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INTERNATIONAL PATENT AND TRADEMARK OFFICE

Trademark
Patent
Health Permit
Software
Commercial Name

Marcas
Patentes
Registros Sanitarios
Soporte Lógico
Nombres Comerciales
Diseños



Señores

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISIÓN DE NUEVAS CREACIONES

E. S. D.

REF: EXPEDIENTE No.06-034977

PATENTE DE INVENCION: "SISTEMA PARA LA PERCEPCIÓN DE IMÁGENES POR MEDIO DEL TACTO"

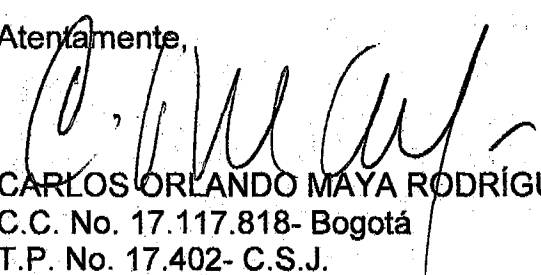
ACTUACIÓN: PETICIÓN DE EXAMEN DE PATENTABILIDAD

Estimados señores:

Con fundamento jurídico en lo dispuesto por los Artículos 44 de la Decisión (486) de la Comisión de la Comunidad Andina de Naciones (CAN), Y Artículo (2) de la Resolución No. 44372 de Dic. 26/2007, por el cual se fijan las tasas de propiedad Industrial, ruego a ustedes disponer lo pertinente para proceder al Examen de Patentabilidad de la solicitud citada en la referencia, para lo cual estamos adjuntando el recibo de pago correspondiente a la tasa vigente para este caso.

En consecuencia, esperamos se surta este trámite y que el expediente siga su curso normal, hasta su concesión.

Atentamente,


CARLOS ORLANDO MAYA RODRÍGUEZ.
C.C. No. 17.117.818- Bogotá
T.P. No. 17.402- C.S.J.

Anexo.- Recibo de Pago No.08-10,566

3/2
33

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



Nº. 06-034977- -00001-0000

Fecha: 2008-02-11 16:31:54 Dep. 2020 NUECREACIONE
Tra. 2 PATENTES Eve: 1 REGDEPOSITO
Act. 538 PETICION Folios: 2

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

NIT : 900174009-2

RECIBO OFICIAL DE CAJA : 08 - 10,566
FECHA : FEBRERO 8 DE 2008

CONSIGNACION

DEPOSITANTE	TIPO PAGO	BANCO	CUENTA	Nº. PAGO	FECHA PAGO	VT. PAGO
CARLOS TANAYO Y ASOCIADOS	CONSIGNACION	BANCO DE BOGOTA	042754387	2677930	08/02/2008	105,000.00

CONCEPTO

CANT.	RENTISTICO	CONCEPTO	TOTAL CONCEPTO
1	50005-01-01	SOLICITUDES	
		105 202 PTC DEP. 1 EXAMEN DE PATENTES	105,000.00
		TOTAL	105,000.00

SON: CIENTO CINCO MIL PESOS

RESPONSABLE : _____

RECIBO DE CAJA APLICADO AL REGISTRO No. _____

DIVISIÓN DE NUEVAS CREACIONES

RADICACIÓN EXPEDIENTE No. 06-34977

EL EXTRACTO DE LA PRESENTE SOLICITUD DE PATENTE DE INVENCION

FUE PUBLICADO EN LA GACETA DE PROPIEDAD INDUSTRIAL No 581 DE

FECHA 31 DE OCTUBRE DE 2007 EL TÉRMINO HÁBIL SEÑALADO POR LA

LEY EXPIRA EL 31 DE ENERO DE 2008

NOTA: Dentro del plazo de los seis (6) meses siguientes a partir de la fecha de publicación en la gaceta de Propiedad Industrial, deberá solicitar y cancelar el examen de patentabilidad so pena de que la solicitud caiga en abandono, de acuerdo con lo establecido en el Artículo 44 de la Decisión 486/2000.

SE PRESENTARON OPOSICIONES POR PARTE DE TERCEROS.

SI _____

NO X



US 20050233287A1

(19) **United States**
 (12) **Patent Application Publication** (10) Pub. No.: US 2005/0233287 A1
 Bulatov et al. (43) Pub. Date: Oct. 20, 2005

(54) **ACCESSIBLE COMPUTER SYSTEM**

Related U.S. Application Data

(76) Inventors: Vladimir Bulatov, Corvallis, OR (US);
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 Jeffrey A. Gardner, Eugene, OR (US)

(60) Provisional application No. 60/562,503, filed on Apr. 14, 2004.

Publication Classification

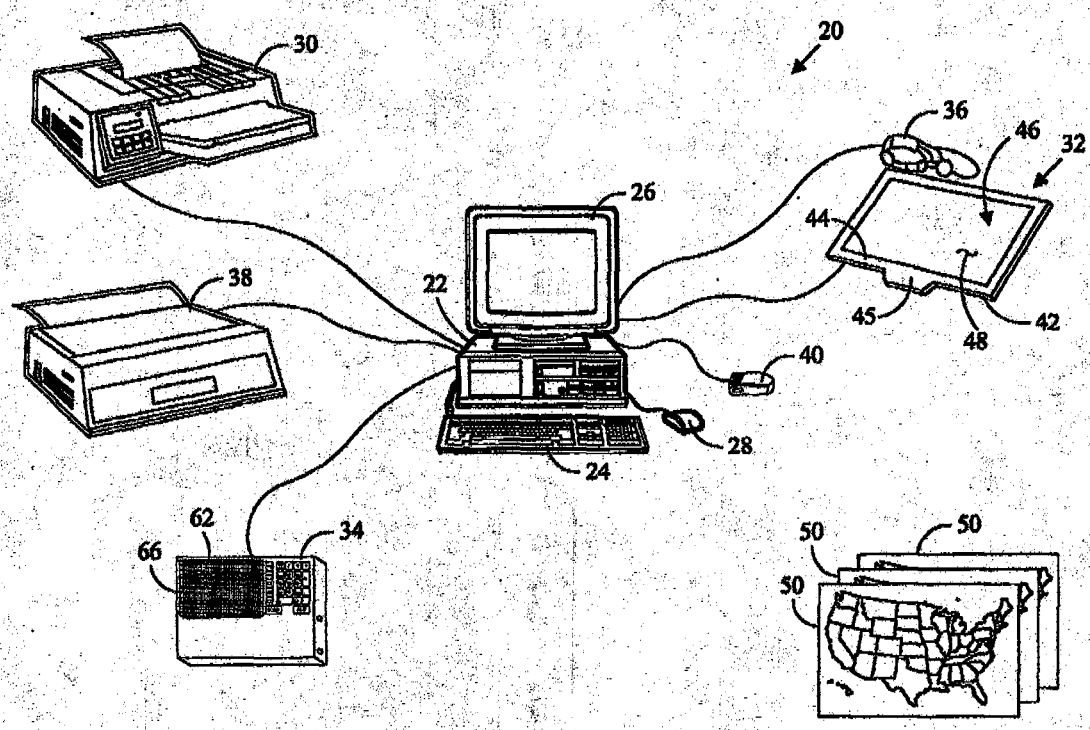
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(51) Int. Cl.⁷ G09B 21/00
 (52) U.S. Cl. 434/114

(57) **ABSTRACT**

An accessible computer system includes a user interface providing audio and tactile output to enhance the accessibility of electronic documents for a visually impaired user of the system.

(21) Appl. No.: 11/106,144
 (22) Filed: Apr. 13, 2005



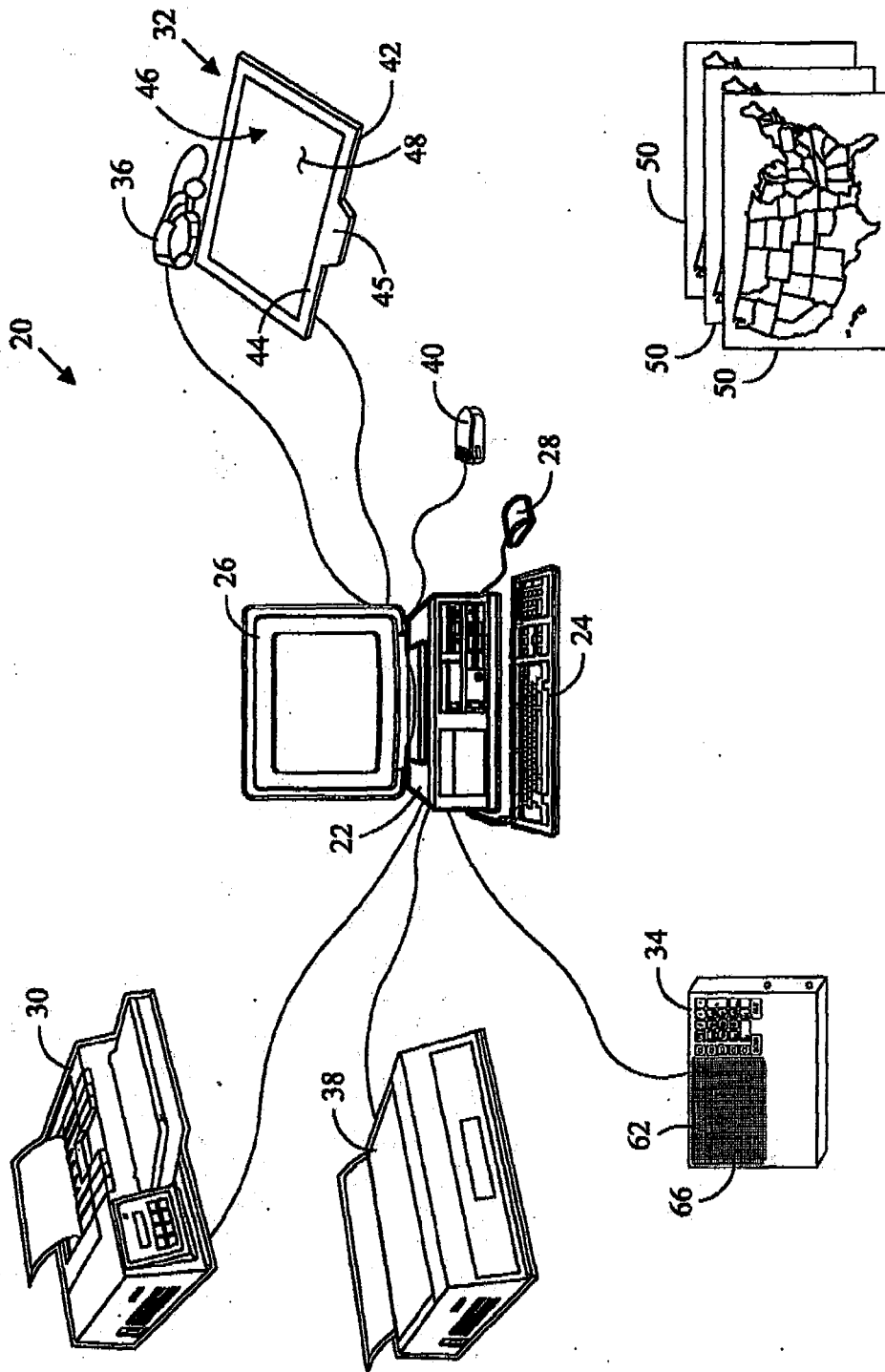


FIG. 1

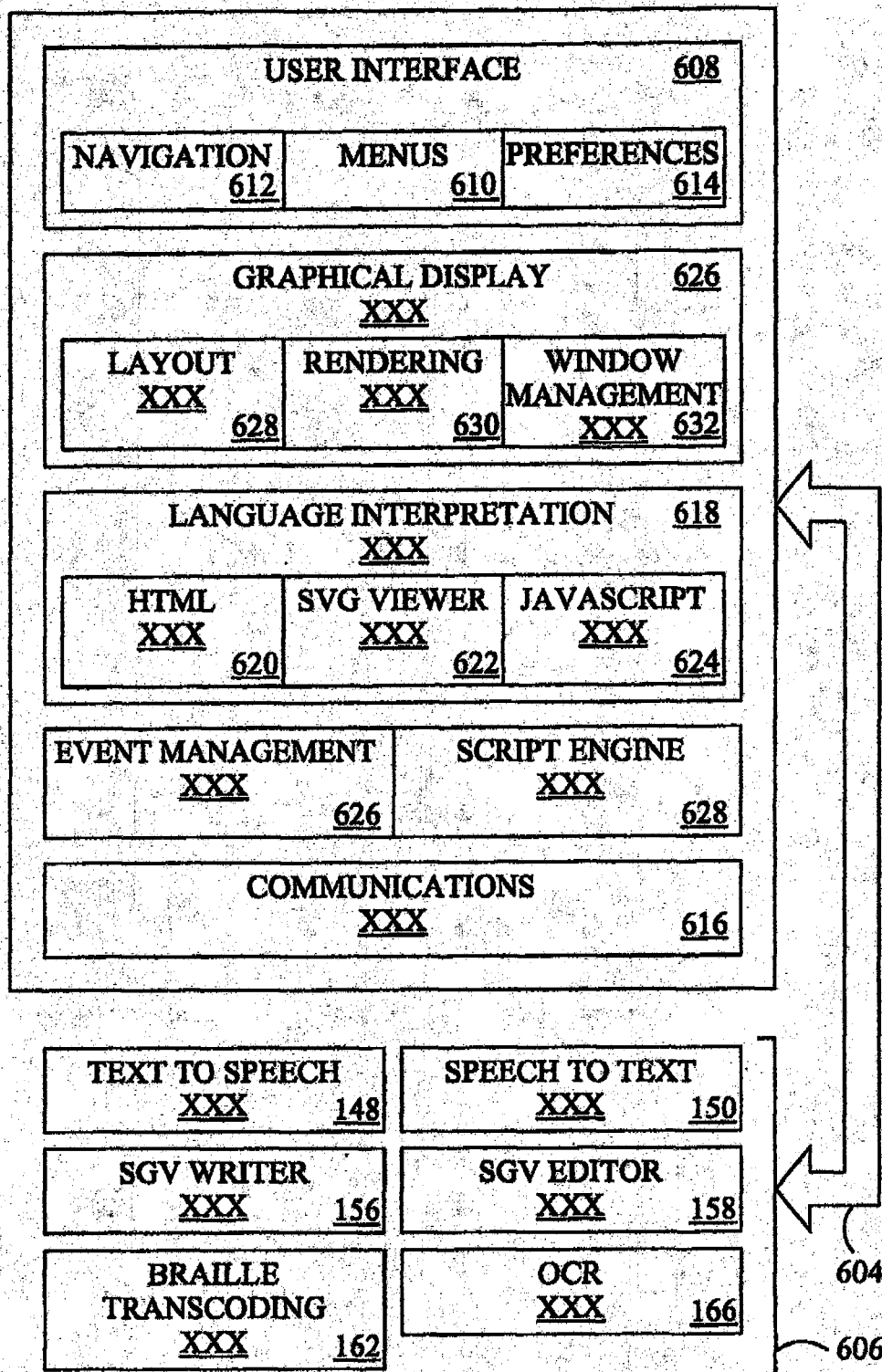


FIG. 10

ACCESSIBLE COMPUTER SYSTEM

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. Provisional Application No. 60/562,503, filed Apr. 14, 2004.

BACKGROUND OF THE INVENTION

[0002] The present invention relates to a computer system and, more particularly, to a computer system having a user interface adapted to promote accessibility for a visually impaired user.

[0003] Personal computers with graphical, "point and click" style interfaces, have obtained widespread use not only in the business world but also in households. While the graphical interface is credited, in large part, for the widespread acceptance of personal computers, the graphical interface poses significant barriers to visually impaired computer users. In an effort to increase the accessibility of computer systems, hardware and application software have been developed to facilitate communication between personal computers and visually impaired users.

[0004] For example, software may include keyboard commands that permit individuals who cannot perceive or have difficulty interpreting displayed images to make use of computers, including accessing the Internet and the Worldwide Web. In some cases, a visually impaired user can use a haptic or tactile pointing device, such as a haptic mouse or a tactile display, to obtain feedback related to the position and shape of images displayed by the computer. However, haptic and tactile devices provide only limited or single point access to a display and are, therefore, most useful for simple graphical displays.

[0005] Screen reading systems have been developed that use synthetic or recorded speech to provide audio output of text that is contained in electronic documents or the menus of the graphical user interface (GUI) used to control operation of a computer. However, many electronic documents, particularly documents obtained from the Internet or Worldwide Web, are raster images that do not include text. Further, many documents include graphical elements that are not susceptible to description by a screen reader. It is difficult to incorporate text or some form of audio labeling of graphical elements included in a raster image and authors of electronic documents are reluctant to expend the additional effort and expense to create accessible documents for the limited number of visually impaired users. Moreover, systems providing audio output for accessibility have typically relied on touch to activate the audio output and, generally, have had very low resolution.

[0006] Tactile diagrams, typically, comprising a planar sheet with one or more raised surfaces, permit a visually impaired person to feel the positions and shapes of displayed graphical elements and have a lengthy history as aids for the visually impaired. A tactile diagram can be placed on a digitizing pad that records the coordinates of contact with the diagram permitting a visually impaired user to provide input to the computer by feeling the tactile surface and depressing the surface at a point of interest. Further, the development of computer controlled embossers permits a user to locally create a tactile diagram of a document that is

of immediate interest to the user. However, it is often difficult for a visually impaired person to make sense of tactile shapes and textures without some additional information to confirm or augment the tactile presentation. For example, it may be difficult to identify a state or country by tactilely tracing its borders on a map. Even if portions of a document are audibly labeled, the visually impaired user may have difficulty locating an element of interest and activating the aural output without tactile labeling.

[0007] However, practicalities limit the usefulness and appeal of tactile labeling. One method of providing extra information is to label elements the tactile diagram with Braille. However, Braille is approximately the size of 29 point type and a Braille label must be surrounded by a substantial planar area for the label to be tactilely perceptible. The size of a tactile diagram is limited by the user's ability to comfortably touch all parts of the diagram and, therefore, replacing a text label with a Braille label is often impractical when an image is complex or graphically rich. Enlarging a portion of the document to enable insertion of tactile labeling is often not practical because documents obtained from Internet are commonly raster images which deteriorate rapidly with magnification and, in the absence of tactile labeling, the user may not be able to determine if the document contains elements of interest or locate interesting elements in the graphical display. On the other hand, while tactile labeling can enhance the accessibility of electronic documents, reliance on Braille labeling restricts the usefulness of labeled documents to the group of visually impaired individuals that are competent Braille readers which is estimated to be only 10 to 20% of the legally blind population.

[0008] Furthermore, these devices and methods of providing accessibility to the visually impaired do not generally support interactivity, such as the ability to complete forms on the Internet and Worldwide Web. What is desired is an interactive audio-tactile system that overcomes the above-noted deficiencies and provides a high quality interactive computing experience for a visually impaired user.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. 1 is a perspective view of an interactive audio-tactile computer system.

[0010] FIG. 2 is a block diagram of the interactive audio-tactile computer system of FIG. 1.

[0011] FIG. 3 is a perspective view of a tactile monitor.

[0012] FIG. 4 is a perspective view of a Braille monitor.

[0013] FIG. 5 is a perspective view of a tactile mouse.

[0014] FIG. 6 is a facsimile of a portion of an exemplary tax form.

[0015] FIG. 7 is exemplary SVG source code for a portion of an electronic replica of the tax form of FIG. 6.

[0016] FIG. 8 is a block diagram of an SVG writer application program.

[0017] FIG. 9 is a flow diagram of the SVG document writing method of the SVG writer of FIG. 8.

[0018] FIG. 10 is a block diagram of an access enabled browser of the interactive audio-tactile system.

[0019] FIG. 11A is a flow diagram of a first portion of a method of presenting SVG documents with the interactive audio-tactile system.

[0020] FIG. 11B is a flow diagram of a second portion of the method of presenting SVG documents illustrated in FIG. 11A.

[0021] FIG. 11C is a flow diagram of a third portion of the method of presenting SVG documents illustrated in FIG. 11A.

[0022] FIG. 11D is a flow diagram of a fourth portion of the method of presenting SVG documents illustrated in the flow diagram of FIG. 11A.

DETAILED DESCRIPTION OF THE INVENTION

[0023] Interpretation, understanding, and interaction with web pages and other electronic documents comprising text and graphic elements are continuing problems for the visually impaired. Referring in detail to the drawings where similar parts of the invention are identified by like reference numerals, and, more particularly to FIGS. 1 and 2, the interactive audio-tactile system 20 provides an apparatus and method for presenting web pages and other documents to a visually impaired computer user. The interactive audio-tactile system 20 permits a visually impaired user to navigate between and within documents; presents documents, or portions of documents, in a fashion intelligible to a visually impaired user; and preserves the original document structure permitting the user to interact with the document.

[0024] The interactive audio-tactile system 20 comprises a host computer 22 that may include a number of devices common to personal computers, including a keyboard 24, a video monitor 26, a mouse 28, and a printer 30. Monitors and other display devices relying on visual perception may have limited utility to a visually impaired user but may be included in the audio-tactile system 20 because the visually impaired user may have limited eyesight or may, from time-to-time, interact with a sighted user through the audio-tactile system. In addition, the host computer 22 includes several peripheral devices that may be used in computer systems other than the audio-tactile system, but have specific utility to a visually impaired user. These peripheral devices may include a digitizing pad 32; a tactile monitor 34; audio output system, including headphones 36 or speakers; an embosser 38; and a haptic or tactile pointing device 40. The peripheral devices may be connected to the host computer 22 by cables connecting an interface of the peripheral device to a PC interface, for example, the host computer's USB (universal serial bus) port. On the other hand, a peripheral device may be connected to the host computer 22 by a known wireless communication link.

[0025] The digitizing pad 32 is communicatively connected to the host computer 22 of the interactive audio-tactile system 20. The exemplary digitizing pad 32 has a housing 42 and includes a frame 44 that is hinged to open and close relative to the housing. The frame 44 defines a rectangular shaped window 46 and has a handle section or outwardly extending tab 45 permitting the user to easily grip and lift the front of the frame for opening and closing. The digitizing pad 32 has a contact sensitive planar touch surface or touch pad 48. The touch pad 48 comprises an upper work

surface that faces the frame 44 and is viewable through the window 46 when the frame is in a closed position, as illustrated in FIG. 1. A tactile diagram or overlay 50 can be disposed over the touch pad 48 by opening the frame 44 and then placing the tactile diagram on the touch pad before closing the frame. In the exemplary digitizing pad 32, closing the frame secures the tactile diagram 50 so it is restrained relative to the touch pad 48 but any number of known registering and fastening mechanisms can be used to position and secure the tactile diagram. For example, the tactile diagram could be aligned with edges of the digitizing pad, for instance, the top and left edges, for registration and then clamped along one edge so that the tactile diagram can extend beyond the edges of the digitizing pad permitting use of a tactile diagram that is larger than the digitizing pad.

[0026] The touch pad 48 is a contact sensitive planar surface and typically is in the form of a pressure sensitive touch screen. Touch screens have found widespread use in a variety of applications, including automated teller machines (ATMs) and other user interactive devices. Generally, the touch pad 48 includes a sensor array that produces an X-, Y-coordinate signal representing the coordinates of a contact with the surface of the touch pad. For example, resistive touch pads include a number of vertical and horizontal conductors (not shown) arrayed on a planar pressure sensitive surface. When the user exerts pressure on a region of the planar surface of the touch pad, particular conductors are displaced and make contact. A resistive touch pad typically includes a touch pad controller that determines the X- and Y-coordinates of the depressed region of the touch pad from the resistance of the various conductors in the array.

[0027] Capacitive touch pads compute the coordinates of a contact from relative changes in an electric field generated in the touch pad. Capacitive touch pads comprise multiple layers of glass with a thin patterned conductive film or wire mesh interposed between a pair of the layers. An oscillator, attached to each corner of the touch pad 40, induces a low voltage electrical field in the conductive film or mesh. When the glass surface is touched, the properties of the electric field change and the touch pad's controller computes the coordinates of the point of contact by measuring the relative changes of the electric field at a plurality of electrodes. Surface Acoustic Wave (SAW) touch pads comprise acoustic transceivers at three corners and reflectors arrayed along the edges of the touch pad area. The touch pad's controller calculates the coordinates of contact with the touch pad from the relative loss of energy in acoustic waves transmitted across the surface between the various transceivers. The controller for the touch pad 48 transmits the coordinates of a user contact to the host computer 22 permitting the user to designate points of interest on the tactile diagram 50.

[0028] Tactile diagrams 50 are commercially available from a number of sources. In one embodiment, the tactile diagram 50 is pre-embossed on a vacuum-thermoformed PVC sheet. Tactile diagrams 50 can also be produced by an embosser 38 controlled by the host computer 22. The exemplary embosser 38 is similar in construction and operation to a dot matrix printer. A plurality movable embossing tools are contained in an embossing head that moves across a workpiece supported by a platen. The tools selectively impact the workpiece as the embossing head moves and the impacts of the embossing tool impress raised areas, such as dots and vertical or horizontal line segments in the work-

[0051] The communication manager 616 is the mechanism with which the browser 600 receives documents and other resources from a network such as the Internet. In addition, the communication manager 616 is used to send or upload documents and resources onto a network. In the exemplary access enabled browser 164, the communication manager 616 uses HTTP, but other communication protocols may be used depending on the implementation.

[0052] Documents that are received by the access enabled browser 164 are processed by a language interpreter 618 that identifies and parses the language used in the document. The exemplary language interpreter 618 includes an HTML unit 620, a scaled vector graphics (SVG) unit 622, and a JavaScript unit 624 that can process ECMAScript for processing documents that include statements in the respective languages, but can include parsers for other languages as well. The language interpreter 618 processes a document for presentation by the graphical display unit 626. The graphical display unit 624 includes a layout unit 628 that identifies objects and other elements comprising a page of an electronic document and determines the position of the objects when rendered on the user interface 608 by the rendering unit 630. Hypertext Markup Language (HTML) supports the division of the browser display area into a plurality of independent windows or frames, each displaying a different web page. The dimensions and other attributes of the windows are controlled a window management unit 632. The graphical display 626, presents web pages to a user based on the output of the language interpreter 618.

[0053] The layout unit 628 also determines if a displayed web page specifies an event in association with an object in a document being displayed by the access enabled browser 164. An event is an action or occurrence that is generated by the browser 600 in response to an input to produce an effect on an associated object. Events can be initiated by user action, such as movement of the cursor or pointing device, depression of a button on the pointing device or mouse, an input to a digitizing pad, or by an occurrence in the system, such as running short of memory. An association between an event and an action can be established by a script language, such as JavaScript and ECMAScript, a browser plug-in, a programming language, such as Java or Active X; or by a combination of these tools. For example, the JavaScript event attribute ONMOUSEOVER can be used to initiate an action manipulating an object when the cursor or display pointer is moved to a location in the displayed document specified in the attribute. Events associated with objects comprising the displayed document are registered with the event management unit 626. When the user interface 608 detects an input related to an object, the input is transferred to the graphical display unit 626 to generate an event and identify the associated object and the frame in which the object is located. The event management unit 626 determines if action is required by determining if the event is registered for the detected object. If the event is registered, the event management unit 626 causes the script engine 628 to execute the script implementing the action associated with the event.

[0054] The SVG viewer 622 of the access enabled browser 164 enhances accessibility of SVG encoded electronic documents through a method that enables audible and tactile description of document elements, improves tactile labeling of objects of tactile diagrams, and facilitates locating objects

of interest in a displayed document. Referring to FIGS. 11A-11D, the method 700 is initiated when the user selects on or more objects of interest 702. The user can select all of the objects contained in a document by depressing a button on a mouse 28 or a haptic pointing device 40 or by inputting an oral command to the browser 164 through the speech-to-text application 150. On the other hand, the user can select all of the objects in the document or the objects included in an area within the document by selecting a corresponding area of a tactile diagram 50 on the digitizing pad 32. The user may also select individual objects by moving the display pointer over the displayed document or by browsing the DOM for the document. The browser 600 sequentially parses the designated objects 704 and, if not already displayed, the interactive audio-tactile system 20 displays the objects on the monitor 26. To reduce the quantity of audio and tactile output by the browser, the user can elect to have only certain types of fields audibly or tactilely displayed. For example, to speed the completion of online forms, the user might choose to have only textbox objects audibly or tactilely processed by the browser. If the user has requested that the system display the titles of objects 708, the system determines if audio output of the title has been selected by the user 714. If audio output has been requested, the text of the object's title is passed to the text-to-speech unit 715 and the title is audibly presented to the user 716. The title of the object will be transcribed to Braille 718 and displayed on the tactile display 722, if the user has requested Braille output 718.

[0055] Even if the title of the object is not to be displayed 706, the system 20 will determine if the description of object 234, 242 included in a description attribute is to be displayed 710. If the description is to be displayed 710, the system 20 will aurally 716 and tactilely 722 present the description following the method described above for presentation of the title.

[0056] The system 20 will also audibly 716 and tactilely 722 display the text contained in text objects 712 if the user has elected one or both of these display options of the text 724. For example, if a user selects the tax form 300; the access enhanced browser 164 will sequentially announce the title, description and text content of objects and groups or associations of objects contained in the form. When the user hears or tactilely detects YOUR SOCIAL SECURITY NUMBER, the user can select the object by interaction, such as depressing a mouse button or issuing an oral command to the speech-to-text application 150. If an object is not selected 726, the method determines if the last object in the designated area has been processed 728. If all of the objects designated by the user have been processed, the program terminates 730. If not, the system processes the next object 732.

[0057] Visually impaired users may have difficulty locating an object of interest in a document, even if the document is presented in tactile form. Further, the visually impaired user may have difficulty initially locating the position of the cursor or display pointer relative to the document and then, unless the user has knowledge of the spatial relationships of the objects in the document, knowing which way to move the pointer to reach the point of interest. For example, in the tax form 300, a user interested in entering his or her's social security number may have difficulty finding the appropriate

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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISION DE NUEVAS CREACIONES

2020
Bogotá, D.C.,

Abogado
CARLOS ORLANDO MAYA RODRIGUEZ

ASUNTO	Radicación	06-34977
	Trámite	002
	Evento	001
	Actuación	430
	Oficio	2536
	Folios	011

Patente de Invención	☒	Patente de Modelo de Utilidad	☐
Vía Nacional	☒		
Vía PCT (fase nacional)	☐	Cap. I	☐
		Cap. II	☐

Como resultado del examen de fondo, realizado con fundamento en el artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le comunica:

1. Documentos estudiados

- 1.1. Descripción: Folios: 12 a 19 como se radicó inicialmente
- 1.2. Reivindicaciones: Folios: 20 a 22 como se radicó inicialmente
- 1.3. Dibujos: Folios: 24 a 25 como se radicó inicialmente

2. Objeto de la invención

La presente solicitud se titula "SISTEMA PARA LA PERCEPCIÓN DE IMÁGENES POR MEDIO DEL TACTO", Folio N° 1.

El objeto de la presente solicitud de patente consiste en un sistema que le permite a cualquier persona dotada del sentido del tacto percibir imágenes. Compuesto por un periférico que representa por medio de campos electromagnéticos, formas, figuras, colores y en general cualquier imagen que se pueda mostrar en la pantalla de un computador.

De otra parte, el pliego reclama un sistema que permite a cualquier persona dotada del sentido del tacto, percibir en forma táctil, imágenes, formas, figuras y colores de manera dinámica, relacionado en las reivindicaciones 1 a 20

El objeto de la solicitud definido anteriormente se clasificó en la IPC G06K 9/62.

3. De la solicitud de Patente

- 3.1. Descripción (artículo 28 D. 486)

La descripción calificada no divulga de manera clara y suficiente el objeto reclamado en la presente solicitud. Como es bien sabido la descripción debe divulgar la mejor manera que el solicitante conozca para ejecutar (fabricar) la invención, esto supone que en el aparte descriptivo se coloque de manera detallada todas las características necesarias para que una persona de nivel técnico medio pueda llevar a cabo la invención.

El sistema descrito por el solicitante no es claro ya que menciona que es para ayudar a personas con limitaciones visuales, pero no especifica como funciona o en que consiste realmente el invento. El solicitante se limita a presentar un modulo de hardware y un modulo de software, lo cual no es suficiente para que una persona logre ejecutar la invención. Adicionalmente, las invenciones de producto se definen únicamente por características técnicas, lo cual excluye al software.

Dado lo anterior, el solicitante debe enfocar su esfuerzo en describir como es el modulo de hardware, como se construye y especialmente debe definir claramente cual es el aporte al estado del arte. De esta manera, si por ejemplo la parte novedosa de la solicitud es el emisor de señales y el sensor de posición, son estos elementos los que deben exponerse con mayor claridad de manera que la oficina pueda evaluar el real aporte del solicitante.

La oficina deja en claro que, el solicitante está obligado a divulgar la invención pues de lo contrario la patente podrá ser denegada. Dicha obligación se considerará cumplida, cuando la descripción contenga todas las indicaciones, que necesita la persona de nivel técnico medio, para ejecutar la invención, en especial, aquellas indicaciones que no estén comprendidas en el estado de la técnica.

Por los motivos anteriores, la solicitud presentada no cumple con los requisitos exigidos en el artículo 28 D 486, por tal razón la información calificada no permite ni evaluar ni ejecutar la invención.

3.2. Reivindicaciones (artículo 30 D 486)

Lo presentado como capítulo reivindicatorio no define la materia que se desea proteger porque no es posible determinar cual es la mejora aportada por el solicitante al estado del arte.

La reivindicación 1 se limita a enumerar una serie de componente sin establecer la relación funcional o de estructura existente entre los mismos. La reivindicación debe establecer en su parte característica no solo los elementos que conforman el sistema sino también las relaciones estructurales existentes entre estos elementos, por ejemplo como se conecta el emisor de señales, donde se ubica el sensor de posición, mediante que mecanismos se comunican los dispositivos, como son los circuitos, etc., ya que son estas características las que hacen que el sistema sea novedoso e inventivo.

Por otra parte, la reivindicación debe aclarar a que se refieren algunos de los elementos enumerados, tales como el dispositivo de interacción, el enlace de comunicación, el módulo de imagen, el módulo de aplicación, que tipo de interfaz y que son las capas de procesamiento y comunicación. Es importante resaltar que el software no tiene carácter técnico por lo cual no puede ser un elemento característico de la invención.

La reivindicación 2 no especifica cuales son los dos sub-módulos que conforman el módulo de hardware.

La materia definida en la reivindicación 3 debe definirse por medio de características técnicas no por medio de instrucciones de funcionamiento. Igual situación ocurre con las reivindicaciones 4 a 13.

Las reivindicaciones 14 a 20 se refieren al modulo de texto, la capa de procesamiento y la capa de comunicación. Estos elementos son componentes de software del sistema, por lo cual no tiene carácter técnico. Como es bien sabido el software no tiene carácter técnico, por lo que no es admisible definir un producto por medio de características de software.

El solicitante debe decir en forma clara, concisa y por medio de características técnicas, cual es la materia que desea proteger. Por ejemplo, si el invento radica en la configuración del emisor de señales y el sensor de posición, es esta configuración la que debe especificarse de manera clara en el pliego reivindicatorio.

Por los motivos anteriores, el pliego reivindicatorio calificado no cumple los requisitos de claridad exigidos en el Art. 15 D486.

4. Determinación del Estado de la Técnica

Considerando que la fecha de presentación de la solicitud es del 11 de abril del 2006, se buscaron documentos del estado de la técnica relacionados, con fecha de publicación anterior a esta. Se realizo búsqueda de documentos relevantes dentro del estado de la técnica, entendiendo como estado de la técnica la definición provista en el Art. 16 D 486, y las excepciones fijadas en el Art. 17 de la misma.

No obstante, la solicitud presenta problemas de claridad, se realizó una búsqueda parcial la cual se complementara una vez se realicen los ajustes a la solicitud.

Se encontró como anterioridades los documentos relacionados a continuación que pueden afectar la patentabilidad del objeto de la presente solicitud

Nº	Documento*	Título	Fecha de publicación
D1	US2005/0233287	ACCESSIBLE COMPUTER SYSTEM	2005-10-20

*los documentos mencionados se anexan al expediente

5. Análisis de patentabilidad (artículo 14 D486)

En cumplimiento del Art. 14 D486 se procedió a evaluar los requisitos de novedad, nivel inventivo y aplicabilidad industrial, con el fin de establecer la patentabilidad de la invención reivindicada de la solicitud en estudio.

5.1. Novedad (artículo 16 D486)

El requisito de novedad se evaluó mediante la comparación entre la materia reclamada y los documentos encontrados en el estado de la técnica. En el presente análisis no se tomaron en cuenta las características no técnicas tales como el software.

La reivindicación 1 se refiere a un sistema que permite a una persona dotada del sentido del tacto, percibir de forma táctil imágenes, formas, figuras y colores de manera dinámica, caracterizado por:

- Un emisor de señales
- Un sensor de posición
- Un dispositivo de interacción
- Un módulo de comunicación
- Una unidad de procesamiento
- Un modulo de control
- Un módulo de imagen
- Una interfaz

La anterioridad **D1** se refiere a un computador accesible **20** que incluye una interfaz de usuario con salidas táctiles y de audio que permiten accesibilidad a documentos electrónicos a personas limitadas visualmente. El sistema comprende los siguientes elementos comunes a lo reclamado en la solicitud:

- Mecanismos de emisión de señales tales como un panel de digitalización **32**, un señalador táctil **40**, y audífonos **36**.
- Un sensor de posición (pág. 2 párrafo 0026)
- Dispositivos de interacción: Pantalla **26**, teclado **24**, señalador táctil **40**, un monitor táctil **34**, etc.
- Un módulo de comunicación **616** (pág. 6 párrafo 0051)
- Un sistema de procesamiento **22**.
- Donde el computador **22** controla los dispositivos periféricos comunes en un sistema de cómputo (Pág. 2 párrafo 0024)
- Un módulo para visualizar las imágenes **32**.
- Interfaces **46**, **62**.

Como se puede ver el documento anterior comprende todas las características consignadas en la reivindicación 1.

Las reivindicaciones 2 a 20 especifican los mismos elementos anteriores, por lo cual también se ven afectadas por la materia contenida en el documento **D1**.

De acuerdo a lo expuesto anteriormente, las reivindicaciones mencionadas no cumplen con los requisitos de novedad de acuerdo al Art. 16 de la Decisión.

6. Conclusión:

Los requisitos de patentabilidad de la presente solicitud se encuentran afectados así:

N°	Documento N°	Reivindicaciones afectadas	Requisito que afecta
D1	US2005/0233287	1 a 20	Novedad

Si el interesado desea continuar la tramitación, deberá presentar una descripción clara y completa junto con un pliego reivindicatorio que defina la materia, que se desea proteger, en forma clara y concisa, acorde a lo explicado arriba.

Se recomienda, que tenga en cuenta que el replanteamiento de esos apartes NO podrá implicar una ampliación de la protección que correspondería a la divulgación contenida en la solicitud inicial, de acuerdo a lo que establece el artículo 34 de la Decisión 486.

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En cumplimiento del artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le indica que debe dar respuesta dentro del término de sesenta días contados a partir de la fecha de notificación de la presente comunicación. En caso de no dar respuesta al presente requerimiento, o si a pesar de la respuesta subsistieran los impedimentos para la concesión, se denegará la patente.

Notifíquese el presente oficio conforme a lo dispuesto en el numeral 5.2 Literal e) del capítulo quinto del título primero de la Circular Única No. 10 de 2001.



DORIS ELENA POLO CORDOBA
Jefe de División de Nuevas Creaciones (E)

El anterior requerimiento fue notificado por fijación en lista, de fecha
05 MAR. 2009

CONCEPTO TECNICO No. 480	EXAMINADOR TECNICO Código No. 202082
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