United States District Court,
D. Vermont.

CONTOIS MUSIC TECHNOLOGY, LLC,
Plaintiff.
v.
APPLE COMPUTER, INC,
Defendant.

No. 2:05CV163

July 24, 2006.

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OPINION and ORDER

SESSIONS**, Chief J.**

In this patent infringement action, Plaintiff Contois Music Technology, LLC ("Contois") and Defendant Apple Computer, Inc. ("Apple") seek the Court's construction of several claim terms in U.S. Patent No. 5,864,868 (filed Feb. 13, 1996) (" '868 Patent"). A *Markman* hearing was held on June 13, 2006. *See* Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed.Cir.1995) (en banc). For the reasons that follow, Apple's Motion for Construction of the Disputed Claim Terms of U.S. Patent No. 5,864,868 (Doc. 63) is granted in part and denied in part.

I. *Background*

The '868 Patent, entitled "Computer Control System and User Interface for Media Playing Devices," is directed to a system for managing, selecting and playing media information on devices capable of playing music. Contois is the owner of the patent, issued January 26, 1999.

According to the '868 Patent, the invention provides a computer user interface to enable a user to obtain access to media pieces stored in a media database and to direct a media playing device, such as a player piano or a video player, to play the selected pieces. The interface allows the user to select music within

certain categories and automatically direct the device to play the selection. In a preferred embodiment of the invention, a computer system and user interface is used to select and control music to be played upon a player piano. A second embodiment of the invention would allow a user to select a video to be played upon a video player.

An example of a user interface computer screen for access to a music database and control of a player piano displays four categories of data: "category," "composer," "artist," and "selected songs." Below each database category is a data field that lists the items found in the database that correspond to the particular category. When a user selects an item in one category by clicking a mouse button, the remaining data fields redisplay only items that correspond to the selected item. Once an item is selected, the user can click on a "play" button on the screen to cause the player piano to begin to play the selected music. Other buttons enable the user to "rewind," "pause," and "stop" the music.

Contois brought suit against Apple on June 13, 2005, claiming that Apple's iTunes software infringes claims 1, 2 and 11 through 16 of the '868 Patent. According to Contois' complaint, the iTunes software employs a virtually identical computer user interface selection process to allow a user to select music to be played on a computer-responsive music device such as an iPod.

The parties agreed on the proper construction of several claim terms. *See* Joint Stip. of Claim Terms (Doc. 64-4). The disputed claim terms are discussed and construed below.

II. *Principles of Claim Construction*

Patent infringement analysis involves two steps. Markman, 52 F.3d at 976. In the first step, commonly known as claim construction, the Court determines the meaning and scope of the asserted patent claims. *Id*. In the second step, the construed claims are compared to the device accused of infringing. *Id*.

Claim construction focuses on the language of the claims themselves. In determining the meaning of disputed claim language, a court looks first to the intrinsic evidence, examining, in order, the claim language itself, the specification, and the prosecution history, if in evidence. Interactive Gift Express, Inc. v. Compuserve Inc., 256 F.3d 1323, 1331 (Fed.Cir.2001) (quoting and citing Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996)). On the rare occasion that the intrinsic evidence does not settle the meaning of a claim limitation, then extrinsic evidence may be considered. Id. at 1332.

Extrinsic evidence, such as expert or inventor testimony, dictionaries or learned treatises, "is 'less significant than the intrinsic record in determining the legally operative meaning of claim language," ' Phillips v. AWH Corp., 415 F.3d 1303, 1317 (Fed.Cir.2005) (*en banc)* (quoting C.R. Bard, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 862 (Fed.Cir.2004)), and "may not be used to vary, contradict, expand, or limit the claim language from how it is defined, even by implication, in the specification or file history." Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc., 262 F.3d 1258, 1269 (Fed.Cir.2001).

The words used in claim language are presumed to have the ordinary and customary meanings attributed to them by those of ordinary skill in the art at the time of the invention. Phillips, 415 F.3d at 1313. A "person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id*. When, however, a patent "specification ... reveal[s] a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess, ... the inventor's lexicography governs."

Id. at 1316.

Because it is the claims of the patent that define the scope of the patent invention, *see id*. at 1312, a construing court must be careful not to read into the claims limitations that may appear in the specification. *See* Interactive Gift, 256 F.3d at 1331-32. "For example, a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment." Resonate Inc. v. Alteon Websystems, Inc., 338 F.3d 1360, 1364-65 (Fed.Cir.2003).

Some of the patent terms at issue here have been drafted in "means-plus-function" format, pursuant to 35 U.S.C. s. 112, paragraph six, which provides:

[a]n element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C.A. s. 112, para. 6 (West 2001). In construing a means-plus-function limitation, a court first determines the claimed function, and then identifies from the written description the corresponding structure that performs that function. JVW Enters., Inc. v. Interact Accessories, Inc., 424 F.3d 1324, 1330 (Fed.Cir.2005). "[S]tructure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." B. Braun Med., Inc. v. Abbott Labs., 124 F.3d 1419, 1424 (Fed.Cir.1997). The "duty to link or associate structure to function is the *quid pro quo* for the convenience of employing s. 112, para. 6." *Id*.

III. *Disputed Claim Terms*

Given that the first four disputed terms are all recited in claim 1, the entire claim is reproduced below, with the disputed terms highlighted.

1. A computer user interface menu selection process for allowing the user to select music to be played on a music device controlled by a computer, comprising the steps of:

a) simultaneously displaying on a display device at least two individual data fields selected from music categories, composers, artists and songs;

b) selecting at least one item from at least one of the data fields;

c) in response to step b), redisplaying all data fields not having an item selected therefrom with data related only to the at least one item selected in step b), and simultaneously maintaining all items originally displayed in the data fields with at lest [sic] one item selected therefrom;

d) selecting an item in the songs data field in response to step c); and

e) playing the selected song item from step d) on the computer responsive music device.

'868 Patent, col. 14:47-65.

A. "A Music Device Controlled by a Computer," "Computer Responsive Music Device," and "Computer Controlled Music Device"

"A music device controlled by a computer" and "computer responsive music device" appear in claim 1, and "computer controlled music device" appears in claim 2. FN1 The parties agree that all three terms refer to the same device and have the same meaning, but disagree as to that meaning. Contois proposes that the terms be construed as "a device capable of playing music that is controlled by and responsive to a computer." Apple proposes that the terms be construed as "a device with a computer interface that plays music under control of computer music commands." Apple's proposed construction adds a limitation that is not part of the claim language: that the music be played under control of computer music commands. Neither claim recites any requirement that the music device play music under control of computer music commands.

FN1. Claim 2 recites:
[t]he process of claim 1, wherein the step of playing the selected song item comprises: a) activating a play button located on the computer screen; b) sending a data stream from the computer to the computer controlled music device in response to step a) for controlling the playing of the selected song; c) receiving the data stream by the computer controlled music device from the computer; and d) playing the selected song item on the computer controlled music device.

Id. col. 14:66-15:8.
Although the specification discusses a preferred embodiment that operates using MIDI (Musical Instrument Digital Interface) to play a music device such as a player piano, the specification also makes clear that its discussion of MIDI is included purely for background. *See* '868 Patent col. 6:47-7:14. The specification also emphasizes that the user interface software may be used "on any media playing device," and gives as examples devices that play back recorded music, as well as devices that produce music in response to computer commands. *See* id. col. 13:43-50; 14:2-3. Apple has supplied no persuasive reason for the Court to diverge from the ordinary and customary meaning of the phrase. The term is construed as "a device capable of playing music that is controlled by and responsive to a computer."

B. "Selecting"

"Selecting" appears in claim 1. Apple argues for the plain, ordinary meaning of selecting, meaning "choosing." Contois wants the definition it adopted in the '868 Patent specification: "[i]t is pointed out that term of 'selecting' means that a pointer or cursor, which is illustrated as a white arrow in FIG. 3 that is located on a song title, is placed over the desired item while the user usually clicks a mouse button once or twice." FN2 '868 Patent col. 9:30-34. Ordinarily, a construing court accords a "heavy presumption" in favor of the ordinary and customary meaning of a word. Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 989 (Fed.Cir.1999). But if the patentee has explicitly defined a claim term in the specification, that definition controls. *See* Phillips, 415 F.3d at 1316. Accordingly, the term "selecting" is construed as it is defined in the patent specification: "a pointer or cursor, which is illustrated as a white arrow in FIG. 3 that is located on a song title, is placed over the desired item while the user usually clicks a mouse button once or twice."

FN2. Contois originally desired that the definition omit the final clause: "while the user usually clicks a mouse button once or twice ." At the *Markman* hearing it acknowledged that its entire definition should be employed.

C. "In Response to Step B), Redisplaying All Data Fields Not Having An Item Selected Therefrom with Data Related Only to the At Least One Item Selected in Step B)"

This phrase appears in claim 1. Contois argues that the claim language is clear on its face, but seeks to add that the data fields without a selected item are "automatically" and "immediately" redisplayed. Otherwise, the proposed claim constructions do not differ significantly.

It is clear from the claim language that the redisplay of the data fields occurs in response to the action of selecting an item from one of the data fields, but the claim language does not support the further limitations of "automatically" and "immediately." In the specification, describing the preferred embodiment, the patentee does point out that displaying a data field after an item is selected is automatically accomplished. '868 Patent, col. 10:7-10. But if the claim language is broader than the written description of an embodiment, then the limitation of the embodiment will not be imported into the claim. Resonate, 338 F.3d at 1364-1365.

Moreover, Contois used the term "automatically" in other claims to indicate that an action was intended to occur automatically. *See* '868 Patent, col. 16:11-12 ("allowing the user to select media information and to automatically control" in claim 11); col. 16:44-45 ("automatically change the second data field" in claim 12); col. 16:55-56 ("automatically change the third data field" in claim 13). Had Contois intended to limit the redisplay in claim 1 to automatic redisplay, it would have expressly included the term.

The patent does not address the timing of the redisplay of data fields in response to the selection of an item, either in the claims or the written description. Contois has therefore not persuaded the Court to add "automatically" or "immediately" to the plain meaning of the words at issue. The phrase is construed as "in response to the step b) selection, redisplaying all data fields not having a selected item with data related only to the selected item(s)."

D. "And Simultaneously Maintaining All Items Originally Displayed in the Data Fields with At Lest [sic] One Item Selected Therefrom"

This phrase directly follows the previous phrase in claim 1. The parties' proposed constructions of this phrase do not differ significantly. The phrase is construed as "while simultaneously keeping the originally displayed items in the data fields that have at least one item selected therefrom."

The next six terms are recited in claim 11, which is reproduced below, with the disputed terms highlighted.

11. A system for playing media information on a media playing means, the system comprising:

a) the media playing means for playing the media information for a user where the playing means is capable of playing musical sound; and

b) control means, coupled to the media playing means, for allowing the user to select media information and to automatically control the media playing means in playing the selected media information, the control means having:

b1) data storage means for storing the media information, the media information including:

1) a first category of media information and a respective first data field containing a first list of items found in the data storage means that are related to the second category;

2) a second category of media information and a respective second data field containing a second list of items found in the data storage means that are related to the second category;

b2) display means for simultaneously visually displaying the first and second category of media information to the user; and

b3) user interface means, displayed on the display means, for displaying the first and second list of items so the user may

i) select at least one item from the first list of items and in response redisplaying the second list of items with items that are related only to the at least one item selected in the first list, and simultaneously maintaining all items originally displayed in the first list; and

ii) play the selected item from the first list on the media playing means, which is a[sic] capable of playing music.

'868 Patent, col. 16:5-39.

E. "Media Playing Means"

The term appears in independent claim 11, and dependent claims 13 and 14. FN3 The parties agree that this is a means-plus-function term that must be construed under 35 U.S.C. s. 112, para. 6. They also stipulate to the function: "playing the media information for a user where the playing means is capable of playing musical sound." They disagree as to the corresponding structure.

FN3. Claim 13 recites in relevant part: "[t]he system of claim 12, wherein ... the user interface means displays the third list of items so the user may select items therefrom for allowing the user to control what media information will be played on the media playing means."'868 Patent, col. 16:47-54. Claim 14 recites: "[t]he system of claim 13, wherein the media information includes movie videos and the media playing means is a video player." Id., col. 16:59-61.

Contois argues that corresponding structure is found in the specification at column 13:45-47, and proposes:

any media playing device where a user needs to select what media item is to be played from a vast media data base, and equivalents thereof. Examples include a player piano, an electric guitar, a computer controlled multimedia system, a pipe organ, a television, a movie video player, or a computer screen, and equivalents thereof.

See '868 Patent, col. 13:45-50. Apple argues that Contois' proposed construction includes devices incapable of playing musical sound and is inconsistent with amendments to the claims made during the prosecution of the '868 Patent that narrowed the scope of the claim. Apple proposes that the corresponding structure be limited to player piano, electric guitar or pipe organ.

Structure associated with a means-plus-function limitation is restricted to that which is disclosed in the specification as performing the recited function, and clearly linked to it. *See* B. Braun Med., 124 F.3d at 1424. The corresponding structure thus must be capable of playing musical sound. Consistent with this Court's construction of "music device controlled by a computer," "computer responsive music device," and "computer controlled music device," devices capable of playing music are not limited to those that play music under control of computer music commands. Structure disclosed in the specification that is capable of playing musical sound includes an electric guitar, a computer controlled multimedia system, a pipe organ, a television, and a movie video player.FN4 *See* '868 Patent, col. 13:48-50.

FN4. Contois has not shown that a computer screen is capable of playing musical sound.

With regard to the prosecution history, the claims of the '868 Patent were initially rejected by the patent examiner. Office Action Summ., Prosecution History at C000213 (Doc. 62, Ex. C). Original claims 9-12 were rejected as having been anticipated by Kaplan, U.S. Patent No. 5,237,157. Detailed Action, Prosecution History at C000213.003. The Kaplan patent disclosed a "system for user-interactive multimedia based point-of-preview," a kiosk station that enabled a customer to preview a sample of selected music in a store before purchasing the CD. (Doc. 62, Ex. D.) Original claim 11 of the '868 Patent described a data storage means for storing media information which included two categories and their respective data fields.FN5 Concerning claim 11, the patent examiner found that Kaplan disclosed a system where media information is stored and displayed to a user in categories so that the user could select items to be played. Prosecution History at C000213.004.

FN5. Original claim 11 recited:
A system for playing media information on a media playing means, the system comprising:

a) the media playing means for playing the media information for a user; and

b) control means, coupled to the media playing means, for allowing the user to select media information and to automatically control the media playing means in playing the selected media information, the control means having:

b1) data storage means for storing the media information, ...
b2) display means for visually displaying the media information to the user; and
b3) user interface means, displayed on the display means, for displaying the first and second list of items to the user may select items therefrom for allowing the user to control what media information will be played on the media playing means.

Prosecution History at C000044.

Claim 11 was subsequently amended to specify that the media playing means must be capable of playing musical sound, and to specify that the display means would simultaneously display the first and second categories of media information. Id. at C000213 .050. Amended claim 11 also detailed the manner in which the user interface means allowed the user to select at least one item from the first list, thereby causing a redisplay of the second list with items relating only to the selected item from the first list, while retaining the first list on the screen. Id.

Apple focuses on claim 11's change to the media playing means function from "playing the media information for a user" to "playing the media information for a user where the playing means is capable of playing musical sound." It claims that this language limits the claim to devices that actually produce music rather than devices that not only produce music but play back recorded music. In submitting the amendment, however, Contois stressed its novel media displaying design that simultaneously displayed at least two individual data fields and then, in response to a selection, redisplayed the non-selected data fields while simultaneously maintaining the original display in the selected data fields. Id. at C000213.052.

The prosecution history does not disclose the reason for inserting the "capable of playing musical sound" language, nor any disclaimer of a broad reading of musical sound. The prosecution history therefore does not provide support for limiting the construction of "media playing means" to exclude devices that play back recorded sound. See Phillips, 415 F.3d at 1317 (prosecution history less useful for claim construction than specification because ambiguous).

Contois' proposed construction is far too broad, however. "Any media playing device where a user needs to select what media item is to be played from a vast media data base" omits the specific function that the device be capable of playing musical sound. Apple argues, moreover, that the mere mention of additional media playing devices in the specification does not mean that the devices will satisfy the function of playing the media information for a user where the playing means is capable of playing musical sound, citing Fonar Corp. v. General Electric Co., 107 F.3d 1543, 1551-52 (Fed.Cir.1997).

Fonar involved patents concerning techniques for using magnetic resonance imaging. The specification disclosed use of a "generic gradient wave form" that corresponded to a "means to encode spatial information into said [first, second] NMR signal." *Id*. at 1551. Although the specification also stated that other wave forms could be used, the Federal Circuit concluded that those other wave forms were not specifically identified as performing the stated function, and therefore could not be considered corresponding structure. *Id*. at 1551-52.

Where a specification contains a generic reference to structure that would be known to those skilled in the art as clearly associated with performance of the claimed function, the item referenced will be considered corresponding structure, however. *See* Med. Instrumentation & Diagnostics Corp. v. Elekta AB, 344 F.3d 1205, 1213-14 (Fed.Cir.2003) (discussing cases); *see also* Callicrate v. Wadsworth Mfg., Inc., 427 F.3d 1361, 1369 (Fed.Cir.2005) (patent specification stated that cutting function could be performed by any device for cutting, including scissors and hand-held razors; corresponding structure accordingly included these devices).

Structures identified in the specification and known to those skilled in the art as clearly associated with playing media information where the playing means is capable of playing musical sound include a player piano, an electric guitar, a computer controlled multimedia system, a pipe organ, a television, and a movie video player. Accordingly, "media playing means" is construed as "a player piano, an electric guitar, a

computer controlled multimedia system, a pipe organ, a television, a movie video player, and equivalents thereof." FN6

FN6. Apple argues that it is incorrect as a matter of law to append the phrase "and equivalents thereof" to the construction of a means-plus-function limitation. Apple's Resp. at 16-18 (Doc. 75). On the contrary, s. 112, para. 6 states that a means-plus-function element in a claim "shall be construed to cover the corresponding structure, material, or acts described in the specification *and equivalents thereof*." 35 U.S.C.A. s. 112 para. 6 (emphasis supplied). *See, e.g.,* Callicrate, 427 F.3d at 1369 (cutting means construed to mean "pivotally mounted cutting mechanisms, slidably mounted cutting mechanisms, hand-held scissors, hand-held razors, and, of course, equivalents of these structures"); Altiris, Inc. v. Symantec Corp., 318 F.3d 1363, 1377 (Fed.Cir.2003) (construing means of booting's first set of commands to include "the normal operating system on the computer, another automation operating system, a customized or a normal MBR, ... communications software," and their equivalents); McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1347 (Fed.Cir.2001) (affirming identification of corresponding structure as including "egg-shaped indicia having 'a slight taper at the portion of each indicia situated closest to the palm of the hand, and any equivalents of such structure' "); Fonar Corp., 107 F.3d at 1551-52 (specification disclosed use of generic gradient wave form; therefore claim was limited to use of generic gradient wave form and its equivalents).

F. "Control means"

The parties agree that "control means" is a means-plus-function term, and agree that its function is "allowing the user to select media information and to automatically control the media playing means in playing the selected media information." Again the parties disagree only on the corresponding structure. Contois argues that "control means" should be construed as "a computer with a display means, data storage means, and user interface means that allows the user to select and play media information, and equivalents thereof." Apple argues that the only structure corresponding to "control means" is "microprocessor 30, gating logic 42, hold oscillator 44, switch 46, solenoid 48," plus the corresponding structure for the display means, the data storage means and the user interface means.

"Control means" appears in claim 11. According to claim 11, a "control means" must have data storage means, display means, and user interface means that enables the user to select and play items on the media playing means. '868 Patent col. 16:10-39.

The specification indicates that the invention intends to implement a computer as a control means. Id., col. 5:9-10. The control means, coupled to the media playing means, allows the user to automatically control the media playing means. Id., col. 5:12-15. It must have a display means for displaying information to the user, a data storage means, and a user interface means displayed on the display means. Id. col. 5:15-22.

The specification also discloses a preferred embodiment in "FIG. 1," "a functional block diagram of one type of computer system capable of controlling a media playing device," specifically a computerized player piano system. Id., col. 5:65-67. Figure 1 is described in detail at col. 8:21-9:18. In its depiction of this preferred embodiment it shows a "control microprocessor 30," that has a central processing unit (CPU) 32, read-only memory (ROM) 34, a serial data receiver (UART) 36, RAM 38, and drivers 40. '868 Patent, col. 8:25-37; Fig. 1. The control microprocessor is coupled to a playback unit 28, and to gating logic 42 that connects to a switch 46, a solenoid 48 and a hold oscillator 44 that enables a player piano to reproduce the music from the playback unit. Id. col. 8:24-25; 35-36; 45-50. The control microprocessor is also coupled to

a mouse 35, a computer display terminal 31 and hard drive storage 33. Id. col. 8:37-40.

There can be no real dispute that Figure 1 depicts a control means for the preferred embodiment. At issue is whether all of the structure shown in Figure 1 is a necessary part of the "control means," and whether Figure 1 is the only structure disclosed in the specification that performs both parts of the claimed function: "allowing the user to select media information" and "to automatically control the media playing means in playing the selected media information."

Figure 1's microprocessor, along with the mouse, the computer display and the hard drive data storage, allows a user to select media information, in this case music. The microprocessor, when coupled to the gating logic, hold oscillator, switch and solenoid enables a user to cause a player piano to play selected music.FN7

FN7. In brief, a player piano will have a solenoid for each of its eighty-eight keys. The solenoids lift the end of the key and impel the hammer to strike the string. A solenoid's "travel" is "mapped" into discrete intervals of time, to account for the particular expression or length of a note, among other dynamics. One strike of a solenoid may contain over fifty intervals. A controlling microprocessor activates the intervals, and, using instructions stored in memory, translates recorded musical information into driving signals for each solenoid. *See* '868 Patent col. 7:15-8:19.

The specification does not clearly link the gating logic, hold oscillator, switch and solenoid with the claimed function of "control means," however. In the claim itself, Contois regards the user interface means, included within the control means, as enabling the user both to select media information and to play the information on a media playing means. The specification discloses illustrations of user interface computer screens for the preferred embodiment "that may be used to access the music database and control the operation of a player piano." Id., col. 9:21-23. With regard to controlling the operation of the player piano, the specification discloses that the user interface screens display "media playing device control buttons" which, when activated, will cause the device to play, rewind, pause or stop playing the selected item. Id., col. 10:65-11:29. Further, the summary of the invention stresses that a feature of the invention is a computer interface that allows a user to display music selections and then "direct the media playing device to automatically play the selected music pieces. Id., col. 4:47-48; 53-55; 59-61; 66-67.

In the context of the '868 Patent, the function of "control means" focuses on the use of a computer to enable a user to direct the selection and to control the play of music, not on the mechanics of converting the musical information into signals that cause the piano keys to move. Accordingly, "control means" is construed as a computer that includes display means, data storage means, and user interface means displayed on the display means, that allows a user to select media information and to automatically control the media playing means; microprocessor 30 with display means, data storage means and user interface means displayed on the display means that allows a user to select media information and to automatically control the media playing means; and equivalents thereof.

G. "Data Storage Means"

The term "data storage means" is found in independent claim 11 and dependent claims 13, 15 and 16. The parties agree that the term should be construed as a means-plus-function limitation The stipulated function of the data storage means is "storing the media information." In claim 11 "data storage means" stores media

information, the media information including first and second categories of media information and respective first and second data fields.FN8 The specification discloses that the data storage means stores first and second categories and respective first and second data fields and data used for enabling the control means to control the media playing means in playing a selected item. '868 Patent col. 5:17-21. The description of the diagram of the preferred embodiment indicates hard drive storage 33 and ROM memory 34 as containing the data and the programs required to access the data. FN9 Id., col. 8:51-55.

FN8. The dependent claims expand the media information to include a third category of media information and a respective third data field (claim 13), or specify that the first list of items is a list of music categories found in the data storage means, and the second list of items is a list of song titles found in the data storage means (claim 15) or specify that the third list of items is a list of music composers found in the data storage means (claim 16).

FN9. "The ROM 34 ... contains all of the programs required to enter, store, retrieve, edit and delete all items in the data base stored on the hard drive 33." '868 Patent, col. 8:51-55.

The specification also notes that "[o]ne skilled in the art will also understand that a computer hard drive storage device is not the only storage medium for storing accessible media data. For example, additional media data bases could be found on a world wide web, a satellite receiver, or an internet link system." Id., col. 14:4-8. Relying on that note, Contois argues that these additional databases are structure clearly linked to the function of storing media information. The problem with this broad construction is that the claims and the specification disclose that the data storage means not only stores media data, but the categories, data fields and enabling data unique to Contois' invention. Absent any indication that the databases available on a world wide web, a satellite receiver, or an internet link system include the categories and data fields of the '868 Patent, they are not clearly linked to performing the function of storing the media information, as the term media information is used in claims 11, 13, 15 and 16.

Structure that corresponds to the function of storing the media information is hard drive storage 33, ROM memory 34 and equivalents thereof.

H. "Display Means"

The parties agree that "display means," recited in claim 11, is a means-plus-function term, and agree that the claimed function is "simultaneously visually display the first and second category of media information to the user." The parties also agree that the corresponding structure found in the specification is computer display terminal 31. The term is construed as "computer display terminal 31, and equivalents thereof."

I. "User Interface Means"

The term "user interface means" is found in independent claim 11 and dependent claims 12 and 13. The parties agree that this is a means-plus-function term, and agree that the claimed function is

displaying the first and second list of items so the user may i) select at least one item from the first list of items and in response redisplaying the second list of items with items that are related only to the at least one item selected in the first list, and simultaneously maintaining all items originally displayed in the first list; and ii) play the selected item from the first list on the media playing means, which is capable of playing

music.

The parties further agree that Figures 2, 3, 4, 6 and 7 are corresponding structure. They differ as to whether Figure 8 is also corresponding structure.

Figures 2, 3, 4 and 6 are "illustrations of user interface screens that may be used to access the music database and control the operation of a player piano. " '868 Patent, col. 9:21-23. The user interface screens display categories of data and associated data fields that allow a user to select an item from one category and cause the redisplay in another category of data fields that relate only to the selected item. The screens also contain "media playing device control buttons," that allow a user to control the playing of a selected item. Id., col. 10:66-11:29. Figure 7 is "a partial flow chart of the general sequence of operation for the graphical user interface" shown in Figures 2, 3, 4 and 6.

Figure 8 is a similar partial flow chart of the general sequence of operation for a video player. Apple argues, based on its construction of media playing means, that because a video player is incapable of playing musical sound, Figure 8 cannot be corresponding structure for the user interface means. As discussed in section E, above, the Court has rejected Apple's interpretation of a device that is capable of playing musical sound. Because "media playing means" may include a video player, Figure 8's depiction of a flow chart for the operation of the user interface for a video player is corresponding structure.

Structure that corresponds to the user interface means function includes Figures 2, 3, 4, 6, 7 and 8, and equivalents thereof.

J. "Automatically Control"

The term "automatically control" appears in claim 11, in the description of the control means. The parties agree that the term means "to direct without human intervention." Contois argues that the term should read "to direct without continued human intervention," however, to make it clear that a human user initiates the action. The intrinsic evidence does not support the addition of "continued" to the common and ordinary meaning of the term. Moreover, it is unnecessary. In the context of claim 11, it is clear that a "user," presumably human, both selects media information and automatically controls the media playing means.

The term is construed as "to direct without human intervention."

K. "Selection Means"

"Selection means" appears in claims 12 and 13. The parties agree that this is a means-plus-function term, and agree that the claimed function is "allowing the user to select a first data field item and thereby automatically change the second data field to display second data filed items that are only related to the selected first data field item." The parties also agree that the corresponding structure found in the specification is "pointer or cursor." The term is construed as "pointer or cursor, and equivalents thereof."

L. "Video Player"

The term "video player" appears in dependent claim 14. Consistent with its construction of the term "media playing means," Apple argues that a video player is not capable of playing music as Apple defines the phrase. As discussed above, a video player may be media playing means. The term is construed as "an electronic device capable of playing a video as well as musical sound."

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