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(71) Applicant:
Lvov, Denis Ernestovich
St. Petersburg, 195067 (RU)

(72) Inventor:
Lvov, Denis Ernestovich
St. Petersburg, 195067 (RU)

(74) Representative: **Kador & Partner**
Corneliusstrasse 15
80469 München (DE)

(54) ELECTRONIC GAME SYSTEM, A METHOD OF MANAGING AND REGULATING SAID SYSTEM

(57) The electronic gaming system (ESG) and the method of system control and adjustment relates to computerized gaming and service systems that implement a computerized programmable control and can be used in local and global networks to establish casinos.

The EGS consists of a central computer station (1) (CCS), peripheral computer stations (25) (PCS) with communications provided between them, a data transmission network (32) (DTN). The CCS consists of a players registration system (3), a game accounts managing system (4), an information tabulating, scoring and searching system (5), a system for recording gaming situations (6), a system for scoring players by the results of the game (7), a wagering and betting system (8), an executive gaming system (9), a data exchange system (10). The CCS also includes an electronic payments system (11), an information protection system (12), a secure communications system (13), a game selection system (14), a mailing system (15). The DTN provides interaction of PCSs with the CCS in an arbitrary combination of PCS types and comprises a communications station (20) and a data transmission network (32).

The method of control and adjustment of said system provides the following actions: a player is identified at his registration by a set of key attributes that are encoded and sent to the central computer station (CCS) where they are compared to the individual information of the protection system. The information is individually encoded and sent as a message to the administrator and the subjects of the system that are present. The player selects a starting composition of his playing team, selects and indicates the selection criteria, after which the EGS is automatically adjusted. The player is connected to one or more games and is scored by each of them. If the set of key attributes does not coincide, a registration failure is logged in the electronic protocol. The number of registration attempts is limited, and, when exceeded, a warning of an EGS intrusion is generated, and the player's accounts are blocked.

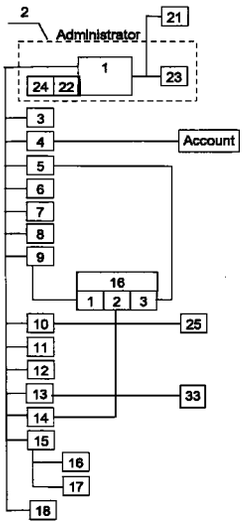

FIG.1

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Description

FIELD OF THE INVENTION.

The invention relates to electronic games and service systems used in local and global networks for establishing casinos, in administrative and production systems, as well as in stock exchange systems and other communications and marketing systems requiring their parts to interact.

DESCRIPTION OF THE PRIOR ART

The patent "Multi-player type video game playing system" (EP, A1, 0387862, 19.09.90, A63F9/22) is known that describes a playing system consisting of a cylinder-shaped screen with several radially arranged projectors. Each of the projectors is directed at a specific section of the screen. Several player's operating sections are arranged radially toward the screen. The sections, however, can be locally arranged around only one processor and do not provide for connecting service companies to the system as its subjects.

Gaming sets of equipment for gaming centers are known (LP, B, 3-70993, 11.11.91 and JP, B, 3-70994, 11.11.91) that are designed for playing on several group-forming gaming machines with a possibility of settling game accounts for games with several players. They, however, do not permit establishing of a protected network that is not limited by distance and that provides for a possibility of serving several companies and/or players belonging to the system (possibility of money transactions included) at a diversity of the game basis for wagering, betting and other game events.

Electronic settlement of accounts via networks that provide communications with financial institutions is known, for instance, "Apparatus and method for providing credit for operating a gaming machine" (US, A, 5038022, 06.08.91) and "Installation permettant de participer à distance et en direct à des jeux de casino" (FR, A1, 2666672, 13.03.92). They, however, do not permit establishing of a geographically unlimited gaming system consisting of a plurality of subjects that envisages a simultaneous modeling of the gaming situation and settling the accounts by the results of the game through a financial institution.

Patents "A communication terminal used as a game machine" (EP, A2, 0477775, 04.01.92) and "Game of skill or chance playable by several participants remote from each other in conjunction with a common event" (US, A, 5083800, 28.01.92) are known that use telephone lines and terminals. The authors, however, did not envisage establishing of a protected network with service possibilities, including that of money transactions, on a broad gaming basis with various combinations of playing teams.

The patent "Game playing system" (US, A, 4958835, 25.09.90, A63F9/22) is known that describes a system with a plurality of gaming machines interconnected by a communications channel that enables them to exchange data using an identification code for each machine. Upon each reception of data the identifying device of the system checks whether the data belongs to the transmitting machine. In case the data cannot be identified, the game account is reset and incriminated, and the real account owner is searched for by addressing gaming machines of the system. This system, however, can completely upset a player's game in case of system failure which may entail a money loss on player's bank account and decreases the system reliability.

The patent "Game scoring method" (US, A, 4900027, 19.10.88, G06F15/44) is known describing a computer-based scoring method in which each player is assigned an identifying digital number entered in conjunction with "WE" or "THEY" key depression, thereafter digital numbers indicating scores earned are entered in conjunction with "WE" or "THEY" key. At the end of a game the computer displays a total score for each individual player together with his identifying number. However, it heavily narrows the possibility of selecting a desirable composition of players for a given gaming situation and provides no privacy of players' accounts. The patent "Method of lookahead pipeline for processing object records in a video system" (US, A, 4894774, 16.01.90, G06F15/44) is known. It describes a method that permits to search an associated database list that contains information on all the objects meeting the preset criteria. An associated list of criteria on this or that object is compiled by which the object is searched for among those available, its position and dimensions on the display are specified together with the address of stored graphic data and the address of the communications index that specifies the address of the next entry in the associated list. After that the list is consecutively searched for those entries that satisfy the preset criteria. This method, however, provides no opportunity for a player to select a team that meets his criteria for a given gaming situation and to join the situation together with the desired team of players.

A computerized gaming system for playing poker, described in Patent US, A, 4926327, 15.05.90, G06F15/44, is the closest by its engineering essence to the suggested electronic gaming system (EGS). The former consists of a central computer unit (CCU) and a group of individual player consoles (IPC) interconnected with the CCU. The CCU is equipped with means enabling all players to initiate a set of wagers, a circuit to initiate all poker game events with a simultaneous data exchange, a circuit to evaluate each player's cards and determine the order of finish of the players, a circuit to divide the total amount wagered. Each IPC is equipped with a processor, a circuit to receive and display the

cards assigned to an individual player, a circuit permitting each player to respond to the game events initiated by the processor, a circuit to receive and display wagering data. The system enables a plurality of players to simultaneously wager within the initiation time period equal to the period a player is permitted to wager. The system provides for a multivariant poker game that complies with the parameters set either automatically by the system or manually by the players. It also performs a final scoring for each player after the game is finished. The system permits to install a plurality of IPCs within a local territory, enables each player to monitor game events, and restricts the surrounding people from observing the game results on the IPC display through use of a funnel-shaped screen. The system can be used in casinos. This computer system, however, can offer players only one type of gaming situation and is limited in territory by the possibilities of a given local network. Besides, it provides no opportunity for establishing a protected network that is unlimited by its territory and can serve all its subjects, both players and companies that require a broad gaming basis enabling them to wager in any combinations, perform money transactions through financial institution once the game is over, etc.

A computerized statistical football game described in patent US, A, 4918603, 17.04.90, G06F15/44 can serve as the closest example of the suggested method of system control and adjustment by its engineering essence. The game has means for setting up individual football franchises, for selecting starting player rosters, for scoring performances for each football player. The invention belongs to gaming systems, being able to control gaming situations depending on variations in football team composition and the process of selection and exchange of football players, as well as the process of scoring performances for each football player after they were exchanged between the teams. This method, however, envisages no possibility for a gaming system user to compose a football team with a guaranteed participation of only those subjects that were identified and checked for their affiliation to the system. Besides, it cannot provide privacy of information on the gaming situation within a selected game and on its final results.

DISCLOSURE OF THE INVENTION

The invention solves the problem of creating an electronic gaming system that provides a broad variety of gaming situations and helps acquire habits of solving logical and strategic problems, betting and forecasting the results of various gaming situations in interaction with other players, for instance, in totalisator or while playing roulette, as well as wagering in gambling combination games the player participates in, like card games, checkers, chess, etc. The system meets the requirement that a player be able to join a gaming situation any time of day or night disregarding the working hours of an establishment, casino for instance, to play several games at a time or to combine playing with other activities without the necessity to leave the premises comfortable to the user and go someplace else. The possibility of betting real money through player's bank accounts that guarantees confidentiality of his wins, accuracy and verifiability of settlements as well as player's personal safety combined with an opportunity to communicate stimulates him to join a game. All the above is realized in a virtual computer world with participation of real players or groups of players selected by the user who can assess them on the basis of the available information. At the same time all the players remain personally unknown to the participants of the gaming situation.

The basic problem of the invention is also solved by devising a method of controlling and adjusting such systems as described above. The operation of computerized gaming systems, for instance, of casino type, requires integration of functionally similar gaming and servicing situations necessary and/or desirable for a player to join such a system. Moreover, it is required that a specific gaming situation be joined only by those of all the system subjects that are registered in the system and have had their honesty checked. The system must prevent a possibility of an intended intrusion and ensure confidentiality of all gaming events and settlements while providing a high invariance level of offered gaming situations and their combinations.

The electronic gaming system consists of a central computer station (CCS), peripheral computer stations (PCS) and a data transmission network (DTN) to interconnect them.

The CCS includes a computer of the administrator and is equipped with the following systems: a players registration system, a game accounts managing system, an information tabulating, storing and searching system, a system for recording gaming situations, a system for final scoring by the results of the game, a wagering and betting system, an executive gaming system, a data exchange system.

The players registration system is designed to register all new subjects who join the system, those already logged on, or those who leave the system. Thus, the system ensures control over a certain restricted group of included subjects.

The game accounts managing system controls the players' game accounts, executes settlements between the players and the CCS and performs operations on their bank accounts.

The information tabulating, storing and searching system serves to accumulate and process the information on players, gaming situations, selection criteria, etc. and keeps special records of communications sessions that permit to check the validity and correctness of administrator actions and the reliability of system protection.

The system for recording gaming situations keeps records on each of the player-initiated games and stores the cur-

rent gaming situations to permit their restoration in case of a communications failure. Thus, the information in the system is preserved even in case of emergency, enabling a player to check the validity and correctness of settlements.

The wagering and betting system provides a possibility to bet and wager prior to the beginning of a game.

The executive gaming system performs a direct control over the blocks that realize the gaming process, provides information input and output as well as other actions necessary to play a game.

Unlike the state-of-the-art central gaming computers, the CCS comprises an electronic payments system, an information protection system, a secure communications system, a game selection system and a mailing system.

The executive gaming system realizes various gaming situations on the basis of the EGS database.

The secure communications system provides personal communications of PCS with the CCS administrator or with other PCSs by means of electronic communications.

The communications can also be organized between any two or more arbitrarily formed PCS groups.

The game selection system includes a database on all the gaming situations and permits to select a game by any preset (indicated) criterion, to join the selection, to participate in several games at a time by switching over from one to another.

The electronic payments system provides information exchange with financial institutions, such as banks, and executes electronic payments by means of telecommunications.

The information protection system protects personal, financial and general network information used by the players against an unauthorized intrusion, as well as demarcation and redistribution of information and information access among the EGS subjects.

The secure communications system provides a direct real-time interactive communications between the system subjects, as well as between a player and the administrator or between groups of players. The system enables a player to overcome the time restriction imposed by working hours of a casino since the latter actually turns into an electronic gaming system.

The CCS and PCSs include mailing systems providing a personal electronic mail for PCSs and/or topical electronic billboards, reference systems and a data exchange system. The reference system supplies information on the players that are present in the EGS, a game rating of each of the potential players and offers an opportunity to select a partner by any of the preset criteria.

The mailing system is designed to provide an exchange of personal messages between the users and other electronic mail services and to update the electronic billboards. Players' personal messages are transmitted in the form of secure packages and can be processed by addressees both in CCS-connected or CCS-disconnected status, since they require no immediate reaction.

The personal E-mail system provides individual correspondence among players, between players and the administrator or other system subjects within the EGS limits. The system also provides topically-grouped in-system electronic billboards. Such a structure ensures a protected information exchange for the subjects included into the system.

The data exchange system provides a protected data exchange between the CCS and PCSs.

The reference system enables a user to easily find the necessary information on the gaming system, thus preventing potential errors on his part that could cause a loss of information or disclosure of his personality. The reference system assists in and simplifies the use of the gaming system.

The PCS comprises modems and computers of the players and those of the financial PCSs. The financial PCSs have their own bank accounts. Optionally, they can be equipped with means of radio communications, modems, network and/or radio modems, desktop and/or laptop computers. The modem and computers comprised in a PCS can be stand-alone and/or integrated into a LAN with a terminal. Operation of the CCS in the data exchange network permits it to interact with any arbitrary combination of PCS types. The data transmission network consists of a communications station interacting with both radio and network modems.

So, the EGS provides administration, data exchange and execution of gaming processes while ensuring security, privacy and a broad variety of games and services. Moreover, it monitors the players' accounts and will never allow a player to lose more than is deposited on his bank account.

The method of system control and adjustment consists of players registration, selection of a playing team starting composition and scoring each player in a given game.

The distinction of the suggested method lies in the fact that a player is identified at his registration by a set of key attributes that are transmitted to the CCS protection system in an encoded form. The information supplied by a player is individually encoded and sent to the administrator as well as the present (installed) subjects of the EGS. Having registered, the player selects a starting composition of teams (groups). To do so, he gets acquainted with the information search system, selects and directly indicates the required criteria, and passes them on to the CCS which performs an automatic adjustment of the EGS. Then the player joins one or more games selected from the game database list. The player is scored by the results of each game he participates in. In case the set of attributes entered by a player does not coincide with the one stored, a registration failure is registered in the electronic protocol and the administrator is informed thereof. The number of registration attempts is limited, and when it is exceeded, the EGS is warned of an intru-

sion. In this case the bank and/or other player's accounts are blocked. After the registration the gaming image of the player can be modified on his request in accordance with the suggested common rules. A player can monitor any of the selected games by switching the games over on his display and can interactively influence the regime of the games installed in the EGS.

With games installed, a player can select any information in the process of the game and send it to any subject included into the EGS.

In accordance with the above method, the confidentiality of data transmission, the security of the system and the privacy of bank accounts can be observed by players and the system-included subjects that provide services only when the EGS is comprehensively controlled and adjusted at all stages of its subjects interaction. The above factors are also provided through use of an information encoding system with individual for each player encoding keys in all of his communications sessions with casino programs.

The suggested electronic gaming system permits to establish an unlimited-by-territory closed-for-public network with confidential services open to all of its included subjects, both players and companies. The system offers a broad gaming basis and provides for money transactions by the results of one or several selected games through players' bank accounts.

The suggested method prevents an unauthorized access to the system and guarantees privacy of all actions undertaken in the process of or after the gaming situations that are formulated in accordance with the player's requests together with the team members selected by him.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention is illustrated by drawings that show:

Fig.1 - structure of the central computer station;

Fig.2 - structure of possible types of peripheral computer stations;

Fig.2a - option 1: a single peripheral computer station;

Fig.2b - option 2: a peripheral computer station of financial companies;

Fig.2c - option 3: a mobile peripheral computer station using radio communications;

Fig.2d - option 4: a network peripheral computer station;

Fig.3 - structure of the data transmission network;

Fig.4 - EGS interaction diagram;

Fig.5 - displayed list of actions for entering the system;

Fig.6 - displayed structured information from the game selection database;

Fig.7 - displayed structured information for selecting players;

Fig.8 - displayed rating of players;

Fig.9 - table for selecting players by preset criteria;

Fig.10 - displayed scoring table and account information;

Fig.11 - diagram of the sequence of system-controlling actions;

Fig.12 - diagram of the players registration mode;

Fig.13 - diagram of the starting players composition selection mode;

Fig.14 - diagram of the game joining and monitoring mode;

Fig.15 - diagram of player account management and settlements;

Fig.16 - displayed "images" of players.

INVENTION EMBODIMENT OPTIONS

The electronic gaming system consists of a CCS (1) that comprises a modem device (21), a server (22), a computer of the administrator (23) and a terminal (24), all operating as a single administrative system (2), see Fig. 1.

The CCS structure is a combination of soft- and hardware that stores, collects and controls the information of a computerized gaming system, for instance, of casino type.

The CCS consists of a players registration system (3), a game accounts managing system (4), an information tabulating, storing and searching system (5), a system for recording gaming situations (6), a system for final scoring by the results of the game (7), a wagering and betting system (8), an executive gaming system (9), a data exchange system (10), see Fig.1, 2a-d.

The EGS is equipped with peripheral computer stations (PCS) (25) that comprise a system for admitting players (26) to the CCS and a gaming interface system (27), see Fig.2a-d.

Unlike the state-of-the-art central gaming computers, the CCS (1) also comprises an electronic payments system (11), an information protection system (12), a secure communications system (13), a game selection system (14), an executive gaming system (9). The CCS realizes the gaming situations from the database (16') of the executive gaming system (9), see Fig.1. The interaction between the CCS (1) and a PCS (25) is carried out through a data transmission network (32), see Fig.4, comprising a communications station (20) that can communicate both with radio modems (28'), see Fig.2c, and network modems (28), see Fig.2a,b,d. The EGS can also feature, for instance, mailing systems (15), see Fig.1 and 2a-d, that are included into the CCS (1) and PCSs (25).

The EGS can, for instance, have either a single a secure communications system (13) or a secure communications system combined with a mailing system (15). The a secure communications system provides electronic communications of a PCS with the administrator computer (23) at the CCS (1), or communications of PCSs (25) among themselves, see Fig.4. The a secure communications system (13) can provide communications of any two or more arbitrarily formed groups (29) of PCSs (25), see Fig.4.

The game selection system (14) comprises a database (16") that describes all types of gaming situations and permits selection of any of them, see Fig.6.

The information tabulating, storing and searching system includes a database (16") that describes the composition of players and their rating, and permits to select players by any preset criterion, see Fig.8, 9. The PCS includes computers (30) or a computer network (31) and modems (28) of both players and bank and/or other deposit accounts, see Fig.2a-d. The CCS consists of a terminal (24) and a server (22) of the administrator (2), connected to a modem device (21), see Fig.1. The CCS (1) provides interaction of PCSs (25) in any arbitrary combination through the data transmitting network (32). The PCS (25) includes a modem (28) and computers (30, 31) that can be both desk- and laptop. The computers included into the PCS (25) can be either stand-alone, see Fig.2a, or connected to a LAN, see Fig.2d, having a terminal and a modem (28), see Fig.2d.

All the systems operate in an interactive mode and are based, by the general classification, on methods of comparison, classification and identification of images (MCCII) that treat comparison as a measuring operation performed by a measuring and computing complex (MCC). The MCC has an hierarchic structure since each system solves its own problem, independently classifies a specific action with this or that type of problem, and interactively passes its decision to an appropriate system. The EGS adequately identifies and organizes the operation of the whole system performing the role of an MCC using MCCII, collects and processes the data obtained as a result of a complex examination of the situation. When necessary, the main gaming functions can be set by a player during a game, or by the administrator in the administrative mode of system operation. A model formulated in terms of fuzzy logic is applied to use the database. Using the rules for composing fuzzy relationships, a diagnostic decision for each data set is worked out that assumes the form of an affirmation, negation or question on further gaming process when applied to the most suitable variant. Versions of such a system are known from publications, for instance,

А.С.Клешеев, М.Ю.Черняховская. Системы представления проблемно-ориентированных знаний [Systems for problem-oriented knowledge representation]. Известия АН СССР, 1982, N 5, сс.43-63.

The database is represented by a set of data organized by the SDSA (structured description of subject area) principle with each set physically located as a separate system on the disk

(Н.Т.Рустамов, Г.Т.Ибрагимов. Описание инструментальных средств для построения советующих распознающих систем [Description of tools for constructing advising identification systems]. УЭНПО "Кибернетика", АН СССР, Ташкент, 1991 г.

Formal language means are used for administrative-type information systems, for instance "DESKTOP SYSTEM"

(С.П.Ботуз. Методы и средства отображения многомерных параметрических зависимостей [Methods and means for representation of multi-dimensional parametric dependencies]. Сб.науч.трудов: Информационные технологии искусственного интеллекта. М. ГосИФТП, 1994 г. УДК 681.51/513.2).

To realize the suggested method of system control and adjustment, each player, who wishes to participate in the system, performs the following operations from his peripheral computer station (PCS) (25) through a telephone line: activates (36) the PCS, establishes connection (37) with the central computer station CCS (1), starts the player registration system (38), see Fig.11. Each player has a bank and game deposit accounts (34) included into the EGS, as well as his permanent and operational identifying attributes (code, encoding key, password, pseudonym, gaming image) logged in the system. In order to join the system, a player must have a computer connected through a modem to a telephone line and a special software. A physical connection with the GCS, followed by an automatic connection through the telephone line to the CCS (1), is established by registration, see Fig. 11. If the registration is successful (39), the GCS monitor is activated (40) and interaction with the working block of the system (41) becomes possible. The player receives the necessary information (42) from the reference system, selects a game he is interested in (43) and controls the gaming process (44). All the financial settlements resulting from the game are performed by the system (45). In case of a registration failure (46) the PCS is blocked (47), and the system provides an opportunity to personally address (48) the administrator by connecting the player with the administrator, see Fig.11. At this point the player's registration session is stopped.

To accomplish registration, see Fig.12, a player activates the registration system (50) by clicking a corresponding item on the PCS-displayed menu and enters, upon request, his identifying attributes (51), i.e. his code, password and pseudonym, in sequence. The registration system compares the received information with the identifying attributes stored in the CCS database. If they coincide (52), a successful registration (53) is logged in the electronic protocol, player's business cards are sent to his constant partners and the administrator (54), and the player is connected to the working block to perform all further actions. Thus, the registration procedure is successfully completed (55). A special system for encoding information with an individual for each player encoding key is used to provide security and privacy of communications between a player and the casino.

If the identifying attributes do not coincide (56) with those stored in the CCS database, the attempt is logged in the electronic protocol as a registration failure (57) and is compared with the number of allowed attempts (58). If the number of attempts is exhausted (59), the player is urgently connected to the administrator (60) for a dialog. After the dialog the CCS sends a request "is the personality of the player identified?"(58). If the answer is "yes" (61), a successful registration of the player is automatically logged in the protocol (53), and he is connected to the working block (41). If the answer is "no" (62), an intrusion attempt is logged (63), the player's account is blocked (64) to prevent theft of money. The registration is aborted (65).

In case the number of registration attempts is not exhausted (66) the player enters his identification attributes once again (51). If the registration was accomplished successfully, the player can use the registration system for changing his identifying attributes - pseudonym, password, see Fig.5, and his gaming image, see Fig.16. The player's pseudonym and gaming image can be changed in strict compliance with the preset rules which protects other players against fraud. The player's password can be changed at his will by selecting an arbitrary combination of numerals and letters, both Latin and Cyrillic, or any other characters offered by the computer keyboard.

The registration system is also actuated to log a player's temporary exit from the casino or his final quitting of the system. In such cases appropriate mandatory entries are logged in the protocol and the CCS database. Any data exchange in the EGS is performed through information protection means (12) that encode and decode the information in players' computers.

After a player is connected to the working block (41) in the protected display mode, he can actuate any mode of this block and switch over between several modes. A player can switch over to information or gaming mode, start one or several games, or start selecting players for his team.

In the players searching mode the user actuates the search system (67), specifies his criteria (68) and receives a request "are needed candidatures available?" (69). If the answer is "yes", he can select his partners from the list (70). Then the player's business cards are sent to the selected persons (71), and the partners enter a dialog exchange (72) to specify the criterion of the initiator, for instance, what gaming table the initiator would like to join, see Fig.7, or what players by pseudonym, gaming image or rating he is willing to invite, see Fig.9. Then the system requests "do all partners agree?" (73). If the answer is "yes", the team is considered to be formed (74). If the answer is "no", the system requests "abort players selection?" (75). If the answer is "yes", the selection process is stopped. If the answer is "no", the system repeats its request "do all partners agree?" (73). The required rating of players can be either assigned by the initiator himself or can be chosen by him from the players rating table, see Fig.8, offered by the information system (42). The rating is selected by a probability percent of partner's wins in a specific type game. If the EGS contains games with the specified criteria, the system offers the list of games and the game selection process starts (77), see Fig.14. Prior to the start the player selects his partner by clicking the required line, see Fig.9. The latter receives the player's business card, and then the partners enter a dialog information exchange (72). If the EGS contains no players meeting the set criteria, the initiator sends his invitations to those present (76) and then decides whether to stop partners selection or not.

To select a game, see Fig.14, the player initiates the game selection process (77), selects a game among those offered (78), see Fig.6, and receives a request "is the game active?" (79). If the answer is "yes", the player joins the specified game (79a). If the answer is "no", he is prompted to start the players selection mode (80) followed by a request "is the team formed?" (81). If the answer is "yes", the game starts, if "no" - the game selection procedure is repeated (78).

After the game is finished each of the players is scored and their accounts are settled, see Fig.15. This is done by summing up the points earned during the game (82), converting them into a money equivalent (83) and entering the wins and losses into players' accounts (84). In this case the player receives a request "are bank accounts activated?" (85). If the answer is "yes", electronic payments through banks are executed (86) to accomplish the settlements. If the answer is "no", a corresponding payment line is displayed for the player, see Fig.10. Thus the settlements are accomplished.

The EGS operates as follows: to initiate the EGS, each system subject has to go through the registration procedure by entering his code, pseudonym and password. After the data is entered the player is assigned a registration number with his identifying attributes logged in the CCS. Using his PCS, a player can enter the system through a telephone line any time of day suitable to him. Connection to the system is accomplished by starting one of the programs of the players registration system that dials through a modem the casino phone number and connects to the casino administrator computer. After the connection is established the registration system requests the player to enter his pseudonym, password and code, see Fig.5. Then the system compares the input data with the player's identifying attributes stored in the administrator computer. If they fully coincide, the customer is considered identified and is given the opportunity to use his deposit account that can be either a game or bank account. To perform specific gaming actions, a player chooses a game pseudonym by requesting appropriate data from the information tabulating, storing and searching system through the PCS interface, see Fig.5, selects the gaming team by entering appropriate data into the EGS through his PCS interface, see Fig.7,8 and 9, selects his game by entering appropriate data into the game selection system through

his PCS interface, see Fig.6. To form a desired gaming team, a EGS user sends a request or an advertisement to the mailing system or uses for this purpose other EGS communications systems. To preserve safety and confidentiality, all information exchange between the CCS and a PCS, and among the PCSs is protected by the information protection system, by security means of the data exchange system and - when settling accounts - additionally by security means of the electronic payments system. Each system uses a specific numeric identifier for each player. To perform all the necessary actions, a player gets acquainted with the rules and prompts stored in the reference system. After the game is over, the player's PCS interface displays a table with the results of the game and the operations performed on his deposit account, see Fig.10, 2b.

The game selection mode (see Fig.14) requires the following actions: the player initiates the game selection system (77) that displays the available games through the player's PCS and permits him to select one (78) by clicking it. Partners can be selected either before or after this procedure. So, after the game is installed, the players selection mode is initiated by starting the players search system (67), or the player switches over to join the selected game (79).

Throughout his presence in the EGS a player can dynamically switch over between different activated games and modes, and/or participate in one or several games at a time. The player can either monitor a gaming process or join it in an interactive mode. A player is also offered a possibility to wager or place bets with other players before the game starts or to monitor the process of scoring the points by the game results. All gaming events are logged in the recording system of the EGS. The scoring of points, see Fig.15, is done throughout the gaming process, with its results reflected in the player's game deposit account. After the game is over the account managing system converts the scored points into a money equivalent and the resulting sum is either added or subtracted from the player's bank account deposited with the EGS, provided the account was activated prior to the start of the game. After that electronic payments with the bank are executed (87).

So, each system user can play with any other user of said system at any time with an option of simultaneous participation in several games, and settle accounts by the results of the game through his bank without the necessity to abandon his current occupation.

A player does not have to leave his office or home and is not restricted by the casino working hours, i.e. he can play any time of day or night. Games are played anonymously with full privacy of data in the system and system protection against intrusion provided. Accounts are settled at will either in conventional points or by cashless operations with bank accounts, thus increasing security and forbidding a player to loose more money than is deposited on his account. All gaming events are logged, thus enabling a player to check the validity of all gaming actions and preventing possibility of fraud.

INDUSTRIAL APPLICABILITY

The invention can be successfully used for modeling real interrelationship among subjects of free market economy. The method of system control and adjustment relates to electronic network systems that use programmable control. The suggested gaming system can be applied for computerized modeling of real interrelationship among subjects of free market economy after the information pertaining to the processes to be modeled and a list of possible situations are entered into the system database.

Claims

1. An electronic gaming system consisting of a central computer station (1), composed of an administrator computer (23), a players registration system (3), a game accounts managing system (4), an information tabulating, storing and searching system (5), a system for recording gaming situations (6), a system for scoring by the results of the game (7), a wagering and betting system (8), an executive gaming system (9), a data exchange system (10); and peripheral computer stations (25), each comprising a system for admitting players to the central computer station (26), a gaming interface system (27); and distinctive by the fact that the central computer station (1) is equipped with an electronic payments system (11), an information protection system (12), a secure communications system (13), a game selection system (14), with the executive gaming system (9) realizing gaming situations from the database (16') of the executive gaming system (9) and the central computer station (1) interacting with peripheral computer stations (25) through a data exchange network (32) equipped with a communications station (20).

2. The electronic gaming system of claim 1 distinctive by the fact that the central computer station (1) and peripheral computer stations (25) include mailing systems (15).

3. The electronic gaming system of claim 1or 2 distinctive by the fact that the secure communications system (13) comprises a personal communications system (33).

4. The electronic gaming system of claim 3 distinctive by the fact that peripheral computer stations (25) are connected by electronic communications with the administrator computer (23) or between themselves through a personal communications system (33).

5. The electronic gaming system of claim 4 distinctive by the fact that any two or more arbitrarily formed groups of peripheral stations (25) are interconnected by electronic communications through the personal communications system (33).

6. The electronic gaming system of claim 1 distinctive by the fact that the game selection system (14) includes a database (16"), describing and selecting different types of gaming situations in any combination of games for players.

7. The electronic gaming system of claim 1 or 6 distinctive by the fact that the information tabulating, storing and searching system includes a database describing and forming players teams and players rating (16") by any player-preset criterion.

8. The electronic gaming system of claim 1 distinctive by the fact that the peripheral computer stations (25) include computers (30) and modems (28) for both players and bank and/or other deposit game accounts.

9. The electronic gaming system of claim 1 distinctive by the fact that the central computer station (1) consists of a terminal (24) and a server (22) of the administrator (2) connected to a modem device (21).

10. The electronic gaming system of claim 1 distinctive by the fact that peripheral computer stations (25) are interconnected in any arbitrary combination by means of the central computer station (1) and a data transmission network (32).

11. A method of system control and adjustment implying that players are registered, the starting composition of players is selected, each player is scored in the selected game, and distinctive by the fact that each player is identified at his registration by a set of key attributes that are passed on to a central computer station (1) in an encoded form where they are compared with the individualized information in the information protection system (12),; the information supplied by the player being individually encoded and sent as a message to the administrator (2) and the system subjects present; the starting composition of players is selected on the basis of the criteria offered by the information tabulating, storing and searching system (5) by directly indicating the specific criteria followed by an automatic adjustment of the computerized gaming system; the player is included into one or more games selected by him from a database list of players (16"') and each player is scored by the results of each selected game with an automatic control of money transactions on bank and other player's accounts.

12. The method of claim 11 distinctive by the fact that in case the set of key attributes does not coincide at player identification, a registration failure is logged in the electronic protocol and the administrator (2) is advised thereof.

13. The method of claim 11 distinctive in the fact that a limited number of identification attempts is assigned, and in case it is exceeded the electronic gaming system is warned of an intrusion and the bank and other player accounts are blocked.

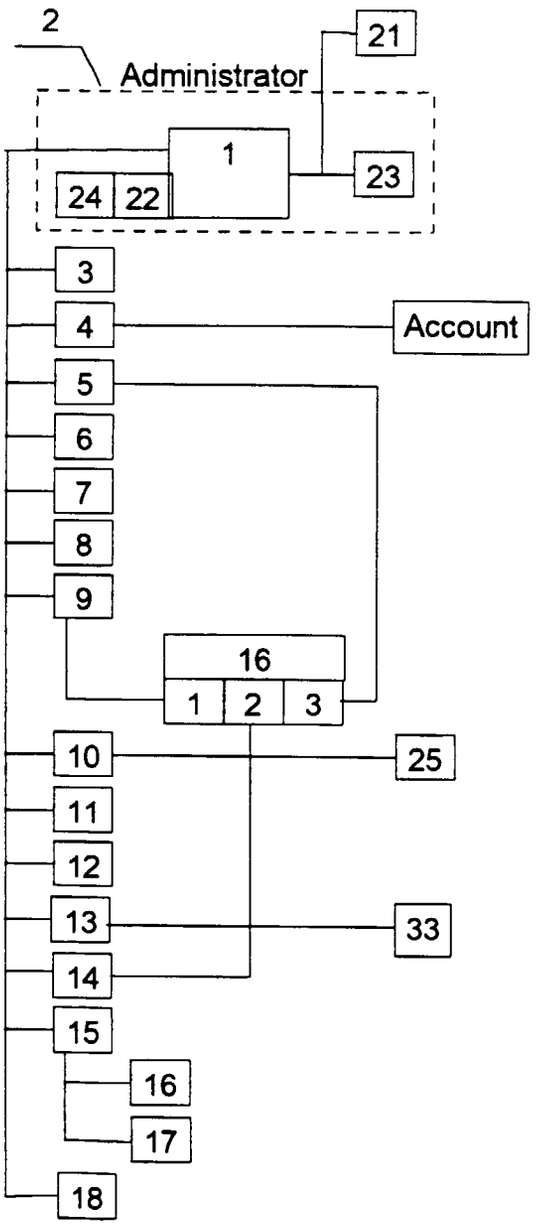


FIG.1

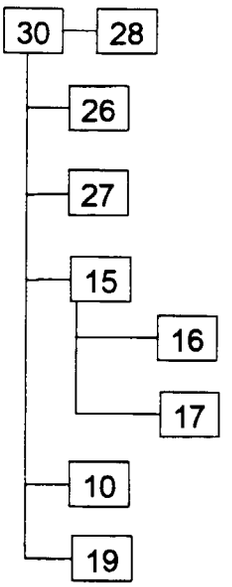


FIG.2a

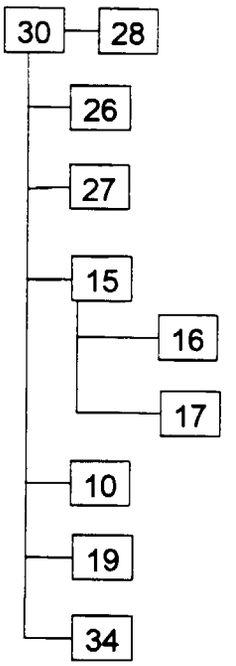


FIG.2b

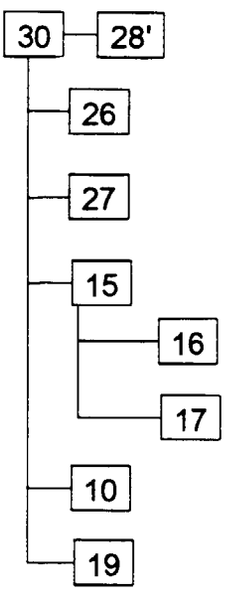


FIG.2c

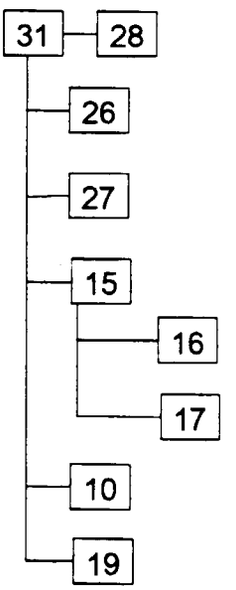


FIG.2d

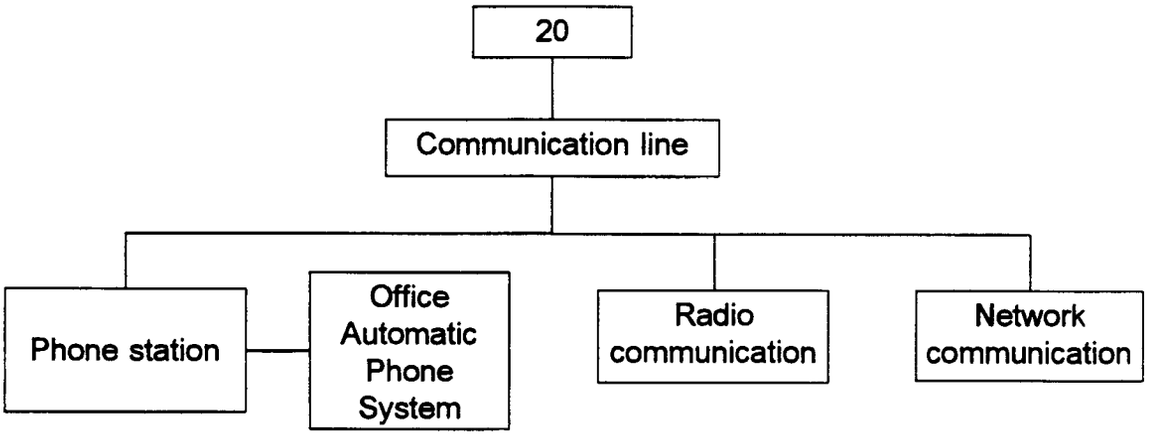


FIG.3.

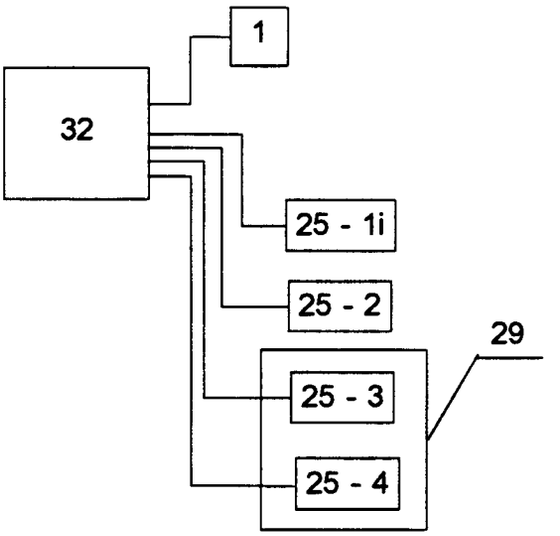


FIG.4

Please Enter
Pseudonym: *Alexsander*
Password: *Putnik239kros*
Kode: *45AV796*

FIG.5


Games
21
Очко
Покер
Преферанс
Рулетка
Шахматы
Please, select Game.

FIG.6

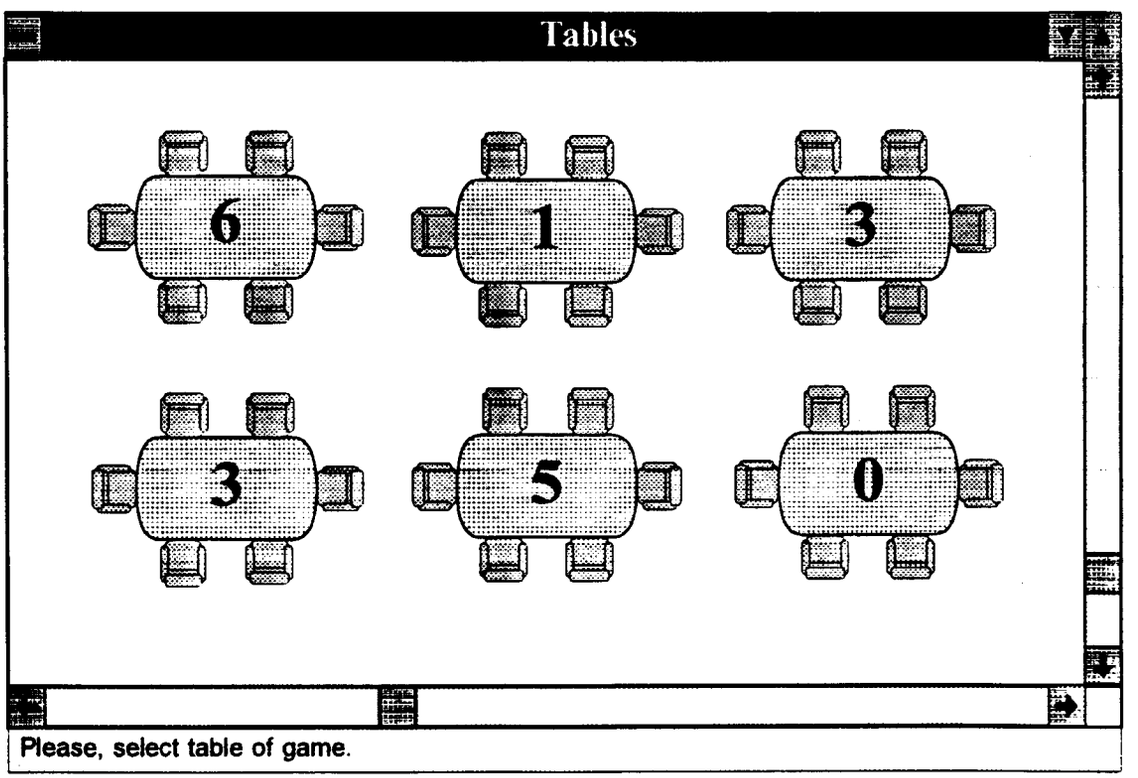
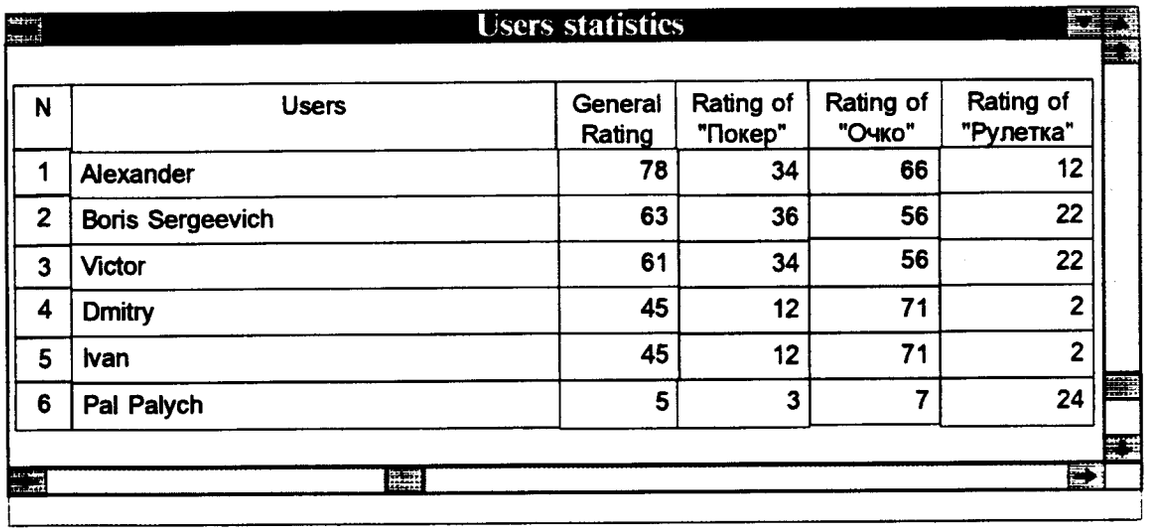

Tables
6
1
3
3
5
0
Please, select table of game.

FIG.7



N	Users	General Rating	Rating of "Покер"	Rating of "Очко"	Rating of "Рулетка"
1	Alexander	78	34	66	12
2	Boris Sergeevich	63	36	56	22
3	Victor	61	34	56	22
4	Dmitry	45	12	71	2
5	Ivan	45	12	71	2
6	Pal Palych	5	3	7	24

FIG.8

N	Users	Rating of "Покер"
1	Victor	34
2	Ivan	12
3	Pal Palych	3

FIG.9

N	Users	Score	Current account
1	Alexander	45	345786
2	Boris Sergeevich	-4	————
3	Victor	8	————
4	Dmitry	3	————
5	Ivan	-20	————
6	Pal Palych	-32	————

FIG.10

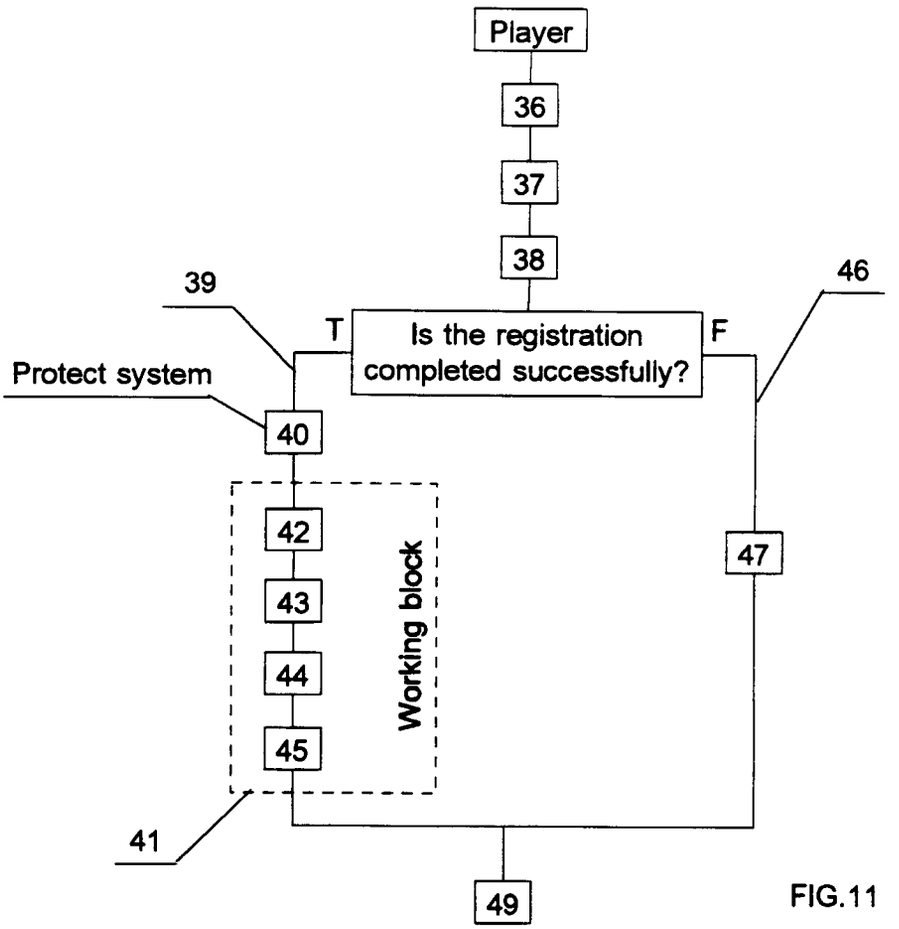


FIG.11

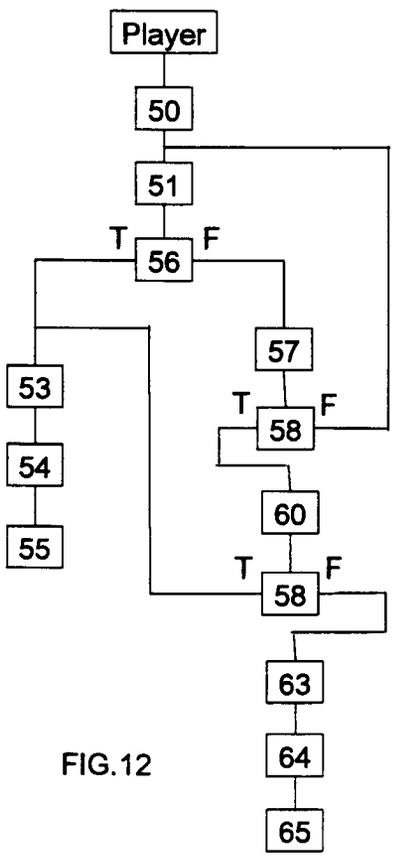


FIG.12

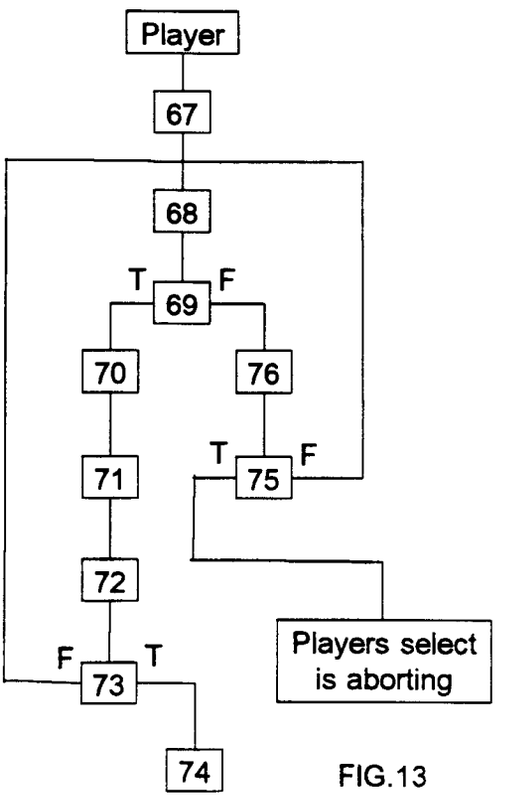


FIG.13

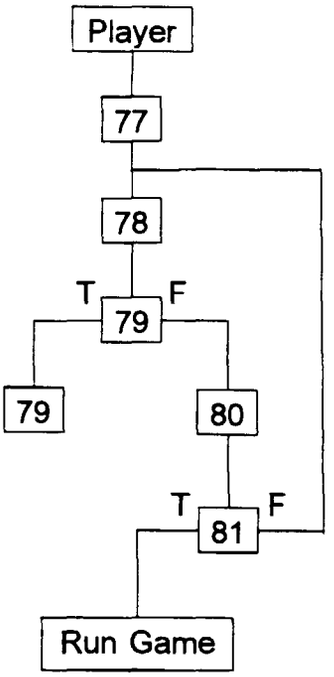


FIG.14

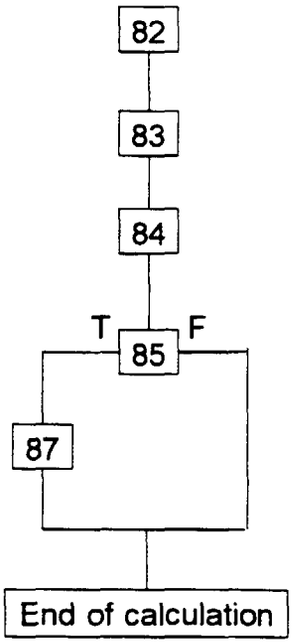


FIG.15

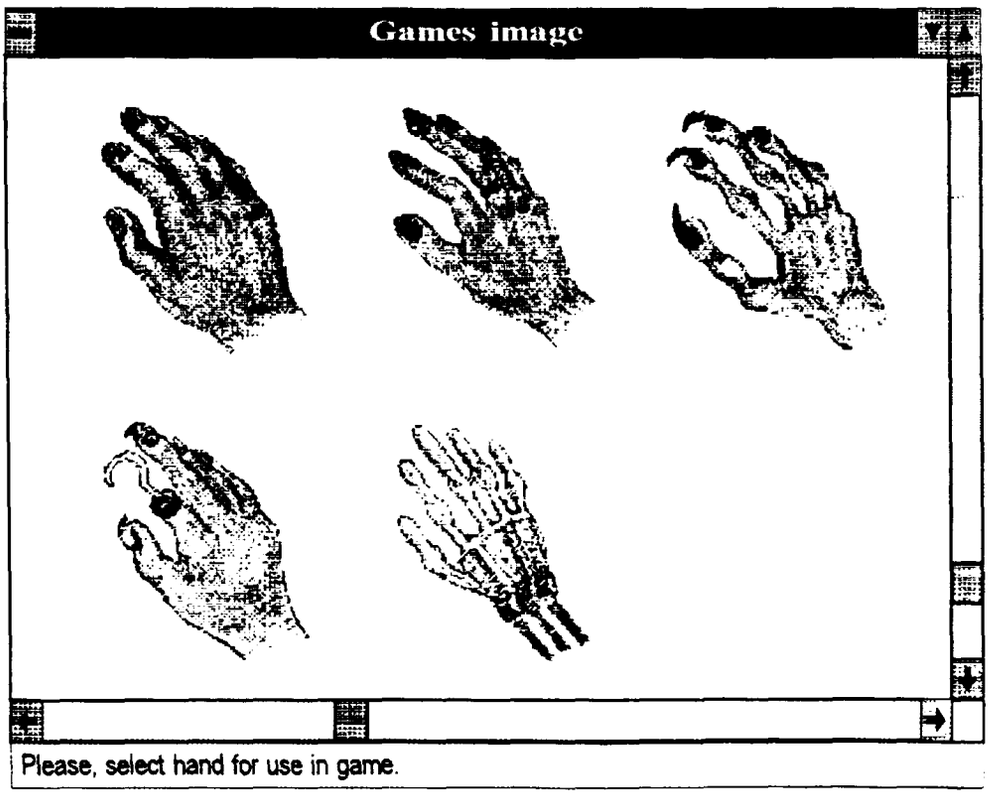


FIG.16

INTERNATIONAL SEARCH REPORT

International application No.
PCT/RU 95/00241

A. CLASSIFICATION OF SUBJECT MATTER

IPC6 G06F 19/00//G06F 161:00
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: G06F 19/00//G06F 161:00
INT5: G06F15/28, 15/30, 15/44, A63F 9/22, 9/24

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO, A1, 93/20526 (CALCULUS MICROSYSTEMS CORPORATION), 14 October 1993 (14.10.93)	1-10, 11-13
A	US, A, 5359510 (ANTHONY L. SABALIAUSKAS), 25 October 1994 (25.10.94)	1-10,11-13
A	US, A, 4494197 (SEYMOUR TROY), 15 January 1985 (15.01.85)	1-10,11-13
A	US, A, 4467424 (RICHARD A. HEDGES), 21 August 1984 (21.08.84)	1-10,11-13
A	US, A, 4910677 (JOSEPH W. REMEDIO), 20 March 1990 (20.03.90)	1-10,11-13

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
29 February 1996 (29.02.96)	5 March 1996 (05.03.96)
Name and mailing address of the ISA/ RU Facsimile No.	Authorized officer Telephone No.

Form PCT/ISA/210 (second sheet) (July 1992)