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:

|X| 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).

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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) |X|

(b) |_|

3. SEC USE ONLY

4.	CITIZENSH	CITIZENSHIP OR PLACE OF ORGANIZATION						
	Delaware							
NUMBER OF		5.	SOLE VOTING POWER					
SHARES			-0-					
BENEFICIALLY		6.	SHARED VOTING POWER					
OWNED BY			•					
	EACH		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 T	HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CE	RTAIN SHARES*				
				1_1				
11.	PERCENT O	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		6U105	13G	Page 3 of 9 Pages				
1.	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)							
	Millenniu 13-380413		agement, L.L.C.					
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*							
				(a) X (b) _				
3.	SEC USE O	NLY						
4.	CITIZENSH	IP OR	PLACE OF ORGANIZATION					

	Delaware							
NUMBER OF		5.	SOLE VOTIN	G POWER				
SHARES			-0-					
BENEFICIALLY		6.	SHARED VOT					
OWNED BY			1,415,151					
EACH		7.	SOLE DISPO	SITIVE POWER				
REPORTING			-0-					
		8.	SHARED DIS	POSITIVE POWER				
			1,415,151					
9.	AGGREGATE	AMOU	UNT BENEFICI	ALLY OWNED BY EACH REE	PORTING PE	RSON		
	1,415,151							
10.	CHECK BOX	IF T	HE AGGREGAT	E AMOUNT IN ROW (9) ΕΣ	XCLUDES CE	RTAIN SE	HARES*	
							_	
11.	PERCENT O	F CLA	SS REPRESEN	ITED BY AMOUNT IN ROW	(9)			
	7.7%							
12.	TYPE OF REPORTING PERSON*							
	00							
			*SEE INST	RUCTIONS BEFORE FILLIN	NG OUT!			
CUSIP No. 05106U			5	13G		Page 4	of 9 Pages	
1.			ING PERSONS	of ABOVE PERSONS (ENT	 FITIES ONL	 Y)		
	Israel A.	Engl	ander					
2.	CHECK THE	APPF	ROPRIATE BOX	IF A MEMBER OF A GROU	JP*			
						` '	X _	
3.	SEC USE O	NLY						
4.				PRGANIZATION				
	United St	ates						
NU	JMBER OF	5.	SOLE VOTIN	IG POWER				

SHARES BENEFICIALLY 6. SHARED VOTING POWER OWNED BY 1,415,151 ______ 7. SOLE DISPOSITIVE POWER REPORTING ______ 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* IN ______ *SEE INSTRUCTIONS BEFORE FILLING OUT! CUSIP No. 05106U105 Page 5 of 9 Pages 13G 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

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

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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) |X| Broker or dealer registered under Section 15 of the Act (15 U.S.C. 780).
- (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);

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- (g) |X| 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) |X| 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").

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-

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(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 $\ensuremath{\mathsf{Group}}$

See Exhibit I.

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.

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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

Israel A. Englander

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EXHIBIT I

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