



DIVISION OF  
CORPORATION FINANCE

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

Mail Stop 6010

February 22, 2008

VIA U.S. MAIL AND FAX (845)-578-5985

Sean B. O'Connor  
Chief Financial Officer  
LeCroy Corporation  
700 Chestnut Ridge Road  
Chestnut Ridge, New York 10977

**Re: LeCroy Corporation**  
**Form 10-K for the fiscal year ended June 30, 2007**  
**Filed September 13, 2007**  
**File No. 000-26634**

Dear Mr. O'Connor:

We have reviewed your filings and have the following comments. Where indicated, we think you should revise your documents in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filings. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the year ended June 30, 2007

1. Summary of Significant Accounting Policies, page 59

Fiscal Year Ending Dates, page 59

1. We note that although your fiscal years ended on June 30, 2007, July 1, 2006 and July 2, 2005, you present consolidated balance sheets as of June 30, 2007 and 2006 and statements of operations for the periods ended June 30, 2007, 2006 and 2005 for ease of presentation.
  - Tell us why management believes such presentation is appropriate.
  - Please have your auditors explain why they believe that the audit reports, opining on consolidated balance sheet dated June 30, 2006 and statements of operations and cash flows for each of the years in the period ended June 30, 2006 and 2005, although the actual periods apparently ended on different days, are appropriate and comply with Article 2 of Regulation S-X and PCAOB standards.

Revise future filings to include financial statements as of and for the periods ended on your actual fiscal year end date.

Goodwill, page 63

2. We note that you assessed goodwill impairment by applying a fair value-based test using the company's market capitalization and determined that there had been no impairment. Please respond to the following:
  - Because your goodwill represents more than 45% of your total assets at June 30, 2007, please explain to us about your fair value-based test using the company's market capitalization in greater detail. In your explanation include the market capitalization amount that you used and the source of all acquired information used to determine the amount.
  - In this regard, please explain to us how you considered the recent trend of your company's market capitalization since the end of fiscal year 2007 in your goodwill impairment testing.

Comprehensive (Loss) Income, page 65

3. We note that your comprehensive (loss) income includes unrealized gains and losses on marketable securities classified as available-for-sale. Please explain to us where on the balance sheets you recorded the referenced marketable securities and where on the statements of stockholders' equity you showed the unrealized gains and losses on

marketable securities. Also explain to us what type of marketable securities you have and how they were valued. Finally, provide the disclosures required by paragraphs 19 to 22 of SFAS 115 in future filings

3. Catalyst Acquisition, page 69

4. We note you recorded the combined amount of approximately \$104 million of goodwill as a result of your acquisitions of Catalyst and CATC and the goodwill recorded appears to be significant to your total assets. However, we note your description of the factors that contributed to a purchase price that results in recognition of goodwill for both acquisitions are identical and not very helpful to the readers of your financial statements. Refer to paragraph 51(b) of SFAS 141 and explain to us the factors that contributed to a purchase price that results in recognition of goodwill in greater detail. Please expand the disclosures related to this matter in future filings.

4. Restructuring and Related Asset Impairment, page 71

5. It appears that you have recorded charges associated with restructuring activities in each fiscal year you presented in this filing as well as in the first quarter of fiscal year 2008. If that is true, please respond to the following:
  - Note that SFAS 146 applies to costs associated with an exit activity that does not involve an entity newly acquired in a business combination. Further, a restructuring is defined as a program that materially changes the scope of a business or the manner in which that business is conducted. Refer to paragraph 2 of SFAS 146, explain to us and revise your disclosure in future filings to clarify why your accounting for restructuring charges is within the scope of SFAS 146.
  - Revise your disclosure in future filings to expand the description of all material exit or disposal activities, including the facts and circumstances leading to the expected activity. Refer to paragraph 20 of SFAS 146.
  - Finally, your Management's Discussion and Analysis about your restructuring plan should be more helpful to the readers of your financial statements to understand your plan. To be more helpful to the readers, in future filings please provide more detailed discussion including, but not limited to, the overall strategy, the objective behind your restructuring plan, the duration of the plan and how each of your restructuring charges fit into your overall plan.

13. Long Term Debt and Capital Leases, page 78

6. We note that on October 12, 2006 you issued \$72.0 million in convertible senior subordinated notes and determined the conversion feature should be classified as equity under your evaluation in accordance with EITF 00-19. Please explain to us about the

terms of the conversion feature in greater detail and provide us with your analysis as to why equity classification of the conversion feature is appropriate. Please cite the accounting literature that supports your conclusions.

14. Share-Based Compensation, page 81

Stock Options and ESPP, page 84

7. We note that you granted 136,826 stock options in exchange for the stock options held by the employees of Catalyst in connection with the Catalyst merger. From your disclosure, however, it is unclear how you computed the total compensation cost for the exchanged stock options. Note the exchange of share options in conjunction with a business combination is a modification under the guidance of SFAS 123(R). Further, the total compensation cost measured at the date of modification shall be the portion of grant-date fair value of the original award plus the incremental cost resulting from the modification. Please refer to paragraphs 51 and 53 of SFAS 123(R) and explain to us how your calculation, valuation and accounting for the exchange is in accordance with SFAS 123(R). Revise your disclosure in future filings as necessary to clarify your accounting for this matter.

Restricted Stock, page 86

8. We note that you eliminated the deferred stock compensation related to your restricted stock upon adoption of SFAS 123(R). Please explain to us how you accounted for unvested and outstanding restricted stock at the date of your adoption of SFAS 123(R). Also explain to us how your accounting is in compliance with SFAS 123(R). Revise your disclosure in future filings to clarify your accounting for this matter.

19. Segment and Geographic Information, page 88

9. Disclosure of long-lived assets by geographic area under SFAS 131 should present tangible assets only and should not include intangibles. See question 22 to the FASB publication "Segment Information: Guidance on Applying Statement 131." Please note our comment when preparing future filings.

Item 9A. Controls and Procedures, page 94

10. We note from your disclosure that your management including your Chief Executive Officer and Chief Financial Officer concluded that your disclosure controls and procedures are effective in recording, processing, summarizing and reporting, on a timely basis, information required to be disclosed in your reports filed or submitted under the Exchange Act. Please confirm and revise future filings to clarify, if true, that your officers concluded that your disclosure controls and procedures are also effective to ensure that information required to be disclosed in the reports that you file or submit

under the Exchange Act is accumulated and communicated to your management, including your chief executive officer and chief financial officer, to allow timely decisions regarding required disclosure. Refer to Rule 13a-15(e) of the Exchange Act.

Exhibit 31.1

11. We note that the identification of the certifying individual at the beginning of the certification required by Exchange Act Rule 13a-14(a) also includes the title of the certifying individual. Note that the certifications required under Exchange Act Rule 13a-14(a) must be in the exact form set forth in Item 601(b)(31) of Regulation S-K except as otherwise indicated in Commission statements or staff interpretations. In future filings, the identification of the certifying individual at the beginning of the certification should be revised so as not to include the individual's title.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that

- the company is responsible for the adequacy and accuracy of the disclosure in the filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

Sean B. O'Connor  
LeCroy Corporation  
February 22, 2008  
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You may contact Andri Boerman at (202) 551-3645 or me at (202) 551-3603 if you have questions regarding comments on the financial statements and related matters. In this regard, do not hesitate to contact Angela Crane, Branch Chief, at (202) 551-3554.

Sincerely,

Jay Webb  
Reviewing Accountant