



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3720

December 29, 2006

Via U.S. Mail and Fax (561-805-8004)

Mr. Evan McKeown
Senior Vice President and Chief Financial Officer
Applied Digital Solutions, Inc.
1690 South Congress Avenue, Suite 200
Delray Beach, FL 33445

RE: **Applied Digital Solutions, Inc.**
Form 10-K/A for Fiscal Year Ended December 31, 2005
Filed April 6, 2006

Forms 10-Q for Fiscal Quarter Ended March 31, 2006 and June 30, 2006
File No. 0-26020

Dear Mr. McKeown:

We have reviewed your supplemental response letter dated October 3, 2006 as well as your filing and have the following comments. As noted in our comment letter dated September 14, 2006, we have limited our review to your financial statements and related disclosures and do not intend to expand our review to other portions of your documents.

Form 10-K/A for the Year Ended December 31, 2005

Consolidated Financial Statements

Note 2. Financing Agreements, page F-25

1. Please refer to prior comment number 4. Please tell us how you concluded that the warrants should be accounted for as equity rather than liabilities. Provide us with your calculations of their fair market values. In determining the fair market value of the convertible note payable, tell us why you used \$5,350 rather than \$5,500. Tell us how you determined that the total proceeds were \$17,500 rather than \$18,000. Tell us why you used the fair market value of the stock rather than the conversion price to determine the amount of the beneficial conversion feature. We may have further comments.
Share Exchange Agreement, page F-28

2. Please refer to prior comment number 5. Tell us how you determined the value of your 1.98 million shares of common stock that you issued to Digital Angel on March 1, 2004. Tell us why you did not assign any value to the warrants to purchase up to 1 million shares of Digital Angel stock at an exercise price of \$3.74 per share. Please provide us with an analysis under the accounting literature that supports your financial reporting for each part of this entire transaction. We may have further comments.

Note 3. Acquisitions

VeriChip, Inc., page F-31

3. Please refer to prior comment number 9. Your methodology for recording the purchase price is not in accordance with paragraph 22 of FAS 141 which requires the use of the market price for a reasonable period before and after the date that the terms of the acquisition are agreed to and announced to determine the fair value of securities issued. Since you have not provided us with references to any authoritative accounting literature, please revise or advise.
4. Please refer to prior comment number 10. Tell us the implications of using March 31, 2005 rather than June 9, 2005 on your financial reporting for this transaction. What was your ownership before the acquisition and how would your financial results have changed if you had used that percentage ownership rather than 100% ownership until the actual date of acquisition, June 9, 2005.

DSD Holdings A/S, page F-33

5. Please refer to prior comment number 13. Your methodology for recording the purchase price is not in accordance with paragraph 22 of FAS 141 which requires the use of the market price for a reasonable period before and after the date that the terms of the acquisition are agreed to and announced to determine the fair value of securities issued. Since you have not provided us with references to any authoritative accounting literature, please revise or advise.
6. Please refer to prior comment number 14. Tell us why you believe that the legal life of a US patent is the appropriate useful life for Danish patents. Tell us the remaining period for each Danish patent acquired. Tell us the actual period for the noncompete agreement. Please provide us with a more detailed analysis regarding your determination of a 15 year useful life for customer relationships.

Share Exchange Agreements, page F-36

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7. Please refer to prior comment number 17. You reference paragraphs 11 and 14 of FAS 141 as your authority for your accounting treatment for the exchanges of stock. These paragraphs refer to the accounting when a minority interest is purchased. Tell us your financial reporting for these exchanges, including the accounting literature upon which you relied.

Note 15. Asset Impairment, page F-54

8. Please refer to prior comment number 22. Please revise your disclosure in your next submission to include the information in your response.

Forms 10-Q for March 31, 2006, June 30, 2006 and September 30, 2006

9. Please refer to prior comment number 23. Revise, as applicable, for comments issued regarding Form 10-K/A for the year ended December 31, 2005.

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Please respond to these comments within 10 business days or tell us when you will provide us with a response. You may contact Sharon Virga, Senior Staff Accountant, at (202) 551-3385, or Dean Suehiro, Senior Staff Accountant, at (202) 551-3384 if you have questions regarding comments on the financial statements and related matters. Please contact me at (202) 551-3810 with any other questions.

Sincerely,

Larry Spigel
Assistant Director