Swiping the iPhone:

Billions Lost With the Stroke of a Pen

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Background

- Ph.D., Yale University (computer science, 1978)
- J.D., Duquesne University (law, 1981)
- Carnegie Mellon computer science faculty since 1975
- Visiting Professor, University of Hong Kong

- Director, Master's Program in eBusiness Technology
- Annual course, "Law of Computer Technology"
- Expert witness in over 90 court cases involving computer technology

The Players

Leonard Davis, Chief Judge, Eastern District of Texas

(Former computer programmer)

Mirror Worlds LLC

Apple Computer, Inc.

David Gelernter, Yale Professor, Inventor

Bud Tribble, Apple's VP of Software Technology

David Gelernter

- Yale University professor of Computer Science

- In 1991, he wrote "Mirror Worlds: the Day Software Puts the Universe in a Shoebox ... How It Will Happen and What It Will Mean."

- Envisions the ability to review vast quantities of information from one computer screen

- Published before the first Web server was implemented

Mirror Worlds

- Gelernter and Eric Freeman, a Yale graduate student, formed Mirror Worlds Technology, to develop software based on the book.

- In 1993, Gelernter was injured by a letter bomb sent by the Unabomber. He lost sight in one eye and partial use of his right hand.

- In 1996, Yale University filed a U.S. patent application that ultimately resulted in three patents for the technology
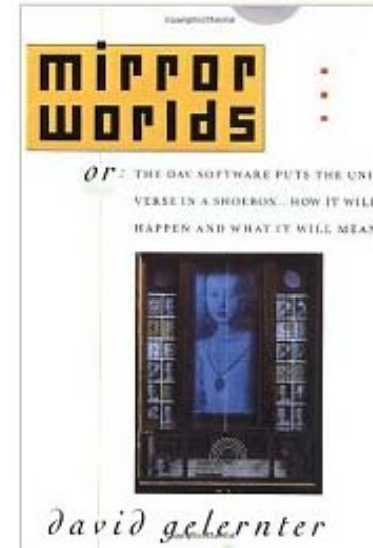
FREEMAN

Mirror Worlds LLC

- Yale transferred the patent rights to Mirror Worlds Technology

- In 2001, Mirror Worlds Technology released Scopeware, a product based on the invention

- The company went out of business in 2004

- The patents were transferred to a new entity, Mirror Worlds LLC

- In January 2007, Apple introduced iPhone. Mirror Worlds LLC believed the iPhone interface infringed its patents

Patents

- A patent is a right for a limited time to stop others from making, using or selling your invention

- Patent laws are very similar (not identical) around the world

- A patent has two parts:

  1. Specification: instructions on how to make and use the invention

  2. Claims: sentences that define in words the boundaries of the invention

United States Patent

Freeman et al.

Patent No.: **US 6,725,427 B2**

Date of Patent: Apr. 20, 2004

ABSTRACT

A document stream operating system and method is disclosed in which: (1) documents are stored in one or more chronologically ordered streams; (2) the location and nature of file storage is transparent to the user; (3) information is organized as needed instead of at the time the document is created; (4) sophisticated logic is provided for summarizing a large group of related documents at the time a user wants a concise overview; and (5) archiving is automatic. The documents can include text, pictures, animations, software programs or any other type of data.

U.S. Patent 6,725,427

FIG. I
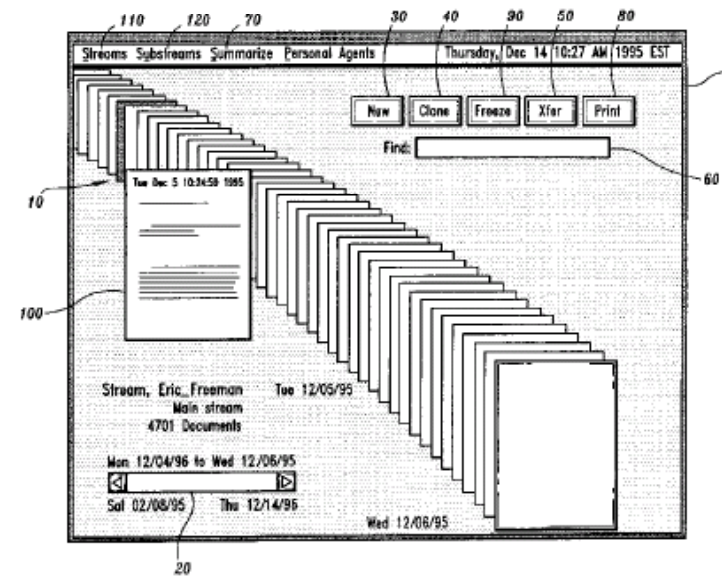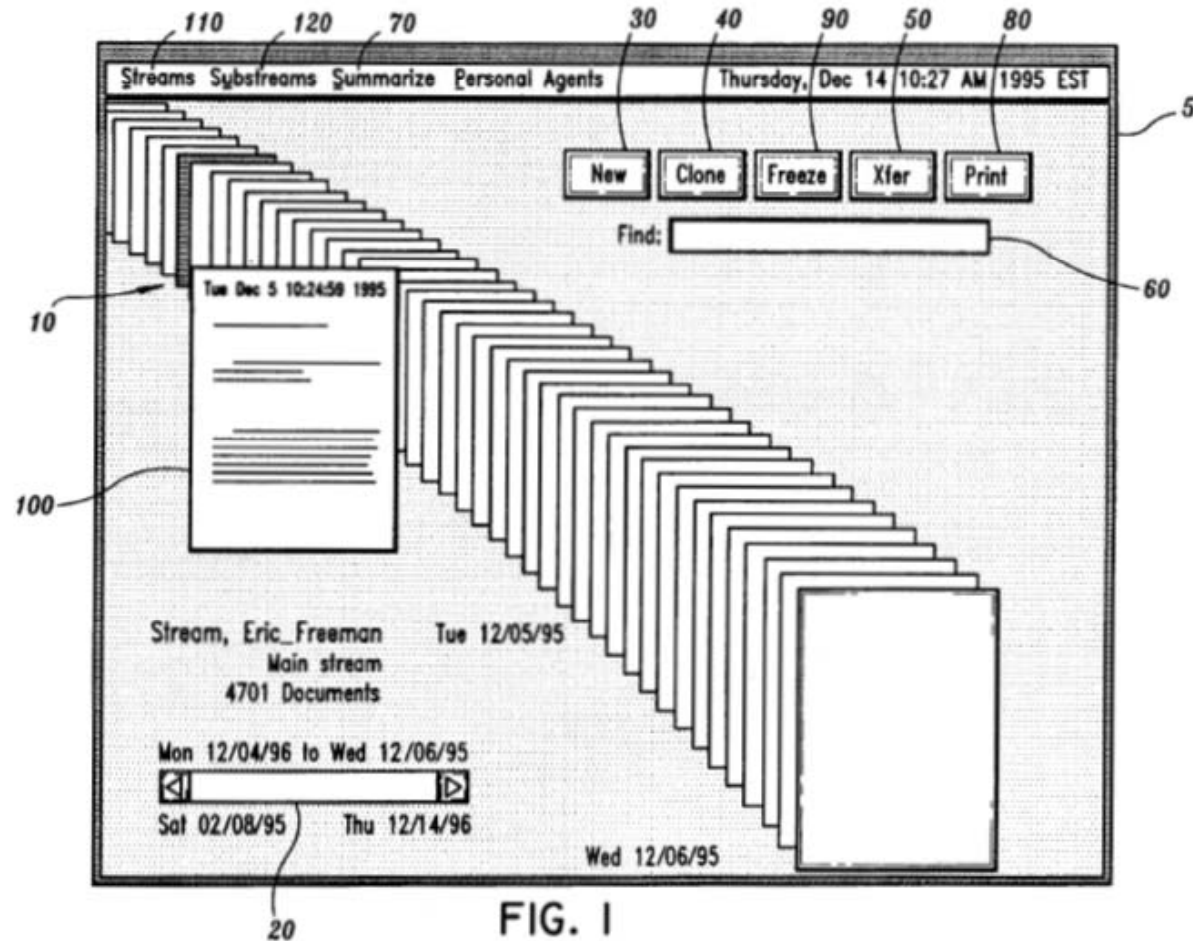
Mirror Worlds' Scopeware Product
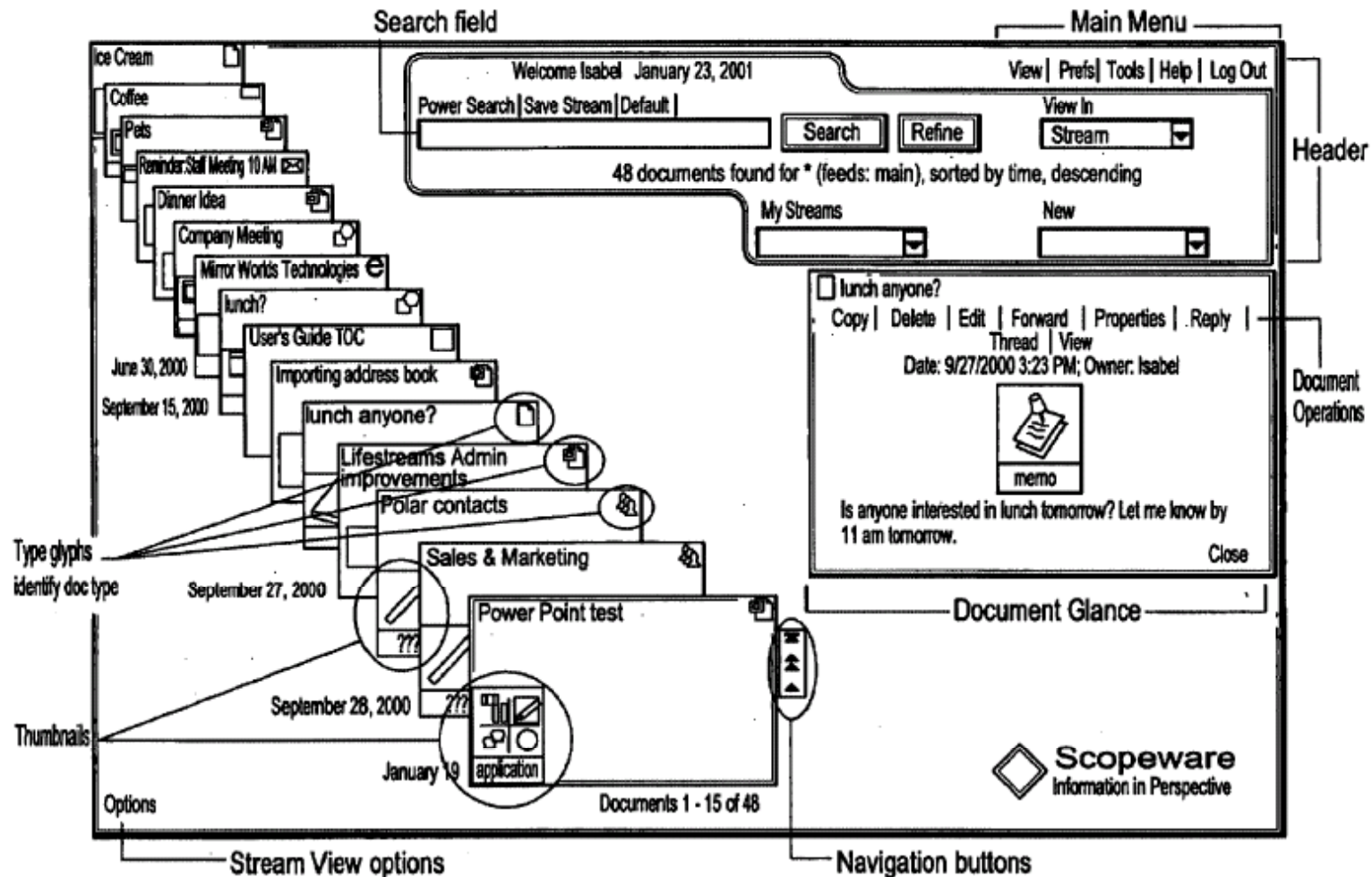
Apple Was Interested

- In 2001, Steve Jobs saw an article about Scopeware in the *New York Times*

- He wrote a memo to Apple executive Bertrand Serlet: **"Please check out this software ASAP. It may be something for our future, and we may want to secure a license ASAP."**

- Serlet testified "this was the first time I recall having received a specific mail to look at a company or its technology" from Mr. Jobs.

Apple's Cover Flow
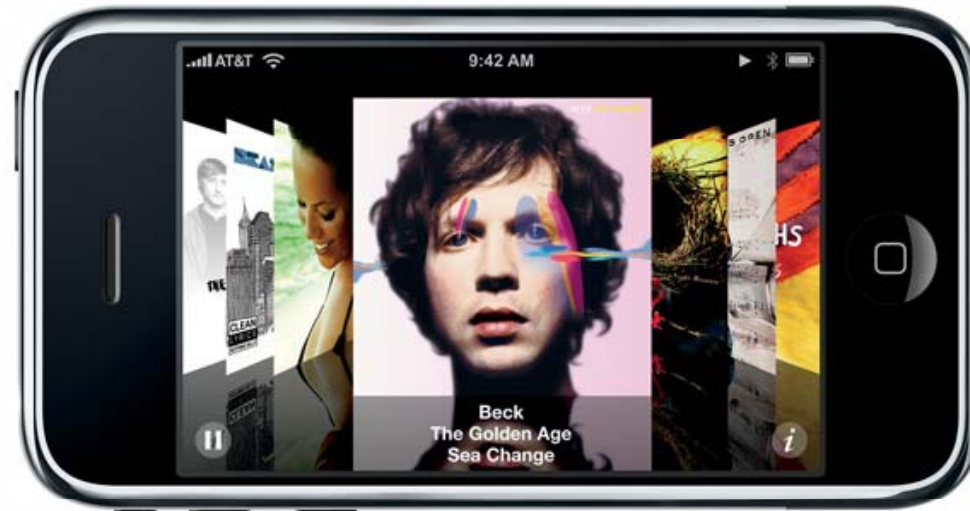
Mirror Worlds LLC v. Apple

- In March 2008, Mirror Worlds sued Apple for patent infringement in the Eastern District of Texas

Apple is in Cupertino, California

Eastern District of Texas

Mirror Worlds is in New Haven, Connecticut
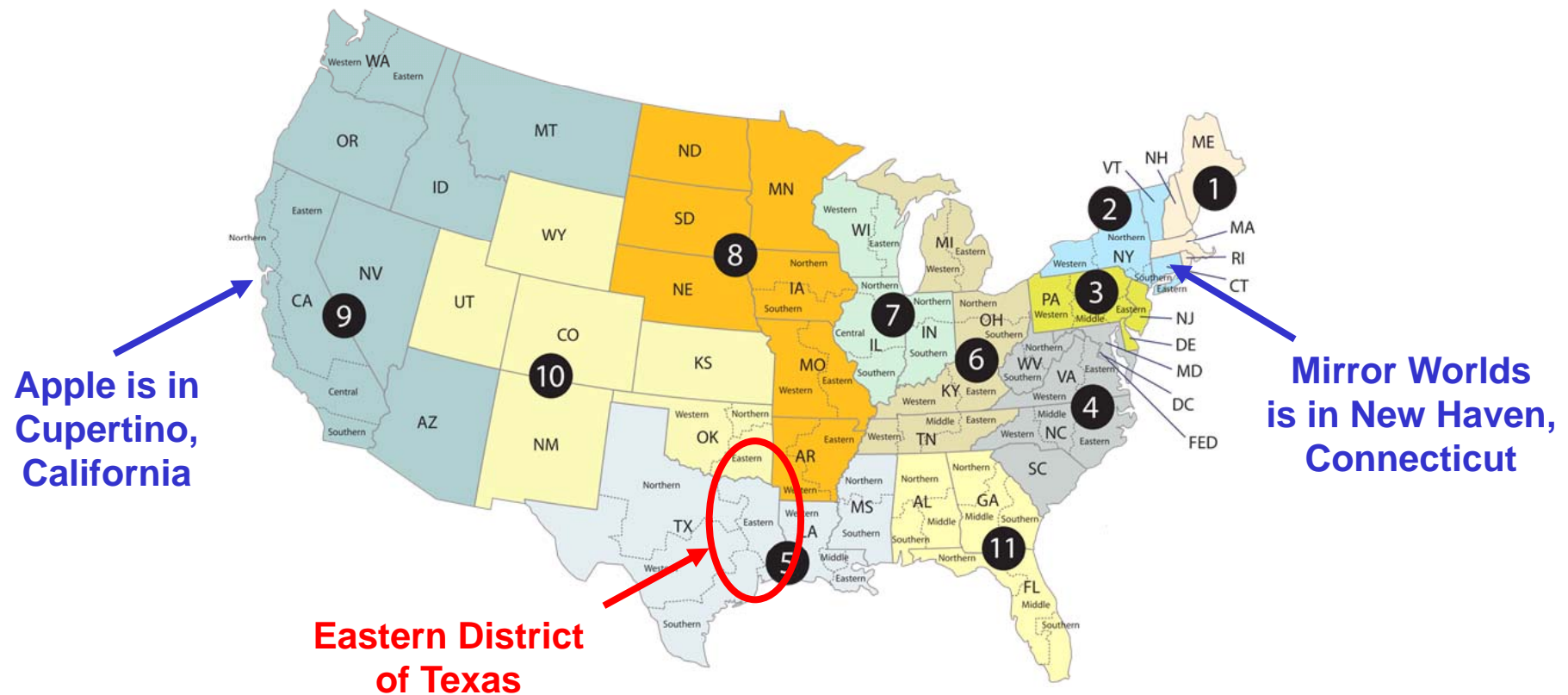
Why Texas?

- More patent cases are filed against more defendants in the Eastern District of Texas than anywhere else

U.S. PATENT CASES FILED (2010)

[Bar chart showing # of Defendants by district: MD Fla, SD Cal, SD Fla, SD NY, ND Ill, D NJ, ND Cal, CD Cal, D Del, and EASTERN DISTRICT OF TEXAS (approximately 3900, by far the tallest bar)]
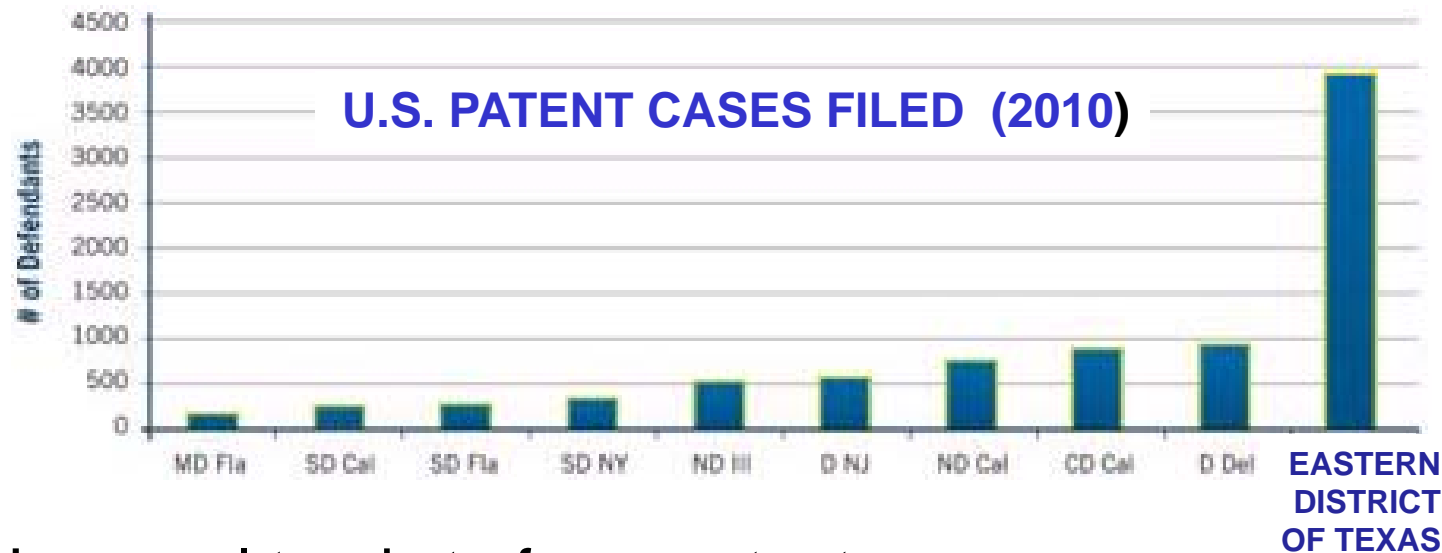
- Jury pool tends to favor patent owners
- Experienced judges
- Efficient administrative rules for patent cases

Patent Claims

- An invention is not defined by pictures but by written CLAIMS
- To prove infringement, the patent owner must prove that the "accused product" contains ALL the elements of at least ONE claim of the patent
- If ANY claim in infringed, the PATENT is infringed
- The patent owner can
  - stop the infringer from continued infringement
  - recover money "not less than a reasonable royalty"
- Apple's 2011 revenue: USD 127 Billion
- Apple's market cap (Mar. 1, 2012): USD 505 Billion

Claim 16 of the '427 Patent

16. A **controlling operating system** utilizing subsystems from another operating system running a computer, comprising:

[a] a **document organizing facility** associating **selected indicators** with received or created documents and creating information specifying **glance views** of the respective documents and information specifying **document representations** of the respective documents; . . .

Claim 16

[b] a display facility displaying at least selected ones of said document representations; said display facility further displaying a cursor or pointer and responding to a **user sliding without clicking the cursor or pointer** over a portion of a displayed document representation to display the glance view of the document whose document representation is touched by the cursor or pointer; and

[c] said controlling operating system utilizing subsystems from said another operating system for operations including writing documents to storage media, interrupt handling and input/output.

Proposed Claim Constructions

Term	Mirror Worlds	Apple
controlling operating system	operating system that utilizes subsystems from another operating system	operating system that controls another operating system
document organizing facility	software that organizes documents	portion of a stream-based operating system whose purpose is to organize documents
glance view	abbreviated presentation of a document	different graphical representation of a document that appears when a document representation is touched by the cursor or pointer and provides additional information about the document

Adopted Claim Constructions

Term	Mirror Worlds	Apple
controlling operating system	**operating system that utilizes subsystems from another operating system**	operating system that controls another operating system
document organizing facility	**software that organizes documents**	portion of a stream-based operating system whose purpose is to organize documents
glance view	**abbreviated presentation of a document**	different graphical representation of a document that appears when a document representation is touched by the cursor or pointer and provides additional information about the document

The Trial

- The case <u>docket</u> has 495 entries
- Trial was held in September 2010
- It lasted one week
- Both sides called expert witnesses
- Mirror Worlds tried to prove infringement
- Apple tried to show non-infringement AND that the patents were invalid because the inventions were not new
- The jury found for Mirror Worlds and against Apple
  - The patents were valid
  - All three patents were infringed

Jury Verdict Form

VERDICT FORM

In answering these questions, you are to follow all of the instructions I have given you in the Court's Charge.

INFRINGEMENT OF THE MIRROR WORLDS PATENTS

1A. Did Mirror Worlds prove by a preponderance of the evidence that Apple infringed any of the asserted claims of the Mirror Worlds patents identified below?

1B. Did Mirror Worlds prove by clear and convincing evidence that Apple's infringement, if any, was willful?

Answer "Yes" or "No" as to each patent in column 1A. For each patent you answer "Yes" to in column 1A, answer "Yes" or "No" in column 1B. If you answer "No" in column 1A, do not answer the corresponding column 1B.

	1A (Infringement)	1B (Willful Infringement)
'427 Patent:	~~MW~~ YES	YES
'227 Patent:	YES	YES
'313 Patent:	YES	YES

Jury Verdict Form

2. Did Apple prove by clear and convincing evidence that all of the infringed claims, if any, of each of the Mirror Worlds patents identified below are invalid?

Answer "Yes" or "No" for each listed patent:

'427 Patent: _No_
'227 Patent: _No_
'313 Patent: _No_

If you found in Question 1 that Mirror Worlds proved that Apple infringed at least one claim of the Mirror Worlds Patents (a "Yes" answer to any patent), and you found in Question 2 that Apple did not prove that all of the infringed claims were invalid (a "No" answer to any patent), then answer Question 3.

DAMAGES FOR APPLE'S INFRINGEMENT OF THE MIRROR WORLDS PATENTS

3. What sum of money, if paid now in cash, do you find from a preponderance of the evidence would fairly and reasonably compensate Mirror Worlds for Apple's infringement?

Answer with the amount for the '427 Patent _2085 MILLION_

Answer with the amount for the '227 Patent _2085 MILLION_

Answer with the amount for the '313 Patent _208.5 MILLION_

USD 625.5M
HKD 4.9B !!

Willful Infringement

- Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement but in no event less than a reasonable royalty for the use made of the invention by the infringer … the court may increase the damages up to three times the amount found or assessed.

- "If infringement be willful, increased damages 'may' be awarded at the discretion of the district court, and the amount of increase may be set in the exercise of that same discretion." *Kloster Speedsteel AB v. Crucible Inc.* (Fed.Cir.1986).

- USD 625.5 million x 3 = 1.9 billion = 14.5 billion HKD

After Trial

- Problem: Claim 16 requires "displaying a cursor or pointer and responding to a user sliding without clicking the cursor or pointer over a portion of a displayed document representation"

- The documents remain stationary; the cursor moves.

- In Cover Flow, the documents move over a stationary point (the center of the screen)

- Mirror Worlds was obliged to show that the Cover Flow behavior is "equivalent" to that of the claim.

After Trial

**MIRROR WORLDS'
EXPERT JOHN LEVY**

- "Dr. Levy's testimony regarding infringement … vitiates that claim limitation by accusing Apple's products of functioning in a way that is opposite to what the claim requires."

- "Dr. Levy admits that Cover Flow does not literally display a cursor or pointer, rather, he alleges the equivalent of displaying a cursor or pointer is using "[t]he area in which the glance view pops up in the center of the screen functions as the cursor" without specifically addressing their equivalence."

After Trial

- "Mirror Worlds may have painted an appealing picture for the jury, but it failed to lay a solid foundation sufficient to support important elements it was required to establish under the law."

- "Reviewing the record in the light most favorable to Mirror Worlds, a reasonable jury cannot conclude that claims 16 and 18 of the '427 Patent are infringed by — there is no substantial evidence in the record that would permit a jury to find the limitation of the claims was met by equivalents."

- The judge vacated the jury's verdict completely with one signature.

Judgment

FINAL JUDGMENT

Consistent with the Court's Memorandum Opinion and Order entered this date, the Court

hereby **ENTERS FINAL JUDGMENT** that Mirror Worlds take nothing against Apple.

So ORDERED and SIGNED this 4th day of April, 2011.

LEONARD DAVIS
UNITED STATES DISTRICT JUDGE

Court Costs

BILL OF COSTS

Judgment having been entered in the above entitled action on _____04/04/2011_____ against _____Plaintiff, Mirror Worlds, LLC_____ ,

Date

the Clerk is requested to tax the following as costs:

(See Exhibit 1)

Fees of the Clerk . . . . $ _____450.00_____

Fees for service of summons and subpoena . . . . _____

Fees for printed or electronically recorded transcripts necessarily obtained for use in the case . . . . . . _____60,175.47_____

(See Exhibits 2 and 3)

Fees and disbursements for printing . . . . _____

(See Exhibits 4 and 5)

Fees for witnesses *(itemize on page two)* . . . . _____13,903.62_____

Fees for exemplification and the costs of making copies of any materials where the copies are
necessarily obtained for use in the case. (See Exhibits 6 and 7) . . . . _____92,370.91_____

Docket fees under 28 U.S.C. 1923 . . . . _____

Costs as shown on Mandate of Court of Appeals . . . . _____

(See Exhibit 8)

Compensation of court-appointed experts . . . . _____23,100.00_____

Compensation of interpreters and costs of special interpretation services under 28 U.S.C. 1828 . . . . . _____

Other costs *(please itemize)* . . . . _____

TOTAL $ _____190,000.00_____

After Trial

- When he learned the award was reversed, Gelernter said to his lawyer, "Joe, I've been through worse."
- Not only did Mirror Worlds lose, it had to pay USD 190,000 for the cost of the trial
- On May 2, 2011 Mirror Worlds appealed to the Court of Appeals for the Federal Circuit
- Gelernter said in an interview: "Whatever happens in the end with the appeal, the six months of vindication between the jury verdict and the judge's decision were worth many lifetimes of some cheaper pleasure."

Q&A