE POWER  
REPORTING -0-  
-----  
PERSON 8. SHARED DISPOSITIVE POWER  
WITH 1,415,151  
-----  
9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
1,415,151  
-----  
10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES\*  
  
-----  
11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  
7.7%  
-----  
12. TYPE OF REPORTING PERSON\*  
OO  
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\*SEE INSTRUCTIONS BEFORE FILLING OUT!

CUSIP No. 05106U105

13G

Page 4 of 9 Pages

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1. NAME OF REPORTING PERSONS  
I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)  
Israel A. Englander  
-----  
2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\*  
  
 (a)  (X)  
 (b)   
-----  
3. SEC USE ONLY  
-----  
4. CITIZENSHIP OR PLACE OF ORGANIZATION  
United States  
-----  
NUMBER OF 5. SOLE VOTING POWER

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SHARES -0-

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BENEFICIALLY 6. SHARED VOTING POWER

OWNED BY 1,415,151

---

EACH 7. SOLE DISPOSITIVE POWER

REPORTING -0-

---

PERSON 8. SHARED DISPOSITIVE POWER

WITH 1,415,151

---

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,415,151

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10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES\*

|\_ |

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11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

7.7%

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12. TYPE OF REPORTING PERSON\*

IN

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\*SEE INSTRUCTIONS BEFORE FILLING OUT!

CUSIP No. 05106U105

13G

Page 5 of 9 Pages

Item 1.

(a) Name of Issuer

August Technology Corporation, a Minnesota corporation (the "Company").

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

4900 West 78th Street  
Bloomington, Minnesota 55435

Item 2(a). Name of Person Filing  
Item 2(b). Address of Principal Business Office  
Item 2(c). Citizenship

Millenco, L.P.  
c/o Millennium Management, L.L.C.  
666 Fifth Avenue  
New York, New York 10103  
Citizenship: Delaware

Millennium Management, L.L.C.  
666 Fifth Avenue  
New York, New York 10103  
Citizenship: Delaware

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Israel A. Englander  
c/o Millennium Management, L.L.C.  
666 Fifth Avenue  
New York, New York 10103  
Citizenship: United States

(d) Title of Class of Securities  
Common Stock, no par value ("Common Stock")

(e) CUSIP Number  
05106U105

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

- (a)  Broker or dealer registered under Section 15 of the Act (15 U.S.C. 78o).
- (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 Rule 13d-1(b)(1)(ii)(E);
- (f)  An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F);

CUSIP No. 05106U105

13G

Page 6 of 9 Pages

- (g)  A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G);
- (h)  A savings association 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 Rule 13d-1(b)(1)(ii)(J).

If this statement is filed pursuant to Rule 13d-1(c), check this box.

### 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

As of the date of this filing, each Reporting Person may be deemed to be the beneficial owner of 1,415,151 shares of Common Stock owned outright by Millenco, L.P., a Delaware limited partnership ("Millenco").

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Millennium Management, L.L.C., a Delaware limited liability company ("Millennium Management"), is the general partner of Millenco, and consequently may be deemed to have voting control and investment discretion over securities owned by Millenco. Israel A. Englander ("Mr. Englander") is the managing member of Millennium Management. As a result, Mr. Englander may be deemed to be the beneficial owner of any shares deemed to be beneficially owned by Millennium Management. The foregoing should not be construed in and of itself as an admission by Millennium Management or Mr. Englander as to beneficial ownership of the shares owned by Millenco.

Note: Millennium Partners, L.P., a Cayman Islands limited partnership ("Partners"), is a limited partner of Millenco. As a limited partner, Partners has no investment or voting control over Millenco or its securities positions.

(b) Percent of Class

7.7% (see Item 4(a) above) which percentage was calculated based on 18,294,438 shares of Common Stock outstanding as of October 31, 2005, as reported in the Company's Quarterly Report on Form 10-Q, dated as of November 9, 2005.

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

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

-0-

(ii) Shared power to vote or to direct the vote

1,415,151

(iii) Sole power to dispose or to direct the disposition of

-0-

CUSIP No. 05106U105

13G

Page 7 of 9 Pages

(iv) Shared power to dispose or to direct the disposition of

1,415,151

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

Not applicable.

Item 8. Identification and Classification of Members of the Group

See Exhibit I.

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Item 9. Notice of Dissolution of Group

Not applicable.

Item 10. Certification

By signing below each of the undersigned certifies that, to the best of its knowledge and belief, the securities referred to above 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.

Exhibits:

Exhibit I: Joint Filing Agreement, dated as of January 24, 2006, by and among Millenco, L.P., Millennium Management, L.L.C. and Israel A. Englander.

CUSIP No. 05106U105

13G

Page 8 of 9 Pages

SIGNATURE

After reasonable inquiry and to the best of its knowledge and belief, each of the undersigned certifies that the information with respect to it set forth in this statement is true, complete, and correct.

Dated: January 24, 2006

MILLENCO, L.P.

By: Millennium Management, L.L.C.  
its general partner

By: /s/ Terry Feeney

-----  
Name: Terry Feeney  
Title: Chief Operating Officer

MILLENNIUM MANAGEMENT, L.L.C.

By: /s/ Terry Feeney

-----  
Name: Terry Feeney  
Title: Chief Operating Officer

/s/ Israel A. Englander by David  
Nolan pursuant to Power of Attorney  
filed with SEC on June 6, 2005

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Israel A. Englander

CUSIP No. 05106U105

13G

Page 9 of 9 Pages

EXHIBIT I

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JOINT FILING AGREEMENT

This will confirm the agreement by and among the undersigned that the Schedule 13G filed with the Securities and Exchange Commission on or about the date hereof with respect to the beneficial ownership by the undersigned of the Common Stock, no par value, of August Technology Corporation, a Minnesota corporation, is being filed, and all amendments thereto will be filed, on behalf of each of the persons and entities named below in accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

Dated: January 24, 2006

MILLENCO, L.P.

By: Millennium Management, L.L.C.  
its general partner

By: /s/ Terry Feeney

-----  
Name: Terry Feeney  
Title: Chief Operating Officer

MILLENNIUM MANAGEMENT, L.L.C.

By: /s/ Terry Feeney

-----  
Name: Terry Feeney  
Title: Chief Operating Officer

/s/ Israel A. Englander by David  
Nolan pursuant to Power of Attorney  
filed with SEC on June 6, 2005

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Israel A. Englander