

Mail Stop 4561

March 4, 2009

Rick E. Russo
Sr. Vice President and Chief Financial Officer
Accelrys, Inc.
10188 Telesis Court, Suite 100
San Diego, CA 92121

Re: Accelrys, Inc.
Form 10-K for the fiscal year ended March 31, 2008
Filed June 5, 2008
File No. 000-27188

Dear Mr. Russo:

We have reviewed your response letter dated February 12, 2009 in connection with the above-referenced filings and have the following comment. If indicated, we think you should revise your document in response to this comment. 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 our comment, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may raise additional comments. Unless otherwise noted, where prior comments are referred to they refer to our letter dated January 29, 2009.

1. We note your response to our comments 1 and 5, where you state that you are unable to precisely and objectively quantify the significance and potential effects of certain conditions and events described in your risk factors. Please note that you are required to provide quantitative information that will inform potential investors regarding the extent of the risk that is posed by the conditions or uncertainties you identify. See Item 503(c) of Regulation S-K. While Item 503 does not require you to provide a precise amount you should generally be able to convey informative quantitative information by providing a range, estimates or examples in quantitative terms. Such disclosure would provide investors with information needed to assess the magnitude and scope of the risk. Please confirm that you will provide such disclosure, as applicable, in your future filings.

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Please respond to this comment within 10 business days or tell us when you will provide us with a response. Please submit all correspondence and supplemental materials on EDGAR as required by Rule 101 of Regulation S-T. If you amend your filing(s), you may wish to provide us with marked copies of any amendment to expedite our review. Please furnish a cover letter that keys your response to our comment and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing any amendment and your response to our comment.

You may contact Patrick Gilmore, at (202) 551-3406 if you have any questions regarding comments on the financial statements and related matters. Please address questions regarding all other comments to Ryan Houseal, Staff Attorney, at (202) 551-3105 or if further assistance is required, Mark Shuman, Legal Branch Chief at (202) 551-3462. If you need further assistance, you may contact me at (202) 551-3499.

Sincerely,

Kathleen Collins
Accounting Branch Chief