

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

World Programming Limited

Petitioners

v.

SAS Institute, Inc.

Patent Owner

Patent 7,447,686

DECLARATION OF DR. DAVID MAIER

TABLE OF CONTENTS

I.	BACKGROUND AND QUALIFICATIONS	3
A.	Overview	3
B.	Education and Employment	5
C.	Awards and Honors	6
D.	Participation in Professional Organizations	6
E.	Publications	7
II.	UNDERSTANDING OF LEGAL PRINCIPLES	7
A.	Legal Standard for Prior Art	7
B.	Legal Standard for Obviousness	10
C.	Legal Standard for Claim Construction	15
D.	Level of Skill of One of Ordinary Skill in the Art	21
III.	TECHNOLOGY BACKGROUND	22
A.	Overview of Relational Database Systems	22
B.	Overview of Database Gateways and Federated Database Systems	35
C.	Overview of SQL Dialects	35
IV.	THE '686 PATENT	37
A.	Summary of the '686 Patent	37
B.	Prosecution History of the '686 Patent	42
V.	THE CHALLENGED CLAIMS	46
VI.	CLAIM CONSTRUCTION	46
VII.	ANALYSIS OF THE PRIOR ART	47
A.	<i>InterViso: Dealing with the Complexity of Federated Database Access</i> by Marjorie Templeton et al.	47
B.	<i>Implementation of a Database Factory</i> by Asokan R. Selvaraj et al.	54
VIII.	Motivation to Combine	68
A.	Motivation to Combine InterViso with Selvaraj	68
IX.	Claims 1-40, 43-48 and 50 are Obvious in Light of InterViso in View of Selvaraj and the Knowledge of a POSITA, Under 35 U.S.C. § 103	87
A.	Claim 1	87
B.	Claim 2	127
C.	Claim 3	129
D.	Claim 4	130

Declaration of Dr. David Maier for U.S. Patent No. 7,447,686

E.	Claim 5.....	131
F.	Claim 6.....	133
G.	Claim 7.....	134
H.	Claim 8.....	135
I.	Claim 9.....	136
J.	Claim 10.....	138
K.	Claim 11.....	139
L.	Claim 12.....	142
M.	Claims 13-15 and 25-26.....	143
N.	Claims 16-18.....	147
O.	Claim 19.....	148
P.	Claims 20-24 and 29.....	149
Q.	Claims 27-28.....	152
R.	Claims 30-32.....	154
S.	Claim 33.....	155
T.	Claims 34 and 35.....	155
U.	Claims 36, and 38-39.....	158
V.	Claims 37 and 40.....	159
W.	Claim43.....	161
X.	Claims 44-45.....	162
Y.	Claim 46.....	164
Z.	Claim 47.....	165
AA.	Claim 48.....	165
BB.	Claim 50.....	166
X.	RESERVATION OF RIGHTS.....	167
XI.	CONCLUSION.....	167

Declaration of Dr. David Maier for U.S. Patent No. 7,447,686

1. My full name is Dr. David Eugene Maier. I have prepared this declaration as an expert witness on behalf of World Programming Limited (“WPL”). In this declaration, I give my opinions as to whether claims 1-40, 43-48, and 50 of U.S. Patent No. 7,447,686 (“the ’686 patent,” Ex. 1001) are valid. I provide technical bases for these opinions as appropriate.

2. This declaration contains statements of my opinions formed to date and the bases and reasons for those opinions. I may offer additional opinions based on further review of materials in this case, including opinions or testimony of other expert witnesses, or both.

3. I make this declaration based upon my own personal knowledge and, if called upon to testify, would testify competently to the matters contained herein. For my efforts in connection with the preparation of this declaration I have been compensated at my standard rate of \$525 per hour for this type of work. My compensation is in no way contingent on the results of these or any other proceedings relating to the above-captioned patent.

4. I have considered the following materials in connection with this declaration, together with my 40-plus years of professional experience in the field:

Declaration of Dr. David Maier for U.S. Patent No. 7,447,686

Exhibit	Description
1001	U.S. Patent No. 7,447,686
1002	CV of Dr. David Maier
1004	File History of the '686 Patent
1005	<i>IEEE 100: The Authoritative Dictionary of IEEE Standards Terms</i> , (7 th ed. 2000) (“IEEE Dictionary”)
1006	<i>InterViso: Dealing with the Complexity of Federated Database Access</i> , by Marjorie Templeton et al., VLDB Journal, Vol. 4, Issue 2 (April 1995) (“InterViso”)
1007	<i>SQL in a Nutshell: A Desktop Quick Reference</i> , by Kevin Kline & Daniel T. Kline (1 st ed. 2001) (“Nutshell”)
1008	<i>Informix Guide to SQL: Tutorial</i> , by Informix Press (2 nd ed. 2000) (“Tutorial”)
1009	<i>Transact-SQL Programming</i> , by Kevin Kline et al. (1 st ed. 1999) (“Transact”)
1010	<i>SQL: The Complete Reference</i> , by James R. Groff & Paul N. Weinberg (1 st ed. 1999) (“Groff”)
1011	<i>The C Programming Language</i> , by Brian Kernighan & Dennis Ritchie (2 nd ed. 1988) (“Ritchie”)
1013	<i>SunWorld Online - New Products</i> , advertisement for InterViso 3.0 (December 1995)
1014	<i>Implementation of a Database Factory</i> , by Asokan R. Selvaraj & Debasish Ghosh, ACM SIGPLAN Language Tips, Vol. 32, Issue 6 (June 1997) (“Selvaraj”)

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.