Exhibit 2010 (Deposition Exhibit 2010D)
Zynga, Inc. v. Personalized Media Communications, LLC
Case IPR2013-00156 (SCM)

PMC Exp 2004C

Trials@uspto.gov
571-272-7822

Paper 11
Entered: July 25, 2013

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ZYNGA INC.
Petitioners,

v.

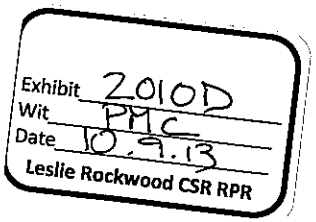
PERSONALIZED MEDIA COMMUNICATIONS, LLC
Patent Owner.

Case IPR2013-00156 (SCM)
Patent 7,860,131 B1

Before SALLY C. MEDLEY, KARL D. EASTHOM, and JONI Y. CHANG,
Administrative Patent Judges.

MEDLEY, *Administrative Patent Judge.*

DECISION
Institution of *Inter Partes* Review
37 C.F.R. § 42.108



I. INTRODUCTION

Zynga Inc. ("Zynga") filed a petition requesting an *inter partes* review of claims 1, 3, 4, 6, 9, and 11 of U.S. Patent 7,860,131 (Ex. 1001, "the '131 patent"). (Paper 1, "Pet.") In response, Personalized Media Communications, LLC ("PMC") filed a patent owner preliminary response on May 10, 2013. (Paper 9, "Prelim. Resp.") We have jurisdiction under 35 U.S.C. § 314.

The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a) which provides as follows:

> THRESHOLD -- The Director may not authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.

Upon consideration of the petition and patent owner preliminary response, we determine that the information presented in the petition establishes that there is a reasonable likelihood that Zynga would prevail with respect to claims 1, 3, 4, 6, 9, and 11 of the '131 patent. Accordingly, pursuant to 35 U.S.C. § 314, we authorize an *inter partes* review to be instituted as to claims 1, 3, 4, 6, 9, and 11 of the '131 patent.

A. Related Proceedings

Zynga indicates that the '131 patent is involved in co-pending litigation captioned *Personalized Media Communications, LLC v. Zynga Inc.*, Case No. 2:12-cv-68-JRG (ED.Tex.). (Pet. 56.) Zynga also filed three other petitions seeking *inter partes* review of the following related patents: Patent 7,908,638

(IPR2013-00162), Patent 7,797,717 (IPR2013-00164), and Patent 7,734,251 (IPR2013-00171). (Paper 10.)

The '131 patent claims the benefit of various U.S. patent applications under 35 U.S.C. § 120. (Ex. 1001, 1.) Zynga asserts that PMC has conceded in the related District Court litigation that the earliest effective priority date for the challenged claims of the '131 patent is September 11, 1987, the filing date of U.S. patent application No. 07/096,096, issued as U.S. Patent 4,965,825. (Pet. 3-4, citing to Ex.1005, 3.) PMC does not contest that assertion in its preliminary response. Therefore, on this record, the Board assumes that the effective filing date of the challenged claims of the '131 patent is no earlier than September 11, 1987.

B. The '131 Patent

The '131 patent is related to a system for transmitting conventional broadcast programming simultaneously with relevant user specific information to a subscriber station. (Ex. 1001, 6:61-67.) Figure 1, below, is illustrative.

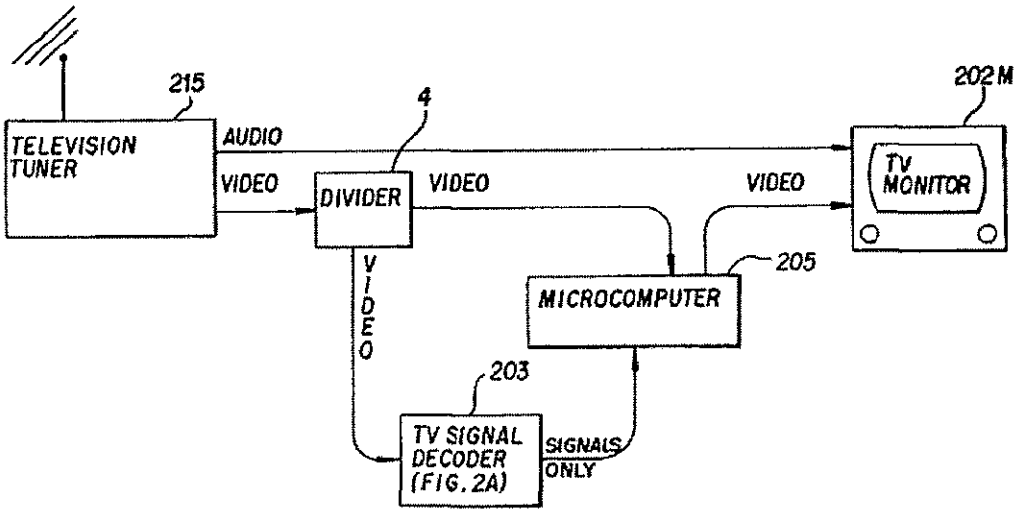


FIG. 1

Fig. 1 shows a "video/computer combined medium subscriber station." (Ex. 1001, 10:41-42.) The subscriber station includes a television tuner 215 for receiving a broadcast transmission, a divider 4, a TV signal decoder 203, a microcomputer 205 and a TV monitor 202M. The tuner 215 receives embedded control signals, which are decoded by decoder 203. The video signal from the tuner 215 is split by divider 4 into two copies. One copy is sent to the decoder 203 and the other is sent to microcomputer 205. The decoder extracts the embedded data into "signals only." (Ex. 1001, 10:53-63.) Microcomputer 205 can generate graphics that can be combined or overlaid on the video signal to produce an output signal that is sent to the monitor 202M. (Ex. 1001, 11:15-18.)

The '131 patent provides an example of how the system might work with respect to "Wall Street Week" program. The show, "Wall Street Week" may be displayed at a monitor at the same time information is displayed that is specific to a

user's stock portfolio. (Ex. 1001, 11:23-14:37.) The microcomputer (microprocessor) 205 contains a floppy disk that holds a data file containing information on the portfolio of financial instruments owned by the subscriber and identifies specific information related to the subscriber's stock portfolio. Microcomputer 205 is programmed to receive an input of signals from the decoder and also from divider 4 and responds in a predetermined way to instruction signals embedded in the "Wall Street Week" programming transmission. (Ex. 1001, 11:42-60.) The embedded signals include control instructions that are addressed to and control the microcomputer 205 of each subscriber station. (Ex. 1001, 12:4-12.)

In response to the embedded signals, the microcomputer 205 calculates the performance of the subscriber's stock portfolio (based on the information previously stored at the microcomputer based on the individual's stock portfolio) and enters information at the video RAM of the graphics card for graphing results of the subscriber's portfolio changes. (Ex. 1001, 13: 26-46.) A subsequent instruction signal (embedded in the signal sent to the microcomputer from the broadcast), instructs the microcomputer to overlay the graphic information in its graphics card onto the received composite video information and transmits the combined information to TV monitor 202M, showing the subscriber's own portfolio performance overlaid on the studio generated graphic. (Ex. 1001, 14:1-17.)

C. Exemplary Claim

Of the challenged claims, claim 1 is the sole independent claim. Each of the dependent claims 3, 4, 6, 9 and 11 depend directly from claim 1. Claim 1 is exemplary of the claimed subject matter of the '131 patent, and is reproduced as follows:

> 1. A method of enabling a station of a particular kind to deliver complete programming, said station including a storage device, and said method comprising the steps of:
>
> storing programming at said storage device, said programming comprising a computer program and a portion to be completed by accessing prestored data at said station of a particular kind,
>
> wherein said computer program is operative to complete said portion when executed at said station of a particular kind, said execution of said computer program enabling a processor at said station of a particular kind to select a specific datum from said prestored data and place information, which results from a processing of said selected datum, into said portion to be completed, thereby completing said programming; and;
>
> storing a control signal, which is operative at at least one particular kind of station, said control signal operative to cause said execution of said computer program,
>
> whereby said station of a particular kind is enabled to deliver complete programming.

D. Prior Art Relied Upon

Zynga relies upon the following prior art references:

Hedges	U.S. Patent 4,339,798	July 13, 1982	(Ex. 1008)
Sitrick	U.S. Patent 4,572,509	Feb. 25, 1986	(Ex. 1009)
Higgins	U.S. Patent 5,270,922	Dec. 14, 1993	(Ex. 1007)

E. The Asserted Grounds

Zynga asserts that the challenged claims are unpatentable based on the following grounds:

1. Claims 1, 3, 4, 6, 9, and 11 are unpatentable under 35 U.S.C. § 102(e) as anticipated by Higgins;
2. Claims 1, 3, 4, 6, 9, and 11 are unpatentable under 35 U.S.C. § 102(b) as anticipated by Hedges;
3. Claims 1, 3, 6, 9, and 11 are unpatentable under 35 U.S.C. § 102(b) as anticipated by Sitrick;
4. Claim 4 is unpatentable under 35 U.S.C. § 103(a) over Higgins and Hedges; and
5. Claim 4 is unpatentable under 35 U.S.C. § 103(a) over Sitrick and Hedges.

II. ANALYSIS

A. Claim Construction

As a first step in our analysis for determining whether to institute a review, we determine the meaning of the claims. In an *inter partes* review, claim terms in an unexpired patent are given their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b). Under the broadest reasonable construction standard, claim terms are presumed to be given their ordinary and customary meaning as would be understood by one of ordinary skill in the art at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). In this regard, we must be careful not to read a particular embodiment appearing in the written description into the claim if the

claim language is broader than the embodiment. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

Zynga does not provide a claim construction for any of claims 1, 3, 4, 6, 9 and 11 of the '131 patent. Rather, Zynga represents that each claim should be construed in accordance with its plain and ordinary meaning under the broadest reasonable interpretation standard. (Pet. 10-11.) PMC does not contend otherwise. However, it is implicit that there is disagreement over the scope of the phrase "control signal." (*See, e.g.*, Pet. 18; Prelim. Resp. 8.) Therefore, we construe the term "control signal." We also find it necessary to construe the term "said storage station" of dependent claim 9.

Control signal

The term "control signal" is not defined in the '131 patent. One trade dictionary defines a "control signal" as an electrical signal that directs a sequence of operations to be performed by a computer.[1] The '131 patent describes several examples of signals which appear to be control signals. (*See, e.g.*, Ex. 1001, Abstract.) The '131 patent's description includes various electronic or other devices, such as displays, computers, converters, tuners, speakers, printers, and furnaces, which respond to the signal in a variety of causal or predetermined manners, for example, by outputting different media, automating connections, etc. (*See id.*)

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[1] *Webster's New World Dictionary of Computer Terms* 60 (1983).

As ordinarily understood, the word "signal" means "any electrical quantity, such as voltage, current, or frequency, that can be used to transmit information."[2] *See Comaper Corp. v. Antec, Inc.*, 596 F.3d 1343, 1348 (Fed. Cir. 2010) (Because the specification does not provide an explicit definition of the claim term, in determining the ordinary and customary meaning of the claim term as understood by a person of ordinary skill in the art, it is appropriate to consult a general dictionary definition of the word for guidance.)

In light of the record, the term "control signal" reasonably means "an electrical quantity that is operative to cause a responsive action in a device, including but not limited to causing an output, an operation, or a sequence of operations."

said storage station

Claim 9, which depends on claim 1, recites "wherein a control signal causes a controller operatively connected to said storage station to control a peripheral device, said method further comprising the step of storing said control signal." Claim 1 does not refer to a storage station. Rather claim 1 refers to a "station of a particular kind." Claim 1 further recites that the station includes a storage device. Although Zynga does not provide an explicit claim construction for claim 9, it is implicit that Zynga construes "said storage station" as a reference to the claim 1 "storage device." (*See, e.g.*, Pet. 23-24; Ex. 1010, ¶ 175.) For purposes of this decision, we determine that a person of ordinary skill in the art would have

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[2] *Microsoft Computer Dictionary* 435 (3rd Ed. 1997).

understood, at the time of the invention, that the referral to "said storage station" is a referral to the "storage device."

B. Claims 1, 3, 4, 6, 9, and 11 – Anticipated by Higgins

Zynga argues that claims 1, 3, 4, 6, 9, and 11 are unpatentable under 35 U.S.C. § 102(e) as anticipated by Higgins. In its petition, Zynga explains, with supporting evidence (*e.g.*, Ex. 1010, which is a declaration of Dr. Charles J. Neuhauser "Dr. Neuhauser"), how each claim limitation is met by Higgins. (Pet. 12-25, citing to Ex. 1010, ¶¶ 41-114.) Upon review of Zynga's analysis and supporting evidence, and taking into account PMC's preliminary response, we determine that Zynga has demonstrated that there is a reasonable likelihood that it will prevail with respect to claims 1, 3, 4, 6, 9, and 11 on the ground that these claims are anticipated by Higgins.

Higgins

Higgins describes a data processing and communication system that distributes and displays financial market information via a plurality of stored program controlled work stations. (Ex. 1007, Abstract.) Figure 1b of Higgins, reproduced below, illustrates a portion of the data processing and communication system.

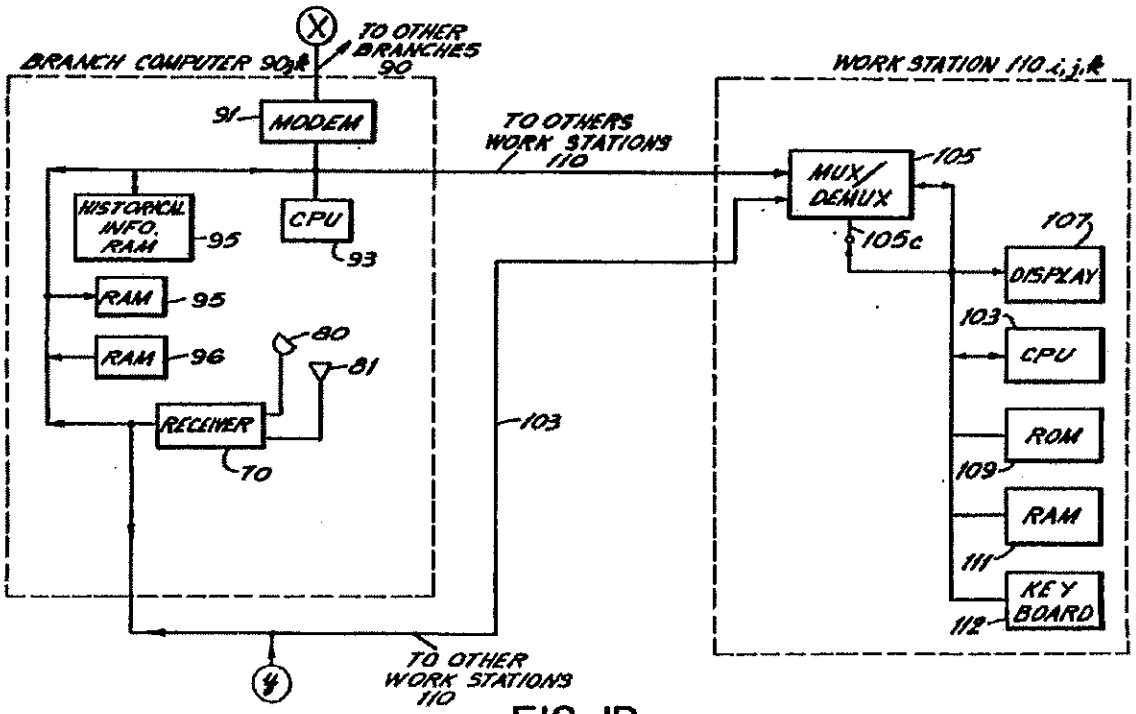

FIG. IB

Figure 1B of Higgins shows a plurality of work stations 110 *i, j, k*, each a "station of a particular kind" that includes a "storage device" ROM 109 and/or RAM 111. The work station 110 "delivers complete programming" to a user by displaying, at display 107, user-specific financial market data. (*See, e.g.*, Ex. 1007, Abstract, "Various derivative tasks, such as security price limit alerts, are user programmable and are activated by the contents of the work station data base.").

Higgins describes that each work station 110 includes programming comprising a computer program stored within memory ROM 109. (Ex. 1007, 2:18-20 and 6:21-23.) RAM 111 may also store computer programs or program portions. (Ex. 1007, 2:25-26.) A portion of the programming (*e.g.*, programming

for displaying ticker information on display 107) is completed by accessing prestored data from RAM 111, such as the stock symbols and associated price information of the stocks of interest by the user, and displaying the completed programming on display 107. (Ex. 1007, Figure 2, 4:45-5:59.)

The processor CPU 103 controls what is displayed on the display. (Ex.1007, 2:16-18.) The computer program for completing programming is executed on CPU 103. (*See, e.g.*, Ex. 1007, 48-64; Ex. 1010, ¶ 71). CPU 103 selects a specific datum (*e.g.*, a specific stock to watch stored by the user) from the prestored data in RAM 111 – stored information such as all of the securities of interest to the broker or user of the work station. (*See, e.g.*, Ex. 1007, 5:48-64; Ex. 1010, ¶ 72.) The processor then processes the selected datum and places the resulting information into the portion to be completed, *e.g.*, updating the information to the field or window of display 107.

Higgins further describes several control signals. For example, information a user enters through a keyboard that is stored in RAM 111, which causes execution of the computer program. (*See, e.g.*, Ex. 1007, 4:24-41; 4:60-5:5; Ex. 1010, ¶¶ 75-77). Thus, station 110 is enabled to deliver complete programming to display 107.

Claim 1 - storing a control signal

PMC argues that Higgins does not teach "storing a control signal, which is operative at at least one particular kind of station, said control signal operative to cause said execution of said computer." (Prelim. Resp. 8.) With respect to this limitation, PMC first argues that Zynga fails to explain how keyboard strokes teach

a control signal. (*Id.*) In its petition, Zynga directs attention to column 4, lines 24-28 of Higgins, for example, which describes (with emphasis added in italics): "[t]hat is, the work stations 110 have a *signal* entry keyboard 112 which may be employed by a user (*e.g.*, broker) to specify various kinds of information desired for viewing via his display 107." Higgins further describes that "[v]arious derivative tasks, such as security price limit alerts and *customized, selective ticker displays, are user programmable* and are actuated by the work station data base." (Ex. 1007, 1:51-54, emphasis added.) Moreover, Higgins describes, that signals entered by a user or broker are command messages. (Ex. 1007, 6:54-57.) Zynga relies on Dr. Neuhauser's testimony to explain how a person of ordinary skill in the art would understand the teachings of Higgins. In that regard, we credit the testimony of Neuhauser that the programming or commands entered by the user through the keyboard are "control signals" because his testimony is also consistent with Higgins itself. (Ex. 1010, ¶¶ 47, 48, 76.) In accordance with our construction above, Higgins describes a control signal by at least the description of a user entering, through keyboard 112, an electrical quantity that is operative to cause a responsive action in a device (*e.g.*, what fields will be displayed on the display 107) to be performed by CPU 103.

PMC, on the other hand, fails to consider Higgins from the perspective of a person of ordinary skill in the art. *In re Graves*, 69 F.3d 1147, 1152 (Fed. Cir. 1995); *In re LeGrice*, 301 F.2d 929, 936 (CCPA 1962) (A reference anticipates a claim if it discloses the claimed invention such that a skilled artisan could take its teachings in combination with his own knowledge of the particular art and be in

possession of the invention.). PMC's arguments are conclusory and not based on facts that are consistent to those of record.

PMC argues that Higgins is silent with respect to any key stroke that causes the execution of a stored computer program. (Prelim. Resp. 8.) But as explained in the petition, Higgins describes that "the work stations 110 have a signal entry keyboard 112 which may be employed by a user (e.g., a broker) to specify various kinds of information desired for viewing via his display 107" and that "depending upon the user-entered key strokes, the specific format of the multi-window display may vary." (Ex. 1007, 4:24-41). Higgins further explains that the user-entered signals are stored in RAM 111. (Ex. 1007, 4:60-5:5.) As explained in the petition, and supported by Dr. Neuhauser's testimony, the user-entered key strokes, *e.g.*, signal commands, stored in RAM 111 are control signals that cause execution of the programming to vary the work station display. (Pet. 18; Ex. 1010, ¶¶ 74-76.)

PMC's argument that Zynga relies on a list of stock symbols to meet both the control signal and the prestored data is misplaced. (Prelim. Resp. 9.) We do not understand Zynga to rely on one feature in Higgins to meet two separate claimed limitations of claim 1. Rather, we understand Zynga to rely on the list of securities as the prestored data (*see, e.g.,* Pet. 17) and the customized, selective ticker displays, that are user programmable as an example of the claimed control signal (*see, e.g.*, Pet. 18.) Thus, Higgins contemplates that a user may change the fields of display and may also dictate which stocks the system will monitor and display to the user. This is illustrated in the following paragraph of Higgins (Ex. 1007, 1:46-54):

> In accordance with one aspect of the present invention, information characterizing a dynamically changing sub-population of the market securities is maintained at and becomes immediately available to each work station responsive to the pattern of usage at that specific station. Various derivative tasks, such as security price limit alerts and customized, selective ticker displays, are user programmable and are actuated by the work station data base.

A person of ordinary skill in the art would understand the above reference to "market securities" to be with reference to the example of the 300 stock market symbols that are stored and monitored as information entered by the user, and the derivative tasks such as limit alerts and customized ticker displays to be other information entered by a user. In either case, the information entered by the user is stored.

Zynga presents an alternative theory that the reporting of new trades transmitted from the ticker plant 35 is a control signal that is received and stored by the workstation and that causes execution of the program to change the information in the window display automatically. (Pet. 20.) PMC disagrees and argues that Zynga has failed to show how the stock information from the ticker plant 35 is a control signal. (Prelim. Resp. 10.)

Contrary to PMC's assertions, Zynga does show how the stock information from the ticker plant 35 is a control signal. Specifically, Zynga directs attention to Higgins' Fig. 4 flow chart and the explanation of such at column 8, lines 38-63. We have reviewed the petition and the portions of Higgins to which Zynga directs attention and determine that Zynga shows that the reporting of new trades transmitted from the ticker plant 35 is a control signal that is received and stored

by the workstation and that causes execution of the program to change the information in the window display automatically. PMC does not explain, in any meaningful way, why Zynga's showing in that regard is incorrect. PMC does not address Fig. 4 of Higgins or the explanation found at column 8, lines 38-63. Specifically, Higgins describes, in connection with Fig. 4, that the information from the ticker plant is an electrical quantity that is operative to cause a responsive action in CPU 103 to perform a sequence of operations (*see, e.g.*, Ex. 1007, 8:38-41, "the first step 301 reads into the computer CPU the next incoming stock symbol, price, volume and related information (ticker message)".)

Claim 1 - storing programming ... comprising a ... portion to be completed

PMC argues that Zynga fails to identify any stored programming that includes a portion to be completed. (Prelim. Resp. 10.) Claim 1 recites "storing programming at said storage device, said programming comprising a computer program and a portion to be completed." Zynga does account for this claim 1 limitation. (*See, e.g.*, Pet. 14-16.) The petition explains that "Higgins discloses a computer program that presents a multi-window presentation having portions (*e.g.*, the second ticker and the MONITOR field) that are completed through execution of computer program by a processor (i.e., CPU 103 in Fig. 2) on the workstation 110 *i, j, k*." (Pet. 16-17.) The petition further explains that the programming (program and portion to be completed) is stored in RAM 111. (Pet. 17.) Thus, we are not persuaded that Zynga fails to identify any stored programming that includes a portion to be completed.

Claim 4

PMC argues that Zynga fails to demonstrate that there is a reasonable likelihood that claim 4 is unpatentable. (Prelim. Resp. 11.) Claim 4, which depends on claim 1, recites "[t]he method of claim 1, wherein said control signal comprises a series or stream of sequentially transmitted control instructions, said method further comprising the step of storing in said control signal two or more control instructions in a specific order with information designating a time period." PMC argues that neither of the control signals alleged by Zynga is disclosed as containing a stream of two or more control signals. (Prelim. Resp. 11.) PMC's argument is misplaced. Claim 4 does not recite "two or more control signals." The claim requires "two or more control instructions." In any event, Zynga does account for the limitations of claim 4 in its petition. (Pet. 21-22.) Zynga directs attention to portions of Higgins and Dr. Neuhauser's declaration. In particular, Dr. Neuhauser testifies as follows (Ex. 1010, ¶ 90):

> The 'ticker messages' received by mux/demux 105 constitute '*a series or stream of sequentially transmitted control instructions.*' Each ticker message represents one 'control instruction' which triggers the actions outlined in Figure 4. Because these ticker messages represent financial data they are received in a 'specific order'.

We credit Dr. Neuhauser's testimony reproduced above because his statements are consistent with the description set forth in Higgins at column 2, lines 42-57. PMC does not address Dr. Neuhauser's testimony or the description in Higgins and thus does not overcome Zynga's showing in that regard.

Claim 9

PMC argues that Zynga fails to demonstrate that there is a reasonable likelihood that claim 9 is unpatentable. (Prelim. Resp. 12.) Claim 9, which depends on claim 1, recites "wherein a control signal causes a controller operatively connected to said storage station to control a peripheral device, said method further comprising the step of storing said control signal."

PMC argues that Zynga fails to demonstrate that the keyboard strokes or the stream of stock information are control signals that cause the control of a peripheral device. (Prelim. Resp. 12.) We have addressed, *supra,* why Zynga has demonstrated sufficiently why either the entries made by the user using the keyboard or the stock information from the ticker plant 35 constitute a control signal. Zynga relies on the Higgins display 107 to meet the claimed limitation of a "peripheral device." Zynga's showing is reasonable and PMC has failed to persuade us otherwise.

Claims 3, 6, and 11

As to challenged dependent claims 3, 6, and 11, Zynga shows persuasively that Higgins discloses the additional recited limitations in those claims. (*See* Pet. 21-22 and 24-25.) PMC's arguments are directed to claims 1, 4, and 9, and PMC does not address claims 3, 6, and 11 with separate specific arguments. (Prelim. Resp. 11.)

For reasons provided above, Zynga establishes a reasonable likelihood of prevailing on the ground of unpatentability of claims 1, 3, 4, 6, 9, and 11 as anticipated by Higgins under 35 U.S.C. § 102(e).

Claims 1, 3, 4, 6, 9, and 11 – Anticipated by Hedges

Zynga argues that claims 1, 3, 4, 6, 9, and 11 are unpatentable under 35 U.S.C. § 102(b) as anticipated by Hedges. In its petition, Zynga explains, with supporting evidence (*e.g.,* the declaration of Dr. Neuhauser), how each claim limitation is met by Hedges (Pet. 25-41, citing to Ex. 1010, ¶¶ 115-183.) Upon review of Zynga's analysis and supporting evidence, and taking into account PMC's preliminary response, we determine that Zynga has demonstrated that there is a reasonable likelihood that it will prevail with respect to claims 1, 3, 4, 6, 9, and 11 on the ground that these claims are anticipated by Hedges.

Hedges

Hedges describes a remote gaming system for use with a wagering or gambling establishment such that a player may participate in a game from a remote terminal (a player station). (Ex. 1008, Abstract.)

> The player station includes a live game display for displaying a selected one of a plurality of games being played at the croupier station, such as craps, roulette or keno. The player station includes a changeable playboard for displaying a selected one of a plurality of wagering possibilities corresponding to a selected one of the plurality of games being played and for displaying the results of the game played at the croupier station.
> (*Id.*)

Figure 4, shown below, shows a game of roulette, which can be displayed on the playboard.

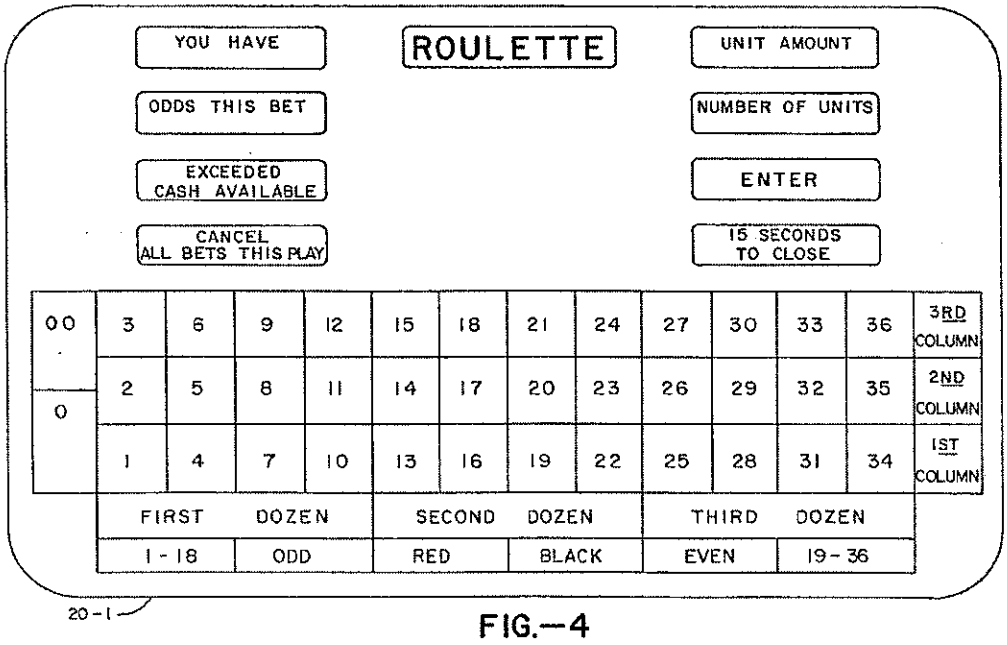

FIG.—4

Figure 4 shows a playboard that includes blocks of different colors for displaying possible wagers in a format which simulates a playing board in the live game selected. The display includes items relative to the player's account such as total credit remaining and items pertinent to the game such as wagering limits, payoff odds, and time remaining to enter a bet. (Ex. 1008, 4:5-13.)

The player station remote gamming terminal (RGT) is described with respect to Figure 9, shown below:

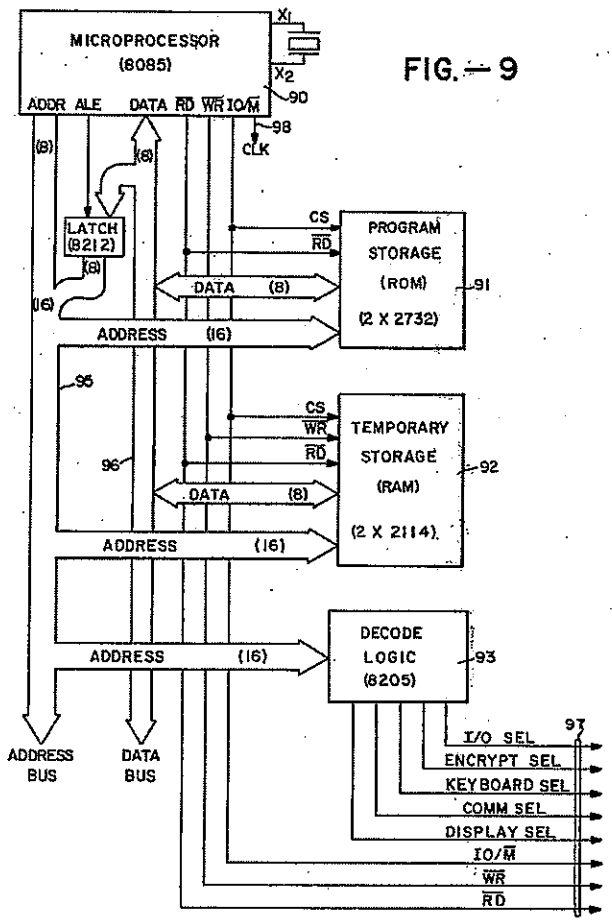

FIG. 9

The RGT includes "read only memory (ROM) 91 to provide sufficient storage to hold the remote gaming terminal software and random access memory (RAM) 92 to hold temporary results of processing." (Ex. 1008, 6:30-36.) The "RAM 91 [sic] is used for temporary storage of data which may change during the operation of the RGT." (*Id.* 9:60-61.)

Claim 1 - storing a control signal

PMC argues that Hedges does not teach "*storing a control signal, which is operative at at least one particular kind of station, said control signal operative to cause said execution of said computer.*" (Prelim. Resp. 13-14.) With respect to this limitation, PMC argues that Zynga fails to explain how the Hedges "stimulus" received from the credit station and player teach a control signal or how the "stimulus" is stored at the player game station. (*Id.*)

In its petition, Zynga asserts that the stimulus received from the credit station or from the player as well as the data stored in ROM 91 and RAM 92 all cause execution of the RGT firmware to generate and display the completed playboard. Zynga explains, directing attention to the testimony of Dr. Neuhauser, any of the stimuli are, therefore, control signals that are stored and that are operative at the RGT to cause execution of the RGT firmware. (Pet. 34.)

In support of the argument, Dr. Neuhauser testifies that a person of ordinary skill in the art would have understood that Hedges discloses a number of control signals including commands entered by the player, inputs from the magnetic card reader 87 and the communicator 42, and that the control signals cause execution of the computer program stored in ROM 91 to produce the completed programming shown in playboard 40. (Ex. 1010, ¶ 148.) Indeed, Hedges describes that the "firmware is interpreted by microprocessor 90 in the RGT to cause it to generate the appropriate playboard display, sense commands entered by the player, control the magnetic card reader, communicate with the credit station, and so forth." (Ex. 1008, 8:65-9:2.) As further explained by Dr. Neuhauser, the described "stimulus" of Hedges would have been understood by a person of ordinary skill in the art to be

a control signal because the stimuli trigger execution of program code stored in ROM 91. (Ex. 1010, ¶ 149 citing Hedges at 9:10-26.) Lastly, we understand Zynga and Dr. Neuhauser to explain that the stimuli are all stored in ROM 91 and RAM 92.

We have reviewed those portions of Hedges to which we are directed and determine that Dr. Neuhauser's testimony as to stimulus being control signals that are stored is credible. One of ordinary skill in the art would have understood any of the described various stimuli to be a control signal. For example, when a user at the RGT selects a particular game or places a particular wager and uses his credit card to make bets, these inputs each constitute a control signal, because each one represents an electrical quantity that is operative to cause a responsive action in a device, *e.g.*, the program modules. (Ex. 1008, 9:10-14.) Moreover, a person of ordinary skill in the art would have understood that the same inputs from the user, *e.g.*, control signals, are stored temporarily in RAM 92 to facilitate performing certain operations prior to others. (Ex. 1008, 9:14-21, "The tables in ROM 91 define the operation of the RGT for each mode of operation and game while the tables in RAM 92 contain information about the current state of operation of the RGT. Since certain operations are more important, or must be performed more rapidly than others, a prioritized list of tasks (the task queue) to be performed is maintained in RAM 92 of FIG. 9.")

It is clear from PMC's arguments that PMC has not taken into account the testimony of Dr. Neuhauser and his explanation of how a person of ordinary skill in the art would have understood Hedges. Moreover, PMC's argument that the Hedges reference does not define a "stimulus" within the context of the game

station operations and does not equate a "stimulus" with any kind of signal is misplaced. The Hedges reference need not define the term "stimulus" or describe that a "stimulus" is the equivalent of a "control signal." Rather, Hedges is to be considered from the perspective of a person of ordinary skill in the art and how that person would understand the reference. For the above reasons, we are not persuaded that Zynga has not demonstrated that Hedges describes the claim 1 limitation of "storing a control signal, which is operative at at least one particular kind of station, said control signal operative to cause said execution of said computer."

PMC's argument that Zynga relies on the data stored in ROM 91 and RAM 92 to meet both the control signal and the prestored data is misplaced. (Prelim. Resp. 14.) We do not understand Zynga to rely on one feature (*e.g.,* all of the combined data stored in ROM 91 and RAM 92) in Hedges to meet two separate claimed limitations of claim 1. Rather, we understand Zynga to rely on either the tables 164 or 163 as the "prestored data" (Pet. 31) and the same or different data stored by either the RAM or ROM as the stored control signal. For example, the status tables 164 indicate the game, mode of the game, and information to be displayed on the playboard 40, and thus include prestored data (and selected datum). (Ex. 1010, ¶ 145, citing Hedges, 9:60-66.) This stored data is separate from, for example, messages from the credit station (*e.g.,* one example of a *control signal*) that are stored in a message buffer area 165 in RAM 92. (Ex. 1010, ¶ 149, citing Hedges, 10:66-11:3; and Ex. 1008, 13:28-36.) For these reasons, we are not persuaded by PMC's arguments.

Claim 1 - storing programming ... comprising a ... portion to be completed

PMC argues that Zynga fails to demonstrate that Hedges teaches the claim 1 limitation of "storing programming at said storage device, said programming comprising a computer program and a portion to be completed." (Prelim. Resp. 15.) Zynga does account for this claim 1 limitation. (*See, e.g.*, Pet. 29-31.) The petition explains that Hedges discloses a computer program that displays a playboard 20 on a monitor 60, such as the roulette playboard and that the playboard includes portions that are completed by accessing prestored data. (*Id.*) Dr. Neuhauser testifies that the "portion to be completed" is the display storage area 168 of RAM 92 and that that is the data which controls playboard display on monitor 60. Dr. Neuhauser further testifies that Figures 4, 5, and 6 show examples of the completed programming that is generated from the contents of display storage area 168 of RAM 92 and presented to the player. (Ex. 1010, ¶ 136.)

PMC does not explain in any meaningful way why Zynga "does not identify any stored programming that includes a portion to be completed." (Prelim. Resp. 15.) Clearly, Zynga, through its petition and testimony from Dr. Neuhauser, does make such an identification. PMC does not take into account Dr. Neuhauser's explanation of how a person of ordinary skill in the art would understand Hedges in regard to the disputed limitation. Therefore, we are not persuaded by PMC's arguments.

Claim 4

PMC argues that Zynga fails to demonstrate that there is a reasonable likelihood that claim 4 is unpatentable. (Prelim. Resp. 15-16.) Claim 4, which depends on claim 1, recites "[t]he method of claim 1, wherein said control signal comprises a series or stream of sequentially transmitted control instructions, said method further comprising the step of storing in said control signal two or more control instructions in a specific order with information designating a time period." PMC argues that none of the control signals identified by Zynga contain a series or stream of sequentially transmitted control instructions. (Prelim. Resp. 16.)

Zynga does account for the limitations of claim 4 in its petition. (Pet. 21-22.) Specifically, Zynga directs attention to portions of Higgins and Dr. Neuhauser's declaration in support of its arguments. In particular, Dr. Neuhauser testifies that Hedges discloses at least two scenarios that meet the limitation. The first is when data is sent from the credit station 9 to remote gaming terminal 20. Dr. Neuhauser testifies that these control signals define certain indications on the playboard screen, such as "15 Seconds to Close" and "No Betting" and that those signals are sent in a specific order. (Ex. 1010, ¶¶ 160-161, citing Hedges, 13:41-49.)

With respect to that example, PMC argues that Zynga does not identify where the reference describes that the time information is stored with the "stimulus", *e.g.*, control signal, as required by the claim. (Prelim. Resp. 16.) The argument does not account for the explanation provided in the petition and the testimony of Dr. Neuhauser that the time information is stored. (Pet. 36-37; Ex. 1010, ¶ 162.) Dr. Neuhauser testifies that "Hedges discloses that messages received by the player station 10 from the credit station 9 are sent serially via an

SDLC link. The communications process depicted in Figure 14 receives these messages and stores them in the order received in the message buffer are 165." (Ex. 1010, ¶ 162, citing Hedges 10:66-11:8.) We credit the testimony of Dr. Neuhauser that the control signals sent from the credit station 9 (*e.g.*, "15 Seconds to Close" and "No Betting") to the remote gaming terminal 20 meet the limitations of claim 4. PMC has not shown otherwise.

Alternatively, Zynga relies on another example of a stored sequence of two or more control signals. Specifically, Zynga sets forth that Hedges describes a stored task queue that designates a task schedule to be executed by the RGT processor. (Pet. 37-38, Ex. 1008, 9:18-21 and 10:10-13.) PMC argues that Zynga fails to demonstrate that the task queue includes control signals that comprise a series or stream of sequentially transmitted control instructions that are stored in a specific order. (Prelim. Resp. 16.) We disagree. Again, PMC does not account for the explanation or citations to record evidence. Dr. Neuhauser testifies as follows (Ex. 1010, ¶ 164, quoting claim 4 and Hedges, 10:10-13, emphasis by Dr. Neuhauser):

> 164. The RAM 92 contains a task queue 166. Entries in the task queue 166 define the tasks to be executed by processor 90. Because the tasks have different priorities the entries in the task queue will be handled in a specific order so that higher priority tasks execute before lower priority tasks. The "*series or stream of sequentially transmitted control instructions*" is the data fetched from the task queue 166 in RAM 92 over the processor data bus 96 (see Fig. 7). The contents of the task queue are used for scheduling, which would be understood by one of ordinary skill in the art to include the notion of a time interval in the broadest reasonable sense.
> *"A third area in RAM 92 is the task queue 166, which is a list of data*

> *maintained and interpreted by monitor program 153 to define all of the operations or tasks currently scheduled to be accomplished by the RGT."*

On this record, we credit Dr. Neuhauser's testimony. From the above explanation and consistent with the description in Hedges itself, the task queue 166, which includes a list of the operations or tasks that are currently scheduled in a particular order, meets the disputed limitation of claim 4. PMC has not shown otherwise.

Claim 9

PMC argues that Zynga fails to demonstrate that there is a reasonable likelihood that claim 9 is unpatentable. (Prelim. Resp. 12.) Claim 9, which depends on claim 1, recites "wherein a control signal causes a controller operatively connected to said storage station to control a peripheral device, said method further comprising the step of storing said control signal."

PMC argues that Zynga fails to demonstrate that the data stored in ROM 91 and/or RAM 92 is a control signal that causes the control of a peripheral device (Prelim. Resp. 16-17.) We have addressed *supra* why Zynga has demonstrated sufficiently why either the various signals are control signals as claimed. Moreover, Zynga relies on the Hedges monitor 60, for example as a peripheral device. PMC does not explain why monitor 60 is not a peripheral device as claimed. Zynga also explains that the card reader 87 may also be considered a peripheral device. (Pet. 39-40.) PMC, on the other hand, merely argues that even assuming that control signals control the card reader, Zynga has failed to refer to

any portion of the reference that describes that such control signals are stored. (Prelim. Resp. 17.) PMC does not account for the description in Hedges to which Zynga directs attention or the testimony of Dr. Neuhauser. Specifically, PMC does not account for Zynga's explanation, with support from Dr. Neuhauser, that Hedges discloses that the control signals are stored in RAM 92 and correspond to inputs from the card reader; accordingly, they are stored control signals.

Claims 3, 6, and 11

As to challenged dependent claims 3, 6, and 11, Zynga shows persuasively that Hedges discloses the additional recited limitations in those claims. (*See* Pet. 35-36 and 38-41.) PMC's arguments are directed to claims 1, 4, and 9, and PMC does not make specific arguments with respect to dependent claims 3, 6, and 11.

For reasons provided above, Zynga establishes a reasonable likelihood of prevailing on the ground of unpatentability of claims 1, 3, 4, 6, 9, and 11 as anticipated by Hedges under 35 U.S.C. § 102(b).

C. Other Asserted Grounds

Zynga also asserts that claims 1, 3, 6, 9 and 11 are anticipated by Sitrick, and claim 4 is unpatentable over Higgins in view of Hedges, or Sitrick in view of Hedges. (Pet. 41-55.) Those asserted grounds are denied as redundant in light of the determination that there is a reasonable likelihood that the challenged claims are unpatentable based on the grounds of unpatentability on which we institute an *inter partes* review. *See* 37 C.F.R. § 42.108(a).

III. CONCLUSION

For the forgoing reasons, we determine that the information presented in the petition establishes that there is a reasonable likelihood that Zynga would prevail with respect to claims 1, 3, 4, 6, 9, and 11 of the'131 patent.

IV. ORDER

Accordingly, it is

ORDERED that pursuant to 35 U.S.C. § 314, an *inter partes* review is hereby instituted as to claims 1, 3, 4, 6, 9, and 11 of the '131 patent for the following grounds:

1. Claims 1, 3, 4, 6, 9, and 11 unpatentable under 35 U.S.C. § 102(e) as anticipated Higgins; and
2. Claims 1, 3, 4, 6, 9, and 11 unpatentable under 35 U.S.C. § 102(b) as anticipated by Hedges;

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(d) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial; the trial is commencing on the entry date of this decision; and

FURTHER ORDERED that an initial conference call with the Board is scheduled for 1:00 PM Eastern Time on August 27, 2013; the parties are directed to the Office Trial Practice Guide[1] for guidance in preparing for the initial conference call, and should come prepared to discuss any proposed changes to the

[1] *Office Patent Trial Practice Guide*, 77 *Fed. Reg.* 48756, 48765-66 (Aug. 14, 2012).

Scheduling Order entered herewith and any motions the parties anticipate filing during the trial.

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