Doc. 144 Att. 4

$\label{eq:mirror worlds} \textbf{Mirror Worlds, LLC v Apple, Inc.}$

Civil Action No. 6:08-cv-88 (LED)

EXHIBIT D: SUPPORT FOR APPLE'S PROPOSED CONSTRUCTIONS

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|---|-------------------------------------|--|---|--|
| '227-1, 13, and 25 | "data unit" | "a collection of data of significance to the user that the user considers as a unit." | "an item of information of significance to the user that the user considers as a unit (e.g., an email, picture, voice mail, software program, reminder or calendar item)" | '227 Patent: 1:4-10; 1:20-59; 2:6-9; 2:12-34; 2:62-3:32; 4:6-4:30; 4:31-47; 5:7- 13 '227 CFH: 687-689; 690; 737; 764-65; 770- 73; 774; 779; 06/18/09 Gelernter Depo. Trans.: 28:4-15 "The Lifestreams Software Architecture," by Eric Freeman, Doctoral Dissertation at Yale University, May 1997, YALE000631-816. |
| '227-1, 13, 25; '313-1; '427-1, 20- 24, 25, 37- 39; and '999-1 | "stream" | In the '227, '313 and '427 patents: "a time-ordered collection of data units, or documents, unbounded in number, in which the time associated with a data unit can be in the past, present or future, and | "a time-ordered sequence of documents that functions as a diary of a person or an entity's electronic life and that is designed to have three main portions: past, present and future" | '227 Patent: 1:4-10; 1:20-59; 2:1-9; 2:12-34; 2:47-48; 2:62-3:32; 3:62-4:5; 4:6- 4:30; 4:31-47; 5:13-19; 5:43-52; 5:53-6:7; 6:56-59; 7:17-19; 7:39- 63; 9:13-18; 11:57-12:2; 12:61-64; |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|------------------------|-------------------------------------|--|--|---|
| | | the location of file storage is transparent to the user" In the '999 patent: "a time-ordered collection of information assets, unbounded in number, in which the time associated with an information asset can be in the past, present or future, and the location of file storage is transparent to the user" | | 13:50-64; 14:37-51 '227 Certified File History: 47-48; 371-374; 377-78; 379-380; 381-382; 662; 668-670; 672-73; 674; 675-76; 682-83; 765; 767-78; 770-73; 774-775; 776; 779-80; 786-87. 06/18/09 Gelernter Depo. Trans.: 17:20-22:12; 163:4-164:3 '999 Reexamination: Amendment in Response to First Office Action, pp. 6, 7-8, 8-11, 12-14. '427 Reexamination: Amendment in Response to First Office Action, pp. 10-11, 12-14. "The Lifestreams Software Architecture," by Eric Freeman, Doctoral Dissertation at Yale University, May 1997, YALE000631-816. |
| '227-1, 13, 25; and | "main stream" | "a stream of each data unit, or document, received by or | "a stream which stores every data unit, or document, received by or | <u>'227 Patent:</u> 1:4-10; 1:20-59; 2:1-9; 2:12-34; |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|--------|-------------------------------------|--------------------------------------|-----------------------------------|---|
| '313-2 | | generated by the computer system" | generated by the computer system" | 2:47-48; 2:62-3:32; 3:62-4:5; 4:6-4:30; 4:31-47; 5:13-19; 5:43-52; 5:53-6:7; 6:56-59; 7:17-19; 7:39-63; 9:13-18; 11:57-12:2; 12:61-64; 13:50-64; 14:37-51 **227 Certified File History: 47-48; 371-374; 377-78; 379-380; 381-382; 662; 668-670; 672-73; 674; 675-76; 682-83; 765; 770-73; 774-75; 776; 779-80; 786-87. **06/18/09 Gelernter Depo. Trans.: 50:16-51:18; 164:4-165:22 **999 Reexamination: Amendment in Response to First Office Action, pp. 6, 10, 11, 13-14. **427 Reexamination: Amendment in Response to First Office Action, pp. 10-11, 12-14. **The Lifestreams Software Architecture," by Eric Freeman, Doctoral Dissertation at Yale University, May 1997, YALE000631-816. |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|-------------------------------------|-------------------------------------|---|--|---|
| '227-1, 13, 25; '313-2 and 11 | "substream" | "a subset of data units, or documents, yielded by a filter on a stream, the filter identifying certain documents within the stream" | "a stream that is a subset of data units, or documents, yielded by a filter on a stream, the filter identifying certain documents within the stream" | '227 Patent: Fig. 2; 1:4-10; 1:20-59; 2:1-9; 2:12-34; 2:47-48; 2:62-3:32; 3:62- 4:5; 4:6-4:30; 4:31-47; 4:48-5:13; 5:13-19; 5:43-52; 5:53-6:7; 6:56- 59; 6:61-64; 7:13-30; 7:39-63; 8:14-36; 9:13-18; 11:51-12:2; 12:61-64; 13:50-64; 14:4-10; 14:37-51 '227 Certified File History: 47-48; 371-374; 377-78; 379-380; 381-382; 662; 668-670; 672-73; 674 06/18/09 Gelernter Depo. Trans.: 50:16-51:18; 164:4-165:22 '427 Reexamination: Amendment in Response to First Office Action, pp. 10-11, 12-14. "The Lifestreams Software Architecture," by Eric Freeman, Doctoral Dissertation at Yale University, May 1997, YALE000631-816. |
| '999-1 | "time-ordered | "a displayed stream in which the elements are arranged in time | same as "stream" | same as "stream" |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|---------------------|-------------------------------------|---|---|---|
| | stream" | order" | | |
| '427-1 | "stream-based operating system" | "an operating system that includes support for streams" | "a non-hierarchical operating system in which, as each document is presented to the operating system, the document is placed according to a time indicator in the sequence of documents already stored relative to the time indicators of the stored documents" | same as "stream" plus: 06/18/09 Gelernter Depo. Trans.: 169:4-170:13 |
| '313-1; and '427-25 | "document stream operating system" | same as "stream-based operating system" | same as "stream-based operating system" | same as "stream-based operating system" |
| '227-1, 13, and 25 | "timestamp to identify" | "a time-based identifier" | "a date and time value that uniquely identifies each document" | '227 Patent: 1:3-10; 1:22-59; 2:1-9; 2:12-24; 3:62-65; 4:6-30; 4:42-47; 5:53-6:7; 7:54-63; 9:13-18 '227 Certified File History: 47-48; 377-78; 653-661; 668-669; 672-74; 674; 675-76; 682-83; 765-66; 778; 06/18/09 Gelernter Depo. Trans.: 29:25-31:20; 73:5-7; 81:4-83:16 |
| | | | | Random House Compact |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|--------------------|--|--|---|--|
| | | | | <u>Unabridged Dictionary</u> (Special Second Edition, 1996). |
| '227-1, 13, and 25 | "including each data unit according to the timestamp in the respective chronological indicator in the main stream" | No construction is necessary. However, if the Court rules that one is necessary, Mirror Worlds proposes the following construction: "including each data unit in the main stream, ordered according to the time stamp in the respective chronological indicator" | "storing each document in the main stream, in the location required by its identifying timestamp" | '227 Patent: 1:4-10; 1:20-59; 2:1-9; 2:12-34; 2:47-48; 2:62-3:32; 3:62-4:5; 4:6- 4:30; 4:31-47; 5:13-19; 5:43-52; 5:53-6:7; 6:56-59; 7:17-19; 7:39- 63; 9:13-18; 11:57-12:2; 12:61-64; 13:50-64; 14:37-51 '227 Certified File History: 47-48; 371-374; 377-78; 379-380; 381-382; 662; 668-670; 672-73; 674; 675-76; 682-83; 765; 770-73; 774-75; 776; 779-80; 786-87. 06/18/09 Gelernter Depo. Trans.: 50:16-51:18; 164:4-165:22; 22:19 '999 Reexamination: Amendment in Response to First Office Action, pp. 6, 10, 11, 13- 14. '427 Reexamination: Amendment in Response to First Office Action, pp. 10-11, 12-14. |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|-----------------------------------|-------------------------------------|--|---|---|
| | | | | "The Lifestreams Software Architecture," by Eric Freeman, Doctoral Dissertation at Yale University, May 1997, YALE000631-816. |
| | | | | Merriam Webster's Collegiate Dictionary (10th Edition, 1996). |
| | | | | The American Heritage College Dictionary (Third Edition, 1993). |
| | | | | Random House Compact Unabridged Dictionary (Special Second Edition, 1996). |
| '227-20 '227-29; '313-1, 9; | "abbreviated form" | No construction is necessary. However, if the Court rules that one is necessary, Mirror Worlds | "a shortened version of the content to be displayed from the data unit or document" | <u>'227 Patent:</u> 6:30-32; 7:64-8:10 |
| '427-5, 13, 22, 29 and | version(s)" | proposes the following | | Merriam Webster's Collegiate Dictionary (10th Edition, 1996). |
| 37 | | "a form or version that is less than the full form or version" | | |
| '427-8 and 16 | "controlling" operating system | "an operating system that utilizes subsystems from another operating system" | "an operating system that controls another operating system" | '227 Patent: 1:3-10; 1:20-59; 2:6-10; 2:12-29; 2:35-36; 2:47-48; 3:62-4:5; 5:1-5; 9:53; 10:26-33; 14:37-51 |
| | | | | 06/18/09 Gelernter Depo. Trans.: |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|-------------------------------|-------------------------------------|---|---|--|
| | | | | Random House Compact Unabridged Dictionary (Special Second Edition, 1996) at p. 1357. "The Lifestreams Software Architecture," by Eric Freeman, Doctoral Dissertation at Yale University, May |
| '313-1, 9; '427-1 and 8 | "archiving" | "copying documents to a secondary storage medium" | "moving from immediately-accessible storage to long-term storage" | '227 Patent: 1:40-67; 2:35-36; 5:53-65; 10:16- 33; 10:48-49 '227 CFH: 678 06/18/09 Gelernter Depo. Trans.: 20:16-22; 72:9-15; 126:17-24 '427 Reexamination: Amendment in Response to First Office Action, p.15-16 "The Lifestreams Software Architecture," by Eric Freeman, Doctoral Dissertation at Yale University, May 1997, YALE000631-816. Merriam Webster's Collegiate |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|---|--------------------------------------|--|---|---|
| | | | | Dictionary (10th Edition, 1996). "Lifestreams: Organizing your Electronic Life," by Eric Freeman and Scott Fertig, Yale Computer Science Department Research Report 1083, August 1995. |
| '313-1, 9; '427-1, 8, and 16 | "glance views" | "an abbreviated presentation of a document" | "a 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" | '227 Patent: 6:30-36; 6:45-52; 7:64-8:10 + Fig. 1 06/18/09 Gelernter Depo. Trans.: 19:23-20:2; 73:8-15; 133:21- 135:16 11/05/09 Gelernter Depo. Trans.: 282:4-14 '427 Reexamination: Amendment in Response to First Office Action, p.16-17. '999 Reexamination Amendment in Response to First |
| '313-1, 9; '427-1, 10, 18, and 25 | "receding foreshortened stack" | "a representation of a stack that uses perspective to create the illusion of increasing distance from the viewpoint implied by the | "a stack where the document representations get smaller, and appear farther from the surface of the screen, toward the bottom of | Office Action, pp. 11, 14. '227 Patent: Fig. 1 6:30-36; 9:46-52 |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|--------------|---|---|---|--|
| | | image" | the stack" | <u>'227 CFH:</u> 783-84; 06/18/09 Gelernter Depo. Trans.: |
| | | | | 21:20-23; 66:14-25; 195:3-195:9; 197:7-17 |
| | | | | '427 Reexamination: Amendment in Response to First Office Action, pp.10-11,16. '999 Reexamination: |
| | | | | Amendment in Response to First Office Action, p. 9. |
| | | | | Random House Compact Unabridged Dictionary (Special Second Edition, 1996) at pp. 750, 1609, 1853. |
| | | | | Merriam Webster's Collegiate Dictionary (10th Edition, 1996). |
| '427-1 and 8 | "archiving the documents and indicators in consistent format for selective retrieval" | This term is readily understood and no construction is necessary. However, if the Court rules that one is necessary, Mirror Worlds proposes the following construction: | "archiving the documents and indicators in a consistent format rather than the diverse formats appearing in conventional directors and subdirectories of files" | '427 Reexamination: Amend. in Response to First Office Action, at pp.15-16. |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|----------------------------------|---|--|--|---|
| | | "archiving documents and indicators in a consistent format that enables uniform selective retrieval of the documents." | | |
| '427-7, 15, 24, 31, and 39 | "complex analysis" | "analysis involving the form, content and/or type of a document" | "analysis of the content of a document that allows selection of important words, pictures, and/or sounds in the document" | '227 Patent: 7:68-8:10 '427 Reexamination: Amendment in Response to First Office Action, p.18. |
| '999-1 | "enterprise information management system" | "a system that manages information for an enterprise or organization" | "a system with a client-server architecture, a multi-computer, multi-node, high volume server, and a number of clients in the order of hundreds, rather than tens" | 6/18/09 Gelernter Depo Trans.: 32:13-33:3 11/05/09 Gelenrter Depo Trans: 285:22-293:11 '999 Reexamination Amendment in Response to First Office Action, p. 4-6, 12. |
| '999-1 | "document object model" | "a consistent structure containing information about information assets of diverse types, created by diverse software" | "a consistent structure containing information about information assets of diverse types, created by diverse software, that includes items such as summary, type of document, owner, permissions, keywords, command options, timestamp, index, etc." | '999 Patent: 3:30-46; 3:65-4:5; 5:10-6:36 11/05/09 Gelenrter Depo Trans: 276:5-18 "The Lifestreams Software Architecture," by Eric Freeman, Doctoral Dissertation at Yale University, May 1997, |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|---------------|--|---|--|---|
| | | | | YALE000631-816. |
| | | | | |
| '227-1 and 25 | "means for generating a main stream of data unitsthe main stream for receiving each data unit received by or generated by the computer system" | Mirror Worlds asserts that sufficient structure is recited in the element "means for generating" to take this element outside the constraints of 35 U.S.C. § 112, ¶ 6. "a main stream of data units for receiving each data unit received by or generated by the computer system" If, however, the court determines that 35 U.S.C. § 112, ¶ 6 applies to the "means for generating," then: The recited function is generating a main stream of data units. The corresponding structure is computer hardware and executable code implementing a main stream of data units, and equivalents thereof. | This is a means-plus-function limitation subject to § 112(6). The recited function is generating a main stream of data unitsthe main stream for receiving each data unit received by or generated by the computer system. The corresponding structure is computer hardware and software that creates a main stream by linking every existing document in a computer system according to the uniquely identifying timestamp in the document's chronological indicator using a data structure that can be examined and to the extent possible manipulated by many processes simultaneously, and that supports the block-at-the-end operation (and structural equivalents). | '227 Patent: 2:62-3:2; 3:13-19; 13:50-58 |
| '227-1 and | "means for generating at | Mirror Worlds asserts that sufficient structure is recited in the | This is a means-plus-function limitation subject to § 112(6). | <u>'227 Patent:</u> |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|--------|--|---|---|---|
| 25 | least one substream" | element "means for generating" to take this element outside the constraints of 35 U.S.C. § 112, ¶ 6. "at least one substreamfor containing data units only from the main stream" If, however, the court determines that 35 U.S.C. § 112, ¶ 6 applies to the "means for generating," then: The recited function is generating at least one substream. The corresponding structure is computer hardware and executable code implementing substreams, and equivalents thereof. | The recited <u>function</u> is generating at least one substream each substream for containing data units only from the main stream. The <u>corresponding structure</u> is computer hardware and software that runs a search of a stream using a boolean attribute-and keyword expression or a 'chronological expression' and generates another stream having the results of the search, using a data structure that can be examined and to the extent possible manipulated by many processes simultaneously, and that supports the block-at-the-end operation (and structural equivalents). | 4:48-67; 4:62-67;13:50-58 |
| '227-1 | "means for receiving data units from other computer systems" | The parties agree that this is a means-plus-function limitation subject to § 112(6). The parties agree that the recited function is receiving data units from other computer systems. The corresponding structure is computer hardware and executable | The parties agree that this is a means-plus-function limitation subject to § 112(6). The parties agree that the recited function is receiving data units from other computer systems. The corresponding structure is | <u>'227 Patent:</u> 3:10-12 |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|--------|--|--|--|---|
| | | code that receives data units from other computer systems over a network connection, and equivalents thereof. | computer hardware and software for receiving data from other computer systems through electronic mail, World Wide Web, the Internet, or copying from steams in another computer system (and structural equivalents). | |
| '227-1 | "means for generating data units by the computer system" | The parties agree that this is a means-plus-function limitation subject to § 112(6). The parties agree that the recited function is generating data units by the computer system. The corresponding structure is executable code that creates data units, and equivalents thereof. | The parties agree that this is a means-plus-function limitation subject to § 112(6). The parties agree that the recited function is generating data units by the computer system. The corresponding structure is computer hardware running conventional UNIX applications such as emacs, xv, and ghostview (and structural equivalents), or software that creates documents by either cloning an existing document and adding it to the main stream, or creating a new empty document and adding it to the main stream (and structural equivalents). | '227 Patent: 4:48-67; 4:62-67; 13:50-58 |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|--------|---|--|--|---|
| '227-1 | "means for selecting a timestamp to identify each data unit" | Mirror Worlds asserts that sufficient structure is recited in the element "means for selecting" to take this element outside the constraints of 35 U.S.C. § 112, ¶ 6. "a timestamp to identify each data unit" If, however, the court determines that 35 U.S.C. § 112, ¶ 6 applies to the "means for selecting," then: The parties agree that the recited function is selecting a timestamp to identify each data unit. The corresponding structure is executable code that selects the timestamp for a data unit based on the present time or a time designated by the user, and equivalents thereof. | This is a means-plus-function limitation subject to § 112(6). The parties agree that if the court determines that 35 U.S.C. § 112, ¶ 6 applies, the recited function is selecting a timestamp to identify each data unit. There is no corresponding structure. This limitation is indefinite. | '227 Patent: 4:6-30; 4:36-38; 5:53-6:3; 7:44-63 |
| '227-1 | "means for associating each data unit with at least one chronological indicator having the respective | Mirror Worlds asserts that sufficient structure is recited in the element "means for associating" to take this element outside the constraints of 35 U.S.C. § 112, ¶ 6. "each data unit" | This is a means-plus-function limitation subject to § 112(6). In 227-1, the parties agree that if the court determines that 35 U.S.C. § 112, ¶ 6 applies, the recited <u>function</u> is associating each | '227 Patent: 2:62-3:2; 3:13-19 |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|---------|--|--|--|---|
| | timestamp" | "timestamp" "chronological indicator having a respective timestamp" If, however, the court determines that 35 U.S.C. § 112, ¶ 6 applies to the "means for associating," then: The parties agree that the recited function is associating each data unit with at least one chronological indicator having a respective timestamp. The corresponding structure is executable code implementing the main stream, and equivalents thereof. | data unit with at least one chronological indicator having the respective timestamp. The corresponding structure is computer hardware and software that associates a separate chronological indicator with every document received or generated by the computer system and puts the uniquely identifying timestamp for that document into the chronological indicator (and structural equivalents). | |
| '227-25 | "means for associating each data unit with at least one chronological indicator having a respective timestamp which identifies the data unit" | Mirror Worlds asserts that sufficient structure is recited in the element "means for associating" to take this element outside the constraints of 35 U.S.C. § 112, ¶ 6. "each data unit" "timestamp" "chronological indicator having a respective timestamp" If, however, the court determines | This is a means-plus-function limitation subject to § 112(6). In '227-25, the recited <u>function</u> is associating each data unit with at least one chronological indicator having a respective timestamp which identifies the data unit. There is no <u>corresponding structure</u> . | No disclosed structure. |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|------------|--|---|--|---|
| | | that 35 U.S.C. § 112, ¶ 6 applies to the "means for associating," then: The recited <u>function</u> is associating each data unit with at least one chronological indicator having a respective timestamp. The <u>corresponding structure</u> is executable code implementing the main stream, and equivalents thereof. | This limitation is indefinite. | |
| '227-1, 25 | "means for including each data unit according to the timestamp in the respective chronological indicator in the main stream" | The parties agree that this is a means-plus-function limitation subject to § 112(6). The parties agree that the recited function is including each data unit according to the timestamp in the respective chronological indicator in the main stream. The corresponding structure is executable code implementing the main stream, and equivalents thereof. | The parties agree that this is a means-plus-function limitation subject to § 112(6). The parties agree that the recited function is including each data unit according to the timestamp in the respective chronological indicator in the main stream. The corresponding structure is computer hardware and software that adds every document received or generated by the computer system into a main stream according to the uniquely identifying timestamp in the document's chronological | '227 Patent: 2:62-3:4; 3:13-21 '227 Certified File History: 378, 668 |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|---------------|---|--|---|---|
| | | | indicator using a data structure that can be examined and to the extent possible manipulated by many processes simultaneously, and that supports the block-at-the-end operation (and structural equivalents). | |
| '227-1 and 25 | "means for maintaining the main stream and | The parties agree that this is a means-plus-function limitation subject to § 112(6). | The parties agree that this is a means-plus-function limitation subject to § 112(6). | '227 Patent: 2:62-3:2; 3:13-19; 4:48-67; 4:62- 67; 13:50-58 |
| | main stream and the substreams as persistent streams" | subject to § 112(6). The recited <u>function</u> is maintaining the main stream and the substreams as persistent streams. The <u>corresponding structure</u> is executable code that dynamically updates the main stream and executable code that dynamically updates substreams, and equivalents thereof. | subject to § 112(6). The recited <u>function</u> is maintaining the main stream as a persistent stream. The <u>corresponding structure</u> is computer hardware and software that adds every document received or generated by the computer system into a main stream according to the uniquely identifying timestamp in the document's chronological indicator using a data structure that can be examined and to the extent possible manipulated by many processes simultaneously, and that supports the block-at-the-end operation (and structural | 67; 13:50-58 |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|--------|---|--|--|---|
| | | | equivalents). The recited <u>function</u> is maintaining the substreams as persistent streams. The <u>corresponding structure</u> is computer hardware and software that act as a filter by examining each new document that enters the main stream using the search criteria from each substream that has been created and not destroyed and that adds documents that match those search criteria to the appropriate stream (and structural equivalents). | |
| '227-6 | "means for displaying alternative versions of the content of the data units" | Mirror Worlds asserts that sufficient structure is recited in the element "means for displaying" to take this element outside the constraints of 35 U.S.C. § 112, ¶ 6. "alternative versions of the content of the data units" If, however, the court determines that 35 U.S.C. § 112, ¶ 6 applies to the "means for displaying," then: The parties agree that the recited | This is a means-plus-function limitation subject to § 112(6). The parties agree that if the court determines that 35 U.S.C. § 112, ¶ 6 applies, the recited function is displaying alternative versions of the content of the data units. The corresponding structure is computer hardware and software that displays the X Window | <u>'227 Patent:</u> 6:30-32; 7:64-8:10 |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|--------|--|---|---|---|
| | | function is displaying alternative versions of the content of the data units. The corresponding structure is browse cards/glance views, and equivalents thereof. | System window shown in Fig. 1, including specifically the alternative version of a document shown as 100, which was created using 'header stripping' to identify the first non-trivial words in a document, or using complex analysis that identifies the 'most important' words, pictures, and/or sounds in the document (and structural equivalents). | |
| '227-9 | "means for archiving a data unit associated with a timestamp older than a specified time point while retaining the respective chronological indicator and/or a data unit having a respective alternative version of the content of the archived data | Mirror Worlds asserts that sufficient structure is recited in the element "means for archiving" to take this element outside the constraints of 35 U.S.C. § 112, ¶ 6. "archiving a data unit associated with a timestamp older than a specified time point" "retaining the respective chronological indicator and/or a data unit having a respective alternative version of the content of the archived data unit" If, however, the court determines that 35 U.S.C. § 112, ¶ 6 applies to the "means for archiving," then: | This is a means-plus-function limitation subject to § 112(6). The parties agree that if the court determines that 35 U.S.C. § 112, ¶ 6 applies, the recited function is archiving a data unit associated with a timestamp older than a specified time point while retaining the respective chronological indicator and/or a data unit having a respective alternative version of the content of the archived data unit. The corresponding structure is computer hardware and software that monitors remaining disk space, and when available space is | '227 Patent: 1:60-67; 10:16-25; 10:26-33 |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|---------|--|---|---|---|
| | unit" | The parties agree that the recited function is archiving a data unit associated with a timestamp older than a specified time point while retaining the respective chronological indicator and/or a data unit having a respective alternative version of the content of the archived data unit. The corresponding structure is computer hardware and executable code implementing archiving of data units, and equivalents thereof. | low, automatically moves all documents older than some date from immediately accessible storage to cheaper, long-term storage, after asking the user to insert diskettes or other storage media if necessary (and structural equivalents). | |
| '227-10 | "means for operating on any of the streams using a set of operations selected by a user" | Mirror Worlds asserts that sufficient structure is recited in the element "means for operating" to take this element outside the constraints of 35 U.S.C. § 112, ¶ 6. "a set of operations selected by a user" If, however, the court determines that 35 U.S.C. § 112, ¶ 6 applies to the "means for operating," then: The parties agree that the recited function is operating on any of the streams using a set of operations | This is a means-plus-function limitation subject to § 112(6). The parties agree that if the court determines that 35 U.S.C. § 112, ¶ 6 applies, the recited function is means for operating on any of the streams using a set of operations selected by a user. The corresponding structure is computer hardware running software which is capable of performing any of the "new," "clone," "transfer," "find," | '227 Patent: 4:31-33; 7:1-7; 9:13-19 |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|---------|---|---|--|--|
| | | selected by a user. The <u>corresponding structure</u> is executable code implementing user selectable operations on streams, and equivalents thereof. | "summarize," copy, merge, print, and freeze operations on a stream (and structural equivalents). | |
| '227-11 | "means to generate substreams from existing substreams" | The parties agree that this is a means-plus-function limitation subject to § 112(6). The parties agree that the recited function is to generate substreams from existing substreams. The corresponding structure is executable code implementing incremental substreams, and equivalents thereof. | The parties agree that this is a means-plus-function limitation subject to § 112(6). The parties agree that the recited function is to generate substreams from existing substreams. The corresponding structure is computer hardware running software that runs a search of a substream using a Boolean attribute-and-keyword expression or a 'chronological expression' and generates another stream having the results of the search, using a data structure that can be examined and to the extent possible manipulated by many processes simultaneously, and that supports the block-at-the-end operation (and structural equivalents). | <u>'227 Patent:</u> 4:48-67; 4:62-67; 13:50-58 |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|---------|--|--|--|---|
| '227-12 | "means for generating a data unit comprising an alternative version of the content of another data unit" | Mirror Worlds asserts that sufficient structure is recited in the element "means for generating" to take this element outside the constraints of 35 U.S.C. § 112, ¶ 6. "a data unit comprising alternative versions of the content of the data units" If, however, the court determines that 35 U.S.C. § 112, ¶ 6 applies to the "means for generating," then: The parties agree that the recited function is generating a data unit comprising an alternative version of the content of another data unit. The corresponding structure is executable code implementing alternative versions of data units, and equivalents thereof. | This is a means-plus-function limitation subject to § 112(6). The parties agree that if the court determines that 35 U.S.C. § 112, ¶ 6 applies, the recited function is generating a data unit comprising an alternative version of the content of another data unit. The corresponding structure is computer hardware and software that creates an alternative version of a document for use in archiving that remains in the computer system when the another document has been archived (and structural equivalents). | <u>'227 Patent:</u> 10:16-25; 6:30-32; 7:64-8:10. |
| '227-12 | "means for associating the alternative version data unit with the chronological indicator of the | Mirror Worlds asserts that sufficient structure is recited in the element "means for associating" to take this element outside the constraints of 35 U.S.C. § 112, ¶ 6. "alternative version data unit with the chronological indicator | This is a means-plus-function limitation subject to § 112(6). The parties agree that if the court determines that 35 U.S.C. § 112, ¶ 6 applies, the recited function is associating the alternative version | '227 Patent: 10:16-25; 6:30-32; 7:64-8:10. |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|---------|---|--|---|--|
| | another data unit." | of the another data unit" If, however, the court determines that 35 U.S.C. § 112, ¶ 6 applies to the "means for associating," then: The parties agree that the recited function is associating the alternative version data unit with the chronological indicator of the another data unit. The corresponding structure is executable code implementing alternative versions of data units, and equivalents thereof. | data unit with the chronological indicator of the another data unit. The corresponding structure is computer hardware and software that takes the chronological indicator associated with the another document and associates it with the alternative version data unit for use in archiving (and structural equivalents). | |
| '227-25 | "means for representing one or more data units of a selected stream on a display device as document representations the order of appearance of each data representation on the display device determined by the | The parties agree that this is a means-plus-function limitation subject to § 112(6). The parties agree that the recited function is representing one or more data units of a selected stream on a display device as document representations, each document representation including the timestamp and the order of appearance of each data representation on the display device determined by the timestamp of the respective data | The parties agree that this is a means-plus-function limitation subject to § 112(6). The parties agree that the recited function is representing one or more data units of a selected stream on a display device as document representations, each document representation including the timestamp and the order of appearance of each data representation on the display device determined by the | '227 Patent: Fig. 1; 6:17-28; 6:29-36; 7:64-8:10 |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|---------|--|--|--|---|
| | timestamp of the respective data unit" | unit). The <u>corresponding structure</u> is the graphical stream view, and equivalents thereof. | timestamp of the respective data unit). The corresponding structure is computer hardware and software that displays the X Windows System window shown in Fig. 1 and creates the necessary document representations (and structural equivalents). | |
| '227-25 | "means for selecting which data units are represented on the display device by selecting one of the document representations and displaying document representations corresponding to data unit having timestamps within a range of a timepoint" | Mirror Worlds asserts that sufficient structure is recited in the element "means for selecting" to take this element outside the constraints of 35 U.S.C. § 112, ¶ 6. "document representations" "data units" "timestamps" "range of a timepoint" If, however, the court determines that 35 U.S.C. § 112, ¶ 6 applies to the "means for selecting," then: The parties agree that the recited function is selecting which data units are represented on the display device by selecting one of | This is a means-plus-function limitation subject to § 112(6). The parties agree that if the court determines that 35 U.S.C. § 112, ¶ 6 applies, the recited <u>function</u> is selecting which data units are represented on the display device by selecting one of the document representations and displaying document representations corresponding to data units having timestamps within a range of a timepoint. There is no <u>corresponding structure</u> . | No disclosed structure. |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|---------|--|--|---|---|
| | | the document representations and displaying document representations corresponding to data units having timestamps within a range of a timepoint. | This phrase is indefinite. | |
| | | The <u>corresponding structure</u> is the graphical stream view, and equivalents thereof. | | |
| '227-25 | "means for selecting one or more of the document representations with a pointing device so that the data units represented by the selected document representations are further displayed with a second document representation comprising an alternative version of the respective data | Mirror Worlds asserts that sufficient structure is recited in the element "means for selecting" to take this element outside the constraints of 35 U.S.C. § 112, ¶ 6. "document representations" "pointing device" If, however, the court determines that 35 U.S.C. § 112, ¶ 6 applies to the "means for selecting," then: The parties agree that the recited function is selecting one or more of the document representations with a pointing device so that the data units represented by the selected document representations are further displayed with a second | This is a means-plus-function limitation subject to § 112(6). The parties agree that if the court determines that 35 U.S.C. § 112, ¶ 6 applies, the recited function is selecting one or more of the document representations with a pointing device so that the data units represented by the selected document representations are further displayed with a second document representation comprising an alternative version of the respective data unit. The corresponding structure is computer hardware, including a mouse and a video display screen, and software that (1) creates a | '227 Patent: Fig. 1; 6:30-36; 6:45-52; 7:64-8:10. |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|--------------------------|-------------------------------------|--|--|---|
| | unit" | document representation comprising an alternative version of the respective data unit. The corresponding structure is the graphical stream view, and equivalents thereof. | 'glance' view of documents using header-stripping to include the first non-trivial words of the document, or using complex analysis to include the most important words, pictures and/our sounds, (2) receives input from the mouse and displays a mouse pointer on the display device so that the user can slide the mouse pointer over the displayed document representations; and (3) that displays the glance view of a document in response to the mouse pointer selecting that document by touching its document representation. | |
| '427-1, 8, 16, and 25 | "document organizing facility" | "software that organizes documents" | Document organizing facility is a means-plus-function limitation subject to § 112(6). Recited functions and structure are set forth below. Alternatively, if the Court finds this is not a means-plus-function limitation, Apple proposes the following construction: "the portion of a stream-based | No disclosed structure. See: '227 Patent: 1:3-10; 1:20-59; 2:6-10; 2:12-29; 2:35-36; 2:47-48; 3:62-4:5; 5:1-5; 9:53; 10:26-33; 14:37-51. Random House Compact Unabridged Dictionary (Special Second Edition, 1996). |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|--------|-------------------------------------|--------------------------------------|--|---|
| | | | operating system whose purpose is to organize documents" | Merriam Webster's Collegiate Dictionary (10th Edition, 1996). |
| | | | In '427-1 and '427-8, the recited functions are: (a) receiving documents created by diverse applications in diverse formats specific to the respective applications; (b) automatically associating [respective] selected indicators with the received documents; (c) automatically archiving the documents and indicators in consistent format for selective retrieval; and (d) automatically creating information specifying respective glance views of said documents and respective document representations of said documents. | |
| | | | There is no <u>corresponding</u> <u>structure</u> . | |
| | | | This phrase is indefinite. | |
| | | | In '427-16, the recited <u>functions</u> are: (a) associating selected | No disclosed structure. See: |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MIRROR WORLDS' PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|--------|-------------------------------------|--------------------------------------|---|--|
| | | | indicators with received or created documents; and (b) creating information specifying glance views of the respective documents and information specifying document representations of the respective documents. There is no corresponding structure. | '227 Patent: 1:3-10; 1:20-59; 2:6-10; 2:12-29; 2:35-36; 2:47-48; 3:62-4:5; 5:1-5; 9:53; 10:26-33; 14:37-51. Random House Compact Unabridged Dictionary (Special Second Edition, 1996). Merriam Webster's Collegiate Dictionary (10th Edition 1996) |
| | | | This phrase is indefinite. In '427-25, the recited functions are: (a) associating chronological indicators with documents received from diverse applications in diverse formats; and (b) creating information specifying glance views of the respective documents and information specifying document representations of respective documents. There is no corresponding structure. This phrase is indefinite. | Dictionary (10th Edition, 1996). No disclosed structure. See: '227 Patent: 1:3-10; 1:20-59; 2:6-10; 2:12-29; 2:35-36; 2:47-48; 3:62-4:5; 5:1-5; 9:53; 10:26-33; 14:37-51. Random House Compact Unabridged Dictionary (Special Second Edition, 1996). Merriam Webster's Collegiate Dictionary (10th Edition, 1996). |

DISPUTED TERMS IN APPLE'S PATENT

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MWT'S PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|--------|---|---|--|---|
| '101-5 | "means for displaying a graphical iconic representation of a collection of said first plurality of documents" | The parties agree that this is a means-plus-function limitation subject to § 112(6). | The parties agree that this is a means-plus-function limitation subject to § 112(6). | '101 Patent: Abstract; Fig. 1; 2:65-3:6; 3:32-37; 5:62-6:8; 6:28-29; |
| | | The parties agree that the recited function is displaying a graphical iconic representation of a collection of said first plurality of documents. | The parties agree that the recited function is displaying a graphical iconic representation of a collection of said first plurality of documents. | |
| | | The <u>corresponding structure</u> is executable code that displays the icon representing a collection of documents (<i>i.e.</i> , pile), and equivalents thereof. | The corresponding structure is software and a video display screen, such as a video (CRT) display monitor or a liquid crystal display, coupled to a system bus that receives commands and data from a processor, and structural equivalents. | |
| '101-5 | "means for displaying a first indicia of a first | The parties agree that this is a means-plus-function limitation subject to § 112(6). | The parties agree that this is a means-plus-function limitation subject to § 112(6). | '101 Patent: Abstract; Figs. 1 & 16; 2:65-3:6; 3:32-37; 3:37-44; 5:58-5:62; 5:62- |
| | document of said collection by selecting a first position from said graphical iconic representation" | The parties agree that the recited function is displaying a first indicia of a first document of said collection by selecting a first position from said graphical iconic representation. | The parties agree that the recited function is displaying a first indicia of a first document of said collection by selecting a first position from said graphical iconic representation. | 6:8; 6:9-27; 6:28-29; 6:31-6:64; 8:65-9:8; 9:59-10:40; 10:61-11:11; 11:12-15; 12:40-55; 12:24-27; 12:67-13:6; 27:15-56 |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MWT'S PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|--------|---|--|--|--|
| | | The corresponding structure is executable code that initiates browsing of a pile after the cursor has been positioned over the iconic graphical representation of the collection of documents (pile) for a predetermined period of time and displays a first indicia of a first document of the collection (pile) by selecting a first position on the icon representing the collection, and equivalents thereof. | The corresponding structure is software and (a) a video display screen, such as a video (CRT) display monitor or a liquid crystal display, coupled to a system bus that receives commands and data from a processor, and structural equivalents; and (b) an I/O controller to control signals received from a keyboard and/or a cursor control device and structural equivalents. | |
| '101-5 | "means for displaying in series a second indicia of a second document and a third indicia of a third document by positioning said cursor first on a second position on said graphical iconic representation next on a third position on said graphical iconic | The parties agree that this is a means-plus-function limitation subject to § 112(6). The parties agree that the recited function is displaying in series a second indicia of a second document and a third indicia of a third document by positioning said cursor first on a second position on said graphical iconic representation next on a third position on said graphical iconic representation. The corresponding structure is executable code that displays in | The parties agree that this is a means-plus-function limitation subject to § 112(6). The parties agree that the recited function is displaying in series a second indicia of a second document and a third indicia of a third document by positioning said cursor first on a second position on said graphical iconic representation next on a third position on said graphical iconic representation. The corresponding structure is software and (a) a video display | '101 Patent: Abstract; Figs. 1 & 16; 2:65-3:6; 3:32-37; 3:37-44; 5:58-5:62; 5:62-6:8; 6:9-27; 6:28-29; 6:31-6:64; 8:65-9:8; 9:59-10:40; 10:61-11:11; 11:12-15; 12:40-55; 12:24-27; 12:67-13:6; 27:15-56 |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MWT'S PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|--------------|--|--|---|---|
| | representation" | document and a third indicia of a third document by positioning a cursor first on a second position on the icon representing the collection (pile) and next on a third position on the icon representing the collection (pile), and equivalents thereof. | display monitor or a liquid crystal display, coupled to a system bus that receives commands and data from a processor, and structural equivalents; and (b) an I/O controller to control signals received from a keyboard and/or a cursor control device and structural equivalents. | |
| '101-1, 5, 9 | "a graphical iconic representation of a collection of said first plurality of documents" | "a small static picture representing a collection of documents" | "a collection of two or more document icons displayed together" | '101 Patent: Abstract; Figs. 2-3, 4f & 5-13; 2:58-62; 3:1-31; 7:14-27; 7:33- 7:56; 7:57-8:18; 9:54-10:40; 11:8- 37; 13:28-38; 13:55-14:22; 14:23- 57; 14:58-15:27; 16:12-17:32; 18:38-14; 19:15-51; 19:65-40; 20:62-21:4; 27:15-56. '724 File History: 06/03/93 Office Action on '921 App., at p. 3; 05/31/93 Notice of References Cited in '921 App.; 12/23/93 Response to Office Action on '921 App., at p. 4; 03/07/94 Final Office Action on '921 App.; 11/09/94 Preliminary Amend., at p. 10; 11/14/94 Office Action, at p. 4; 5/02/94 Amend., at pp. 5-8; 06/12/95 Office Action at |

| CLAIMS | CLAIM TERM, PHRASE, OR CLAUSE | MWT'S PROPOSED CONSTRUCTION | APPLE'S PROPOSED CONSTRUCTION | SUPPORT FOR APPLE'S PROPOSED CONSTRUCTION |
|--------|-------------------------------------|--------------------------------|----------------------------------|--|
| | | | | pp. 3-7; 03/26/96 Appellant's Brief, at pp. 31, 34; 04/22/96 Examiner's Answer, at pp. 10, 7-8, 11, 24-26; 06/24/96 Appellants' Reply Brief, at p. 2, 4; 07/23/96 Supp. Examiner's Answer, at p. 2; 10/29/99 Decision on Appeal, at pp. 2, 21-22; 03/29/00 Response to Decision on Appeal; 04/06/00 Notice of Allowance. |
| | | | | Random House Compact Unabridged Dictionary (Special Second Edition, 1996). Merriam Webster's Collegiate Dictionary (10th Edition, 1996). |