

**UNITED STATES OF AMERICA
BEFORE FEDERAL TRADE COMMISSION**

In the Matter of

MSC.SOFTWARE CORPORATION, a corporation.

Docket No. 9299

COMPLAINT

Pursuant to the provisions of the Federal Trade Commission Act and the Clayton Act, and by virtue of the authority vested in it by said Acts, the Federal Trade Commission (hereafter "Commission"), having reason to believe that MSC.Software Corporation (hereafter "MSC" or "Respondent") acquired Universal Analytics Inc. (hereafter "UAI") and Computerized Structural Analysis & Research Corporation (hereafter "CSAR") in violation of Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18, and Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. § 45, and it appearing to the Commission that a proceeding in respect thereof would be in the public interest, hereby issues its complaint stating its charges in that respect as follows:

RESPONDENT MSC.SOFTWARE CORPORATION

1. Respondent is a for-profit corporation organized, existing and doing business under and by virtue of the laws of the State of Delaware, with its principal place of business located at 2 MacArthur Place, Santa Ana, California 92707.
2. Respondent had approximately \$178 million in annual revenue for the fiscal year ending December 31, 2000. Respondent is a developer and supplier of simulation computer software, including advanced simulation software used by the aerospace, automotive and other manufacturing industries. Respondent has long offered an advanced version of a linear structural analysis engineering software product called "Nastran."
3. Respondent is, and at all times relevant herein has been, engaged in commerce as "commerce" is defined in Section 1 of the Clayton Act, as amended, 15 U.S.C. § 12, and is a corporation whose business is in or affects commerce as "commerce" is defined in Section 4 of the Federal Trade Commission Act, as amended, 15 U.S.C. § 44.

THE ACQUISITION OF UNIVERSAL ANALYTICS INC.

4. Prior to its acquisition by Respondent, UAI was a privately-held corporation organized, existing and doing business under and by virtue of the laws of the State of California.
5. Since before the early 1970s, UAI had been a developer and supplier of simulation computer software, including advanced simulation software used by the aerospace, automotive and other manufacturing industries. UAI had long offered an advanced version of Nastran in competition with Respondent.
6. On or about June 24, 1999, Respondent acquired UAI for approximately \$8.4 million.

**THE ACQUISITION OF COMPUTERIZED STRUCTURAL
ANALYSIS & RESEARCH CORPORATION**

7. Prior to its acquisition by Respondent, CSAR was a privately-held corporation organized, existing and doing business under and by virtue of the laws of the State of California.

8. Since before 1986, CSAR had been a developer and supplier of simulation computer software, including advanced simulation software used by the aerospace, automotive and other manufacturing industries. CSAR had long offered an advanced version of Nastran in competition with Respondent.

9. On or about November 4, 1999, Respondent acquired CSAR for approximately \$10 million.

TRADE AND COMMERCE

10. Developers of new industrial and consumer products may use computer-aided engineering analysis to simulate and evaluate the robustness of new product designs.

11. Computer simulations in the product development process typically utilize an analytical method called "finite element analysis" ("FEA"). FEA simulates how a structure would perform in response to a defined load. With finite element analysis, computerized models of structures are first divided into small elements, which form a finite element model, and then subjected to computer analysis to simulate the structure's performance. The software performing this computer analysis is often called a "solver" or "FEA solver."

12. FEA solvers have been developed to perform many different types of engineering analyses.

13. FEA solvers are differentiated software products with varying features and capabilities. FEA solvers may be differentiated by, among other characteristics, the types of analyses performed, price level, ease of use, speed, size and complexity of problems that can be analyzed, ability to perform system-type analysis, availability of complementary software, type of output and input file format utilized, and computer platform and operating system on which the solver operates. FEA solvers are also differentiated by their record of reliability.

14. "Nastran" is an FEA solver first developed by the U.S. National Aeronautics and Space Administration ("NASA") over 30 years ago to perform structural analysis for NASA projects. In developing Nastran, NASA wanted a solver to perform a broad range of structural analyses and have the capacity to be further developed and enhanced. After the initial development of Nastran, NASA released the Nastran source code into the public domain to allow broader use and commercial development. NASA registered "Nastran" as a U.S. trademark in 1976.

15. MSC, UAI and CSAR obtained the public domain version of Nastran from NASA and for many years have developed and further enhanced Nastran for licensing to commercial and government users. Each has used the Nastran trademark with permission from NASA. At the time of Respondent's acquisitions, the features and capabilities of each of these three advanced versions of Nastran were very similar.

16. The aerospace and automotive industries began using the advanced versions of Nastran in the 1970s for advanced linear structural analysis. Nastran has become the standard linear structural solver in these industries. Certain other manufacturing industries also utilize Nastran for advanced linear structural analysis.

17. Prior to Respondent's acquisitions, users of the advanced versions of Nastran offered by MSC, UAI, or CSAR could readily switch between these versions without substantial loss of functionality because each version offered very similar features and capabilities. Differences in functionality discourage switching from advanced versions of Nastran to other solvers even in response to a significant and nontransitory increase in price.

18. Prior to Respondent's acquisitions, users of the advanced versions of Nastran offered by MSC, UAI, or CSAR could readily switch between these versions relatively quickly and without spending significant switching costs and time. The advanced versions of Nastran were all derived from the same Nastran public domain code, offered very similar features and capabilities, and used generally the same input and output file formats. Differences in computer code, features and capabilities, and file formats discourage switching from advanced versions of Nastran to other solvers even in response to a significant and nontransitory increase in price.

19. Industry practices or the requirements of multi-party development projects sometimes dictate the use of advanced versions of Nastran, thereby discouraging substitution away from advanced versions of Nastran even in response to a significant and nontransitory increase in price.

20. Prior to Respondent's acquisitions, competition between MSC, UAI, and CSAR to license or sell advanced versions of Nastran was direct and vigorous and helped to hold down prices and to promote product innovation. Prior to Respondent's acquisitions, users had switched and had considered switching between these advanced versions of Nastran in response to relative changes in price and other competitive variables including product features, capabilities, and enhancements.

RELEVANT PRODUCT MARKETS

21. One relevant product market in which to assess the likely effects of Respondent's acquisitions of UAI and CSAR is the licensing or sale of advanced versions of Nastran.

22. Another relevant product market in which to assess the likely effects of Respondent's acquisitions of UAI and CSAR is the broader market consisting of the licensing or sale of FEA solvers for advanced linear structural analysis.

23. Within each of the relevant product markets, separate markets exist for the licensing or sale of the relevant product for specific industries or customer categories, in particular, the aerospace industry and the automotive industry.

RELEVANT GEOGRAPHIC MARKETS

24. The relevant geographic markets in which to assess the likely effects of Respondent's acquisitions of UAI and CSAR are

- a. the United States; and
- b. the world.

CONCENTRATION

25. Prior to Respondent's acquisitions, MSC, UAI, and CSAR were the only firms competing in the licensing or sale of advanced versions of Nastran. MSC was the dominant competitor with an estimated market share of 90 percent. The remaining share was roughly split between UAI and CSAR. The market for advanced versions of Nastran prior to the acquisitions was highly concentrated with a Herfindahl-Hirschman Index ("HHI") exceeding 8100. (An HHI of 1800 characterizes a highly concentrated market.) Respondent's acquisitions of UAI and CSAR, together and individually, substantially increased that concentration so that the HHI is now 10,000.

26. Prior to Respondent's acquisitions, there were few suppliers competing in the licensing or sale of FEA solvers for advanced linear structural analysis other than MSC, UAI, and CSAR. Prior to Respondent's acquisitions, the market for FEA solvers for advanced linear structural analysis was highly concentrated.

Respondent's acquisitions of UAI and CSAR, together and individually, substantially increased that concentration.

CONDITIONS OF ENTRY

27. Entry into licensing or sale of advanced versions of Nastran would not be timely, likely, or sufficient to prevent the anticompetitive effects. Entry is difficult because of the substantial cost and time needed to develop an advanced version of Nastran, validate simulation results, and establish a reputation for reliability.

28. Entry into the licensing or sale of FEA solvers for advanced linear structural analysis would not be timely, likely, or sufficient to prevent the anticompetitive effects. Entry is difficult because of the substantial cost and time needed to develop an FEA solver for advanced linear structural analysis, validate simulation results, and establish a reputation for reliability.

COUNT I

THE ACQUISITIONS VIOLATE CLAYTON ACT § 7 AND FTC ACT § 5

29. Respondent's acquisitions of UAI and CSAR, together and individually, have had or will have the effect of substantially lessening competition and tending to create a monopoly in the relevant markets by, among other things:

- a. eliminating actual, direct, and substantial competition between MSC, UAI, and CSAR, all of which had the ability and incentive to compete, and before the acquisitions did compete, on price and product development and enhancements;
- b. creating or enhancing MSC's power to raise prices above a competitive level or to withhold or delay product development and enhancements, thereby adversely affecting price and product innovation; and
- c. preventing other suppliers of engineering software from acquiring UAI and CSAR and increasing competition.

30. Absent the relief described in the attached Notice of Contemplated Relief, Respondent's acquisitions of UAI and CSAR, together and individually, will continue to cause the effects on competition identified above.

31. The effect of Respondent's acquisitions of UAI and CSAR, together and individually, may be substantially to lessen competition or tend to create a monopoly in violation of Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18, and Section 5 of the FTC Act, as amended, 15 U.S.C. § 45.

COUNT II

THE ACQUISITIONS CONSTITUTE UNLAWFUL MONOPOLIZATION IN VIOLATION OF FTC ACT § 5

32. The allegations contained in Paragraphs 1 through 28 are repeated and realleged as though fully set forth here.

33. Respondent has obtained or enhanced monopoly power in the markets for advanced versions of Nastran through the acquisitions.

34. Respondent acted willfully to acquire or enhance monopoly power in the markets for advanced versions of Nastran through the acquisitions.

35. Through the acquisitions, Respondent has engaged in unfair methods of competition in or affecting commerce by monopolizing the markets for advanced versions of Nastran in violation of Section 5 of the Federal Trade Commission Act, 15 U.S.C. § 45.

COUNT III

THE ACQUISITIONS CONSTITUTE AN UNLAWFUL ATTEMPT TO MONOPOLIZE IN VIOLATION OF FTC ACT § 5

36. The allegations contained in Paragraphs 1 through 28 are repeated and realleged as though fully set forth here.

37. Respondent has engaged in an anticompetitive course of conduct by willfully seeking to obtain or enhance monopoly power in the markets for advanced versions of Nastran through the acquisitions.

38. Respondent acted with a specific intent to monopolize, and to destroy competition in, the markets for advanced versions of Nastran through the acquisitions.

39. At the time Respondent acquired UAI and CSAR, it had a dangerous probability of success in monopolizing the markets for advanced versions of Nastran.

40. Through the acquisitions, Respondent has engaged in unfair methods of competition in or affecting commerce by attempting to monopolize the markets for advanced versions of Nastran in violation of Section 5 of the Federal Trade Commission Act, 15 U.S.C. § 45.

NOTICE

Proceedings on the charges asserted against you in this complaint will be held before an Administrative Law Judge (ALJ) of the Federal Trade Commission, under Part 3 of the Commission's Rules of Practice, 16 C.F.R. Part 3. A copy of Part 3 of the Rules is enclosed with this complaint.

You may file an answer to this complaint. Any such answer must be filed within 20 days after service of the complaint on you. If you contest the complaint's allegations of fact, your answer must concisely state the facts constituting each ground of defense, and must specifically admit, deny, explain, or disclaim knowledge of each fact alleged in the complaint. You will be deemed to have admitted any allegations of the complaint that you do not so answer.

If you elect not to contest the allegations of fact set forth in the complaint, your answer shall state that you admit all of the material allegations to be true. Such an answer will constitute a waiver of hearings as to the facts alleged in the complaint and, together with the complaint, will provide a record basis on which the ALJ will file an initial decision containing appropriate findings and conclusions and an appropriate order disposing of the proceeding. Such an answer may, however, reserve the right to submit proposed findings and conclusions and the right to appeal the initial decision to the Commission under Section 3.52 of the Commission's Rules of Practice.

If you do not answer within the specified time, you waive your right to appear and contest the allegations of the complaint. The ALJ is then authorized, without further notice to you, to find that the facts are as alleged in the complaint and to enter an initial decision and a cease and desist order.

The ALJ will schedule an initial prehearing scheduling conference to be held not later than 14 days after the last answer is filed by any party named as a respondent in the complaint. Unless otherwise directed by the ALJ, the scheduling conference and further proceedings will take place at the Federal Trade Commission, 600 Pennsylvania Avenue, N.W., Washington, D.C. 20580. Rule 3.21(a) requires a meeting of the parties' counsel as early as practicable before the prehearing scheduling conference, and Rule 3.31(b) obligates counsel for each party, within 5 days of receiving a respondent's answer, to make certain initial disclosures without awaiting a formal discovery request.

A hearing on the complaint will begin on January 9, 2002, at 10 a.m., in Room 532, or such other date as determined by the ALJ. At the hearing, you will have the right to contest the allegations of the complaint and to show cause why a cease and desist order should not be entered against you.

NOTICE OF CONTEMPLATED RELIEF

Should the Commission conclude from the record developed in any adjudicative proceedings in this matter that the acquisitions of UAI and CSAR violate Section 7 of the Clayton Act, as amended, or Section 5 of the Federal Trade Commission Act, as amended, as alleged in the complaint, the Commission may order such relief as is supported by the record and is necessary and appropriate, including but not limited to:

1. An order to create and divest up to two viable on-going businesses each engaged in the licensing or sale of an advanced version of Nastran in competition with MSC Nastran to up to two acquirers acceptable to the Commission, including but not limited to:
 - a. divesting all software, intellectual property, and other assets for the operation of such businesses, including but not limited to the following for MSC Nastran and all MSC Nastran applications, features, enhancements, and library functions for all operating systems and computer platforms: the source code, object libraries, executable programs, test problems, test results, regression test software, development support software, trade secrets, trademarks, patents, know-how, interfaces with complementary software, APIs, manuals, guides, reports, and other documentation;
 - b. facilitating the acquirers' recruitment of Respondent's employees, including but not limited to providing employee lists, personnel files, opportunities to interview and negotiate with the acquirers, eliminating any restrictions on or disincentives to accepting employment with the acquirers, and providing incentives for such employees to accept employment with the acquirers;
 - c. providing Respondent's customer lists and account information to the acquirers;
 - d. allowing Respondent's customers to terminate or rescind contracts or license agreements and to deal with the acquirers, including but not limited to eliminating any restrictions on or disincentives to terminating or rescinding such contracts or license agreements and otherwise refunding or returning consideration paid in advance pursuant to such contracts or license agreements;
 - e. furnishing to the acquirers such personnel, information, technical assistance, advice and training as are necessary;
 - f. for a defined period of time, maintaining open architecture for MSC Nastran and all input and output file formats so that users of MSC Nastran would not be impeded or penalized if they switched models, files, or complementary software to the divested versions of Nastran;
 - g. for a defined period of time, not restricting, precluding, or influencing a supplier of complementary software or services from dealing with the acquirers or the acquirers' products;

h. for a defined period of time, supporting fully the divested versions of Nastran with Patran and other MSC complementary software products, without charge to the acquirers and on the same basis as MSC Nastran is supported by Patran and other MSC complementary software products; and

i. such other or additional relief as is necessary to ensure the creation of up to two viable, competitive, and independent entities offering advanced versions of Nastran with the level of features and capabilities offered by MSC.

2. An order to provide prior notice of any acquisitions of firms engaged in the licensing or sale of advanced versions of Nastran or other solvers for advanced linear structural analysis.

3. Such other or additional relief as is necessary to correct or remedy the violations alleged in the complaint.

WHEREFORE, THE PREMISES CONSIDERED, the Federal Trade Commission on this ninth day of October, 2001, issues its complaint against said Respondent.

By the Commission.

Donald S. Clark
Secretary