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UNITED STATES OF AMERICA BEFORE THE FEDERAL TRADE COMMISSION

IN THE MATTER OF)	PUBLIC VERSION
MSC.SOFTWARE CORPORATION,)	Docket No. 9299
a corporation.))	

MSC.SOFTWARE'S OPPOSITION TO COMPLAINT COUNSEL'S MOTION IN LIMINE TO EXCLUDE EVIDENCE OF DASSAULT AS A COMPETITOR

Simply put, Complaint Counsel seeks to have Your Honor exclude all evidence that Dassault competes with MSC. Nastran based upon two reasons – both of which are incorrect and improper grounds for a motion in limine. *First*, Complaint Counsel doesn't seem to think that MSC can put forth *enough* evidence of competition by Dassault and its ELFINI solver – an argument that goes to the weight of the evidence, not to its admissibility. *Second*, Complaint Counsel asks this Court to create new law – indeed, contrary to existing antitrust authorities – that a company with a passive, minority ownership position in an antitrust defendant is automatically excluded from a relevant product market in which both companies compete. Complaint Counsel's motion in limine regarding Dassault should be rejected on both grounds.

EVIDENCE THROUGHOUT THE INDUSTRY SHOWS THAT DASSAULT COMPETES WITH MSC.SOFTWARE AND ELFINI COMPETES WITH MSC.NASTRAN

The fact of the matter is that Complaint Counsel – in its effort to rig a market definition that excludes all companies other than MSC and the acquired entities – would rather not contend with evidence at trial that undermines this house of cards. Instead of putting on its own evidence about competition in the marketplace or responding to MSC's evidence at trial,

Complaint Counsel asks Your Honor to ease its burden and remove a significant obstacle to Complaint Counsel's novel and faulty market definition – Dassault and its competitive ELFINI solver.

In asking Your Honor to judicially disregard evidence of competition by Dassault and its ELFINI solver, Complaint Counsel – without citation or foundation – claims that there is "little or no evidence" of competition between MSC.Nastran and Dassault's ELFINI solver. (CC Brf. at 6.) Complaint Counsel fails to inform Your Honor that its request ignores a relevant and disputed issue of material fact – something entirely inappropriate for exclusion by motion in limine. Indeed, Complaint Counsel has long been aware of the record evidence demonstrating Dassault's competition with MSC.Nastran through its ELFINI solver.

Complaint Counsel's naked assertion that MSC might "resurrect the argument to claim anew that ELFINI" competes with MSC.Nastran is a misleading and half-hearted attempt to ascribe some quasi-laches-type conduct to MSC where none exists. (CC Brf. at 3.) MSC has asserted that Dassault and its ELFINI solver compete with MSC.Nastran consistently throughout this case — in discovery responses, depositions, expert reports, and in its proposed findings of fact. Just because Complaint Counsel has not amassed any discovery to meet *its burden* of showing that Dassault and ELFINI are not competitive with MSC.Nastran is no justification for excluding MSC from offering such evidence at trial.

As a threshold matter, what is most troubling about Complaint Counsel's motion is that it fails to acknowledge that Complaint Counsel's own economic expert – FTC employee Dr. Hilke – admitted in his expert report that Dassault competes with MSC.Nastran in his "advanced linear structural analysis" market. (Hilke Report at ¶169.)¹

¹Complaint Counsel had a duty to make Your Honor aware of this material fact. DC Rule of Professional Conduct 3.3(a)(1) provides, "A lawyer shall not knowingly ... make a false statement of material fact or law to a tribunal." Comment 2 elaborates, "There may be circumstances where failure to make a disclosure is the equivalent of an affirmative misrepresentation."

As set forth in MSC's Proposed Findings of Fact – pages of which relate to Dassault and are attached as Attachment A – the record is replete with instances of MSC reacting to competitive pressure from Dassault and its ELFINI solver (which can be embedded in Dassault's industry-leading CATIA computer-aided-design program). For example:

Consistent with these and other contemporaneous documents – from the files of both customers and other competitors in addition to MSC – MSC employee Ron Dyer testified during discovery that

(Dyer Dep. Tr. at 79:17-18.)

Similarly, both MSC's economic and industry experts have provided expert reports and testimony on the subject of Dassault's and ELFINI's competition with MSC and MSC.Nastran respectively. (See Kearl Report at 14-15; Kearl Supp. Report at 29-30; Versprille Report at ¶¶ 19-22, 28, 42-47.)

Apparently in an effort to prevent Dr. Hilke from having to face cross-examination on his admission that Dassault's ELFINI competes with MSC.Nastran, Complaint Counsel would have Your Honor not only rule that Dassault's ELFINI is not a competitor to MSC.Nastran, but to do so as a matter of law without hearing any of the conflicting evidence on that point. Complaint Counsel's position is contrary to law and invites error.

Complaint Counsel's attempt to pre-try a factual question through a motion in limine is inappropriate. See 22 CHARLES A. WRIGHT AND KENNETH W. GRAHAM, JR., FEDERAL PRACTICE AND PROCEDURE § 5165 (2002) ("The judge cannot make decisions as to the weight of the evidence under the guise of determining relevance."). It is for this reason that Complaint Counsel does not cite this Court to a single case where a motion in limine was granted so as to exclude at trial evidence-of whether or not a particular company was a competitor in the relevant market.

"'Relevant evidence' means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence." FED. R. EVID. 401. Clearly whether Dassault's ELFINI solver competes with MSC.Nastran is of consequence to, among other things, the definition of the relevant product market and whether the acquisitions had a substantial anticompetitive effect.

COMPLAINT COUNSEL'S "INDEPENDENT COMPETITOR" STANDARD IS WITHOUT SUPPORT

Complaint Counsel's argument that MSC and Dassault are not "independent competitors" is premised on an undisclosed standard which is nowhere to be found in existing antitrust case law and which Complaint Counsel does not define as part of its motion in limine. Under Complaint Counsel's logic, any time two competitors have any passive, partial ownership of one another or any business dealings, any evidence that the two firms compete is irrelevant for antitrust purposes.

Complaint Counsel's only bases for this radical approach are two assertions – again without citation or foundation – that are incorrect and inappropriate for a motion in limine.

First, Dassault's 9% passive equity position does not preclude ELFINI as a competitor. Complaint Counsel claims that because Dassault owns 9% of publicly-traded MSC.Software stock, the companies should be judicially determined to not be competitors, regardless of and without the need for any factual evidence at trial.

As an initial matter, Complaint Counsel's contention that this passive stock ownership was in connection with an "alliance" between Dassault and MSC is entirely incorrect. The actual facts are that MSC acquired a company called AES in a stock transaction in 1999. Prior to that acquisition, Dassault held an ownership interest in AES. As a result, when AES was acquired by MSC, Dassault received MSC stock as payment for its equity stake in AES.

That's it – it's as simple as that – Dassault, just like any other shareholder of AES, was given MSC stock as part of an acquisition unrelated to the acquisitions at issue in this case. Since that time, Dassault has not been involved in any management of MSC business nor has it been entitled to any information or competitive data as a result of Dassault's passive ownership of MSC stock that is not also made available to any other MSC shareholder or the general public. Indeed, further demonstrating their independence from any governance of MSC,

In "support" of its position, Complaint Counsel claims that it is "well recognized" that a minority ownership interest "can affect" the incentives of the companies. (CC Brf. at 5.) Exactly the contrary is the case. The *Hart-Scott-Rodino Act* itself considers passive investments of less than 10% to be exempt from reporting requirements – certainly not the presumptively anticompetitive alignment that Complaint Counsel needs for its theory. Here, Dassault's passive stock ownership is only 9% of MSC's outstanding stock.

Indeed, Professor Areeda has opined that "a noncontrolling acquisition has no intrinsic threat to competition at all. And a small holding or small share of another – whether rival, supplier, customer, or occupant – is not likely to affect anyone's behavior." See Areeda Vol. V, ¶ 1203d (1980).

Complaint Counsel's misplaced reliance on the O'Brien and Salop article goes to Complaint Counsel's credibility generally. In evaluating Complaint Counsel's position that partial ownership should be viewed as complete mergers, they make clear that Complaint Counsel's argument "seems wrong if the firms' managers retain some independence." 67 Antitrust L.J. at 560. Complaint Counsel has shown no evidence that MSC's management is not independent from Dassault and vice-versa – indeed, there is direct evidence to the contrary in the discovery record. (See Attachment A.)²

Second, efforts to develop CAE applications compatible with Dassault's CATIA

CAD program do not eliminate competition with Dassault. Complaint Counsel tries to brand

Dassault and MSC as being in an "alliance" that somehow undermines the competition between
the ELFINI and MSC.Nastran solvers. Again, Complaint Counsel makes naked factual
assertions and simply misses or ignores salient facts.

What Complaint Counsel ignores is that Dassault makes an industry-leading CAD program called CATIA. As part of a growing industry trend, customers want their computer-aided-engineering (CAE) software, such as MSC.Patran or MSC.Nastran, to be integrated (or, at the very least, interoperable) with their CAD software.

Similarly, Complaint Counsel's reliance on a consent decree proves MSC's point and contradicts Complaint Counsel's own position. Unlike the rights that were divested in that instance, Dassault does not have any directorial rights as a result of its 9% ownership of publicly-traded MSC stock, nor are Dassault or any of its employees involved in MSC decision making.

In its current iteration, CATIA uses what is called a V5 architecture as the base of its operation. In order to provide customers with much-desired interoperability and an integrated CAD/CAE development process, various CAE product developers have entered into "alliances" with Dassault to develop their CAE products to be compatible with the V5 architecture of CATIA. For example, Complaint Counsel fails to tell the Court that numerous CAE companies other than MSC -

These arrangements

CAE providers must integrate their

products with the leading CAD systems, including Dassault's CATIA, because customers demand a more seamless CAD/CAE experience.

As recognized by the proposed Antitrust Guidelines for Collaborations Among Competitors (April 2000), "collaborations [among competitors] often are not only benign but procompetitive" (Id. at 1.) Those proposed Guidelines teach that, if a collaboration is not per se unlawful – and there is no such allegation here – it is to be "evaluated under the rule of reason, which involves a factual inquiry into an agreement's overall competitive effect." (Id. at 3.) Complaint Counsel should not be excused from its burden of having to prove that these agreements to promote CAD/CAE interoperability are anticompetitive.

Moreover, there is no evidence that Dassault plans to discontinue its own FEA solver ELFINI as a result of any of these V5 interoperability agreements. To the contrary, as recently as last year, both MSC and Dassault told

CONCLUSION

Complaint Counsel's flawed motion in limine demonstrates the general shortcomings of Complaint Counsel's credibility – it fails to acknowledge its own expert's admissions, ignores a collection of facts available throughout discovery, and misrepresents the state of the law in an effort to lessen its burden at trial. Even if all of its assertions were true – which they are certainly not – Complaint Counsel has done nothing more in its motion than raise a disputed question of fact as to whether ELFINI competes with MSC.Nastran. Complaint Counsel invites this Court into uncharted waters and clear error when it asks Your Honor to lower its burden at trial by establishing that particular companies do not compete "enough" with MSC.Nastran to be "independent competitors" in advance of even establishing its product market, over evidence to the contrary, and without hearing any testimony at trial going to the credibility of Complaint Counsel's assertions. Complaint Counsel's request is not an appropriate motion in limine and should be denied.

Complaint Counsel's motion — even if it were well-founded — would not eliminate or significantly reduce the evidence at trial on the competition in the marketplace facing MSC.Nastran. In addition to Dassault's ELFINI, MSC.Nastran faces significant competition from numerous other competitors and new entrants that are eager to take business away from MSC.Nastran. (See MSC Findings of Fact at ¶¶ 131 - 354.)

Respectfully submitted,

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Dated: July 2, 2002

ATTACHMENT A

UNITED STATES OF AMERICA BEFORE THE FEDERAL TRADE COMMISSION

	<u> </u>	
IN THE MATTER OF	`	NON-PUBLIC VERSION
MSC.SOFTWARE CORPORATION,)	Docket No. 9299
a corporation.)	·
,)	,

MSC.SOFTWARE CORPORATION'S PROPOSED FINDINGS OF FACT

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the existence of an "Advanced Nastran" only market. Some users genuinely love MSC. Nastran and would not switch their FEA solver usage in response to a 5 or 10% price increase. But these *inframarginal* users suggest an "MSC. Nastran market," not an "Advanced Nastran market." The many *marginal* users allow numerous opportunities for *partial switching* to alternative FEA solvers if MSC prices supracompetitively. See infra ¶ 315-22.

- 24. This is especially true since there are many other FEA solvers that can do most of the work that MSC. Nastran can do and that offer their own competitive advantages. These solvers and MSC's actual and potential customers' willingness and ability credibly to threaten to switch to them collectively constrain MSC's (and the other companies') ability to raise prices above competitive levels. See infra ¶ 139-349.
- 25. ANSYS, for example, can not only solve the same engineering problems as MSC, but it also offers customers an integrated platform for advanced computer simulation. For these reasons, ANSYS believes that it can "dominate" computer simulation (which is what these tools are really all about), and overtake its "primary competitor," MSC. Because there is such great competition to become a customer's preferred vendor of computer simulation tools (including FEA solvers),

Other competitors, such as Dassault, also provide a significant competitive constraint on MSC. For example, in the aerospace segment of the market, ELFINI is used prominently at Boeing. Other aerospace companies, such as Cessna, also consider ELFINI to be a close substitute for MSC.Nastran. In the automotive segment, Honda also uses ELFINI to perform the same types of analysis that is performed using MSC at other automotive companies. Dassault also has the leading CAD platform, Catia, which is well-used throughout the automotive industry. And there are a number

⁶ The sole exception is MSC's "#1 Competitor" ANSYS – which does so in express contradiction of its internal documents, presentations to customers and public statements – as part of its obvious strategy to raise its rivals' costs, divert MSC's revenues and human resources away from product development and other competition with ANSYS, all as part of its "partnership" with Complaint Counsel in this matter. See infra ¶ 135-73.

of other vendors of FEA solver technology, including HKS/ABAQUS, ANSYS, and LMS that operate on the Catia architecture.

- 27. Complaint Counsel admits that ANSYS and Dassault compete with MSC in an "advanced linear FEA solver" market. Again no identified trial witness has testified to any industry recognition of such a narrow "market." Yet, the industry participants recognize and utilize many other FEA solvers that also do what Complaint Counsel sometimes describes as "advanced linear" analysis. These include, in addition to ANSYS and Dassault, HKS' ABAQUS, Permas, SDRC's Ideas, Internal Codes, Cosmos, NE/Nastran, PTC's Mechanica, Algor, Altair, MI/Nastran, and NISA. Each of these FEA solvers collectively and individually effectively constrain MSC (and each other) from pricing supracompetitively. *See infra* ¶¶ 131-356.
- 28. Compliant Counsel and Dr. Hilke attempt to move to ABAQUS out of the relevant market because of ABAQUS' recognized leadership position in non-linear analysis; but this narrow-minded view simply ignores the plain fact recognized by MSC, HKS and their customers that ABAQUS has extremely robust linear capabilities which can fully or partially replace MSC. Nastran. In fact,
- 29. Among some small customers, where UAI and CSA were viewed as potential vendors in 1999, many competitive vendors were (and are) present. NE/Nastran, for example, continues to provide a low-cost Nastran-compatible solver. Significantly, NE/Nastran's sales have been growing at an exponential rate since MSC's acquisitions of UAI and CSA.
- 30. ANSYS has teamed up with Richard MacNeal (the co-founder of MSC) and Harry Schaeffer (one of MSC's former lead developers) to offer AI*Nastran, a Nastran-based code, projected to be superior to anything CSA or UAI had and eventually to be a "Superior" to MSC.Nastran. ANSYS projects that it will within two (2) years and without any evidence of a supracompetitive price increase have

 In addition, AI*Nastran will be sold as part of ANSYS' efforts to provide customers with a total solution to their engineering needs. AI*Nastran will be integrated with ANSYS' other products and sold with the development and world-wide sales support of ANSYS, a company with revenues of \$85 million, growing and projected to continue growing at a compound 12.3% rate. See infra ¶ 186-196.

This "mistake," coupled with an

earlier misrepresentation to Ford, damaged CSA's credibility and put the company "in the same position we have [been in] for the past 10 years – playing 'catch up' to MSC." RX 187.

- 82. Another reason for CSA's failure to grow was the fact that customers were also "interest[ed] in other general-purpose codes," of which there were "lots." Swami I.H. Tr. at 25:15-26:24. For example, "in addition to the various flavors of Nastran, there [was] ANSYS, ABAQUS, COSMOS, NISA, ALGOR ..., SDRC, ... PTC, [and] ELFINI." *Id.* Dr. Swami explained that, in his view, all of these codes "have features of analysis for all mechanical industries, [including] aircraft, automobile, [and] general industry." Swami I.H. Tr. at 38:8-39:8. And Dr. Swami made clear that "competition spanned amongst all finite element codes," not just among Nastran-based solvers. Swami I.H. Tr. at 37: 2-17.39
- 83. Because of the prevalence of alternative codes, and its inferiority when compared to MSC, CSA found that they did not have much success at most major accounts. Neither GM nor Boeing

³⁸ Significantly, Dr. Swami testified that there was nothing that was particularly unique about Nastranbased solvers, although each solver — *including MSC vs. CSA vs. UAL/Nastran* — has variations. Swami I.H. Tr. at 71:10-25. For example, with regard to the automobile industry, an area on which CSA most focused, Dr. Swami explained that the types of analysis typically needed — statics, vibration, buckling, dynamics, and nonlinear, "are available in almost all MCAE general-purpose codes." *Id.* Significantly, all of these codes claimed that they could "solve very big-size problems, so that would not be a unique advantage for Nastran." *Id.* at 35:15-18. Similarly, in discussing element libraries, Dr. Swami explained that "there is nothing known as a Nastran element.....[F]inite element textbook has shown how to derive finite elements. They are based on differential calculus and differential equation. So based on that, there are textbooks on finite elements and there are a number of elements. And even in the development of elements itself there are conforming elements, nonconforming elements and various categorization, and each developer of a finite element code may choose what they consider is the best element, yet we can all differ. Even a UAI, CSA and MSC in the element design we have chosen come different paths.... Each Nastran has designed their own element. So none of them were the same." Swami I.H. Tr. at 67:8-68:8.

³⁹ For example, in a 1996 internal CSA memo, CSA notes that "Volvo.GM Heavy Truck has decided not to even evaluate CSA/Nastran because ANSYS has such a nice tight interface with CADDs 5. I told him CSA/N works with CADDS 5 as well but he already made up his mind to stick with ANSYS. Evidently, ANSYS has an office nearby and was able to provide beautiful demos showing tight integration and ease of use." RX 184.

- 113. UAI's specialized development efforts were often customer-specific and did not have broad appeal to general users of finite element software. For example, UAI "created ASTROS, but customers didn't want it. The U.S. Air Force wanted ASTROS, but the commercial customer base did not." *Id.* at 137:4-17. These development contracts were also relatively small and limited. As a result, UAI's Nastran revenues never exceed more than a few percent of MSC's.
- UAI/Nastran to big customers resulted in any trickle-down, or network, effects. Id. at 126:22-127:7. ("Q: In regard to trickle-down effects, if you got into Chrysler with more Nastran and into General Motors with Nastran, is there a trickle-down effect in regard to suppliers under General Motors and Chrysler turning to UAI. A: I would have to say no. We attempted to locate such an effect. We did business with Chrylser for more than 20 years. We were able, in 20 years, to identify one customer at less than 20,000 dollars a year in revenue, due to the trickle-down effect. So it's there's no such thing.").
- 115. UAI recognized that it was competing in a vast market. As Mr. Morgan testified, "the reality of the matter is ... you can perform almost any simulation with Nastran or ANSYS, or a product from Dassault Systems called ELFINI. Literally, there's no reason why you can't do the calculation with either of those three." *Id.* at 64:19-25.
- 116. Mr. Morgan recognized that there were differences among various solvers, including significant differences between UAI and MSC. Among the major ones were: MSC's superelements versus UAI's substructuring method, MSC's superior nonlinear capabilities, MSC's richer DMAP language, and MSC's superior aeroelastic capabilities. *Id.* at 116:8-117:8. Mr. Morgan also testified that UAI has a "speed of processing problem" and that they "were at a disadvantage compared to CSA/Nastran and MSC.Nastran from hard benchmark data." *Id.* at 140:16-18.
- 117. UAI found that it was extremely difficult, and generally not worth the effort, to get customers to switch from MSC to UAI. As Mr. Morgan explained, "[t]he finite element user community and its management is extremely conservative. Glaciers mover faster. So feature and function equivalence and pricing 50 cents on the dollar does not generate business.... Literally, you can't price—you cannot be successful pricing the software as the sole mechanism of competition with Nastran or ANSYS, or any other finite element software. That was our conclusion from a business point of view." *Id.* at at 134:16-135:5.

III. COMPETITORS PROVIDE POWERFUL ALTERNATIVE CAE SYSTEMS AND FEA SOLVER TECHNOLOGY.

131. The competition MSC feared did not come from two codes with de minimis sales at a few of its customers. As detailed below, MSC faced and continues to face substantial competition from its *real competitors*: ANSYS, ABAQUS, Permas, Elfini, NE Nastran, SDRC, Elfini, LS Dyna, LMS, PTC, CDH, and now AI*Nastran. These firms have expanded their capabilities, formed new alliances, developed new products and are even stronger forces in the market than they were in 1999.

This competition is fierce and the competitive pressure from these firms spurs MSC to innovate and to keep its prices low.

specifically pointed out that 'ANSYS isn't going away' and that 'MSC isn't the only boat in the pond – it may be the biggest boat, but not the only one." RX 3038.

- MSC revenues at Delphi have been reduced over time because of partial switching to ANSYS and ABAQUS. Bruce Hart explains that "[o]ur revenues have reduced over the years.... because they've reduced the use of our products ... a lot of it was [attributed] to ABAQUS. But a majority of it was ANSYS." B. Hart Dep. Tr. at 108:16-25.
 - 174 ANSYS, in short, is looming and threatening presence.
- 175. ANSYS has competed and has been evaluated ⁸⁰ against MSC at numerous other accounts, including:

see infra. ¶¶ 356-64 (discussing UAI's and CSA's consistent failure to pass the evaluation stage).

A credible threat to switch to an alternative code has more bite. As Vanderplatts demonstrated throughout these Findings and as will be show at trial, ANSYS, HKS, ELFINI, Permas, CDH and others have all proven that they can convert preliminary evaluations into strong positions at many accounts, displacing significant MSC. Nastran usage. Significantly, this is exactly the type of evidence – real world examples of partial switching – that defeated Compliant Counsel's market definition in R.R. Donnelley See In re R.R. Donnelley, 120 F.T.C. 136, 172 (1992) (rejecting Complaint Counsel's market definition where "[s]everal buyers have switched their high volume printing ... in recent years, including – as the ALJ found – present buyers who testified in the preliminary injunction hearing that ... they would not switch in response to a significant price increase.") See MSC's Pretrial Brief passin.

Complaint Counsel places great emphasis on customers that "consider" using UAI or CSA, as opposed to customers that actually did switch any significant usage to them. See Compl. Counsel Pre-Trial Br. at 13. There is, however, a critical distinction between customers that consider switching to – or even obtain an evaluation copy of – UAI or CSA and those that embark on a serious plan to phase-out or displace MSC. Nastran. A customers' idle threat to consider CSA does not, in and of itself, reduce MSC usage, and so does not constrain MSC's prices. Numerous customers had evaluated UAI or CSA had rejected them as inadequate,

D.

- 1. Competes with MSC Through Its Stand-Alone Solver, As Well As Solvers Within that Run On-top Of Its Leading CAD Design Platform.
- 231. In January of 1998, MSC's "Background for FY99 Operating Plan" noted that "CAD vendors, especially Dassault, are just beginning to push into the professional analysis area with products like their ELFINI." RX 2236. While Dassault's ELFINI was always competitive for Designer analysis due to Dassault's dominance in the CAD area in the brief period of time between January 1998 and today, MSC.Nastran's competition with ELFINI for professional analysis has also become quite fierce.
- 232. MSC.Nastran competition with ELFINI has been especially fierce in MSC's large aerospace accounts. ELFINI is the *preferred linear analysis tool at Boeing Commercial Aircraft Group*, while MSC.Nastran is present only as an alternate FEA code. R. Dyer Dep. Tr. at 217:22-25; RX 1791; E. Jones Dep. Tr. at 116:2-3, 117:19.

In July 2001, MSC noted that "[t]he Boeing Commercial Internal Loads group is currently deciding if they should use MSC. Nastran or ELFINI for the Sonic Cruiser." RX 2557.

- 233. Cessna has told MSC "that they [were] using quite a bit of [ELFINI] and that the use [of ELFINI was] on the rise." J. Baldwin Dep. Tr. at 164-166. Joe Baldwin of MSC "took quite seriously how much capability or how much of that overlap [between MSC.NASTRAN and ELFINI] was available for ELFINI growth. *Id.* Baldwin took ELFINI's Cessna presence into account when he developed his Cessna proposal. *Id.* at 168-169. MSC noted that it had to secure the Cessna account from "price erosion to competitors," including "CATIA ELFINI." CX 1832.
- 234. MSC European representative Pascal Bois perceived Dassault and its ELFINI solver to be a "main threat" at the **Airbus** account: "DS [Dassault Systemes] will try to replace our software with Catia," which includes ELFINI. RX 2501.
- 235. MSC sales representative Keane Barthenheier explained that MSC gave a discount to Aviation Partners in order to prevent them from using "ELFINI Aero or Boeing [codes]. He made some good concessions to get [the account]." RX 2560.
 - 236. Bombardier also uses ELFINI. J. Baldwin Dep. Tr. at 166:17.



238.

239. ELFINI also competes against MSC.Nastran in MSC's automotive accounts.

240.

R. Dyer Dep. Tr. at 79:17-18 ("ELFINI is definitely a competitor" to MSC.Nastran"). Complaint Counsel's own expert

Moreover, unlike UAI and CSA, ELFINI not only has unparalleled technical support and a robust distribution channel.

- 2. Complaint Counsel's Attempts to Align and MSC Are a Red Herring. Continues to Remain One of MSC's Primary Competitors
- 242. In 2001, MSC acquired AES in order to expand its systems business. Dassault owned 19% of AES, and as part of the AES acquisition, Dassault obtained 7% of MSC's stock. Dassault's small interest in MSC is a passive investment. Dassault does not hold a seat on MSC's board, has no influence over the operations of MSC, and must vote with the majority. When MSC bought AES, MSC became one of 30, non-exclusive, distribution partners of IBM, Dassault's primary distributor. MSC can sell Dassault products to small and medium companies.
- 243. In April 2001, MSC and Dassault signed a memorandum of understanding forming the basis of a "strategic alliance." In April 2002, a definitive agreement was reached, although final arrangements are still being worked out.
- 244. The alliance between Dassault and MSC does not limit competition between Dassault and MSC. In fact, Toyota Motor Company just announced that it was switching to CATIA, including its solver modules. As a result Toyota will likely reduce its usage of MSC.Nastran. The strategic alliance *excludes MSC.Nastran*, *Marc*, *and ELFINI*. RX 2252. *See* K. Versprille Expert Report ¶ 37-45; K. Versprille Dep. Tr. at 43:1-44:23.
- 245. MSC entered into the alliance with Dassault, because it saw Dassault's Catia V5 platform was the future and it provided MSC a convenient means for developing its next-generation graphical user interface and pre/post processing software. The relationship will make MSC/Patran fully compatible with Catia V5 by using the toolkit developed for the Catia V5 platform. By doing so, MSC Patran will be able to link into Dassault's Catia V5 platform as well as operate with other CAD

systems or even on a stand-alone basis. In addition, MSC will create software that runs inside the V5 platform that will allow it to offer total CAE solutions.

- 246. The alliance provides MSC with an opportunity to expand sales by building on the Catia V5 platform and introducing new and innovative products to the market. See, e.g, K. Blakely Dep. Tr. at 64:14-19. By forming this alliance, MSC will be able to improve its own technology and integrate its technology with Dassault's in order to improve customers' ability to engage in complex computer simulation in a seamless fashion. As the industry recognizes, customers are demanding seamless integration across the design process.
- 247. MSC is not the only software company to have a partnership with Dassault. Dessaut's web pages has over 40 press releases about software companies forming partnerships, including LMS and Abaqus.
- 248. Complaint Counsel's assertion that Dassault somehow has the incentive to stop competing with MSC is not sensical. As an initial matter, Dassault competes aggressively against other CAD/MCAE systems. If customers believe that the solver technology on the Dassault platform is too expensive, they can reduce reliance on that system or choose an alternative CAD system, such as those sold by PTC and UGS/SDRC. Thus, just as manufacturers have a powerful incentive to keep the cost of their inputs low, so too Dassault has the incentive to keep down the cost of solver technology component of its platform. Notably, Dassault has given its CAD customers the flexibility to use a wide array of solvers, including ANSYS, ABAQUS, COSMOS, and GPS (which is Dassault's embedded solver).
- 249. Moreover, there is no evidence that Dassault intends to discontinue ELFINI. To the contrary, all indications are that ELFINI continue to exist as a product—and, therefore, as a competitor to MSC.Nastran. For example, in a joint presentation to Boeing in July 2001, Dassault and MSC announced, "a single 'common FEM capability' that replaces ELFINI and/or MSC.Nastran is not planned." RX 2665. "The expected multiple FEM software product offerings will be supported by the organizations that make the sale." Id.
- 250. In a press release sent to users of MSC. Nastran and ELFINI, MSC stated, "ELFINI will continue to be developed, since it is embedded in CATIA.... We [MSC] will sell and support ELFINI and MSC. Nastran and all of MSC. Software's and DS's CAE products." RX 1234.

- 251. Similarly a Dassault announcement stated, "MSC.Software [will] focus[] on V5 vertical applications complementary to Structural Analysis applications as well as on complementary disciplines (non linear, thermal, electromagnetic ...) while DS will continue to focus on the Structural Analysis infrastructure and generic Structural Analysis applications such as ... Elfini Structural Analysis" RX 3073; see also RX 3074 ("DS will focus on Structural Analysis applications [including] Elfini Structural Analysis"); RX 3075 (showing that DS will offer "scalable structural analysis" from "assembly" through "subsystem" to "full vehicle" while its V5 CAA Allies will offer other types of analysis).
- 252. As Dr. Versprille, the CAD/CAE industry consultant will explain, by entering into an agreement to build the next generation of Patran on the V5 platform—and ensuring that MSC. Nastran will integrate with CATIA—MSC is simply responding to customer demand.

⁸⁹ RX 2843. (Schlechtweg Analysis is a specific method of durability analysis).

Believes the FEA Market Is Very Competitive.

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As MSC observed,

"with [Permas'] current acoustic capability, they beat us easily and open another door to replace Nastran step by step." RX 2673.

454. MSC takes the Permas threat at DaimlerChrysler, and elsewhere, very seriously. MSC is well aware that *this threat is "strong."* RX 2634; *see also* RX 2674. To that end, MSC has undertaken benchmarks against "best-in-class" Permas in response to competitive pressure at Daimler Chrysler and other accounts, such as Porche. RX 2157; *see also* RX 2634. MSC further recognizes that DaimlerChrysler has "spent considerable effort ... finding and/or creating a possible replacement for MSC.Nastran," Permas being among the many candidates. RX 2843.

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470. Freightliner soon came to recognize that CSA—neither as a company nor as a product — could serve Freightliner's needs in the long run.

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- 472. MSC is concerned about other "possible competitors who will be aiming for deeper penetration at Freightliner, particularly IBM, Dassault, PTC, Altair, HKS" RX 2161. MSC has good cause to want to protect its MSC. Nastran business. In September 2000, MSC lost an opportunity to sell more MSC. Nastran to Freightliner to *ABAQUS*. Freightliner wrote, "while I appreciate your offer for setting us up with Nastran, I think we will be going with HKS ABAQUS. There are several reasons. One, ABAQUS is also a standard product used in DaimlerChrysler (Freightliner's ultimate parent) and Freightliner. It is also supported by MEDINA, the pre/post-processor used at Freightliner. The pricing for a full license, not limited to development only, is much more affordable than what you are offering us. Also, ABAQUS provides the opportunity to do nonlinear dynamic analysis, which has interesting research potential." RX 2164.
- 473. Recently, MSC has also been worried about *Permas* invading the Freightliner account. In March 2001, MSC personnel in Europe learned "that DCAG commercial vehicles in Untertuerkheim has a project in place, to replace MSC. Nastran with Permas for their main application, Schlechtweg analysis. DCAG thinks that effective Ma[y] 1, the remaining minor technical Permas issues are solved together with Intes (Permas vendor) and Permas will be used as their standard

Dep. Tr. at 84:3-4, 246:10; RX 1820. 122

- 495. MSC faces vigorous competition at Boeing from codes offered by financially secure companies: Dassault Systems' ELFINI solver, ANSYS, and HKS' ABAQUS. This *competition is heterogeneous*; the identity of MSC.Nastran's closest competitor varies by division, by project, and with the particular analysis requirements of different tasks. E. Jones Dep. Tr. at 107:19-108:1 ("all programs ... commercial as well as military ... had multiple solutions ... whether it was Rasna or ANSYS or ELFINI"); 208:15-17 (competitors at Boeing include ANSYS, ABAQUS and ELFINI).
- 496. ELFINI is the preferred linear analysis tool at The Boeing Commercial Airplane Group ("BCAG"). R. Dyer Dep. Tr. at 217:22-25. ELFINI and MSC. Nastran can both be used for the analysis of internal and external loads. E. Jones Dep. Tr. at 174:15-18; R. Dyer Dep. Tr. at 479:19-480:1. While in the past Boeing has used ELFINI for internal loads, on new projects like Boeing's Sonic Cruiser, MSC continues to vie for that business. Id.

RX 1789. By 2000,

RX 1791; E. Jones Dep. Tr. at 116:2-3, 117:19 (IBM and Dassault are BCAG' "strategic partners" while MSC is "the red haired stepchild").

^{497.} At the outset of its development work for the JSF bid, Boeing conducted an internal competition and evaluation to select analysis software. ELFINI and MSC.Nastran were among the codes Boeing compared. Boeing initially recommended using ELFINI for external loads and MSC for internal loads, but later decided to go with MSC for both. E. Jones Dep. Tr. at 174:15-22. MSC was "excited" at the outcome of the competition, which "was a big victory." *Id.* at 175:9-12.

Boeing's Huntsville, Alabama site uses CSA/Nastran for NASA's Space Shuttle/SpaceHab ("SpaceHab") program. SpaceHab generated legacy data, old models, and DMAP customizations written for CSA/Nastran. R. Dyer Dep. Tr. at 47:1-48:23.

projects. R. Dyer Dep. Tr. at 203:5-204:3. MSC believes that the ABAQUS enhancements are a serious and growing threat to MSC.Nastran, because "there is no need to have two codes sitting there to do the same thing." R. Dyer Dep. Tr. at 204:19-22.¹²⁴

- 502. Given the competition that MSC faces from ELFINI, ANSYS, and ABAQUS, and the inability of Boeing to switch to either CSA or UAI, it is not surprising that Boeing was able to negotiate a very favorable contract after both mergers.
- Agreement") provides company-wide, unlimited usage for Nastran and Patran. ¹²⁵ "[I]n the event that Boeing's use of included software drastically increases," the Enterprise Agreement caps Boeing's total costs at equal to the amount Boeing paid MSC under prior agreements. RX 1732; RX 3061 ("no cost increase associated with increased requirements for Nastran and Patran"); R. Dyer Dep. Tr. at 450:2-5. Yet, Boeing is allowed to earn substantial discounts by lowering the number of installations (or seats) of MSC software. In fact, while the Enterprise Agreement placed all of the risk of increased usage on MSC, it gave Boeing the opportunity to lower its costs by managing usage to reduce seats. ¹²⁶

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RX3061. "Boeing

did a very good job of consolidating their licenses and managing their costs." K. Barthenheier Dep.

¹²⁴ Even before the recent enhancements, MSC had lost additional orders for Nastran to ABAQUS at Boeing. E. Jones Dep. Tr. at 212:4-25.

¹²⁵ Prior to the Enterprise agreement, Boeing has separate licenses with at least five Boeing divisions: (1)BCAG, (2) defense, (3) space and communications, (4) Rockwell, and (5) Rocketdyne. R. Dyer Dep. Tr. at 448:4-13. Recently, Boeing and MSC have agreed to include BSS (former Hughes Satellite) in the Enterprise agreement. RX 1793. Boeing acquired Hughes Satellite after entering into the Enterprise agreement with MSC.

614. In reality, MSC was much more concerned about *ELFINI* at Cessna. "ELFINI is something I consider would be able to come in and take away some of the market share I have at Cessna... I consider that something that is going to... potentially affect the revenue there. In fact,

ELFINI is being used by Cessna, and they've told me that they are using quite a bit of it and that the use is on the rise." J. Baldwin Dep. Tr. at 165:4-19.

CERTIFICATE OF SERVICE

This is to certify that on July 2, 2002, I caused a copy of the **Public Version** of MSC.Software's Opposition to Complaint Counsel's Motion In Limine to Exclude Evidence of Dassault As A Competitor to be served upon the following persons by hand delivery:

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