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

FORM 10-K/A Amendment No. 1

[X] Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 For the Fiscal Year Ended September 30, 2010

or

[] Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 For the Transition Period _____ to ____

> Commission File Number 0-17187

LOGIC DEVICES INCORPORATED

(Exact name of registrant as specified in its charter)

California

(State of Incorporation

94-2893789

(I.R.S. Employer Identification No,)

1375 Geneva Drive, Sunnyvale, CA 94089

(Address of principal executive offices, including Zip Code)

(408) 542-5400

(Registrant's telephone number, including Area Code)

Securities registered pursuant to Section 12(b) of the Act : NONE

Securities registered pursuant to Section 12(g) of the Act: Common Stock, no par value

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes [] No [X]

Indicate by check mark if the registrant is not required to file report pursuant to Section 13 or Section 15(d) of the Act. Yes [] No [X]

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes [X] No []

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. []

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer []

Accelerated filer []

Smaller reporting company [X]

Non-accelerated filer [] (Do not check if a smaller reporting company

Indicate by check whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes [] No [X]

The aggregate market value of the voting and non-voting common stock held by non-affiliates computed by reference to the closing price of the common stock as of March 31, 2010, the last day of the registrant's most recently completed second quarter was \$6,499,900.

As of December 23, 2010, the Registrant had 7,398,172 shares of its common stock issued and outstanding.

EXPLANATORY NOTE

This Amendment No. 1 to the Annual Report on Form 10-K/A is being filed as Amendment No. 1 to the Annual Report on Form 10-K for the fiscal year ended September 30, 2010 for LOGIC Devices Incorporated. This Annual Report on Form 10-K/A is filed with the Securities and Exchange Commission solely for the purpose of revising paragraph 4 of Exhibit 31.1 and Exhibit 31.2, the Certifications of the President and Chief Financial Officer, to include additional references to their responsibilities for establishing and maintaining internal control over financial reporting.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

LOGIC DEVICES INCORPORATED

Dated: March 30, 2011

By: /s/ William J. Volz William J. Volz, President and Principal Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this report has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Title	Dated
/s/ William J. Volz William J. Volz	President and Director (Principal Executive Officer)	March 30, 2011
/s/ Kimiko Milheim Kimiko Milheim	Chief Financial Officer (Principal Financial and Accounting Officer)	March 30, 2011
/s/ Howard L. Farkas Howard L. Farkas	Chairman of the Board of Directors	March 30, 2011
/s/ James T. Hooper James T. Hooper	Director	March 30, 2011
/s/ Hal Shoemaker Hal Shoemaker	Director	March 30, 2011
/s/ Robert Stanley Robert Stanley	Director	March 30, 2011

EXHIBIT 31.1

Certification

I, William J. Volz, certify that:

- 1. I have reviewed this annual report on Form 10-K of LOGIC Devices Incorporated (the registrant);
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant is made known to us by others, particularly during the period in which this report is being prepared;
 - (b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report, based on such evaluation; and
 - (c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors:
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: March 30, 2011

/s/ William J. Volz William J. Volz President and Chief Executive Officer

EXHIBIT 31.2

Certification

I, Kimiko Milheim, certify that:

- 1. I have reviewed this annual report on Form 10-K of LOGIC Devices Incorporated (the registrant);
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant is made known to us by others, particularly during the period in which this report is being prepared;
 - (b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report, based on such evaluation; and
 - (c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors:
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: March 30, 2011

<u>/s/ Kimiko Milheim</u> Kimiko Milheim Chief Financial Officer