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MAGMA DESIGN AUTOMATION, INC.

11 **UNITED STATES DISTRICT COURT**  
12 **NORTHERN DISTRICT OF CALIFORNIA**  
13 **SAN FRANCISCO DIVISION**  
14

15 SYNOPSISYS, INC., a Delaware  
16 Corporation,

17 Plaintiff and  
18 Counter-Defendant,

19 v.

20 MAGMA DESIGN AUTOMATION,  
INC., a Delaware Corporation

21 Defendant and  
22 Counterclaimant.

Case No. C04-03923 MMC

**DEFENDANT MAGMA DESIGN  
AUTOMATION, INC.'S AMENDED  
ANSWER TO COMPLAINT AND  
COUNTERCLAIMS**

**DEMAND FOR JURY TRIAL**

23 **AND RELATED COUNTERCLAIMS.**  
24

25 Defendant Magma Design Automation, Inc. ("Magma"), by and through its  
26 attorneys, alleges on knowledge as to its own conduct except as otherwise noted, and on  
27 information and belief as to all other matters, as follows:  
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1 **PRELIMINARY STATEMENT**

2 1. Synopsys, Inc. (“Synopsys”) has sued Magma for allegedly  
3 infringing three patents relating to electronic design automation (“EDA”) technology.  
4 Only one of the patents, U.S. Patent No. 6,378,114 (“the ‘114 Patent”), is actually  
5 assigned to Synopsys. Magma’s innovative products, however, are fundamentally  
6 different from the technology claimed in the ‘114 Patent. Thus, Magma does not infringe  
7 the ‘114 Patent.

8 2. Magma – not Synopsys – is the assignee and the sole and exclusive  
9 owner of the other two patents asserted here, U.S. Patents Nos. 6,453,446 (“the ‘446  
10 Patent”) and 6,725,438 (“the ‘438 Patent”) (together, “the Magma Patents”). In a  
11 complaint devoid of any facts, Synopsys claims ownership of the Magma Patents based  
12 entirely on the conclusory allegation that Dr. Lukas van Ginneken created the inventions  
13 disclosed in the Magma Patents while he was employed at Synopsys.

14 3. The truth is far different. As detailed in the factual allegations  
15 below, Dr. van Ginneken developed the inventions disclosed in the Magma Patents after  
16 he co-founded Magma in 1997. Drawing on his superlative academic background and  
17 extensive industry experience, Dr. van Ginneken created these inventions without using  
18 proprietary or confidential information from Synopsys. Thus, Synopsys’ claim of  
19 ownership to the Magma Patents is groundless.

20 4. Synopsys’ interest in Magma’s technology is a recent  
21 transformation. From its beginnings, Magma has described its novel technology to  
22 Synopsys during various meetings. Although Synopsys professed interest in Magma’s  
23 talented engineering team, Synopsys repeatedly, both in public and in private, denigrated  
24 Magma’s technology. Not once during these discussions did Synopsys ever assert any  
25 ownership interest in that technology.

26 5. During the past two years, however, Magma has become a  
27 competitive threat to Synopsys. Prompted by this change in the competitive landscape,  
28 Synopsys, which holds a dominant position in many EDA markets, has launched a

1 campaign to discredit Magma in the eyes of Magma’s customers and investors. As part  
2 of this campaign, Synopsys filed this baseless action and has tried to use it to disrupt  
3 Magma’s relationships with its customers. As the facts demonstrate, however, Magma  
4 does not infringe the ‘114 Patent, and Magma holds all rights, title, and interest in and to  
5 the Magma Patents.

6           6.       Synopsys’ claims will fail for an additional reason: As a matter of  
7 law, Magma may not be held liable for alleged infringement of the ‘114 Patent or the  
8 Magma Patents.

9           7.       Dr. van Ginneken’s work at Synopsys that led to the development of  
10 the inventions claimed in the ‘114 Patent was conducted as part of a project between IBM  
11 and Synopsys governed by a joint development agreement. Under the terms of the  
12 agreement, IBM and Synopsys share ownership of inventions resulting from the project.  
13 Synopsys, however, failed to acknowledge IBM during prosecution of the ‘114 Patent.  
14 By operation of law and pursuant to the joint development agreement, IBM is a co-owner  
15 of the ‘114 Patent. Because all co-owners of a patent must be joined as plaintiffs in an  
16 infringement action, Synopsys’ failure to name IBM as a plaintiff in this suit is fatal to  
17 Synopsys’ claim for infringement of the ‘114 Patent.

18           8.       The same result would apply to the Magma Patents if – contrary to  
19 the facts – Synopsys could somehow establish that the inventions in the Magma Patents  
20 were conceived by Dr. van Ginneken while he was at Synopsys. All the work that Dr.  
21 van Ginneken did at Synopsys in the areas of logic synthesis and physical design was part  
22 of the joint project with IBM. Thus, even if Synopsys were to prevail on its ownership  
23 claims, IBM would be a co-owner of the Magma Patents by operation of law and  
24 pursuant to the IBM-Synopsys joint development agreement. In that case, Synopsys’  
25 failure to name IBM as a plaintiff in this suit is fatal to Synopsys’ claim for infringement  
26 of the Magma Patents.

27           9.       Synopsys’ infringement claims fail as a matter of law for another  
28 reason. On March 24, 2004, Magma and IBM entered into a patent license agreement.

1 Under this license agreement, IBM has granted Magma a license to practice, within the  
2 electronic design automation field, all IBM patents filed before a certain date. The '114  
3 and the Magma Patents all were filed before that date. Magma is therefore licensed under  
4 the '114 Patent. Furthermore, if Synopsys could somehow show that the inventions in  
5 the Magma Patents were conceived by Dr. van Ginneken at Synopsys, Magma is licensed  
6 under those patents as well.

7 10. In its counterclaims, Magma affirms its exclusive ownership of the  
8 Magma Patents. Magma further seeks declaratory judgments that Magma cannot infringe  
9 any of the three patents asserted by Synopsys.

10 11. Magma also seeks relief under section 17200 *et seq.* of the  
11 California Business and Professions Code to enjoin Synopsys' campaign to spread false  
12 and misleading statements about Magma and its products. Customers should have a full  
13 and fair opportunity, free from misrepresentations and manipulation, to choose the best  
14 products based on performance.

### 15 **MAGMA'S ANSWER TO SYNOPSIS' COMPLAINT**

16 Magma, by and through its attorneys, answers the Complaint for Patent  
17 Infringement (the "Complaint") of Synopsys as follows:

18 12. Magma denies each and every allegation contained in paragraph 1,  
19 except that Magma admits that this Court has subject matter jurisdiction over this action.

20 13. Magma alleges it is without information or knowledge sufficient to  
21 form a belief as to the truth of the allegations in paragraph 2, and on that basis denies  
22 each and every allegation contained therein.

23 14. Magma admits the allegations contained in paragraph 3.

24 15. Magma denies each and every allegation contained in paragraph 4,  
25 except that Magma admits that venue is proper in the Northern District of California.

26 16. Magma admits the allegations in the first sentence of paragraph 5.  
27 Magma alleges that it is without information or knowledge sufficient to form a belief as  
28

1 to the truth of the allegations in the second sentence of paragraph 5, and on that basis  
2 denies each and every allegation contained therein.

3 17. Magma admits that Lukas van Ginneken signed a Proprietary  
4 Information and Inventions Agreement with Synopsys. Magma alleges that it is without  
5 information or knowledge sufficient to form a belief as to the truth of Synopsys'  
6 allegation that the document attached as Exhibit A to the Complaint is a true and correct  
7 copy of a Proprietary Information and Inventions Agreement between Lukas van  
8 Ginneken and Synopsys, and on that basis denies that allegation. Magma denies all the  
9 remaining allegations contained in paragraph 6.

10 18. Magma denies each and every allegation contained in paragraph 7.

11 19. Magma admits the allegations contained in the first sentence of  
12 paragraph 8. Magma denies each and every allegation contained in the second sentence  
13 of paragraph 8.

14 20. Magma admits that Synopsys is listed as the assignee on the face of  
15 U.S. Patent No. 6,378,114 and that Lukas van Ginneken is a named inventor of this  
16 patent. Magma admits that a true and correct copy of the '114 Patent as issued by the  
17 U.S. Patent and Trademark Office is attached to the Complaint as Exhibit B. Magma  
18 alleges it is without information or knowledge sufficient to form a belief as to the truth of  
19 the remaining allegations contained in paragraph 9, and on that basis denies each and  
20 every allegation contained therein.

21 21. Magma denies each and every allegation contained in paragraph 10,  
22 except that Magma admits that U.S. Patent No. 6,453,446 was issued to Magma on  
23 September 17, 2002.

24 22. Magma denies each and every allegation contained in paragraph 11,  
25 except that Magma admits that U.S. Patent No. 6,725,438 was issued to Magma on April  
26 20, 2004, and that a true and correct copy of the '438 Patent as issued by the U.S. Patent  
27 and Trademark Office is attached to the Complaint as Exhibit D.

28 23. Magma denies each and every allegation contained in paragraph 12.

1 **FIRST CAUSE OF ACTION**

2 **(PATENT INFRINGEMENT)**

3 24. Magma denies each and every allegation contained in paragraph 13.

4 25. Magma denies each and every allegation contained in paragraph 14.

5 26. Magma denies each and every allegation contained in paragraph 15.

6 27. Magma denies each and every allegation contained in paragraph 16.

7 28. Magma denies each and every allegation contained in paragraph 17.

8 29. In response to the prayer for relief, Magma denies each and every  
9 allegation in the prayer and, further, Magma specifically denies that Synopsys is entitled  
10 to any of the relief requested in the Complaint or any relief whatsoever, specifically  
11 denies that Synopsys is entitled to preliminary or permanent injunctive relief, specifically  
12 denies that Synopsys has been damaged by the acts of Magma in any amount whatsoever,  
13 specifically denies that Synopsys is entitled to an accounting for its alleged damages,  
14 specifically denies that Synopsys is entitled to a reasonable royalty, specifically denies  
15 that Synopsys is entitled to any award of treble, punitive, or exemplary damages,  
16 specifically denies that Synopsys is entitled to its costs, expenses or reasonable attorneys'  
17 fees, specifically denies that Synopsys is entitled to any award of interest, and  
18 specifically denies that the Court should impose a constructive trust for Synopsys'  
19 benefit.

20 **AFFIRMATIVE DEFENSES**

21 30. Magma incorporates by reference into each of the affirmative  
22 defenses below, as if fully set forth therein, the allegations of paragraphs 1-11, above, and  
23 paragraphs 53-172, below.

24 **AFFIRMATIVE DEFENSES APPLICABLE TO THE '114 PATENT**

25 **FIRST AFFIRMATIVE DEFENSE**

26 31. Magma does not infringe, or contribute to or induce the infringement  
27 of, the '114 Patent.

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**SECOND AFFIRMATIVE DEFENSE**

32. Synopsys lacks standing to assert the ‘114 Patent for failure to join all joint owners.

**THIRD AFFIRMATIVE DEFENSE**

33. Magma cannot be liable for infringing the ‘114 Patent because Magma is licensed under the ‘114 Patent.

**FOURTH AFFIRMATIVE DEFENSE**

34. One or more claims of the ‘114 Patent are invalid because they fail to satisfy the conditions for patentability of 35 U.S.C. §§ 102 and 103 because, without limitation, the alleged inventions are taught by, suggested by, and/or obvious in view of the prior art, no claim of the ‘114 Patent can be validly construed to cover any Magma product or process, and/or the inventorship of the ‘114 Patent is incorrect.

**FIFTH AFFIRMATIVE DEFENSE**

35. The ‘114 Patent is invalid because it fails to satisfy one or more of the requirements of 35 U.S.C. § 112, including without limitation: (a) the specification does not contain a written description of the invention and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same; and (b) the specification does not set forth the best mode contemplated by the inventor of carrying out his invention.

**AFFIRMATIVE DEFENSES APPLICABLE TO THE MAGMA PATENTS**

**SIXTH AFFIRMATIVE DEFENSE**

36. The inventions claimed in the Magma Patents were not assigned to Synopsys under the Proprietary Information and Inventions Agreement between Lukas van Ginneken and Synopsys (“PIIA”).

37. The alleged assignments by Lukas van Ginneken to Synopsys of the inventions claimed in the Magma Patents were ineffective or invalid, in whole or in part, because (a) such inventions are beyond the scope of or otherwise not covered by the

1 PIIA, (b) the PIIA is unenforceable under Section 2870 of the California Labor Code  
2 with respect to such inventions, (c) such inventions were made, conceived, reduced to  
3 practice or developed, in whole or in part, other than at Synopsys and/or by persons other  
4 than Lukas van Ginneken, and/or (d) such inventions were not conceived until after the  
5 PIIA was terminated.

6 38. If the alleged assignments by Lukas van Ginneken to Synopsys of  
7 the inventions claimed in the Magma Patents under the PIIA transferred any rights to  
8 Synopsys, such rights constitute only a partial interest in the Magma Patents, and Magma  
9 and/or IBM also own a partial interest in the Magma Patents.

10 **SEVENTH AFFIRMATIVE DEFENSE**

11 39. Synopsys lacks standing to assert the '446 Patent because Magma  
12 owns all right, title, and interest in and to the '446 Patent.

13 **EIGHTH AFFIRMATIVE DEFENSE**

14 40. In the alternative, if Magma does not exclusively own the '446  
15 Patent, Synopsys lacks standing to assert the '446 Patent for failure to join all joint  
16 owners.

17 **NINTH AFFIRMATIVE DEFENSE**

18 41. In the alternative, if Magma does not own the '446 Patent, Magma  
19 does not infringe, or contribute to or induce the infringement of, the '446 Patent.

20 **TENTH AFFIRMATIVE DEFENSE**

21 42. In the alternative, if Magma does not own the '446 Patent, Magma  
22 cannot be liable for infringement of the '446 Patent because Magma is licensed under the  
23 '446 Patent.

24 **ELEVENTH AFFIRMATIVE DEFENSE**

25 43. In the alternative, if the Court finds that Magma does not own the  
26 '446 Patent and Magma discovers facts suggesting that the '446 Patent may be invalid  
27 and/or unenforceable, Magma reserves the right to assert that the '446 Patent is invalid  
28 and/or unenforceable.



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**TWELFTH AFFIRMATIVE DEFENSE**

44. Synopsys lacks standing to assert the ‘438 Patent because Magma owns all right, title, and interest in and to the ‘438 Patent.

**THIRTEENTH AFFIRMATIVE DEFENSE**

45. In the alternative, if Magma does not exclusively own the ‘438 Patent, Synopsys lacks standing to assert the ‘438 Patent for failure to join all joint owners.

**FOURTEENTH AFFIRMATIVE DEFENSE**

46. In the alternative, if Magma does not own the ‘438 Patent, Magma does not infringe, or contribute to or induce the infringement of, the ‘438 Patent.

**FIFTEENTH AFFIRMATIVE DEFENSE**

47. In the alternative, if Magma does not own the ‘438 Patent, Magma cannot be liable for infringement of the ‘438 Patent because Magma is licensed under the ‘438 Patent.

**SIXTEENTH AFFIRMATIVE DEFENSE**

48. In the alternative, if the Court finds that Magma does not own the ‘438 Patent and Magma discovers facts suggesting that the ‘438 Patent may be invalid and/or unenforceable, Magma reserves the right to assert that the ‘438 Patent is invalid and/or unenforceable.

**SEVENTEENTH AFFIRMATIVE DEFENSE**

49. In the alternative, Synopsys’ claim to ownership of the Magma Patents is barred under 35 U.S.C. § 261. On information and belief, Magma is a purchaser or mortgagee for valuable consideration of Patent Application Nos. 10/134,076 (which issued as U.S. Pat. No. 6,725,438), 09/054,379 (which issued as U.S. Pat. No. 6,453,446), and 60/068,827, and the inventions disclosed therein, without notice of any alleged assignment to Synopsys. Synopsys failed to record its alleged assignment of Patent Application Nos. 10/134,076, 09/054,379, and 60/068,827, and the inventions

1 disclosed therein, either before they were assigned to Magma or within three months  
2 of the alleged assignment to Synopsys.

3 **AFFIRMATIVE DEFENSES APPLICABLE TO ALL PATENTS-IN-SUIT**

4 **EIGHTEENTH AFFIRMATIVE DEFENSE**

5 50. Synopsys' claims are barred by the doctrine of laches because  
6 Synopsys delayed filing suit for an unreasonable and inexcusable length of time from the  
7 time Synopsys knew or reasonably should have known of its claims against Magma, and  
8 the delay prejudiced or injured Magma.

9 **NINETEENTH AFFIRMATIVE DEFENSE**

10 51. Synopsys' claims are barred by the doctrine of waiver because  
11 Synopsys voluntarily or intentionally relinquished its alleged right to assert its claims of  
12 ownership of the Magma Patents and its claims against Magma for infringement of the  
13 '114 Patent and the Magma Patents.

14 **TWENTIETH AFFIRMATIVE DEFENSE**

15 52. Synopsys' claims are barred by the doctrine of equitable estoppel  
16 because Synopsys engaged in conduct leading to the inference that Synopsys did not  
17 intend to assert ownership of the Magma Patents and did not intend to assert claims for  
18 infringement of the '114 Patent and the Magma Patents against Magma, Magma relied  
19 upon Synopsys' conduct, and Magma would be materially prejudiced if Synopsys were  
20 now permitted to proceed with its claims for patent infringement.

21 **MAGMA'S COUNTERCLAIMS AGAINST SYNOPSIS**

22 For its counterclaims against Synopsys, defendant and counterclaimant  
23 Magma alleges on knowledge as to its own conduct and on information and belief as to  
24 all other matters, as follows:

25 **JURISDICTION**

26 53. This action arises under the patent laws of the United States, 35  
27 U.S.C. § 100, *et seq.* Subject matter jurisdiction is therefore proper in this Court pursuant  
28 to 28 U.S.C. §§ 1331, 1338 and 1367(a) and pursuant to the Federal Declaratory

1 Judgments Act, 28 U.S.C. §§ 2201-02. This Court has supplemental jurisdiction over  
2 Defendant's counterclaims arising under the state law pursuant to 28 U.S.C. § 1367(a)  
3 because these claims are so related to the parties' claims and counterclaims under federal  
4 law that they form part of the same case and/or controversy and derive from a common  
5 nucleus of operative fact.

## 6 **PARTIES**

7 54. Magma is a corporation organized and existing under the laws of the  
8 State of Delaware and has its principal place of business in Santa Clara, California.  
9 Magma provides EDA software products and related services.

10 55. Synopsys is a corporation organized and existing under the laws of  
11 the State of Delaware and has its principal place of business in Mountain View,  
12 California. Synopsys provides EDA software products and related services.

## 13 **VENUE**

14 56. Synopsys transacts business in this judicial district, including the  
15 sale and offering for sale of its products, and Synopsys has sufficient contacts with this  
16 judicial district to subject itself to the jurisdiction of this Court. Moreover, by bringing  
17 its complaint against Magma in this Court, Synopsys consented to the Court's  
18 jurisdiction. Personal jurisdiction and venue are therefore proper in this Court pursuant  
19 to 28 U.S.C. §§ 1391 and 1400(b).

## 20 **FACTS RELEVANT TO MAGMA'S COUNTERCLAIMS**

### 21 **ELECTRONIC DESIGN AUTOMATION**

22 57. EDA companies develop computer programs that are used to design,  
23 manufacture, and test integrated circuits ("ICs" or "chips"). These programs are crucial  
24 to the growth of the semiconductor industry.

25 58. It would be impossible to design modern ICs without advanced EDA  
26 software. Feature density, speed, efficiency, and functional capacity of ICs continue to  
27 increase at a dramatic rate. Current generation ICs hold tens of millions of transistors and  
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1 have feature widths of 130 nanometers (billionths of a meter) and below. ICs such as  
2 microprocessors can execute hundreds of millions of instructions every second.

3 59. IC designers use EDA software to translate high level descriptions of  
4 an IC into the basic components that will be fabricated on the chip. IC designers also use  
5 EDA software to create a detailed physical layout of the chip, precisely locating within  
6 the chip's boundary each of the components and the wires that interconnect them. This  
7 physical layout is used to create the mask that is used to fabricate the circuits that make  
8 up a chip. Because a modern IC comprises millions of basic components and wires, the  
9 design process requires extraordinarily powerful EDA software to ensure that the final IC  
10 layout meets the designer's specifications.

11 60. The process of translating an IC design from a high level description  
12 to a physical layout is not merely a conversion of the design from one representation to  
13 another. At various stages, EDA software optimizes the design in order, for example, to  
14 improve the chip's performance, reduce the chip's size, or decrease the chip's power  
15 consumption. These optimizations are critical to the overall design process.

16 61. Developers of EDA software – such as Synopsys and Magma –  
17 compete with each other based on the quality of the optimizations offered by their  
18 products. In competitive “benchmarks” of EDA products, customers generally choose  
19 the software that produces the best results while requiring less time and fewer engineers.

## 20 **THE INTEGRATED CIRCUIT DESIGN PROCESS**

21 62. The design process for an IC may be divided into two basic parts:  
22 “front-end” design tasks, referred to as “logic synthesis,” and “back-end” design tasks,  
23 referred to as “physical design.”

24 63. *Logic Synthesis.* Logic synthesis refers to the translation of high  
25 level descriptions of the functions that the IC must perform into basic logical operations.  
26 The high level descriptions, referred to as register transfer level (“RTL”) specifications,  
27 can be written directly by a design engineer or can be generated by a software program.  
28 In the logic synthesis phase, EDA software tools convert the RTL specifications into an



1 engineering in 1989. Dr. van Ginneken's Ph.D. dissertation relates to the field of  
2 physical design, and in particular to the application of stepwise refinement to layout  
3 design. In this work, he presented automatic algorithms to solve various physical design  
4 problems. Dr. van Ginneken has authored or co-authored numerous research papers on  
5 logic synthesis and physical design, and he has been granted several patents in the EDA  
6 field.

7           67. From 1989 to 1995, Dr. van Ginneken worked at IBM's T.J. Watson  
8 Research Center in Yorktown Heights, New York, and at IBM's Somerset Design Center  
9 in Austin, Texas. During his tenure at IBM, Dr. van Ginneken worked on the problem of  
10 integrating logic synthesis with physical design as well as improving optimizations  
11 within logic synthesis and physical design. For example, Dr. van Ginneken co-authored  
12 the paper "Timing Verification and Optimization for the PowerPC Processor Family,"  
13 published in the Proceedings of the International Conference on Computer Design in  
14 October 1994. This paper discusses a timing optimizer and describes a method for  
15 automatically deriving timing constraints.

16           68. While at IBM, Dr. van Ginneken also developed a fundamental  
17 algorithm for the placement of buffers in the pathways between cells. This work is  
18 presented in the article "Buffer Placement in Distributed RC-tree Networks for Minimal  
19 Elmore Delay," published in the Proceedings of the International Symposium on Circuits  
20 and Systems, May 1990, and is widely known today simply as "van Ginneken's  
21 algorithm."

22           69. By the time Dr. van Ginneken left IBM, his work in the area of  
23 physical design and logic synthesis included the following papers:

- 24                   (a) "Efficient orthonormality testing for synthesis with  
25                   pass transistor selectors," by M.R.C.M. Berkelaar and  
26                   L. van Ginneken, accepted at the International  
27                   Workshop on Logic Synthesis, June 1995.
- 28                   (b) "In the driver's seat of BooleDozer," by D. Brand and  
                    R.F. Damiano, L. van Ginneken, A.D. Drumm, in  
                    Proc. Int. Conf. on Computer Design, pp. 518-521,  
                    Boston, Oct. 10-12, 1994.

- 1 (c) "Grammar-based optimization of synthesis scenarios,"  
2 by A. Kuehlmann and L. van Ginneken, in: Proc. Int.  
3 Conf. on Computer Design, pp. 20-25, Boston, Oct.  
4 10-12, 1994.
- 5 (d) "Tuning of logic synthesis scenarios," by L. van  
6 Ginneken and A. Kuehlmann, Workshop Notes of the  
7 Int. Workshop on logic synthesis, paper P7c, Tahoe  
8 City, May 23-26, 1993.
- 9 (e) "Fanin ordering in multi-slot timing," by L. van  
10 Ginneken, Proc. Int. Conf. on Computer Design, pp.  
11 44-47, Cambridge, Oct. 11-14, 1992.
- 12 (f) "The complexity of adaptive annealing," by R.H.J.M.  
13 Otten and L. van Ginneken, Proc. Int. Conf. on  
14 Computer Design, pp. 404-407, Cambridge, Sept. 17-  
15 19, 1990.
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19 15, 1990.
- 20 (h) "The annealing algorithm," by R.H.J.M. Otten and L.  
21 van Ginneken, ISBN 07923-9022-9, Boston: Kluwer,  
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24 custom layout by flexible design," by L. van  
25 Ginneken, Ph.D. thesis, ISBN 90-9002703-3,  
26 Eindhoven, 1989.
- 27 (j) "Doubly folded transistor matrix layout," by L. van  
28 Ginneken and J.T.J. van Eijndhoven, A.H.C.M.  
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Design, Santa Clara, Nov. 7-10, 1988.
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Otten and L. van Ginneken, Proc. Int. Conf. on  
Computer Design, pp. 549-552, Port Chester, Oct. 3-5,  
1988.
- (l) "An inner loop criterion for simulated annealing," by  
L. van Ginneken and R.H.J.M. Otten, Physics letters  
A, 130:429-435, 1988.
- (m) "Soft Macro Cell generation by two dimensional  
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Eijndhoven, P.R.M. van Teeffelen, T.J. Deckers, Proc.  
Int. Symp. on Circuits and Systems, pp. 727-730,  
Espoo, June 1988.
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Ginneken and J.A.G. Jess, Digest Int. Conf. on

1 Computer Aided Design, pp. 30-33, Santa Clara, Nov.  
2 9-12, 1987.

- 3 (o) "Wire planning for stackable designs," by R.K.  
4 Brayton, C.L. Chen, J.A.G. Jess, R.H.J.M. Otten and  
5 L. van Ginneken, Proc. Int. Symp. on VLSI  
6 technology, pp. 269-273, Taipeh, May 13-15, 1987.  
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8 (p) "Global wiring for custom layout design," by L. van  
9 Ginneken and R.H.J.M. Otten, Proc. Int. Symp. on  
10 Circuits and Systems, pp. 207-208, Kyoto, June 5-7,  
11 1985.  
12  
13 (q) "Floor plan design using simulated annealing," by  
14 R.H.J.M. Otten and L. van Ginneken, Digest Int. Conf.  
15 on Computer Aided Design, pp. 96-98, Santa Clara,  
16 Nov, 1984.  
17  
18 (r) "Stepwise layout refinement," by L. van Ginneken and  
19 R.H.J.M. Otten, Proc. Int. Conf. on Computer Design, pp.  
20 30-36, Port Chester, Oct. 8-11, 1984.  
21

22 70. In June of 1995, Dr. van Ginneken left IBM to join Synopsys. As  
23 the foregoing list of papers reflects, when Dr. van Ginneken joined Synopsys he already  
24 possessed a high degree of knowledge, skill, and expertise in logic synthesis, physical  
25 design, and the integration of logic synthesis with physical design. At Synopsys, Dr. van  
26 Ginneken continued to work on many of the problems and techniques that were the focus  
27 of his research at IBM, including the integration of logic synthesis with physical design.  
28 Synopsys benefited not only from Dr. van Ginneken's talents, but also from the  
knowledge and experience he had gained at IBM.

#### **THE IBM-SYNOPSIS JOINT DEVELOPMENT AGREEMENT**

29 71. When Dr. van Ginneken joined Synopsys in 1995, IBM and  
30 Synopsys were entering into a joint technology development agreement relating to EDA  
31 ("the IBM-Synopsys Agreement"). Under the IBM-Synopsys Agreement, any inventions  
32 that resulted from the work performed thereunder became the joint property of Synopsys  
33 and IBM.





1 art algorithms for area and performance optimization of logic circuits. Dr. Savoj also has  
2 co-authored numerous papers relating to logic synthesis.

3 (c) *Karen Vahtra*. Ms. Vahtra had worked for Synopsys and  
4 Ambit before joining Magma. An expert in the application of static timing analysis, Ms.  
5 Vahtra had co-authored papers on the integration of logic synthesis and physical design  
6 before joining Magma.

7 75. In addition to the founders, Magma assembled a talented group of  
8 engineers known for their expertise in EDA and related fields. The engineers included:

9 (a) *Premal Buch*. When he joined Magma, Dr. Buch was a Ph.D.  
10 candidate in electrical engineering at the University of California, Berkeley. He had  
11 extensive research experience in logic synthesis and had worked for Cadence.

12 (b) *Hardy Kwok-Shing Leung*. When Hardy Leung joined  
13 Magma he was a Ph.D. candidate in computer science (focusing on VLSI computer-aided  
14 design) at the University of California, Los Angeles. He previously had worked for  
15 Cadence, where he was a senior member of its technical staff and worked on global  
16 routing, clock routing, wire-sizing, and buffer insertion. He has co-authored several  
17 papers on routing.

18 (c) *Hsiao-Ping Tseng*. When he joined Magma, Dr. Tseng was  
19 a Ph.D. candidate in electrical engineering at the University of Washington, Seattle, and  
20 had co-authored numerous papers in EDA-related fields.

21 (d) *Patrick Groeneveld*. Before joining Magma, he was an  
22 associate professor of electrical engineering at Delft University of Technology in the  
23 Netherlands and specialized in CAD for VLSI.

24 (e) *Joseph Hutt, Jr.* Before joining Magma, Mr. Hutt had  
25 worked for over 20 years as an electrical engineer for IBM. His responsibilities at IBM  
26 included serving as program director for VLSI Design Systems.

27 (f) *Timothy Burks*. When he joined Magma, Dr. Burks had  
28 earned a Ph.D. in electrical engineering from the University of Michigan. He had worked

1 as an engineer for IBM. There, he was the architect and original developer of DeLTA  
2 (“Device Level Timing Analysis”), a static transistor timing level analyzer for custom  
3 CMOS circuits.

4 (g) *Hong Cai*. Dr. Cai, holder of a Ph.D. in electrical engineering  
5 from Delft University of Technology, had worked for Synopsys as a senior member of its  
6 technical staff before joining Magma. Dr. Cai also had authored or co-authored  
7 numerous publications relating to IC routing.

8 (h) *Robert Swanson*. When Mr. Swanson joined Magma he had  
9 almost ten years of IC design experience at IBM. He also has been granted several  
10 semiconductor patents.

11 (i) *Raymond Nijssen*. When he joined Magma, Raymond  
12 Nijseen held an master’s degree in electrical engineering from Eindhoven University. He  
13 has been granted several IC patents.

14 76. The Magma engineering team also included Michel R.C.M.  
15 Berkelaar, Manjit Borah, Cornelius A.J. van Eijk, and Eduard P. Huijbregts, all of whom  
16 hold Ph.D.’s.

17 77. Magma undertook rigorous measures to ensure that its engineers did  
18 not use or disclose at Magma any trade secret or other proprietary information derived  
19 from their work at former employers. To this end, all Magma employees, including Dr.  
20 van Ginneken, were required to execute a Proprietary Information and Inventions  
21 Agreement. This agreement includes the following provision:

22 During my employment by [Magma] I will not improperly use or  
23 disclose any confidential information or trade secrets, if any, of any  
24 former employer or any other person to whom I have an obligation of  
25 confidentiality, and I will not bring onto the premises of [Magma]  
26 any unpublished documents or any property belonging to any former  
27 employer or any other person to whom I have an obligation of  
28 confidentiality unless consented to in writing by that former  
29 employer or person.

30 78. Magma took further precautions, including periodically archiving all  
31 its source code. This archiving has continued to present.



1 in a cell's load imposed by changes in the design are accommodated by increasing the  
2 cell size to provide more power so that the delay remains constant. The "logical effort"  
3 concept refers to a formulation of gate delay as a function of three factors: (a) logical  
4 effort, which does not depend on the size of the cell; (b) electrical effort (or gain); and (c)  
5 parasitic delay.

6 83. The concept of constant delay has existed in the public domain since  
7 at least 1995. In particular, the concept of constant delay for use in logic synthesis is  
8 discussed in the article, "A Delay Model for Logic Synthesis of Continuously-Sized  
9 Networks," by J. Grodstein et al., from Digest Int. Conf. On Computer Aided Design, pp.  
10 458-462, San Jose, California November 5-9, 1995 ("the Grodstein article"). The  
11 Grodstein article presents the basic concept of holding a cell's delay constant while its  
12 area is adjusted to accommodate changes in load.

13 84. The concept of constant delay is also explored in a companion to the  
14 Grodstein article entitled, "Logic Decomposition During Technology Mapping," by Eric  
15 Lehman, Yosinori Watanabe, Joel Grodstein and Heather Harkness, from Proceedings of  
16 the 1995 IEEE/ACM international conference on Computer-aided design, pp. 264-271  
17 ("the Lehman article"). The Lehman article addresses the problem of mapping a set of  
18 logical expressions onto library cells. The Lehman article describes achieving more  
19 optimal mapping by using technology-dependent features of the library.

20 85. The concept of logical effort was introduced in "Logical Effort:  
21 Designing for Speed on the Back of an Envelope," by Ivan E. Sutherland and Robert F.  
22 Sproull, from Proceedings of the 1991 University of California/Santa Cruz conference on  
23 Advanced research in VLSI, p.1-16, April 1991 ("the Sutherland article"). The  
24 Sutherland article separates logical effort, which expresses the logical complexity of the  
25 gate, from electrical effort, which expresses the gain of the gate. The Sutherland article  
26 uses the logical effort formulation to approximate a relationship among area, load, and  
27 delay.

28 86. The logical effort concept is extended in "Generalized Delay

1 Optimization of Resistive Interconnections Through an Extension of Logical Effort,” by  
2 Kumar Venkat, from Proceedings of ISCAS 1993, pp. 2106-2109 (“the Venkat paper”).  
3 The Venkat paper describes an extension of the logical effort concept that accommodates  
4 the resistance of wires in addition to their capacitance.

5 87. In creating the inventions disclosed in the Magma Patents, Dr. van  
6 Ginneken drew from the extensive work available in the public domain, including the  
7 publications listed above, and relied on his background and experience in EDA. The  
8 novel aspects of the inventions were conceived entirely at Magma.

9 88. On December 24, 1997, Magma filed with the PTO the provisional  
10 application to which the Magma Patents claim earliest priority.

11 89. On April 2, 1998, Magma filed with the PTO the patent application  
12 that resulted in the ‘446 Patent.

13 90. On July 8, 1999, a PCT patent application (PCT/US98/27488)  
14 substantially similar to the April 2, 1998 United States patent application that resulted in  
15 the ‘446 Patent was published.

16 91. On October 4, 2000, a European patent application  
17 (EP19980964899) substantially similar to the April 2, 1998 United States patent  
18 application that resulted in the ‘446 Patent was published.

19 92. On April 24, 2002, Magma filed with the PTO the patent application  
20 that resulted in the ‘438 Patent.

21 93. On August 22, 2002, the patent application that resulted in the ‘438  
22 Patent was published. As a result of this publication, the patent application that resulted  
23 in the ‘446 Patent, as well as the file histories for both applications, also became public.

24 94. On September 17, 2002, the PTO issued the ‘446 Patent, entitled  
25 “Timing Closure Methodology.” Dr. van Ginneken is named as the sole inventor and  
26 Magma is the assignee.

27  
28

1           95. On June 24, 2003, the PTO mailed to Synopsys' outside patent  
2 counsel a PTO office action relating to a Synopsys patent application. The office action  
3 referenced the published patent application that resulted in the '438 Patent.

4           96. On April 26, 2004, the PTO issued the '438 Patent, entitled "Timing  
5 Closure Methodology." Dr. van Ginneken is named as the sole inventor and Magma is  
6 the assignee.

### 7           **SYNOPSYS' LACK OF INTEREST IN MAGMA'S TECHNOLOGY**

8           97. Through the contributions of Dr. van Ginneken and other members  
9 of its engineering staff, Magma developed the concept of fixed timing. The fixed timing  
10 methodology implements a constant delay model within an automatic tool that integrates  
11 timing and placement into a single-pass design flow from RTL specifications to layout.  
12 This methodology establishes and optimizes circuit speeds prior to physical design.  
13 During physical design, the circuit design is refined to achieve a final timing that is very  
14 close to the circuit speed previously established. Magma became the first EDA company  
15 to offer this integrated approach.

16           98. The fixed timing approach eliminates the timing iterations that exist  
17 in conventional design flows, and thus can significantly reduce the time it takes to design  
18 and produce deep submicron integrated circuits. Given the importance of time-to-market  
19 in the semiconductor industry, EDA software that accelerates the IC design process can  
20 provide a significant competitive advantage to chip designers. This technology has  
21 enabled Magma to make competitive inroads against companies such as Synopsys.

22           99. That Magma's software employs a fixed timing methodology was no  
23 secret to Synopsys, because Magma has repeatedly discussed the concept with Synopsys  
24 in the years since Magma's founding. For example, in February 1998, representatives of  
25 Synopsys met with representatives of Magma to explore the possibility of Magma being  
26 merged into or acquired by Synopsys. At the meeting, Magma informed Synopsys that it  
27 was developing a fixed timing methodology. In response, Synopsys asserted that  
28 Magma's approach would not work.







1 Synopsys, Magma could not be liable for infringing the patents as a matter of law. If Dr.  
2 van Ginneken developed the inventions at Synopsys, that work would have occurred as  
3 part of the joint project between IBM and Synopsys to which IBM engineers made  
4 significant contributions. Thus, by operation of law and pursuant to the IBM-Synopsys  
5 Agreement, IBM would be an owner of the Magma Patents. Accordingly, Synopsys  
6 could not assert the patents against Magma without naming IBM as a plaintiff, and  
7 Magma would, in addition, be licensed under them pursuant to its patent license  
8 agreement with IBM. Thus, Magma cannot be liable for infringing the Magma Patents.

### 9 **SYNOPSIS' FALSE STATEMENTS AND UNFAIR COMPETITION**

10 111. Synopsys' misconduct is not limited to filing this baseless lawsuit.  
11 Synopsys is engaging in a campaign with the press and with Magma's customers and  
12 competitors to spread false and misleading statements about Magma and its products.

13 112. On the day it filed this lawsuit, Synopsys issued a press release  
14 asserting that "Synopsys rightfully owns the two van Ginneken patents. Accordingly,  
15 Synopsys today filed suit in Federal court against Magma under the van Ginneken patents  
16 to enforce its rights as the owner of the inventions and to bar Magma from practicing  
17 Synopsys' technologies."

18 113. These and other false statements by Synopsys about Magma and its  
19 technology have begun to negatively affect Magma's relationships with its customers and  
20 its reputation in the marketplace. Synopsys has informed customers that Magma has  
21 stolen trade secrets and that Synopsys owns the technology which underlies Magma's  
22 products. In response, Magma has had to make significant and extraordinary efforts to  
23 maintain customer relationships as a result of the uncertainty and doubt that Synopsys'  
24 statements have created in the market. Magma has had to visit customers to correct  
25 Synopsys' false statements and persuade the customers not to take their business  
26 elsewhere despite Synopsys' false statements.

1 **FIRST COUNTERCLAIM FOR RELIEF**

2 **(NON-INFRINGEMENT OF THE '114 PATENT)**

3 114. Magma incorporates by reference the allegations set forth in the  
4 previous paragraphs.

5 115. On April 23, 2002, the PTO issued the '114 Patent, entitled "Method  
6 for the Physical Placement of an Integrated Circuit Adaptive to Netlist Changes," upon an  
7 application filed in the names of Narendra Shenoy and Lukas van Ginneken.

8 116. Synopsys claims to be the owner of the '114 Patent.

9 117. There exists an actual and justiciable controversy within the meaning  
10 of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the  
11 inventorship, ownership, validity, and infringement of the '114 Patent and Magma's  
12 alleged liability for infringement thereof.

13 118. Magma does not infringe, or contribute to or induce the infringement  
14 of, the '114 Patent.

15 **SECOND COUNTERCLAIM FOR RELIEF**

16 **(INVALIDITY OF THE '114 PATENT)**

17 119. Magma incorporates by reference the allegations set forth in the  
18 previous paragraphs.

19 120. On April 23, 2002, the PTO issued the '114 Patent, entitled "Method  
20 for the Physical Placement of an Integrated Circuit Adaptive to Netlist Changes," upon an  
21 application filed in the names of Narendra Shenoy and Lukas van Ginneken.

22 121. Synopsys claims to be the owner of the '114 Patent.

23 122. There exists an actual and justiciable controversy within the meaning  
24 of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the  
25 inventorship, ownership, validity, and infringement of the '114 Patent and Magma's  
26 alleged liability for infringement thereof.

27 123. The '114 Patent is invalid because it: (1) fails to satisfy the  
28 conditions for patentability of 35 U.S.C. §§ 102 and 103 because, without limitation, the

1 alleged inventions are taught by, suggested by, and/or obvious in view of the prior art, no  
2 claim of the '114 Patent can be validly construed to cover any Magma product or process,  
3 and/or the inventorship of the '114 Patent is incorrect; and (2) fails to satisfy one or more  
4 of the requirements of 35 U.S.C. § 112, including without limitation: (a) the specification  
5 does not contain a written description of the invention and of the manner and process of  
6 making and using it, in such full, clear, concise, and exact terms as to enable any person  
7 skilled in the art to which it pertains, or with which it is most nearly connected, to make  
8 and use the same; and (b) the specification does not set forth the best mode contemplated  
9 by the inventor of carrying out his invention.

10 **THIRD COUNTERCLAIM FOR RELIEF**

11 **(IBM'S JOINT OWNERSHIP OF THE '114 PATENT)**

12 124. Magma incorporates by reference the allegations set forth in the  
13 previous paragraphs.

14 125. On April 23, 2002, the PTO issued the '114 Patent, entitled "Method  
15 for the Physical Placement of an Integrated Circuit Adaptive to Netlist Changes," upon an  
16 application filed in the names of Narendra Shenoy and Lukas van Ginneken.

17 126. Synopsys claims to be the owner of the '114 Patent.

18 127. There exists an actual and justiciable controversy within the meaning  
19 of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the  
20 inventorship, ownership, validity, and infringement of the '114 Patent and Magma's  
21 alleged liability for infringement thereof.

22 128. IBM is a joint owner of the '114 Patent.

23 **FOURTH COUNTERCLAIM FOR RELIEF**

24 **(NO LIABILITY FOR INFRINGEMENT**

25 **OF THE '114 PATENT DUE TO LICENSE)**

26 129. Magma incorporates by reference the allegations set forth in the  
27 previous paragraphs.



1 '438 Patent and that the Court further declare Magma the owner, in whole or in part, of  
2 the '446 Patent and the '438 Patent.

3 **SIXTH COUNTERCLAIM FOR RELIEF**

4 **(NON-INFRINGEMENT OF THE '446 PATENT)**

5 140. Magma incorporates by reference the allegations set forth in the  
6 previous paragraphs.

7 141. On September 17, 2002, the PTO issued to Magma the '446 Patent,  
8 entitled "Timing Closure Methodology," upon an application filed in the name of Lukas  
9 P. P. P. van Ginneken.

10 142. Synopsys claims to be the owner of the '446 Patent.

11 143. There exists an actual and justiciable controversy within the meaning  
12 of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the  
13 inventorship, ownership, validity, and infringement of the '446 Patent and Magma's  
14 alleged liability for infringement thereof.

15 144. If Magma does not own the '446 Patent, Magma does not infringe,  
16 or contribute to or induce the infringement of, the '446 Patent.

17 **SEVENTH COUNTERCLAIM FOR RELIEF**

18 **(IBM'S JOINT OWNERSHIP OF THE '446 PATENT)**

19 145. Magma incorporates by reference the allegations set forth in the  
20 previous paragraphs.

21 146. On September 17, 2002, the PTO issued to Magma the '446 Patent,  
22 entitled "Timing Closure Methodology," upon an application filed in the name of Lukas  
23 P. P. P. van Ginneken.

24 147. Synopsys claims to be the owner of the '446 Patent.

25 148. There exists an actual and justiciable controversy within the meaning  
26 of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the  
27 inventorship, ownership, validity, and infringement of the '446 Patent and Magma's  
28 alleged liability for infringement thereof.

1           149. If Magma does not exclusively own the ‘446 Patent, IBM is a joint  
2 owner of the ‘446 Patent.

3                           **EIGHTH COUNTERCLAIM FOR RELIEF**  
4                           **(NO LIABILITY FOR INFRINGEMENT**  
5                           **OF THE ‘446 PATENT DUE TO LICENSE)**

6           150. Magma incorporates by reference the allegations set forth in the  
7 previous paragraphs.

8           151. On September 17, 2002, the PTO issued to Magma the ‘446 Patent,  
9 entitled “Timing Closure Methodology,” upon an application filed in the name of Lukas  
10 P. P. P. van Ginneken.

11           152. Synopsys claims to be the owner of the ‘446 Patent.

12           153. There exists an actual and justiciable controversy within the meaning  
13 of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the  
14 inventorship, ownership, validity, and infringement of the ‘446 Patent and Magma’s  
15 alleged liability for infringement thereof.

16           154. If Magma does not own the ‘446 Patent, Magma cannot infringe the  
17 ‘446 Patent because Magma is licensed under the ‘446 Patent.

18                           **NINTH COUNTERCLAIM FOR RELIEF**  
19                           **(NON-INFRINGEMENT OF THE ‘438 PATENT)**

20           155. Magma incorporates by reference the allegations set forth in the  
21 previous paragraphs.

22           156. On April 20, 2004, the PTO issued to Magma the ‘438 Patent,  
23 entitled “Timing Closure Methodology,” upon an application filed in the name of Lukas  
24 P. P. P. van Ginneken.

25           157. Synopsys claims to be the owner of the ‘438 Patent.

26           158. There exists an actual and justiciable controversy within the meaning  
27 of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the  
28

1 inventorship, ownership, validity, and infringement of the '438 Patent and Magma's  
2 alleged liability for infringement thereof.

3 159. If Magma does not own the '438 Patent, Magma does not infringe,  
4 or contribute to or induce the infringement of, the '438 Patent.

5 **TENTH COUNTERCLAIM FOR RELIEF**

6 **(IBM'S JOINT OWNERSHIP OF THE '438 PATENT)**

7 160. Magma incorporates by reference the allegations set forth in the  
8 previous paragraphs.

9 161. On April 20, 2004, the PTO issued to Magma the '438 Patent,  
10 entitled "Timing Closure Methodology," upon an application filed in the name of Lukas  
11 P. P. P. van Ginneken.

12 162. Synopsys claims to be the owner of the '438 Patent.

13 163. There exists an actual and justiciable controversy within the meaning  
14 of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the  
15 inventorship, ownership, validity, and infringement of the '438 Patent and Magma's  
16 alleged liability for infringement thereof.

17 164. If Magma does not exclusively own the '438 Patent, IBM is a joint  
18 owner of the '438 Patent.

19 **ELEVENTH COUNTERCLAIM FOR RELIEF**

20 **(NO LIABILITY FOR INFRINGEMENT**

21 **OF THE '438 PATENT DUE TO LICENSE)**

22 165. Magma incorporates by reference the allegations set forth in the  
23 previous paragraphs.

24 166. On April 20, 2004, the PTO issued to Magma the '438 Patent,  
25 entitled "Timing Closure Methodology," upon an application filed in the name of Lukas  
26 P. P. P. van Ginneken.

27 167. Synopsys claims to be the owner of the '438 Patent.



1           168. There exists an actual and justiciable controversy within the meaning  
2 of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the  
3 inventorship, ownership, validity, and infringement of the ‘438 Patent and Magma’s  
4 alleged liability for infringement thereof.

5           169. If Magma does not own the ‘438 Patent, Magma cannot be liable for  
6 infringing the ‘438 Patent because Magma is licensed under the ‘438 Patent.

7                           **TWELFTH COUNTERCLAIM FOR RELIEF**  
8                           **(UNFAIR COMPETITION IN VIOLATION OF**  
9                           **CAL. BUS. & PROF. CODE § 17200 ET SEQ.)**

10           170. Magma incorporates by reference the allegations set forth in the  
11 previous paragraphs.

12           171. By reason of the foregoing, Synopsys has been, and is, engaged in  
13 “unlawful, unfair or fraudulent business practices” in violation of California Business and  
14 Professions Code §§ 17200 *et seq.*, and in acts of unfair competition in violation of the  
15 common law.

16           172. Synopsys’ acts complained of herein have damaged and will  
17 continue to damage Magma irreparably. Magma has no adequate remedy at law for such  
18 wrongs and injuries. The damage to Magma includes harm to its goodwill and reputation  
19 that money cannot compensate. Magma is therefore entitled to preliminary and  
20 permanent injunctions restraining and enjoining Synopsys and its agents, servants,  
21 employees, representatives, successors and assigns, and those acting in concert with them  
22 or on their behalf, from making false and misleading statements that Synopsys owns the  
23 Magma Patents and that Magma infringes the ‘114 Patent and the Magma Patents.

24                           **PRAYER FOR RELIEF**

25           WHEREFORE, Defendant and Counterclaimant Magma prays:

26           (1) that the Court dismiss with prejudice the Complaint of plaintiff  
27 Synopsys, that Synopsys take nothing by reason of the Complaint, and that judgment be  
28 rendered in favor of Magma;

1 (2) that the Court render judgment declaring that Magma has not  
2 infringed and is not infringing the '114 Patent;

3 (3) that the Court render judgment declaring that IBM is a joint owner  
4 of the '114 Patent;

5 (4) that the Court render judgment declaring that Magma cannot be  
6 liable for infringing the '114 Patent because Magma is licensed under the '114 Patent;

7 (5) that the Court render judgment declaring that the '114 Patent is  
8 invalid;

9 (6) that the Court render judgment declaring that Synopsys has no  
10 ownership interest whatsoever in the '446 Patent or in the '438 Patent;

11 (7) that the Court render judgment declaring that Magma is the owner,  
12 in whole or in part, of the '446 and '438 Patents;

13 (8) that Synopsys, its agents, servants, employees, representatives,  
14 successors and assigns, and those acting in privity or in concert with them or on their  
15 behalf, be preliminarily and permanently enjoined from claiming or otherwise stating that  
16 (a) Synopsys is the owner, in whole or in part, of the '446 or '438 Patents, or any  
17 inventions claimed therein, or (b) Magma infringes the '114 Patent, the '446 Patent, or  
18 the '438 Patent;

19 (9) that if Magma does not own the '446 Patent, the Court render  
20 judgment declaring that Magma has not infringed and is not infringing the '446 Patent;

21 (10) that if Magma does not exclusively own the '446 Patent, the Court  
22 render judgment declaring that IBM is a joint owner of the '446 Patent;

23 (11) that if Magma does not own the '446 Patent, the Court render  
24 judgment declaring that Magma cannot be liable for infringing the '446 Patent because  
25 Magma is licensed under the '446 Patent;

26 (12) that if Magma does not own the '438 Patent, the Court render  
27 judgment declaring that Magma has not infringed and is not infringing the '438 Patent;

28

1 (13) that if Magma does not exclusively own the '438 Patent, the Court  
2 render judgment declaring that IBM is a joint owner of the '438 Patent;

3 (14) that if Magma does not own the '438 Patent, the Court render  
4 judgment declaring that Magma cannot be liable for infringing the '438 Patent because  
5 Magma is licensed under the '438 Patent;

6 (15) that the Court render judgment declaring this to be an exceptional  
7 case under 35 U.S.C. § 285;

8 (16) that Magma be awarded its attorneys' fees and costs; and

9 (17) that Magma be awarded such other and further relief as the Court  
10 deems proper.

11 Dated: November 24, 2004

12 GEORGE A. RILEY  
13 CHRISTOPHER D. CATALANO  
14 RYAN K. YAGURA  
15 LUANN L. SIMMONS  
16 O'MELVENY & MYERS LLP

17 By /s/ George A. Riley  
18 George A. Riley

19 Attorneys for Defendant and  
20 Counterclaimant MAGMA DESIGN  
21 AUTOMATION, INC.  
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**DEMAND FOR JURY TRIAL**

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, defendant and counterclaimant Magma Design Automation, Inc. hereby demands a trial by jury of all issues.

Dated: November 24, 2004

GEORGE A. RILEY  
CHRISTOPHER D. CATALANO  
RYAN K. YAGURA  
LUANN L. SIMMONS  
O'MELVENY & MYERS LLP

By /s/ George A. Riley  
George A. Riley

Attorneys for Defendant and  
Counterclaimant MAGMA DESIGN  
AUTOMATION, INC.

SF1:567299.1